

A Global Leader in Innovative...

Wire & Cable Management • Cable Protection Systems
Power Connection & Control • Safety Technology

Thomas & Betts



Cable Protection Systems

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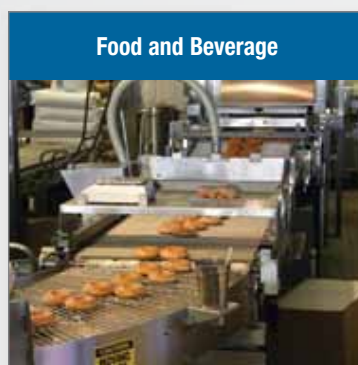
Choose Thomas & Betts and connect to the power you need.

For over 100 years, Thomas & Betts has successfully applied innovative design and manufacturing techniques to meet the changing needs of the marketplace. Today, we offer more than 100,000 electrical components and systems to terminate, connect, fasten, protect and identify wires, components and raceway. Our vast offering makes us one of the largest and best sources of electrical components in North America.

At T&B, we're committed to:

- Products which provide solutions to your electrical needs
- Convenience of single-order, single-shipment to your site for thousands of stocking items
- Expert local point of contact for clear, consistent information regarding training, codes and standards
- Quality brands that have proven themselves over time
- Inventive design and manufacture of problem-solving products
- Offering a best-of-class warranty and returns policy
- Uniform carton labeling with additional bar-coding for convenient inventory management
- Nationwide network of stocking electrical distributors
- Outstanding customer service capability
- Supplying you with the right products, convenient packaging, on-time delivery and competitive pricing

We deliver the solutions that make your job easier and offer the power to bring it all together in one package. Call us today and let us help you profit from sourcing your electrical products from the leader, Thomas & Betts.



Cable Protection Systems

Access the Full Range of
Thomas & Betts Electrical Solutions.

Other Thomas & Betts Catalogs...



Wire & Cable Management — GM-1

- Boxes & Covers
- Metal Framing & Cable Tray
- Fastening Systems
- Identification & Supplies



Power Connection & Control — GM-3

- Connectors & Grounding
- Wire Termination
- Power & High Voltage
- Power Quality



Safety Technology — GM-4

- Hazardous Location Lighting
- Emergency Lighting
- Surge Protection

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Vertical Market Solutions

Single- and Multi-Family Housing



At Thomas & Betts, residential construction goes beyond the simple house on the corner. From a single-family home to a multi-story apartment complex or high-rise condominium, we understand the dynamic challenges faced in the residential market and are committed to providing innovative electrical solutions that promote sustainability, reduce overall project costs and provide a safe working and living environment.

Technology and regulatory evolution is driving change throughout our living areas, and Thomas & Betts is focused on providing solutions that not only solve current real-world problems, but offer the flexibility to accommodate future demands.



For more information, request the Thomas & Betts Electrical Solutions for Single- and Multi-Family Housing brochure, GM-8330.



Commercial and Institutional Facilities



Thomas & Betts understands the challenges faced in commercial and institutional projects and is committed to providing innovative electrical solutions that not only reduce overall project costs, but also increase safety, promote sustainability and even improve cash flow. Whether it's labor-saving rough-in components, custom-designed electrical prefabrication systems, online cloud-based design tools or even our world-class logistics, Thomas & Betts can help bring commercial and institutional projects in on time, within budget and profitably.



For more information, request the Thomas & Betts Electrical Solutions for Commercial and Institutional Facilities brochure, GM-8333.



Vertical Market Solutions

Food and Beverage Processing Industry



At Thomas & Betts, we understand the challenges you face in the food and beverage processing industry today. We're focused on providing electrical solutions that address the critical issues in every area of your operation, so you can focus on plant sustainability, cost, quality, flexibility, food and personnel safety and regulatory challenges across the production cycle. Our family of electrical solutions matches specific application criteria from start to finish inside food processing areas, assuring the quality and reliability of your electrical system throughout your facility, from incoming raw materials through shipping of finished goods. And with the industry's most efficient distribution system, we're prepared to meet your ongoing MRO, OEM and construction needs down the road.



For more information, request the Thomas & Betts Electrical Solutions for Food and Beverage Processing Facilities brochure, GM-8306.



Metals and Mining Industry



Thomas & Betts' long-term presence in the utility and industrial markets continues to drive the development of innovative electrical products that meet the stringent application requirements of metals and mining operations and perform over extended lifecycles. Our solutions are tailored to help you optimize operating costs and improve return on capital investments while protecting the environment and ensuring safety to workers and production assets. Our global network and fast logistics are in place to support your MRO, OEM and construction activities around the world.



For more information, request the Thomas & Betts Electrical Solutions for the Metals and Mining Industry brochure, GM-8332.



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Vertical Market Solutions

Pulp and Paper Processing Industry



At Thomas & Betts, we understand the challenges you face in the pulp and paper processing industry today. We're focused on providing electrical solutions that address the critical issues in every area of your operation, so you can focus on plant sustainability, personnel safety, cost, quality, flexibility and regulatory challenges across the production cycle. Our family of electrical solutions matches specific application criteria from start to finish inside processing areas, assuring the quality and reliability of your electrical system throughout your facility, from incoming raw materials through shipping of finished goods. And with the industry's most efficient distribution system, we're prepared to meet your ongoing MRO, OEM and construction needs today.



For more information, request the Thomas & Betts Electrical Solutions for Pulp and Paper Processing Facilities brochure, GM-8335.



Chemical Industry



Thomas & Betts designs, manufactures and supplies solutions for electrical systems. In order to be profitable running special batches or continuous commodity compounds, you need reliable, robust and cost-effective equipment. Your systems need to operate at peak performance. That's why we invest considerable resources towards R&D, training and channel management. Our products solve real-world problems. Thomas & Betts offers the industry's most advanced materials distribution system, and our commitment shows in our unmatched products, unequalled service and loyalty from end-users, OEMs and contractors.



For more information, request the Thomas & Betts Electrical Solutions for the Chemical Industry brochure, GM-8336.



Vertical Market Solutions

Oil and Gas Industry



Thomas & Betts designs, manufactures and supplies technically advanced products for electrical systems. Profitable drilling, extracting, processing, transporting and dispensing operations require reliable, robust and cost-effective equipment. That's why we invest extensive amounts on R&D, training and channel management. Our solutions solve real-world problems. Thomas & Betts offers the industry's most advanced materials distribution system, and our commitment shows in our unmatched products, unequalled service and loyalty from end-users and OEMs.



For more information, request the Thomas & Betts Electrical Solutions for the Oil and Gas Industry brochure, GM-8329.



Water/Wastewater Treatment



At Thomas & Betts, we're focused on providing products that address the issues in every area of your wastewater treatment facility, so you can focus on cost, quality, flexibility and regulatory challenges. Our family of products matches specific application criteria from start to finish, assuring the quality and reliability of your electrical system throughout your facility, from power substation to administration buildings. With the industry's most efficient distribution system, we're also prepared to meet your ongoing MRO needs down the road.



For more information, request the Thomas & Betts Electrical Solutions for Wastewater Treatment Facilities brochure, GM-8291.



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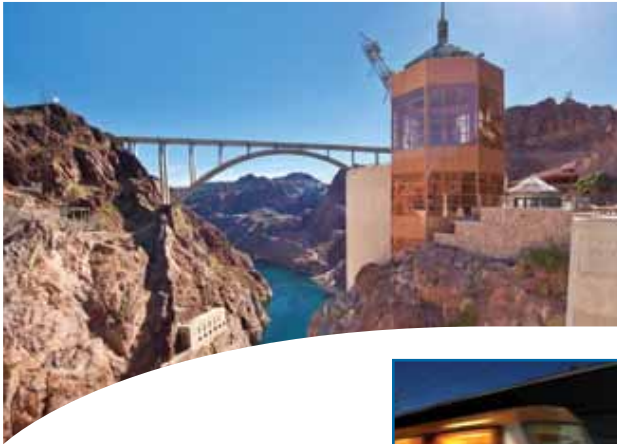
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Vertical Market Solutions

Civil Infrastructure



At Thomas & Betts, we understand the challenges faced in civil infrastructure. We're focused on providing electrical solutions that address the critical issues in every transportation sector, so you can focus on sustainability, cost, quality, flexibility, safety and regulatory compliance. Our family of quality electrical solutions matches specific application criteria, ensuring the continued reliability of infrastructure. And with the industry's most efficient distribution system, we're prepared to meet your ongoing operation and maintenance needs as well as serve new OEM and construction investments.



For more information, request the Thomas & Betts Electrical Solutions for Civil Infrastructure brochure, GM-8331.



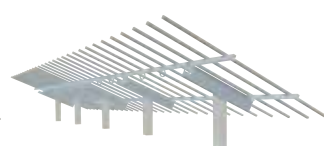
Renewable Energy



The demand for natural, clean and sustainable energy resources has brought solar and wind power generation into the spotlight. Investments and incentives by public and private entities are speeding green development and proliferation, yet the promise is not fully realized. Thomas & Betts is committed to seeing the industry succeed — and thrive. We design integrated solutions with higher quality materials, fewer parts and ease of installation coupled with maintenance in mind in order to reduce product lifecycle costs. We provide the information and training necessary to correctly install and maintain critical structural systems for safe and reliable operation. With solutions from Thomas & Betts, you will meet your cost, quality, performance and regulatory challenges.



For more information, request the Thomas & Betts Electrical Solutions for Renewable Energy brochure, GM-8334.



Vertical Market Solutions

Power Generation



The power generation industry, which has performed solidly for decades, is undergoing a transformation brought on by government regulations, consumer demand and evolving industry standards. New and emerging technological developments support cleaner and more efficient energy generation and higher availability for plants young and old. Thomas & Betts is leading the way with high-quality, innovative electrical systems and devices that perform optimally with minimal product lifecycle costs. Integrated engineering design solution sets simplify product selection. Fewer, snap-together parts ease installation and maintenance. Training and support services ensure ongoing safe and reliable operation, while warranties instill confidence that our products will perform as required and meet your performance and output demands.



For more information, request the Thomas & Betts Electrical Solutions for Power Generation brochure, GM-8337.



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Power Transmission and Distribution



From transmission lines and local distribution networks that crisscross the landscape to the customer premises, you'll find Thomas & Betts products to help you manage and control the constant flow of power. We understand that your customers depend on you to deliver a continuous, uninterrupted power flow, and that you rely on us to provide solutions that enable optimal reliability and efficiency. We also recognize your need to reduce the maintenance, repair and operations costs in your electric power transmission and distribution systems. Whether your systems are overhead or underground, we are your partner in power delivery. Our broad family of electrical solutions enables us to support your design, construction, operations and maintenance requirements economically, with fewer and shorter outages.



For more information, request the Thomas & Betts Electrical Solutions for Power Transmission and Distribution brochure, GM-8338.



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Thomas & Betts

T&B Services

Customer Service

1-800-816-7809

Immediate, Knowledgeable Assistance

Every Thomas & Betts Customer Service Representative is right where the action is — surrounded by all the support and information they need to answer your questions and fill your orders faster than ever. Your calls and faxes are automatically routed to Customer Service Specialists who personally serve your account and can answer questions about products, order status, price and availability, and other service-related inquiries.

Phone: 1-800-816-7809

Fax: 1-800-816-7810

Email: generalcustomerserviceteam@tnb.com



Technical Services

1-888-862-3289

Over 170 Years of Industry Experience

Meeting and exceeding our customers' expectations is a fundamental goal of Thomas & Betts. Call our Technical Services Department and talk LIVE to an expert who'll answer questions and concerns regarding all aspects of our products and services. Our experienced and knowledgeable staff is second to none in the industry!



Tool Services

1-800-284-TOOL

Quality You Can Trust

Trust T&B's dedicated Tool Services Department to answer all questions regarding tool applications, repair, warranties, sales/lease/rental and technical information. Ask about our specialized services, including customer/sales training, demos and calibration/certification of tools.



T&B Online Support

T&B Access®

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T&B Access® is a global sales tool for our distributor partners, offering:

- Quote Requests
- Stock Checks
- Pricing Inquiries
- Cross Reference
- Order Entry
- Order Resolution
- Shipping Status
- Document Look-Up
- Automatic Order Receiving
- Item History Search
- Multiple-Location User Search
- Context-Sensitive Help
- Shipping Confirmations
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- Expediting
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- Quality Issues
- Customer Report Cards
- Web Catalog Look-Up



All of these tools and more are available online 24 hours a day – 7 days a week, without having to make a single phone call. Multi-lingual options are available in English, French and Spanish. T&B Access® now serves over 10,000 satisfied customer users at over 3,500 locations every month.

Web Catalog

www.tnb.com/webcatalog

Thousands of Products at Your Fingertips

U.S. contractors and specifiers have made our web catalog their number one stop. Users can search for technical information by catalog number, UPC code, competitor number, keyword search, product category and/or brand. Having found the item(s) they are searching for, they can then use our **Where To Buy** function to locate a T&B local distributor and/or other support services.



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T&B Online Tools

Web CAD Library

www.tnb.com/CADLibrary

Over 4,000 2D and 3D CAD Models Available FREE!

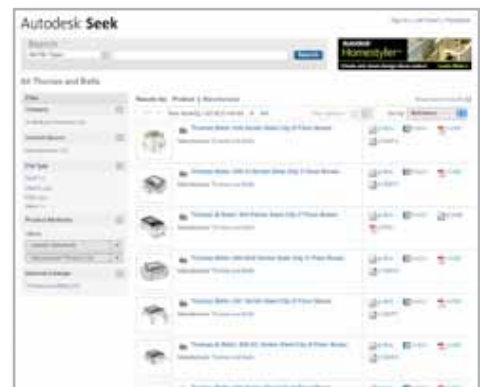
The T&B CAD Library is an on-line source of 2D and 3D CAD models, available FREE to customers who register. Users can download these files to their desktops for import into their working drawings. Drawings are offered in 90 of the most popular native file formats. This is a valuable tool for CAD designers, OEMs and engineering firms, as it will allow them to quickly locate and download T&B drawings into their projects. Over 4,000 drawings of T&B® Fittings, PMA® Cable Protection, Kindorf®, Red•Dot® and Superstrut® products and Steel City® and Carlon® Floor Boxes are currently available.



BIM Library

Now available to you through Autodesk® Seek (seek.autodesk.com), our BIM (Building Information Modeling) objects can easily be imported to your Revit® models. These BIM objects are fully standards compliant, Revit® Certified and completely configurable.

Autodesk and Revit are registered trademarks of Autodesk, Inc.



New Products Spotlight

Our New Products Save You Time and Money!

Thomas & Betts has been on the leading edge of engineering and design for more than a century, and new product development continues to keep us at the forefront of the electrical industry today.

T&B engineers and product managers continually study the latest code and technology changes and talk to customers to identify specific needs and opportunities for new product ideas.

But simply being new isn't enough to qualify for development under one of the high-quality Thomas & Betts family of brand names.

A T&B new product must achieve one or more of the following benefits for our customers:

- Lower installed costs
- Improved labor efficiencies
- Compliance with code requirements
- Solves specific application challenges

The following pages highlight new products that meet these criteria within our Cable Protection Systems products.

Contents

T&B® Fittings

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XJG Expansion Couplings	NP-2
LU® Universal Conduit Elbow	NP-2
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STAR TECK® Stainless Steel Fittings	NP-3
Ranger® Series Cord Connectors	NP-3
STAR TECK EXTREME® DIRECTOR™ Fittings	NP-4

PMA® Cable Protection Systems

Nylon Flexible Conduit Systems	NP-4
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NEW Products

T&B® Fittings

T&B® Fittings Stainless Steel Form 8 Conduit Outlet Bodies



- Marine-grade Type 316 stainless steel construction in rugged Form 8 design
- Suitable for use in food and beverage, pharmaceutical, petrochemical, wastewater treatment, pulp and paper processing and other corrosive environments
- Available in body shapes LB, T, TB and the new LU® Universal Conduit Elbow



For more information, see page E-69.

T&B® Fittings XJG Expansion Couplings for Rigid Conduit and EMT



NEW!

- No disassembly necessary to install
- True Internal Bonding Jumper — no external grounding strap required
- Tamper-proof internal jumper protected from the environment
- Exceed code requirements for long conduit runs to permit linear movement

For more information, see pages E-54–E-55.

T&B® Fittings LU® Universal Conduit Elbow



NEW!

- 4-to-1 SKU reduction — replaces LL, LR, LB and C conduit bodies
- Radius is the same as the conduit elbow — pull wire through the body
- Angled cover port — easier wire pulling and uses standard covers
- BlueKote® four-layer protection provides internal and external corrosion resistance

For more information, see page E-67.

T&B® Fittings

T&B® Fittings Stainless Steel Connector for Liquidtight Flexible Non-Metallic Conduit Type A



- Serrated design provides high mechanical pull-out strength
- Unique component parts (body/gland) design ensures positive seal between conduit and connector
- Tapered thread hub and furnished Neoprene sealing O-ring provide a liquidtight, dust-tight seal to a box or enclosure

For more information, see page E-18.

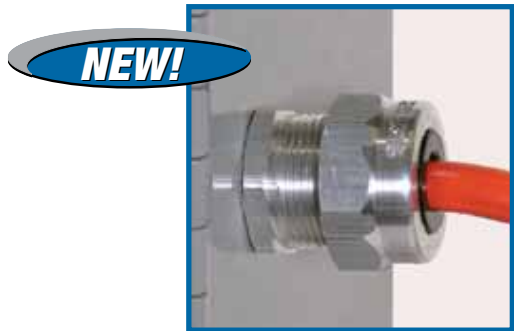
T&B® Fittings STAR TECK® Stainless Steel Fittings for Jacketed Metal-Clad and Teck Cables



- Now available in stainless steel with NEMA 4X rating
- Overlapping sizes minimize possibility of mismatched cables and fittings in the field
- Available in hub sizes from 1/2" to 4", handling outer jacket diameters from .525" to 4.340"
- Suitable for ordinary or hazardous locations (Class 1 Div. 2; Class II Div. 2; Class III)

For more information, see pages E-122-E-127.

T&B® Fittings Ranger® Series Cord Connectors



- Connectors take twice the cable range of ordinary strain relief connectors
- Smaller overall size makes it easy to fit into tight spaces
- Gland nut design restricts cable bending
- Available in steel, aluminum, stainless steel and non-metallic material



For more information, see pages E-134-E-138.

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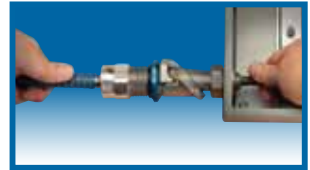
NEW Products

T&B® Fittings & PMA® Flexible Conduit and Fittings

T&B® Fittings STAR TECK EXTREME® DIRECTOR™ Jacketed Metal-Clad and Teck Cable Termination Fittings

NEW!

- Rotate 90° to 180° for easy installation
- Use fewer components and take up less space than traditional fittings and accessories required for angled installation
- Require no disassembly prior to installation and can be easily disconnected



For more information, see pages E-128–E-129.

PMA® Nylon Flexible Conduit Systems



NEW!

- Safe, reliable systems that are easy to install
- Vibration-proof connections
- System connection strength
- Ingress protection conforming to recognized test methods



For more information, see pages E-165–E-266.

T&B® Fittings

T&B® Liquidtight Fittings

In this section...



T&B® Liquidtight Fittings

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Overview

Our Liquidtight Line Is the End-All for Liquidtight Dust-Tight Connections.

All our high-performance products are designed to deliver excellent reliability as well as ease of installation in virtually any application. And you benefit from our expertise through our liquidtight and dust-tight connections available for a variety of conduits as well as portable cord.

Thomas & Betts offers the largest and most technologically advanced line of liquidtight fittings in the industry, including connectors for highly specialized

applications such as power and petrochemical plants, paper mills, robot manufacturers, packaging equipment, machine tool building, and other OEM and MRO applications. At Thomas & Betts, we integrate the latest manufacturing technologies with the highest quality materials available. So you can be assured of reliable, liquidtight products that offer improved on-the-job performance and reduced installation time and costs.



Overview

T&B makes liquidtight fittings for demanding situations.



Liquidtight Flexible Metal Conduit Fittings

Gland deflects water away from connector and prevents "pooling" of moisture. Look for the distinctive "Pumpkin" appearance of the gland nut.

Self-Cleaning Threads inside gland nut keep dirt and grime out of the threads as you tighten.

Double Beveled Sealing Ring is designed with five unique sealing mechanisms and cannot be installed backwards. Manufactured of high-temperature rated thermoplastic to demanding specifications. Look for the unique T&B blue color ensuring the highest quality fitting.

Safe Edge® Ground Cone provides superior bonding, stronger pullout, easy threading and conductor protection. Look for the distinctive "ski slope" appearance within the "pumpkin" gland nut.

Heat-Curled Insulator provides excellent wire protection and easier glide of conductors through and into the fitting. In addition, the heat-curved finish gives the insulator more strength than glue-in insulators. Look for the unique T&B blue color ensuring the highest quality fitting.

Precision Machined Rolled Threads provide smooth, easy installations.

Tempered Cast Locknut with Teeth provides superior strength and electrical bonding and can be installed without a wrench in the enclosure.



Revolver® Grounding Fitting

Saves time and money using our infinitely adjustable rotating ground lug. Simply align the lug in your preferred position and tighten the gland. You'll never need to worry about tightening it into an inconvenient position again.



T&B's Heat-Curled Insulator



Competitor's Glue-In Insulator



Add suffix -GR to the fitting catalog number to order the Revolver® Grounding version.



Conduit & Fittings — T&B® Liquidtight Fittings

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Technical Services
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Thomas&Betts

Overview

Liquidtight Flexible Metal Conduit Fittings

Thomas & Betts Liquidtight fittings for flexible metal conduits are suitable for a wide range of installations, including heavy industrial applications. Our Liquidtight fittings are designed to stand up to demanding, wet or corrosive environments, including power and petrochemical plants, paper mills, and anywhere high performance is a requirement.

Features of Thomas & Betts Liquidtight Fittings include:

- Safe Edge® ground cone design that accepts variations in raceway convolutions and provides a positive bond
- Continuous sealing ring that completely surrounds the conduit to ensure a liquidtight seal
- Zinc chromatic plating for longer life and exceptional appearance
- The broadest liquidtight line in the industry, including PVC coated, externally grounded, aluminum series, CHASE® style, nonmetallic Bullet series, wire mesh grips and more



Liquidtight Fittings for Special Applications

The Revolver® Externally Grounded Fitting

The Revolver liquidtight grounding fitting is our latest breakthrough in convenience to save time and money on the job while delivering a quality connection.

The grounding lug of the new Revolver connector can be rotated in a full circle for convenient positioning that doesn't change when you tighten it. Plus, it's available for the first time in aluminum. It's the newest innovation in Thomas & Betts' versatile line of Liquidtight Connectors — fittings you can count on for liquidtight and dust-tight connections, because all our products revolve around your needs.

CHASE® Style Fittings

Where space is tight, our CHASE fittings enable for compact connections within an enclosure.

Sealing Gaskets

Thomas & Betts sealing gaskets are resistant to oil, coolants and hydraulic fluids as well as water, with a stainless steel retaining clip that ensures a quality seal. They're the ideal match to our Liquidtight connectors for a safe and secure seal.



Liquidtight Flexible Non-Metallic Conduit Fittings

When non-metallic, Type A or EFC conduits are called for, Thomas & Betts' XTRA FLEX® System has our outstanding Bullet® fittings and conduits for liquid- and dust-tight connections.

Bullet® Fittings

- Feature one-piece construction and a captive O-ring for ease of installation
- Provide a positive seal between the conduit and the connector
- Has tapered thread hub and sealing O-ring for a tight seal to the box or other enclosure

- Are constructed of nonburning, nondripping thermoplastic for high-strength chemical resistance
- Feature a smooth insulated body for maximum dielectric strength
- Have a serrated finger design that provides high mechanical pullout strength
- Include a complete range of flexible, non-metallic conduits — including both smooth and corrugated varieties — to complete our XTRA FLEX® System



52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

Liquidtight Flexible Metal Conduit Fittings

Application

- Used where flexible metal raceway is installed in outdoor or indoor locations where exposed to continuous or intermittent moisture
- To positively bond conduit to box or enclosure

Features

- Ability to install quickly with low torque effort
- Ground cone design offers the following advantages:
 - (1) Compresses metallic convolutions; provides high-quality ground contact with low impedance and high raceway holding power (A)
 - (2) Single helical thread on ground cone is easy to install without cross thread; accepts variations in raceway diameters and convolution pitch (B)
 - (3) Rolled-over edge protects conductors (C)

Sealing Ring Design Features

- (1) Grips and seals at leading and trailing edge — will not abrade raceway jacket (D)
 - (2) Provided with grooves on inside diameter for anti-sleeving (E)
 - (3) Shoulders on both ends for extra sealing (F)
 - (4) Symmetrical shape assures foolproof assembly
- Can be disconnected and reused
 - Watertight/oil-tight installation at box or enclosure termination is ensured by:
 - (1) External taper thread hub on 5331 series and use of sealing gasket 5262 series (G)
 - (2) Captivated sealing O-Ring on 5361 series (H)
 - (3) Taper tapped hole on 5271 series
 - Suitable for use in Class I Division 2, Class II Division 1 and 2 and Class III Division 1 and 2 Hazardous Locations per NEC® Section 500

- Suitable as a grounding means per NEC Section 351-9 (up to 1¼" trade size on)
- ½" & 1¼" sizes laboratory tested to carry ground fault current of up to 1,000 amps RMS with duration of fault current three cycles
- Conforms with JIC requirements
- Available with imperial, ISO and PG threaded hub

Standard Material

5331-5361-5271 Series

Body, Gland, Locknut & Ground Cones: Steel (¼"-1¼") or malleable iron (1½"-6")

Sealing Ring and Insulator: All thermoplastic

Sealing Gasket: Stainless Steel and Santoprene®

5331SST-5331SSTHT Series

304 Stainless Steel insulated

Sealing Ring and Insulator: All thermoplastic

Sealing Gasket: Stainless Steel and Santoprene®

5231 AL Series

All Copper-free Aluminum (non-insulated)

Standard Finish

5331-5361-5271 Series

Electro Zinc Plated with Chromate Coating

5331ST-5331STHT Series

Electro Zinc Plated with Chromate Coating

5231 AL Series

Copper-free Aluminum

Range

5331 Series	¾" through 6" ^{**} conduit
5341 Series	¾" through 4" conduit
5351 Series	¾" through 4" conduit
5361 Series	¾" through 4" conduit
5271 Series	¾" through 1¼" conduit
5331SST Series.....	¾" through 2" conduit
5331SSTHT Series	¾" through 2" conduit
5231 AL Series	¾" through 4" conduit

^{*}All hubs provided with taper pipe threads (NPT)

Listings/Compliances

UL UL File No. E-23018
 CSA LR-2884, LR-4484, LR-9555
 UL 514B
 CSA C22.2 No. 18
 NEMA FB-1
 NFPA 70-1999 (ANSI)
 JIC EGP1
 JIC EMP1
 Federal Specification A-A-50552
 Federal Standard H-28 (Threads)



5331 Series*
5231 AL Series

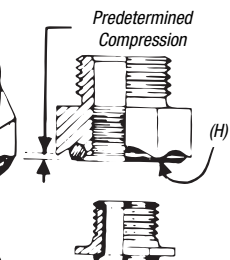
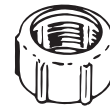


5361 Series



5271 Series

* 5341 Series...
 same as 5331, except 45° Connectors
 5351 Series...
 same as 5331, except 90° Connectors



5361 Series
CHASE® Style

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

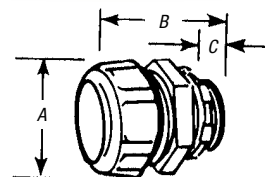
Santoprene is a registered trademark of Advanced Elastomer Systems.

52°/53° Series Liquidtight Fittings and Flexible Metallic Conduits

52° and 53° Series Liquidtight Straight Connectors*



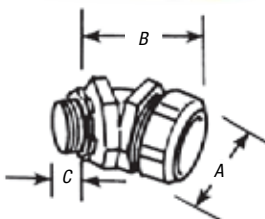
CAT. NO.		CONDUIT SIZE	DIMENSIONS (IN.)		
INSULATED STEEL	NON-INSULATED STEEL		A	B	C
5229†	—	¼"	27/32	1½	1½/2
5330†	—	⅝"	63/64	1½	1½/2
5331†**	5231†	¾"	1½/2	1½	9/16
5332†	5232†	½"	1¾	19/16	9/16
5333†	5233†	¾"	127/32	1½	9/16
5334†	5234†	1"	1¾	21/16	¾
5335†	5235†	1¼"	2¾/2	2½	13/16
5336	5236	1½"	223/32	21/16	13/16
5337	5237	2"	3¼	31/16	7/8
5338	5238	2½"	3¾	41/8	1
5339	5239	3"	4½	4¼	1
5340	5240	4"	5½	4½	1½
5385†	5285	5"	8¾	7	1½
5386†	—	6"	8¾	8½	2



Steel/malleable iron or aluminum tapered hub threads. With safe-edge ground through 4" cone and double bevel seating ring (through 2").

52° and 53° Series Liquidtight 45° Angle Connectors*

CAT. NO.		CONDUIT SIZE	DIMENSIONS (IN.)		
INSULATED	NON-INSULATED		A	B	C
5341†**	5241†	¾"	1½/2	11/16	9/16
5342†	5242†	½"	1¾	1¾	9/16
5343†	5243†	¾"	127/32	21/8	9/16
5344†	5244†	1"	1¾	2¼	¾
5345†	5245†	1¼"	2¾/2	2¼	13/16
5346	5246	1½"	223/32	33/8	13/16
5347	5247	2"	3¼	3¾	7/8
5348	5248	2½"	3¾	4¼	1
5349	5249	3"	4½	4¼	1
5350	5250	4"	5½	45/8	1½

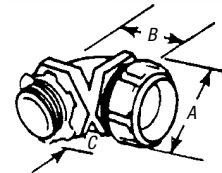


Malleable iron, tapered hub threads. With safe-edge ground cone and double bevel sealing ring (through 2").

52° and 53° Series Liquidtight 90° Angle Connectors



CAT. NO.		HUB SIZE	CONDUIT SIZE	DIMENSIONS (IN.)		
INSULATED	NON-INSULATED			A	B	C
5351	5251	¾"	¾"	1½/2	1¾	9/16
5352	5252	½"	½"	1¾	19/16	9/16
5353	5253	¾"	¾"	127/32	1¾	9/16
5354	5254	1"	1"	1¾	21/16	¾
5355	5255	1¼"	1¼"	2¾/2	2¼	13/16
5356	5256	1½"	1½"	223/32	215/16	13/16
5357	5257	2"	2"	3¼	37/16	7/8
5358	5258	2½"	2½"	3¾	87/8	1
5359	5259	3"	3"	4½	10¼	1
5360	5260	4"	4"	5½	125/8	1½



* Suitable for hazardous locations use in Class I, Div. 2; Class II, Div. 1 and 2; Class III, Div. 1 and 2, where general-purpose equipment is specifically permitted per NEC®.

** ¾" Conduit Fitting has ½" hub.

† UL Listed as grounding means under NEC 350.60.

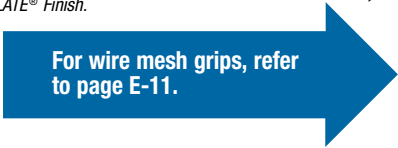
‡ Not UL Listed.

Note: UL Listed liquidtight; and CSA Certified watertight. Available with DURA-PLATE® Finish.

UL File No. E-23018

CSA File No. 2884

Blue is a trademark color of Thomas & Betts.



52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

53® Series High-Temperature Flexible Metal Liquidtight Fittings

Where liquidtight flexible metal fittings are required in high-temperature environments up to 150° C:



T&B HT-Series Liquidtight Fittings are available straight, 45° and 90°.

- Fitting's body, gland, locknut and ground cone shall be constructed from steel or malleable iron, electro-zinc plated and chromate coated for corrosion protection
- Fitting's sealing ring and throat insulator will be molded from high-temperature nylon, suitable for temperatures up to 150° C and a minimum UL flammability rating of UL94-V2
- The fitting shall be constructed to accept high-temperature flexible metal liquidtight conduit rated to 150° C
- The fitting shall have a plastic throat insulator to protect conductors

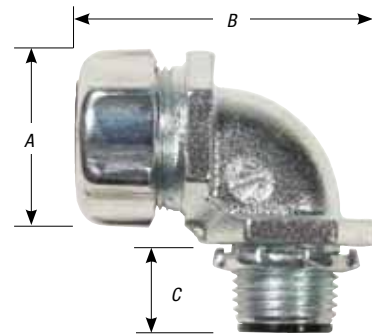
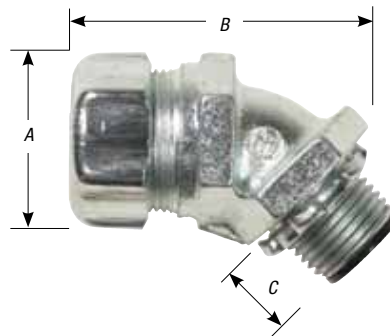
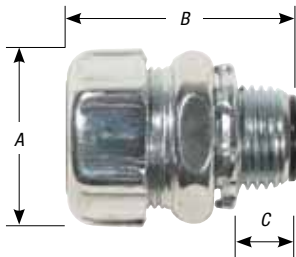
- The fitting shall have a steel ground cone to:
 - provide high-quality ground contact
 - single helical thread for easy installation into conduit
 - rolled over edge to protect conductors
- The fitting shall have a plastic sealing ring to:
 - grip and seal at leading and trailing edge (double bevel up to 2") of conduit jacket
 - provide a watertight/oiltight seal
- The fittings shall be capable to terminate the conduit in either a threaded or threadless opening
- For applications where termination into a threaded opening is required, the fitting shall have external tapered NPT threads
- Fittings shall conform to UL 514B*
- Accepted Manufacturers: Thomas & Betts — 5331-HT straight series, 5341-HT 45° series, 5351-HT 90° series; 5262 sealing ring series

* These fittings are not UL Listed.



ATX Flexible Liquidtight Conduit

CAT. NO.	CONDUIT SIZE	LENGTH (FT.)	INSIDE BEND RADIUS (IN.)
ATX038-TB	3/8"	100	1.5
ATX050-TB	1/2"	100	2.0
ATX075-TB	3/4"	100	2.5
ATX100-TB	1"	100	3.0
ATX125-TB	1 1/4"	50	3.5
ATX150-TB	1 1/2"	50	4.5
ATX200-TB	2"	50	5.5
ATX250-TB	2 1/2"	25	8.0
ATX300-TB	3"	25	10.0
ATX400-TB	4"	25	12.0



Straight Liquidtight Fittings — HT

CAT. NO.	CONDUIT SIZE	DIMENSIONS		
		A	B	C
5331-HT	3/8"	1 1/2"	1 1/2"	3/16"
5332-HT	1/2"	1 3/8"	1 1/16"	3/16"
5333-HT	3/4"	1 21/32"	1 5/8"	3/16"
5334-HT	1"	1 7/8"	2 1/16"	3/4"
5335-HT	1 1/4"	2 3/32"	2 1/2"	13/16"
5336-HT	1 1/2"	2 23/32"	2 1/16"	13/16"
5337-HT	2"	3 3/4"	3 1/16"	7/8"
5338-HT	2 1/2"	3 3/4"	4 1/8"	1"
5339-HT	3"	4 1/2"	4 1/4"	1"
5340-HT	4"	5 1/2"	4 1/2"	1 1/8"

45° Liquidtight Fittings — HT

CAT. NO.	CONDUIT SIZE	DIMENSIONS		
		A	B	C
5341-HT	3/8"	1 1/2"	1 1/16"	3/16"
5342-HT	1/2"	1 3/8"	7/8"	3/16"
5343-HT	3/4"	1 21/32"	2 1/8"	3/16"
5344-HT	1"	1 7/8"	2 1/4"	3/4"
5345-HT	1 1/4"	2 3/32"	2 3/4"	13/16"
5346-HT	1 1/2"	2 23/32"	2 3/8"	13/16"
5347-HT	2"	3 3/4"	3 3/8"	7/8"

90° Liquidtight Fittings — HT

CAT. NO.	CONDUIT SIZE	DIMENSIONS		
		A	B	C
5351-HT	3/8"	1 1/2"	1 3/8"	3/16"
5352-HT	1/2"	1 3/8"	1 1/16"	3/16"
5353-HT	3/4"	1 21/32"	1 3/4"	3/16"
5354-HT	1"	1 7/8"	2 3/16"	3/4"
5355-HT	1 1/4"	2 3/32"	2 3/4"	13/16"
5356-HT	1 1/2"	2 23/32"	2 5/16"	13/16"
5357-HT	2"	3 3/4"	3 1/16"	7/8"

52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

High-quality, corrosion-resistant, liquidtight termination for LTA flexible aluminum conduit.

52® Series Liquidtight Aluminum Connectors — Straight and 90°



Specifications

- Standard Material**
- Body, Gland, Locknut.....6061 Aluminum
 - Sealing Ring.....Thermoplastic
 - Ground Cone.....Steel
- Standard Finish**
- Body, Gland, Locknut.....Zinc Plating with Clear Chromate Ground Cones
 - Ground Cone.....Electro-Zinc Plating



CAT. NO.	CONDUIT SIZE (IN.)	DIMENSIONS (IN.)		
		A	B	C
Straight				
5231AL	3/8	1 1/32	1 1/2	9/16
5232AL	1/2	1 3/8	1 9/16	9/16
5233AL	3/4	1 21/32	1 5/8	9/16
5234AL	1	1 7/8	2 1/16	3/4
5235AL	1 1/4	2 3/32	2 1/2	13/16
5236AL	1 1/2	2 23/32	2 11/16	13/16
5237AL	2	3 1/4	3 1/16	7/8
5238AL	2 1/2	3 3/4	4 1/8	1
5239AL	3	4 1/2	4 3/4	1
5240AL	4	5 1/2	4 1/2	1 1/8
90° Angle				
5251AL	3/8	1 1/32	1 5/8	9/16
5252AL	1/2	1 3/8	1 9/16	9/16
5253AL	3/4	1 21/32	1 3/4	9/16
5254AL	1	1 7/8	2 3/16	3/4
5255AL	1 1/4	2 3/32	2 3/4	13/16
5256AL	1 1/2	2 23/32	2 15/16	13/16
5257AL	2	3 1/4	3 1/16	7/8



Designed to resist corrosion.

LTA Flexible Aluminum Conduit

Use T&B® LTA Flexible Aluminum Conduit with T&B Aluminum Liquidtight Fittings in corrosive environments or where weight is a major consideration — such as oil platforms, saltwater applications, pulp and paper, refineries, wastewater and food processing.

Specifications

- Construction: Utilizes the flexibility of a lightweight aluminum core, coupled with the advantage of a PVC jacket that is virtually unaffected by sunlight, acid and oil. WEEE and RoHS compliant
- Application: Used in situations where concerns of excessive weight and corrosion exist
- Standard Color: Machine tool gray
- Working Temperature: -20° C to +80° C
- Standard Materials/Finish: Conduit Core — Aluminum; Outer Jacket — PVC
- UL Listed



CAT. NO.	CONDUIT SIZE (IN.)	LENGTH (FT.)	INSIDE BEND RADIUS (IN.)	WT. (LBS.)/100 FT.	WT. (LBS.)/50 FT.
LTA50-100	1/2	100	2.5	15	—
LTA75-100	3/4	100	3.0	20	—
LTA100-100	1	100	4.0	29	—
LTA125-50	1 1/4	50	4.5	—	20
LTA150-50	1 1/2	50	5.5	—	28
LTA200-50	2	50	7.0	—	36.5
LTA250-25	2 1/2	25	9.5	188	—
LTA300-25	3	25	11.5	244	—
LTA400-25	4	25	14	332	—

52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

The strength of steel — with superior corrosion resistance!

Stainless Steel Liquidtight Conduit Connectors

Until now, there's been no ideal conduit fitting solution for use in heavily corrosive environments. Traditional metallic fittings corrode and require frequent replacement. Non-metallic fittings offer less strength, lower UV resistance and don't stand up well in extreme temperatures. T&B® Stainless Steel Liquidtight Conduit Connectors are constructed of 304 stainless steel to resist corrosion while offering high strength, high UV resistance and high endurance. Choose among a full range of fittings in straight, 45°, and 90° angled configurations for 3/8" to 2" conduit sizes. Look for the distinctive blue insulator and sealing ring for assurance of T&B quality.

- Ideal for industrial MRO and OEM applications in food and beverage, pharmaceutical, petrochemical, wastewater, salt water and other corrosive environments
- Connects metallic-cored liquidtight conduit to a box or enclosure
- Type 304 stainless steel body and gland nut resist corrosion far better than other metallic fittings
- Stronger and more UV resistant than non-metallic fittings
- Ground cones are available in 1/4", 1/2" and 2" sizes and are brass/nickel plated
- Available in straight, 45° and 90° angled configurations to fit conduit from 3/8" to 2"
- UL Listed Ratings: 3, 3R, 4, 4X
- Standard version (SST Series) rated for temperatures up to 105° C (221° F)
- Now available in a new high-temperature version (SSTHT Series) for applications up to 150° C (302° F)

Conduit & Fittings — T&B® Liquidtight Fittings



Stainless Steel Liquidtight Conduit Connectors — 105° C Max.



CAT. NO.	CONDUIT SIZE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
		A	B	C	
Straight					
5331SST	3/8	1.36	1.02	—	25
5332SST	1/2	1.36	1.18	—	25
5333SST	3/4	1.39	1.37	—	25
5334SST	1	1.56	1.77	—	5
5335SST	1 1/4	1.72	2.12	—	20
5336SST	1 1/2	2.02	2.48	—	5
5337SST	2	2.34	3.04	—	2

CAT. NO.	CONDUIT SIZE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
		A	B	C	
45° Angled					
5341SST	3/8	1.84	1.02	1.43	25
5342SST	1/2	1.62	1.18	2.04	25
5343SST	3/4	2.32	1.37	1.93	10
5344SST	1	2.86	1.77	2.37	5
5345SST	1 1/4	3.33	2.12	2.80	5
5346SST	1 1/2	3.94	2.48	3.39	2
5347SST	2	4.73	3.04	4.23	1

CAT. NO.	CONDUIT SIZE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
		A	B	C	
90° Angled					
5351SST	3/8	1.95	1.02	1.84	25
5352SST	1/2	2.12	1.18	2.07	25
5353SST	3/4	2.47	1.37	2.44	10
5354SST	1	2.98	1.77	2.90	5
5355SST	1 1/4	3.53	2.12	3.36	5
5356SST	1 1/2	4.16	2.48	3.88	2
5357SST	2	8.60	3.04	4.69	1

Blue is a trademark color of Thomas & Betts.

Stainless Steel High-Temperature Liquidtight Conduit Connectors — 150° C Max.



CAT. NO.	CONDUIT SIZE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
		A	B	C	
Straight					
5331SSTHT	3/8	1.36	1.02	—	25
5332SSTHT	1/2	1.36	1.18	—	25
5333SSTHT	3/4	1.39	1.37	—	25
5334SSTHT	1	1.56	1.77	—	5
5335SSTHT	1 1/4	1.72	2.12	—	20
5336SSTHT	1 1/2	2.02	2.48	—	5
5337SSTHT	2	2.34	3.04	—	2

CAT. NO.	CONDUIT SIZE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
		A	B	C	
45° Angled					
5341SSTHT	3/8	1.84	1.02	1.43	25
5342SSTHT	1/2	1.62	1.18	2.04	25
5343SSTHT	3/4	2.32	1.37	1.93	10
5344SSTHT	1	2.86	1.77	2.37	5
5345SSTHT	1 1/4	3.33	2.12	2.80	5
5346SSTHT	1 1/2	3.94	2.48	3.39	2
5347SSTHT	2	4.73	3.04	4.23	1

CAT. NO.	CONDUIT SIZE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
		A	B	C	
90° Angled					
5351SSTHT	3/8	1.95	1.02	1.84	25
5352SSTHT	1/2	2.12	1.18	2.07	25
5353SSTHT	3/4	2.47	1.37	2.44	10
5354SSTHT	1	2.98	1.77	2.90	5
5355SSTHT	1 1/4	3.53	2.12	3.36	5
5356SSTHT	1 1/2	4.16	2.48	3.88	2
5357SSTHT	2	8.60	3.04	4.69	1

Note: High-temperature fittings feature a black insulator and black sealing gasket.

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

Sealing material resists oil, coolants and hydraulic fluids as well as water!

Liquidtight Sealing Gasket

The 5262 Series Sealing Gasket includes a stainless steel retaining ring to prevent elongation of the Santoprene® gasket, ensuring a superior seal.

Application

- When used with an externally threaded connector, provides a tight seal against oil, fumes or moisture at the knockout opening

Features

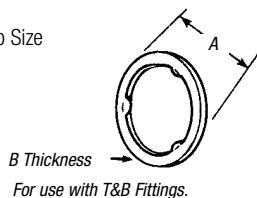
- Design locks resilient sealing material in steel
- Steel retainer protects seal from extruding out under torque and limits compression to an optimum predetermined value; provides high-quality seal
- Resilient material flows and seals rough surfaces
- NEMA 3R, 4, 6 and 13

Standard Material

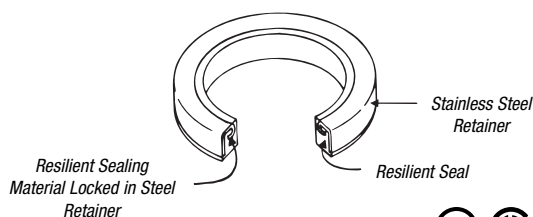
Retainer316 Stainless Steel
 Sealing Material.....Santoprene®
 Thermoplastic Rubber

Range

¼" thru 4" Hub Size



5262 Series Sealing Gasket



CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)		STD. PKG. QTY.
		A	B	
5299**	¼"	.80	.11	50
5261**	⅜"	.95	.11	50
5262	½"	1.16	.18	50
5263	¾"	1.49	.19	25
5264	1"	1.75	.19	25
5265	1¼"	2.15	.22	5
5266	1½"	2.42	.23	5
5267	2"	2.92	.23	5
5268	2½"	3.44	.23	5
5269	3"	4.08	.23	5
5270	4"	5.29	.31	5

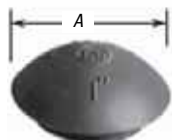
** UL not applicable.

UL File No. E 13938 CSA File No. 2884

Santoprene is a registered trademark of Advanced Elastomer Systems.

Provides a re-usable rain-, dust- and oil-tight seal for unused knockouts!

Liquidtight K.O. Plug



- No need to replace a NEMA 3R, 4, 6 or 13 box when a knockout is no longer used
- No tools needed to install — just push into knockout hole, and plug snaps in
- Made of flame-retardant Neoprene
- Meets UL 514 flammability test and NEMA 3R, 4, 6 and 13 requirements
- Temperature range – 30° C to 105° C

CAT. NO.	SIZE	A
5710	½"	1⅞"
5711	¾"	1½"
5712	1"	1⅞"
5713	1¼"	2⅞"
5714	1½"	2½"
5715	2"	3⅞"
5716	2½"	3⅞"
5717	3"	4⅞"
5718	4"	5⅞"

UL Listed raintight.

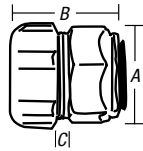
Meets Coast Guard Regulation CG293.

UL File No. E 13938

CSA File No. 2884

52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

Nylon-Insulated CHASE® Connectors



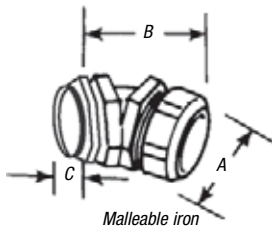
Steel or malleable iron with O-Ring Seal

CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)		
		A	B	C
5361†	3/8"	1 1/32	1 1/8	1/8
5362†	1/2"	1 1/8	1 1/8	3/16
5363†	3/4"	1 1/16	1 1/8	1/4
5364†	1"	2 1/32	2 1/16	1/4
5365†	1 1/4"	2 3/8	2 3/8	5/16
5366†	1 1/2"	2 15/16	2 3/4	3/8
5367†	2"	3 3/16	3	3/8
5368†	2 1/2"	4 3/8	3 15/16	7/16
5369†	3"	5 1/8	4 1/2	1/2
5370†	4"	5 1/2	4 1/2	1/2

With SAFE-EDGE® ground cone and double bevel sealing ring (through 2").

† UL listed as grounding means under NEC 351-7.

Nylon-Insulated 90° Angle CHASE® Connectors



Malleable iron

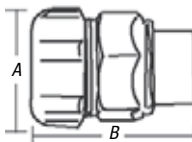
CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)		
		A	B	C
5371†	3/8"	1 1/32	1 1/2	3/16
5372†	1/2"	1 15/64	1 15/32	3/16
5373†	3/4"	1 31/64	1 1/8	9/32
5374†	1"	1 23/32	2 1/4	1 1/32

With SAFE-EDGE® ground cone and double bevel sealing ring.

Note: UL Listed Liquidtight; & CSA certified watertight. Suitable for hazardous locations use in Class I, Div. 2; Class II, Div. 1 and 2; Class III, Div. 1 and 2, where general purpose equipment is specifically permitted per NEC® Section 500-2(a).

† UL listed as grounding means under NEC 351-7.

Standard Liquidtight Female Hub Adapter



CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)	
		A	B
5271†	3/8"	1 1/32	1 1/16
5272†	1/2"	1 3/8	1 11/16
5273†	3/4"	1 21/32	1 3/4
5274†	1"	1 7/8	2 1/8
5275†	1 1/4"	2 1/32	2 1/2
5276†	1 1/2"	2 3/4	2 11/16
5277†	2"	3 15/32	3 1/16

† UL Listed as grounding means under NEC 351-7.

Prevents severe conduit bends and pullout!

Wiremesh Grips for Liquidtight Fittings



CAT. NO.	CONDUIT SIZE	LIQUIDTIGHT CONNECTORS					
		STRAIGHT	45°	90°	CHASE	90° CHASE	ADAPTER
WMG-LT1	3/8"	5331	5341	5351	5361	5371	5271
WMG-LT2	1/2"	5332	5342	5352	5362	5372	5272
WMG-LT3	3/4"	5333	5343	5353	5363	5373	5273
WMG-LT4	1"	5334	5344	5354	5364	5374	5274
WMG-LT5	1 1/4"	5335	5345	5355	5365	—	5275
WMG-LT6	1 1/2"	5336	5346	5356	5366	—	5276
WMG-LT7	2"	5337	5347	5357	5367	—	5277
WMG-LT8	2 1/2"	5338	5348	5358	5368	—	5278
WMG-LT9	3"	5339	5349	5359	5369	—	5279
WMG-LT10	4"	5340	5350	5360	5370	—	5282

Order wiremesh grip separately; no need to duplicate inventory.

UL File No. E23018

CSA File No. 2884 & 4484

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

52°/53° Series Liquidtight Fittings and Flexible Metallic Conduits

External Bonding Liquidtight Flexible Metal Conduit Connectors

Application

- Used where external bonding jumper is required around liquidtight flexible metal conduit
- To positively bond conduit to box or enclosure
- Used where flexible raceway is installed in outdoor or indoors location where exposed to continuous or intermittent moisture

Features

- Designed with provision to install bonding jumper in several positions
- Designed to accept mechanical or compression lug
- Ability to install quickly with low torque effort
 - (1) Compressed metallic convolutions; ensures ground contact with low impedance and high raceway holding power (A)
 - (2) Single helical thread on ground cone is easy to install without cross thread; accepts variations in raceway diameters and convolution pitch (B)
 - (3) Rolled over edge protects conductors (C)
- Sealing ring design has following exclusive features:
 - (1) Grips and seals at leading and trailing edge — will not abrade raceway jacket (D)
 - (2) Provided with grooves on inside diameter for anti-sleeving (E)
 - (3) Shoulders on both ends for extra sealing (F)
 - (4) Symmetrical shape ensures foolproof assembly
- Can be disconnected and reused
- Watertight/oil-tight installation at box or enclosure termination is ensured by:
 - (1) External taper thread hub on 5331GR series and use of sealing gasket 5262 series (G)
 - (2) Taper tapped hole on 5271 series
- Suitable for use in Class I Division 2, Class II Division 1 & 2 and Class III Division 1 & 2 Hazardous Locations per NEC® Article 500

- Suitable as a bonding means per UL 467 and NEC Article 350.60
- Conforms with JIC requirements

Standard Material

52/53GR Series

Lugs: High-conductivity copper (for copper conductor only)
 Body, Gland, Locknut & Ground Cones: All steel or malleable iron
 Sealing Ring and Insulator: All thermoplastic
 Sealing Gasket: Stainless Steel and Santoprene®

Strap: Steel

52ALGR Series

Copper-free aluminum

Standard Finish

52/53GR Series

All Electro Zinc Plated and Chromate Coated except lugs

Lugs: Bright Dipped

52ALGR Series

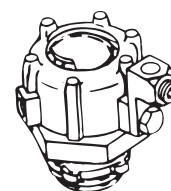
Zinc plating with clear chromate ground cones

Range

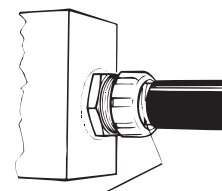
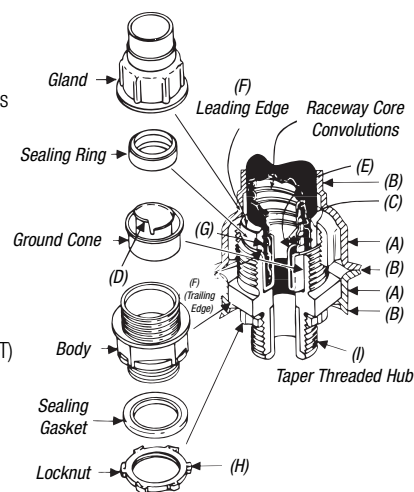
5331GR Series (straight connectors with male hub): 3/8" thru 6" conduit
 5341GR Series (45°): 3/8" thru 4" conduit
 5351GR Series (90°): 3/8" thru 4" conduit
 5232ALGR Series: 3/8" thru 1" conduit
 All hubs provided with taper pipe threads (NPT)

Listings/Compliances

UL File #E-23018
 CSA
 UL 467
 UL 514B
 CSA C22.2 No. 18
 CSA22.2 No. 41
 NEMA FB-1
 NFPA 70
 JIC EGP1
 JIC EMP1
 Federal Specification A-A-50552
 Federal Standard H-28 (threads)
 1 per C.E. Code, this method is not permissible.



Series 5331GR



Sleeving

Raceway Jacket pulls off — exposing core and affecting liquidtight termination. Feature (E) on sealing ring helps overcome this problem.

52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

Straight Grounding Fittings



CAT. NO.		CONDUIT SIZE	DIMENSIONS (IN.)			GROUND WIRE (AWG)	
STEEL INSULATED	STEEL NON-INSULATED		A	B	C		
5331GR**	5231GR*	5231 ALGR*	3/8"	1 1/2	1 1/2	9/16	#14-#8
5332GR*	5232GR*	5232ALGR*	1/2"	1 3/8	1 1/8	9/16	#14-#8
5333GR*	5233GR*	5233ALGR*	3/4"	1 21/32	1 1/8	9/16	#14-#4
5334GR*	5234GR*	5234ALGR*	1"	1 7/8	2 1/8	3/4	#14-#4
5335GR	5235GR	—	1 1/4"	2 1/4	2 1/2	13/16	#8-1/0
5336GR	5236GR	—	1 1/2"	3 1/4	2 1/8	13/16	#4-2/0
5337GR	5237GR	—	2"	3 13/16	3 1/8	7/8	#4-2/0
5338GR	5238GR	—	2 1/2"	4 1/8	4 1/8	1	#2-4/0
5339GR	5239GR	—	3"	5 3/8	4 1/4	1	#2-4/0
5340GR	5240GR	—	4"	6 1/8	4 1/2	1 1/8	#2-4/0
5385GR	5285GR	—	5"	8 9/16	7	1 7/8	#2-4/0
5386GR	—	—	6"	8 1/2	8 1/2	2	#2-4/0



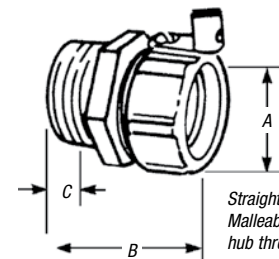
Revolver® Grounding Ring

Note: Revolver® Grounding Device available on sizes 3/8"-1" only. To order Revolver® Grounding Device separately, use Catalog Nos. 38GR-TB for 3/8", 12GR-TB for 1/2", 34GR-TB for 3/4" and 1GR-TB for 1".

90° Angle Grounding Fittings



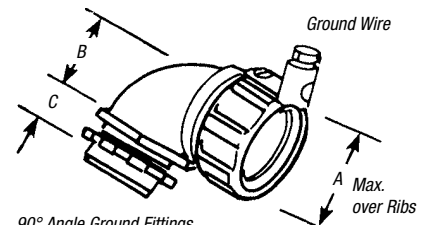
CAT. NO.		CONDUIT SIZE	DIMENSIONS (IN.)			GROUND WIRE (AWG)	
STEEL INSULATED	STEEL NON-INSULATED		A	B	C		
5351GR**	5251GR**	5251ALGR*	3/8"	1 1/2	1 1/4	9/16	#14-#8
5352GR*	5252GR*	5252ALGR*	1/2"	1 3/8	1 1/8	9/16	#14-#8
5353GR*	5253GR*	5253ALGR*	3/4"	1 21/32	1 1/8	9/16	#14-#4
5354GR*	5254GR*	5254ALGR*	1"	1 7/8	2 1/8	3/4	#14-#4
5355GR*	5255GR	—	1 1/4"	2 1/4	2 1/2	13/16	#8-1/0
5356GR	5256GR	—	1 1/2"	3 1/4	2 1/8	13/16	#4-2/0
5357GR	5257GR	—	2"	3 13/16	3 1/8	7/8	#4-2/0
5358GR	5258GR	—	2 1/2"	4 1/8	4 1/8	1	#2-4/0
5359GR	5259GR	—	3"	5 3/8	4 1/4	1	#2-4/0
5360GR	5260GR	—	4"	6 1/8	5 1/4	1 1/8	#2-4/0



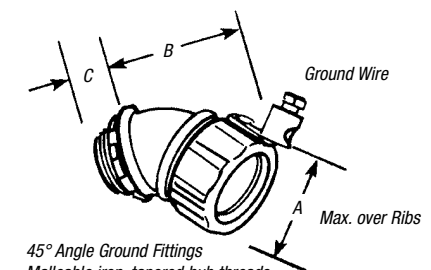
Straight Ground Fittings
Malleable iron, tapered hub threads.

45° Angle Grounding Fittings

CAT. NO.		CONDUIT SIZE	DIMENSIONS (IN.)			GROUND WIRE (AWG)
INSULATED	NON-INSULATED		A	B	C	
5341GR**	5241GR**	3/8"	1 1/2	1 1/8	9/16	#14-#8
5342GR*	5242GR*	1/2"	1 3/8	1 1/8	9/16	#14-#8
5343GR*	5243GR*	3/4"	1 21/32	2 1/8	9/16	#14-#4
5344GR*	5244GR*	1"	1 7/8	2 1/4	3/4	#14-#4
5345GR	5245GR	1 1/4"	2 1/4	2 3/4	13/16	#8-1/0
5346GR	5246GR	1 1/2"	3 1/4	3 3/8	13/16	#4-2/0
5347GR	5247GR	2"	3 13/16	3 3/8	7/8	#4-2/0
5348GR	5248GR	2 1/2"	4 1/8	4 1/4	1	#2-4/0
5349GR	5249GR	3"	5 3/8	4 1/4	1	#2-4/0
5350GR	5250GR	4"	6 1/8	4 3/8	1 1/8	#2-4/0



90° Angle Ground Fittings
Malleable iron tapered hub threads.



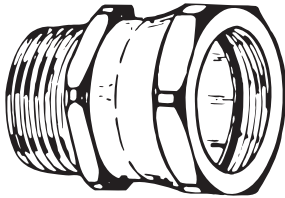
45° Angle Ground Fittings
Malleable iron, tapered hub threads.

* 3/8"-1" fittings include Revolver® grounding device. For sizes 1/4" and up, fittings are supplied with a copper mechanical lug.
** 3/8" conduit fittings have 1/2" trade size hub. With safe-edge ground cone (through 4") and double bevel sealing ring (through 2").

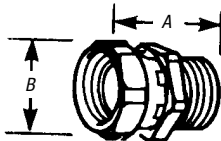
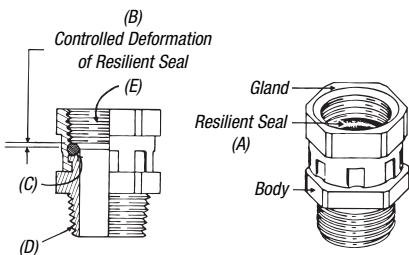
UL Listed liquidtight; and CSA Certified watertight. Suitable for hazardous locations use in Class I, Div. 2; Class II, Div. 1 and 2; Class III, Div. 1 and 2, where general purpose equipment is specifically permitted per NEC®. Available with DURA-PLATE® Finish. UL File No. E 3060 CSA File No. 638

52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

Liquidtight Union for Threaded Hub



41 Series



Steel, zinc plated and chromated. Ideal for angle fittings where swing clearance is not available.

Application

- To couple threaded end of a fitting or a pipe to a tapped opening in a box or enclosure where rotation of fitting or pipe is limited or restricted

Features

- Design provides high-quality bond between fitting or pipe to the union
- Provided with resilient seal (A)
- Resilient seal subjected to controlled deformation; positive seal and reusability are ensured (B)
- Unique design centralizes throat openings of threaded hub and union (C)
- Provided with taper threaded hub for liquidtight assembly (D)
- Straight pipe threads on gland accept a straight or taper threaded hub on fitting or pipe to be coupled (E)
- Suitable for hazardous location use per NEC® Article 501 Class I, Division 2, Article 502 Class II, Division 1 & 2 and Article III Division 1 & 2

Standard Material/Finish

Gland..... Steel/Electro Zinc Chromate Coated
 Body..... Steel/Electro Zinc Chromate Coated
 O-Ring..... Buna N/As Molded

Range

Hub (External Thread)..... ½" & ¾" NPT
 Gland (Internal Threads)..... ½" & ¾" NPS

Listings/Compliances

UL UL File No. E-23018
 CSA LR-2884, LR-4484
 UL 514B
 CSA C22.2 No. 18
 NEMA FB1
 NFPA 70
 Federal Standard A-A-50553
 Federal Standard A-A-50552
 Federal Standard H-28 (Threads)

Note: For additional product information, refer to Thomas & Betts publication 600.1



CAT. NO.	CONDUIT SIZE	A	B
41-TB	½"	1 29/64"	1"
42-TB	¾"	1 15/16"	1 ¼"

Fittings for liquidtight flexible metal conduit with metric threads of ISO form (BS-4568-SA BS 162).

ISO Metric Thread Liquidtight Fittings*



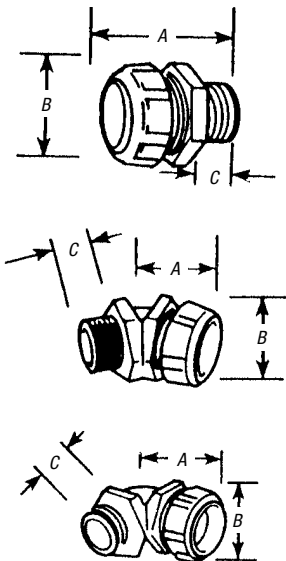
CAT. NO.	FLEXIBLE CONDUIT SIZE	METRIC ISO THREAD	A MM	B MM	C MM
Nylon-insulated straight connectors					
9330	¼"	16	36	21	12
9331	¼"	20	36	21	12
9306	5/16"	16	36	26	12
9360	3/8"	16	40	29	16
9361	3/8"	20	40	29	16
9362	½"	20	42	35	16
9363	¾"	25	45	42	16
9364	1"	32	54	47	23
Nylon-insulated 45° angle connectors					
9340	3/8"	16	27	29	16
9341	3/8"	20	27	29	16
9342	½"	20	27	35	16
9343TB	¾"	25	31	42	16
9344	1"	32	34	47	23

CAT. NO.	FLEXIBLE CONDUIT SIZE	METRIC ISO THREAD	A MM	B MM	C MM
Nylon-insulated 90° angle connectors					
9350	3/8"	16	35	29	16
9351	3/8"	20	35	29	16
9352TB	½"	20	39	35	16
9353TB	¾"	25	43	42	16
9354TB	1"	32	48	47	23

UL Listed Liquidtight. CSA certified watertight.

* All items shown on this page are suitable for use in hazardous location where general-purpose equipment is specifically permitted by the NEC; Class I Div. 2, Class II, Div. 1 & 2; Class III, Div. 1 & 2.

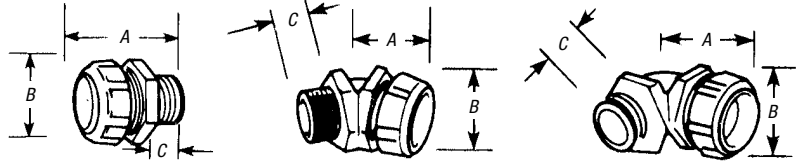
UL File No. E 23018. CSA File No. 2884



52®/53® Series Liquidtight Fittings and Flexible Metallic Conduits

Fittings for liquidtight flexible metal conduit with metric threads of PG form (DIN 40430).

PG Metric Thread Liquidtight Fittings*



CAT. NO.	FLEXIBLE CONDUIT SIZE	METRIC PG THREAD	A MM	B MM	C MM
Nylon-insulated straight connectors					
7330	1/4"	9	36	21	12
7360	5/16"	9	36	26	12
7361	3/8"	11	40	29	14
7362	3/8"	13.5	40	29	14
7363	1 1/2"	16	41	35	14
7364	3/4"	21	43	42	14
7365	1"	29	56	47	19
7366	1 1/4"	36	67	58	21
7367	1 1/2"	42	72	69	21
7368	2"	48	81	83	21

*All items shown on this page are suitable for use in hazardous location where general-purpose equipment is specifically permitted by the NEC®, Class I Div. 2, Class II, Div. 1 & 2; Class III, Div. 1 & 2.

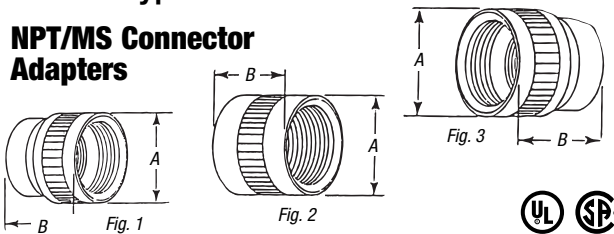
†UL Listed as grounding means under NEC 351-7.

UL Listed liquidtight. CSA Certified watertight.

UL File No. E-23018 CSA File No. 2884

Aluminum mechanical adapter with internal threads to mate with NPT threaded fittings and MS type connectors.

NPT/MS Connector Adapters



CAT. NO.	N.P.T. THREAD	AN-MS CONNECTOR SHELL SIZE	THREAD SIZE	STD. PKG.	DIMENSIONS (IN.)		
					A	FIG.	B
MSA05014	1/2"	14, 14S	3/4"-20 UNEF-2B	10	1.000	1	1.175
MSA05016	1/2"	16, 16S	7/8"-20 UNEF-2B	10	1.000	2	1.175
MSA05018	1/2"	18	1"-20 UNEF-2B	10	1.125	3	1.175
MSA07516	3/4"	16, 16S	7/8"-20 UNEF-2B	10	1.250	1	1.356
MSA07518	3/4"	18	1"-20 UNEF-2B	10	1.250	1	1.300
MSA07520	3/4"	20, 22	1 3/16"-18 UNEF-2B	10	1.375	3	1.300
MSA10020	1"	20, 22	1 3/16"-18 UNEF-2B	10	1.500	1	1.431
MSA10024	1"	24, 28	1 7/16"-18 UNEF-2B	10	1.625	3	1.313
MSA10032	1"	32	1 3/4"-18 UNS-2B	10	2.000	3	1.576
MSA10036	1"	36	2"-18 UNS-2B	10	2.250	3	1.738

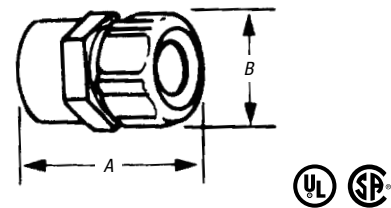
All items shown on this page are suitable for use in hazardous location where general-purpose equipment is specifically permitted by the NEC; Class I Div. 2; Class II, Div. 1 & 2; Class III, Div. 1 & 2.

CAT. NO.	FLEXIBLE CONDUIT SIZE	METRIC PG THREAD	A MM	B MM	C MM
Nylon-insulated 45° angle connectors					
7341	3/8"	11	27	29	14
7342	3/8"	13.5	27	29	14
7343	1/2"	16	30	35	14
7344-TB	3/4"	21	34	42	14
7345	1"	29	44	47	19
7346	1 1/4"	36	51	58	19
7347	1 1/2"	42	60	69	21
7348-TB	2"	48	73	76	24

CAT. NO.	FLEXIBLE CONDUIT SIZE	METRIC PG THREAD	A MM	B MM	C MM
Nylon-insulated 90° angle connectors					
7351	3/8"	11	37	29	14
7352	3/8"	13.5	37	29	14
7353	1/2"	16	40	35	14
7354	3/4"	21	44	42	14
7355	1"	29	56	47	21
7356	1 1/4"	36	70	58	21
7357	1 1/2"	42	75	69	21
7358	2"	48	87	83	24

Steel T&B® Liquidtight flexible metal and non-metallic fittings with internal threads to accept AN-MS connector shells.

Liquidtight Flexible Metal/MS Connectors



CAT. NO.	TRADE SIZE	AN-MS CONN. SHELL SIZE	THREAD SIZE	DIMENSIONS (IN.)	
				A	B
LTA03810	3/8"	10SL, 12, 12S	5/8"-24 UNEF-2B	1 1/32	1
LTA05014	1/2"	14, 14S	3/4"-20 UNEF-2B	1 1/16	1 1/4
LTA05016	1/2"	16, 16S	7/8"-20 UNEF-2B	1 1/16	1 1/4
LTA05018	1/2"	18	1"-20 UNEF-2B	1 1/16	1 1/4
LTA07520	3/4"	20, 22	1 3/16"-18 UNEF-2B	1 1/16	1 1/2
LTA10020	1"	20, 22	1 3/16"-18 UNEF-2B	1 3/4	1 3/32
LTA10024	1"	25, 28	1 7/16"-18 UNEF-2B	1 3/4	1 3/32

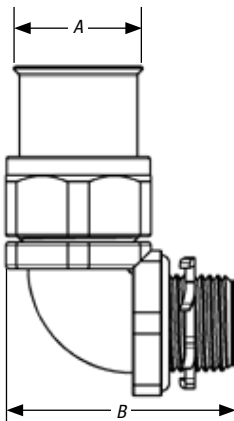
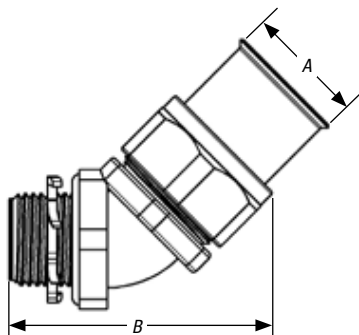
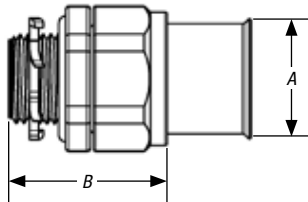
UL File No. E 23018 CSA File No. 2884

Type A Liquidtight Fittings and Flexible Non-Metallic Conduits

Provides a positive seal against water, oil and dust!

Steel Liquidtight Connectors for Type A Non-Metallic Flexible Conduit

- Steel or malleable iron construction with nylon-insulated throat
- Santoprene® sealing gasket with Type 316 stainless steel retaining ring
- NPT hub threads seal in female threads
- Offers high mechanical pull-out strength
- Supplied with sealing ring and steel locknut
- Available in straight, 45° and 90° in hub sizes from 3/8" to 2"



Straight Steel Liquidtight Connectors for Type A Conduit



CAT. NO.	CONDUIT SIZE	HUB THREAD	DIMENSIONS (IN.)	
			A	B
3720-TB*	3/8"	1/2 - 14 NPT	1 1/2	2
3721-TB	1/2"	1/2 - 14 NPT	1 3/8	2 1/8
3722-TB	3/4"	3/4 - 14 NPT	1 5/8	2 1/4
3723	1"	1 - 11 1/2 NPT	1 7/8	2 1/2
3724-TB	1 1/4"	1 1/4 - 11 1/2 NPT	2 3/8	2
3725	1 1/2"	1 1/2 - 11 1/2 NPT	2 3/4	3 3/8
3726	2"	2 - 11 1/2 NPT	3 17/32	3 5/8

* Not UL Listed

UL File No. E 23018

45° Angled Steel Liquidtight Connectors for Type A Conduit



CAT. NO.	CONDUIT SIZE	HUB THREAD	DIMENSIONS (IN.)	
			A	B
3730-TB*	3/8"	1/2 - 14 NPT	1 3/2	2 13/32
3731-TB	1/2"	1/2 - 14 NPT	1 3/8	2 9/16
3732	3/4"	3/4 - 14 NPT	1 5/8	3
3733-TB	1"	1 - 11 1/2 NPT	1 7/8	3 1/2
3734-TB	1 1/4"	1 1/4 - 11 1/2 NPT	2 3/8	4 1/8
3735-TB	1 1/2"	1 1/2 - 11 1/2 NPT	2 3/4	4 1/8
3736	2"	2 - 11 1/2 NPT	3 17/32	5 1/2

* Not UL Listed

UL File No. E 23018

90° Angled Steel Liquidtight Connectors for Type A Conduit



CAT. NO.	CONDUIT SIZE	HUB THREAD	DIMENSIONS (IN.)	
			A	B
3740*	3/8"	1/2 - 14 NPT	1 3/2	1 3/8
3741	1/2"	1/2 - 14 NPT	1 3/8	1 3/4
3742	3/4"	3/4 - 14 NPT	1 5/8	2 1/4
3743-TB	1"	1 - 11 1/2 NPT	1 7/8	2 9/16
3744-TB	1 1/4"	1 1/4 - 11 1/2 NPT	2 3/8	3 1/4
3745	1 1/2"	1 1/2 - 11 1/2 NPT	2 3/4	3 1/2
3746-TB	2"	2 - 11 1/2 NPT	2 17/32	4 1/8

* Not UL Listed

UL File No. E 23018

Santoprene is a registered trademark of Advanced Elastomer Systems.

Type A Liquidtight Fittings and Flexible Non-Metallic Conduits

Fittings for Liquidtight Flexible Non-Metallic Conduit Type A

Series 6302

Connectors for
Liquidtight Flexible
Non-Metallic
Conduit —
Straight Thermoplastic



Series 6322

Connectors for
Liquidtight Flexible
Non-Metallic
Conduit —
90° Thermoplastic



Series 6302SST

Connectors for
Liquidtight Flexible
Non-Metallic
Conduit —
Straight Stainless Steel



Application

- To provide a liquidtight, dust-tight connection between flexible, non-metallic conduit and a box or an enclosure

Features

- Serrated design provides high mechanical pull-out strength
- Unique component parts (body/gland) design ensures positive seal between conduit and connector
- Tapered thread hub and furnished Neoprene sealing O-ring provide a liquidtight, dust-tight seal to a box or enclosure
- Smooth insulated body throughout for maximum dielectric strength
- Captive O-ring and reduced number of parts save installation time

Standard Material

Body Thermoplastic or 304 Stainless Steel
Gland Thermoplastic or 304 Stainless Steel
O-Ring Neoprene (6302/6322)
Sealing Gasket 316 Stainless Steel and Santoprene® Thermoplastic Rubber (6302SST)
Locknut Case-Hardened Steel (6302/6322) or 304 Stainless Steel (6302SST)

Standard Finish

Body, Gland & O-Ring As Molded
Locknut Electro Zinc (6302/6322)

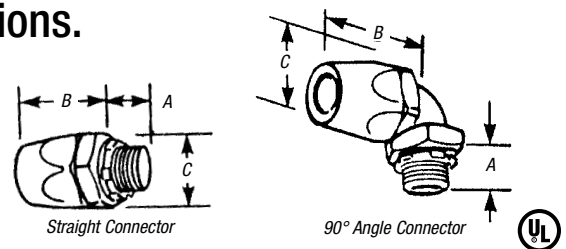
Range

Conduit Size ½" thru 1¼"
Hub Size ½" thru 1¼" NPT
Santoprene is a registered trademark of Advanced Elastomer Systems.

Designed for Type A all-plastic raceways used in dynamic machine tool applications.

Thermoplastic Fittings for Liquidtight Flexible Non-Metallic Conduit Type A

- High-strength thermoplastic construction — even tougher than the raceway itself!
- Chemical resistant — ideal for corrosive environments
- Non-burning, non-dripping thermoplastic material



CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)		
		A	B	C
Straight Connector				
6302	½"	.60	1.68	1.48
6303	¾"	.61	1.85	1.76
6304	1"	.77	1.89	2.10
6305	1¼"	.79	2.30	2.67
90° Angle Connector				
6322	½"	.60	1.56	1.48
6323	¾"	.61	1.74	1.76
6324	1"	.77	1.78	2.10
6325	1¼"	.79	2.13	2.67

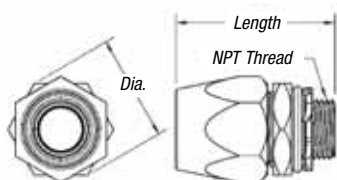
Meets Coast Guard CG293 *UL File No. E 23018*

Type A Liquidtight Fittings and Flexible Non-Metallic Conduits

Stainless steel construction for unbeatable strength and corrosion resistance!

Stainless Steel Fittings for Liquidtight Flexible Non-Metallic Conduit Type A

- Type 304 stainless steel body, gland and locknut
- Supplied with Series 5262 Sealing Gasket (see p. E-10)
- UL Listed and CSA Certified for use with Type A conduit only



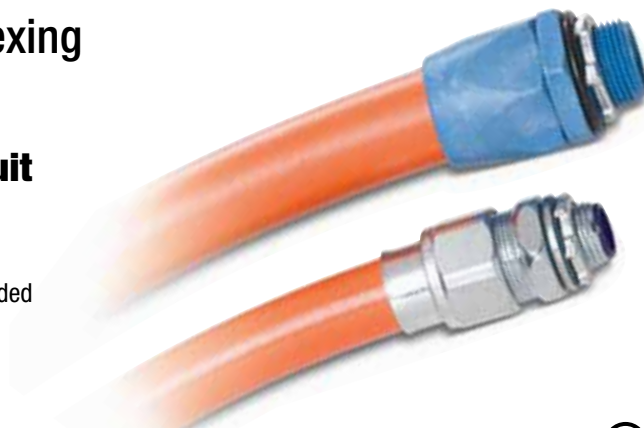
CAT. NO.	CONDUIT SIZE	DIA. (IN.)	LENGTH (IN.)
Straight Connector			
6302SST	½"	1.43	2.10
6303SST	¾"	1.72	2.55
6304SST	1"	2.00	2.60
6305SST	1¼"	2.88	3.10

UL File No. E 23018

Ideally suited for continuous flexing applications or vibration.

Type A Non-Metallic Flexible Conduit

- No metal core to fatigue from flexing or vibration
- Smooth, seamless inner core of flexible PVC that is bonded to a covering of flexible PVC. Between these layers is a woven nylon mesh molded for reinforcement
- Available in sizes from ⅜" to 2"
- Working Temperatures: -20° C to 60° C
- Sunlight resistant
- UL Listed (conforms to UL Standard ANSI/UL 1660 Type A) UL file: E95745
- CSA Certified (conforms to CSA 22.2 No. 227.2 Type A)
- Meets NEC® Article 356 (ANSI/NFPA-70) for flexible, liquidtight non-metallic conduit

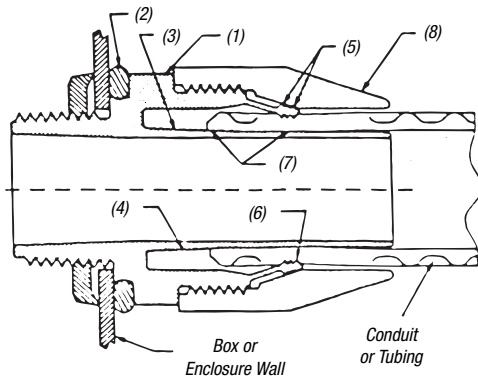


CAT. NO.	SIZE	STD. PKG. QTY.
Type A Flexible, Non-Metallic Conduit		
TYPEA38-250	⅜"	250 ft.
TYPEA50-200	½"	200 ft.
TYPEA75-175	¾"	175 ft.
TYPEA100-100	1"	100 ft.
TYPEA125-100	1¼"	100 ft.
TYPEA150-50	1½"	50 ft.
TYPEA200-50	2"	50 ft.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

Specifications — Bullet® Liquidtight Fittings for Liquidtight Flexible Non-Metallic Conduit and Tubing



Suggested Specification:

Where liquidtight flexible non-metallic conduit (UL Type B) or liquidtight flexible non-metallic tubing is terminated to a box or enclosure, the non-metallic connectors used shall be able to be installed without disassembly and provide a positive installation criteria. In the installed condition, the connector must provide a seal meeting watertight requirements of NEMA Type 4 and Type 6 enclosures. The performance of connectors shall be unaffected by exposure to detergents, sanitizers, cutting fluids, wire pulling compounds and oil-base industrial paints. The connector must also be capable of withstanding Marine environment and cold impact simulating a hammer blow. Installed connectors shall be of the elongated gland type as manufactured by Thomas & Betts LT38P series.

Application

A series of nonmetallic connectors designed to provide a liquidtight seal when terminating liquidtight nonmetallic conduit (UL Type B) or liquidtight nonmetallic tubing to a box or enclosure with knockout opening or a threaded hub.

Plastic Bullet® Liquidtight Fittings Features

- Connector assembles to conduit without disassembly and is designed to be installed with a positive installation criteria gland bottoms on body shoulder
- Rugged low-profile non-metallic body and gland construction (1); the connector is equipped with a steel locknut to firmly secure connector to box or an enclosure and a sealing O-Ring
- Captivated sealing O-Ring (2) with predetermined compression for a reliable seal at enclosure
- Connector ferrule designed to accept variations in conduit inside diameter and is tolerant of field conduit cuts (3)
- The profile of ferrule is designed to reduce friction between conduit I.D. and ferrule, (4) enabling conduit to seat properly for an effective seal
- Outer surface of the clamping fingers provided with friction reducing ridges (5) for ease of installation; the inner surface is designed with conduit biting teeth to enhance clamping and sealing action (6)
- Performance of connectors tested to simulate adverse installation conditions
- Provides a double sealing action (7)
- Elongated gland nut profile (8) designed to provide additional strain relief for 90° pull and an easy hand grip
- Performance of connector unaffected by exposure to detergents, cleaners and sanitizers commonly encountered in food processing plants and typical industrial environment; also unaffected by cutting fluids, wiring pulling compounds and marine environment. The connector meets industry standards for cold impact and simulated hammer blow

Standard Material/Finish

Body Gland — Weather-stabilized thermoplastic (black)

O-Ring — Neoprene (black)

Locknut — Steel/electro-zinc plated

Material Temperature Rating — Thermoplastic -40° C to 105° C

Material Flammability Rating — UL 94-V2

Listings/Compliances

UL (File# E23018)

CSA (File# LR52391)

CSA 22.2 #227.2 & CSA 22.2 #227.3

ANSI/UL 514B-1988

Watertight requirements of NEMA Type 4 and NEMA Type 6 enclosures

Federal Standard H28 (NPT threads)

Suitable for hazardous locations —

Class I Div. 2; Class II Div. 1 & 2; Groups E, F & G; Class III per NEC®

NEMA 6P

½", ¾" and 1" sizes are approved for direct-burial applications

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

The BULLET® non-metallic liquidtight fitting — easy to use, built to take it!

Plastic Bullet® Liquidtight Fittings for T&B® LTC Non-Metallic Liquidtight Conduit Type B and T&B® EFC Flexible Tubing

This engineering breakthrough meets the demand for a tough, reusable, non-metallic liquidtight fitting for use with XTRA FLEX® Type B conduit or flexible tubing. The BULLET® non-metallic fitting provides a reliable liquidtight seal that combines high pullout resistance and ease of installation.

Engineered to meet your needs.

The BULLET® non-metallic fitting meets your performance requirements when terminating Type B liquidtight non-metallic conduit or flexible non-metallic tubing to a box or enclosure with knockout opening or threaded hub. Fittings meet the watertight requirements for NEMA Type 4 and Type 6 enclosures and conform to UL514B and CSA No. 22.2 #227.2 specifications.

Ease of installation.

Installations can be performed quickly and easily because BULLET® liquidtight fittings can

- Outside surface has friction-reducing ridges
- Inner surface teeth bite into conduit or tubing to enhance clamping and sealing action
- Fitting ferrule designed to accept variations in conduit sizes and field conduit cuts
- Smooth ferrule profile reduces friction to ensure a tight conduit-to-fitting seal
- Friction-reducing ridges and teeth provide a true double seal and high pullout resistance
- Elongated gland nut offers additional strain relief for 90° pull and easy hand grip
- Rugged low-profile nonmetallic body and gland construction provides space savings
- Captivated sealing O-ring features predetermined compression to provide a reliable seal at enclosure
- Steel locknut firmly secures fitting to box or enclosure

be installed without disassembly. BULLET® non-metallic fittings are resistant to numerous caustics and solvents.

The BULLET® fitting is economical because it can be used over and over again without sacrificing the quality of the original seal. When used with the XTRA FLEX® raceway system, you can meet most machine or industrial requirements where liquidtight protection is needed.

Corrosion resistant. Built to take it.

The BULLET® liquidtight fitting is manufactured from weather-resistant thermoplastic materials and is suitable for indoor or outdoor corrosive environments. The BULLET® fitting is resistant to detergents, cleaners, oils, sanitizers, paints, cutting fluids and wire pulling compounds — just about any liquid usually found in industrial, plant or marine environments. It also surpasses industry standards for cold impact and simulated hammer blows.

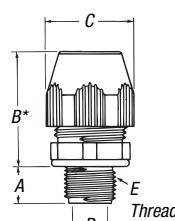


Figure 1 (Straight)

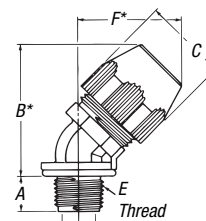


Figure 2 (45 Degree)

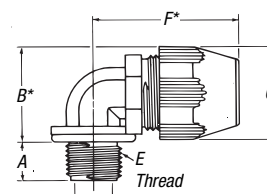


Figure 3 (90 Degree)



CAT. NO.	FIG.	TRADE SIZE (IN.)	A ±.015 (.040) (IN.) (MM)	*B ±.035 (0.90) (IN.) (MM)	C ±.015 (0.40) ACROSS CORNERS (IN.) (MM)	MIN. THROAT DIA. D (IN.) (MM)	E THREAD NPT (IN.)	F* (IN.) (MM) APPROX.
LT38P	1		.570	1.595 (40.51)	1.354	.417		—
LT438P	2	¾	(14.48)	2.012 (51.10)	(34.39)	(10.59)	½-14	1.534 (38.95)
LT938P	3			1.380 (35.05)				1.880 (47.75)
LT50P	1		.570	1.636 (41.55)	1.448	.550		—
LT450P	2	½	(14.48)	2.092 (53.14)	(36.78)	(13.97)	½-14	1.590 (40.39)
LT950P	3			1.489 (37.82)				1.986 (50.44)
LT75P	1		.582	1.757 (44.63)	1.740	.740		—
LT475P	2	¾	(14.78)	2.452 (62.28)	(44.20)	(18.80)	¾-14	1.821 (46.25)
LT975P	3			1.790 (45.47)				2.212 (56.18)
LT100P	1		.726	1.923 (48.84)	2.068	.940		—
LT4100P	2	1	(18.44)	2.684 (68.17)	(52.53)	(23.88)	1-11½	2.034 (51.66)
LT9100P	3			2.104 (53.44)				2.508 (63.70)
LT125P	1		.750	2.164 (54.97)	2.494	1.257		—
LT4125P	2	1¼	(19.05)	3.264 (82.91)	(63.35)	(31.93)	1¼-11½	2.385 (60.58)
LT9125P	3			2.564 (65.13)				2.856 (72.54)
LT150P	1		.767	2.353 (59.77)	2.784	1.453		—
LT4150P	2	1½	(19.48)	3.605 (91.57)	(70.71)	(36.91)	1½-11½	2.604 (66.14)
LT9150P	3			2.854 (72.49)				3.144 (79.86)
LT200P	1		.794	2.605 (66.17)	3.362	1.883		—
LT4200P	2	2	(20.17)	4.210 (106.93)	(85.39)	(47.83)	2-11½	3.050 (77.47)
LT9200P	3			3.432 (87.17)				3.675 (93.34)

* After Assembly UL File No. E-23018 CSA File No. 52391

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

Table 1 — Behavior of EMS20-1B.1 IN: Aqueous Solutions of Inorganic Salts at Room Temperature

SALT SOLUTIONS	VISUAL CHANGE	RATINGS*
10% Ammonium Chloride	Unchanged	F
10% Aluminum Chloride	Unchanged	F
10% Sodium Hypochlorite (0.1% Cl ₂)	White Coating after 18 Days	G
10% Calcium Chloride	Unchanged	F
10% Chrome Alum	Unchanged	G
10% Ferric Chloride	Unchanged Yellowing	P
5% Potassium Dichromate	Unchanged Yellowing	P
10% Potassium Nitrate	Unchanged	G
1% Potassium Permanganate	Decomposed	NR

Table 2 — Behavior of EMS20-1B.1 IN: Acids, Bases, Halogens, etc.

REAGENT	TEMP °F	VISUAL CHANGE	RATINGS*
Sulfuric Acid (Conc)	75	Dissolves	S, NR
Sulfuric Acid (Dilute)	75	Partially Dissolves	P, NR
Hydrochloric Acid (Conc)	75	Dissolves	S, NR
Hydrochloric Acid (Dilute)	75	Partially Dissolves	P, NR
Hydrochloric Acid (20–40%)	73	Etched after 1 sec.	P
Phosphoric Acid (Conc)	75	Dissolves	S, NR
Nitric Acid (Conc)	75	Dissolves	S, NR
Acetic Acid (Conc)	75	Partially Dissolves	P, NR
Acetic Acid (Conc)	200	Dissolves	S, NR
Acetic Acid (Dilute)	75	Etched	F, NR
Formic Acid (Conc)	75	Dissolves	S, NR
Formic Acid (Dilute)	75	Partially Dissolves	P, NR
Chlorine	—	Strong Attack	NR
Bromine	—	Strong Attack	NR
Phenol	75	Dissolves	S, NR
O-Chlorophenol	75	Dissolves	S, NR
m-Chlorophenol	75	Dissolves	S, NR
p-Chlorophenol	75	Dissolves	S, NR
Cresol	75	Dissolves	S, NR
Dimethylformamide	75	Strong Attack	NR
gamma-Butyrolactone	75	Strong Attack	NR
Xylenols	75	Dissolves	S, NR
Sodium Hydroxide (1%)	73	Unchanged	E
Sodium Hydroxide (5%)	73	Minimal Effect	E
Sodium Hydroxide (5%)	158	Minimal Effect	E
Sodium Hydroxide (10%)	73	Minimal Effect	E
Sodium Hydroxide (10%)	158	Some "Crazing" after 30 Days	P
Potassium Hydroxide (5%)	73	Minimal Effect	E
Potassium Hydroxide (5%)	158	Minimal Effect	E
Potassium Hydroxide (10%)	73	Minimal Effect	E
Potassium Hydroxide (10%)	158	Some "Crazing" after 30 Days	P
Hydrogen Peroxide (0.5%)	73	Unchanged	G
Hydrogen Peroxide (1%)	73	Brittle after 54 Days	NR
Hydrogen Peroxide (3%)	73	Brittle after 54 Days	NR
Hydrogen Peroxide (10%)	73	Degrades	NR
Hydrogen Peroxide (30%)	73	Degrades	NR

* These abbreviations are used for the ratings:

E – Excellent G – Good F – Fair P – Poor
NR – Not Recommended S – Solvent

SALT SOLUTIONS	VISUAL CHANGE	RATINGS*
10% Copper Sulfate	Unchanged	G
10% Magnesium Chloride	Unchanged	G
10% Magnesium Sulfate	Unchanged	G
10% Sodium Bisulfate	Unchanged	G
10% Sodium Bisulfite	Unchanged	G
5% Mercuric Chloride	Swelled	P
10% Zinc Chloride	Unchanged	F

* These abbreviations are used for the ratings:

E – Excellent G – Good F – Fair P – Poor
NR – Not Recommended S – Solvent

Table 3 — Behavior of EMS20-1B.1 IN: Organic Solvents at Room Temperature

REAGENT	VISUAL CHANGE	RATINGS*
Benzyl Alcohol	Coarse Surface after 2 Days	NR
Butyl Alcohol	Temporary Loss of Stiffness	G
Ethyl Alcohol	Temporary Loss of Stiffness	G
Isopropyl Alcohol	Temporary Loss of Stiffness	G
Methyl Alcohol	Temporary Loss of Stiffness	G
Butyl Acetate	Temporary Loss of Stiffness	G
Ethyl Acetate	Unchanged	E
Methyl Acetate	Unchanged	E
Amyl Acetate	Unchanged	E
Ether (Diethyl)	Unchanged	E
Tetrahydrofuran	Unchanged	E
Acetone	Unchanged	E
Benzaldehyde	Unchanged	E
Cyclohexanone	Unchanged	E
Dichlorethylene	Unchanged	E
Trichlorethylene	Temporary Loss of Stiffness	G
Perchlorethylene	Temporary Loss of Stiffness	G
Dichlormethane	Unchanged	E
Chloroform	Temporary Loss of Stiffness	G
Carbon Tetrachloride	Temporary Loss of Stiffness	G
Carbon Disulfide	Unchanged	E
Pyridine	Unchanged	E
Benzene	Unchanged	E
Monochlorobenzene	Unchanged	E
Toluene	Unchanged	E
Xylene	Unchanged	E
Kerosene	Unchanged	E
Turpentine	Unchanged	E
Tetralin	Unchanged	E
Decalin	Unchanged	E
Gasoline	Unchanged	E
Petroleum	Unchanged	E
Mineral Oil	Unchanged	E
Resorcinol	Dissolves	NR

* These abbreviations are used for the ratings:

E – Excellent G – Good F – Fair P – Poor
NR – Not Recommended S – Solvent

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

Metallic Bullet® Liquidtight Connectors for T&B LTC Non-Metallic Liquidtight Conduit Type B and T&B EFC Flexible Tubing



CAT. NO.	FIG.	TRADE SIZE (IN.)	A ±.030 (.80) (IN.) (MM)	*B ±.060 (1.50) (IN.) (MM)	C ±.045 (1.15) (IN.) (MM)	D (IN.) (MM)	THREAD NPT (IN.)
LT38M	1	—	1.156	1.500 (38.1)	.562 (14.3)	—	—
LT438M	2	¾	(29.4)	1.962 (49.8)	.562 (14.3)	—	½-14
LT938M	3	—	—	1.312 (33.3)	.625 (15.9)	1.375 (34.9)	—
LT50M	1	—	1.375	1.562 (39.7)	.562 (14.3)	—	—
LT450M	2	½	(34.9)	1.875 (47.6)	.562 (14.3)	—	½-14
LT950M	3	—	—	1.437 (36.5)	.625 (15.9)	1.562 (39.7)	—
LT75M	1	—	1.656	1.625 (41.2)	.625 (15.9)	—	—
LT475M	2	¾	(42.1)	2.125 (54.0)	.562 (14.3)	—	¾-14
LT975M	3	—	—	1.750 (44.4)	.625 (15.9)	1.750 (44.4)	—
LT100M	1	—	1.875	2.062 (52.4)	.750 (19.0)	—	—
LT4100M	2	1	(47.6)	2.250 (57.1)	.812 (20.6)	—	1-11½
LT9100M	3	—	—	1.937 (49.2)	.812 (20.6)	2.187 (55.5)	—
LT125M	1	—	2.375	2.500 (63.5)	.812 (20.6)	—	—
LT4125M	2	1¼	(60.3)	2.750 (69.8)	.812 (20.6)	—	1¼-11½
LT9125M	3	—	—	2.500 (63.5)	.812 (20.6)	2.750 (69.8)	—
LT150M	1	—	2.750	2.687 (68.2)	.812 (20.6)	—	—
LT4150M	2	1½	(69.8)	2.750 (69.8)	.812 (20.6)	—	1½-11½
LT9150M	3	—	—	2.812 (71.4)	.812 (20.6)	2.937 (74.6)	—
LT200M	1	—	3.468	3.062 (77.8)	.812 (20.6)	—	—
LT4200M	2	2	(88.1)	3.875 (98.4)	.875 (22.2)	—	2-11½
LT9200M	3	—	—	3.500 (88.9)	.875 (22.2)	3.437 (87.3)	—

* After Assembly

UL File No. E-23018

CSA File No. 52391

Suggested Specification:

Where liquidtight flexible non-metallic conduit (UL Type B) or liquidtight flexible non-metallic tubing is terminated to a box or enclosure, the metallic connectors used shall be able to be installed without disassembly and provide a positive installation criteria. In the installed condition, the connector must provide a seal, meeting watertight requirements of NEMA Type 4 and Type 6 enclosures with conduit and NEMA Type 4 enclosures with tubing. Installed connectors shall be as manufactured by Thomas & Betts LT38M series.

Material: Body/Gland — Steel/MI
Insert — Nylon

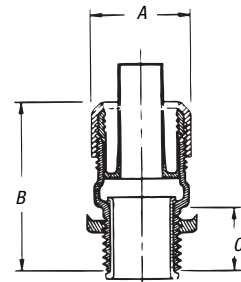


Figure 1

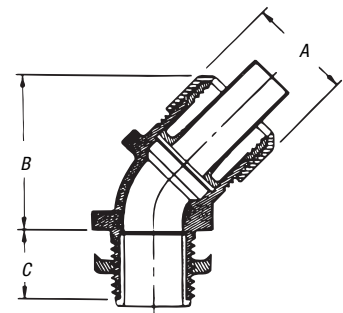


Figure 2

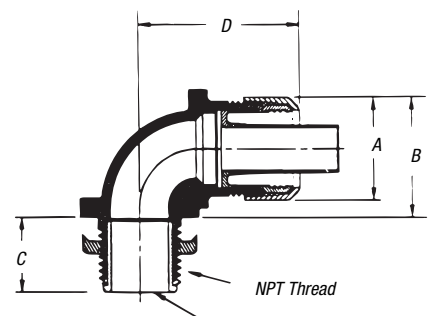


Figure 3

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

When you have a conduit application in a liquidtight environment, it's time to load up the T&B Bullet®.

ISO Metric Bullet® Liquidtight Fitting Non-Metallic

Thomas & Betts introduces the ISO Metric Bullet® liquidtight fittings for use with the 3/8", 1/2" and 3/4" XTRA FLEX® EFC and LTC non-metallic liquidtight conduit series.

The T&B Bullet® liquidtight fitting and EFC non-metallic conduit are suited for OEM applications as in the machine tool industry where environments include continuous motion, vibration and exposure to moisture, oil, dirt and dust.

The T&B Bullet® liquidtight fitting and LTC non-metallic conduit are also suitable for construction applications where ISO metric threading and liquidtight systems are installed.

The XTRA FLEX® system offers a lightweight, liquidtight flexible conduit solution for industrial applications. The XTRA FLEX® system enables fast, easy installation and high performance in demanding industrial applications.



CAT. NO.	ANGLE OF FITTING	CONDUIT SIZE	KNOCKOUT SIZE	UNIT PACKAGE	STANDARD PACKAGE	UPC NUMBER
LT38P-IS020	Straight	3/8"	1/2"	25	100	786210-66444
LT50P-IS020	Straight	1/2"	1/2"	25	100	786210-66613
LT75P-IS025	Straight	3/4"	3/4"	25	50	786210-66443
LT938P-IS020	90°	3/8"	1/2"	25	50	786210-66612
LT950P-IS020	90°	1/2"	1/2"	25	50	786210-66640
LT975M-IS025	90°	3/4"	3/4"	10	50	786210-66611

*Testing: UL and CSA listed; NEMA 4, 6, 6P; IP 67 when used with LTC conduit or EFC tubing with installed T&B Bullet liquidtight fitting.

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

Maximum flexibility for tight applications!

Corrugated Flexible Non-Metallic Tubing



- OEM grade — UL® Recognized
- PVC material
- Black color standard
- Extremely fast installation
- Liquidtight with specified fittings
- Good tensile strength provides excellent pullout protection
- Smooth inner diameter allows easy wire pulling
- Broad operating temperature range: 18° C to +60° C (-2° F to +140° F).
- Flammability Rating VW-1 (Vertical Wire) UL224



CAT. NO.	CONDUIT SIZE	I.D. (IN.)		O.D. (IN.)	
		MIN.	MAX.	MIN.	MAX.
EFC025*	¼"	.390	.405	.560	.575
EFC038	⅜"	.484	.504	.690	.710
EFC050	½"	.622	.642	.820	.840
EFC075	¾"	.820	.840	1.030	1.050
EFC100	1"	1.041	1.066	1.290	1.315
EFC125	1¼"	1.380	1.410	1.630	1.660
EFC150	1½"	1.575	1.600	1.865	1.900
EFC200	2"	2.020	2.045	2.340	2.375

* Not CSA certified. All other tubing complies with CSA File No. 067241. Underwriters Recognized (UL File No. 96548). Use with Bullet® Liquidtight Fittings. See technical data next page.

Recommended industrial applications

- Protection of fiber optic cable
- Installation of instrumentation and control cable
- Indoor/outdoor lighting
- Packaging equipment
- Marine and shipboard wiring

CAT. NO.	AVAILABLE COLORS
	COLOR OF CONDUIT
LTC -	
W/O SUFFIX	Black
-1	Orange
-2	Blue

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

Now available in reels.

XTRA FLEX® Conduit

The XTRA FLEX® system offers a lightweight, liquidtight flexible conduit solution for demanding applications. The XTRA FLEX® system ensures fast, easy installations and long-lasting, high performance in a variety of environments.

Now, XTRA FLEX® Conduit is available on reels. Large users can save space and reduce waste, while taking advantage of the convenience of stocking bulk in lengths. Utilizing our new coupling design to connect 100-ft. lengths, Thomas & Betts now offers reel lengths up to 1,000 feet.

- Fast installation — even in tight, cramped spaces
- Smooth inner diameter enables easy wire pulling
- Smooth outer jacket — approved for outdoor use, sunlight resistant and oil resistant
- Tested to CSA and UL requirements
- Lightweight and liquidtight
- Marked at 1-foot intervals for fast, easy measuring
- Approved for direct-burial applications



Conduit & Fittings — T&B® Liquidtight Fittings

Specifications

- Material: PVC
- Colors Available: Black, Gray
- Temp. Range: -18° C to +105° C (-2° F to +221° F) Black
- -18° C to +80° C (-2° F to +176° F) Gray
- Flammability Rating: UL 1660
- Listings: UL Listed, CSA Certified

Please contact your Thomas & Betts sales representative regarding custom colors and combinations.



XTRA FLEX® Liquidtight Conduit/Reel Lengths

CAT. NO.	SIZE	DESCRIPTION	MIN. I.D.	MAX. I.D.	MIN. O.D.	MAX. O.D.	REEL LENGTH	MIN. ORDER
LTC038GY-500	3/8"	Gray Type B LT Conduit	.484"	.504"	.690"	.710"	500 ft.	1,500
LTC050GY-500	1/2"	Gray Type B LT Conduit	.622"	.642"	.820"	.840"	500 ft.	1,500
LTC050-500	1/2"	Black Type B LT Conduit	.622"	.642"	.820"	.840"	500 ft.	Stock
LTC050GY-1000	1/2"	Gray Type B LT Conduit	.622"	.642"	.820"	.840"	1,000 ft.	2,000
LTC100GY-500	1"	Gray Type B LT Conduit	1.041"	1.066"	1.290"	1.315"	500 ft.	1,500
LTC100-500	1"	Black Type B LT Conduit	1.041"	1.066"	1.290"	1.315"	500 ft.	1,500

UL Listed, UL File No. 95745

CSA Certified, CSA File No. LL 80349

Note: 500-ft. lengths consist of five 100-ft. sections with a coupling between each 100-ft. length.

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

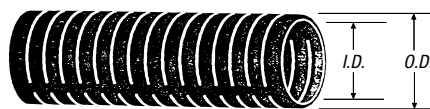
Technical Services
Tel: 888.862.3289

Thomas & Betts

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

Smooth, sunlight- and oil-resistant outer jacket, approved for outdoor use!

Smooth Liquidtight Non-Metallic Conduit Type B



- Industrial grade — UL® Listed/CSA Certified
- PVC material
- Liquidtight non-metallic conduit Type B
- Black color standard
- Fast installation — even in tight, cramped spaces
- Smooth inner diameter enables easy wire pulling
- Tested to CSA and UL® requirements
- Lightweight and liquidtight
- Temperature range of -18° C to +105° C (-2° F to +221° F)
- UL1660 flammability rating
- Marked at 1-ft. intervals for fast, easy measuring and cutting
- Approved for direct-burial applications

Recommended industrial applications

- Machine tools
- Motor hookups
- Food processing equipment
- Extensions from wireways
- Sensor and microswitch wiring in control consoles

Available Colors

LTC – CAT. NO.	COLOR OF CONDUIT	COLOR OF MARKING
W/O SUFFIX	Black	Orange
-1	Orange	Black
-2	Blue	Black

XTRA FLEX® Conduit and Tubing Technical Data*

LTFNMC = Liquidtight flexible non-metallic conduit
LTFNMT = Liquidtight flexible non-metallic tubing

XTRA FLEX® CONDUIT & TUBING	STYLE	COLOR	SIZE RANGE	UL TEMP RATING	CSA TEMP RATING	VOLTAGE RATING	UL OIL RESISTANT	UL OUTDOOR	UL DIRECT BURIAL
LTC038 Series	UL Type B	Black	¾"–2"	105° C Dry	75° C–18° C	600V	Yes	Yes	Yes
	LTFNMC	Black		60° C Wet 70° C Oil	—				
LTC038-1, -2 Series	UL Type B	Orange, Blue	½"–1"	105° C Dry	—	600V	Yes	No	Yes
	LTFNMC			60° C Wet 70° C Oil	—				
LTC038GY Series	UL Type B	Gray	¾"–2"	80° C Dry	—	600V	Yes	Yes	Yes
	LTFNMC			60° C Wet 70° C Oil	—				
EFC025 Series**	LTFNMT	Black	¼"–2"	105° C	75° C–18° C	300V	Yes	Yes	No
EFC025-1, -2** Series	LTFNMT	Orange, Blue	½"–1"	105° C	—	300V	Yes	No	No

* For a complete test report, contact Customer Service. ** UL Component Recognized

Industrial Grade



CAT. NO.	CONDUIT SIZE	I.D. (IN.)		O.D. (IN.)	
		MIN.	MAX.	MIN.	MAX.
LTC038	¾"	.484	.504	.690	.710
LTC050	½"	.622	.642	.820	.840
LTC075	¾"	.820	.840	1.030	1.050
LTC100-TB	1"	1.041	1.066	1.290	1.315
LTC125-TB	1¼"	1.380	1.410	1.630	1.660
LTC150-TB	1½"	1.575	1.600	1.865	1.900
LTC200	2"	2.020	2.045	2.340	2.375

Commercial Grade



CAT. NO.	CONDUIT SIZE	I.D. (IN.)		O.D. (IN.)	
		MIN.	MAX.	MIN.	MAX.
LTC038GY	¾"	.484	.504	.690	.710
LTC050GY	½"	.622	.642	.820	.840
LTC075GY	¾"	.820	.840	1.030	1.050
LTC100GY	1"	1.041	1.066	1.290	1.315
LTC125GY	1¼"	1.380	1.410	1.630	1.660
LTC150GY	1½"	1.575	1.600	1.865	1.900
LTC200GY	2"	2.020	2.045	2.340	2.375

Rated at 600V

XTRA FLEX® Type B suitable for use in hazardous location (for LTC Series only) where general-purpose equipment is specifically permitted by the NEC®; Class I Div. 2; Class II, Div. 1 & 2; Class III, Div. 1 & 2.

UL Listed, UL File No. E95745

CSA Certified, CSA File No. LL80349

See technical data below.

Use with Bullet® Liquidtight Fittings.

Type B Liquidtight Fittings and Flexible Non-Metallic Conduits

XTRA FLEX® Non-Metallic Conduit Type B and Flexible Tubing Chemical Resistance

A = SATISFACTORY CHEMICAL	B = BE EXPECTED TO CHANGE CHEMICAL	C = NOT RECOMMENDED CHEMICAL
Acetate Solvents C	Cottonseed Oil B	Lubricating Oils A
Acetic Acid (10%) A	Creosote C	Magnesium Chloride A
Acetic Acid (Glacial) B	Creosol A	Magnesium Hydroxide A
Acetone C	Cresylic Acid C	Magnesium Sulphate A
Acrylonitrile A	Cyclohexane A	Malic Acid A
Adipic Acid A	Cyclohexanone C	Methyl Acetate C
Alcohol Butyl A	DDT Weed Killer A	Methyl Bromide C
Alcohol Ethyl A	Detergent Synthetic A	Methyl Ethyl Ketone C
Alcohol Isopropyl A	Developers Photographic A	Methylene Chloride C
Alcohol Methyl A	Dextrin A	Mineral Oils A
Aluminum Acetate A	Dextrose A	Monochlorobenzene C
Aluminum Chloride A	Dibutyle Phthalate C	Naphtha B
Aluminum Hydroxide A	Dichlorobenzene C	Naphthalene C
Aluminum Sulfate A	Diesel Oil B	Nitric Acid (10%) A
Aliyl Chloride C	Diethylene Glycol A	Nitric Acid (40%) A
Ammonia (0.88S.G.Aqueous) A	Diethyl Ether C	Nitric Acid (70%) C
Ammonia (Dry Gas) A	Di-isodecyl Phthalate C	Nitrobenzene C
Ammonia (Liquid) C	Dioctyle Phthalate C	Nitrogen Fertilizers A
Ammonium Chloride A	Emulsifiers A	Oleic Acid A
Ammonium Hydroxide A	Emulsions Photographic A	Oxalic Acid A
Animal Oils A	Ethyl Acetate C	Palmitic Acid A
Amyl Acetate C	Ethylene Dichloride C	Paraffin A
Aniline Oils B	Ethylene Glycol A	Pentane B
Aromatic Hydrocarbons C	Fatty Acid A	Perchloroethylene C
Asphalt C	Ferric Chloride A	Phenol B
ASTM Fuel A B	Ferric Sulphate A	Phosphoric Acid A
ASTM Fuel B C	Ferrous Chloride A	Pitch A
ASTM #1 Oil A	Ferrous Sulphate A	Potassium Hydroxide A
ASTM #3 Oil B	Fixing Solution, Photographic A	Propane A
Barium Chloride A	Fluorine C	Sea Water A
Barium Hydroxide A	Formaldehyde (40%) C	Sodium Hydroxide (10%) A
Barium Sulfide A	Formic Acid (40%) A	Sodium Hydroxide (50%) A
Benzene C	Formic Acid (50%) B	Sodium Cyanide A
Benzine B	Formic Acid (100%) C	Soybean Oil A
Bordeaux Mixture A	Fuel Oil B	Stearic Acid A
Borax A	Glacial Acetic Acid B	Styrene C
Boric Acid A	Glucose A	Sulphur Dioxide (Dry) A
Brine A	Glycerine A	Sulphur Dioxide (Moist) B
Bromine Traces C	Grape Sugar A	Sulphur Dioxide (Liquid) C
Butyl Acetate C	Grease A	Sulphuric Acid (45%) A
Calcium Hydroxide A	Heptane B	Sulphuric Acid (60%) B
Calcium Hypochlorite A	Hexane B	Sulphuric Acid (98%) C
Carbonic Acid B	Hydrobromic Acid A	Sulphurous Acid (30%) A
Carbon Dioxide A	Hydrochloric Acid (10%) A	Tannic Acid A
Carbon Disulphite C	Hydrochloric Acid (40%) A	Tartaric Acid A
Carbon Monoxide A	Hydrofluoric Acid (10%) A	Tetrahydrofuran C
Carbon Tetrachloride C	Hydrofluoric Acid (40%) B	Toluene C
Casein A	Hydrofluoboric Acid A	Trichlorethylene C
Chlorine (Dry) A	Hydrofluosilicic Acid A	Triethanolamine A
Chlorine (Wet Gas) B	Hydrogen Peroxide A	Tricresyl Phosphate C
Chlorine (Water) C	Hydrogen Sulphide A	Turpentine B
Chlorobenzene C	Iso-octan A	Urea A
Chlorinated Hydrocarbons C	Isopropyl Acetate C	Vinegar A
Chloroform C	Kerosene B	Vinyl Acetate C
Chromic Acid A	Ketones C	Vinyl Chloride C
Citric Acid A	Lactic Acid (10%) A	Water A
Coal Tar C	Lactic Acid (100%) C	Xylene C
Copper Chloride A	Lacquer Solvents B	Zinc Chloride A
Copper Nitrate A	Linseed Oil A	Zinc Sulphate A
Copper Sulphate A		

Note: These chemical resistance ratings are based upon information supplied by the raw material manufacturers. It is intended as a general guideline only. To determine specific suitability, samples should be tested by user under actual conditions. Operating Condition: 70° F.

Kopr-Shield® Compound

The copper colloidal surface treatment that protects, lubricates and enhances conductivity between all electrical connections.

Kopr-Shield® Compound

Good connections are one of the most important aspects of electrical work. Mechanics know how much downtime is caused when fluids or oils leak into the raceway system or when looking for a weak link in a ground system caused by a high resistance connection. Mechanics also know how much time is spent keeping contacts, switches, lugs and other connectors clean or replacing parts because of “green scourage” buildup. Thomas & Betts has the solution to improve connections made in thousands of electrical and raceway installations made each day by electricians everywhere.

Kopr-Shield® compound is a unique homogenized blend of pure, polished colloidal copper, rust and corrosion inhibitors that simultaneously protects, lubricates and enhances the conductivity of the mating surfaces to which it is applied. Extremely adhesive, Kopr-Shield® compound flows smoothly into uneven contours and voids, making application easy, protection and lubrication complete and positive. A stable compound, it will not settle-out, thin, thicken, harden, or dry out under the most severe environmental conditions.

Kopr-Shield® Compound has excellent temperature characteristics — brushed on at -50° F to 250° F (other compounds either turn solid or run like water at these extremes). Even at 1800° F, Kopr-Shield® remains intact for short terms.

Kopr-Shield® Compound may be used to advantage in all electrical installations. When the environment is hostile to good electrical and mechanical connections, Kopr-Shield® Compound is a must!



Kopr-Shield® by Thomas & Betts meets the requirements of Section 300.6(A) in the 2002 NEC® Code for Protection Against Corrosion: “Where corrosion protection is necessary and the conduit is threaded in the field, the threads shall be coated with an approved electrically conductive, corrosion-resistant compound.”

Use Kopr-Shield® Compound for Battery Lugs and Cables

- Prevention of “Green Scourage” corrosion
- Reduction of resistance
- Ease of terminal installation and removal

Use Kopr-Shield® Compound for Raceways

- Lubrication — ease of assembly and disassembly
- Grounding continuity improved — exceeds code requirements

Use Kopr-Shield® Compound for Fuse Clips

- Even heat distribution — elimination of hot spots
- Oxidation prevention — prevents carbon path formation
- Lubrication — easy installation and removal of fuses

Use Kopr-Shield® Compound for Wiping Contacts, Drum Switches and Slip Rings

- Prevention of galling, burning, pitting and discoloration
- Suppression of arching and dissipation of coronas
- Lubrication for ease of operation

CAT. NO.	DESCRIPTION	STD. PKG.	WT. LBS./C
CP8-TB	8-oz. Container with Brush	12	64.58
CP16	16-oz. Container with Brush	12	120.83
CP128	1-Gal. Can	4	952.00

Kopr-Shield is a trademark of Jet Lube, Inc.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Technical Information

UL Recommended Dimensions and Weights of Rigid Metal Conduit

TRADE SIZE (IN.)	THDS. PER IN.	I.D. (IN.)	O.D. (IN.)	WALL THICKNESS (IN.)	A MIN. WT. AT 100' LENGTHS WITH ONE COUPLING ATTACHED (LBS.)
¼	18	.364	.540	.088	38.5
⅜	18	.493	.675	.091	51.5
½	14	.622	.840	.109	79.0
¾	14	.824	1.050	.113	105.0
1	11½	1.049	1.315	.133	153.0
1¼	11½	1.380	1.660	.140	201.0
1½	11½	1.610	1.900	.145	249.0
2	11½	2.067	2.375	.154	332.0
2½	8	2.469	2.875	.203	527.0
3	8	3.068	3.500	.216	682.6
3½	8	3.548	4.000	.226	831.0
4	8	4.026	4.500	.237	972.3
4½	8	4.506	5.000	.247	1,150.0
5	8	5.047	5.563	.258	1,313.6
6	8	6.065	6.625	.280	1,745.3

UL Dimensions for Intermediate Metallic Conduit† — Type I (10-ft. lengths)

TRADE SIZE (IN.)	O.D. (IN.)		WALL THICKNESS (IN.)
	MIN.	MAX.	
½	.810	.820	.070*
¾	1.024	1.034	.075*
1	1.285	1.295	.085*
1¼	1.630	1.645	.085*
1½	1.875	1.890	.090*
2	2.352	2.367	.095*
2½	2.847	2.867	.130**
3	3.466	3.486	.130**
3½	3.961	3.981	.130**
4	4.456	4.476	.130**

* (+.015, -.000)

** (+.020, -.000)

† IMC Threads are the same as Rigid Metal Conduit Threads.

UL Dimensions for Intermediate Metallic Conduit — Type II (10-ft. lengths)

TRADE SIZE (IN.)	O.D. (IN.)		WALL THICKNESS (IN.)
	MIN.	MAX.	
½	.825	.840	.085*
¾	1.035	1.050	.085*
1	1.300	1.315	.108*
1¼	1.645	1.660	.108*
1½	1.885	1.900	.108*
2	2.360	2.375	.108*
2½	2.850	2.875	.155**
3	3.475	3.500	.155**
3½	3.975	4.000	.160**
4	4.475	4.500	.160**

* (+.020, -.000)

** (+.025, -.000)

UL Recommended Dimensions and Weight of Electrical Metallic Tubing (EMT)

TRADE SIZE (IN.)	O.D. (IN.)	I.D.* (IN.)	WALL THICKNESS (IN.)	MIN. ACCEPT WT. FT. (LBS.)
⅜	.577 ± .005	.493	.042	.230
½	.706 ± .005	.622	.042	.285
¾	.922 ± .005	.824	.049	.435
1	1.163 ± .005	1.049	.057	.640
1¼	1.510 ± .005	1.380	.065	.950
1½	1.740 ± .005	1.610	.065	1.100
2	2.197 ± .005	2.067	.065	1.400
2½	2.875 ± .010	2.731	.072	2.050
3	3.500 ± .015	3.356	.072	2.500
3½	4.000 ± .020	3.834	.083	3.250
4	4.500 ± .020	4.334	.083	3.700

* Not a requirement — included for information only.

Technical Information

Knockout (Sliphole) Sizes for Electrical Conduits and Connectors

TRADE SIZE (IN.)	KNOCKOUT DIAMETER		
	NOM.	MIN.	MAX.
¼	.575	.559	.605
⅜	.718	.703	.734
½	.875	.859	.906
¾	1.109	1.094	1.141
1	1.375	1.359	1.406
1¼	1.734	1.719	1.766
1½	1.984	1.958	2.000
2	2.469	2.433	2.500
2½	2.969	2.938	3.000
3	3.594	3.563	3.625
3½	4.125	4.063	4.156
4	4.641	4.563	4.672
4½	5.109	5.063	5.166
5	5.719	5.625	5.750
6	6.813	6.700	6.844

Sizes ¼" thru 1¼" are per UL 514.

Sizes ½" thru 6" per proposed revision to NEMA Engineering Bulletin No. 71, Aug. 1976.

UL Recommended Diameters for Liquidtight Flexible Metal Conduit

TRADE SIZE (IN.)	I.D. (IN.)		O.D. (IN.)	
	MIN.	MAX.	MIN.	MAX.
⅜	.484	.504	.690	.710
½	.622	.642	.820	.840
¾	.820	.840	1.030	1.050
1	1.041	1.066	1.290	1.315
1¼	1.380	1.410	1.630	1.660
1½	1.575	1.600	1.865	1.900
2	2.020	2.045	2.340	2.375
2½	2.480	2.505	2.840	2.875
3	3.070	3.100	3.460	3.500
3½	3.500	3.540	3.960	4.000
4	4.000	4.040	4.460	4.500

UL Recommended Diameters for Flexible Metal Conduit (Greenfield)

TRADE SIZE (IN.)	MAX. O.D. (IN.)	O.D. (IN.)	
		MIN.	MAX.
⅝	.510	.312	.393
⅜	.610	.375	.645
½	.920	.625	.835
¾	1.105	.812	—
1	1.380	1.000	—
1¼	1.630	1.250	—
1½	1.950	1.500	—
2	2.450	2.000	—
2½	3.060	3.500	—
3	3.560	3.000	—
3½	4.060	3.500	—
4	4.560	4.000	—

Diameter of Liquidtight Non-Metallic Flexible Conduit

TRADE SIZE (IN.)	I.D. (IN.)		O.D. (IN.)	
	MIN.	MAX.	MIN.	MAX.
⅜	.485	.505	.755	.775
½	.620	.640	.910	.930
¾	.815	.835	1.150	1.170
1	1.030	1.055	1.415	1.440
1¼	1.370	1.395	1.800	1.825
1½	1.585	1.620	2.045	2.080
2	2.045	2.080	2.605	2.640

T&B® Fittings

T&B® Rigid Fittings

In this section...



T&B® Rigid Fittings

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Thomas&Betts

www.tnb.com

Overview

The Complete Product Line

Since the turn of the century, Thomas & Betts has been a recognized leader in electrical fittings. Industry standards such as Chase® Nipples and Erickson® Couplings were introduced by Thomas & Betts and are still registered trademarks. This leadership continues. Here's why...



High-Performance Products

Quality and performance result when engineering design skills are combined with the manufacturing technologies required to produce them. The Thomas & Betts Fittings in this section are produced from many materials and by many manufacturing methods, each carefully selected for its end use suitability. This combination gives you the reliable performance you expect from Thomas & Betts Raceway Fittings.

Innovative Designs

The real test of product design of electrical fittings lies in two areas: Job-suited installation and life of the job reliability. Thomas & Betts Fittings provide both because we listen. We listen to problems and suggestions from the field. Most of the products in this section result from the good suggestions of knowledgeable electrical people. Many were customer specials to solve particular installation and performance problems. You can benefit from their experience.

Approvals and Listings

Electrical raceways require accessory fittings that provide the mechanical strength, ground continuity and environmental integrity of the system. As new raceways have been introduced, Thomas & Betts engineers have designed fittings that meet the requirements of the National Electrical Code® as well as the listing requirements of the Underwriter's Laboratories and the Canadian Standards Association. You can use Thomas & Betts Fittings with confidence.



Note: In the United States, boxes and fittings are not listed or marked for use in Class I Division 2 locations. See NEC® 501.10(B) for the wiring methods allowed in these areas.



Lower Installed Cost

It is a function of purchase cost, availability, installation advantage and performance. Lower installed cost comes in every carton of Thomas & Betts Raceway Fittings.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Thomas & Betts

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

www.tnb.com

Overview

DURA-PLATE® Finish — Corrosion-Resistant Finish Protects Fittings in Harsh Environments

DURA-PLATE® Corrosion-Resistant Fittings have a T&B plating process that provides excellent corrosion resistance on threaded steel and malleable iron fittings for use in harsh environments.

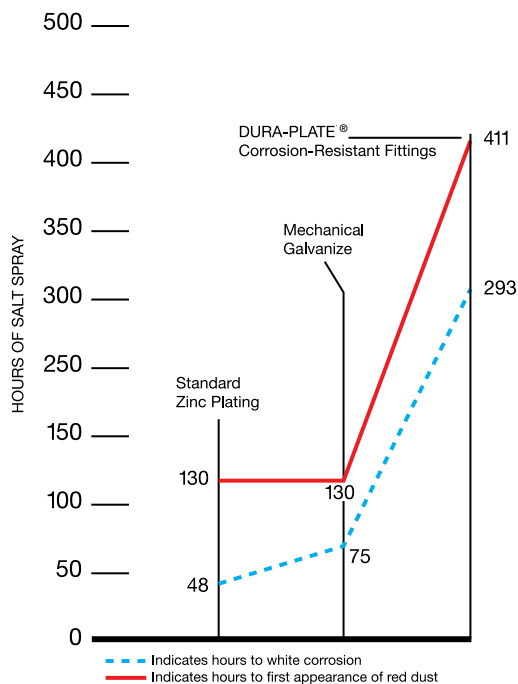
DURA-PLATE® Corrosion-Resistant Fittings utilize an electro-plating process that ensures a uniform thickness of protective material over the entire part. Conventional hot dip coatings deposit an uncontrolled buildup of material on the part, especially in threaded areas. This excess buildup must be removed to enable mating parts to function.

The process of removing this buildup in the threads in turn damages the coating and compromises the effectiveness of the protection.

An additional drawback of hot dip coating is that the lower ductility of the alloyed interface layer that is formed during the hot dip process can cause spalling if the item is deformed after coating.

In addition to the uniformity of the coating, the distinctive gold color of the plating enables immediate recognition that the part has been prepared for exposure to harsh environments and confirms the extra protection by visual inspection.

DURA-PLATE® Corrosion-Resistant Fittings have been subjected to salt spray tests conducted according to ASTM Specification B-117. The results of Corrosion-Resistant Fittings tests, along with galvanized parts, appears below:



Conduit & Fittings — T&B® Rigid Fittings



Ordering Information

- Add the prefix “040-” to the standard catalog number — for example: a 5332 with DURA-PLATE® Corrosion-Resistant Fittings protection would be ordered as “040-5332”
- Check for catalog numbers in stock
- Allow 6–8 weeks for delivery on nonstock items
- Add 30% to price of standard item
- Minimum order is standard package quantity

Bushings, Nipples, Locknuts and Plugs

Locknuts



140 Series
141AL Series



106 Series

Application

- To connect externally threaded conduit or connector to a threadless opening in a box or enclosure
- To effectively bond conduit or connector to box or enclosure

Features

- Hardened steel/malleable iron/copper-free aluminum construction
- Tightens without deformation
- Locknuts specially designed to:
 - (i) Provide extended reach for clamping on thin boxes and enclosures
 - (ii) Cut through protective coating on box and enclosure, thereby ensuring ground continuity
 - (iii) Permit tightening from outside
 - (iv) Prevent loosening under vibration
- 106 Series provided with a hardened cone-point screw

Standard Material

140 Series & 106 Series

3/8" thru 2" steel (hardened) 2 1/2" thru 6"
Malleable Iron
All screws steel

141AL Series

All copper-free aluminum

Standard Finish

All steel and malleable iron locknuts, including electro zinc-plated bonding screws and chromate coated all-aluminum locknut, degreased

Range

3/8" through 6" conduit (All threads straight pipe [NPS]) (140 Series)
1/2" through 4" conduit (106 Series & 141AL Series)

Listings/Compliances

UL (UL File No. E-23018)
CSA [catalog numbers 108, 109, 110 and 111. All 140 Series except catalog number 140.] (LR-2884, LR-4484)
UL 514B
CSA C22.2 No. 18
NEMA FB1
NFPA 70
Federal Specification replaced by A-A-50553
Federal Standard H-28 (Threads)

Case Hardened Locknuts

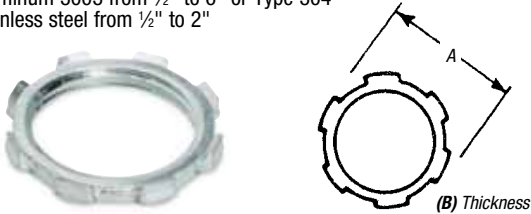
Case hardened locknuts make fittings faster and easier to install. Case hardened locknuts do not slip or turn, thereby protecting the biting edge. Case hardened locknuts bite through paint into the enclosure, providing excellent continuity of ground (typical T&B/Thomas & Betts fitting with case hardened locknuts successfully passed minimum fault current of 10,000 amps RMS). Case hardened locknuts, when assembled in the intended manner, will not vibrate loose, thereby ensuring excellent ground continuity.

Bushings, Nipples, Locknuts and Plugs

Available in your choice of steel/malleable iron, aluminum or stainless steel.

Locknuts

- Steel from ¼" to 2", malleable iron from 2½" to 6"
- Aluminum 3003 from ½" to 6" or Type 304 stainless steel from ½" to 2"



CAT. NO.			DIMENSIONS (IN.)		
STL./M.I.	ALUM.	ST. STL.	SIZE (IN.)	A	B
139*	—	—	¼	¾	9/64
140*	—	—	⅜	15/16	9/64
141**	141AL	141-SST	½	1 1/64	5/32
142**	142AL	142-SST	¾	1 3/8	3/16
143	143AL	143-SST	1	1 11/16	13/64
144	144AL	144-SST	1 ¼	2 5/32	13/64
145	145AL	145-SST	1 ½	2 1/2	13/64
146	146AL	146-SST	2	3	7/32
147	147AL	—	2 ½	3 3/16	13/32
148	148AL	—	3	4 3/16	13/32
149	149AL	—	3 ½	4 13/16	15/32
150	150AL	—	4	5 5/16	15/32
151	151AL	—	4 ½	5 15/16	17/32
152	152AL	—	5	6 1/2	17/32
153	153AL	—	6	7 3/4	19/32

*Hex shape

**Case hardened locknuts

Aluminum locknuts comply with federal standard of copper-free aluminum; less than .5% copper.

Available with DURA-PLATE® Finish.

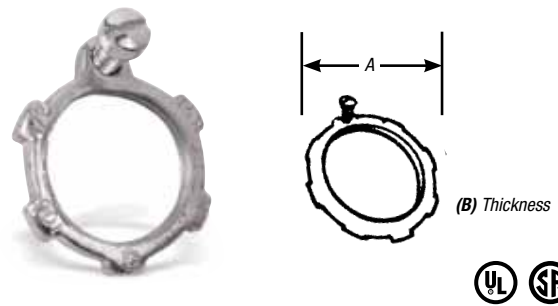
UL File E-23018

CSA File No. 2884

Ensures positive bonding of conduit to box and prevents loosening due to vibration!

Bonding Locknuts

- Steel or malleable iron (steel through 2")
- Can be used anywhere an ordinary locknut is installed
- Also can be used for Service Entrance applications in conformance with code
- T&B rigid conduit and EMT (thinwall) fittings comply with Federal Specification A-A-50553



CAT. NO.	SIZE (IN.)	DIMENSIONS (IN.)	
		A	B
106†	½	1 3/8	.125
107†	¾	1 5/8	.140
108	1	1 15/16	.170
109	1 ¼	2 5/32	.170
110	1 ½	2 1/2	.170
111	2	3	.187
112†	2 ½	3 3/32	.375
113†	3	4 13/16	.375
114†	3 ½	4 29/32	.438
115†	4	5 7/32	.438

† Not CSA certified.

Available with DURA-PLATE® Finish.

UL File No. E-3060

CSA File No. 638

Provides positive seal against water and oil.

Sealing Locknuts

- For use with rigid and intermediate metal conduits or fittings
- Provides watertight or raintight seal at all enclosures



Molded Santoprene Seal
Color: Blue

CAT. NO.	SIZE (IN.)	DIMENSIONS (IN.)		
		A	B	C
141SL	½	1.140	1/8	1/4
142SL	¾	1.420	5/32	9/32
143SL	1	1.770	11/64	9/32
144SL	1 ¼	2.281	11/64	5/16
145SL	1 ½	2.598	11/64	9/32
146SL	2	3.175	3/16	7/64

UL File No. E-23018

CSA File No. 2884

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

Bushings, Nipples, Locknuts and Plugs

Perfect for grounding old work or new!

Bonding & Grounding Wedges

- Provides grounding without a jumper except in concentric knockouts
- When jumper is required, it fits under set screw in grounding wedge
- Update existing installations to meet code requirements for bonding (NEC® Article 250, Part V) without disconnecting wiring
- For use on new wiring, just loosen bushing, position wedge and tighten bushing and bonding screw

Application

- To effectively bond terminating fitting or conduit to a box or enclosure

Features

- Sizes ¼" thru 6" equipped with an additional bonding screw to install bonding jumper where required
- Can be added to an existing installation without disconnecting conductors

Standard Material/Finish

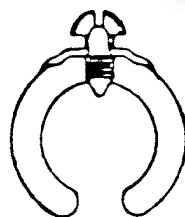
½" size Steel/Electro Zinc Plated
¾" thru 6" size Bronze/Tin Plated

Range

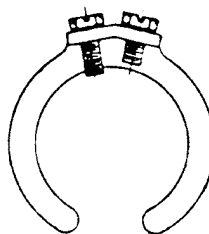
½" thru 6" conduit

Listings/Compliances

UL File #E3060
CSA File #638
UL 467
CSA C22.2 No. 41
NFPA-70
Federal Specification A-A-50552



Series 3650



Series 3651



Grounding Wedges



CAT. NO.	SIZE
3650	½"
3651	¾"
3652	1"
3653	1¼"
3654	1½"
3655	2"
3656	2½"
3657	3"
3658	3½"
3659	4"
3661	5"
3662	6"

UL File No. E-3060

Sealing material resists oil, coolants and hydraulic fluids as well as water!

Liquidtight Sealing Gasket

The 5262 Series Sealing Gasket includes a stainless steel retaining ring to prevent elongation of the Santoprene® gasket, ensuring a superior seal.

Application

- When used with an externally threaded connector, provides a tight seal against oil, fumes or moisture at the knockout opening

Features

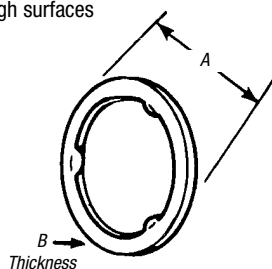
- Design locks resilient sealing material in steel
- Steel retainer protects seal from extruding out under torque and limits compression to an optimum predetermined value; provides high quality seal
- Resilient material flows and seals rough surfaces
- NEMA 3R, 4, 6 and 13

Standard Material

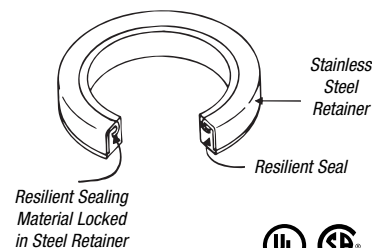
Retainer: 316 Stainless Steel
Sealing Material: Santoprene®
Thermoplastic Rubber

Range

¼" thru 4" Hub Size



5262 Series Sealing Gasket



Resilient Sealing Material Locked in Steel Retainer



CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)		STD. PKG. QTY.
		A	B	
5262	½"	1.16	.18	50
5263	¾"	1.49	.19	25
5264	1"	1.75	.19	25
5265	1¼"	2.15	.22	5
5266	1½"	2.42	.23	5
5267	2"	2.92	.23	5
5268	2½"	3.44	.23	5
5269	3"	4.08	.23	5
5270	4"	5.29	.31	5

UL File No. E 13938 CSA File No. 2884

Santoprene is a registered trademark of Advanced Elastomer Systems.

Bushings, Nipples, Locknuts and Plugs

Threaded Insulated Grounding Bushing

Application

- For quick installation of bonding jumper to multiple metal conduits (Rigid and IMC)
- Designed to bush conductors and prevent insulation damage

Features

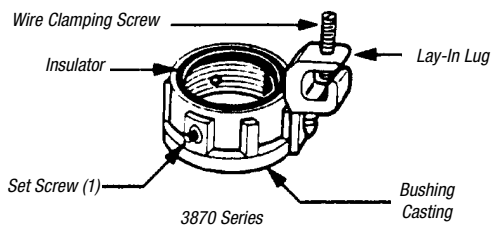
- Ease of installation, lay in lug design
- Cast malleable iron body designed to lock insulator in place within body, reducing common assembly problem resulting in dislodging of insulator
- Insulator rated for 150° C/302° F application
- Look for the unique T&B blue color, ensuring the highest quality fitting

Standard Material/Finish

Body: Electro zinc plated

Lay-In Lug: Aluminum/tin plated

Insulator: Thermoplastic 150° C/302° F
Application with 94V-0 flammability



CAT. NO.	CONDUIT SIZE	BUSHING DIA.	THROAT DIA.	LUG LENGTH	SWING RADIUS	BUSHING HEIGHT	WIRE RANGE AWG CU/AL
3870-TB	½"	1.125	.560	1.310	1.212	.657	#14-#4
3861	½"	1.125	.560	1.675	1.402	.657	#8-2/0
3871-TB	¾"	1.420	.742	1.310	1.360	.660	#14-#4
3862	¾"	1.420	.742	1.675	1.550	.660	#8-2/0
3872	1"	1.770	.944	1.310	1.535	.735	#14-#4
3882	1"	1.770	.944	1.675	1.725	.735	#8-2/0
3873	1¼"	2.190	1.242	1.310	1.745	.735	#14-#4
3883	1¼"	2.190	1.242	1.675	1.935	.735	#8-2/0
3874	1½"	2.468	1.449	1.310	1.884	.770	#14-#4
3884	1½"	2.468	1.449	1.675	2.074	.770	#8-2/0
3875	2"	3.031	1.860	1.310	2.165	.770	#14-#4
3889	2"	3.031	1.860	1.675	2.355	.770	#8-2/0
3876	2½"	3.516	2.222	1.310	2.408	.940	#14-#4
3886	2½"	3.516	2.222	1.675	2.598	.940	#8-2/0
3993	2½"	3.516	2.222	2.230	2.928	.940	#6-4/0
3877	3"	4.234	2.761	1.310	2.767	.975	#14-#4
3887	3"	4.234	2.761	1.675	2.957	.975	#8-2/0
3994	3"	4.234	2.761	2.230	3.287	.975	#6-4/0
3878	3½"	4.781	3.193	1.310	3.040	.975	#14-#4
3863	3½"	4.781	3.193	1.675	3.230	.975	#8-2/0
3995	3½"	4.781	3.193	2.230	3.560	.975	#6-4/0
3879	4"	5.328	3.623	1.310	3.314	.980	#14-#4
3864	4"	5.328	3.623	1.675	3.504	.980	#8-2/0
3996	4"	5.328	3.623	2.230	3.834	.980	#6-4/0
3880	5"	6.328	4.542	1.310	3.814	.985	#14-#4
3865	5"	6.328	4.542	1.675	4.000	.985	#8-2/0
3998	5"	6.328	4.542	2.230	4.334	.985	#6-4/0
3881	6"	7.406	5.458	1.310	4.353	1.200	#14-#4
3866	6"	7.406	5.458	1.675	4.543	1.200	#8-2/0
3999	6"	7.406	5.458	2.230	4.875	1.200	#6-4/0

Temperature rating 150° C

Meets Coast Guard Regulation CG293

Available with DURA-PLATE® Finish.

Bushings, Nipples, Locknuts and Plugs

Innovative design makes installation quicker, easier.

Blackjack® Grounding Bushing

The Blackjack® Grounding Bushing never has to be threaded onto a conduit. It is simply placed in position on either a threaded or non-threaded rigid or IMC conduit, with the grounding lug in perfect position to accept the grounding wire — even in tight installations.

It's as simple as one, two, three!

Compare the installation with conventional bushings that must be threaded onto the conduit. In tight areas, you may have to remove the grounding lug, keep up with the loose parts and then reattach the lug. Then you still have to twist and turn the bushing to get the lug in position to accept the grounding wire.

The Blackjack bushing does away with these needless delays for good, making it the ideal grounding bushing — and the only logical choice for small spaces, corners and multiple conduit runs. And, because the grounding lug is an integral part of the bushing, it's designed not to fall off or get lost.

Innovative design improves performance.

The Blackjack® bushing provides superior ground continuity.

The design of the Blackjack bushing has an integral, cast-on grounding lug for better ground continuity. This means that the Blackjack bushing stands up to intense loads.

Secure grip forms lasting bond.

The Blackjack bushing's cone-point mounting screw bites securely into both threaded and non-threaded rigid conduits. And the Blackjack bushing's nylon locking patch is designed to prevent the screw from loosening due to vibration.

Reduce inventory.

Because the Blackjack Grounding Bushing is designed for threaded and non-threaded conduits, and the ground lugs are designed to handle an extended range, the number of parts in inventory is reduced by up to two-thirds without losing any application coverage.

Lug Screw:

- #14–#4: Slotted
- #14–2/0: Slotted
- #6–4/0: Internal Hex Drive

Standard Material/Finish

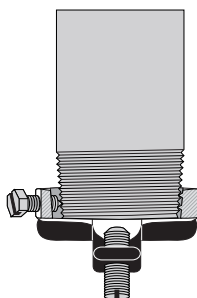
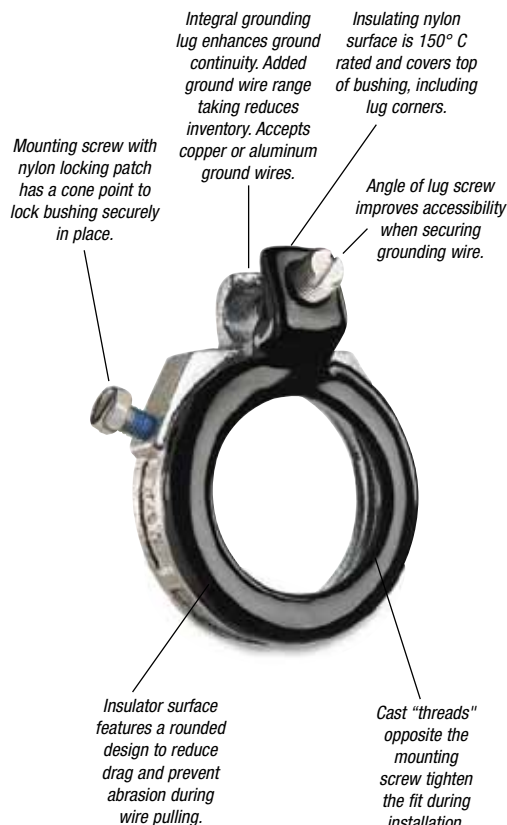
- Body: Malleable Iron or Aluminum
- Mounting Screw: (1/2"–2") Stainless Steel, (2 1/2"–6") Brass
- Lug Screw: Stainless Steel
- Finish: Zinc Plated

Range

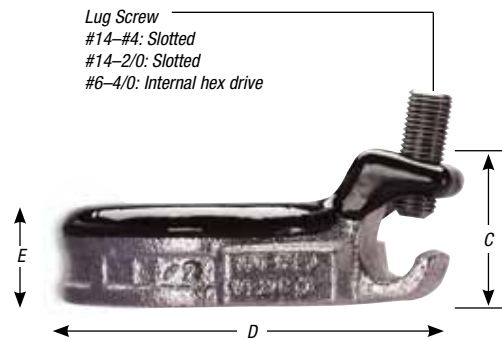
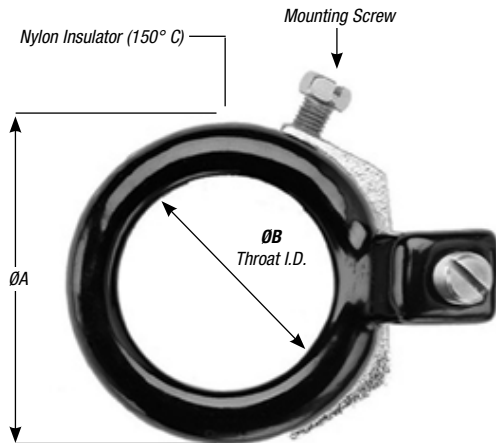
- Conduit: 1/2" thru 6" threaded or threadless rigid/IMC
- Wire Range: #14 AWG to 4/0 AWG Cu/Al

Listings/Compliances

- UL File #E3060
- CSA File #LR2884
- UL 514B & UL 467
- CSA C22.2 No. 18 & CSA C22.2 No. 41



Bushings, Nipples, Locknuts and Plugs



For Threaded and Threadless Rigid and IMC Conduit



Blackjack® Grounding Bushings

CAT. NO.		CONDUIT SIZE	ØA MAX.	ØB MIN. THROAT I.D.	C MAX.	D MAX.	E MAX.	WIRE RANGE
ZINC PLATED MALLEABLE IRON	ALUMINUM							
BG050-14-20	BGA050-14-20	½"	1.251	.569	1.181	2.134	.696	#14-2/0
BG050-14-4	BGA050-14-4	½"	1.251	.569	1.027	1.940	.696	#14-#4
BG075-14-20	BGA075-14-20	¾"	1.533	.772	1.221	2.414	.696	#14-2/0
BG075-14-4	BGA075-14-4	¾"	1.533	.772	1.030	2.168	.696	#14-#4
BG100-14-20	BGA100-14-20	1"	1.783	.993	1.181	2.581	.696	#14-2/0
BG100-14-4	BGA100-14-4	1"	1.783	.993	1.027	2.368	.696	#14-#4
BG125-14-20	BGA125-14-20	1½"	2.220	1.319	1.181	2.987	.759	#14-2/0
BG150-14-20	BGA150-14-20	1½"	2.470	1.553	1.181	3.236	.696	#14-2/0
BG200-14-20	BGA200-14-20	2"	2.830	2.010	1.181	3.766	.696	#14-2/0
BG250-14-20	BGA250-14-20	2½"	3.418	2.412	1.181	4.341	.978	#14-2/0
BG250-6-40	BGA250-6-40	2½"	3.418	2.412	1.524	4.526	.978	#6-4/0
BG300-14-20	BGA300-14-20	3"	4.042	3.022	1.181	4.966	.978	#14-2/0
BG300-6-40	BGA300-6-40	3"	4.042	3.022	1.524	5.139	.978	#6-4/0
BG350-14-20	BGA350-14-20	3½"	4.542	3.491	1.181	5.467	.978	#14-2/0
BG350-6-40	BGA350-6-40	3½"	4.542	3.491	1.524	5.639	.978	#6-4/0
BG400-14-20	BGA400-14-20	4"	5.042	3.975	1.181	5.966	.978	#14-2/0
BG400-6-40	BGA400-6-40	4"	5.042	3.975	1.524	6.139	.978	#6-4/0
BG500-14-20	BGA500-14-20	5"	6.136	4.991	1.181	7.045	.978	#14-2/0
BG500-6-40	BGA500-6-40	5"	6.136	4.991	1.524	7.207	.978	#6-4/0
BG600-14-20	BGA600-14-20	6"	7.199	6.009	1.181	8.087	.978	#14-2/0
BG600-6-40	BGA600-6-40	6"	7.199	6.009	1.524	8.409	.978	#6-4/0

Suggested Specifications: Insulated grounding and bonding bushing (Series BG050-BG600)

Where code requires bonding and grounding of single or multiple metal conduits, or positive bonding and grounding of metal conduit to the box, enclosure or auxiliary gutter, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing series BG050-14-20 as manufactured by Thomas & Betts.

Grounding and bonding bushings used shall be approved for the purpose and
 (i) Shall be of malleable iron/steel/aluminum construction adequately protected against corrosion.

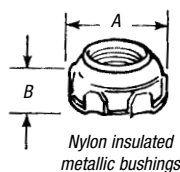
(ii) Bushing insulator shall be listed or certified for 150° C/302° F application with a flammability rating of 94V-0. Insulator must be positively locked in place.

Bushings, Nipples, Locknuts and Plugs

Meets and surpasses NEC® requirements!

Insulated Throat Fittings

- Steel or malleable iron (steel through 1½")
- Exceeds NEC 373-6C requirements for protection of ungrounded connectors at entrance to raceways, pull boxes and junctions
- Recognizable by distinctive trademarked blue insulating liner in throat
- Reduces wire pulling effort by as much as 50%
- Temperature rating of 105° C
- Look for the unique T&B blue color, ensuring the highest quality fitting



STL. OR M.I.	CAT. NO.	ALUM.	SIZE	DIMENSIONS (IN.)	
				A	B
1222	1222AL		½"	1½/₃₂	²⁹/₆₄
1223	1223AL		¾"	1⁹/₃₂	³/₆₄
1224	1224AL		1"	1¹⁹/₃₂	¹/₃₂
1225	1225AL		1¼"	1¹⁵/₁₆	²/₃₂
1226	1226AL		1½"	2³/₁₆	²³/₃₂
1227	1227AL		2"	2¹¹/₁₆	⁷/₆
1228	1228AL		2½"	3³/₁₆	¹/₃₂
1229	1229AL		3"	3²⁷/₃₂	⁵/₁₆
1230	1230AL		3½"	4⁷/₁₆	1¹/₁₆
1231	1231AL		4"	4⁷/₆	1³/₃₂
1232†	1232AL†		4½"	—	—
586	586AL		5"	5³¹/₃₂	1⁹/₃₂
587	587AL		6"	7⁷/₁₆	1¹¹/₃₂

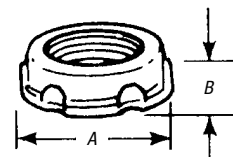
† Not CSA Certified

Catalog series 1222 thru 1232, 586 and 587 are available in aluminum. Add suffix AL to Cat. No. The aluminum series fittings are not CSA certified.

Locknut-type base improves bonding and resists loosening under vibration.

Metallic Bushings

- Aluminum, steel or malleable iron (steel through 1½")
- Smoothly rounded shoulder covers end of conduit
- Broad flange covers knockout hole
- High ribs for easy tightening with fingers or with wrench
- ½" to 1½" sizes, formed in steel, feature extra-smooth shoulders



STL. OR M.I.	CAT. NO.	ALUM.	SIZE	DIMENSIONS (IN.)	
				A	B
122	122AL		½"	1½/₃₂	¹³/₃₂
123	123AL*		¾"	1¼	⁷/₁₆
124	124AL**		1"	1¹/₁₆	½
125-TB	125AL		1¼"	1²⁹/₃₂	⁹/₁₆
126	126AL		1½"	2⁵/₃₂	¹⁹/₃₂
127	127AL		2"	2²¹/₃₂	⁵/₆
128	128AL		2½"	3³/₁₆	¾
129	129AL		3"	3²⁷/₃₂	¹³/₁₆
130-TB	130AL		3½"	4³/₆	¹⁵/₁₆
131-TB	131AL		4"	4¹⁵/₁₆	1
132-TB	—		4½"	5⁷/₁₆	1³/₆₄
133-TB	133AL		5"	6	1⁹/₁₆
134-TB	134AL		6"	7¼	1¼

* Not UL Listed or CSA Certified

UL File No. E-23018

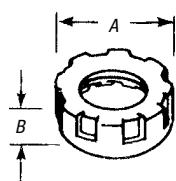
** Not CSA Certified

CSA File No. 2884

Available with DURA-PLATE® Finish.

Perfect threads for easy thread-on!

Plastic Insulating Bushings



All Plastic Insulating Bushings

- Impact-resistant plastic insulation
- Ribbed for easy, secure gripping
- UL Listed 105° C



CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
222-TB	½"	1¹/₁₆	³/₆
223-TB	¾"	1⁹/₃₂	¹³/₃₂
224	1"	1⁹/₁₆	⁹/₁₆
225-TB	1¼"	1²⁹/₃₂	⁹/₁₆
226	1½"	2¹/₃₂	⁹/₁₆
227	2"	2²⁵/₃₂	⁵/₆
228-TB	2½"	3³/₆	¾
229-TB	3"	4¹/₁₆	¾
230-TB	3½"	4⁵/₆	⁷/₆
231	4"	5¹/₆	⁷/₆
232	4½"	5¹¹/₁₆	1
233	5"	6¹/₁₆	1
234	6"	7¹/₁₆	1

UL Rated flame retardant 94V-1

Bushings, Nipples, Locknuts and Plugs

For threadless rigid conduit and intermediate metal conduit.

Insulating Bushing

Application

- When assembled to the end of a threadless conduit, provides a well-rounded insulating surface over which conductors may be pulled or on which conductors may bear while in service

Features

- Designed to be popped onto conduit end
- Fast, easy installation without screws
- High-impact thermoplastic construction

Standard Material

High-impact thermoplastic listed for 105° C (221° F) application
Flammability Classification 94 V-1

Standard Finish

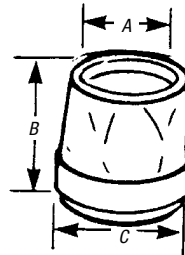
As molded

Range

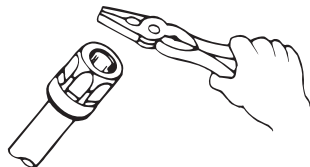
½" through 4" conduit

Listings/Compliances

UL (UL File No. E-13938)
CSA (LR-2884, LR-4484)
UL 514B
NFPA 70



1. Cut conduit end squarely. Remove sharp edges and burrs on inside and outside diameters by reaming or filing.
2. Slip the pop-on bushing over the end of the conduit.
3. Using the flat surface of any standard utility tool such as an electrician's pliers (or a hammer with a block of wood for the larger sizes), strike the bushing on its top surface using a series of light blows until the end of the conduit rests against the bushing throat and conduit stop.



CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
TRIB-50	½"	19/32	1½/2	1¼/16
TRIB-75	¾"	25/32	125/64	1¼
TRIB-100	1"	1	1½	13/16
TRIB-125	1¼"	11/16	15/8	159/64
TRIB-150	1½"	117/32	121/32	211/64
TRIB-200	2"	131/32	113/16	211/16
TRIB-250	2½"	223/64	2	3¼
TRIB-300	3"	259/64	21/32	329/32
TRIB-350	3½"	33/8	23/16	429/64
TRIB-400	4"	327/32	213/32	5

I.M.C. sizes ½" thru 4"

UL Rated flame retardant 94V-1

UL File No. E-13938

CSA File No. 2884

Bushings, Nipples, Locknuts and Plugs

Provides smooth, rounded insulation surface for easy wire pulling!

Knockout Bushings

- Quickly snaps into outlet box, switch box or other enclosure left vacant by wiring modifications or maintenance changes
- High-impact polycarbonate, one-piece construction
- Easily installed by hand
- UL Listed 105° C

Application

- To provide smooth, rounded knockout openings in metal boxes or enclosures

Features

- One-piece construction designed to snap in place
- High-impact strength, self extinguishing, non-dripping (per UL 94) polycarbonate construction

Standard Material

Polycarbonate rated for 105° C (221° F) application

Standard Finish

As molded

Range

.875" through 2.469" nominal diameter knockout opening (1/2" through 2" trade size knockouts)

Wall thickness of box or enclosure

.095" max. up to 1" trade size

.140" max. 1 1/4" through 2" trade size

Listings/Compliances

UL (UL File No. E-3803)

CSA (LR-589,LR-4484)

UL 514B

CSA C22.2 No. 18

NFPA 70-1999 (ANSI)



3210 Series



CAT. NO.	FOR USE IN KO SIZE*	DIMENSION (IN.)	
		B	
3210	.875	.360	
3211	1.109	.360	
3212	1.375	.360	
3213	1.734	.400	
3214	1.984	.520	
3215	2.469	.520	

* Per UL and NEMA standards. Refer to Knockout Plugs table on next page.

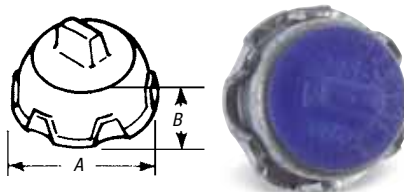
Oxygen index >28° UL 94V-1

UL File No. E-3803 CSA File No. 589

Makes a workman-like seal against grit, plaster and mischief!

Capped Bushings

- Removable with pliers
- 1/2" through 1 1/4" sizes in steel
- 1 1/2" and 2" sizes in malleable iron



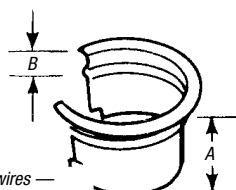
CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
1460	1/2"	1 1/32	13/32
1461	3/4"	1 1/4	7/16
1462	1"	1 1/16	1/2
1463	1 1/4"	1 29/32	9/16
1464	1 1/2"	2 29/32	19/32
1465	2"	2 21/32	5/8

UL File No. E-23018 CSA File No. 2884

Snaps into a regular bushing to make a UL Listed insulated bushing!

INSULINER® Sleeves

- Converts ordinary bushing to code-approved insulated bushing without disturbing wiring
- For use with standard rigid conduit, EMT (thinwall conduit) or any standard bushed outlet
- Especially suited for use with flexible metallic conduit
- High-dielectric nylon material, rated 105° C



Slip over wires —
insert into bushing —
snaps into place



CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
422	1/2"	5/8	.025
423	3/4"	1 1/16	.025
424	1"	7/8	.025
425	1 1/4"	1	.030
426	1 1/2"	1	.030
427	2"	1 1/8	.030
428	2 1/2"	1 1/4	.040
429	3"	1 1/2	.040
430	3 1/2"	1 29/32	.055
431	4"	2 1/2	.055
433	5"	2 1/2	.070
434	6"	2 1/2	.070

Oxygen index >28° UL File No. E-23018 CSA File No. 589

Bushings, Nipples, Locknuts and Plugs

Made from flame-retardant, non-dripping thermoplastic, UL rated 105° C!

Knockout Plugs



1451 Series

Application

- To plug unused knockout openings in a box or enclosure

Features

- One-piece construction designed to snap in place
- High impact strength self-extinguishing non-dripping (per UL 94) thermoplastic construction

Standard Material

Thermoplastic rated for 105° C (221° F) application

Standard Finish

As molded

Range

.875" through 2.469"

Nominal Diameter

Knockout opening (½" through 2" trade size knockouts)

Wall thickness of box or enclosure

.095" max. up to 1" trade size

.140" max. through 2" trade size

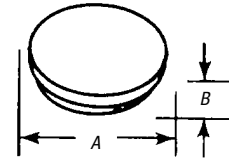
Listings/Compliances

UL (UL File No. E13938)

CSA (LR589)

UL 514B

NFPA 70



105° C rated by UL. Made from flame retardant, non-dripping thermoplastic.



CAT. NO.	SIZE	DIMENSION (IN.)	
		A	B
1451	½"	1.060	.400
1452	¾"	1.300	.400
1453	1"	1.590	.400
1454	1¼"	1.860	.450
1455	1½"	2.240	.570
1456	2"	2.740	.570

Wall thickness of electrical box .095 max.
Meets Coast Guard Regulation CB293.
UL File No. E-13938 CSA File No. 4484

Eliminates need for separate capped bushing or steel penny and bushing!

Push-Penny® Plugs

Application

- To plug open end of conduit or connector in order to prevent ingress of trash, dirt or moisture during construction and remodeling

Features

- Wide range of applications; can be used with rigid metal conduit, intermediate metal conduit, electrical metallic tubing, all connectors and all bushings
- Designed to stand up to normal handling and is functionally unaffected by moisture
- Economically seal out grout and plaster from any fitting or raceway conforming to CSA dimensional tolerances
- Just push into place
- Pressure holds plug fast against internal surface of fitting or raceway
- Made of flexible plastic

Standard Material

Polyethylene

Standard Finish

As molded

Listings/Compliances

CSA (LR2884, LR4484)

UL 514B

CSA C22.2 No. 18

NFPA 70

NEMA FB1



CAT. NO.	SIZE
1470	½"
1471	¾"
1472	1"
1473	1¼"
1474	1½"
1475	2"
1476*	2½"
1477*	3"
1478*	3½"
1479*	4"

*Not CSA Certified.
CSA File No. 2884
UL not applicable.

Made to fit any bushing!

Steel Pennies

- Used under a bushing to seal end of conduit during construction
- Completely salvageable



CAT. NO.	SIZE	CAT. NO.	SIZE
815-TB	½"	821	2½"
816	¾"	822	3"
817	1"	824	3½"
818	1¼"	823	4"
819	1½"		
820	2"		

UL not applicable.
CSA File No. 2884

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

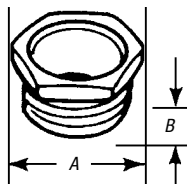
Technical Services
Tel: 888.862.3289

Thomas & Betts

Bushings, Nipples, Locknuts and Plugs

Bush holes in metal boxes or enclosures!

CHASE® Nipples



- 3/8" and 1/2" sizes in steel
- 3/4" to 6" sizes in malleable iron
- 1/2" to 4" sizes in copper-free aluminum

STL. OR M.I.	CAT. NO.	ALUM.	SIZE	DIMENSIONS (IN.)	
				A	B
841TB	—	—	3/8"	15/16	7/16
842TB	842ALTB†	—	1/2"	1 1/16	43/64
843TB	843ALTB	—	3/4"	1 3/8	19/32
844	844AL†	—	1"	1 11/16	3/4
845	845AL†	—	1 1/4"	2 1/32	25/32
846	846AL	—	1 1/2"	2 3/8	13/16
847	847AL	—	2"	2 15/16	31/32
848	848AL	—	2 1/2"	3 3/16	1 1/16
849	849AL	—	3"	4 3/8	1 1/4
850	850AL	—	3 1/2"	5 1/8	1 5/16
851	851AL	—	4"	5 1/2	1 5/8
853	—	—	5"	6 1/2	1 7/8
854	—	—	6"	7 3/4	1 3/4

† Not UL Listed

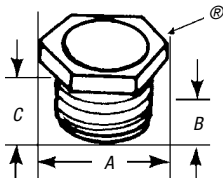
Available with DURA-PLATE® Finish.

UL File No. E-23018

CSA File No. 2884

Nylon insulator offers extra protection!

CHASE® Nipples — Nylon-Insulated



- 3/8" and 1/2" sizes in steel
- 3/4" to 6" sizes in malleable iron
- 1/2" to 6" sizes in copper-free aluminum
- Look for the unique T&B blue color ensuring the highest quality fitting available

CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
1942	1/2"	1 1/4	7/16	19/32
1943	3/4"	1 3/8	17/32	23/32
1944	1"	1 11/16	2 1/32	7/8
1945	1 1/4"	2 1/32	25/32	1 1/32
1946	1 1/2"	2 3/8	13/16	1 3/32
1947	2"	2 15/16	31/32	1 11/32
1948	2 1/2"	3 3/16	1 1/16	1 7/16
1949	3"	4 3/8	1 3/16	1 19/32
1950	3 1/2"	5 1/8	1 5/16	1 25/32
1951	4"	5 1/2	1 7/16	1 13/16
1953	5"	6 3/8	1 5/16	1 13/16
1954	6"	7 3/4	1 3/8	1 7/8

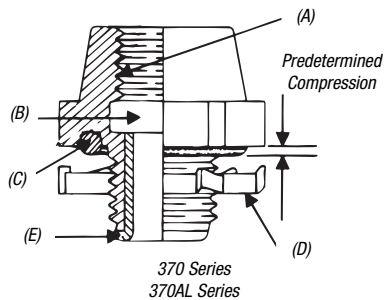
UL File No. E-23018

CSA File No. 2884

Hubs and Bulkhead Fittings

For threaded rigid metal conduit/IMC/PVC-coated rigid metal conduit.

Threaded Hubs (Bullet® Hubs)



Application

- To connect threaded metal conduit (ferrous rigid/non-ferrous rigid/PVC coated/or intermediate metal) to a threadless opening in a box or enclosure in outdoors or indoor location exposed to continuous or intermittent moisture
- To positively bond conduit to box or enclosure

Features

- Rugged steel/malleable iron/copper-free aluminum construction
- Tapered internal threads for water-tight/dust-tight union (A)
- Threads relieved to prevent bottoming of conduit, ensuring sound assembly (B)
- Recessed sealing ring at box end; sealing ring captivated (C)
- Hardened steel/malleable iron/copper-free aluminum locknuts designed to provide high-quality ground continuity; extended reach of locknut permits clamping on thin boxes and enclosures (D)
- Insulated throat, insulates conductors, prevents abrasion and thinning of conductor insulation, reduces wire pull effort (E)
- Suitable for hazardous location use per following:
 - Class I Division 2, Class II Division 1 & 2, Class III Division 1 & 2 per NEC® 501.10(B), 502.40(A) and (B) and 503.16(A) and (B)
 - Class II locations & Class III locations per CEC 18-202; 18-252; 18-302; 18-352

National Electrical Code® states that, "Where practical, dissimilar metals in contact anywhere in the system shall be avoided to eliminate the possibility of galvanic action." The only exceptions, aluminum fittings and enclosures, are permitted to be used with steel conduit.

Joint Industrial Council (JIC) Electrical Standards also forbid dissimilar metals in contact for the same reason and require that the fittings for metal conduit be of malleable iron or ductile iron and have impact strength comparable to that of the conduit.

Copper-Free Aluminum

Copper free aluminum castings for fittings have a maximum of .4% copper. The most detrimental effect of higher percentage of copper on aluminum base alloy is its decrease in corrosion resistance.

Standard Material

	370-401 Series	370AL
Body:	½" thru 1" Steel 1¼" thru 6" Malleable Iron	All Copper-Free Aluminum
Locknut:	½" thru 2" Steel (hardened) 2½" thru 6" Malleable Iron Aluminum	½" thru 2" Steel (hardened) 2½" thru 4" Copper-Free
Screws:	Steel (hardened)	
O-Ring:	Buna N	
Insulator:	Nylon	
Coating:	PVC	

Standard Finish

	370-401 Series	370AL
Hub:	Electro Zinc Plated Chromate Coated	As Cast
Locknuts:	All Ferrous Locknuts Electro Zinc Plated and Chromate Coated	
Screws:	All Electro Zinc Plated and Chromate Coated	

Range

370 Series: ½" thru 6" Conduit
 370AL & 401 Series:
 ½" thru 4" Conduit
 All hub threads — straight pipe
 All female threads — taper pipe (NPT)

Listing/Compliances

UL (UL File No: E-23018)
 CSA (LR-637, LR-23086)
 UL 514B
 CSA C22.2 No. 18
 NFPA 70
 NEMA FB-1
 JIC EGP1; JIC EMP 1
 Federal Specification A-A-50553
 Federal Standard H-28 (Threads)

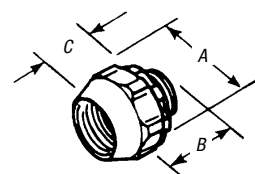
NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Hubs and Bulkhead Fittings

UL Listed rain tight and CSA Certified watertight and dust tight.

Steel/Malleable Iron and Aluminum Bullet® Hub Connectors*†

- Available in steel/malleable iron (steel through 1") with nylon-insulated throat — with or without Series 106 bonding locknut
- Also available in aluminum without insulated throat
- When used with neoprene O-ring, provides watertight threaded hub on enclosures
- UL Listed 105° C
- Look for the unique T&B blue color ensuring the highest quality fitting



STEEL/M.I.	CAT. NO.		HUB SIZE (IN.)	DIMENSIONS (IN.)			MAX. WALL THICKNESS (IN.)
	ALUM.**	STEEL/M.I. W/LOCKNUT		A	B	C	
370	370AL	401	½"	1⅜	1¼	¾	⅝
371	371AL	402	¾	1⅝	1¼	¾	⅝
372	372AL	403	1"	2⅜	1⅝	⅞	⅝
373	373AL	404-TB	1⅝"	2⅞	1⅝	1	⅝
374	374AL	405	1½"	3⅜	1⅝	1	⅝
375	375AL	406-TB	2"	3⅝	1⅝	1	⅝
376	—	407	2½"	4⅞	1⅝	1⅞	⅝
377	—	408	3"	5	2½	1½	½
378	—	409	3½"	5⅞	2½	1½	½
379	—	410-TB	4"	6⅞	2½	1½	½
381	—	—	5"	8	3⅝	—	½
382	—	—	6"	9⅞	3⅝	—	½

* Suitable for hazardous locations use in Class I, Div. 2; Class II, Div. 2; Class III, Div. 1 and 2 where general purpose equipment is specifically permitted per NEC Section 500-2(a).

Available with DURA-PLATE® finish.

** Aluminum not available with insulated throat.

UL File No. E-23018

† UL Listed rain tight and CSA Certified watertight and dust tight

For Stl.: CSA File No. 2284

For AL.: CSA File No. 0637

Spacing Chart for Bullet® Hubs

	CENTER-TO-CENTER SPACING CONDUIT SIZES											MIN. SPACE FROM CENTER OF BULLET® HUB TO WALL OF BOX	KO DIAMETERS (MIN.)	
	½	¾	1	1¼	1½	2	2½	3	3½	4	5			6
½	1⅞	1⅞	1¾	2⅞	2⅞	2⅞	2⅞	3⅞	3½	3⅞	4⅞	5⅞	¾	⅞
¾	—	1¾	1⅞	2¼	2½	2¼	3	3½	3¼	4⅞	4⅞	5½	⅞	1⅞
1	—	—	2	2⅞	2⅞	2⅞	3⅞	3⅞	3⅞	4¼	4⅞	5⅞	1⅞	1⅞
1¼	—	—	—	2⅞	2⅞	3¼	3½	4	4¼	4⅞	5⅞	5¼	1⅞	1¼
1½	—	—	—	—	3⅞	3½	3¾	4⅞	4⅞	4¾	7⅞	6⅞	1⅞	2
2	—	—	—	—	—	3¾	4	4⅞	4¾	5	5¼	6⅞	1⅞	2½
2½	—	—	—	—	—	—	4¼	4¾	5	5⅞	6	6¼	2⅞	3
3	—	—	—	—	—	—	—	5⅞	5⅞	5¼	6⅞	7⅞	2⅞	3⅞
3½	—	—	—	—	—	—	—	—	5⅞	6	6¼	7⅞	2⅞	4⅞
4	—	—	—	—	—	—	—	—	—	6¼	7⅞	7⅞	3¼	4⅞
5	—	—	—	—	—	—	—	—	—	—	8	8¼	4	5½
6	—	—	—	—	—	—	—	—	—	—	—	8¼	4¼	6⅞

Hubs and Bulkhead Fittings

T&B® Hub



Never before has a single hub fit like this one. Designed for unequalled performance. The innovative engineering of the T&B® Hub will, quite simply, raise your performance expectations for threaded hubs. Look for the distinctive blue color to ensure the quality of a Thomas & Betts fitting.

- 1 Sealing Ring and Groove with innovative profile outperforms standard O-ring design. Sealing ring is captivated in place before installation and resists buckling or slipping during installation. The seal groove is designed for optimum compression of the sealing ring. The sealing ring is designed to provide a complete 360° seal, even when the conduit is not perpendicular with the enclosure. (See Figure 1)
- 2 Locknut Design with peripheral slots and a hexagonal/angled spline spaced every 30° enables easy application of torque with wrench or hammer and screwdriver. (See Figures 2 & 3)
- 3 Sharper and Deeper Teeth on locknut and body designed for a more penetrating bite for improved bonding to the enclosure.
- 4 Hexagonal/Splined Body Design for fast, easy installation with wrench or hammer and screwdriver.
- 5 Precision Machined Tapered Threads designed to create watertight union.
- 6 Insulated Throat molded from 105° C rated thermoplastic with a flammability rating of 94 V-O.

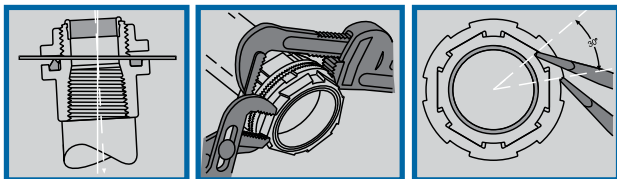


Fig. 1

Fig. 2

Fig. 3



CAT. NO.	TRADE SIZE	A B C			D	E
		TRADE SIZE	DIA.	MAX. PANEL THICKNESS		
H050-TB	1/2	17/16	13/16	7/8	3/16	19/32
H075-TB	3/4	17/16	119/32	29/32	3/16	25/32
H100-TB	1	2	113/16	11/16	1/4	1
H125-TB	11/4	23/8	17/8	11/16	1/4	11/16
H150-TB	11/2	23/4	17/8	11/16	1/4	117/32
H200-TB	2	33/4	115/16	15/32	1/4	113/32
H250-TB	21/2	33/4	29/16	11/16	1/4	213/32
H300-TB	3	43/8	27/16	119/32	1/4	231/32
H350-TB	31/2	5	223/32	11/8	1/4	313/32
H400-TB	4	51/2	223/32	11/8	1/4	31/8
H500-TB	5	63/8	31/32	115/16	1/4	415/16
H600-TB	6	711/16	33/32	2	3/16	6

Material – Hub and Locknut: Zinc or copper-free aluminum

Insulating Throat: Thermoplastic temp. rating – 105° C
Flammability Rating – 94V-0

Sealing Ring: Nitrile (BUNA "N")

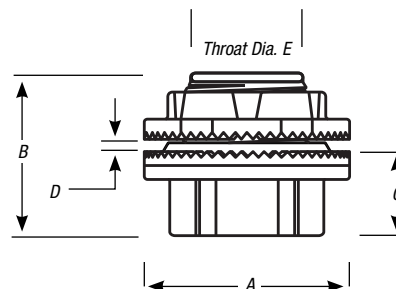
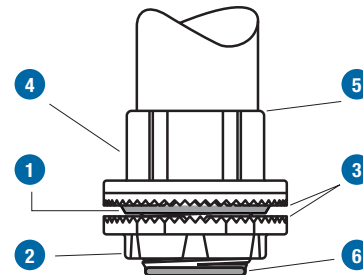
For Aluminum Hubs, add suffix A (i.e., H050A). For Chrome-Plated Hubs, add suffix CP (i.e., H050CP). For 316 Stainless Steel Hubs, add suffix GRSST (i.e., H050GRSST). (1/2" through 2" only.) Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures. CP and SST hubs are also rated NEMA 4X and 12.

UL Listed per NEC® 501.10(B). CSA Certified for hazardous locations Class II Groups E, F, G, Class III

UL File No. E-23018

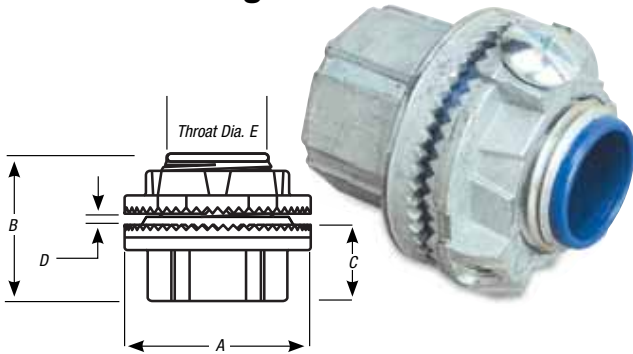
CSA File No. 4484

Chrome-Plated Hubs (suffix-"CP"s) are rated NEMA 4X.



Hubs and Bulkhead Fittings

T&B® Grounding Hub



T&B Hub Centerline Spacing Chart

CONDUIT TRADE SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"
1/2"	1 1/16"											
3/4"	1 43/64"	1 25/32"										
1"	1 27/32"	1 61/64"	2 1/8"									
1 1/4"	2 1/32"	2 3/64"	2 5/16"	2 1/2"								
1 1/2"	2 1/32"	2 29/64"	2 1/2"	2 11/16"	2 7/8"							
2"	2 15/32"	2 37/64"	2 3/4"	2 5/16"	3 3/8"	3 3/8"						
2 1/2"	2 23/32"	2 53/64"	3"	3 3/16"	3 3/8"	3 3/8"	3 3/8"					
3"	3 1/32"	3 3/64"	3 3/16"	3 1/2"	3 11/16"	3 5/8"	4 1/16"	4 1/2"				
3 1/2"	3 11/32"	3 21/64"	3 3/8"	3 13/16"	4"	4 1/4"	4 1/2"	4 13/16"	5 1/8"			
4"	3 19/32"	3 45/64"	3 3/8"	4 1/16"	4 1/4"	4 1/2"	4 3/4"	5 1/16"	5 3/8"	5 3/8"		
5"	4 3/32"	3 25/64"	4 1/16"	4 3/8"	4 15/16"	5 3/16"	5 1/2"	5 3/4"	6 1/16"	6 3/16"	7"	
6"	4 11/16"	4 51/64"	4 31/32"	5 3/32"	5 11/32"	5 19/32"	5 27/32"	6 3/32"	6 15/32"	6 23/32"	7 13/32"	7 13/16"
Nearest Obstruction to Center of Hub	2 7/32"	2 9/64"	1 1/8"	1 3/16"	1 1/2"	1 3/4"	2"	2 3/16"	2 5/8"	2 7/8"	2 9/16"	3 3/32"

CAT. NO.	TRADE SIZE	DIA.					THROAT DIA.
		A	B	C	D	E	
H050GR-TB	1/2	1 1/16"	1 3/16"	7/8"	3/16"	1 9/32"	
H075GR-TB	3/4	1 1/16"	1 19/32"	2 9/32"	3/16"	2 5/32"	
H100GR-TB	1	2"	1 13/16"	1 1/16"	1/4"	1"	
H125GR-TB	1 1/4	2 3/8"	1 7/8"	1 1/16"	1/4"	1 1/16"	
H150GR-TB	1 1/2	2 3/4"	1 7/8"	1 1/16"	1/4"	1 17/32"	
H200GR-TB	2	3 1/4"	1 5/16"	1 5/32"	1/4"	1 31/32"	
H250GR-TB	2 1/2	3 3/4"	2 1/16"	1 1/16"	1/4"	2 13/32"	
H300GR-TB	3	4 3/4"	2 1/16"	1 19/32"	1/4"	2 27/32"	
H350GR-TB	3 1/2	5"	2 23/32"	1 5/8"	1/4"	3 13/32"	
H400GR-TB	4	5 1/2"	2 23/32"	1 5/8"	1/4"	3 7/8"	
H500GR-TB	5	6 3/4"	3 1/32"	1 5/16"	1/4"	4 15/16"	
H600GR-TB	6	7 11/16"	3 3/32"	2"	3/16"	6"	

Material – Hub and Locknut: Zinc or copper-free aluminum
 Insulating Throat: Thermoplastic temp. rating – 105° C
 Flammability Rating – 94V-0
 Sealing Ring: Nitrile (BUNA "N")

For Aluminum Hubs, add suffix A (i.e., H050A). For Chrome-Plated Hubs, add suffix CP (i.e., H050CP). For 316 Stainless Steel Hubs, add suffix GRSST (i.e., H050GRSST). (1/2" through 2" only.) Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures.

UL Listed and CSA Certified. CSA Certified for hazardous locations Class II and Class III locations.

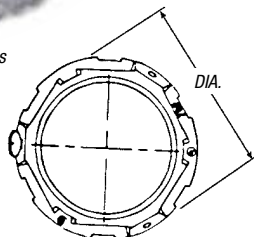
UL File No. E-23018
 CSA File No. 4484

Chrome-Plated Hubs (suffix: "CP") are rated NEMA 4X.

T&B® Grounding and Bonding Locknut



Grounding Locknut for Hubs



CAT. NO.	TRADE SIZE	DIA.	HEIGHT	GROUND SCREW	MAX. CONDUCTOR SIZE
L050GR-TB	1/2	1 1/2"	1 3/32"	#10-32 x 1/4"	#10
L075GR-TB	3/4	1 11/16"	1 3/32"	#10-32 x 1/4"	#10
L100GR-TB	1	2"	1 3/32"	#10-32 x 1/4"	#10
L125GR-TB	1 1/4	2 3/8"	1 5/32"	1/4-20 x 1/4"	#10
L150GR-TB	1 1/2	2 3/4"	1 5/32"	1/4-20 x 5/16"	#8
L200GR-TB	2	3 1/4"	1 5/32"	1/4-20 x 5/16"	#8
L250GR-TB	2 1/2	3 3/4"	1 1/16"	1/4-20 x 5/16"	#6
L300GR-TB	3	4 3/8"	2 3/32"	1/4-20 x 5/16"	#6
L350GR-TB	3 1/2	5"	2 3/32"	1/4-20 x 5/16"	#6
L400GR-TB	4	5 1/2"	2 3/32"	1/4-20 x 5/16"	#4
L500GR-TB	5	6 3/4"	2 3/32"	3/8-16 x 3/8"	#2
L600GR-TB	6	7 11/16"	2 3/32"	3/8-16 x 3/8"	#1

Material – Locknut: Zinc or copper-free aluminum UL File No. E-3060

For Aluminum Locknuts, add suffix A (i.e., L050GRA). CSA File No. 4484

For Chrome-Plated Locknuts, add suffix CP (i.e., L050CP). For 316 Stainless Steel Locknuts, add suffix SST (1/2" through 2" only.) For Locknut with Lay In Lug, add suffix GRL.

Hubs and Bulkhead Fittings

Raintight for Rigid or Intermediate Metal Conduit (IMC)

Chase® Threaded Conduit Hubs

Applications

- A fitting for connecting junction box to junction box, or junction box to the conduit system. The resulting connection maintaining ground continuity is raintight.
- Suitable for use where the system is normally hosed down (NEMA 4) for cleaning.

Features

- Plastic insulated throat, precision cast and machined surfaces permit safer wire pulling.
- Chase® design provides maximum space for wiring in the box. Locking nipple sits flush in the enclosure.
- Captive O-ring fits snugly in groove preventing loss and fumbling with parts.
- Knurled inner face of locking nipple provides 360 degrees of locking and bites through box wall to ensure grounding.
- Locking nipple has tightening lugs on two planes for easier assembly in hard to reach field conditions.
- Grounding hubs have a ground screw located within the enclosure providing a tamper-proof ground for device.
- Locking nipple design permits replacement of the box without disassembling the installation.

Standard Materials

HTZ Series: Certified die cast zinc alloy
ZAMAK 3

HT Series: Die cast aluminum alloy A360
with less than .004 copper content
(copper-free)

O-ring: Buna N

Insulating Sleeves: Plastic

Listings/Compliances

UL Listed

CSA Certified

Suitable for use in Wet Locations

NEMA 4

Standard Finish

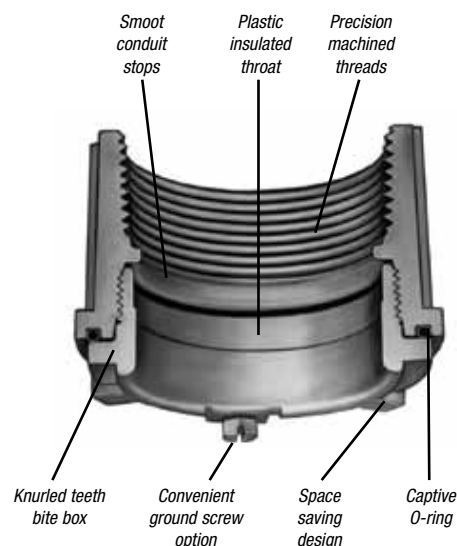
Aluminum lacquer finish



HT, HTZ



HTGZ



Hubs and Bulkhead Fittings

CHASE® Hub with Insulated Throat



HTZ

CHASE® Hub with Insulated Throat and Ground Screw

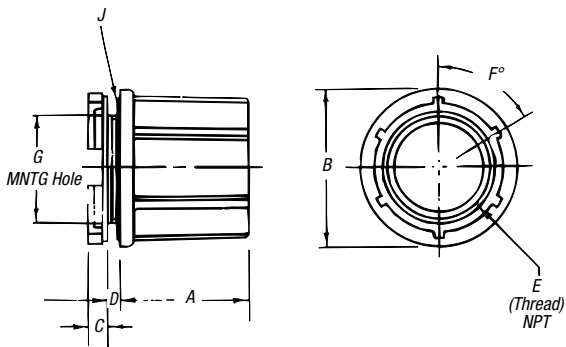


HTGZ

CHASE® Aluminum Hub with Insulated Throat



HT



CAT. NO.	HUB SIZE	STD. PKG.	WT. LBS. APP. PER 100
HTZ1	1/2"	25	26
HTZ2	3/4"	25	32
HTZ3	1"	25	45
HTZ4	1 1/4"	10	58
HTZ5	1 1/2"	10	74
HTZ6	2"	10	93
HTZ7	2 1/2"	5	202
HTZ8	3"	2	250
HTZ9*	3 1/2"	2	300
HTZ10*	4"	2	360

*Made to order item. Consult factory for lead time and minimum quantities.

CAT. NO.	HUB SIZE	STD. PKG.	WT. LBS. APP. PER 100
HTGZ1	1/2"	25	22
HTGZ2	3/4"	25	34
HTGZ3	1"	25	44
HTGZ4	1 1/4"	10	61
HTGZ5	1 1/2"	10	75
HTGZ6	2"	10	95
HTGZ7	2 1/2"	5	204
HTGZ8	3"	2	265
HTGZ9	3 1/2"	2	270
HTGZ10	4"	2	360

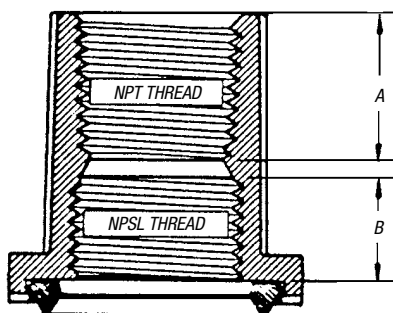
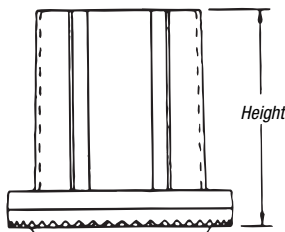
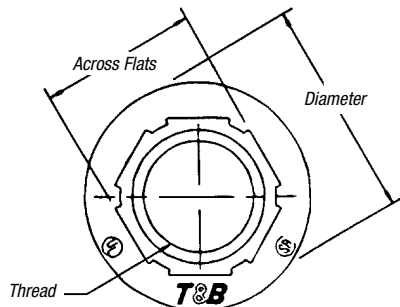
CAT. NO.	HUB SIZE	STD. PKG.	WT. LBS. APP. PER 100
HT1	1/2"	25	12
HT2	3/4"	25	14
HT3	1"	25	20
HT4	1 1/4"	10	27
HT5	1 1/2"	10	32
HT6	2"	10	44
HT7	2 1/2"	5	85
HT8	3"	2	120
HT9	3 1/2"	2	138
HT10	4"	2	155

HTZ, HTGZ and HT Dimensions

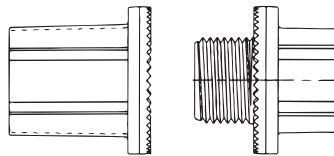
HUB SIZE	PANEL WIDTH						MIN. G	MAX. H	O-RING SIZE J
	A	B	C	D	E	F			
1/2"	1 3/8	1 13/32	1/4	3/16	1/2-14	60	2 1/2	59/64	214
3/4"	1 3/8	1 29/32	1/4	3/16	3/4-14	60	1 3/2	1 11/64	218
1"	1 19/32	1 7/8	1/4	3/16	1-11 1/2	60	1 5/16	1 29/32	222
1 1/4"	1 29/32	2 9/16	1/4	1/4	1 1/4-11 1/2	60	1 43/64	1 59/64	225
1 1/2"	1 3/4	2 3/8	1/4	1/4	1 1/2-11 1/2	60	1 29/32	2 19/64	227
2"	1 25/32	3 5/32	1/4	1/4	2-11 1/2	60	2 3/8	2 29/32	231
2 1/2"	2 1/4	2 59/64	3/8	1/4	2 1/2-8	45	2 7/8	3 39/32	236
3"	2 29/64	4 7/16	3/8	1/4	3-8	45	3 1/2	3 59/64	241
3 1/2"	2 23/64	4 13/16	3/8	1/4	3 1/2-8	45	4	4 7/16	245
4"	2 3/8	5 9/16	3/8	1/4	4-8	45	4 1/2	4 59/64	248

Hubs and Bulkhead Fittings

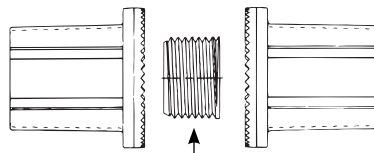
T&B® Bulkhead Fittings



Bulkhead Fitting

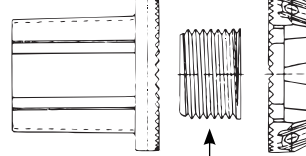


Thru Bulkhead Fitting



Nipple Nut
Not Included

Thru Bulkhead Hub



Nipple Nut
Not Included

CAT. NO. TRADE SIZE (IN.)

Bulkhead Fitting

H050BHD	1/2
H075BHD	3/4
H100BHD	1
H125BHD	1 1/4
H150BHD	1 1/2
H200BHD	2
H250BHD	2 1/2
H300BHD	3
H350BHD	3 1/2
H400BHD	4
H500BHD	5
H600BHD	6

Thru Bulkhead Fitting

H050TBF	1/2
H075TBF	3/4
H100TBF	1
H125TBF	1 1/4
H150TBF	1 1/2
H200TBF	2

Thru Bulkhead Hub

H050TBH	1/2
H075TBH	3/4
H100TBH	1
H125TBH	1 1/4
H150TBH	1 1/2
H200TBH	2

TRADE SIZE	THREAD	HEIGHT	DIAMETER	ACROSS		
				FLATS	A (IN.)	B (IN.)
1/2"	1/2"-14"	1 1/32"	1 1/16"	1"	3/4	1/2
3/4"	3/4"-14"	1 1/32"	1 1/16"	1 1/4"	25/32	17/32
1"	1"-11 1/2"	1 1/16"	2"	1 17/32"	29/32	19/32
1 1/4"	1 1/4"-11 1/2"	1 25/32"	2 3/8"	1 27/32"	29/32	21/32
1 1/2"	1 1/2"-11 1/2"	1 13/16"	2 3/4"	1 1/8"	29/32	21/32
2"	2"-11 1/2"	1 27/32"	3 1/4"	2 3/8"	1 5/16	21/32
2 1/2"	2 1/2"-8"	2 3/32"	3 3/4"	3 1/8"	1 1/32	7/8
3"	3"-8"	2 1/16"	4 3/8"	3 25/32"	1 3/16	29/32
3 1/2"	3 1/2"-8"	2 1/16"	5"	4 9/32"	1 3/8	7/8
4"	4"-8"	2 1/16"	5 1/2"	4 27/32"	1 3/8	7/8
5"	5"-8"	2 23/32"	6 3/8"	5 29/32"	1 15/32	7/8
6"	6"-8"	3"	7 1/16"	7 1/32"	1 1/2	31/32

Material — Hub, Body and Locknut: Zinc or copper-free aluminum
 Insulating Throat: Thermoplastic temp. rating – 105° C
 Flammability Rating – 94V-0

Sealing Ring: Nitrile (BUNA "N")
 For Aluminum Bulkheads, add suffix A. UL File No. E-3060
 For Chrome-Plated Bulkheads, add suffix CP. CSA File No. 4484

Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures.

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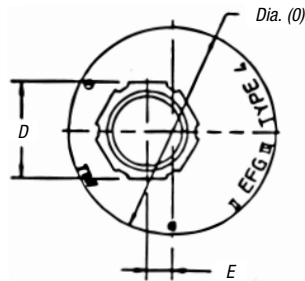
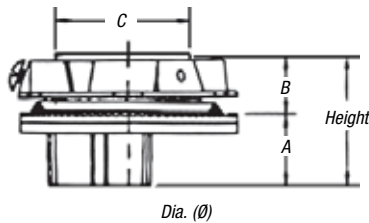
United States
 Tel: 901.252.8000
 800.816.7809
 Fax: 901.252.1354

Technical Services
 Tel: 888.862.3289

Thomas & Betts

Hubs and Bulkhead Fittings

Offset Reducers

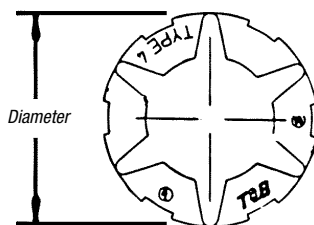
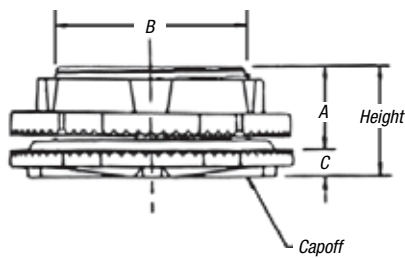


CAT. NO.	TRADE SIZE	HEIGHT	DIA. (Ø)	(IN.)				
				A DIA.	B	C	D	E
H150-TB075ORGR	1½"–¾"	1 ²¹ / ₃₂ "	2¾	1 ⁵ / ₁₆	2 ³ / ₃₂	1 ²⁹ / ₃₂	1 ⁹ / ₃₂	1 ¹ / ₃₂
H150-TB100ORGR	1 ⁹ / ₃₂ "–1"	1 ²⁵ / ₃₂ "	2¾	1 ¹ / ₁₆	2 ³ / ₃₂	1 ²⁹ / ₃₂	1 ⁹ / ₁₆	7 ¹ / ₃₂
H150-TB125ORGR	1 ⁹ / ₃₂ "–1¼"	1 ²⁵ / ₃₂ "	2¾	1 ¹ / ₁₆	2 ³ / ₃₂	1 ²⁹ / ₃₂	1 ⁷ / ₈	1 ¹ / ₃₂
H250-TB200ORGR	2½"–2"	2½"	3¾	1 ¹ / ₁₆	1 ⁵ / ₁₆	2 ²⁹ / ₃₂	2 ² / ₃₂	¾

Material — Offset Reducer and Locknut: Zinc or copper-free aluminum
 Insulating Throat: Thermoplastic Temp. Rating – 105° C
 Flammability Rating – 94V-0
 Sealing Ring: Nitrile (BUNA "N")

For Aluminum Offset Reducer, add suffix A.
 For Chrome-Plated Offset Reducer, add suffix CP.
 Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures.
 CSA Certified for hazardous locations Class II Groups E.F.G. Class III.
 UL File No. E-3060
 CSA File No. 4484

Capoffs



CAT. NO.	TRADE SIZE	HEIGHT	(IN.)			
			DIAMETER	A	B	C
H050CAP	½"	1 ¹³ / ₃₂ "	1 ¹ / ₁₆	1 ⁹ / ₃₂	2 ¹ / ₃₂	¾
H075CAP	¾"	1 ¹⁵ / ₃₂ "	1 ¹¹ / ₁₆	1 ⁹ / ₃₂	1 ¹ / ₁₆	¾
H100CAP	1"	1 ¹¹ / ₁₆ "	2	1 ¹¹ / ₁₆	1 ³ / ₁₆	¼
H125CAP	1¼"	1 ²⁹ / ₃₂ "	2 ⁵ / ₈	2 ³ / ₃₂	1 ²⁹ / ₃₂	¼
H150CAP	1½"	1 ¹³ / ₁₆ "	2¾	2 ³ / ₃₂	1 ²⁹ / ₃₂	¼
H200CAP	2"	1 ²⁷ / ₃₂ "	3¼	2 ³ / ₃₂	2 ⁵ / ₈	¼
H250CAP	2½"	2 ⁹ / ₃₂ "	3¾	7 ⁷ / ₈	2 ²⁹ / ₃₂	¼
H300CAP	3"	2 ⁹ / ₁₆ "	4¾	7 ⁷ / ₈	3 ¹ / ₃₂	1 ¹ / ₃₂
H350CAP	3½"	2 ⁹ / ₁₆ "	5	2 ²⁹ / ₃₂	4 ¹ / ₃₂	1 ¹ / ₃₂
H400CAP	4"	2 ⁹ / ₁₆ "	5½	2 ²⁹ / ₃₂	4 ¹ / ₂	1 ¹ / ₃₂
H500CAP	5"	2 ²³ / ₃₂ "	6 ⁵ / ₈	2 ²⁹ / ₃₂	5 ⁹ / ₁₆	1 ¹ / ₃₂
H600CAP	6"	3"	7 ⁷ / ₈	3 ¹ / ₃₂	6 ⁷ / ₈	1 ¹ / ₃₂

Material — Capoff and Locknut: Zinc or copper-free aluminum
 Insulating Throat: Thermoplastic temp. rating – 105° C
 Flammability Rating – 94V-0
 Sealing Ring: Nitrile (BUNA "N")

For Aluminum Capoff, add suffix A.
 For Chrome-Plated Capoff, add suffix CP.
 Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures.
 CSA Certified for hazardous locations Class II Groups E.F.G. Class III.
 UL File No. E-3060
 CSA File No. 4484

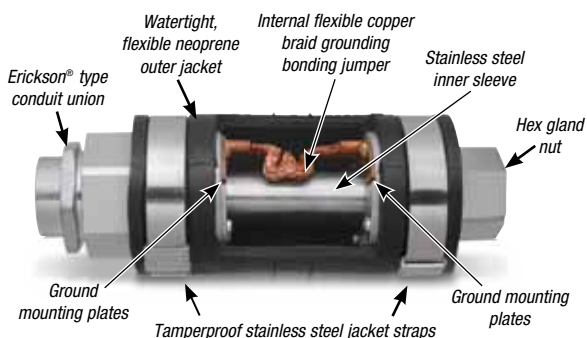
Couplings and Accessories

Watertight, flexible connections support movement and thermal expansion!

XD Expansion/Deflection Coupling

Use the T&B XD Expansion/Deflection Coupling to join two conduit runs in applications where movement in any direction is required. The coupling provides a flexible, watertight connection, accommodating axial or parallel movement of up to 3/4" and angular movement of up to 30° from normal.

- Ideal for use in bridges, tunnels, interbuilding walkways, docks and piers, wastewater and water treatment facilities and other applications in which conduit runs are subject to movement due to external forces or temperature changes
- Suitable for use indoors, outdoors, direct buried or embedded in concrete
- Watertight, flexible neoprene outer jacket, zinc-plated and acrylic-painted hubs and stainless steel tamperproof straps ensure superior corrosion resistance — ideal for use in harsh environments
- Copper ground mounting plates and grounding bonding jumper both entirely enclosed to safeguard against theft
- Includes an Erickson® type conduit union for faster, easier installation to reduce labor costs
- Durable stainless steel inner sleeve provides a constant, smooth inner diameter in any position to ease wire pulling and protect wire insulation from damage
- NPT threaded hubs fit standard threaded rigid metal conduit
- Can also be used with rigid PVC conduit with the use of standard adapters (not supplied)

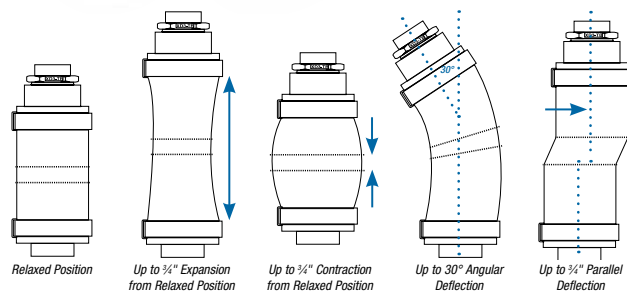


Listings/Compliances

UL® Listed to UL 514B and CSA Certified to C22.2 No. 18.3
Suitable for Wet Locations (hub sizes 1"–6")

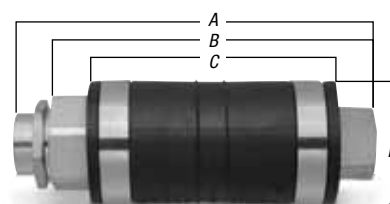
Watertight — NEMA 4

NEC® Article 250.98 and 300.4(A) compliant



Standard Materials/Finish

Hub.....	Ductile cast iron, zinc-plated and aluminum acrylic painted
Inner Sleeve	Stainless steel
Internal Grounding Bonding Jumper	Flexible copper braid
Ground Mounting Plates.....	Copper
Hub Rings	Zinc-plated steel
Outer Jacket.....	Molded neoprene (natural black)
Jacket Straps	Stainless steel



CAT. NO.	HUB SIZE (IN.)	DIMENSIONS (IN.)			
		A	B	C	D
XD3-TB	1	9 ³ / ₁₆	8 ¹ / ₃₂	6 ¹ / ₁₆	3 ¹ / ₃₂
XD4-TB	1 ¹ / ₄	9 ³ / ₁₆	8 ³ / ₈	6 ⁷ / ₈	3 ³ / ₈
XD5-TB	1 ¹ / ₂	9 ¹ / ₄	8 ⁷ / ₃₂	6 ³ / ₄	4 ⁵ / ₃₂
XD6-TB	2	9 ¹ / ₄	8 ² / ₃₂	7 ¹ / ₄	4 ¹ / ₁₆
XD7-TB	2 ¹ / ₂	11 ¹ / ₄	11 ¹ / ₈	9 ¹ / ₂	4 ⁷ / ₈
XD8-TB	3	10 ¹ / ₂	9 ² / ₃₂	7 ² / ₃₂	5 ¹ / ₁₆
XD9-TB	3 ¹ / ₂	10 ⁹ / ₁₆	9 ³ / ₄	7 ³ / ₄	6 ⁵ / ₈
XD10-TB	4	13 ³ / ₁₆	11 ² / ₃₂	8 ⁷ / ₈	7 ³ / ₃₂
XD12-TB	5	14	12 ¹ / ₁₆	11	8 ⁹ / ₃₂
XD14-TB	6	14 ¹ / ₁₆	13 ³ / ₈	11 ¹ / ₂	9 ¹ / ₃₂

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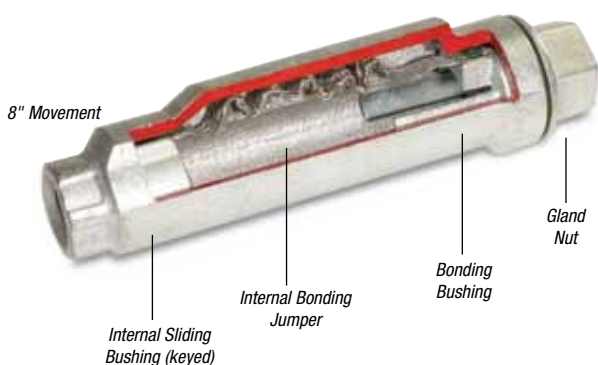
United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

Couplings and Accessories

No disassembly required! XJG Conduit Expansion Coupling



Slide the fitting onto the conduit until it stops at the internal sliding bushing. Tighten and you're ready. No parts to reassemble!



With a wrench, tighten the gland nut to compress the Teflon packing, creating a raintight seal around the conduit.

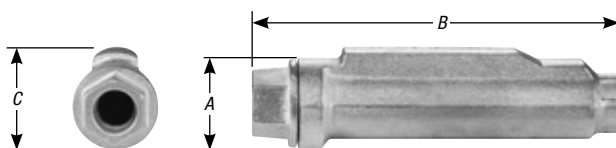


Thread the next length of conduit into the other end of the fitting and tighten. You're done!

Suggested Specifications for Expansion Fittings for Rigid Steel or Intermediate Metal Conduit

Where raceways require expansion fittings to compensate for thermal expansion and contraction and where expansion fittings and telescoping sections of metal raceway shall be made electrically continuous by bonding jumpers or other means:

- The fitting will be constructed from malleable or ductile iron with exterior and interior zinc plating for corrosion protection.
- The fitting shall be constructed so that disassembly is not required during installation.
- The fitting shall be raintight after installation.
- The fitting shall have an internal bonding jumper constructed of a tinned copper braid, sized to meet UL fault current test requirements and comply with bonding requirements — NEC® Article 250.98
- External bonding jumper shall not be required to comply with NEC® requirements
- Accepted Manufacturers: Thomas & Betts XJG-TB Series



XJG-TB Conduit Expansion Coupling for Rigid and Intermediate Metal Conduit

CAT NO.	SIZE	MOVEMENT	A DIAMETER IN.	B LENGTH IN.	C HEIGHT IN.
XJG24-TB	¾"	4"	2.43	10.00	2.75
XJG28-TB	¾"	8"	2.43	14.00	2.75
XJG34-TB	1"	4"	2.67	10.00	2.99
XJG38-TB	1"	8"	2.67	14.00	2.99
XJG44-TB	1¼"	4"	3.36	10.56	3.68
XJG48-TB	1¼"	8"	3.36	14.56	3.68
XJG54-TB	1½"	4"	3.36	10.56	3.68
XJG58-TB	1½"	8"	3.36	14.56	3.68
XJG64-TB	2"	4"	3.86	11.25	4.18
XJG68-TB	2"	8"	3.86	15.25	4.18
XJG74-TB	2½"	4"	4.96	12.12	5.25
XJG78-TB	2½"	8"	4.96	16.12	5.25
XJG84-TB	3"	4"	4.96	12.12	5.25
XJG88-TB	3"	8"	4.96	16.12	5.25
XJG94-TB	3½"	4"	6.37	12.87	6.75
XJG98-TB	3½"	8"	6.37	16.87	6.75
XJG104-TB	4"	4"	6.37	12.87	6.75
XJG108-TB	4"	8"	6.37	16.87	6.75
XJG1208-TB	5"	8"	7.99	18.87	8.56

Please consult Technical Services for special orders and availability of products not shown in this list.

Couplings and Accessories



Features

- Fast and easy installation — no disassembly required
- No external grounding strap needed — internal bonding jumper is protected from tampering and the environment
- Exceeds code requirements for long conduit runs to permit linear movement

Standard Materials/Finish

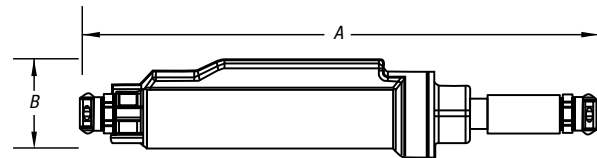
Body Ductile Iron, available PVC Coated
 Internal Bonding Jumper Tinned Copper Braid
 Exterior and Interior Finish Zinc Plating, Aluminum Acrylic Paint
 Packing PTFE/Synthetic Fiber Material

Listings/Compliances

UL File E23018, Std. 514B, Suitable for Wet Locations
 CSA File LR2884, Std. C22.2 No. 18
 NEC® 250.98



Note: XJG-EMT Couplings are not raintight and are for use in dry locations only. They are UL Listed for use with aluminum EMT.



XJG-EMT Conduit Expansion Coupling for EMT

CAT NO.	SIZE	MOVEMENT	A LENGTH (IN.)	B HEIGHT (IN.)
XJG24-EMT	¾"	4"	17.39	2.75
XJG28-EMT	¾"	8"	21.39	2.75
XJG34-EMT	1"	4"	17.42	2.99
XJG38-EMT	1"	8"	21.42	2.99
XJG44-EMT	1¼"	4"	18.27	3.46
XJG48-EMT	1¼"	8"	22.27	3.46
XJG54-EMT	1½"	4"	18.69	3.68
XJG58-EMT	1½"	8"	22.69	3.68
XJG64-EMT	2"	4"	19.04	4.18
XJG68-EMT	2"	8"	23.04	4.18
XJG74-EMT	2½"	4"	23.23	4.52
XJG78-EMT	2½"	8"	27.23	4.52
XJG84-EMT	3"	4"	24.09	5.25
XJG88-EMT	3"	8"	28.09	5.25
XJG94-EMT	3½"	4"	28.70	6.00
XJG98-EMT	3½"	8"	28.70	6.00
XJG104-EMT	4"	4"	29.30	6.75
XJG108-EMT	4"	8"	29.30	6.75



Threadless Connector/Coupling

(For Threadless Rigid Metal Conduit and Intermediate Metal Conduit)

Application

- To connect and effectively bond threadless rigid metal conduit/intermediate metal conduit to a box or enclosure, or to couple ends of threadless conduit

Features

- Steel/Malleable Iron construction
- Case-hardened ring bites into conduit for high-quality continuity and grip
- Nylon insulator firmly secured in place protects conductors and reduces wire pulling effort by as much as 50%; prevents thread damage in handling
- Case-hardened steel locknut or malleable iron locknut designed to provide a positive bond
- Suitable for concrete-tight application
- Capable of carrying ground fault currents up to 10,000 amps RMS (½" through 1½" size) and 20,000 amps RMS (2" and above sizes) for a duration of current three cycles

Standard Material

Nut, Gland ½" to 1" Steel – ¼" to 4" Malleable Iron
 Body All Malleable Iron
 Ring Steel (case hardened)
 Insulator Nylon
 Locknut ½" thru 2" Steel (hardened) 2" thru 4" Malleable Iron

Standard Finish

Electro Zinc Plated & Chromate Coated

Range

8123 & 8120 Series ½" through 4" Size Conduit
 8130 Series ½" through 2" Size Conduit
 All hub threads Straight Pipe (NPS)

Listings/Compliances

UL 514B Federal Specification A-A-50553
 CSA C22.2 No. 18 Federal Standard H-28 (Threads)
 NFPA 70 UL (UL File No: E-23018)
 NEMA FB1 CSA (LR-2884, LR-4484)

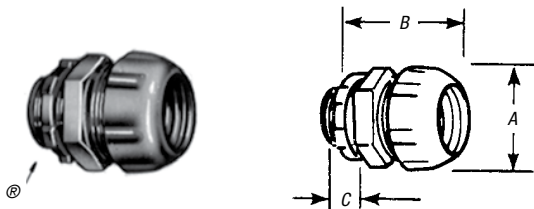


Couplings and Accessories

Split steel ring with diagonal serrations grips conduit and bites in for positive ground!

Threadless Connectors — Nylon Insulated

- Makes a permanent connection
- Eliminates need for cutting a thread on conduit
- Insulation helps ensure continuity of service by protecting the conductor at the critical point — the connector bushing
- Malleable iron construction
- Look for the unique T&B blue color, ensuring the highest quality fitting



CAT. NO.		CONDUIT SIZE	DIMENSIONS (IN.)		
NYLON INSUL.	NON-INSUL.		A	B	C
8123	8121	1/2"	1 1/32	1 1/16	1/2
8223	8221	3/4"	1 17/32	1 3/4	1/2
8323	8321	1"	1 29/32	2	9/16
8423	8421	1 1/4"	2 3/8	2 7/16	1 1/16
8523	8521	1 1/2"	2 11/16	2 5/8	3/4
8623	8621	2"	3 1/4	2 13/16	7/32
8723-TB	8721	2 1/2"	4 1/8	3 3/16	1 1/8
8823	8821	3"	4 7/8	4	1 1/32
8853	8851	3 1/2"	5 1/2	4 1/8	1 1/8
8973	8971	4"	6 1/32	4 7/8	1 1/8

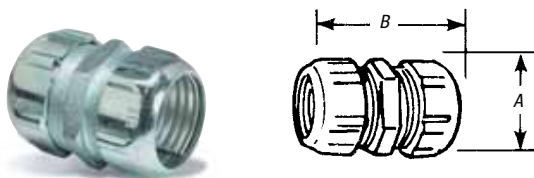
Available with DURA-PLATE® Finish. UL File No. E-23018 CSA File No. 2884

Just tighten with a wrench to make a UL Listed and CSA Certified concrete-tight connection!



Threadless Couplings

- Eliminates need for conduit threading
- Malleable iron construction



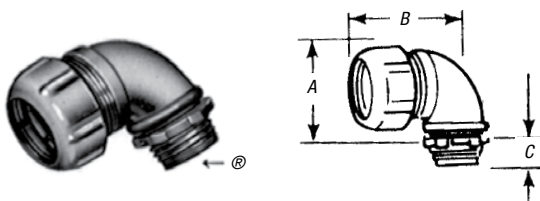
CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
8120	1/2"	1 9/32	2
8220	3/4"	1 9/32	2 9/16
8320	1"	1 7/8	2 11/16
8420	1 1/4"	2 3/8	2 13/16
8520	1 1/2"	2 5/8	3 5/8
8620	2"	3 1/4	3 13/16
8720	2 1/2"	3 15/16	5 5/8
8820	3"	4 11/16	5 1/2
8850	3 1/2"	5 3/16	5 1/2
8970	4"	5 11/16	5 1/2

Available with DURA-PLATE® Finish. UL File No. E-23018 CSA File No. 2884

Ideal for entering enclosure or conduit body at right angles!

Threadless Short Elbows — Nylon Insulated

- Eliminates need to thread conduit
- As with straight couplings, makes a concrete-tight connection
- Malleable iron construction



CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
8130	1/2"	1 11/32	1 1/2	1/2
8131	3/4"	1 5/8	1 3/4	9/16
8132	1"	1 7/8	1 15/16	1 1/16

Available with DURA-PLATE® Finish. UL File No. E-23018 CSA File No. 2884

Couplings and Accessories

Set-Screw Connector/Coupling

(For Threadless Rigid Metal Conduit and Intermediate Metal Conduit)

Application

- To connect and effectively bond threadless rigid metal conduit or intermediate metal conduit to a box or enclosure or to couple ends of threadless conduit

Features

- Thickwall steel or malleable iron body
- Hardened hex head cup point screw to provide high-quality bond
- Screw captivated, will not vibrate loose
- Nylon insulated throat meets and exceeds all code requirements for bushing:
 - Prevents thinning of insulation
 - Reduces installation effort
 - Prevents first thread damage

- Coupling provided with positive center stop
- Suitable for concrete-tight application
- Capable of carrying ground fault currents up to 10,000 amps RMS (½" through 1½" size) and 20,000 amps RMS (2" and above sizes)

Standard Material

Body	½" thru 2" Steel	2½" thru 4" Malleable Iron
Locknut	½" thru 2" Steel (hardened)	2½" thru 4" Malleable Iron
Screw	Steel (hardened)	
Insulator	Nylon	



Standard Finish

Electro Zinc Plated & Chromate Coated

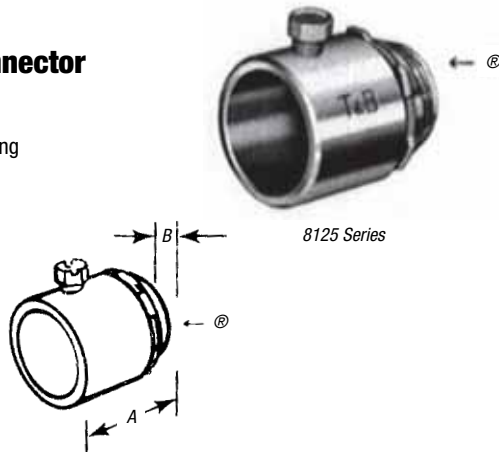
Listings/Compliances

UL (UL File No: E-23018)
 CSA (LR-2884, LR-4484)
 UL 514B
 CSA C22.2 No. 18
 NFPA 70
 NEMA FB1
 Federal Specification A-A-50553
 Federal Standard H-28 (Threads)

Eliminates the need for conduit threading!

Insulated Set-Screw Connector

- Captive hex head screws tighten down onto conduit for positive holding strength and ground
- Furnished with insulated throats to reduce wire-pulling effort by as much as 50%
- Approved concrete-tight



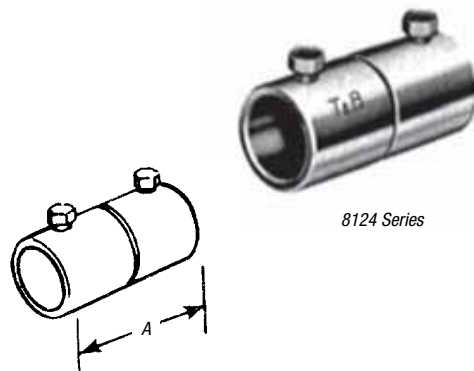
CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)	
		A	B
8125	½"	1⅞	1⅝
8225	¾"	1½	7/16
8325	1"	1⅞	⅝
8425	1¼"	2	⅝
8525	1½"	2⅞	⅝
8625-TB	2"	2⅞	1⅞
8725-TB	2½"	3⅞	1
8825	3"	3⅞	1
8855	3½"	3⅞	1⅞
8975	4"	4⅞	1⅞

Sizes ½"-2" made of steel. Sizes 2½"-4" are malleable iron.
 Available with DURA-PLATE® Finish.
 UL File No. E-23018 CSA File No. 2884

No need to thread conduit ends when joining rigid conduit!

Set-Screw Coupling

- Captive hex head screws provide positive holding strength and ground continuity
- Approved concrete-tight



CAT. NO.	CONDUIT SIZE	DIMENSION (IN.)
		A
8124	½"	2½
8224	¾"	2⅞
8324-TB	1"	2⅞
8424	1¼"	3
8524	1½"	3⅞
8624	2"	3⅞
8724	2½"	3⅞
8824-TB	3"	4¼
8854	3½"	4⅞
8974	4"	5⅞

Sizes ½"-2" made of steel; sizes 2½"-4" are malleable iron.
 Available with DURA-PLATE® Finish.
 UL File No. E-23018 CSA File No. 2884

www.tnb.com

United States
 Tel: 901.252.8000
 800.816.7809
 Fax: 901.252.1354

Technical Services
 Tel: 888.862.3289

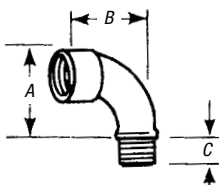
Thomas & Betts

Couplings and Accessories

Smoothly rounded shoulders protect conductor insulation!

Bushed Elbows

- Non-insulated
- Malleable iron construction



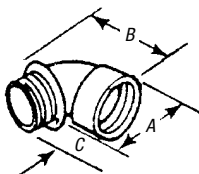
CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
460-TB	1/2"	1 1/8	1 13/16	5/8
461TB	3/4"	1 1/2	2 1/4	5/8
462	1"	1 13/16	2 11/16	3/4
463	1 1/4"	2 1/4	3 3/8	3/4

Available with DURA-PLATE® Finish. UL File No. E-23018. CSA File No. 2884

Integral insulation ensures a smooth bushing in every fitting!

Short Elbows — Nylon Insulated

- Malleable iron construction



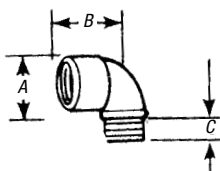
CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
4290	1/2"	1 1/32	1 1/4	1/2
4291	3/4"	1 1/16	1 9/16	9/16
4292	1"	1 23/32	1 9/16	1 1/16
4293	1 1/4"	2 7/32	2 1/16	1 3/16
4294	1 1/2"	2 15/32	2 3/16	1 3/16
4295	2"	3	2 9/16	1 3/16

Available with DURA-PLATE® Finish. Not UL or CSA.

For non-insulated applications.

Short Elbows

- Malleable iron construction

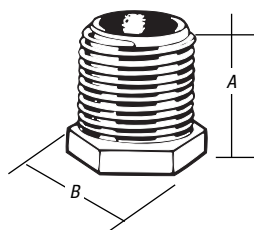


CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
4250	1/2"	1 1/16	1 1/4	7/16
4251	3/4"	1 17/32	1 9/16	1/2
4252	1"	1 13/16	1 9/16	5/8
4253	1 1/4"	2 7/32	2 1/16	1 1/16
4254	1 1/2"	2 9/16	2 3/16	1 1/16
4255	2"	3 3/32	2 9/16	1 1/16

Available with DURA-PLATE® Finish. U.L. File #E-23018 CSA File No. 589

Conduit Nipples

- Die-cast zinc
- 1" long

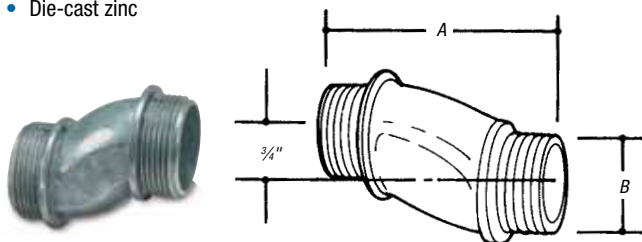


CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
HA-211	1/2"	1"	1 5/16"
HA-212	3/4"	1"	1 7/16"
HA-213	1"	1"	1 7/16"

UL File No. E-1275 1/2" & 3/4" only

Offset Nipples

- Die-cast zinc



CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
HO-221	1/2"	2.60"	1.00"
HO-222	3/4"	2.62"	1.32"
HO-223	1"	2.68"	1.51"
HO-224	1 1/4"	2.85"	1.85"
HO-225	1 1/2"	2.88"	2.08"
HO-226	2"	3.19"	2.71"

*3/4" offset
UL File No. E-1275*

Couplings and Accessories

Threaded Erickson® Three-Piece Coupling

(For Threaded Rigid Metal Conduit and Intermediate Metal Conduit)



674 Series
675AL Series

Application

- To couple and effectively bond threaded ends of rigid metal conduit/intermediate metal conduit where neither length of conduit can be rotated

Features

- Malleable iron/steel/copper-free aluminum construction
- Free fitting threads ensure easy assembly
- Permits conduit coupling without rotating either conduit
- Provides rigid in-line coupling with high-quality grounding; will not loosen under vibration
- Suitable for concrete-tight application
- Capable of carrying ground fault currents up to 10,000 amps RMS (1/2" through 1 1/2" size) and up to 20,000 amps RMS (2" and above) (duration of fault current three cycles) (674 series tested)

Standard Material

674 Series

Bushing & Case..... Malleable Iron
Ring..... Steel & Malleable Iron

675AL Series

Bushing & Case..... Aluminum
Ring..... Aluminum

Standard Finish

674 Series: Electro Zinc Plated & Chromate Coated

675AL Series: Degreased

Range

3/8" thru 6" Conduit (malleable iron)

1/2" thru 6" Conduit (aluminum)

All straight pipe threads (NPS)

Listings/Compliances

UL 514B

CSA C22.2 No. 18

NEMA FB1

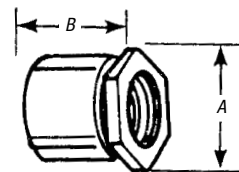
NFPA 70-1999 (ANSI)

Federal Specification A-A-50553

Federal Standard H-28 (Threads)

Raintight

With an ERICKSON® coupling, a conduit run may be completed when neither conduit can be turned. A conduit run may also be broken without taking down the whole run. Conduit joined with ERICKSON® Couplings is rigid and in line and vibration will not loosen the connections. Malleable iron.



CAT. NO.	ALUM.* CAT. NO.	SIZE	DIMENSIONS (IN.)	
			A	B
674	—	3/8"	1 1/8	1 1/8
675	675AL	1/2"	1 5/32	1 1/4
676	676AL	3/4"	1 1/16	1 13/32
677	677AL	1"	1 29/32	1 5/8
678	678AL	1 1/4"	2 3/8	1 13/16
679	679AL	1 1/2"	2 5/8	1 31/32
680TB	680AL	2"	3 3/32	2 7/32
681	681AL	2 1/2"	3 31/32	2 11/16
682	682AL	3"	4 1/16	2 29/32
683	683AL	3 1/2"	5	3
684	684AL	4"	5 1/2	3 3/16
685	685AL	4 1/2"	6 1/4	3 15/32
686	686AL	5"	6 29/32	3 3/4
687	687AL	6"	8	4 1/32

*Copper-Free Aluminum

UL Listed and CSA Certified concrete-tight.

UL File No. E-23018

CSA File No. 2984

Split Couplings

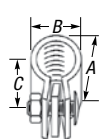
- Ideal for retrofit installations or in tight areas
- Fast installation
- Neoprene gasket provides a concrete-tight seal
- Joins threaded conduit even when the conduit can't rotate
- Approved for direct burial

Specifications.....

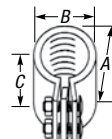
- Material: Malleable Iron
- Plating: Zinc Plated
- Gasket: Neoprene
- Standards: UL Standard 514B, NEMA FB-1



T&B's Split Coupling is a simple method to join threaded conduits in retrofits or in snug areas. Available in 1/2" to 6".



1/2" and 3/4" furnished with one screw



1" and 6" furnished with two screws

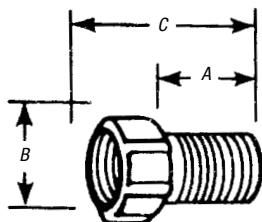
CAT. NO.	TRADE SIZE	DIMENSIONS (IN.)			WEIGHT PER 100
		A	B	C	
SPCP50	1/2"	2	1 1/4	1 1/4	34.4
SPCP75	3/4"	2 5/16	1 1/2	1 1/4	39.4
SPCP100	1"	2 5/8	1 13/16	1 5/8	60.0
SPCP125	1 1/4"	3 1/16	2 1/16	1 5/8	75.0
SPCP150	1 1/2"	3 3/16	2 1/8	1 15/16	112.5
SPCP200	2"	3 13/16	2 5/8	2	112.5
SPCP250	2 1/2"	4 5/8	3 3/16	3 1/16	275.0
SPCP300	3"	5 5/16	4 3/8	3 3/8	300.0
SPCP350	3 1/2"	6 1/16	4 13/16	3 3/4	425.0
SPCP400	4"	6 5/16	5 3/8	3 3/8	500.0
SPCP500	5"	8 1/16	6 3/16	3 3/8	900.0
SPCP600	6"	9 1/4	7 3/8	4 3/16	1,300.0

Couplings and Accessories

The ideal solution for applications requiring longer thread length!

Panel Connector Extensions

- Will combine with any fitting with a male thread
- Male thread of panel connector extension is 1" long
- Malleable iron construction



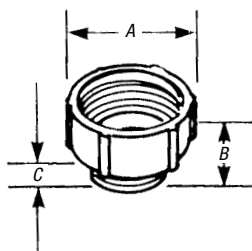
CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
1440	1/2"	1 1/4	1 3/32	1 1/8
1441	3/4"	1 3/8	1 1/2	2
1442	1"	1 1/4	1 1/32	1 15/16
1443	1 1/4"	1 1/4	1 1/16	1 1/8

UL File No. E-23018
CSA File No. 2884



Adapt an outlet hole to the next larger size of conduit!

Male Enlargers*



- Built-in bushing covers rough ends of conduit
- Malleable iron construction

CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
1245	1/2" to 3/4"	1 13/32	1 1/16	1/2
1246	3/4" to 1"	1 11/16	1 1/4	15/32
1244	1" to 1 1/4"	2 1/16	1 1/2	1/2
1247	1 1/4" to 1 1/2"	2 5/16	1 3/8	3/16

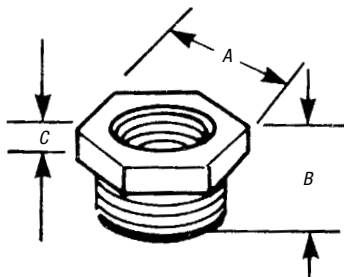
* All items shown in this chart are suitable for use in hazardous locations where general purpose equipment is specifically permitted by the NEC; Class I, Div. 2; Class II, Div. 1 & 2; Class III, Div. 1 & 2, NEC 501-4(b); 502-4(a)(b); 503-3(a)(b). Available with DURA-PLATE® Finish.
UL File No. E-23018
CSA File No. 2884



Adapt any outlet to the next smaller size of conduit!

Female Reducers*

- Hex shoulder for easy wrench tightening
- Malleable iron construction



CAT. NO.	SIZE	DIMENSIONS (IN.)		
		A	B	C
1250-TB	3/4" to 1/2"	1 1/8	5/8	3/16
1261	1" to 1/2"	1 1/16	21/32	3/16
1251	1" to 3/4"	1 3/8	1 1/16	3/16
1262	1 1/4" to 1/2"	1 13/16	23/32	3/16
1263	1 1/4" to 3/4"	1 13/16	23/32	3/16
1252	1 1/4" to 1"	1 3/4	25/32	7/32
1253	1 1/2" to 1 1/4"	2	13/16	1/4
1254	2" to 1 1/2"	2 3/8	13/16	9/32
1255	2 1/2" to 2"	3	1 1/4	3/8
1256	3" to 2 1/2"	3 3/8	1 1/2	1/2
1257	3 1/2" to 3"	4 1/8	1 15/16	1/2
1258	4" to 3 1/2"	4 5/8	1 15/16	1/2

* All items shown in this chart are suitable for use in hazardous locations where general purpose equipment is specifically permitted by the NEC; Class I, Div. 2; Class II, Div. 1 & 2; Class III, Div. 1 & 2, NEC 501-4(b); 502-4(a) (b); 503-3(a) (b). Available with DURA-PLATE® Finish. UL File No. E-23018 CSA File No. 2884



Couplings and Accessories

Stainless Steel Pipe Straps



Thomas & Betts offers stainless steel pipe straps to support and securely fasten rigid, IMC and EMT conduit. One- and two-hole stainless steel straps are ideal for industrial applications such as petro-chemical plants, manufacturing plants, pulp and paper mills, food processing, power plants, refineries and mining operations. Stainless steel pipe straps are also useful in commercial applications in schools, hospitals, office buildings, airports, casinos and stadiums.

- Higher degree of corrosion resistance than traditional zinc-plated or hot-dipped galvanized straps
- One and two-hole straps for EMT sizes ½" through 2"
- One and two-hole straps for Rigid and IMC size ½" through 4"
- 303 stainless steel

CAT. NO.	TRADE SIZE	WT. PER 100	HOLE DIA.	STD. PKG.
One-Hole EMT Straps				
TS101-SS	½"	2.21	¼"	25
TS102-SS	¾"	2.49	¼"	25
TS103-SS	1"	3.31	¼"	25
TS104-SS	1¼"	3.64	⅜"	10
TS105-SS	1½"	3.87	⅜"	5
TS106-SS	2"	4.03	⅜"	5

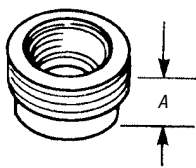
CAT. NO.	TRADE SIZE	WT. PER 100	HOLE DIA.	STD. PKG.
One-Hole Rigid/IMC Straps				
HS100-SS	¾"	2.00	⅜"	20
HS101-SS	½"	2.21	⅜"	20
HS102-SS	¾"	2.49	⅜"	20
HS103-SS	1"	3.48	⅜"	20
HS104-SS	1¼"	3.76	⅜"	10
HS105-SS	1½"	18.22	⅜"	10
HS106-SS	2"	19.69	⅜"	5
HS107-SS	2½"	67.21	⅜"	5
HS108-SS	3"	76.45	⅜"	5
HS110-SS	4"	80.18	⅜"	5

CAT. NO.	TRADE SIZE	WT. PER 100	HOLE DIA.	STD. PKG.
Two-Hole EMT Straps				
TS901-SS	½"	2.21	¼"	25
TS902-SS	¾"	3.31	¼"	25
TS903-SS	1"	3.87	¼"	25
TS904-SS	1¼"	7.54	⅜"	10
TS905-SS	1½"	12.21	⅜"	5
TS906-SS	2"	18.23	⅜"	5

CAT. NO.	TRADE SIZE	WT. PER 100	HOLE DIA.	STD. PKG.
Two-Hole Rigid/IMC Straps				
HS901-SS	½"	2.49	⅜"	20
HS902-SS	¾"	3.64	⅜"	20
HS903-SS	1"	4.15	⅜"	20
HS904-SS	1¼"	8.17	⅜"	10
HS905-SS	1½"	17.50	⅜"	10
HS906-SS	2"	21.37	⅜"	5
HS907-SS	2½"	21.54	⅜"	5
HS908-SS	3"	25.72	⅜"	5
HS909-SS	3½"	27.27	⅜"	5
HS910-SS	4"	31.70	⅜"	5

Reduces threaded opening in conduit bodies or any female threaded fitting!

Threaded Reducers



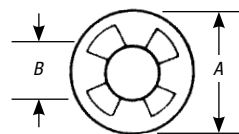
- Smooth, built-in bushing completely covers rough ends of conduit
- Malleable iron or steel construction (steel through 606, also 614 and 615)

CAT. NO.		DIMENSION (IN.)	
STL. OR MI	ALUM.	SIZE	A
600TB	600ALTB	½" to ¾"	⅞"
601TB	601ALTB	¾" to 1"	⅞"
602TB	602ALTB	1" to 1½"	1 1/8"
603TB	603ALTB	1" to ¾"	⅞"
604TB	604ALTB	1¼" to ½"	1 1/8"
605TB	605AL	1¼" to ¾"	⅞"
606TB	606AL	1½" to 1"	1 1/8"
607	607AL	1½" to ½"	1 1/8"
608	608AL	1½" to ¾"	1 1/8"
609	609AL	1½" to 1"	1 1/8"
610	610AL	1½" to 1¼"	¾"
611TB	611AL	2" to ½"	1 1/8"
612	612AL	2" to ¾"	1 1/8"
613	613AL	2" to 1"	1 1/8"
614TB	614AL	2" to 1¼"	1 1/8"
615TB	615AL	2" to 1½"	¾"

UL File No. E-23018
CSA File No. 2884

Reduce knockout hole in outlet box!

Reducing Washers



- Used in pairs
- Interlock to form a rib that centers washers and conduit in knockout
- Galvanized steel construction

CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
3700	¾" to ¾"	1 3/8"	45/64"
3701	¾" to ½"	1 3/8"	7/8"
3702	1" to ¾"	1 3/8"	45/64"
3703	1" to ½"	1 3/8"	7/8"
3704	1" to ¾"	1 3/8"	1 1/32"
3705-TB	1¼" to ¾"	2"	45/64"
3706	1¼" to ½"	2"	7/8"
3707	1¼" to ¾"	2"	1 1/32"
3708	1¼" to 1"	2"	1 23/64"
3709	1½" to ¾"	2 1/4"	45/64"
3710	1½" to ½"	2 1/4"	7/8"
3711	1½" to ¾"	2 1/4"	1 1/32"
3712	1½" to 1"	2 1/4"	1 23/64"
3713	1½" to 1¼"	2 1/4"	1 23/32"
3714	2" to ½"	2 3/4"	7/8"
3715-TB	2" to ¾"	2 3/4"	1 1/32"
3716	2" to 1"	2 3/4"	1 23/64"
3717	2" to 1¼"	2 3/4"	1 23/32"
3718	2" to 1½"	2 3/4"	1 31/32"

UL File No. E-13938
CSA File No. 2884

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800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

Couplings and Accessories

For rigid metal conduit and intermediate metal conduit

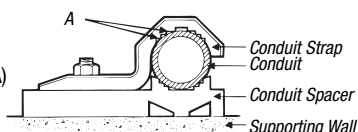
Conduit Straps

Application

- To support and securely fasten rigid metal conduit and intermediate metal to the supporting surface

Features

- Rugged malleable iron/copper-free aluminum construction — snugly fits on the conduit
- Designed to prevent accumulation of moisture and start of corrosion on vertical run of conduit (A)
- Galvanized finish 1275 Series
- Copper-free aluminum 1276AL Series



Standard Material

1275 Series.....Malleable Iron
1276AL Series.....All copper-free aluminum

Range

1275 Series..... $\frac{3}{8}$ " through 6" conduit
1276AL Series..... $\frac{3}{8}$ " through 4" conduit

Standard Finish

1275 Series.....Hot Dipped
1276AL SeriesAs Cast Galvanized

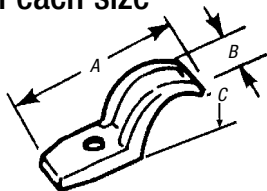
Listings/Compliances

CSA (LR-2884, LR-4484)
CSA C22.2 No. 18
NFPA 70

Designed for snug fit on each size of conduit!

Pipe Straps — Malleable Iron or Aluminum

- High reinforcing ribs on each side increase strength and reduce weight
- Available in malleable iron with hot-dipped galvanized finish or in copper-free aluminum



CAT. NO.		SIZE	A	B	C	SCREW SIZE
MAL. IRON	ALUM.					
1275†	1275AL	$\frac{3}{8}$ "	$1\frac{1}{8}$ "	$1\frac{1}{16}$ "	$\frac{3}{4}$ "	#12
1276†	1276AL†	$\frac{1}{2}$ "	$2\frac{5}{32}$ "	$2\frac{1}{32}$ "	$1\frac{1}{32}$ "	$\frac{1}{4}$ "
1277†	1277AL†	$\frac{3}{4}$ "	$2\frac{9}{16}$ "	$1\frac{1}{16}$ "	$1\frac{1}{2}$ "	$\frac{1}{4}$ "
1278†	1278AL†	1"	3"	$\frac{3}{4}$ "	$1\frac{17}{32}$ "	$\frac{1}{4}$ "
1279†	1279AL†	$1\frac{1}{4}$ "	$3\frac{3}{4}$ "	$1\frac{3}{16}$ "	$1\frac{7}{8}$ "	$\frac{5}{16}$ "
1280†	1280AL	$1\frac{1}{2}$ "	$4\frac{3}{16}$ "	$1\frac{5}{16}$ "	$2\frac{1}{8}$ "	$\frac{3}{8}$ "
1281	1281AL	2"	$5\frac{5}{16}$ "	1 $\frac{1}{2}$ "	$2\frac{17}{64}$ "	$\frac{7}{16}$ "
1282*	1282AL	$2\frac{1}{2}$ "	$5\frac{15}{16}$ "	$1\frac{1}{2}$ "	$2\frac{3}{4}$ "	$\frac{1}{2}$ "
1283*	1283AL	3"	$6\frac{11}{16}$ "	$1\frac{5}{8}$ "	$3\frac{11}{32}$ "	$\frac{1}{2}$ "
1284	1284AL	$3\frac{1}{2}$ "	$7\frac{19}{32}$ "	$1\frac{3}{4}$ "	$3\frac{29}{32}$ "	$\frac{5}{8}$ "
1285*	1285AL	4"	$8\frac{5}{16}$ "	$1\frac{7}{8}$ "	$4\frac{13}{32}$ "	$\frac{5}{8}$ "
1286	—	$4\frac{1}{2}$ "	$9\frac{9}{16}$ "	$1\frac{15}{16}$ "	$4\frac{15}{16}$ "	$\frac{5}{8}$ "
1287	—	5"	$9\frac{15}{16}$ "	2"	$5\frac{15}{32}$ "	$\frac{5}{8}$ "
1288	—	6"	$11\frac{1}{2}$ "	$2\frac{7}{16}$ "	$6\frac{17}{32}$ "	$\frac{5}{8}$ "

*May be used with EMT of same size.

UL not applicable.

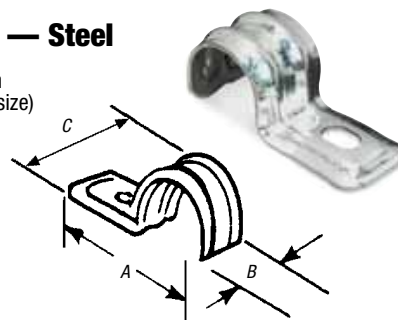
† Not snap-on type.

CSA File No. 2884

Elongated bolt hole makes alignment easy, even when mounting-surface holes are off center!

Pipe Straps — Steel

- Snap-on design (except for $\frac{3}{8}$ " size)
- Rugged steel construction



CAT. NO.	CONDUIT SIZE	A	B	C	SCREW SIZE
1210TB†	$\frac{3}{8}$ "	$1\frac{15}{32}$ "	$\frac{3}{4}$ "	$1\frac{1}{16}$ "	$\frac{1}{4}$ "
1211TB	$\frac{1}{2}$ "	2	$\frac{3}{4}$ "	$1\frac{5}{16}$ "	$\frac{1}{4}$ "
1212TB	$\frac{3}{4}$ "	$2\frac{5}{16}$ "	$\frac{3}{4}$ "	1"	$\frac{1}{4}$ "
1213TB	1"	$3\frac{13}{16}$ "	$\frac{3}{4}$ "	$1\frac{17}{64}$ "	$\frac{1}{4}$ "
1214TB	$1\frac{1}{4}$ "	$2\frac{31}{32}$ "	$1\frac{1}{16}$ "	$1\frac{9}{16}$ "	$\frac{3}{8}$ "
1215TB	$1\frac{1}{2}$ "	$3\frac{29}{32}$ "	$1\frac{13}{16}$ "	$1\frac{13}{16}$ "	$\frac{3}{8}$ "
1216TB	2"	$4\frac{7}{16}$ "	$2\frac{5}{16}$ "	$2\frac{5}{16}$ "	$\frac{3}{8}$ "

† Not snap-on type.

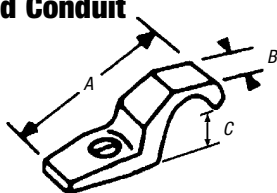
UL not applicable.

CSA File No. 2884

PVC coating offers high corrosion resistance!

PVC-Coated Straps for Rigid Conduit

- Designed to fit each size of conduit snugly
- High reinforcing ribs on each side increase strength and reduce weight
- Malleable iron construction



CAT. NO.	SIZE	BOLT SIZE	DIMENSIONS (IN.)		
			A	B	C
1275CR	$\frac{3}{8}$ "	$\frac{1}{4}$ "	$1\frac{1}{8}$ "	$1\frac{1}{16}$ "	$\frac{3}{4}$ "
1276CR	$\frac{1}{2}$ "	$\frac{1}{4}$ "	$2\frac{5}{32}$ "	$2\frac{1}{32}$ "	$1\frac{1}{32}$ "
1277CR	$\frac{3}{4}$ "	$\frac{1}{4}$ "	$2\frac{9}{16}$ "	$1\frac{1}{16}$ "	$1\frac{1}{32}$ "
1278CR	1"	$\frac{1}{4}$ "	3	$\frac{3}{4}$ "	$1\frac{17}{32}$ "
1279CR	$1\frac{1}{4}$ "	$\frac{3}{8}$ "	$3\frac{3}{4}$ "	$1\frac{3}{16}$ "	$1\frac{7}{8}$ "
1280CR	$1\frac{1}{2}$ "	$\frac{3}{8}$ "	$4\frac{3}{16}$ "	$1\frac{5}{16}$ "	$2\frac{1}{8}$ "
1281CR	2"	$\frac{1}{2}$ "	$5\frac{5}{16}$ "	$1\frac{1}{8}$ "	$2\frac{17}{64}$ "

UL not applicable.

Couplings and Accessories

Conduit Spacers

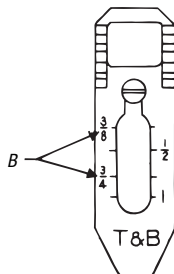
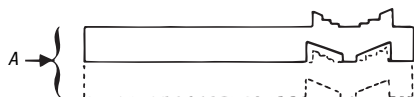
(For Rigid Metal Conduit, Intermediate Metal Conduit and Electrical Metallic Tubing)



1350



1351-1354



Application

- Provides mounting surface for conduit where installation requires air space between conduit and supporting surface

Features

- Prevents conduit rusting from wall condensation
- Spacers can be stacked one atop the other, facilitating installation and eliminating expensive conduit offsetting (A)
- Designed to cover wide range; marked with accurate size marking for proper positioning (B)
- Electro-zinc plated finish on 1350 Series
- Copper-free aluminum alloy, 1350AL Series

Standard Material

- 1350 Series.....Malleable Iron
- 1350AL Series.....Copper-free aluminum

Standard Finish

- 1350 Series.....Electro-zinc plated
- 1350AL SeriesAs Cast

Range

½" through 6" conduit

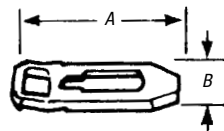
Listings/Compliances

- CSA (LR-2884, LR-4484, LR-4484)
- CSA C22.2 No. 18
- NFPA 70

Eliminates the need for costly offset-bending conduit and the possibility of corrosive moisture traps when conduit is mounted directly to a surface!

Pipe Spacers

- Used with T&B conduit straps to provide space between conduit and mounting surface
- Premountable and stackable to eliminate offsetting
- Malleable iron construction with hot-dipped galvanized finish

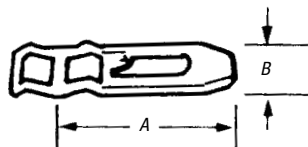


CAT. NO.		SIZE	SCREW SIZE	DIMENSIONS (IN.)	
MAL. IRON	ALUM.			A	B
1350	1350AL	½", ¾", 1"	#7	3	⅞
1351	1351AL	1¼"-1½"-2"	#12	5	1⅞
1352	1352AL	2½"-3"	#12	9⅞	1¾
1353	1353AL	3½"-4"	#14	7⅞	2
1354	—	4½"-5"-6"	#16	10⅞	2⅞

Conforms to NEC® Sect. 300-5-c. UL not applicable. CSA File Nos. 2884 and 4484.

Prevents conduit rusting from wall condensation!

Pipe Spacers — PVC Coated



- Eliminates the need for offset-bending of conduit
- Can be stacked for offsets on wall or into outlet box
- Corrosion-resistant, PVC-coated malleable iron construction

CAT. NO.	CONDUIT SIZE	SCREW SIZE	DIMENSIONS (IN.)	
			A	B
1350CR	½"-¾"-1"	#7	3	⅞
1351CR	1¼"-1½"-2"	#12	5	⅞

UL not applicable. Conforms to NEC Sect. 300-5-c.

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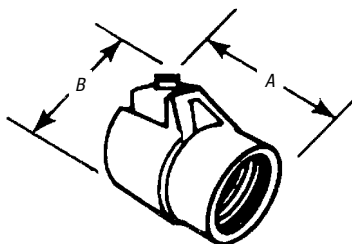
Thomas & Betts

Couplings and Accessories

One-piece fitting couples armored cable or flexible conduit to threaded rigid conduit!

TITE-BITE® Combination Couplings — Armored Cable for Threaded Rigid

- Tite-Bite® wedge holds conduit securely with a double grip
- When used with a Chase® nipple, this fitting will connect flexible conduit to outlet boxes, enabling more wiring space in the box than the usual connector
- UL® Listed as a grounding means under NEC® 350-5
- Malleable iron construction



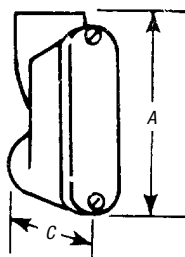
CAT. NO.	SIZE	DIMENSIONS (IN.)	
		A	B
440	1/2"	1 5/8	1 7/32
441	3/4"	1 3/4	2 1/8
442	1"	2	2 1/32

UL File No. E-23018
CSA File No. 2884

Mount flat against wall, eliminating the need to offset conduit!

Entrance Ells

- Designed for a straight pull in either direction
- Smooth surface
- Make it easy to pull heavy wires without damage to insulation
- Made of copper-free aluminum



CAT. NO.	CONDUIT SIZE	DIMENSIONS (IN.)	
		A	C
1490	1/2"	3	1 1/32
1491	3/4"	3 9/16	1 1/8
1492	1"	4 1/4	2 23/64
1493	1 1/4"	5 3/64	2 3/16
1494	1 1/2"	6 1/4	2 7/8
1495	2"	6 3/4	3 9/16

UL File No. E-23018. CSA File Nos. 2884 and 589

Adjustable design fits a wide range of flange sizes!

Adjustable Beam Clamps

- Includes bolts
- Steel construction



CAT. NO.	DESCRIPTION
700TB	Fits Flange 2 3/4"–7 1/8"
701	Fits Flange 7"–12"
703	Special Bolt and (3) Nuts

CSA File No. 2884.

Fits any flange, tapered or straight, up to 5/8" thick!

Conduit Supports

- For use with standard rigid conduit, EMT or IMC
- Broad hook holds conduit at any desired angle
- Malleable iron construction



CAT. NO.	SIZE
690TB	1/2"
691TB	3/4"
692TB	1"
693TB	1 1/4"

CSA File No. 2884

Conduit Bodies and Covers

T&B® Conduit Fittings for Ordinary and Hazardous Locations

Thomas & Betts offers a broad range of conduit bodies, conduit boxes, conduit fittings, unions, sealing fittings, drains and cable fittings for both ordinary and hazardous locations. Complete information on applications, features, materials, finishes, size range and certifications is provided in the following pages.

Conduit Bodies (for ordinary locations)

For raceway systems to provide pull outlets, 90° bends, splices, taps, mounting outlets, etc.

FORM 7	For neat, compact installation of rigid threaded conduit.
FORM 8	For heavier conductors using rigid threaded conduit.
Series 35	For economy installations of rigid threaded conduit.
Stainless Steel	For superior corrosion protection.

Red•Dot® Aluminum Die-Cast	For rigid threaded conduit installation — copper-free aluminum.
Red•Dot® Thinwall (EMT)	For set-screw installation using thinwall conduit (EMT) — copper-free aluminum.
Mogul Conduit Fittings	For larger conduits, spacious, accessible wiring chambers.

Cast Device Boxes (for ordinary locations)

For raceway systems to accommodate wiring devices, serve as pull boxes and provide entrances for taps and splices.

FS/FD Single- and Double-Gang Cast Device Boxes

Cast Conduit Outlet Boxes (for hazardous locations)

Round cast outlet boxes used with rigid conduit to serve as pull and splice boxes, easy access to wiring, act as a housing for instruments, apparatus, etc.

GUA Conduit Outlet Bodies

Reducers, Plugs, Unions (for ordinary and hazardous locations)

Includes reducers for connecting conduit of dissimilar dimensions, plugs for unused conduit openings and hubs and unions for threaded conduit systems.

RE, PLG REC Reducers, Plugs and Adapters, UNY/UNF Unions

Sealing Fittings and Drains (for ordinary and hazardous locations)

Cast fittings used with rigid conduit to seal sections from passage of vapors, flame or gases or explosions. Drains provide ventilation as a breather and as a drain in moist locations.

EYS/EYD Sealing Fittings & ECD Drains

Cable Fittings (for ordinary and hazardous locations)

For armored, metal clad, jacketed or unjacketed and unarmored cables through a bulkhead or enclosure in ordinary or hazardous areas.



Conduit Bodies and Covers

Conduit Outlet Bodies

Application

Conduit Bodies are installed in conduit systems to:

- Connect conduit sections
- Act as pull outlets when conductors are being installed
- Provide easy access for splices in branch conductors
- Make 90° bends in conduit runs
- Act as mounting outlets for wiring devices and lighting fixtures
- Provide access to conductors for maintenance and future system changes

Features

- Standard features include tapered (NPT) threads and integral bushings to protect wire insulation
- T&B Form 7 bodies and covers are interchangeable with other manufacturers' Form 7 bodies and covers
- T&B Form 8 bodies and covers are interchangeable with other manufacturers' Form 8 bodies and covers
- T&B Form 7 and Form 8 bodies feature BlueKote® internal coating for easier wire pulling
- T&B Series 35 bodies and covers are interchangeable with other manufacturers' 35/5 Series iron and steel bodies and covers

Materials

Form 7, Form 8 and Series 35 Conduit Bodies.....	Sand-cast class 30 gray iron alloy
Stainless Steel Conduit Bodies.....	Type 316 stainless steel
Red•Dot® Conduit Bodies.....	Die-cast aluminum, copper-free
Covers.....	Sand-cast gray iron alloy and stamped sheet steel with steel-stainless steel screws
Stainless Steel Covers.....	Cast and stamped Type 316 stainless steel with stainless steel screws
Gaskets.....	Neoprene

Finish

Form 7, Form 8 and Series 35 Conduit Bodies....	Zinc-plating with aluminum acrylic coating
Form 7 and Form 8 Bodies.....	Internal PTFE-based BlueKote® coating
Red•Dot® Conduit Bodies.....	Aluminum laquer
Covers.....	Gray iron zinc-plating with aluminum acrylic coating, and stamped steel zinc-plating with clear chromate coating; Form 7 and Form 8 covers include neoprene gasket
Stainless Steel Bodies and Covers	Polished

Listings/Compliances

UL Standard: 514A, 514B
Fed. Spec: W-C-586D
CSA Standard: C22.2 No. 18



Conduit Bodies and Covers





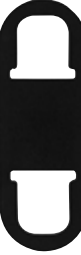
Conduit Bodies Quick Reference

SHAPE	TYPE	HUB SIZE (IN.)										SEE PAGE
		½	¾	1	1¼	1½	2	2½	3	3½	4	
	BlueKote® Form 7	LB17	LB27	LB37	LB47	LB57	LB67	LB77	LB87	LB97	LB107	E-71
	BlueKote® Form 8**	LB18	LB28	LB38	LB448	LB58	LB68	LB78	LB888	LB98	LB108	
	Series 35	LB50M	LB75M-TB	LB100M	LB125M	LB150M	LB200M	LB250M	LB300M	LB350M	LB400M	
	Threaded Aluminum*	ALB1	ALB2	ALB3	ALB4	ALB5	ALB6	ALB7	ALB8	ALB9	ALB10	
	EMT Aluminum*	BLB1	BLB2	BLB3	BLB4	BLB5	BLB6	BLB7	BLB8	BLB9	BLB10	
	Stainless Steel Form 8	LB18SST	LB28SST	LB38SST	LB48SST	LB58SST	LB68SST	(with covers, gaskets and screws)				
	BlueKote® Form 7	LU17	LU27	LU37	LU47	LU57	LU67	—	—	—	—	E-72
	Stainless Steel Form 8	LU18SST	LU28SST	LU38SST	LU48SST	LU58SST	LU68SST	(with covers, gaskets and screws)				E-69
	BlueKote® Form 7	T17	T27	T37	T47	T57	T67	T77	T87	T97	T107	E-72
	BlueKote® Form 8**	T18	T28	T38-TB	T448	T58	T68	T78	T88-TB	—	—	
	Series 35	T50M	T75M	T100M	T125M	T150M	T200M	T250M	T300M	T350M	T400M	
	Threaded Aluminum*	AT1	AT2	AT3	AT4	AT5	AT6	AT7	AT8	AT9	AT10	
	EMT Aluminum*	BT1	BT2	BT3	BT4	BT5	BT6	—	—	—	—	
	Stainless Steel Form 8	T18SST	T28SST	T38SST	T48SST	T58SST	T68SST	(with covers, gaskets and screws)				
	BlueKote® Form 7	C17	C27	C37	C47	C57	C67	C77-TB	C87	—	—	E-73
	BlueKote® Form 8**	C18	C28	C38	C448	C58-TB	C68	C78	C88	—	—	
	Series 35	C50M	C75M-TB	C100M	C125M	C150M	C200M	C250M-TB	C300M	C350M	C400M	
	Threaded Aluminum*	AC1	AC2	AC3	AC4	AC5	AC6	AC7	AC8	AC9	AC10	
	EMT Aluminum*	BC1	BC2	BC3	BC4	BC5	BC6	—	—	—	—	
	Stainless Steel Form 8	C18SST	C28SST	C38SST	C48SST	C58SST	C68SST	(with covers, gaskets and screws)				
	BlueKote® Form 7	LL17	LL27	LL37	LL47	LL57	LL67	LL77	LL87	LL97	LL107	E-74
	BlueKote® Form 8**	LL18	LL28	LL38	LL448	LL58	LL68	LL78	LL888	—	—	
	Series 35	LL50M	LL75M	LL100M	LL125M	LL150M	LL200M	LL250M	LL300M	LL350M	LL400M	
	Threaded Aluminum*	ALL1	ALL2	ALL3	ALL4	ALL5	ALL6	ALL7	ALL8	ALL9	ALL10	
	EMT Aluminum*	BLL1	BLL2	BLL3	BLL4	—	—	—	—	—	—	
	Stainless Steel Form 8	LL18SST	LL28SST	LL38SST	LL48SST	LL58SST	LL68SST	(with covers, gaskets and screws)				
	BlueKote® Form 7	LR17	LR27	LR37	LR47	LR57	LR67	LR77	LR87	LR97	LR107	E-75
	BlueKote® Form 8**	LR18	LR28	LR38	LR448	LR58	LR68	LR78	LR888	—	—	
	Series 35	LR50M	LR75M	LR100M	LR125M	LR150M	LR200M	LR250M	LR300M	LR350M-TB	LR400M	
	Threaded Aluminum*	ALR1	ALR2	ALR3	ALR4	ALR5	ALR6	ALR7	ALR8	ALR9	ALR10	
	EMT Aluminum*	BLR1	BLR2	BLR3	BLR4	—	—	—	—	—	—	
	Stainless Steel Form 8	LR18SST	LR28SST	LR38SST	LR48SST	LR58SST	LR68SST	(with covers, gaskets and screws)				
	BlueKote® Form 7	L17-TB	L27-TB	L37-TB	L47-TB	L57-TB	L67-TB	—	—	—	—	E-76
	Threaded Aluminum*	ALRL1	ALRL2	ALRL3	ALRL4	ALRL5	ALRL6	—	—	—	—	
	EMT Aluminum*	BLRL1	BLRL2	BLRL3	BLRL4	BLRL5	BLRL6	—	—	—	—	
	BlueKote® Form 7	TB17-TB	TB27	TB37	TB47	TB57	TB67	—	—	—	—	E-76
	BlueKote® Form 8**	TB18	TB28	TB38	TB448	TB58	TB68	—	—	—	—	
	Series 35	TB50M	TB75M	TB100M	TB125M	TB150M	TB200M	—	—	—	—	
	Stainless Steel Form 8	TB18SST	TB28SST	TB38SST	TB48SST	TB58SST	TB68SST	(with covers, gaskets and screws)				
	BlueKote® Form 7	X17	X27	X37	X47	X57	X67	—	—	—	—	E-77
	BlueKote® Form 8**	X18	X28	X38	X448	X58	X68	—	—	—	—	
	Series 35	X50M	X75M	X100M	X125M	X150M	X200M	—	—	—	—	
	BlueKote® Form 7	E17	E27	E27	—	—	—	—	—	—	—	E-77
	Threaded Aluminum	AE1	AE2	AE3	—	—	—	—	—	—	—	
	BlueKote® Form 7	TA17	TA27	TA37	TA47	TA57	TA67	—	—	—	—	—

*Aluminum conduit bodies (A and B series 2½" through 4") furnished with one stamped steel cover **½" through 1¼" have (2) mounting holes; 1½" through 4" have (4) mounting holes

Conduit Bodies and Covers

Replacement Covers and Gaskets

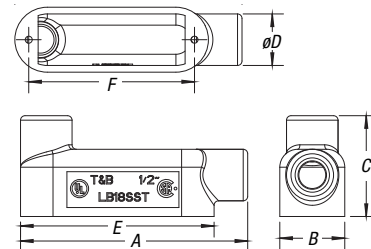
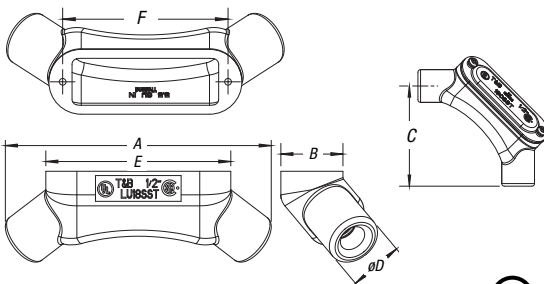
SHAPE	HUB SIZE (IN.)										
	½	¾	1	1¼	1½	2	2½	3	3½	4	
 <p>Form 7* Form 8* Red•Dot® Series 35</p>	170S	270S	370S	470S	570S	670S	870S	870S	970S	970S	
	180	280	380	480	580	680STB	880	880	980	980	
	SCV1	SCV2	SCV3	SCV4	SCV4	SCV5	CV6	CV6	CV7	CV7	
	K50S	K75S	K100S	K125S	K125S	K200S	K250S	K250S	K350S	K350S	
	<i>* Form 7 and Form 8 covers include gasket.</i>										
 <p>Form 7* Form 8* Series 35</p>	170F	270F	370F	470F	570F	670F	870F	870F	970F	970F	
	180F	280F	380F	480F	580F	680F	880F	880F	980F	980F	
	K50M	K75M	K100M	K125M	K125M	K200M	K250M	K250M	K350M	K350M	
	<i>* Form 7 and Form 8 covers include gasket.</i>										
	 <p>Form 7* Form 8* Red•Dot® Series 35</p>	GASK	GASK	GASK	GASK	GASK	GASK	GASK	GASK	GASK	GASK
571		572	573	574	575	576	578	578	579	579	
GASK		GASK	GASK	GASK	GASK	GASK	GASK	GASK	GASK	GASK	
581N		582N	583N	584N	585N	586N	588N	588N	589N	589N	
GKN1		GKN2	GKN3	GKN4	GKN4	GKN5	GKN6	GKN6	GKN7	GKN7	
GK50N	GK75N	GK100N	GK125-150N	GK125-150N	GK200N	GK250-300N	GK250-300N	GK350-400N	GK350-400N		
<i>* For ordering purposes, please use GASK in the catalog number (Example: GASK 571).</i>											

Conduit Bodies and Covers

Each conduit outlet body ships complete with gasket, cover and screws.

Type 316 Stainless Steel Form 8 Conduit Outlet Bodies

NEW!



LU® Form 8 Conduit Bodies with Covers

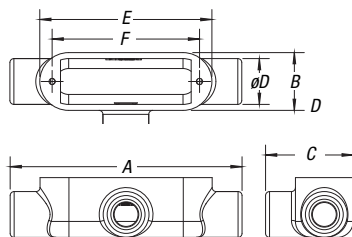


CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F		
LU18SST	½"	6.210	1.450	3.825	1.125	4.320	3.700	5.5	
LU28SST	¾"	6.981	1.645	4.245	1.500	4.921	4.300	8.5	
LU38SST	1"	8.261	1.850	5.050	1.700	5.625	5.000	14.5	
LU48SST	1¼"	9.923	2.200	5.975	2.200	6.730	5.810	26.5	
LU58SST	1½"	11.549	2.813	7.000	2.450	7.938	7.125	45.0	
LU68SST	2"	13.989	3.820	8.500	2.900	9.797	9.125	116.5	

LB Form 8 Conduit Bodies with Covers



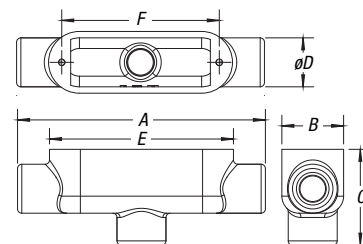
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F		
LB18SST	½"	5.070	1.450	2.250	1.150	4.320	3.700	5.8	
LB28SST	¾"	5.671	1.645	2.530	1.400	4.921	4.300	8.0	
LB38SST	1"	6.563	1.850	2.913	1.750	5.625	5.000	13.0	
LB48SST	1¼"	7.734	2.200	3.315	2.200	6.730	5.810	23.0	
LB58SST	1½"	8.992	2.813	3.800	2.450	7.938	7.125	44.0	
LB68SST	2"	11.000	3.820	4.810	2.900	9.797	9.125	88.0	



T Form 8 Conduit Bodies with Covers



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F		
T18SST	½"	5.820	1.450	2.200	1.150	4.320	3.700	5.5	
T28SST	¾"	6.420	1.645	2.395	1.400	4.921	4.300	9.0	
T38SST	1"	7.500	1.850	2.850	1.750	5.625	5.000	13.5	
T48SST	1¼"	8.738	2.200	2.950	2.200	6.730	5.810	24.0	
T58SST	1½"	10.046	2.813	3.867	2.450	7.938	7.125	45.0	
T68SST	2"	12.204	3.820	5.070	2.900	9.797	9.125	88.0	



TB Form 8 Conduit Bodies with Covers



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F		
TB18SST	½"	5.820	1.450	2.250	1.150	4.320	3.700	5.5	
TB28SST	¾"	6.420	1.645	2.530	1.400	4.921	4.300	9.0	
TB38SST	1"	7.500	1.850	2.975	1.750	5.625	5.000	13.5	
TB48SST	1¼"	8.484	2.200	3.319	2.200	6.730	5.810	24.0	
TB58SST	1½"	10.046	2.813	3.854	2.450	7.938	7.125	45.0	
TB68SST	2"	12.129	3.820	4.810	2.900	9.797	9.125	88.0	

Conduit Bodies and Covers

Form 7 body, gasket and cover — one number!



Pre-Assembled Form 7 BlueKote® Conduit Bodies, Gaskets and Covers



Now you can order a conduit body, gasket and cover, pre-assembled, using one catalog number. T&B's pre-assembled cast conduit bodies help reduce transactions, eliminate the need for additional stocking bins and provide an easy inventory reduction. You'll also have less hassle with managing small parts in the truck or crib. Best of all, you can be absolutely confident that the right parts are in your hands when you need them.

T&B® Conduit Bodies and Covers Feature:

- BlueKote internal finish for faster, easier wire pulling
- Epoxy external finish for superior corrosion resistance
- Tapered NPT threads and integral bushings to protect wire insulation
- Bodies are designed with a flat back for more cubic inch capacity. The flat back also keeps the body more stable during installation, requiring fewer conduit straps
- T&B Form 7 bodies and covers are interchangeable with Crouse-Hinds and Appleton's Form 7 bodies and covers

Specifications

- Bodies: Class 30 gray iron alloy
- Covers: Stamped steel with stainless steel screws
- Gaskets: Neoprene
- Finish: Conduit Bodies: Zinc-plating with acrylic epoxy coating and internal PTFE-based BlueKote coating
- Covers: Stamped steel zinc-plating with a clear chromate coating
- Compliances: UL Standard: 514A, 514B Fed. Spec:W-C-586D
- CSA Standard: C22.2 No. 18

Crouse-Hinds is a trademark of Cooper Industries, Inc. Appleton is a trademark of the EGS Electrical Group, a joint venture of Emerson and SPX Corp.

Note: BlueKote is registered for conduit bodies but is not registered for a finish or a coating.

T&B® Pre-Assembled Bodies, Gaskets and Covers



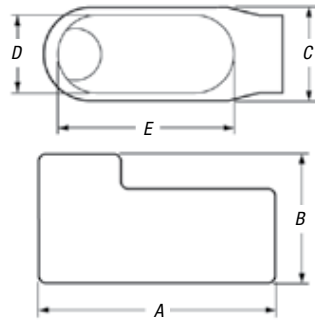
CAT. NO.	TRADE SIZE	PRE-ASSEMBLED PRODUCTS
C17CG-TB	½"	C17 Body, Cover & Gasket
C27CG-TB	¾"	C27 Body, Cover & Gasket
C37CG-TB	1"	C37 Body, Cover & Gasket
C47CG-TB	1¼"	C47 Body, Cover & Gasket
C57CG-TB	1½"	C57 Body, Cover & Gasket
C67CG-TB	2"	C67 Body, Cover & Gasket
LB17CG-TB	½"	LB17 Body, Cover & Gasket
LB27CG-TB	¾"	LB27 Body, Cover & Gasket
LB37CG-TB	1"	LB37 Body, Cover & Gasket
LB47CG-TB	1¼"	LB47 Body, Cover & Gasket
LB57CG-TB	1½"	LB57 Body, Cover & Gasket
LB67CG-TB	2"	LB67 Body, Cover & Gasket
LL17CG-TB	½"	LL17 Body, Cover & Gasket
LL27CG-TB	¾"	LL27 Body, Cover & Gasket
LL37CG-TB	1"	LL37 Body, Cover & Gasket
LL47CG-TB	1¼"	LL47 Body, Cover & Gasket
LL57CG-TB	1½"	LL57 Body, Cover & Gasket
LL67CG-TB	2"	LL67 Body, Cover & Gasket
LR17CG-TB	½"	LR17 Body, Cover & Gasket
LR27CG-TB	¾"	LR27 Body, Cover & Gasket
LR37CG-TB	1"	LR37 Body, Cover & Gasket
LR47CG-TB	1¼"	LR47 Body, Cover & Gasket
LR57CG-TB	1½"	LR57 Body, Cover & Gasket
LR67CG-TB	2"	LR67 Body, Cover & Gasket
T17CG-TB	½"	T17 Body, Cover & Gasket
T27CG-TB	¾"	T27 Body, Cover & Gasket
T37CG-TB	1"	T37 Body, Cover & Gasket
T47CG-TB	1¼"	T47 Body, Cover & Gasket
T57CG-TB	1½"	T57 Body, Cover & Gasket
T67CG-TB	2"	T67 Body, Cover & Gasket
TB17CG-TB	½"	TB17 Body, Cover & Gasket
TB27CG-TB	¾"	TB27 Body, Cover & Gasket
TB37CG-TB	1"	TB37 Body, Cover & Gasket
TB47CG-TB	1¼"	TB47 Body, Cover & Gasket
TB57CG-TB	1½"	TB57 Body, Cover & Gasket
TB67CG-TB	2"	TB67 Body, Cover & Gasket
X17CG-TB	½"	X17 Body, Cover & Gasket
X27CG-TB	¾"	X27 Body, Cover & Gasket
X37CG-TB	1"	X37 Body, Cover & Gasket
X47CG-TB	1¼"	X47 Body, Cover & Gasket
X57CG-TB	1½"	X57 Body, Cover & Gasket
X67CG-TB	2"	X67 Body, Cover & Gasket

For aluminum conduit bodies pre-assembled with covers and gaskets, request Red•Dot® D-PAK® Series Conduit Bodies for rigid and IMC conduit.

Conduit Bodies and Covers



BlueKote internal finish reduces the amount of force necessary to pull wires through T&B Form 7 and Form 8 conduit bodies.

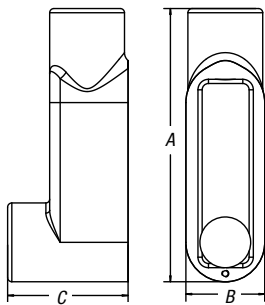


LB Form 7 and Form 8

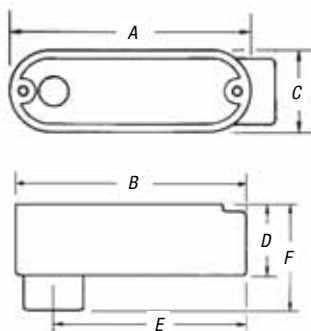
LB Series 35 Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)				CU. IN.
		A	B	C		
LB50M	½"	4.68	1.34	2.05	4.5	
LB75M-TB	¾"	5.37	1.50	2.25	7.5	
LB100M	1"	6.20	1.80	2.65	12.5	
LB125M	1¼"	8.12	2.60	2.75	32	
LB150M	1½"	8.12	2.60	2.83	35.3	
LB200M	2"	10.50	3.12	4.42	73	
LB250M	2½"	13.60	4.31	5.40	142	
LB300M	3"	13.87	4.31	5.90	173	
LB350M	3½"	16.25	5.62	6.90	292	
LB400M	4"	16.60	5.62	7.21	324	



LB Series 35



LB Threaded Aluminum and EMT Aluminum

LB Form 7 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
LB17	½"	4.60	2.20	1.35	.95	3.20	4.0
LB27	¾"	5.25	2.40	1.65	1.15	3.80	6.6
LB37	1"	6.00	2.65	1.80	1.35	4.55	10.6
LB47	1¼"	6.45	3.20	2.20	1.80	5.00	18.8
LB57	1½"	7.25	3.90	2.45	2.05	5.45	26.4
LB67	2"	8.30	4.45	3.10	2.45	6.40	51.0
LB77	2½"	10.55	5.20	4.25	3.60	8.40	102.0
LB87	3"	10.55	5.95	4.25	3.60	8.40	132.0
LB97	3½"	12.85	6.70	5.25	4.55	10.25	210.0
LB107	4"	12.85	7.20	5.25	4.55	10.25	243.0

LB Form 8 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
LB18	½"	4.94	2.22	1.38	1.00	3.31	4.9
LB28	¾"	5.56	2.44	1.56	1.19	3.31	8.0
LB38	1"	6.50	2.81	1.75	1.38	4.56	13.0
LB448	1¼"	7.53	3.34	2.19	1.75	5.31	23.5
LB58	1½"	9.13	4.03	2.75	2.13	6.50	45.0
LB68	2"	11.00	4.41	3.75	3.00	8.56	88.0
LB78	2½"	13.94	6.13	5.00	4.25	10.88	110.0
LB888	3"	13.94	6.50	5.00	4.25	10.88	110.0
LB98	3½"	16.88	7.56	6.25	5.44	13.44	250.0
LB108	4"	16.88	7.81	6.25	5.44	13.44	250.0

LB Threaded Aluminum Conduit Bodies



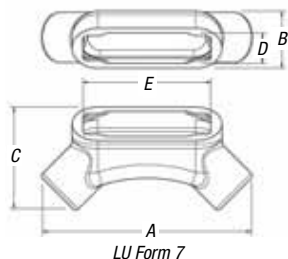
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)						CU. IN.
		A	B	C	D	E	F	
ALB1	½"	3.88	4.28	1.31	1.44	3.50	2.06	4.3
ALB2	¾"	4.63	5.13	1.53	1.63	4.25	2.44	7.3
ALB3	1"	5.38	5.15/16	1.75	1.88	4.94	2.75	11.8
ALB4	1¼"	7.25	7.88	2.50	2.50	6.50	3.56	32.0
ALB5	1½"	7.25	7.88	2.50	2.75	6.31	3.81	32.0
ALB6	2"	9.50	9.81	3.13	3.44	8.00	4.50	69.5
ALB7	2½"	12.25	13.00	4.50	3.88	10.84	5.25	190.0
ALB8	3"	12.25	13.00	4.50	4.50	10.50	5.88	190.0
ALB9	3½"	15.00	16.31	5.50	5.56	13.50	6.94	366.0
ALB10	4"	15.00	16.31	5.50	5.56	13.50	6.94	366.0

LB EMT Aluminum Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)						CU. IN.
		A	B	C	D	E	F	
BLB1	½"	3.88	4.28	1.31	1.44	3.50	2.06	4.3
BLB2	¾"	4.63	5.13	1.53	1.63	4.25	2.44	7.3
BLB3	1"	5.38	5.94	1.75	1.88	4.94	2.75	11.8
BLB4	1¼"	7.25	7.88	2.50	2.50	6.50	3.56	32.0
BLB5	1½"	7.25	7.88	2.50	2.75	6.31	3.81	32.0
BLB6	2"	9.50	9.81	3.13	3.44	8.00	4.50	69.5
BLB7	2½"	12.25	13.00	4.50	3.88	10.84	5.25	190.0
BLB8	3"	12.25	13.00	4.50	4.50	10.50	5.88	190.0
BLB9	3½"	15.00	16.31	5.50	5.56	13.50	6.94	366.0
BLB10	4"	15.00	16.31	5.50	5.56	13.50	6.94	366.0

Conduit Bodies and Covers

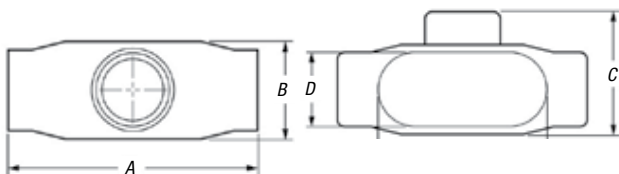


LU Form 7

LU® Form 7 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
LU17	½"	5.54	1.45	2.72	.95	3.20	4.8
LU27	¾"	6.22	1.70	3.07	1.15	3.80	7.6
LU37	1"	7.34	1.97	3.52	1.35	4.55	13.4
LU47	1¼"	8.40	2.47	4.21	1.80	5.00	23.0
LU57	1½"	8.95	2.72	4.44	2.05	5.45	28.3
LU67	2"	10.61	3.43	5.43	2.45	6.40	56.0



T Form 7 and Form 8

T Form 7 BlueKote® Conduit Bodies

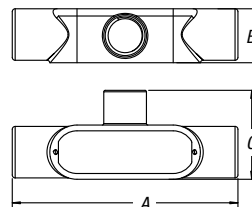


CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
T17	½"	5.60	1.80	2.35	.95	3.20	6.0
T27	¾"	6.20	2.00	2.60	1.15	3.80	9.1
T37	1"	7.35	2.30	3.10	1.35	4.55	16.9
T47	1¼"	7.30	2.30	3.05	1.80	5.00	19.3
T57	1½"	8.60	2.60	3.80	2.05	5.45	27.5
T67	2"	9.50	3.20	4.25	2.45	6.40	50.0
T77	2½"	12.10	3.65	5.80	3.60	8.40	102.0
T87	3"	12.10	4.40	5.80	3.60	8.40	132.0
T97	3½"	14.65	4.90	7.05	4.55	10.25	210.0
T107	4"	14.65	5.40	7.05	4.55	10.25	243.0

T Form 8 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
T18	½"	5.69	7.75	2.16	1.00	3.31	6.0
T28	¾"	6.28	2.00	2.31	1.19	3.94	9.0
T38-TB	1"	7.31	2.25	2.63	1.38	4.56	15.0
T448	1¼"	8.50	2.63	3.16	1.75	5.31	24.0
T58	1½"	10.38	2.78	4.00	2.13	6.50	46.5
T68	2"	12.25	3.56	5.00	3.00	8.56	88.0
T78	2½"	15.63	4.44	6.69	4.25	10.88	110.0
T88-TB	3"	15.63	4.81	6.69	4.25	10.88	110.0

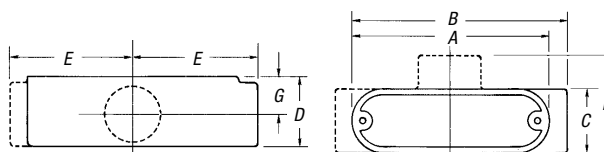


T Series 35

T Series 35 Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			CU. IN.
		A	B	C	
T50M	½"	5.38	2.05	1.34	6.0
T75M	¾"	6.00	2.25	1.50	9.5
T100M	1"	7.05	2.65	1.80	15
T125M	1¼"	9.00	2.75	2.60	33
T150M	1½"	9.00	3.50	2.60	36
T200M	2"	11.50	4.12	3.12	76
T250M	2½"	15.00	5.71	4.31	142
T300M	3"	15.12	5.87	4.31	173
T350M	3½"	18.13	6.81	5.19	292
T400M	4"	18.13	7.15	5.56	324



T Threaded Aluminum and EMT Aluminum

T Threaded Aluminum Conduit Bodies



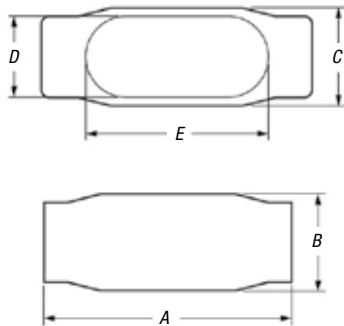
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F	G	
AT1	½"	3.88	4.38	1.33	1.38	2.41	2.06	.81	4.3
AT2	¾"	3.63	5.13	1.53	1.63	2.78	2.59	.94	7.3
AT3	1"	5.38	5.94	1.75	1.88	3.25	2.63	1.00	11.8
AT4	1¼"	7.25	7.88	2.50	2.50	4.19	3.53	1.38	32.0
AT5	1½"	7.25	7.88	2.50	2.75	4.19	3.53	1.50	32.0
AT6	2"	9.50	10.19	3.13	3.56	5.41	4.00	1.97	69.5
AT7	2½"	12.25	13.00	4.50	4.50	6.88	5.78	2.44	190.0
AT8	3"	12.25	13.00	4.50	4.50	6.88	5.78	2.44	190.0
AT9	3½"	15.00	16.31	5.50	5.56	8.81	6.81	3.00	366.0
AT10	4"	15.00	16.31	5.50	5.56	8.81	6.81	3.00	366.0

T EMT Aluminum Conduit Bodies

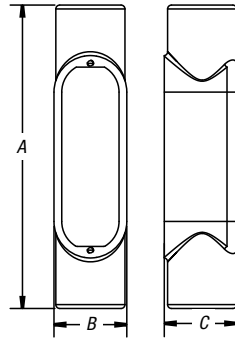


CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F	G	
BT1	½"	3.88	4.38	1.33	1.38	2.41	2.06	.81	4.3
BT2	¾"	4.63	5.13	1.53	1.63	2.78	2.59	.94	7.3
BT3	1"	5.38	5.94	1.75	1.88	3.25	2.63	1.00	11.8
BT4	1¼"	7.25	7.88	2.50	2.50	4.19	3.53	1.38	32.0
BT5	1½"	7.25	7.88	2.50	2.75	4.19	3.53	1.50	32.0
BT6	2"	9.50	10.19	3.13	3.56	5.41	4.00	1.97	69.5

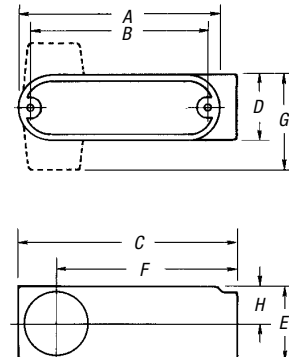
Conduit Bodies and Covers



C Form 7 and Form 8



C Series 35



C Threaded Aluminum and EMT Aluminum

C Form 7 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
C17	½"	5.45	1.40	1.45	.95	3.20	4.0
C27	¾"	6.05	1.60	1.65	1.15	3.80	6.6
C37	1"	6.75	1.90	1.80	1.35	4.55	10.6
C47	1¼"	7.30	2.30	2.20	1.80	5.00	18.8
C57	1½"	8.60	2.60	2.45	2.05	5.45	26.4
C67	2"	9.50	3.20	3.05	2.45	6.40	51.0
C77-TB	2½"	12.10	3.65	4.25	3.60	8.40	102.0
C87	3"	12.10	4.40	4.25	3.60	8.40	132.0

C Form 8 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
C18	½"	5.53	1.44	1.38	1.00	3.31	4.9
C28	¾"	6.28	1.53	1.19	1.19	3.94	8.0
C38	1"	7.31	1.94	1.75	1.38	4.56	13.0
C448	1¼"	8.50	2.38	2.19	1.75	5.31	23.5
C58-TB	1½"	10.38	2.78	2.75	2.13	6.50	45.0
C68	2"	12.25	3.56	3.75	3.00	8.56	88.0
C78	2½"	15.63	4.44	5.00	4.25	10.88	110.0
C88	3"	15.63	4.81	5.00	4.25	10.88	110.0

C Series 35 Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			CU. IN.
		A	B	C	
C50M	½"	5.38	1.34	1.37	4.5
C75M-TB	¾"	6.00	1.50	1.70	7.5
C100M	1"	7.05	1.80	1.90	12.5
C125M	1¼"	9.00	2.60	2.75	35
C150M	1½"	9.00	2.60	2.83	35.3
C200M	2"	11.50	3.12	3.31	75
C250M-TB	2½"	15.00	4.31	3.90	153
C300M	3"	15.12	4.31	4.75	181
C350M	3½"	18.13	4.88	5.19	290
C400M	4"	18.13	4.88	5.56	320

C Threaded Aluminum Conduit Bodies



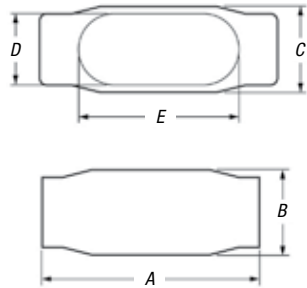
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F	G	
AC1	½"	3.88	4.38	1.33	1.38	2.41	2.06	.81	4.3
AC2	¾"	4.63	5.13	1.53	1.63	2.78	2.59	.94	7.3
AC3	1"	5.38	5.94	1.75	1.88	3.25	5.63	1.00	11.8
AC4	1¼"	7.25	7.88	2.50	2.50	4.19	3.53	1.38	32.0
AC5	1½"	7.25	7.88	2.50	2.75	4.19	3.53	1.50	32.0
AC6	2"	9.50	10.19	3.13	3.56	5.41	4.00	1.97	69.5
AC7	2½"	12.25	13.00	4.50	4.50	6.88	5.78	2.44	190.0
AC8	3"	12.25	13.00	4.50	4.50	6.88	5.78	2.44	190.0
AC9	3½"	15.00	16.31	5.50	5.56	8.81	6.81	3.00	366.0
AC10	4"	15.00	16.31	5.50	5.56	8.81	6.81	3.00	366.0

C EMT Aluminum Conduit Bodies

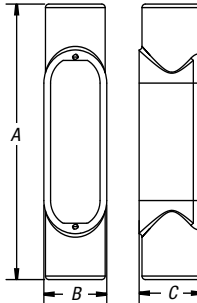


CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F	G	
BC1	½"	3.88	4.38	1.33	1.38	2.41	2.06	.81	4.3
BC2	¾"	4.63	5.13	1.53	1.63	2.78	2.59	.94	7.3
BC3	1"	5.38	5.94	1.75	1.88	3.25	5.63	1.00	11.8
BC4	1¼"	7.25	7.88	2.50	2.50	4.19	3.53	1.38	32.0
BC5	1½"	7.25	7.88	2.50	2.75	4.19	3.53	1.50	32.0
BC6	2"	9.50	10.19	3.13	3.56	5.41	4.00	1.97	69.5

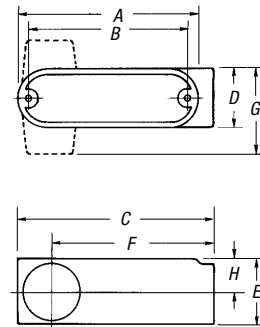
Conduit Bodies and Covers



LL Form 7 and Form 8



LL Series 35



LL Threaded Aluminum and EMT Aluminum

LL Form 7 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
LL17	½"	4.60	1.40	1.45	.95	3.20	4.0
LL27	¾"	5.25	1.60	1.65	1.15	3.80	6.6
LL37	1"	6.00	1.90	2.60	1.35	4.55	10.6
LL47	1¼"	6.45	2.30	3.05	1.80	5.00	18.6
LL57	1½"	7.90	2.60	3.80	2.05	5.45	26.4
LL67	2"	8.30	3.20	4.25	2.45	6.40	51.0
LL77	2½"	10.55	3.65	5.80	3.60	8.40	102.0
LL87	3"	10.55	4.40	5.80	3.60	8.40	132.0
LL97	3½"	12.85	4.90	7.03	4.55	10.25	210.0
LL107	4"	12.85	5.40	7.03	4.55	10.25	243.0

LL Form 8 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
LL18	½"	4.94	1.44	2.13	1.00	3.31	4.9
LL28	¾"	5.56	1.69	2.31	1.19	3.94	8.0
LL38	1"	6.47	1.94	2.63	1.38	4.56	13.0
LL448	1¼"	7.53	2.38	3.16	1.75	5.31	23.5
LL58	1½"	9.13	2.78	4.00	2.13	6.50	45.0
LL68	2"	11.00	3.56	5.00	3.00	8.56	88.0
LL78	2½"	13.94	4.44	6.69	4.25	10.88	110.0
LL888	3"	13.94	4.81	6.69	4.25	10.88	110.0

LL Series 35 Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			CU. IN.
		A	B	C	
LL50M	½"	4.68	2.05	1.37	4.5
LL75M	¾"	5.37	2.25	1.70	7.5
LL100M	1"	6.20	2.65	1.90	12.5
LL125M	1¼"	8.12	2.75	2.75	32
LL150M	1½"	8.12	3.50	2.83	33
LL200M	2"	10.50	4.12	3.31	68
LL250M	2½"	13.60	5.71	3.90	142
LL300M	3"	13.87	5.87	4.75	173
LL350M	3½"	16.50	7.13	6.81	292
LL400M	4"	16.50	7.13	7.19	324

LL Threaded Aluminum Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)									CU. IN.	CU. IN.*
		A	B	C	D	E	F	G	H			
ALL1	½"	3.88	3.50	4.31	1.31	1.38	3.56	2.00	.78	4.3	4.8	
ALL2	¾"	4.63	4.13	5.13	1.53	1.63	4.13	2.31	.88	7.3	7.5	
ALL3	1"	5.38	4.88	5.31	1.75	1.88	4.88	2.50	1.00	11.8	12.5	
ALL4	1¼"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5	
ALL5	1½"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5	
ALL6	2"	9.50	8.56	10.19	3.13	3.44	8.19	3.94	1.94	69.5	73.8	
ALL7	2½"	12.25	11.25	13.00	4.50	4.50	10.25	5.50	2.88	190.0	—	
ALL8	3"	12.25	11.25	13.00	4.50	4.50	10.25	5.50	2.88	190.0	—	
ALL9	3½"	15.00	14.44	16.25	5.50	5.50	12.75	6.50	3.00	366.0	—	
ALL10	4"	15.00	14.44	16.25	5.50	5.50	12.75	6.50	3.00	366.0	—	

*LRL Style Only

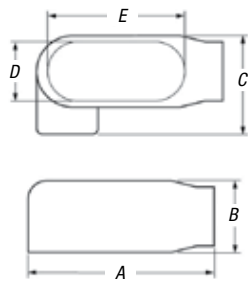
LL EMT Aluminum Conduit Bodies



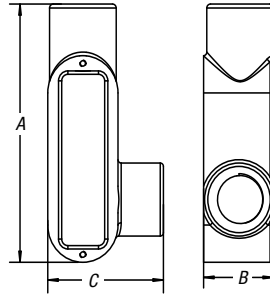
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)									CU. IN.	CU. IN.*
		A	B	C	D	E	F	G	H			
BLL1	½"	3.88	3.50	4.31	1.31	1.38	3.56	2.00	.78	4.3	4.8	
BLL2	¾"	4.63	4.13	5.13	1.53	1.63	4.13	2.31	.88	7.3	7.5	
BLL3	1"	5.38	4.88	5.31	1.75	1.88	4.88	2.50	1.00	11.8	12.5	
BLL4	1¼"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5	

*LRL Style Only

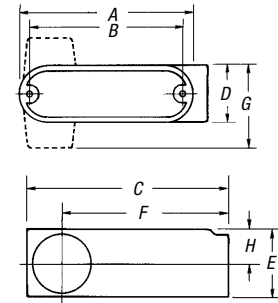
Conduit Bodies and Covers



LR Form 7 and Form 8



LR Series 35



LR Threaded Aluminum and EMT Aluminum

LR Form 7 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
LR17	½"	4.60	1.40	1.45	.95	3.20	4.0
LR27	¾"	5.25	1.60	1.65	1.15	3.80	6.6
LR37	1"	6.00	1.90	2.60	1.35	4.55	10.6
LR47	1¼"	6.45	2.30	3.05	1.80	5.00	18.8
LR57	1½"	7.90	2.60	3.80	2.05	5.45	26.4
LR67	2"	8.30	3.20	4.25	2.45	6.40	51.0
LR77	2½"	10.55	3.65	5.80	3.60	8.40	102.0
LR87	3"	10.55	4.40	5.80	3.60	8.40	132.0
LR97	3½"	12.85	4.90	7.03	4.55	10.25	210.0
LR107	4"	12.85	5.40	7.03	4.55	10.25	243.0

LR Form 8 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
LR18	½"	4.94	1.44	2.16	1.00	3.31	4.4
LR28	¾"	5.56	1.69	2.31	1.19	3.94	8.0
LR38	1"	6.47	1.94	2.63	1.38	4.56	13.0
LR448	1¼"	7.53	2.38	3.16	1.75	5.31	23.6
LR58	1½"	9.13	2.78	4.00	2.13	6.50	45.0
LR68	2"	11.00	3.56	5.00	3.00	8.56	88.0
LR78	2½"	13.94	4.44	6.69	4.25	10.88	110.0
LR888	3"	13.94	4.81	6.69	4.25	10.88	110.0

LR Series 35 Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			CU. IN.
		A	B	C	
LR50M	½"	4.68	2.05	1.37	4.5
LR75M	¾"	5.37	2.25	1.70	7.5
LR100M	1"	6.20	2.65	1.90	12.5
LR125M	1¼"	8.12	2.75	2.75	32
LR150M	1½"	8.12	3.50	2.83	35.3
LR200M	2"	10.50	4.12	3.31	68
LR250M	2½"	13.60	5.71	3.90	142
LR300M	3"	13.87	5.87	4.75	173
LR350M-TB	3½"	16.25	6.10	5.62	292
LR400M	4"	16.25	6.95	5.62	324

LR Threaded Aluminum Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)								CU. IN.	CU. IN.*
		A	B	C	D	E	F	G	H		
ALR1	½"	3.88	3.50	4.31	1.31	1.38	3.56	2.00	.78	4.3	4.8
ALR2	¾"	4.63	4.13	5.13	1.53	1.63	4.13	2.31	.88	7.3	7.5
ALR3	1"	5.38	4.88	5.31	1.75	1.88	4.88	2.50	1.00	11.8	12.5
ALR4	1¼"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5
ALR5	1½"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5
ALR6	2"	9.50	8.56	10.19	3.13	3.44	8.19	3.94	1.94	69.5	73.8
ALR7	2½"	12.25	11.25	13.00	4.50	4.50	10.25	5.50	2.88	190.0	—
ALR8	3"	12.25	11.25	13.00	4.50	4.50	10.25	5.50	2.88	190.0	—
ALR9	3½"	15.00	14.44	16.25	5.50	5.50	12.75	6.50	3.00	366.0	—
ALR10	4"	15.00	14.44	16.25	5.50	5.50	12.75	6.50	3.00	366.0	—

*LRL Style Only

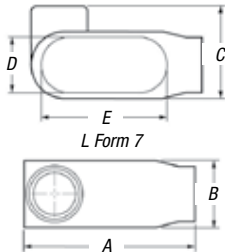
LR EMT Aluminum Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)								CU. IN.	CU. IN.*
		A	B	C	D	E	F	G	H		
BLR1	½"	3.88	3.50	4.31	1.31	1.38	3.56	2.00	.78	4.3	4.8
BLR2	¾"	4.63	4.13	5.13	1.53	1.63	4.13	2.31	.88	7.3	7.5
BLR3	1"	5.38	4.88	5.31	1.75	1.88	4.88	2.50	1.00	11.8	12.5
BLR4	1¼"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5

*LRL Style Only

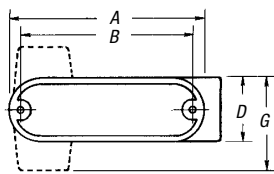
Conduit Bodies and Covers



L Form 7 BlueKote® Conduit Bodies



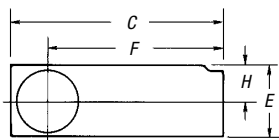
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)				
		A	B	C	D	E
L17-TB	½"	4.60	1.40	1.45	.95	3.20
L27-TB	¾"	5.25	1.60	1.65	1.15	3.80
L37-TB	1"	6.00	1.90	2.60	1.35	4.55
L47-TB	1¼"	6.45	2.30	3.05	1.80	5.00
L57-TB	1½"	7.90	2.60	3.80	2.05	5.45
L67-TB	2"	8.30	3.20	4.25	2.45	6.40



L Threaded Aluminum Conduit Bodies



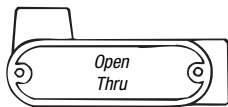
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)									LRL Style only	
		A	B	C	D	E	F	G	H	CU. IN.	CU. IN.	
ALRL1	½"	3.88	3.50	4.31	1.31	1.38	3.56	2.00	.78	4.3	4.8	
ALRL2	¾"	4.63	4.13	5.13	1.53	1.63	4.13	2.31	.88	7.3	7.5	
ALRL3	1"	5.38	4.88	5.31	1.75	1.88	4.88	2.50	1.00	11.8	12.5	
ALRL4	1¼"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5	
ALRL5	1½"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5	
ALRL6	2"	9.50	8.56	10.19	3.13	3.44	8.19	3.94	1.94	69.5	73.8	



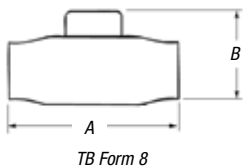
L EMT Aluminum Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)									LRL Style only	
		A	B	C	D	E	F	G	H	CU. IN.	CU. IN.	
BLRL1	½"	3.88	3.50	4.31	1.31	1.38	3.56	2.00	.78	4.3	4.8	
BLRL2	¾"	4.63	4.13	5.13	1.53	1.63	4.13	2.31	.88	7.3	7.5	
BLRL3	1"	5.38	4.88	5.31	1.75	1.88	4.88	2.50	1.00	11.8	12.5	
BLRL4	1¼"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5	
BLRL5	1½"	7.25	6.50	7.88	2.50	2.75	6.31	3.38	1.50	32.0	36.5	
BLRL6	2"	9.50	8.56	10.19	3.13	3.44	8.19	3.94	1.94	69.5	73.8	



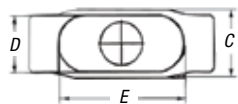
LRL Threaded Aluminum and EMT Aluminum



TB Form 8 BlueKote® Conduit Bodies



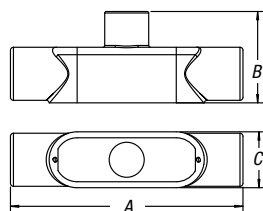
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
TB18	½"	5.69	2.63	1.38	1.00	3.31	6.0
TB28	¾"	6.28	2.88	1.19	1.19	3.94	9.0
TB38	1"	7.31	3.25	1.75	1.38	4.56	15.0
TB448	1¼"	8.50	3.31	2.19	1.75	5.31	24.0
TB58	1½"	10.38	3.69	2.75	2.13	6.50	46.5
TB68	2"	12.25	4.25	3.75	3.00	8.56	88.0



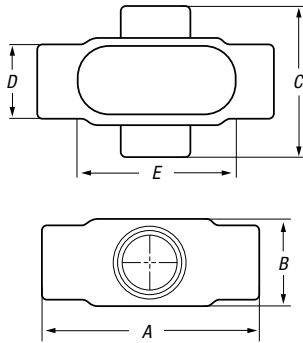
TB Series 35 Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			CU. IN.
		A	B	C	
TB50M	½"	5.38	1.34	2.05	6
TB75M	¾"	6.00	1.50	2.25	9.5
TB100M	1"	7.05	1.80	2.65	15
TB125M	1¼"	9.00	2.60	2.75	33
TB150M	1½"	9.00	2.60	2.83	36
TB200M	2"	11.50	3.12	4.42	76



Conduit Bodies and Covers



X Form 7 and Form 8

X Form 7 BlueKote® Conduit Bodies

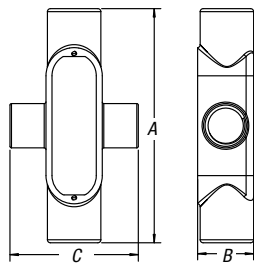


CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
X17	½"	5.60	1.80	3.05	.95	3.20	6.0
X27	¾"	6.20	2.00	3.30	1.15	3.80	9.1
X37	1"	7.35	2.30	3.80	1.35	4.55	16.9
X47	1¼"	7.30	2.30	3.85	1.80	5.00	19.3
X57	1½"	8.60	2.60	5.05	2.05	5.45	27.5
X67	2"	9.50	3.20	5.45	2.45	6.40	52.8

X Form 8 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
X18	½"	5.69	1.75	2.91	1.00	3.31	6.0
X28	¾"	6.28	2.00	3.06	1.38	3.94	9.0
X38	1"	7.31	2.25	3.50	1.38	4.56	15.0
X448	1¼"	8.50	2.63	4.13	1.75	5.31	24.0
X58	1½"	10.38	2.47	5.25	2.13	6.50	46.5
X68	2"	12.25	3.56	6.25	3.00	8.56	88.0

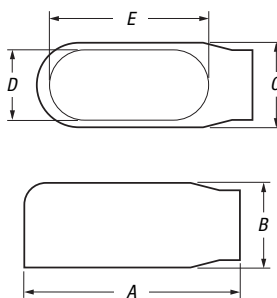


X Series 35

X Series 35 Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			CU. IN.
		A	B	C	
X50M	½"	5.41	2.79	1.75	36.0
X75M	¾"	6.08	2.93	1.97	76.0
X100M	1"	7.1	3.56	2.25	6.0
X125M	1¼"	9.1	4.43	2.55	9.5
X150M	1½"	9.1	4.43	2.75	15.0
X200M	2"	11.75	5.4	3.45	33.0



E Form 7

E Form 7 BlueKote® Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
E17	½"	4.60	1.40	1.45	.95	3.20	6.0
E27	¾"	5.25	1.60	1.65	1.15	3.80	9.1
E37	1"	6.00	1.90	1.80	1.35	4.55	16.9

E Threaded Aluminum Conduit Bodies



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)							CU. IN.
		A	B	C	D	E	F	G	
AE-1	½"	3.88	4.38	1.33	1.38	2.41	2.06	.81	4.3
AE-2	¾"	4.63	5.13	1.53	1.63	2.78	2.34	.94	7.3
AE-3	1"	5.38	5.94	1.75	1.88	3.25	2.63	1.00	11.8

Conduit Bodies and Covers

Mogul Conduit Outlet Bodies



Application

- Act as pull outlets for conductors that are stiff, due to large size or type of insulation
- Provide the longer openings needed when pulling large conductors
- Prevent sharp bends and kinks in large conductors (protects insulation during installation)
- Provide ample openings for splices and taps
- Provide access to wiring for maintenance and future system changes

Features

- Long openings
- Provision for easy bends
- Tapered tapped hubs with integral bushings
- Stainless Steel cover screws
- Covers and gaskets included

Standard Materials

Class 30 Gray iron alloy

Standard Finishes

Electrogalvanized and aluminum acrylic paint

Listings/Compliances

UL Standard: 514B

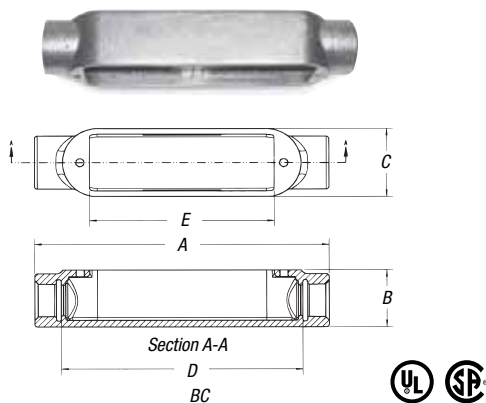
Fed. Spec.: W-C-586D

CSA Standard: C22.2 No.18

UL listed for wet locations

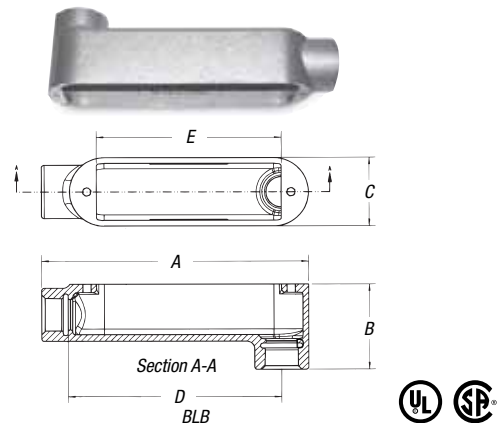
Note: See NEC® 370-28 (a) (1) and (2) for pull length and bending space requirements applicable to BC, BLB and BLB Series Moguls.

BC Mogul Series (Cover and Gasket Included)



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
BC3-TB	1"	9.56	1.88	2.25	7.84	6	20.0
BC4-TB	1¼"	9.56	2.31	2.25	7.84	6	25.0
BC5-TB	1½"	13.75	2.56	3	11.45	10	60.0
BC6-TB	2"	13.75	3.31	3	11.45	10	78.0
BC7-TB	2½"	18.38	3.63	4.25	15.61	15	180.0
BC8-TB	3"	18.38	4.38	4.25	15.82	15	225.0
BC10-TB	4"	23.75	5.38	5.25	20.50	20	460.0

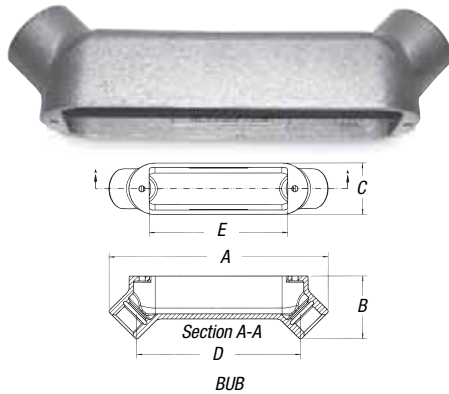
BLB Mogul Series (Cover and Gasket Included)



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
BLB3-TB	1"	8.66	2.80	2.25	6.92	6	20.0
BLB4-TB	1¼"	8.66	2.70	2.25	6.70	6	25.0
BLB5-TB	1½"	12.58	2.56	3	10.36	10	62.0
BLB6-TB	2"	12.58	4.16	3	10.13	10	78.0
BLB7-TB	2½"	16.94	5.10	4.25	13.89	15	170.0
BLB8-TB	3"	16.94	5.81	4.25	13.59	15	210.0
BLB9-TB	3½"	22.16	6.50	5.25	18.32	20	410.0
BLB10-TB	4"	22.16	7.00	5.25	18.06	20	460.0

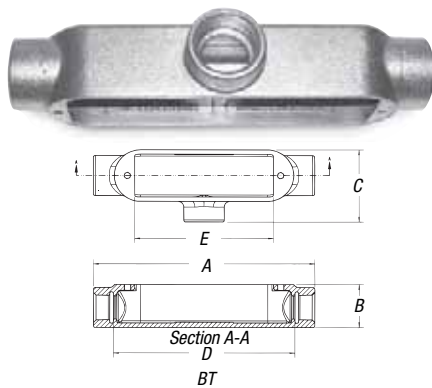
Conduit Bodies and Covers

BUB Mogul Series (Cover and Gasket Included)



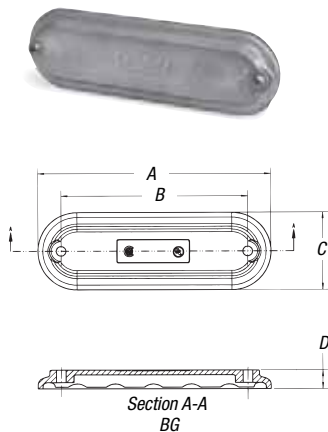
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
BUB3-TB	1"	9.49	2.75	2.25	7.01	6	20.0
BUB4-TB	1½"	9.55	3.21	2.25	6.71	6	25.0
BUB5-TB	1½"	16.68	6.67	3	10.47	10	62.0
BUB6-TB	2"	13.68	4.28	3	10.20	10	78.0
BUB7-TB	2½"	18.30	5.03	4.25	13.97	15	170.0
BUB8-TB	3"	18.30	5.67	4.25	13.50	15	210.0
BUB9-TB	3½"	23.74	6.72	5.25	18.07	20	385.0
BUB10-TB	4"	23.74	7.22	5.25	17.73	20	430.0

BT Mogul Series (Cover and Gasket Included)



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					CU. IN.
		A	B	C	D	E	
BT3-TB	1"	9.56	1.88	3.16	7.84	6	20.0
BT5-TB	1½"	13.75	2.56	4.06	11.45	10	62.0
BT6-TB	2"	13.75	3.31	4.06	11.45	10	78.0
BT7-TB	2½"	18.38	3.63	5.59	15.61	15	180.0
BT8-TB	3"	18.38	4.38	5.72	15.82	15	225.0
BT9-TB	3½"	23.75	4.88	6.88	20.50	20	410.0
BT10-TB	4"	23.75	5.38	6.88	20.50	20	460.0

BG Mogul Series Replacement Covers



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)				
		A	B	C	D	E
BG48-TB	1"-1¼"	8.27	6.62	2.77	.67	—
BG68-TB	1½"-2"	12	10.62	3.60	.82	—
BG88-TB	2½"-3"	16.22	12.44	4.97	.85	2.75
BG98-TB	3½"-4"	21.21	16.63	5.96	.87	3.75

Conduit Bodies and Covers

Aluminum Mogul Conduit Outlet Bodies

Application

- Raintight junction for bringing electrical service into a location
- Spacious, accessible wiring chamber provides a convenient location to pull conductors and make splices

Features

- Copper-free* aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Clean cover edges provide good gasket sealing
- Precision NPT threaded hubs enable trouble-free field installation for rigid and IMC conduit
- Deep slotted stainless steel cover screws for faster installation
- Clear UL, CSA and cubic content markings speed approval by inspectors
- Dome-style cover permits easy wire pulling
- Meets NEC® Article 314.28, 6-1 ratio
- Meets NEMA 3R standards

Standard Materials

- Mogul Pulling Elbows: Die cast aluminum alloy A360 with less than .004 copper content (copper-free). Stainless steel screws
- Gaskets: Composition

Standard Finish

- Aluminum lacquer finish

Listings/Compliances

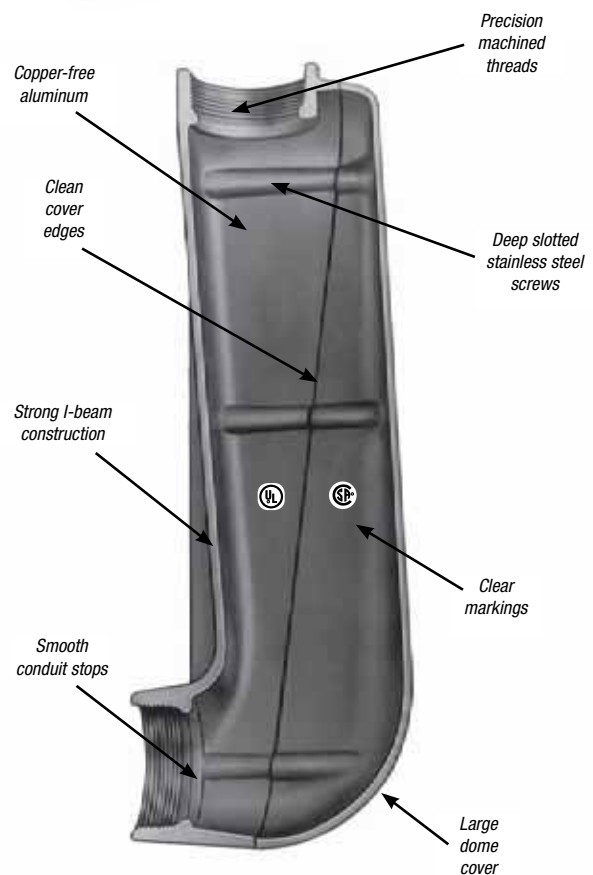
- UL Listed
- CSA Certified
- Federal Spec. W-C-586
- NEC® Article 314.28

Sample Specifications

- Mogul Pulling Elbows shall be die cast copper-free* aluminum alloy A360. All conduit stops shall be coined and free of rough edges. Mogul Pulling Elbows shall be finished with aluminum lacquer

Mogul Pulling Elbows shall be Red•Dot® Catalog No. _____

*Less than .004 copper content



Conduit Bodies and Covers



MALB-3 through -6



MALB-7 through -10



Aluminum Mogul Conduit Outlet Bodies with Covers and Gaskets

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
MALB-3	1"	1	10	174
MALB-4	1¼"	2	10	160
MALB-5	1½"	1	1	400
MALB-6	2"	1	1	375
MALB-7	2½"	1	1	1100
MALB-8	3"	1	1	1060
MALB-9	3½"	1	1	1900
MALB-10	4"	1	1	1800

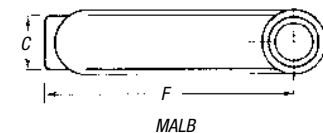
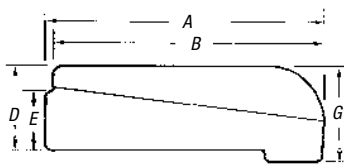


MGKV-4 through -7



Replacement Covers and Gaskets

COVER CAT. NO.	GASKET CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
—	MGKV-5	1¼"	1	5	4
MALB-56CV	MGKV-5	1½" to 2"	1	5	4
MALB-78CV	MGKV-6	2½" to 3"	1	5	5
MALB-90CV	MGKV-7	3½" to 4"	1	5	5



MALB Dimensions

SIZE	DIMENSIONS (IN.)							CU. IN.
	A	B	C	D	E	F	G	
1"	9.63	9.06	2.50	2.75	2.06	8.50	3.63	40.0
1¼"	9.63	9.06	2.50	2.75	2.06	8.50	3.63	40.0
1½"	14.53	14.25	2.75	4.00	2.81	13.00	5.22	128.0
2"	14.53	14.25	2.75	4.00	2.81	13.00	5.22	128.0
2½"	21.69	21.41	4.50	5.63	4.38	18.00	7.72	398.0
3"	21.69	21.41	4.50	5.63	4.38	18.00	7.72	398.0
3½"	28.63	28.69	5.50	6.50	5.38	24.00	9.72	766.7
4"	28.63	28.69	5.50	6.50	5.38	24.00	9.72	766.7

Device Boxes and Covers

Cast Device Boxes

Application

- Accommodate wiring devices
- Act as pull boxes for conductors in a threaded rigid conduit system, including an internal ground screw
- Provide openings to make splices and taps in conductors
- Provide access to conductors for maintenance and future system changes
- Connect conduit sections

Features

- All hubs have NPT Threads with a minimum of five full threads and integral bushing. Internal grounding screw standard on boxes
- Suitable for wet locations when used with gasketed covers
- Available in shallow (FS) or deep (FD) boxes. Use FD if device to be enclosed exceeds 1 5/8" in depth
- Use blank bodies where special arrangements of conduit hubs or entrances are required
- All cover holes are #6-32
- Mounting lugs are standard on all FS and FD boxes

Size Range

Hubs: 1/2" to 1" NPT

Materials

Boxes: Class 30 gray iron alloy

Covers: Sand cast aluminum alloy and sheet steel

Gaskets: Neoprene

Finish

Zinc-plated with aluminum acrylic paint

Listings/Compliances

UL 514A (wet locations when used with gasketed covers)

CSA C22.2 No.18



Dead-End



Dead-End



Thru-Feed

Device Boxes and Covers

Single-Gang Cast Device Boxes

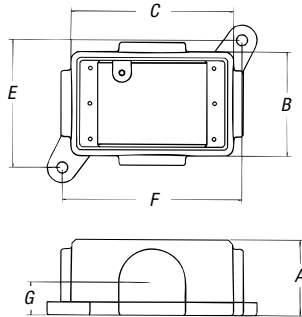


Fig. A Dead-End

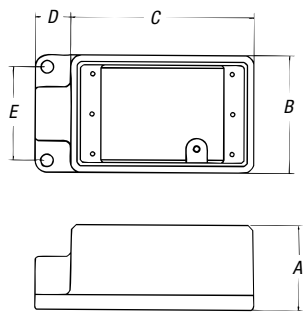


Fig. B Dead-End

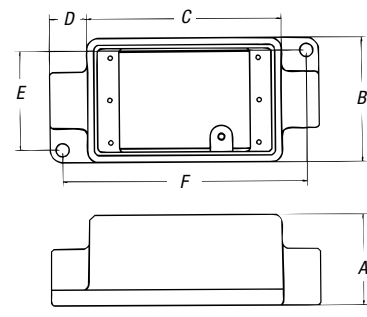


Fig. C Thru-Feed



Shallow Single-Gang Cast Device Boxes

CAT. NO.	FIG.	HUB SIZE	DIMENSIONS (IN.)							THROAT DIA.	
			A	B	C	D	E	F	G	MIN.	MAX.
Dead-End											
FS019-TB	A	Blank	2.00	2.75	4.28	—	3.38	4.72	.88	N/A	N/A
FS1-TB	B	1/2"	2.00	2.75	4.28	.88	2.19	—	—	.570	.610
FS2-TB	B	3/4"	2.00	2.75	4.28	.88	2.19	—	—	.755	.810
FS3-TB	B	1"	2.00	2.75	4.28	.88	2.19	—	—	.935	1.035
Thru-Feed											
FSC1-TB	C	1/2"	2.00	2.75	4.28	.88	2.19	5.38	—	.570	.610
FSC2-TB	C	3/4"	2.00	2.75	4.28	.88	2.19	5.38	—	.755	.810
FSC3-TB	C	1"	2.00	2.75	4.28	.88	2.19	5.38	—	.935	1.035

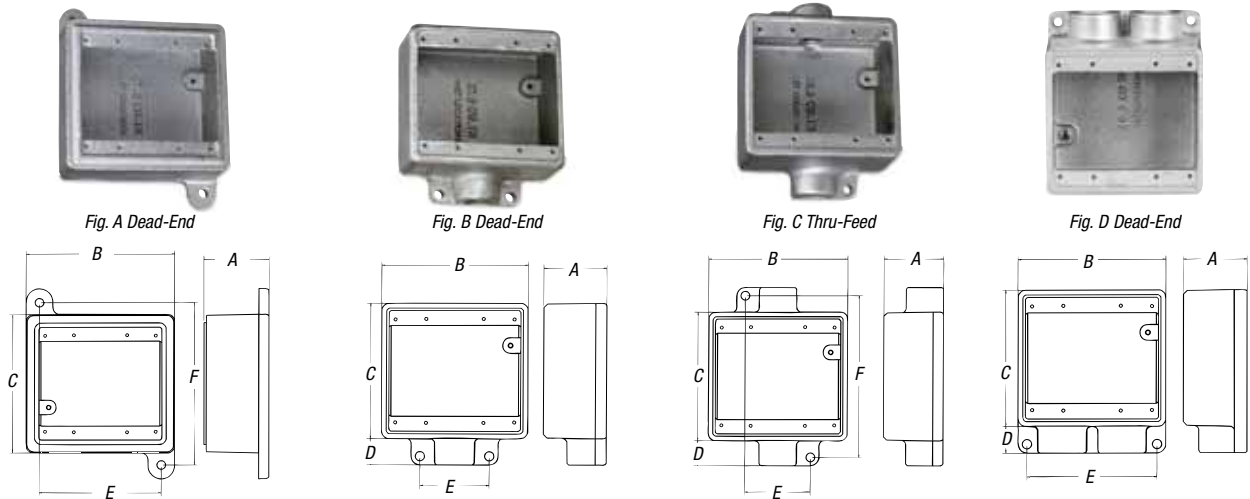


Deep Single-Gang Cast Device Boxes

CAT. NO.	FIG.	HUB SIZE	DIMENSIONS (IN.)							THROAT DIA.	
			A	B	C	D	E	F	G	MIN.	MAX.
Dead-End											
FD019-TB	A	Blank	2.81	2.75	4.28	—	3.38	4.72	1.38	N/A	N/A
FD1-TB	B	1/2"	2.81	2.75	4.28	.88	2.19	—	—	.570	.610
FD2-TB	B	3/4"	2.81	2.75	4.28	.88	2.19	—	—	.755	.810
FD3-TB	B	1"	2.81	2.75	4.28	.88	2.19	—	—	.935	1.035
Thru-Feed											
FDC1-TB	C	1/2"	2.81	2.75	4.28	.88	2.19	5.38	—	.570	.610
FDC2-TB	C	3/4"	2.81	2.75	4.28	.88	2.19	5.38	—	.755	.810
FDC3-TB	C	1"	2.81	2.75	4.28	.88	2.19	5.38	—	.935	1.035

Device Boxes and Covers

Double-Gang Cast Device Boxes



Shallow Double-Gang Cast Device Boxes

CAT. NO.	HUB FIG.	SIZE	DIMENSIONS (IN.)						THROAT DIA.	
			A	B	C	D	E	F	MIN.	MAX.
<i>Dead-End</i>										
FS062-TB	A	Blank	2.00	4.63	4.28	—	4.13	5.50	N/A	N/A
FS12-TB	B	½"	2.00	4.63	4.28	.88	2.19	—	.570	.610
FS22-TB	B	¾"	2.00	4.63	4.28	.88	2.19	—	.755	.810
FS32-TB	B	1"	2.00	4.63	4.28	.88	2.19	—	.935	1.035
<i>Thru-Feed</i>										
FSC12-TB	C	½"	2.00	4.63	4.28	.88	2.19	5.38	.570	.610
FSC222-TB	C	¾"	2.00	4.63	4.28	.88	2.19	5.38	.755	.810
FSC32-TB	C	1"	2.00	4.63	4.28	.88	2.19	5.38	.935	1.035

Deep Double-Gang Cast Device Boxes

CAT. NO.	FIG.	HUB SIZE	DIMENSIONS (IN.)						THROAT DIA.	
			A	B	C	D	E	F	MIN.	MAX.
<i>Dead-End</i>										
FD062-TB	A	Blank	2.81	4.63	4.28	—	4.13	5.50	N/A	N/A
FD12-TB	B	½"	2.81	4.63	4.28	.88	2.19	—	.570	.610
FD22-TB	B	¾"	2.81	4.63	4.28	.88	2.19	—	.755	.810
FD32-TB	B	1"	2.81	4.63	4.28	.88	2.19	—	.935	1.035
<i>Thru-Feed</i>										
FDC12-TB	C	½"	2.81	4.63	4.28	.88	2.19	5.38	.570	.610
FDC222-TB	C	¾"	2.81	4.63	4.28	.88	2.19	5.38	.755	.810
FDC32-TB	C	1"	2.81	4.63	4.28	.88	2.19	5.38	.935	1.035

Double-Gang Cast Device Boxes, Double Hub

CAT. NO.	FIG.	HUB SIZE	DIMENSIONS (IN.)						THROAT DIA.	
			A	B	C	D	E	MIN.	MAX.	
FSS222-TB	D	¾"	2.00	4.63	4.28	.88	4.06	—	.755	.810
FDS222-TB	D	¾"	2.81	4.63	4.28	.88	4.06	—	.755	.810

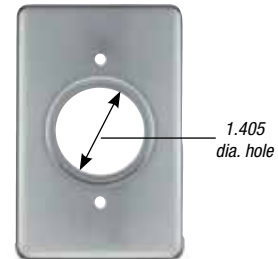
Device Boxes and Covers

Single-Gang Covers

CAT. NO.	DESCRIPTION
DSS100-TB	Blank, Sheet Steel
DS21-TB	Round Receptacle, Sheet Steel
DS23-TB	Duplex Receptacle, Sheet Steel
DS32-TB	Single Switch, Sheet Steel
DS100G-TB	Blank, Cast Aluminum



DSS100-TB



DS21-TB

Double-Gang Covers

CAT. NO.	DESCRIPTION
S1002-TB	Blank, Sheet Steel
S32232-TB	2 Receptacle/Switch, Sheet Steel
S32212-TB	Single Receptacle/Switch, Sheet Steel
S232-TB	2 Dual Receptacle, Sheet Steel
S322-TB	2 Switch, Sheet Steel
S1002GSA-TB	Blank, Cast Aluminum with Gasket



DS23-TB



DS32-TB



DS100G-TB



S1002-TB



S32232-TB



S32212-TB



S232-TB



S322



S1002GSA-TB

Device Boxes and Covers

Aluminum Device Boxes

Application

- Industrial-grade FS/FD device boxes and raintight covers protect wiring devices, switches, electronic components, and terminal blocks in dry, damp and wet locations.
- Spacious, accessible wiring chamber provides a convenient location to maintain or change a system, pull conductors and make splices
- Junction for branch conduits
- Aluminum boxes can be used with steel rigid conduit



AFS



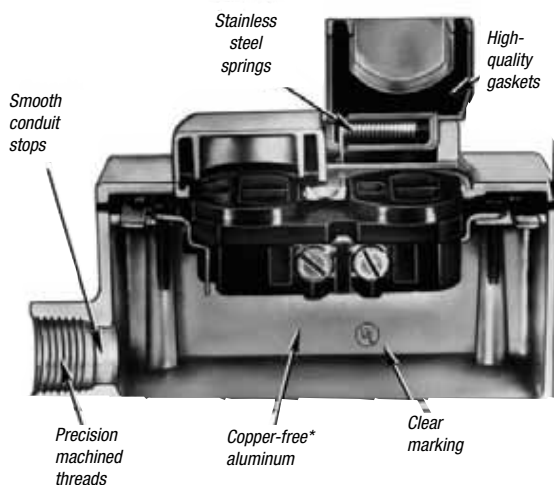
2AFSC



CWP-G



CDR



Features

- Copper-free* aluminum, stainless steel cover springs and hinge pins provide increased corrosion resistance
- Die-cast construction, boxes with securely fastened mounting plates and industrial designed covers combine to produce a rugged protective enclosure for devices on industrial and OEM applications
- Clean cover edges provide good gasket sealing
- Precision NPT threaded hubs allow trouble-free field installation for rigid or IMC conduit
- Clear UL, CSA and cubic content markings speed approval by inspectors
- Boxes — external hub design provides increased wiring room
- Covers ship complete with gaskets and screws

Standard Materials

Die-cast aluminum alloy A360 with less than .004% copper content (copper-free)
Cover hinge pins and springs: Stainless steel

Standard Finish

Aluminum lacquer finish

Listings/Compliances

UL Listed
Boxes CSA Certified with factory-installed ground screw **
Covers CSA Certified
Federal Spec. W-C-586

Sample Specifications

Industrial-grade FS/FD device boxes and covers shall be die-cast copper-free* aluminum alloy A360. All conduit stops shall be coined and free of rough edges. Raintight covers shall have stainless steel springs and hinge pins and are suitable for use in wet locations with cover closed (CFSB, CFST and CFSTF suitable for wet locations). Industrial-grade FS/FD device boxes and covers shall be finished with aluminum lacquer. Industrial-grade FS/FD device boxes and covers shall be Thomas & Betts Catalog No. _____

* Less than .004% copper content

** Consult factory for lead time and minimum quantity

Device Boxes and Covers



AFS

AFSC

AFSS



AFSCC

ADFS

ADFS



2AFS

2AFSC



2ADFS

FSMG-TB

Single-Gang Boxes Raintight*

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
Standard, 1-Hole Box, Dead End				
AFS-1*	1/2"	5	25	68
AFS-2*	3/4"	5	25	74
AFS-3*	1"	5	25	72
Standard, 2-Hole Box, Through Feed				
AFSC-1*	1/2"	5	25	72
AFSC-2*	3/4"	5	25	88
AFSC-3*	1"	5	25	79
Standard, 2-Hole Box, Dead End				
AFSS-1*	1/2"	5	25	80
AFSS-2*	3/4"	5	25	76
Standard, 3-Hole Box, Through Feed				
AFSCC-1*	1/2"	5	25	88
AFSCC-2*	3/4"	5	25	80
Deep, 1-Hole Box, Dead End				
ADFS-1*	1/2"	—	5	74
ADFS-2*	3/4"	—	5	78
ADFS-3*	1"	—	5	80
Deep, 2-Hole Box, Through Feed				
ADFS-1*	1/2"	—	5	76
ADFS-2*	3/4"	—	5	90
ADFS-3*	1"	—	5	90

* Rain-tight when used with appropriate T&B covers.

Double-Gang Boxes Raintight*

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
Standard, 1-Hole Box, Dead End				
2AFS-1*	1/2"	2	10	115
2AFS-2*	3/4"	2	10	95
2AFS-3*	1"	2	10	90
Standard, 2-Hole Box, Through Feed				
2AFSC-1*	1/2"	2	10	104
2AFSC-2*	3/4"	2	10	102
Deep, 1-Hole Box, Dead End				
2ADFS-1*	1/2"	—	3	128
2ADFS-2*	3/4"	—	3	143

* Rain-tight when used with appropriate T&B covers.

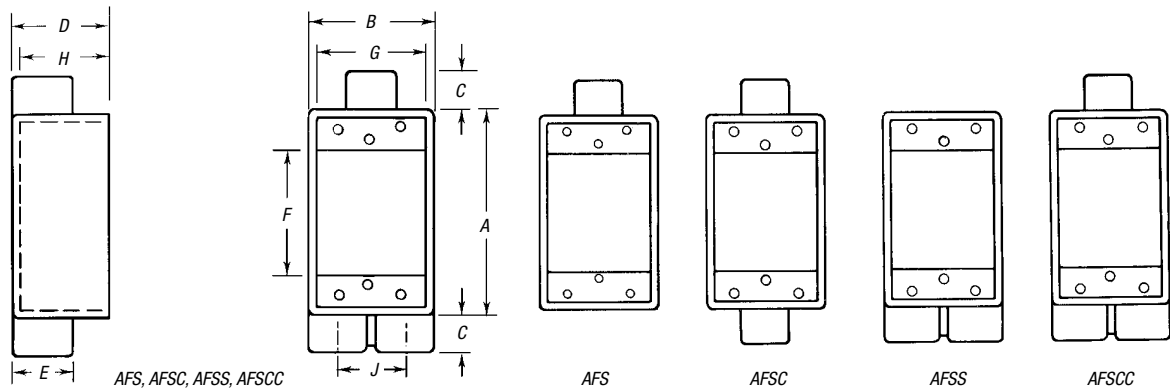
Multi-Gang Boxes Raintight*

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
FSMG-TB	4" Threadless Conduit	—	1	242

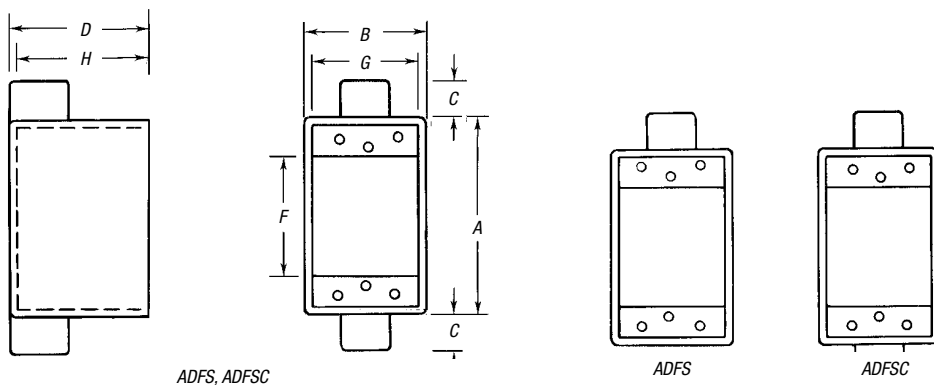
* Rain-tight when used with appropriate T&B covers and gaskets.

Device Boxes and Covers

Dimensions and Cubic Inches (CI) for Single-Gang Boxes



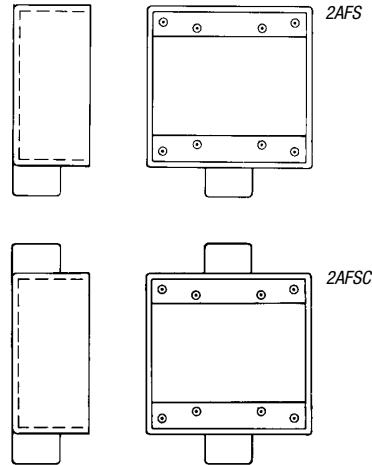
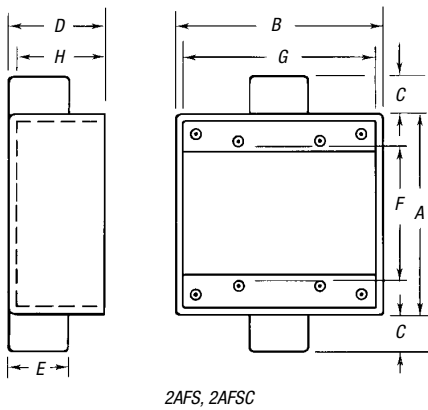
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)										CU. IN.
		A	B	C	D	E	F	G	H	J		
AFS-1	1/2"	4 9/16	2 13/16	1 3/16	2 1/16	1 1/8	2 7/8	2 9/16	1 15/16	—	21.6	
AFS-2	3/4"	4 9/16	2 13/16	1 3/16	2 1/16	1 11/16	2 7/8	2 9/16	1 15/16	—	21.6	
AFS-3	1"	4 9/16	2 13/16	1 3/16	2 1/16	1 11/16	2 7/8	2 9/16	1 15/16	—	21.6	
AFSC-1	1/2"	4 9/16	2 13/16	1 3/16	2 1/16	1 1/8	2 7/8	2 9/16	1 15/16	—	21.6	
AFSC-2	3/4"	4 9/16	2 13/16	1 3/16	2 1/16	1 11/16	2 7/8	2 9/16	1 15/16	—	21.6	
AFSC-3	1"	4 9/16	2 13/16	1 3/16	2 1/16	1 11/16	2 7/8	2 9/16	1 15/16	—	21.6	
AFSS-1	1 1/2"	4 9/16	2 13/16	1 3/16	2 1/16	1 3/8	2 7/8	2 9/16	1 15/16	1 1/2	21.6	
AFSS-2	3/4"	4 9/16	2 13/16	1 3/16	2 1/16	1 3/8	2 7/8	2 9/16	1 15/16	1 1/2	21.6	
AFSCC-1	1/2"	4 9/16	2 13/16	1 3/16	2 1/16	1 3/8	2 7/8	2 9/16	1 15/16	1 1/2	21.6	
AFSCC-2	3/4"	4 9/16	2 13/16	1 3/16	2 1/16	1 3/8	2 7/8	2 9/16	1 15/16	1 1/2	21.6	



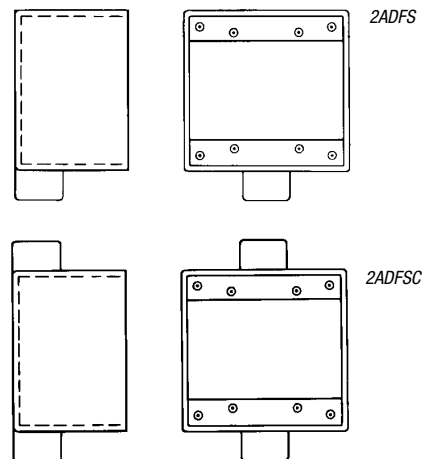
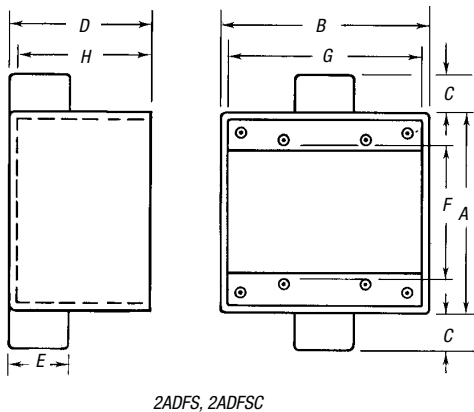
CAT. NO.	HUB SIZE	DIMENSIONS (IN.)										CU. IN.
		A	B	C	D	E	F	G	H	J		
ADFS-1	1/2"	4 9/16	2 13/16	7/8	3 1/16	1 1/8	2 7/8	2 9/16	2 15/16	2 15/16	31.3	
ADFS-2	3/4"	4 9/16	2 13/16	7/8	3 1/16	1 11/16	2 7/8	2 9/16	2 15/16	2 15/16	31.3	
ADFS-3	1"	4 9/16	2 13/16	7/8	3 1/16	1 11/16	2 7/8	2 9/16	2 15/16	2 15/16	31.3	
ADFSC-1	1 1/2"	4 9/16	2 13/16	7/8	3 1/16	1 1/8	2 7/8	2 9/16	2 15/16	2 15/16	31.3	
ADFSC-2	3/4"	4 9/16	2 13/16	7/8	3 1/16	1 11/16	2 7/8	2 9/16	2 15/16	2 15/16	31.3	
ADFSC-3	1"	4 9/16	2 13/16	7/8	3 1/16	1 11/16	2 7/8	2 9/16	2 15/16	2 15/16	31.3	

Device Boxes and Covers

Dimensions and Cubic Inches (CI) for Double-Gang Boxes



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)								CU. IN.
		A	B	C	D	E	F	G	H	
2AFS-1	1/2"	4 9/16	4 3/8	1 3/16	2 1/16	1 3/8	2 1/8	4 3/8	1 15/16	36.0
2AFS-2	3/4"	4 9/16	4 3/8	1 3/16	2 1/16	1 3/8	2 1/8	4 3/8	1 15/16	36.0
2AFS-3	1"	4 9/16	4 3/8	7/8	2 1/16	1 11/16	2 1/8	4 3/8	1 15/16	36.0
2AFSC-1	1/2"	4 9/16	4 3/8	1 3/16	2 1/16	1 3/8	2 1/8	4 3/8	1 15/16	36.0
2AFSC-2	3/4"	4 9/16	4 3/8	1 3/16	2 1/16	1 3/8	2 1/8	4 3/8	1 15/16	36.0



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)								CU. IN.
		A	B	C	D	E	F	G	H	
2ADFS-1	1/2"	4 9/16	4 3/8	1 3/16	3 3/32	1 3/8	2 1/8	4 3/8	20	54.0
2ADFS-2	3/4"	4 9/16	4 3/8	1 3/16	3 3/32	1 3/8	2 1/8	4 3/8	20	54.0
2ADFS-3	1"	4 9/16	4 3/8	7/8	3 3/32	1 11/16	2 1/8	4 3/8	20	54.0
2ADFSC-2	3/4"	4 9/16	4 3/8	1 3/16	3 3/32	1 3/8	2 1/8	4 3/8	20	54.0
2ADFSC-3	1"	4 9/16	4 3/8	7/8	3 3/32	1 11/16	2 1/8	4 3/8	20	54.0

Device Boxes and Covers

Special new aluminum alloy offers the ultimate in corrosion resistance!

T&B® FS/FD CorroStall® Aluminum Boxes

- Special aluminum alloy provides corrosion resistance as cast
- No protective coating required to prevent corrosion
- Ideal for use in food and beverage or pharmaceutical washdown areas, chemical processing and other corrosive environments
- Available in single- and double-gang sizes
- Use with standard T&B FS/FD Aluminum Covers

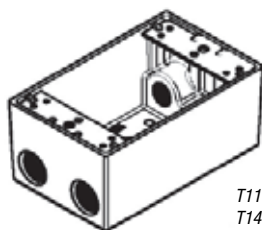
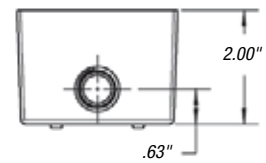
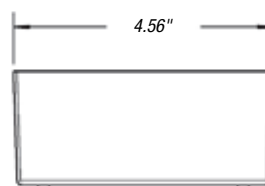
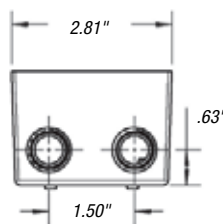


Material

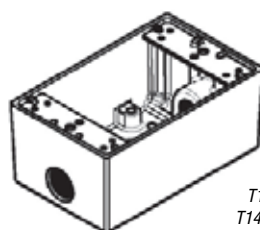
Aluminum alloy

Finish

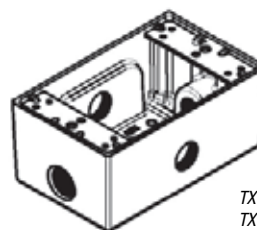
As cast



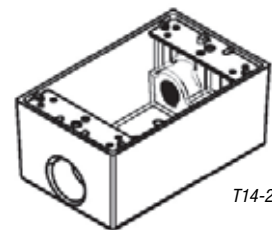
T11-22-FP
T14-22-FP



T11-FP
T14-PL-FP



TX11-5-FP
TX14-5-FP



T14-2-FP

Single-Gang CorroStall® Boxes



CAT. NO.	NO. OF OUTLET HOLES	HUB SIZE (IN.)	STD. PKG.
T11-22-FP	5	1/2	25
T14-22-FP	5	3/4	25
T11-FP	3	1/2	25
T14-PL-FP	3	3/4	25
TX11-5-FP	5	1/2	25
TX14-5-FP	5	3/4	25
T14-2-FP	4	3/4	25

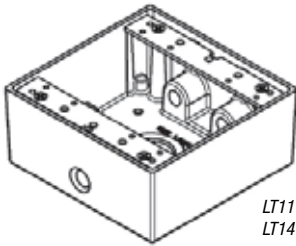
Thomas & Betts

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

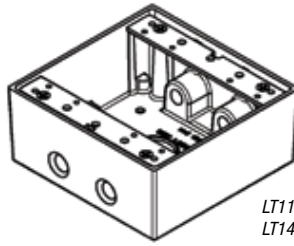
Technical Services
Tel: 888.862.3289

www.tnb.com

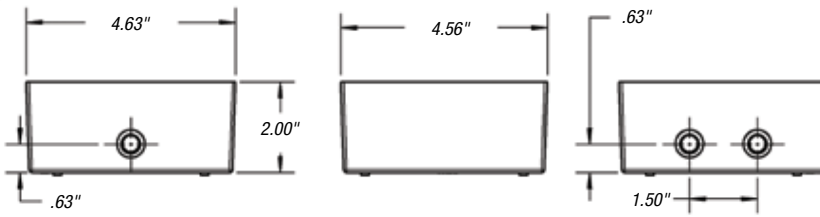
Device Boxes and Covers



LT11-2-FP
LT14-2-FP



LT11-3-FP
LT14-3-FP



Double-Gang CorroStal® Boxes



CAT. NO.	NO. OF OUTLET HOLES	HUB SIZE (IN.)	STD. PKG.
LT11-3-FP	5	1/2	10
LT14-3-FP	5	3/4	10
LT11-2-FP	4	1/2	10
LT14-2-FP	4	3/4	10

Device Boxes and Covers

Aluminum Single- and Double-Gang Covers



CWPDR

CWPDR-FS



CFSDR



CWP-G



CFSH-G



CWPV-G



CFSR-G



CFSR Series



CFST



CFSTF



CFSB

Single-Gang Covers — Raintight*

CAT. NO.	DESCRIPTION	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
For Duplex Receptacles, Horizontal				
CWPDR*	Duplex Receptacle Cover with (2) Spring Doors, Device Mount	1	25	40
CWPDR-FS*	Box Mount	1	25	40
For Duplex Receptacles, Vertical				
CFSDR*	Box Mount	1	25	38
For GFCI Receptacles, Horizontal				
CFSH-G*	Box Mount	1	25	40
For GFCI Receptacles, Vertical				
CWPV-G*	GFCI Receptacle Cover, 2 ⁷ / ₃₂ " x 1 ¹¹ / ₃₂ " Rectangular Opening Device Mount	1	25	40
CFSR-G*	Box Mount	1	25	40

*Raintight when used with appropriate Thomas & Betts boxes and gaskets. Suitable for use in wet locations with cover closed — NEMA 3R.

CAT. NO.	NOMINAL SIZE	MAX. DEVICE FACE DIA.	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
For Single Receptacles, Vertical (Box Mount Only)					
CFSR-L*	1 ¹ / ₁₆ "	1.600"	1	25	40
CFSR-S*	1 ³ / ₈ "	1.395"	1	25	40
CFSR-X*	1 ²⁷ / ₃₂ "	1.865"	1	25	40
CFSR-XL*	2 ¹ / ₈ "	2.145"	1	25	40
CFSR-Y*	1 ³ / ₄ "	1.750"	1	25	40

*Raintight when used with appropriate Thomas & Betts boxes and gaskets. Suitable for use in wet locations with cover closed — NEMA 3R.

CAT. NO.	DESCRIPTION	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
Switch Cover				
CFST*	Plunger Style, Switch Cover, Box Mount NEMA 3R	1	25	40
Switch Cover				
CFSTF*	Front Lever, Switch Cover, Box Mount NEMA 4	1	25	40
Blank Cover				
CFSB*	Blank Cover, Box Mount, NEMA 3R	1	25	14

*Raintight when used with appropriate Thomas & Betts boxes and gaskets. Suitable for use in wet locations with cover closed — NEMA 3R.

Device Boxes and Covers



Single-Gang Covers

CAT. NO.	DESCRIPTION	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
For Duplex Receptacles				
CDR	Duplex Receptacle Cover, Box Mount	20	100	11
For Switches				
CTS	Switch Cover, Box Mount	20	100	14

CAT. NO.	NOMINAL SIZE	MAX. DEVICE FACE DIA.	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
For Single Receptacles (Box Mount Only)					
CRL	1 $\frac{1}{8}$ "	1.600"	20	100	12
CRS	1 $\frac{1}{8}$ "	1.395"	20	100	12

CAT. NO.	DESCRIPTION	STD. PKG.	WT. LBS. PER 100
Gasket			
FS-GKV	Composition Gasket	100	2

Double-Gang Covers — Raintight*

CAT. NO.	DESCRIPTION	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
For Two Duplex Receptacles				
2CWPR*	Two Duplex Receptacle Cover with (2) Spring Doors, Device Mount	1	10	48
For Single Receptacle				
2CWPR-M*	Single Receptacle Cover, Hole Dia. 2 $\frac{1}{4}$ ", Device Mount	1	10	48
2CFSR-M*	Single Receptacle Cover, Hole Dia. 2 $\frac{1}{4}$ ", Box Mount	1	10	48
For Two Switches				
2CFST*	Plunger Style Switch Cover, Box Mount	1	10	26
Blank				
2CFSB*	Blank Cover, Box Mount	10	50	25

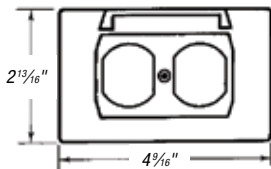
*Raintight when used with appropriate Thomas & Betts boxes, covers and gaskets. Suitable for use in wet locations with cover closed — NEMA 3R.

Double-Gang Covers

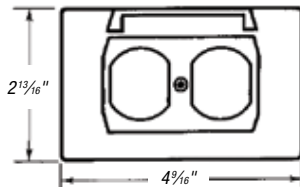
CAT. NO.	DESCRIPTION	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
For Two Duplex Receptacles				
2GDR	Two Duplex Receptacle Cover, Device Mount	10	50	24
For Two Switches				
2CTS	Switch Cover, Device Mount	10	50	24
For Switch and Duplex Receptacles				
2CTDR	Switch and Duplex Receptacle Cover, Device Mount	10	50	24
Gasket				
2FS-GKV	Composition Gasket	—	50	3

Device Boxes and Covers

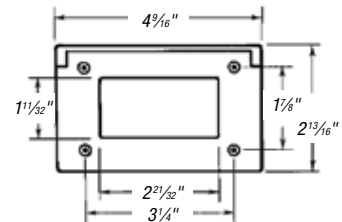
Dimensions for Single-Gang Covers



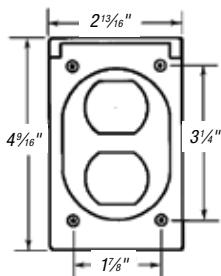
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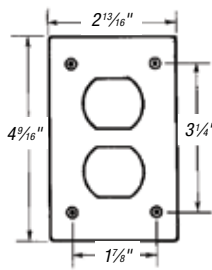
CWPDR-FS



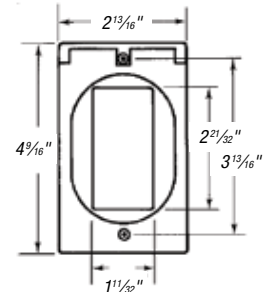
CFSH-G



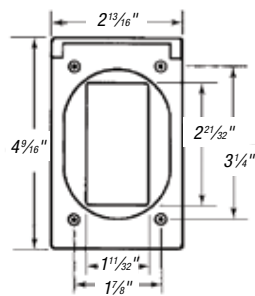
CFSDR



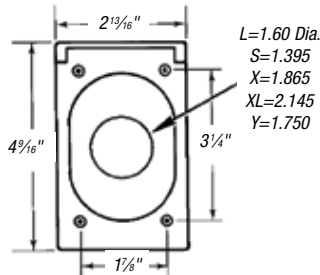
CDR



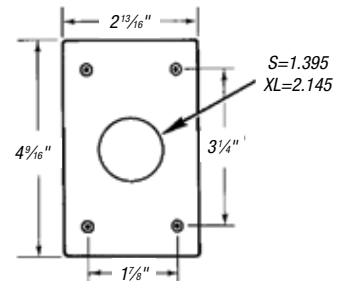
CWPV-G



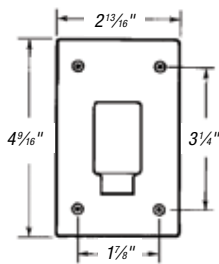
CFSR-G



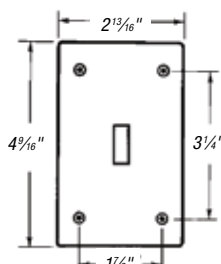
CFSR Series



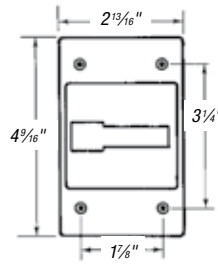
CR Series



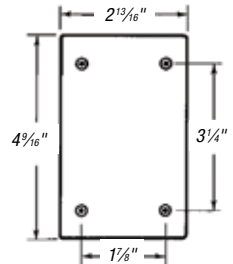
CFST



CTS



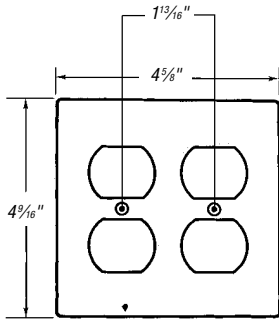
CFSTF



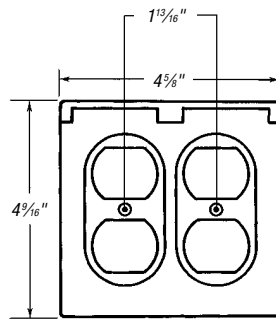
CFSB

Device Boxes and Covers

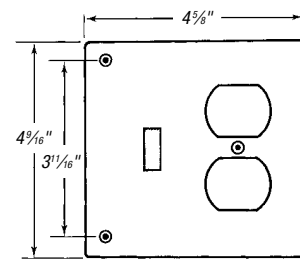
Dimensions for Double-Gang Covers



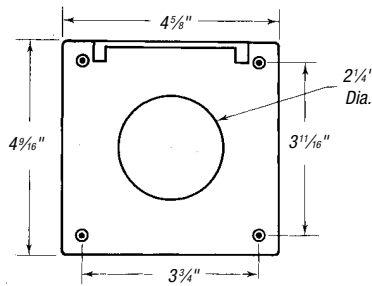
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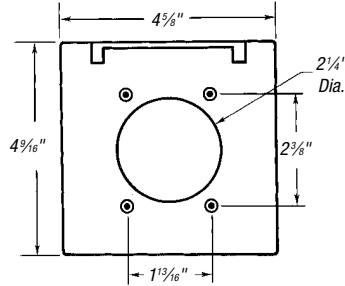
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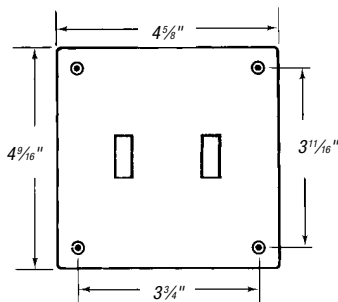
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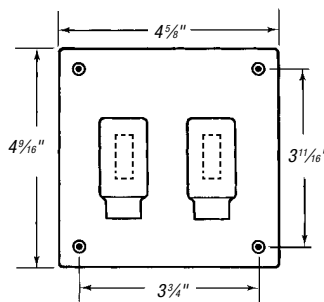
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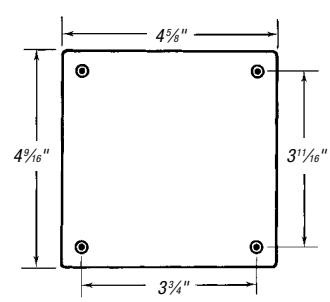
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2CTS



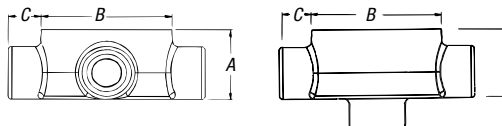
2CFST



2CFSB

Hazardous Location Fittings

GUA Conduit Outlet Boxes



Application

GUA boxes can be used for hazardous location conduit runs for the following:

- Allows for mounting of fixture outlets (when used with appropriate covers)
- Provides easy access to wiring
- Provides junction in conduit for wire pulling and splices
- Changes direction in rigid conduit systems
- Attaches two or more pieces of conduit in long runs
- Guards against damage to wires in rigid conduit



GUA

Features

- All hubs have a minimum of five full threads and integral bushing
- All boxes are furnished with internal grounding screw
- Cover supplied with O-ring gasket



GUAB

Size Range

½" NPT to 2" NPT
Access opening 2" to 5" diameter

Materials

Bodies..... Grade 60-45-10 Ductile Iron (Complies with ASTM standard A536)
Covers..... Die-cast aluminum

Finish

Boxes..... Zinc-plated with aluminum acrylic paint
Covers..... Natural



GUAC

Listings/Compliances

UL514A (wet locations when used with gasketed covers)
UL886
CSA: C22.2 No. 30
Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2
NEMA 3, 4, 7 CD, 9 EFG
Explosion-Proof
Dust-Ignition-Proof
Raintight
Wet Locations



GUAD

GUA



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GU A14-TB	½"	1.81	2.50	.88	.570	.610	5.5
GU A16-TB	½"	2.00	3.50	.88	.570	.610	13.5
GU A24-TB	¾"	2.00	2.50	.88	.755	.810	5.3
GU A26-TB	¾"	2.00	3.50	.88	.755	.810	13.3
GU A36-TB	1"	2.31	3.50	.88	.935	1.035	16.2
GU A47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	29
GU A59-TB	1½"	3.81	5.75	1.06	1.470	1.590	70

GUAB



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GU AB14-TB	½"	2.25	2.50	.88	.570	.610	6.9
GU AB16-TB	½"	2.00	3.50	.88	.570	.610	13.5
GU AB24-TB	¾"	2.50	2.50	.88	.755	.810	7.9
GU AB26-TB	¾"	2.00	3.50	.88	.755	.810	13.5
GU AB36-TB	1"	2.31	3.50	1.00	.935	1.035	15.4
GU AB47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	27.5
GU AB59-TB	1½"	3.81	5.75	1.06	1.470	1.590	73.6
GU AB69-TB	2"	4.06	5.75	1.06	1.880	2.047	80
GU AB79-TB	2½"	4.06	5.75	1.13	2.320	2.380	98

GUAC



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GU AC14-TB	½"	2.25	2.50	.88	.570	.610	6.8
GU AC16-TB	½"	2.00	3.50	.88	.570	.610	13.1
GU AC24-TB	¾"	2.00	2.50	.88	.755	.810	5.3
GU AC26-TB	¾"	2.00	3.50	.88	.755	.810	13.3
GU AC36-TB	1"	2.31	3.50	.88	.935	1.035	16.2
GU AC47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	29.3
GU AC49-TB	1¼"	3.81	5.75	1.00	1.260	1.360	73.6
GU AC59-TB	1½"	3.81	5.75	1.06	1.470	1.590	74
GU AC69-TB	2"	4.06	5.75	1.06	1.880	2.047	77.8

GUAD



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GU AD14-TB	½"	1.81	2.50	.88	.570	.610	5.6
GU AD16-TB	½"	2.00	3.50	.88	.570	.610	12.5
GU AD24-TB	¾"	2.00	2.50	.88	.755	.810	5.2
GU AD26-TB	¾"	2.00	3.50	.88	.755	.810	13.1
GU AD36-TB	1"	2.31	3.50	.88	.935	1.035	16
GU AD49-TB	1¼"	3.81	5.75	1.00	1.260	1.360	76

Hazardous Location Fittings



Conduit & Fittings — T&B® Rigid Fittings

GUAL



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GUAL14-TB	½"	2.25	2.50	.88	.570	.610	7.1
GUAL16-TB	½"	2.00	3.50	.88	.570	.610	13.4
GUAL24-TB	¾"	2.00	2.50	.88	.755	.810	5.3
GUAL26-TB	¾"	2.00	3.50	.88	.755	.810	13.3
GUAL36-TB	1"	2.31	3.50	.88	.935	1.035	16.2
GUAL47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	30
GUAL49-TB	1¼"	3.81	5.75	1.00	1.260	1.360	74.5
GUAL59-TB	1½"	3.81	5.75	1.06	1.470	1.590	74
GUAL69-TB	2"	4.06	5.75	1.06	1.880	2.047	77.8

GUAT



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GUAT14-TB	½"	2.25	2.50	.88	.570	.610	7
GUAT16-TB	½"	2.00	3.50	.88	.570	.610	13.5
GUAT24-TB	¾"	2.00	2.50	.88	.755	.810	5.3
GUAT26-TB	¾"	2.00	3.50	.88	.755	.810	13.3
GUAT36-TB	1"	2.31	3.50	1.00	.935	1.035	15.9
GUAT37-TB	1"	2.31	3.50	.88	.935	1.035	23.3
GUAT47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	29.3
GUAT49-TB	1¼"	3.81	5.75	1.00	1.260	1.360	77.2
GUAT59-TB	1½"	3.81	5.75	1.06	1.470	1.590	77.7
GUAT69-TB	2"	4.06	5.75	1.06	1.880	2.047	77.8
GUAT79-TB	2½"	4.06	5.75	1.06	2.320	2.380	95

GUAM



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GUAM14-TB	½"	1.81	2.50	.88	.570	.610	5.6
GUAM16-TB	½"	2.00	3.50	.88	.570	.610	12.5
GUAM24-TB	¾"	2.00	2.50	.88	.755	.810	6.2
GUAM26-TB	¾"	2.00	3.50	.88	.755	.810	12.5
GUAM36-TB	1"	2.31	3.50	.88	.935	1.035	14
GUAM47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	29.2
GUAM69-TB	2"	4.06	5.75	1.06	1.880	2.047	80

GUAW



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GUAW14-TB	½"	1.81	2.50	.88	.570	.610	5.2
GUAW16-TB	½"	2.00	3.50	.88	.570	.610	13
GUAW24-TB	¾"	2.00	2.50	.88	.755	.810	6.5
GUAW26-TB	¾"	2.00	3.50	.88	.755	.810	13

GUAN



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GUAN14-TB	½"	2.13	2.50	.88	.570	.610	6.8
GUAN16-TB	½"	2.00	3.50	.88	.570	.610	13.5
GUAN24-TB	¾"	2.31	2.50	.88	.755	.810	7.7
GUAN26-TB	¾"	2.00	3.50	.88	.755	.810	14
GUAN36-TB	1"	2.31	3.50	.88	.935	1.035	16.9
GUAN47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	31.5
GUAN59-TB	1½"	4.06	5.75	1.06	1.470	1.590	84
GUAN69-TB	2"	4.06	5.75	1.06	1.880	2.047	84

GUAX



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.		CU. IN. CAPACITY
		A	B	C	MIN.	MAX.	
GUAX14-TB	½"	1.81	2.50	.88	.570	.610	5.2
GUAX16-TB	½"	2.00	3.50	.88	.570	.610	13.5
GUAX24-TB	¾"	2.00	2.50	.88	.755	.810	5.3
GUAX26-TB	¾"	2.00	3.50	.88	.755	.810	13.3
GUAX36-TB	1"	2.31	3.50	1.00	.935	1.035	16
GUAX37-TB	1"	2.31	3.50	.88	.935	1.035	23.3
GUAX47-TB	1¼"	2.69	4.38	1.00	1.260	1.360	30
GUAX49-TB	1¼"	3.81	5.75	1.00	1.260	1.360	72
GUAX59-TB	1½"	3.81	5.75	1.06	1.470	1.590	71
GUAX69-TB	2"	4.06	5.75	1.06	1.880	2.047	77.8

Hazardous Location Fittings

Aluminum External Hubs

Application

- Junction for branch conduits in hazardous locations
- Accessible wiring chamber provides a convenient location to maintain or change a system, pull conductors and make splices
- Unique mounting pads and external hub design ideal for installations of OEM devices or instruments

Features

- Copper-free* aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs enable trouble-free field installation for rigid or IMC conduit
- Die-cast construction and industrial design combine to produce a rugged protective enclosure for devices on industrial and OEM applications
- Clear UL, CSA and cubic content markings speed approval by inspectors

Standard Materials

Die-cast aluminum alloy A360 with less than .004 copper content (copper-free)

Standard Finish

Aluminum lacquer finish

Listings/Compliances

UL Listed
 CSA Certified
 Suitable for hazardous locations
 NEMA 4 rated when ordered with O-ring installed
 Federal Spec W-C-586
 Cl.I, Div. 1 & 2, Groups C, D
 Cl.II, Div. 1, Groups E, F, G
 Cl.III, Div. 1 & 2
 Explosion-Proof
 Dust-Ignition-Proof
 Raintight
 Wet Locations

Sample Specifications

Outlet boxes for hazardous locations shall be die-cast copper-free* aluminum alloy A360 and suitable for use in Class I, Groups C, D, Class II, Groups E, F, G and Class III areas. All conduit stops shall be coined and free of rough edges. Outlet boxes for hazardous locations shall be finished with aluminum lacquer. Outlet boxes shall be Red•Dot® Catalog No. _____

*Less than .004 copper content.



GAX



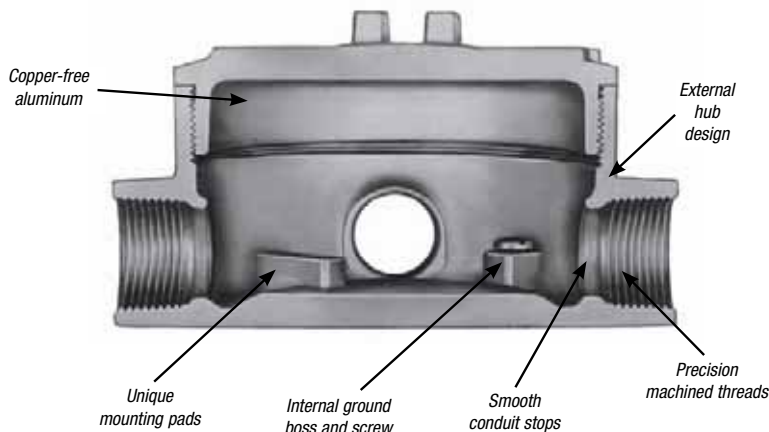
GAFX



GAJU



GASS



Hazardous Location Fittings

Aluminum External Hubs with Installed Green Ground Screw

Through Feed with Surface Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GAC-1•	½"	1	5	115
GAC-2•	¾"	1	5	115
GAC-3•	1"	1	5	115



GAC

Dead End with Surface Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GAE-2•	¾"	1	5	110



GAE

L Style with Surface Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GAL-1	½"	1	5	115
GAL-2•	¾"	1	5	115
GAL-3•	1"	1	5	115
GAL-4•	1¼"	1	5	175
GAL-5•	1½"	1	4	247
GAL-6•	2"	1	4	253



GAL

LB Style with Surface Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GALB-1•	½"	1	5	115
GALB-2	¾"	1	5	115
GALB-3•	1"	1	5	115
GALB-4•	1¼"	1	2	175
GALB-6•	2"	1	4	253



GALB

T Style with Surface Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GAT-1•	½"	1	5	120
GAT-2	¾"	1	5	120
GAT-3•	1"	1	5	120
GAT-4	1¼"	1	5	180
GAT-6•	2"	1	1	406



GAT

• Made-to-order items. Consult factory for lead time and minimum quantities.

Hazardous Location Fittings

Aluminum External Hubs with Installed Green Ground Screw

X Style with Surface Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GAX-1 [•]	½"	1	5	125
GAX-2 [†]	¾"	1	5	125
GAX-3 [•]	1"	1	5	125
GAX-5 [•]	1½"	1	1	257

X Style with Flange and Surface Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GAFX-1 [†]	½"	1	4	135
GAFX-2 [†]	¾"	1	4	135

Surface-Style Cover

CAT. NO.	COVER OPENING	FIT BOXES	STD. PKG.	WT. LBS. PER 100
GAS-123 [•]	3 ¹ / ₁₆ "	½", ¾", 1"	1	36
GAS-4 [•]	3 ²⁹ / ₃₂ "	1¼"	1	52
GAS-56 [•]	5 ⁷ / ₁₆ "	1½", 2"	1	69

Dome-Style Cover (Class I, Group D only)

CAT. NO.	COVER OPENING	FITS BOXES	INSIDE HEIGHT	CU. IN. CAPACITY	STD. PKG.	WT. LBS PER 100
GAD-123 [•]	3 ¹ / ₁₆ "	½", ¾", 1"	2 ⁵ / ₈ "	23	1	71

[•] Made-to-order items. Consult factory for lead time and minimum quantities.

[†] Suffix-OR: O-ring available for NEMA 4 rating. Consult factory for lead time and price.

Aluminum External Hubs with Installed Green Ground Screw, Covers and Plugs

U Style with Canopy Cover

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GAJU-2	¾"	1	5	130
GAJU-3	1"	1	5	130
GAJU-6 [•]	2"	1	1	273

Canopy-Style Cover

CAT. NO.	COVER OPENING	FITS BOXES	UNIT QTY.	STD. PKG.	WT. LBS PER 100
GAJ-123 [•]	3 ¹ / ₁₆ "	½", ¾", 1"	1	10	44
GAJ-4 [•]	3 ²⁹ / ₃₂ "	1¼"	1	5	61
GAJ-56 [•]	5 ⁷ / ₁₆ "	1½", 2"	1	5	78

[•] Made-to-order items. Consult factory for lead time and minimum quantities.



GAX



GAFX



GAS



GAD



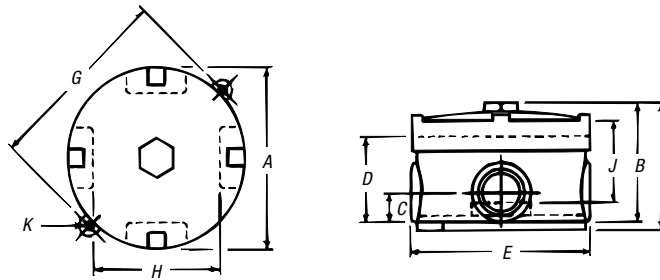
GAJU



GAJ

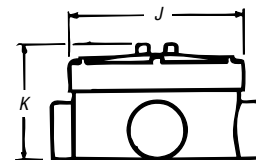
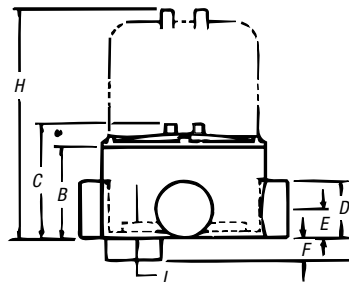
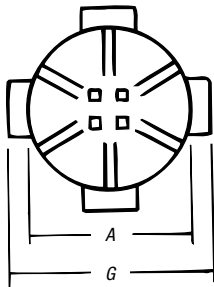
Hazardous Location Fittings

Dimensions and Cubic Inches (CI) for External Hubs



EXUN and EXUNL

HUB SIZE	DIMENSIONS (IN.)										CI
	A	B	C	D	E	F	G	H	J	K	
1/2"	3 ³¹ / ₃₂ "	3 ¹ / ₈ "	2 ²¹ / ₃₂ "	2 ¹ / ₁₆ "	4	3 ³ / ₈ "	4 ¹ / ₄ "	1 ¹ / ₄ "	1 ⁹ / ₁₆ "	1 ⁷ / ₆₄ "	20.3
3/4"	3 ³¹ / ₃₂ "	3 ¹ / ₈ "	2 ²¹ / ₃₂ "	2 ¹ / ₁₆ "	4	3 ³ / ₈ "	4 ¹ / ₄ "	1 ¹ / ₄ "	1 ⁹ / ₁₆ "	1 ⁷ / ₆₄ "	20.3
1"	3 ³¹ / ₃₂ "	3 ⁵ / ₁₆ "	3 ¹ / ₄ "	2 ¹ / ₄ "	4	3 ⁹ / ₁₆ "	4 ¹ / ₄ "	1 ¹ / ₁₆ "	1 ⁹ / ₁₆ "	1 ⁷ / ₆₄ "	20.0



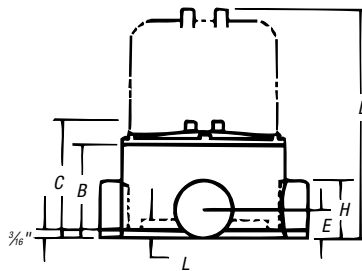
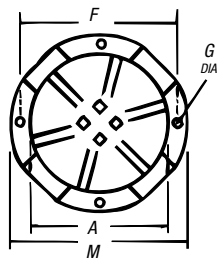
Dimensions of all styles when GAJ cover is used

GAC, GAE, GAL, GALB, GAT and GAX

COVER OPENING	HUB SIZE	DIMENSIONS (IN.)											CI
		A	B	C	D	E	F	G	H	J	K	L	
3 ¹ / ₁₆ "	1/2"	4"	2 ¹ / ₄ "	2 ¹⁵ / ₁₆ "	1 ³ / ₈ "	1 ¹ / ₁₆ "	1 ¹ / ₁₆ "	5 ³ / ₁₆ "	5 ⁹ / ₁₆ "	4 ³ / ₁₆ "	3 ³ / ₁₆ "	9 ¹ / ₁₆ "	18.8
3 ¹ / ₁₆ "	3/4"	4"	2 ¹ / ₄ "	2 ¹⁵ / ₁₆ "	1 ³ / ₈ "	1 ¹ / ₁₆ "	1 ¹ / ₁₆ "	5 ³ / ₁₆ "	5 ⁹ / ₁₆ "	4 ³ / ₁₆ "	3 ³ / ₁₆ "	9 ¹ / ₁₆ "	18.8
3 ¹ / ₁₆ "	1"	4"	2 ¹ / ₄ "	2 ¹⁵ / ₁₆ "	1 ⁵ / ₈ "	1 ³ / ₁₆ "	2 ⁷ / ₃₂ "	5 ¹ / ₂ "	5 ⁹ / ₁₆ "	4 ³ / ₁₆ "	3 ⁵ / ₁₆ "	9 ¹ / ₁₆ "	18.8
3 ²⁹ / ₃₂ "	1 1/4"	4 ⁵ / ₁₆ "	3"	3 ¹ / ₁₆ "	2 ¹ / ₁₆ "	1 ¹ / ₃₂ "	7 ⁵ / ₈ "	5 ¹ / ₁₆ "	—	4 ⁹ / ₁₆ "	3 ¹⁵ / ₁₆ "	5 ¹ / ₈ "	28.0
5 ³ / ₁₆ "	1 1/2"	5 ³ / ₄ "	4 ¹ / ₄ "	5 ¹ / ₁₆ "	2 ¹ / ₈ "	1 ⁷ / ₁₆ "	7 ⁵ / ₈ "	6 ⁵ / ₈ "	—	6 ⁷ / ₁₆ "	5 ¹⁵ / ₃₂ "	1 ³ / ₁₆ "	69.3
5 ³ / ₁₆ "	2"	5 ³ / ₄ "	4 ¹ / ₄ "	5 ¹ / ₁₆ "	2 ¹ / ₈ "	1 ⁷ / ₁₆ "	7 ⁵ / ₈ "	6 ⁵ / ₈ "	—	6 ⁷ / ₁₆ "	5 ¹⁵ / ₃₂ "	1 ³ / ₁₆ "	69.3

Hazardous Location Fittings

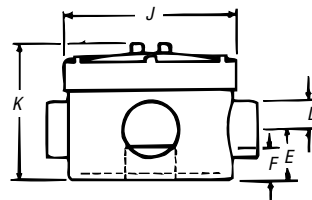
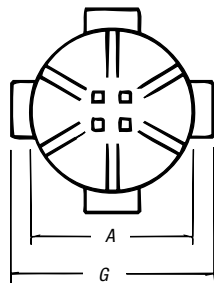
Dimensions and Cubic Inches (CI) for External Hubs (continued)



GAFX

COVER OPENING	HUB SIZE	DIMENSIONS (IN.)										
		A	B	C	D	E	F	G	H	L	M	CI
3 ¹¹ / ₁₆ "	1/2"	4"	2 ¹ / ₄ "	2 ¹⁵ / ₁₆ "	5 ⁹ / ₁₆ "	1 ¹ / ₁₆ "	4 ¹ / ₂ "	1/4"	1 ³ / ₈ "	9/16"	5 ⁵ / ₁₆ "	20.0
3 ¹ / ₁₆ "	3/4"	4"	2 ¹ / ₄ "	2 ¹⁵ / ₁₆ "	5 ⁹ / ₁₆ "	1 ¹ / ₁₆ "	4 ¹ / ₂ "	1/4"	1 ³ / ₈ "	9/16"	5 ⁵ / ₁₆ "	20.0
3 ¹ / ₁₆ "	1"	4"	2 ¹ / ₄ "	2 ¹⁵ / ₁₆ "	5 ⁹ / ₁₆ "	1 ³ / ₁₆ "	4 ³ / ₄ "	5/16"	1 ⁵ / ₈ "	9/16"	5 ¹ / ₂ "	19.0

Note: All GAF units supplied as X configuration with proper number of explosion-proof close-up plugs to make C, T or L.



GAJU

COVER OPENING	HUB SIZE	DIMENSIONS (IN.)								CI
		A	D	E	F	G	J	K		
3 ¹¹ / ₁₆ "	1/2"	4"	1 ³ / ₁₆ "	1 ¹ / ₂ "	3 ¹ / ₃₂ "	5 ⁵ / ₁₆ "	4 ³ / ₁₆ "	4"	23.8	
3 ¹ / ₁₆ "	3/4"	4"	1 ³ / ₁₆ "	1 ¹ / ₂ "	3 ¹ / ₃₂ "	5 ⁵ / ₁₆ "	4 ³ / ₁₆ "	4"	23.8	
3 ¹ / ₁₆ "	1"	4"	1 ³ / ₁₆ "	1 ¹ / ₂ "	3 ¹ / ₃₂ "	5 ⁵ / ₁₆ "	4 ³ / ₁₆ "	4"	23.8	
3 ²⁹ / ₃₂ "	1 ¹ / ₄ "	4 ⁵ / ₁₆ "	2 ¹ / ₁₆ "	1 ¹ / ₃₂ "	7/8"	5 ¹¹ / ₁₆ "	4 ³ / ₄ "	3 ¹⁵ / ₁₆ "	33.3	
5 ⁹ / ₁₆ "	1 ¹ / ₂ "	5 ³ / ₄ "	1 ⁷ / ₁₆ "	2 ¹ / ₁₆ "	1 ¹ / ₂ "	6 ³ / ₈ "	6 ³ / ₁₆ "	6 ³ / ₁₆ "	82.8	
5 ⁹ / ₁₆ "	2"	5 ³ / ₄ "	1 ⁷ / ₁₆ "	2 ¹ / ₁₆ "	1 ¹ / ₂ "	6 ³ / ₈ "	6 ³ / ₁₆ "	6 ³ / ₁₆ "	82.8	

Note: All GA & GAF series boxes are supplied with GAS or GAJ style covers. To order these boxes with GAD dome cover, consult factory.

Hazardous Location Fittings

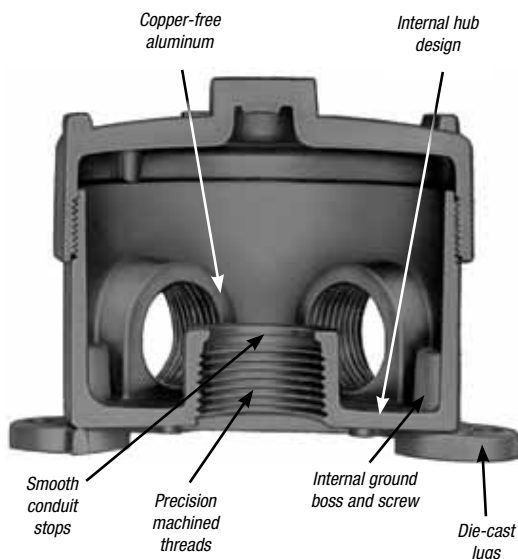
EXUN Series Aluminum Internal Hubs

Application

- Junction for branch conduits in hazardous locations
- Accessible wiring chamber provides a convenient location to maintain or change a system, pull conductors and make splices
- Internal hub design ideal for installation where space is limited

Features

- Copper-free* aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs enable trouble-free field installation for rigid or IMC conduit
- Die-cast construction and industrial design combine to produce a rugged protective enclosure for devices on industrial and OEM applications
- Clear UL, CSA and cubic content markings speed approval by inspectors



Standard Materials

Die-cast aluminum alloy A360 with less than .004 copper content (copper-free)

Standard Finish

Aluminum lacquer finish

Listings/Compliances

UL Listed
 CSA Certified
 Suitable for hazardous locations
 Federal Spec W-C-586
 Cl.I, Div. 1 & 2, Groups C, D
 Cl.II, Div. 1, Groups E, F, G
 Cl.III, Div. 1 & 2
 NEMA 3, 4, 7 CD, 9 EFG
 Explosion-Proof
 Dust-Ignition-Proof
 Raintight
 Wet Locations

Sample Specifications

Outlet boxes for hazardous locations shall be die-cast copper-free* aluminum alloy A360 and suitable for use in Class I, Groups C, D, Class II, Groups E, F, G and Class III areas. All conduit stops shall be coined and free of rough edges. Outlet boxes for hazardous locations shall be finished with aluminum lacquer. Outlet boxes shall be Thomas & Betts Catalog No. _____

*Less than .004 copper content.

Hazardous Location Fittings

5-Hole Aluminum Box



CAT. NO.	HUB SIZE	DESCRIPTION	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EXUN-1	½"	(5) Outlets	1	5	140
EXUN-2	¾"	with (3) Close-Up Plugs	1	5	140
EXUN-3	1"	with (3) Close-Up Plugs	1	5	140



EXUN-1

4-Hole Aluminum Box



CAT. NO.	HUB SIZE	DESCRIPTION	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EXUN-11	½"	(4) Outlets	1	5	140
EXUN-22	¾"	with (2) Close-Up Plugs	1	5	—



EXUN-11

Hazardous Location Fittings

GASS Series Aluminum Internal Hubs

Application

- Junction for branch conduits in hazardous locations
- Accessible wiring chamber provides a convenient location to maintain or change a system, pull conductors and make splices

Features

- Copper-free* aluminum alloy provides increased corrosion resistance
- Extra-wide 3¾" opening provides more hand space for easy access to the wiring chamber
- Precision cast and machined surfaces permit safer wire pulling
- Large capacity 31-cu.-in. chamber provides more wiring space
- Precision NPT threaded hubs enable trouble-free field installation for rigid or IMC conduit
- Sand-cast construction and industrial design combine to produce a rugged protective enclosure for devices on industrial and OEM applications
- Clear UL, CSA and cubic content markings speed approval by inspectors
- Hub spacing enables use of EXFU and EXMU unions

Standard Materials

Box — Sand-Cast aluminum alloy A356. 2-T6
 Cover — Die-Cast aluminum alloy A360 with less than .004 copper content (copper-free)

Standard Finish

Aluminum lacquer finish

Listings/Compliances

UL Listed
 CSA Certified
 NEC
 Cl.I, Div. 1 & 2, Groups C, D
 Cl.II, Div. 1, Groups E, F, G
 Cl.III, Div. 1 & 2
 NEMA 3, 4, 7 CD, 9 EFG
 Explosion-Proof
 Dust-Ignition-Proof
 Raintight
 Wet Locations

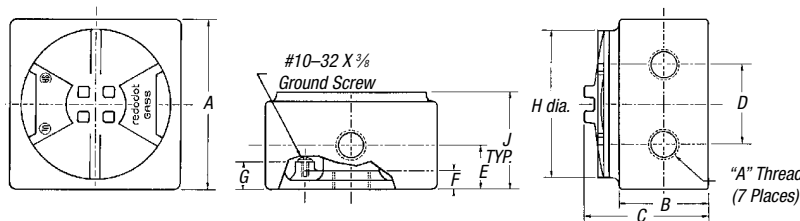
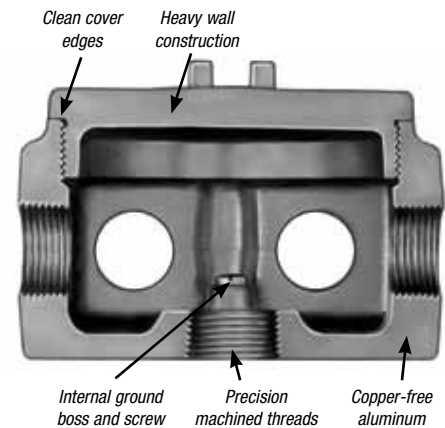
Sample Specifications

Enclosure for hazardous locations. The box shall be cast copper-free* aluminum alloy A356.2-T6. Suitable for use in hazardous locations: Suitable for use in Class I, Groups C, D; Class II, Groups E, F, G; and Class III areas. Enclosures shall be finished with aluminum lacquer. Outlet boxes shall be Thomas & Betts Catalog No. _____

*Less than .004% copper content.



GASS



Dimensions of all styles when GASS cover is used

GASS Internal Hubs with Installed Green Ground Screw, Cover and Plugs



COVER OPENING	HUB SIZE	A	B	C	D	E	F	G	H	J	CI
4"	½"	4⅞	2⅝	3⅞	2⅜	1⅜	½	¾	4	2⅝	31
4"	¾"	4⅞	2⅝	3⅞	2⅜	1⅜	½	¾	4	2⅝	31
4"	1"	4⅞	2⅝	3⅞	2⅜	1⅜	½	¾	4	2⅝	31

CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GASS-1	½"	1	5	282
GASS-2	¾"	1	5	278
GASS-3	1"	1	5	274

Hazardous Location Fittings

Perfect for the petrochemical industry!

GUP Explosion-Proof Enclosure

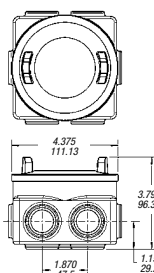


CAT. NO.	DESCRIPTION	STD. PKG. QTY.
GUP214-TB	Junction Box — 10 Hubs (3/4" NPT): (2) in Top, (2) in Bottom, (1) in Each Side, (4) in the Back	1
GUP215-TB	Junction Box — (6) Hubs (3/4" NPT): (2) in Top, (2) in Bottom, (1) in Each Side	1

T&B has developed an innovative new solution ideally suited for gas station contractors and the petrochemical market — the GUP Explosion-Proof Enclosure. The compact design makes gas station pumps an ideal application due to space constraints. Two different configurations are available and the body is constructed of ductile iron for superior strength. Rely on T&B to deliver the best products when safety is a concern.

Features

- Compact design
- O-ring gasket standard for raintight applications
- Supplied with conduit plugs
 - three plugs for GUP215-TB
 - seven plugs for GUP214-TB



Materials

Ductile iron for superior strength (Body)
Copper-free cast aluminum (A6) (Cover)
Neoprene gasket (O-Ring)

Standard Finish

Ductile iron — Electrogalvanized and aluminum acrylic paint
Copper-free aluminum cover — Natural

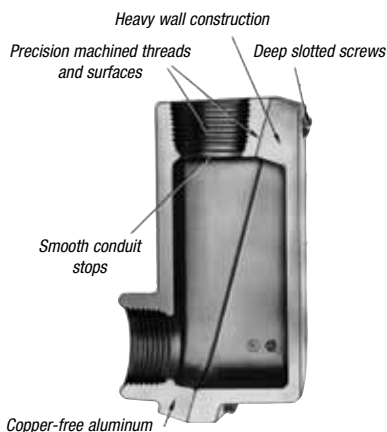
Listings/Compliances

UL886 Listed
CSA Standard C22.2
Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2
NEMA 3, 4, 7 CD, 9 EFG
Explosion-Proof
Dust-Ignition-Proof
Raintight
Wet Locations

LB Style Conduit Body — Aluminum



CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EXLB-1	1/2"	5	76	92
EXLB-2	3/4"	5	94	115
EXLB-3	1"	5	132	172



Standard Materials

Die-cast aluminum alloy A360 with less than .004% copper content (copper-free)

Standard Finish

Aluminum lacquer finish

Listings/Compliances

UL Listed
CSA Certified
Suitable for hazardous locations
Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2
NEMA 3, 4, 7 CD, 9 EFG
Explosion-Proof
Dust-Ignition-Proof
Raintight
Wet Locations

T Style Conduit Body — Aluminum



CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EXT-1	1/2"	5	25	92
EXT-2	3/4"	5	25	115
EXT-3	1"	5	5	172

Application

- Junction for branch conduits
- Accessible wiring chamber provides a convenient location to pull conductors and make splices

Features

- 31 cu. in. capacity
- Copper-free* aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs enable trouble-free field installation for rigid or IMC conduit
- Deep slotted cover screws for faster installation
- Clear UL, CSA and cubic content markings speed approval by inspectors

Sample Specifications

Conduit fittings for hazardous locations shall be die-cast copper-free* aluminum alloy A360. Suitable for use in hazardous locations: Class I, Groups C, D; Class II, Groups E, F, G and Class III. All conduit stops shall be coined and free of rough edges. Conduit fittings shall be finished with aluminum lacquer. Conduit fittings shall be Thomas & Betts® Catalog No.

*Less than .004 copper content.

Hazardous Location Fittings

OE Series Iron Conduit Outlet Bodies

Application

OE series are installed in conduit systems within hazardous areas to:

- Protect conductors in threaded rigid conduit
- Act as pulling and splice fittings
- Interconnect lengths of conduit
- Change direction of conduit
- Provide access for maintenance and future system changes

Features

OE conduit bodies have:

- Tapered threaded hubs for ground continuity
- Smooth integral hub bushings to protect conductor insulation when pulling
- Five different hub arrangements
- Accurately machined body with blind tapped screw holes
- Most compact design of all hazardous area outlet bodies
- Sizes up to 1"

Standard Materials

Bodies: Grade 60-45-10 Ductile Iron (Complies with ASTM standard A536)

Standard Finish

Electrogalvanized and aluminum acrylic paint

Size Ranges

Hub — ½" and ¾"

Listings/Compliances

Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2

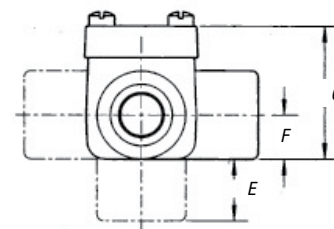
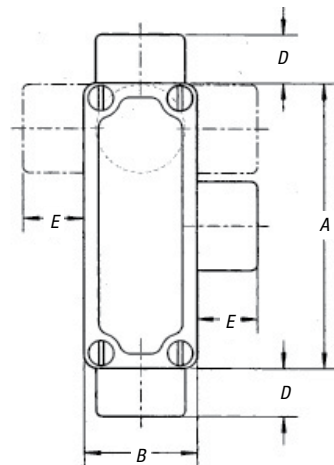
NEMA 3, 4, 7 CD, 9 EFG

Explosion-Proof

Dust-Ignition-Proof

Raintight

Wet Locations



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)					
		A	B	C	D	E	F
OEC1-TB	½"	4.06	1.62	1.90	.69	.88	.63
OEC2-TB	¾"	4.35	1.88	2.19	.69	.88	.76
OET1-TB	½"	4.06	1.62	1.90	.69	.88	.63
OET2-TB	¾"	4.35	1.88	2.19	.69	.88	.76
OELL1-TB	½"	4.06	1.62	1.90	.69	.88	.63
OELL2-TB	¾"	4.35	1.88	2.19	.69	.88	.76
OELR1-TB	½"	4.06	1.62	1.90	.69	.88	.63
OELR2-TB	¾"	4.35	1.88	2.19	.69	.88	.76
OELB1-TB	½"	4.06	1.62	1.90	.69	.88	.63
OELB2-TB	¾"	4.35	1.88	2.19	.69	.88	.76

Hazardous Location Fittings

Provides maximum volume for bends within a compact overall size!

Capped Iron Elbow — Female to Female

Application

LBY/GYF elbows are installed in conduit systems within hazardous areas to:

- Make 90° bends in conduit systems where space is limited
- Act as pull outlets
- Provide access to conductors for maintenance and future system changes

Features

- Maximum volume for bends within a compact overall size
- Screw on cover for ease of installation and removal
- Cover opening on an angle, permitting conductors to be pulled straight through either hub
- Tapered threaded hubs and integral bushing for rigid threaded conduit



LBY

Standard Materials

LBY Ductile Iron
GYF Copper Free Aluminum

Listings/Compliances (LBY)

Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2

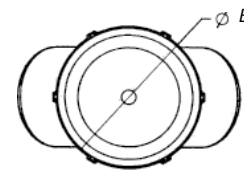
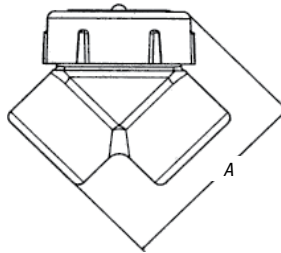
NEMA 3, 4, 7 CD, 9 EFG

Explosion-Proof

Dust-Ignition-Proof

Raintight

Wet Locations



CAT. NO.	HUB SIZE	A	B	THROAT DIM.	
				MIN.	MAX.
LBY15-TB	½"	2 ⁹ / ₁₆	2	.570	.610
LBY25-TB	¾"	2 ³ / ₁₆	2¼	.755	.810
LBY35-TB	1"	3 ³ / ₃₂	2½	.955	1.035
LBY45-TB	1¼"	3¾	2 ⁵ / ₁₆	1.260	1.360
LBY55-TB	1½"	4¼	3 ³ / ₈	1.470	1.590
LBY65-TB	2"	5½	4	1.880	2.047

Capped Aluminum Elbow — Female to Female



GYF



CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
GYF-1	½"	10	50	23
GYF-2	¾"	5	25	40
GYF-3	1"	5	25	60
GYF-4•	1¼"	2	10	80
GYF-5	1½"	2	10	95

• Made-to-order items. Consult factory for lead time and minimum quantities.

Hazardous Location Fittings

Reducers, Plugs and Adapters

Application

- RE and REC reducers are used in threaded heavy wall conduit systems
- RE reduces conduit hubs to a smaller size
- REC connects two different sizes of conduit together or is used to replace a coupling and reducer in an installation
- PLG plugs are used for closing threaded conduit hubs

Features

- All Hubs have NPT threads with a minimum of five full threads and integral bushing for preventing damage to wires

Materials

Machined Reducers: Steel
 Cast Reducers: Gray Iron
 Funnel Reducers: Iron
 Recessed Plugs: Gray Iron
 Red•Dot® Recessed Plugs:
 Copper-free aluminum

Listings/Compliances

UL: 886
 CSA: C22.2 No.30
 Cl. I, Div. 1 & 2, Groups A, B, C, D
 Cl. II, Div. 1, Groups E, F, G
 Cl. III, Div. 1 & 2
 Explosion-Proof
 Dust-Ignition-Proof
 For hazardous and non-hazardous locations

Standard Finishes

Cast zinc plated with aluminum acrylic paint
 Machine zinc plated with clear chromate finish



Recessed Plugs



CAT. NO.	THREADS (NPT)
<i>With Flush Head for Hazardous and Non-Hazardous Locations</i>	
PLG1-TB	1/2
PLG2-TB	3/4
PLG3-TB	1
PLG4-TB	1 1/4
PLG5-TB	1 1/2
PLG6-TB	2
PLG7-TB	2 1/2
PLG8-TB	3
PLG9-TB	3 1/2
PLG10-TB	4

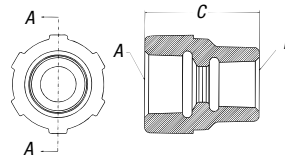
Reducing Bushings



CAT. NO.	A MALE (NPT)	B FEMALE (NPT)
RE21-TB	3/4	1/2
RE31-TB	1	1/2
RE32-TB	1	3/4
RE41-TB	1 1/4	1/2
RE42-TB	1 1/4	3/4
RE43-TB	1 1/4	1
RE51-TB	1 1/2	1/2
RE52-TB	1 1/2	3/4
RE53-TB	1 1/2	1
RE54-TB	1 1/2	1 1/4
RE61-TB	2	1/2
RE62-TB	2	3/4
RE63-TB	2	1
RE64-TB	2	1 1/4
RE65-TB	2	1 1/2

CAT. NO.	A MALE (NPT)	B FEMALE (NPT)
RE73-TB	2 1/2	1
RE74-TB	2 1/2	1 1/4
RE75-TB	2 1/2	1 1/2
RE76-TB	2 1/2	2
RE83-TB	3	1
RE84-TB	3	1 1/4
RE85-TB	3	1 1/2
RE86-TB	3	2
RE87-TB	3	2 1/2
RE96-TB	3 1/2	2
RE97-TB	3 1/2	2 1/2
RE98-TB	3 1/2	3
RE106-TB	4	2
RE107-TB	4	2 1/2
RE108-TB	4	3

REC Series Reducers



CAT. NO.	A (NPT)	B (NPT)	C
<i>Funnel-Shaped Reducers for Hazardous and Non-Hazardous Locations</i>			
REC21-TB	3/4	1/2 - 14	1 1/2
REC31-TB	1	1/2 - 14	2
REC32-TB	1	3/4 - 14	2

Aluminum Recessed Plugs



CAT. NO.	HUB SIZE
<i>With Flush Head for Hazardous and Non-Hazardous Locations</i>	
XPLG-1†	1/2"
XPLG-2†	3/4"
XPLG-3†	1"
XPLG-4*	1 1/4"
XPLG-5*	1 1/2"
XPLG-6*	2"

Made-to-order items. Consult factory for lead time and minimum quantities.
 † Not UL Listed and not approved for use in hazardous locations.
 * UL Listed E 34438

Hazardous Location Fittings

UN Series Three-Piece Unions

Application

UNY and UNF unions are installed in threaded thickwall conduit systems:

- UNY — to connect conduit to a conduit fitting, junction box or device enclosure
- UNF — to connect conduit to conduit, or to provide a means for future modification of the conduit system

Standard Finishes

Steel — electrogalvanized with chromate treatment

Iron alloy, malleable iron — electrogalvanized and aluminum acrylic paint

Listings/Compliances

NEC®/CEC

Class I, Division 1 & 2, Groups A, B, C, D

Class II, Division 1, Groups E, F, G

Class III

UNF, UNY ½" – 1"

UL — Conduit unions for use in Cat. Nos. UNF/UNY followed by 105, 205, or 305; for use in:

Class I, Division 1 & 2, Groups A, B, C, D

Class II, Division 1, Groups E, F, G

Class III

UNF, UNY ½", ¾", 1"

CSA — Conduit unions for use in Cat. Nos. UNF/UNY followed by 105, 205, 305, 405 or 505; for use in:

Class I, Division 1 & 2, Groups B, C, D

Class II, Division 1, Groups E, F, G

Class III

UNF, UNY ½", ¾", 1", 1¼", 1½"

UL — Conduit unions for use in Cat. Nos. UNF/UNY followed by 405 or 505; for use in:

Class I, Division 1 & 2, Groups B, C, D

Class II, Division 1, Groups E, F, G

Class III

UNF, UNY 1¼", 1½"

UL & CSA — Conduit unions for use in Cat. Nos. UNF/UNY, EL Series followed by 605, 905, or 1005; for use in:

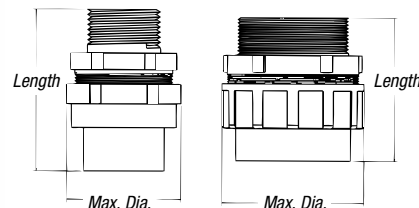
Class I, Division 1 & 2, Groups C, D

Class II, Division 1, Groups E, F, G

Class III

UNF, UNY 2", 2½", 3", 3½", 4"

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



UNY

UNY Male Unions



CAT. NO.	TRADE SIZE	OVERALL LENGTH/INCHES	OVERALL DIA./INCHES
<i>For Hazardous and Non-Hazardous Locations</i>			
UNY105-TB	½	2 ²⁵ / ₆₄	1½
UNY205-TB	¾	2 ⁷ / ₁₆	1 ¹³ / ₁₆
UNY305-TB	1	2 ³ / ₄	2
UNY405-TB	1¼	3 ¹ / ₁₆	2¼
UNY505-TB	1½	3 ⁵ / ₈	3 ¹ / ₁₆
UNY605-TB	2	3½	3 ³ / ₁₆
UNY705-TB	2½	4 ¹³ / ₁₆	4 ⁷ / ₁₆
UNY805-TB	3	5 ¹ / ₂	5 ¹ / ₁₆
UNY905-TB	3½	5½	5 ¹ / ₁₆
UNY1005-TB	4	5 ⁵ / ₈	6 ¹ / ₁₆



UNF

UNF Female Unions



CAT. NO.	TRADE SIZE	OVERALL LENGTH/INCHES	OVERALL DIA./INCHES
<i>For Hazardous and Non-Hazardous Locations</i>			
UNF105-TB†	½	1 ¹ / ₈	1½
UNF205-TB†	¾	2 ¹ / ₈	1 ¹³ / ₁₆
UNF305-TB†	1	2 ⁵ / ₂	2
UNF405-TB††	1¼	2¼	2¼
UNF505-TB††	1½	2¾	3 ¹ / ₁₆
UNF605-TB†††	2	2½	3 ³ / ₁₆
UNF705-TB†††	2½	3½	4 ⁷ / ₁₆
UNF805-TB†††	3	4	5 ¹ / ₁₆
UNF905-TB†††	3½	4 ⁷ / ₂	5 ¹ / ₁₆
UNF1005-TB†††	4	4¼	6 ¹ / ₁₆

† Steel

†† Forged steel

††† Malleable iron

Hazardous Location Fittings

EX Series Aluminum Three-Piece Unions



Application

- Unions are used as connecting elements between enclosures, fittings or boxes that permit future changes to the system in both hazardous and non-hazardous areas

Features

- Copper-free* aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs allow trouble-free field installation for rigid or IMC conduit
- Clear UL, CSA and cubic content markings speed approval by inspectors
- Unique concentric ring design ensures critical flame path control

Standard Materials

Die-cast aluminum alloy A360 with less than .004 copper content (copper-free)
EXMU nipples are galvanized steel

Standard Finish

Aluminum lacquer finish

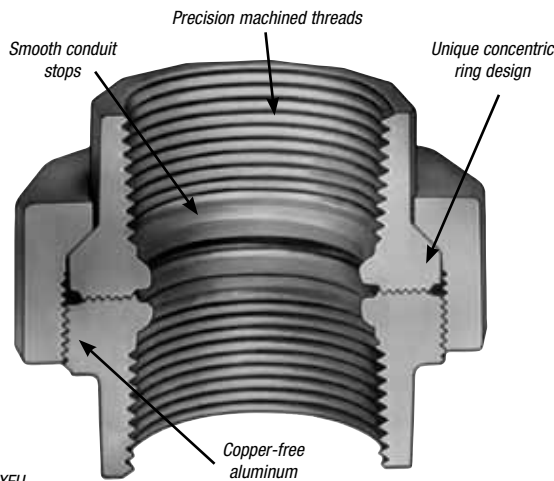
Listings/Compliances

UL Listed
CSA Certified
Suitable for hazardous locations
Federal Spec W-C-586
Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2
NEMA 3, 4, 7 CD, 9 EFG
Explosion-Proof
Dust-Ignition-Proof
Raintight
Wet Locations

Sample Specifications

Conduit unions for hazardous locations shall be die-cast copper-free* aluminum alloy A360. Suitable for use in hazardous locations: Class I, Groups C, D; Class II, Groups E, F, G and Class III. All conduit stops shall be coined and free of rough edges. Conduit unions shall be finished with aluminum lacquer. Conduit unions shall be Thomas & Betts® Catalog No. _____

*Less than .004 copper content.



EXFU



EXMU

EXFU Female-to-Female Unions



CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EXFU-1	1/2"	5	25	24
EXFU-2	3/4"	5	25	33
EXFU-3	1"	5	25	42
EXFU-4	1 1/4"	5	25	53
EXFU-5	1 1/2"	5	25	68
EXFU-6•	2"	2	10	130
EXFU-8•	3"	1	5	310
EXFU-9•	3 1/2"	1	5	340
EXFU-10•	4"	1	1	374

• Made-to-order items. Consult factory for lead time and minimum quantities.

EXMU Male-to-Female Unions



CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EXMU-1	1/2"	5	25	24
EXMU-2	3/4"	5	25	35
EXMU-3	1"	5	25	45

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

Hazardous Location Fittings

EYD Drain Seals

Cl. I, Div. 1 & 2, Groups A, B, C, D

Cl. II, Div. 1, Groups E, F, G

Cl. III, Div. 1 & 2

Application

EYD drain and inspection sealing fittings:

- Restrict the passage of gases, vapors or flames from one portion of the electrical installation to another at atmospheric pressure and normal ambient temperatures
- Limit explosions to the sealed-off enclosure
- Prevent precompression or “pressure piling” in conduit systems. Drain sealing fittings are installed in vertical conduit runs and at low points in conduit systems to prevent accumulation of condensate above seal

Features

EYD drain sealing fittings include:

- Drain to provide continuous, automatic drainage of condensate
- Large openings with threaded closures to provide easy access to conduit hubs for making dams
- Integral bushings to protect conductor insulation from damage
- Tapered-tapped hubs to ensure ground continuity

Standard Materials

Bodies and drain covers — Gray iron alloy and/or ductile iron

Closure for drain — copper-free aluminum or ductile iron

Small closure plug — Gray iron alloy and/or steel

Drain — stainless steel

Removable nipples — steel

Standard Finish

Gray iron alloy and ductile iron — electrogalvanized and aluminum acrylic paint

Copper-free aluminum — natural

Stainless steel — natural

Steel — electrogalvanized

Options

Copper-free aluminum bodies, nipples and enclosures — see listings



Size Ranges

EYD — ½"–4"

Listings/Compliances

EYD11 — 31-TB

Class I, Division 1 & 2, Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III

EYD41 — 101-TB

Class I, Division 1 & 2, Groups C, D; Class II, Division 1, Groups E, F, G

Class II, Division 2, Groups F, G

Class III

UL Standard: 886

CSA Standard: C22.2

NEMA 3, 4, 7 CD, 9 EFG

Explosion-Proof

Dust-Ignition-Proof

Raintight

Wet Locations

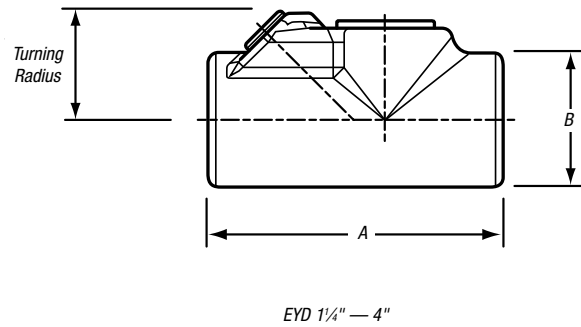
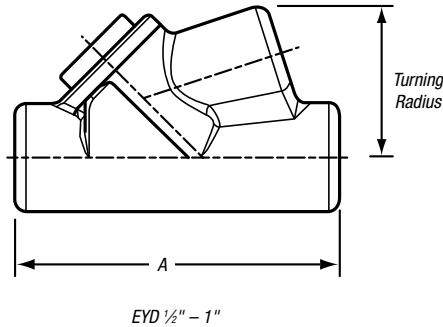
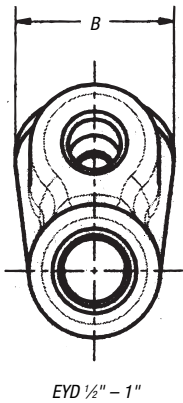
Sealing Compound and Fibers

Seal A3 (1-lb. can of sealing compound)

Fiber X6 (8-oz. fiber packing)

Seal Kit (1-lb. can of sealing compound and 1-oz. fiber packing)

Hazardous Location Fittings



Conduit & Fittings — T&B® Rigid Fittings



EYD Drain Seals

CAT. NO.	HUB SIZE	DIMENSIONS (IN.)		TURNING RADIUS
		A	B	
EYD11-TB	1/2"	3.81	1.50	1.75
EYD21-TB	3/4"	4.08	1.75	1.98
EYD31-TB	1"	4.85	2.19	2.19
EYD41-TB	1 1/4"	5.00	2.25	1.80
EYD51-TB	1 1/2"	5.44	2.44	2.00
EYD61-TB	2"	6.25	3.00	2.32
EYD71-TB	2 1/2"	7.50	3.50	2.69
EYD81-TB	3"	8.50	4.25	3.15
EYD91-TB	3 1/2"	9.19	4.75	3.38
EYD101-TB	4"	9.75	5.25	3.64

Drains/Breathers for Hazardous Locations

Application

The Thomas & Betts Universal drain/breather fittings can be used as drains or breathers depending on the installation.

- To use as a drain, the product must be installed in the bottom of the enclosure or the lowest point where an NPT threaded opening exists. It can also be used in a seal fitting or a "T" conduit body. These must be in a lower section of the conduit system. This will enable moisture inside the conduit system to drain out
- To use as a breather, installation should be done at the top of an enclosure or in upper sections of conduit systems. This will permit air exchange and keep moisture accumulation inside the conduit system to a minimum. Thomas & Betts recommends the use of at least two devices (one drain and one breather) for maximum efficiency



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)
		B
ECD15	1/2"	.975
ECD384	3/8"	.407
ECD284	1/4"	.327

Hazardous Location Fittings

EYS Sealing Fittings

Application

EYS sealing fittings can be installed in either vertical or horizontal applications.

- Seals sections of conduit runs from passage of vapors, flame, or gases
- Seals off sections of conduit system during explosion
- Limits precompression or pressure piling in conduit system

Features

- All hubs have a minimum of five full threads, integral bushings to protect conductor insulation from damage and large access openings for easier packing of sealing medium
- Seals are approved to be used with Crouse-Hinds® Sealing Compound and Fiber

Size Range

½" NPT to 4" NPT

Materials

Bodies: Ductile Iron

Plugs: Gray Iron

Nipples: Steel, supplied with EYS fittings

Finish

Bodies: Zinc-plated with aluminum acrylic paint

Plugs: Zinc-plated with aluminum acrylic paint

Nipples: Zinc-plated

Sealing Compound and Fibers

Seal A3 (1-lb. can of sealing compound)

Fiber X6 (8-oz. fiber packing)

Sealkit (1-lb. can of sealing compound and 1-oz. fiber packing)

Listings/Compliances

UL886

CSA: C22.2 No. 30

EYS seals are approved to be used with Crouse-Hinds® Chico® A compound and Chico® X fiber

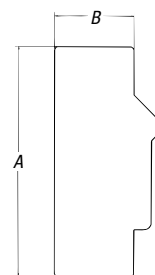
EYS1-3TB:
Cl. I, Div. 1 & 2,
Groups A, B, C, D

EYS4-5TB:
Cl. I, Div. 1 & 2, Groups C, D

EYS11-31TB:
Cl. I, Div. 1 & 2,
Groups A, B, C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III

EYS41-101TB:
Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III

Explosion-Proof
Dust-Ignition-Proof

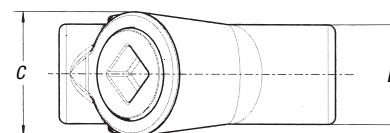
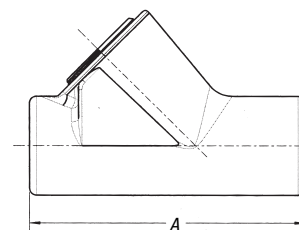


EYS11-TB – EYS101-TB



CAT. NO.	HUB SIZE	DIMENSIONS (IN.)			TURNING RADIUS
		A	B	C	
Vertical Only					
EYS1-TB	½"	3.31	1.25	1.50	1.66"
EYS2-TB	¾"	3.65	1.50	1.75	1.96"
EYS3-TB	1"	4.25	1.75	2.19	2.40"
EYS4-TB	1¼"	5.00	2.25	2.45	3.11"
EYS5-TB	1½"	5.69	2.45	3.00	3.62"
Horizontal/Vertical					
EYS11-TB	½"	3⅞	1¼	—	1⅜"
EYS21-TB	¾"	3⅝	1½	—	1¼"
EYS31-TB	1"	4¼	1¾	—	1⅝"
EYS41-TB	1¼"	5	2¼	—	1⅞"
EYS51-TB	1½"	5⅞	2⅞	—	2"
EYS61-TB	2"	6¼	3	—	2⅞"
EYS71-TB	2½"	7½	3½	—	2⅞"
EYS81-TB	3"	8½	4¼	—	3⅝"
EYS91-TB	3½"	9⅞	4¾	—	3⅞"
EYS101-TB	4"	9¾	5¼	—	3⅞"

Crouse-Hinds® and Chico® are trademarks of Cooper Industries, Inc.



EYS1-TB – EYS5-TB

Hazardous Location Fittings

EYVF and EVHF Sealing Fittings

Application

- Limits flames and/or explosions to area within electrical system where they originate
- Limits pressure piling
- Required by NEC® for conduit systems in hazardous locations 18" from an enclosure housing a heat producing or arcing device; on 2" and larger system that enters an enclosure containing splices; wherever conduit leaves a Class I, Division I area and enters a non-hazardous area

Features

- Copper-free* aluminum provides increased corrosion resistance
- Precision cast and machined surfaces permit safer wire pulling
- Precision NPT threaded hubs enable trouble-free field installation for rigid or IMC conduit
- Large opening provides maximum working room for creating dam and seal pouring to speed up installation
- Compact design permits close construction of parallel conduit runs

Standard Materials

Sealing Fittings: Die-cast aluminum alloy A360 with less than .004 copper content (copper-free)
 Sealing Cement
 Fiber: Flame-retardant Kaowool Type A fiber

Standard Finish

Aluminum lacquer finish

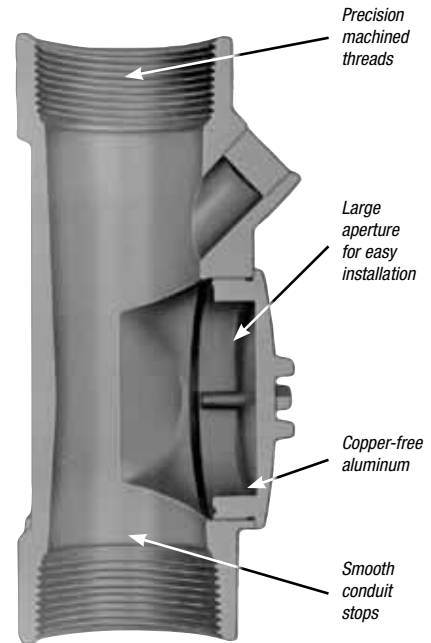
Listings/Compliances

UL Listed
 CSA Certified
 Suitable for hazardous locations
 Federal Spec W-C-586
 Cl. I, Div. 1 & 2, Groups C, D
 Cl. II, Div. 1, Groups E, F, G
 Cl. III, Div. 1 & 2
 NEMA 3, 4, 7 CD, 9 EFG
 Explosion-Proof
 Dust-Ignition-Proof
 Raintight
 Wet Locations

Sample Specifications

Sealing fittings for hazardous locations shall be die-cast copper-free* aluminum alloy A360. Suitable for use in hazardous locations: Class I, Groups C, D; Class II, Groups E, F, G and Class III. All conduit stops shall be coined and free of rough edges. Sealing fittings for hazardous locations shall be finished with aluminum lacquer. Sealing fittings shall be Thomas & Betts Catalog No. _____

*Less than .004% copper content.



Conduit & Fittings — T&B® Rigid Fittings



EYVF



EVHF-1 through -3



EVHF-4 through -9

Vertical Sealing Fittings



CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EYVF-1 [†]	½"	5	25	50
EYVF-2 [†]	¾"	5	25	54
EYVF-3 [†]	1"	5	25	100
EYVF-11	½"	10	50	35
EYVF-22	¾"	10	50	40
EYVF-33	1"	4	20	60

Vertical/Horizontal Sealing Fittings



CAT. NO.	HUB SIZE	UNIT QTY.	STD. PKG.	WT. LBS. PER 100
EVHF-1	½"	10	50	41
EVHF-2	¾"	5	25	50
EVHF-3	1"	5	25	60
EVHF-4	1¼"	4	20	70
EVHF-5	1½"	1	5	60
EVHF-6	2"	1	1	125
EVHF-7 •	2½"	1	1	150
EVHF-9 •	3½"	1	1	300

• Made-to-order items. Consult factory for lead time and minimum quantities.

[†] Packaged with an adequate amount of sealing compound and plugs installed.

Hazardous Location Fittings

Preparation of Sealing Fittings

Applications

T&B Red•Dot® sealing cement is used for making seals in sealing fittings. The insulation in the conductors sealed in the cement may be approved thermoplastic or rubber, with or without lead covering. The sealing cement should not be used for insulating.

Characteristics

T&B Red•Dot® sealing cement is not affected by gasoline, alcohol, acetone, ether, naphtha, petroleum, benzol or lacquer solvent.

Preparation

- (1) Use a clean mixing vessel for each batch.
- (2) Thoroughly mix powder before adding water.
- (3) Do not use if temperature is below 40° F.
- (4) Mix one part water to two parts cement.
- (5) Allow cement to set for 72 hours before use.

Standard Dams

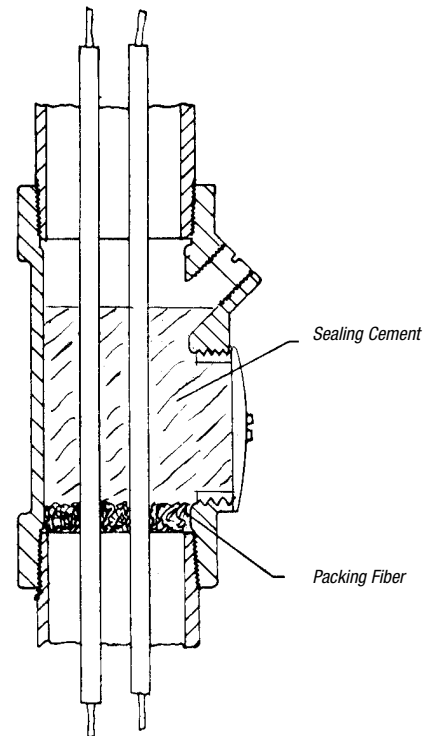
- (1) Push the conductors away from the filling opening and force them apart so that they do not touch each other or the walls of the fitting or conduit along their length. If the conductors do touch, the sealing cement will not form a closed path between them.
- (2) Force the packing fiber between each conductor and the inside walls. Be sure that the dam is strong enough and tight enough to prevent the considerable weight of the fluid sealing cement from seeping out.

Pouring

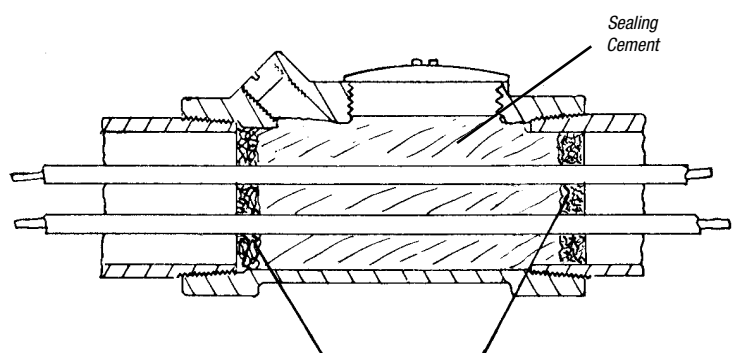
- (1) Pour the mixed cement into the fitting slowly so as not to trap air in the seal.
- (2) Replace the close-up plugs to ensure that they engage not less than five full threads.

Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2
NEMA 3, 4, 7 CD, 9 EFG

Explosion-Proof
Dust-Ignition-Proof
Raintight
Wet Locations



Vertical Installation
for EYVF or EVHF Fittings



Packing Fiber
Horizontal EVF Installation

Hazardous Location Fittings

Sealing Cement and Fiber for T&B® Sealing Fittings

Cl. I, Div. 1 & 2, Groups C, D
Cl. II, Div. 1, Groups E, F, G
Cl. III, Div. 1 & 2

Explosion-Proof
Dust-Ignition-Proof
Raintight
Wet Locations

- Can be used on T&B EYV, EVH series fittings only

Sealing Cement

CAT. NO.	QUANTITY	VOLUME CUBIC INCHES	STD. PKG.	WT. LBS PER 100
EXSC-2	3.2 oz.	2.75	25	20
EXSC-8	13 oz.	11.50	15	81
EXSC-16	1 lb., 10 oz.	23.00	10	163

Packing Fiber

CAT. NO.	QUANTITY	STD. PKG.	WT. LBS PER 100
EXPF-16	1 lb.	1	112

Approximate Amount of Cement and Fiber Required per Hub

CAT. NO.	HUB SIZE	CEMENT QUANTITY	FIBER QUANTITY
EYVF-11	½"	2 oz.	½ oz.
EYVF-22	¾"	3 oz.	⅙ oz.
EYVF-33	1"	4 oz.	⅙ oz.
EVHF-1	½"	2 oz.	⅓ oz.
EVHF-2	¾"	2 oz.	⅓ oz.
EVHF-3	1"	4 oz.	¼ oz.
EVHF-4	1¼"	4 oz.	¼ oz.
EVHF-5	1½"	6 oz.	½ oz.
EVHF-6	2"	12 oz.	1 oz.
EVHF-7	2½"	15 oz.	1½ oz.
EVHF-8	3"	40 oz.	2 oz.
EVHF-9	3½"	45 oz.	3 oz.
EVHF-10	4"	50 oz.	4 oz.



EXSC



EXPF

Hazardous Location Fittings

Make flexible connections in hazardous locations!

XP Flex Explosion-Proof Flexible Couplings

With their flexible design, T&B® XP Flex Couplings make it easy to achieve tight bends in conduit systems in confined spaces — or to connect stationary equipment to equipment that moves or vibrates. Their explosion-proof and corrosion-resistant construction mean you can use them with confidence in hazardous and wet locations.

Application

- Achieve tight bends in conduit systems in confined spaces
- Connect stationary equipment to equipment that moves or vibrates

Features

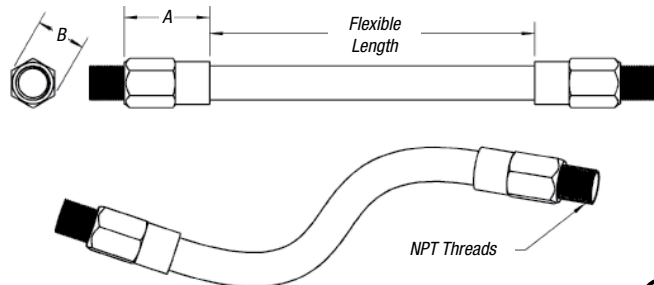
- Corrosion resistant — ideal for washdown areas
- Flexible bronze construction with arc-resistant inner sleeve and brass fittings
- Terminated with two threaded female end fittings and male close nipples
- No bonding jumper required

Standard Materials

Flexible bronze construction with arc-resistant inner sleeve
Brass fittings

Listings/Compliances

UL Listed
CSA Certified
Suitable for hazardous locations
½" and ¾" Hub Sizes:
Class I, Div. 1 & 2, Groups A, B, C, D Class II,
Div. 1, Groups E, F, G
Class III
1" Hub Size:
Class I, Div. 1 & 2, Groups C, D
Class II, Div. 1, Groups E, F, G
Class III
Wet Locations
UL886



CAT. NO.	HUB SIZE	FLEXIBLE LENGTH (IN.)	DIMENSIONS (IN.)	
			A	B
XPLFL16	½"	6	1.54	1.44
XPLFL18	½"	8	1.54	1.44
XPLFL110	½"	10	1.54	1.44
XPLFL112	½"	12	1.54	1.44
XPLFL115	½"	15	1.54	1.44
XPLFL118	½"	18	1.54	1.44
XPLFL124	½"	24	1.54	1.44
XPLFL212	¾"	12	1.60	1.87
XPLFL215	¾"	15	1.60	1.87
XPLFL218	¾"	18	1.60	1.87
XPLFL224	¾"	24	1.60	1.87
XPLFL236	¾"	36	1.60	1.87
XPLFL318	1"	18	2.00	2.31

Technical Information

UL Recommended Dimensions and Weights of Rigid Metal Conduit

TRADE SIZE (IN.)	THDS. PER IN.	I.D. (IN.)	O.D. (IN.)	WALL THICKNESS (IN.)	A MIN. WT. AT 100' LENGTHS WITH ONE COUPLING ATTACHED (LBS.)
¼	18	.364	.540	.088	38.5
⅜	18	.493	.675	.091	51.5
½	14	.622	.840	.109	79.0
¾	14	.824	1.050	.113	105.0
1	11½	1.049	1.315	.133	153.0
1¼	11½	1.380	1.660	.140	201.0
1½	11½	1.610	1.900	.145	249.0
2	11½	2.067	2.375	.154	332.0
2½	8	2.469	2.875	.203	527.0
3	8	3.068	3.500	.216	682.6
3½	8	3.548	4.000	.226	831.0
4	8	4.026	4.500	.237	972.3
4½	8	4.506	5.000	.247	1,150.0
5	8	5.047	5.563	.258	1,313.6
6	8	6.065	6.625	.280	1,745.3

UL Dimensions for Intermediate Metallic Conduit† — Type I (10-ft. lengths)

TRADE SIZE (IN.)	O.D. (IN.)		WALL THICKNESS (IN.)
	MIN.	MAX.	
½	.810	.820	.070*
¾	1.024	1.034	.075*
1	1.285	1.295	.085*
1¼	1.630	1.645	.085*
1½	1.875	1.890	.090*
2	2.352	2.367	.095*
2½	2.847	2.867	.130**
3	3.466	3.486	.130**
3½	3.961	3.981	.130**
4	4.456	4.476	.130**

* (+.015, -.000)

** (+.020, -.000)

† IMC Threads are the same as Rigid Metal Conduit Threads.

UL Dimensions for Intermediate Metallic Conduit — Type II (10-ft. lengths)

TRADE SIZE (IN.)	O.D. (IN.)		WALL THICKNESS (IN.)
	MIN.	MAX.	
½	.825	.840	.085*
¾	1.035	1.050	.085*
1	1.300	1.315	.108*
1¼	1.645	1.660	.108*
1½	1.885	1.900	.108*
2	2.360	2.375	.108*
2½	2.850	2.875	.155**
3	3.475	3.500	.155**
3½	3.975	4.000	.160**
4	4.475	4.500	.160**

* (+.020, -.000)

** (+.025, -.000)

UL Recommended Dimensions and Weight of Electrical Metallic Tubing (EMT)

TRADE SIZE (IN.)	O.D. (IN.)	I.D.* (IN.)	WALL THICKNESS (IN.)	MIN. ACCEPT WT. FT. (LBS.)
¾	.577 ± .005	.493	.042	.230
½	.706 ± .005	.622	.042	.285
¾	.922 ± .005	.824	.049	.435
1	1.163 ± .005	1.049	.057	.640
1¼	1.510 ± .005	1.380	.065	.950
1½	1.740 ± .005	1.610	.065	1.100
2	2.197 ± .005	2.067	.065	1.400
2½	2.875 ± .010	2.731	.072	2.050
3	3.500 ± .015	3.356	.072	2.500
3½	4.000 ± .020	3.834	.083	3.250
4	4.500 ± .020	4.334	.083	3.700

* Not a requirement — included for information only.

Technical Information

Knockout (Sliphole) Sizes for Electrical Conduits and Connectors

TRADE SIZE (IN.)	KNOCKOUT DIAMETER		
	NOM.	MIN.	MAX.
¼	.575	.559	.605
⅜	.718	.703	.734
½	.875	.859	.906
¾	1.109	1.094	1.141
1	1.375	1.359	1.406
1¼	1.734	1.719	1.766
1½	1.984	1.958	2.000
2	2.469	2.433	2.500
2½	2.969	2.938	3.000
3	3.594	3.563	3.625
3½	4.125	4.063	4.156
4	4.641	4.563	4.672
4½	5.109	5.063	5.166
5	5.719	5.625	5.750
6	6.813	6.700	6.844

Sizes ¼" thru 1¼" are per UL 514.

Sizes ½" thru 6" per proposed revision to NEMA Engineering Bulletin No. 71, Aug. 1976.

UL Recommended Diameters for Liquidtight Flexible Metal Conduit

TRADE SIZE (IN.)	I.D. (IN.)		O.D. (IN.)	
	MIN.	MAX.	MIN.	MAX.
⅜	.484	.504	.690	.710
½	.622	.642	.820	.840
¾	.820	.840	1.030	1.050
1	1.041	1.066	1.290	1.315
1¼	1.380	1.410	1.630	1.660
1½	1.575	1.600	1.865	1.900
2	2.020	2.045	2.340	2.375
2½	2.480	2.505	2.840	2.875
3	3.070	3.100	3.460	3.500
3½	3.500	3.540	3.960	4.000
4	4.000	4.040	4.460	4.500

UL Recommended Diameters for Flexible Metal Conduit (Greenfield)

TRADE SIZE (IN.)	MAX. O.D. (IN.)	O.D. (IN.)	
		MIN.	MAX.
⅝	.510	.312	.393
⅜	.610	.375	.645
½	.920	.625	.835
¾	1.105	.812	—
1	1.380	1.000	—
1¼	1.630	1.250	—
1½	1.950	1.500	—
2	2.450	2.000	—
2½	3.060	3.500	—
3	3.560	3.000	—
3½	4.060	3.500	—
4	4.560	4.000	—

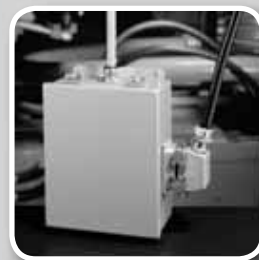
Diameter of Liquidtight Non-Metallic Flexible Conduit

TRADE SIZE (IN.)	I.D. (IN.)		O.D. (IN.)	
	MIN.	MAX.	MIN.	MAX.
⅜	.485	.505	.755	.775
½	.620	.640	.910	.930
¾	.815	.835	1.150	1.170
1	1.030	1.055	1.415	1.440
1¼	1.370	1.395	1.800	1.825
1½	1.585	1.620	2.045	2.080
2	2.045	2.080	2.605	2.640

T&B® Fittings

T&B® Cord & Cable Fittings

In this section...



T&B® Cord & Cable Fittings

STAR TECK® Teck Cable Fittings.....	E-122–E-130
Spin-On® Series Fittings and Accessories	E-131–E-132
Metallic Liquidtight Cord and Cable Connectors	E-133–E-142
Non-Metallic Liquidtight Cord Connectors	E-143–E-146
Service Entrance Cable Fittings.....	E-147–E-151
MC and AC Cable Fittings.....	E-152–E-158
Tray Cable Fittings.....	E-159
Non-Metallic Sheathed Cable Fittings.....	E-160–E-164

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STAR TECK® Teck Cable Fittings

STAR TECK® STE/STEX Series Cable Fittings

The STAR TECK® STE cable fitting series is designed for optimum integrity in ordinary applications. The STEX series is specially designed for classified hazardous areas. Both are designed to stand up to the harshest and most corrosive environment.

Application

- Provides means for passing jacketed metal clad cables through a bulkhead or enclosure in industrial and hazardous areas. (These fittings are suitable for hazardous areas when used with T&B sealing compound)
- Forms a mechanical grip and water- and/or oil-resistant termination
- Provides grounding continuity of cable armor

Features

- Powergrip grounding ring
- Removable armor-stop for greater cable ranges
- Built-in sealing device
- Elastomeric collar ring/ bushing for greater cable ranges
- Built-in jacket stripping gauge on gland nut
- Gland nut can be tightened with hammer and screwdriver

Range

- STAR TECK EXTREME® fittings are designed to accommodate a broad range of cables. Each hub range overlaps the adjacent hub range, thereby minimizing the possibility of mismatched cables and fittings in the field. They are available in hub sizes from ½" to 4" and will handle outer jacket diameters from .525" to 4.340"

Materials

Aluminum is standard material
 Add suffix "S" for steel with zinc plating
 Add suffix "PVC" for corrosion-resistant PVC coating
 Add suffix "SS" for stainless steel material

Cable Type

JMC, MC-HL, Teck

Environment Classification

STE* Series
 –Ordinary Location
 –Class I, Division 2†
 –NEMA 4, 4X (stainless steel), 6P
 –STE050 – STE200
 NEMA 6P
 –STE250 – 400
 NEMA 4
 –STE050 – 400
 NEMA 4X (stainless steel)
 STEX** Series
 –Class I, Division 1, Groups A, B, C, D
 –Class II, Division 1, Groups E, F, G
 –Class III
 –NEMA 4, 4X (stainless steel), 6P

UL Listed for Direct Burial when made from stainless steel material

Suitable for use in wet locations and concrete tight (steel) applications per UL 514B

UL File No. E82038/E38947

CSA File No. LR638/LR23086

* These fittings are suitable for Class I hazardous locations when used in combination with a certified Class I hazardous location sealing fitting.

** Meets NEC® Class I Division 2/Zone 2 and Class II Division 2/Zone 22 requirements when installed as per Articles 501.10/505.15 and 502.10/506.15

*** May be used in hazardous areas with approved MC-HL or Teck cable (or equal) when installed in accordance with NEC®/CEC requirements.

Not applicable to all STEX series.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Greater Cable Range + Fewer Part Numbers = Less Inventory!

STAR TECK® Teck Cable Fittings



STE Series Ordinary

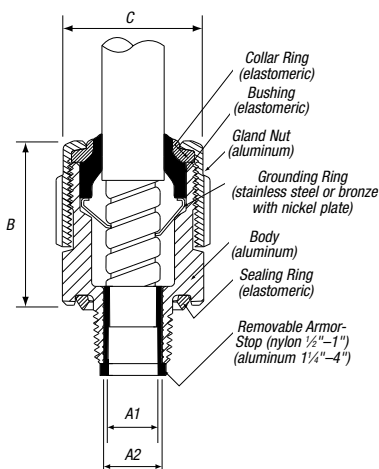


STEX Series Hazardous Locations



STAR TECK EXTREME® Jacketed Metal-Clad Cable Fittings

CAT. NO.	HUB SIZE NPT	STRIP LENGTH (IN.)	GLAND TORQUE (IN.-LB.)	CABLE RANGE OVER JACKET (IN.)		CABLE RANGE OVER ARMOR (IN.)		DIMENSIONS (IN.)			SEALING COMPOUND REQUIRED		
				MIN.	MAX.	MIN.	MAX.	A1: THROAT DIA. MIN. W/END STOP	A2: THROAT DIA. MIN. WO/END STOP	B OVERALL	C MAX. O.D.	SC65 PUTTY (G)	SC4-KIT LIQUID (CC)
Ordinary Locations													
ST050-462#	1/2	1 1/4	300	.525	.650	.415	.570	N/A*	.395	2.020	1.224	—	—
STE050DATA**#	1/2	7/8	300	.592	.693	.502	.603	.375	.515	2.100	1.360	—	—
STE050*	1/2	1 1/4	300	.600	.985	.520	.895	.505	.612	2.650	1.630	—	—
STE075*	3/4	1 1/4	600	.860	1.205	.780	1.125	.655	.816	2.900	2.080	—	—
STE100*	1	1 1/4	700	.950	1.375	.870	1.295	.785	1.044	3.020	2.300	—	—
STE125*	1 1/4	1 1/4	1,000	1.150	1.625	.990	1.465	.970	1.250	4.010	2.820	—	—
STE150*	1 1/2	1 3/4	1,200	1.440	1.965	1.280	1.805	1.260	1.562	4.290	3.250	—	—
STE200*	2	1 3/4	1,600	1.825	2.375	1.665	2.215	1.645	1.995	4.120	3.600	—	—
STE250	2 1/2	2 1/2	1,600	2.265	2.840	2.105	2.680	2.075	2.424	5.320	4.750	—	—
STE300	3	2 1/2	1,600	2.670	3.270	2.545	3.145	2.531	2.890	5.400	5.400	—	—
STE350	3 1/2	2 1/2	1,600	3.220	3.870	3.090	3.640	3.065	3.460	5.360	5.900	—	—
STE400	4	2 1/2	1,600	3.665	4.340	3.550	4.225	3.525	3.941	5.415	6.400	—	—
Hazardous Locations													
STX050-462*	1/2	1 1/4	300	.525	.650	.415	.570	N/A*	.395	2.500	1.630	7	4
STX050-464*	1/2	1 1/4	300	.600	.760	.490	.680	N/A*	.485	2.530	1.630	7	4
STEX075*	3/4	1 1/4	600	.600	.985	.520	.895	.504	.678	3.400	1.820	14	7
STEX100*	1	1 1/4	700	.860	1.205	.780	1.125	.650	.833	3.580	2.300	30	16
STEX125*	1 1/4	1 1/4	1,000	.950	1.375	.870	1.295	.834	1.065	3.920	2.510	45	22
STEX150*	1 1/2	1 3/4	1,200	1.150	1.625	.990	1.465	.958	1.273	5.020	3.260	80	43
STEX200*	2	1 3/4	1,600	1.440	1.965	1.280	1.805	1.250	1.560	5.120	3.620	125	66
STEX250	2 1/2	2 1/2	1,600	1.825	2.375	1.665	2.215	1.640	1.995	5.170	4.580	341	164
STEX300	3	2 1/2	1,600	2.265	2.840	2.105	2.680	2.075	2.461	6.610	5.100	497	239
STEX350	3 1/2	2 1/2	1,600	2.670	3.270	2.545	3.145	2.531	2.864	7.380	5.790	965	464
STEX400	4	2 1/2	1,600	3.220	3.870	3.090	3.640	3.055	3.461	7.650	6.190	1323	636
STX400-484#	4	—	1,600	3.810	4.030	3.680	3.870	—	—	—	—	1645	791
STX400-485#	4	—	1,600	3.965	4.185	3.835	4.025	—	—	—	—	1645	791



To specify other material, add the appropriate suffix to the catalog number.

DESIRED MATERIAL	SUFFIX	EXAMPLE
Aluminum fitting with grounding lock nut	GRL	STE-050GRL
Steel with zinc plate	S	STE-050S
Stainless steel	SS	STX050-462SS
Aluminum with PVC coating	PVC	STE-050PVC
Steel with PVC coating	S-PVC	STE-050S-PVC

* These products are UL Listed Watertight NEMA Type 6P

** UL tested for data cables

Does not have a removable armor stop.

Sealing Compounds — Used for Hazardous Locations

CAT. NO.	DESCRIPTION	VOLUME
SC65	Putty-Type Sealing Compound	60 grams
SC4-KIT	Liquid-Type Sealing Compound for Use in High Wire Density Applications (five or more wires)	2.8 fl. oz. (66 cc)

STAR TECK® Teck Cable Fittings

STAR TECK® Jacketed Metal-Clad Cable Fittings

Overlapping range of sizes. STAR TECK® jacketed metal-clad cable fittings are designed to accommodate a broad range of cables, thereby minimizing the possibility of mismatched cables and fittings in the field.



Application

- Provide means for passing armored, metal-clad, jacketed cables through a bulkhead or enclosure in hazardous areas (these fittings are suitable for hazardous areas when used with T&B sealing compound)
- Form a mechanical grip and water- and/or oil-resistant termination

- Provide grounding continuity of cable armor

Cable Type

- JMC, MC-HL, Teck

Features

Easy Installation

- Exclusive power-grip. Provides a grip that's high up on the cable — not on the first convoluation — so strip length and cutting of cable are not as critical

Dependable Service

- Stainless steel retaining ring. Withstands corrosive environments. Non-magnetic

Dependable Grounding

- Power-Grip grounding ring is non-magnetic stainless steel. Provides 360° long-term dependable grounding. It makes immediate contact with the cable

Watertight

- Tapered bushing. Cone shaped to provide a secure, tight fit while eliminating cupping or water in vertical installations

Easy to Install in Tight Spaces

- Low-profile gland nut fits tight spaces. Has grooves for screwdriver installation, and flats for a wrench. Durable and reusable with funnel entry for easy cable insertion

Materials

Aluminum is standard material

Add suffix "S" for steel with zinc plating

Add suffix "PVC" for corrosion-resistant PVC coating

Add suffix "SS" for stainless steel Grade 316 material (½"–2" sizes)

Environment Classification

Meets NEC® Class I Division 2/Zone 2 and Class II Division 2/Zone 22 requirements when installed as per Articles 501.10/505.15 and 502.10/506.15

NEMA 4

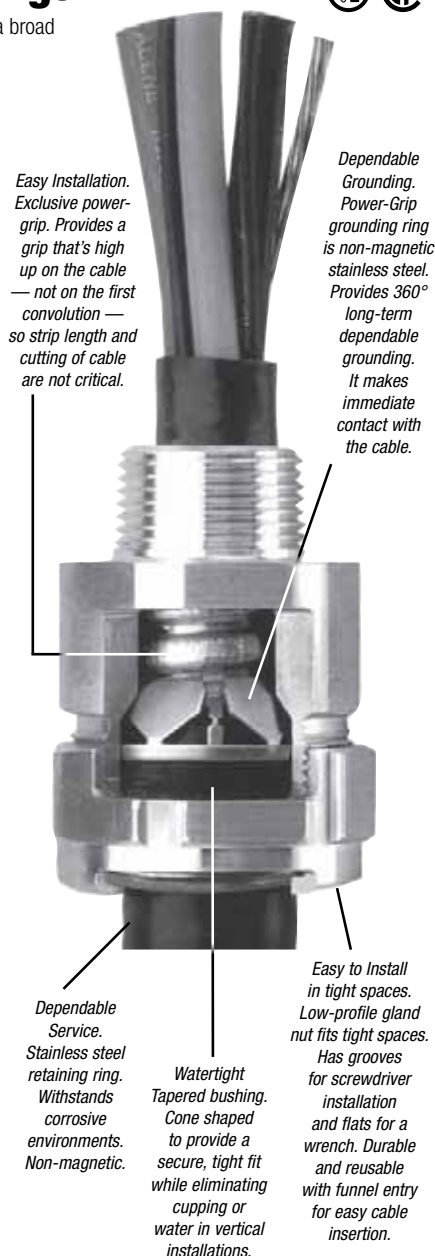
Suitable for use in wet locations and concrete tight (steel) applications per UL 514B

UL File No. E82038/E38947

CSA File No. LR638/LR23086

Range

Available in hub sizes from ½" to 4", and will handle outer jacket diameters from .525" to 4.340"



Installing the STAR TECK® Fitting



1. Prepare cable

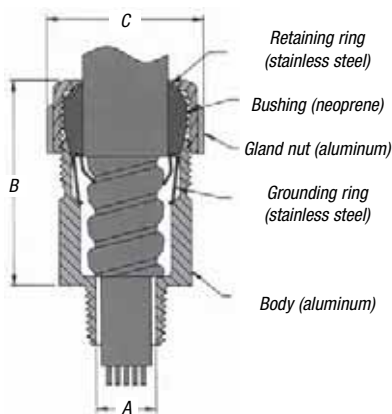


2. Insert cable



3. Tighten gland nut

STAR TECK® Teck Cable Fittings



- Overlapping sizes minimize possibility of mismatched cables and fittings in the field
- Available in hub sizes from ½" to 4", handling outer jacket diameters from .525" to 4.34"
- Suitable for hazardous locations (Class 1 Div. 2; Class II Div. 2; Class III)
- Where explosion-proof or dust-proof boxes are required by code, use STAR TECK XP® fittings (STX050-462 Series)

STAR TECK® Jacketed Metal-Clad Cable Fittings for Ordinary Locations



CAT. NO.	HUB SIZE NPT	CABLE RANGE OVER JACKET (IN.)		CABLE RANGE OVER ARMOR (IN.)		DIMENSIONS (IN.)		
		MIN.	MAX.	MIN.	MAX.	A	B*	C
ST050-462	½	.525	.650	.415	.570	.395	2.020	1.224
ST050-464	½	.600	.760	.490	.680	.485	2.020	1.363
ST050-465	½	.725	.885	.615	.805	.612	2.133	1.633
ST050-466	½	.825	.985	.715	.905	.612	2.133	1.633
ST075-467	¾	.880	1.065	.770	.985	.819	2.450	2.080
ST075-468	¾	1.025	1.205	.915	1.125	.819	2.450	2.080
ST100-469	1	1.187	1.375	1.077	1.295	1.039	2.601	2.230
ST125-470	1¼	1.357	1.625	1.240	1.545	1.182	3.282	2.824
ST125-550	1¼	1.500	1.625	1.390	1.545	1.370	3.282	2.824
ST125-471	1¼	1.600	1.875	1.490	1.795	1.370	3.282	2.824
ST150-472	1½	1.700	1.965	1.590	1.885	1.557	3.620	3.260
ST150-473	1½	1.900	2.187	1.790	2.107	1.600	3.620	3.260
ST200-551	2	1.900	2.187	1.790	2.107	1.715	3.640	3.620
ST200-474	2	2.100	2.375	1.990	2.280	1.995	3.640	3.620
ST200-475	2	2.300	2.565	2.190	2.485	2.057	3.640	4.020
ST200-476	2	2.500	2.750	2.390	2.656	2.057	3.640	4.020
ST250-477	2½	2.380	2.640	2.240	2.560	2.230	4.700	4.750
ST250-478	2½	2.580	2.840	2.440	2.750	2.430	4.700	4.750
ST300-479	3	2.790	3.060	2.640	2.970	2.630	4.700	5.050
ST300-480	3	3.000	3.270	2.870	3.190	2.860	4.790	5.480
ST300-481	3	3.210	3.480	3.042	3.390	3.032	4.790	5.480
ST350-482	3½	3.420	3.690	3.270	3.590	3.260	4.790	5.980
ST350-483	3½	3.610	3.870	3.440	3.770	3.430	4.790	5.980
ST400-484	4	3.810	4.030	3.600	3.930	3.590	4.840	6.435
ST400-485	4	3.965	4.185	3.755	4.065	3.745	4.840	6.435
ST400-486	4	4.120	4.340	3.910	4.220	3.900	4.840	6.435

* Approximate dimension before installation.

Suggested specifications for metal-clad cable fitting.

1. All metal-clad cable fittings for jacketed interlocked armor cable or continuous corrugated cable shall be approved by a nationally recognized testing laboratory, inspection agency or product evaluation organization.
2. Where corrugated-jacketed metal-clad cable exposed to intermittent or continuous moisture is terminated into a threaded opening, the fitting shall be watertight type furnished with:
 - a. An elastomeric beveled bushing.
 - b. A funnel entry, splined gland nut.
 - c. A non-magnetic stainless steel grounding device with dual grounding action.
 - d. A taper threaded hub.
 - e. A hexagonal body and gland nut as manufactured by Thomas & Betts (aluminum series ST050-464).
3. Where cable is terminated into a threadless opening, a suitable moisture-resistant elastomeric gasket as manufactured by Thomas & Betts, series 5262, shall be provided between the outside of enclosure and fitting shoulder.
4. With single-conductor cable and/or in corrosive environments, aluminum fittings such as Thomas & Betts series ST050-464 shall be installed.

Class I Div 2; Class II Div. 2; Class III. Where explosion-proof or dust-ignition-proof boxes are required by Teck, fitting must be used in conjunction with an approved sealing fitting.

STAR TECK® Teck Cable Fittings

Easy installation saves time, money!



STAR TECK XP® Jacketed Metal-Clad Cable Fittings for Hazardous Locations

Application

- Provide means for passing armored, metal clad, jacketed cables through a bulkhead or enclosure in hazardous areas (these fittings are suitable for hazardous areas when used with T&B sealing compound)
- Form a mechanical grip and water- and/or oil-resistant termination
- Provide grounding continuity of cable armor

Cable Type

- JMC, MC-HL, Teck

Features

- Sealing chamber is easier to fill, requires less sealing compound — saves time, material. Flame path is optimally designed to enable easy insertion into hub. Quick-turn lock
- Internal splines
- Union features twist-on action; red color for high visibility
- Exclusive Power Grip. Provides grip that's high up on cable armor non-magnetic stainless steel Power Grip grounding ring
- Low-profile gland nut

Materials

Aluminum is standard material

Add suffix "S" for steel with zinc plating

Add suffix "PVC" for corrosion-resistant PVC coating

Add suffix "SS" for stainless steel material

Environment Classification

Suitable for hazardous locations. Class I Div. 2; Class II Div. 2; Class III. Where explosion-proof or dust-proof fittings are required by code, use STAR TECK XP® fittings (STX Series)

NEMA 4, 4X (stainless steel)

Suitable for use in wet locations and concrete-tight (steel) applications per UL 514B

UL File No. E82038/E38947

CSA File No. LR23086

Range

Available in hub sizes from ½" to 4", and will handle outer jacket diameters from .525" to 4.185"



1. Prepare cable



2. Install Star Teck XP® on cable



3. Tighten gland nut



4. Pot cable (using liquid or putty)



5. Install hub on enclosure



6. Insert cable and tighten red union

Sealing chamber is easier to fill, requires less sealing compound — saves time, material. Flame path is optimally designed to enable easy insertion into hub. Quick-turn lock secures assembly during installation.

Exclusive Power Grip. Provides grip that's high up on cable armor — not on first convolution — so precise cable preparation is not critical. Non-magnetic stainless steel Power Grip grounding ring ensures 360° long-term dependable grounding. It provides phenomenal tensile pullout resistance.

Hub has hexagonal shape for dependable tool grip.

Low-profile gland nut fits tightest spaces. Has grooves for hammer/screwdriver installation and flats for wrench-gripping. Durable and reusable with funnel entry for easy cable insertion.

Internal splines enable installer to tighten gland nut either on or off enclosure.

Tapered bushing. Cone-shaped to provide secure, tight fit while eliminating cupping of water in vertical installations.

Copper-free construction. All-aluminum body and gland nut resist corrosion, oxidation.

Union features twist-on action for easy connection and disconnection; red color ensures high visibility, easy recognition. Union also serves as a "puller" during disassembly.

Stainless steel retaining ring. Withstands corrosive environments. Non-magnetic.

Thomas & Betts

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Technical Services
Tel: 888.862.3289

www.tnb.com

STAR TECK® Teck Cable Fittings

STAR TECK XP® Jacketed Metal-Clad Cable Fittings for Hazardous Locations



CAT. NO.	HUB SIZE NPT	CABLE RANGE OVER JACKET (IN.)		CABLE RANGE OVER ARMOR (IN.)		DIMENSIONS (IN.)			SEALING COMPOUND REQUIRED	
		MIN.	MAX.	MIN.	MAX.	A	B*	C	SC65** PUTTY (G)	SC4-KIT** LIQUID (CC)
						MIN.				
STX075-465	¾	.725	.885	.615	.805	.612	2.62	1.82	14	7
STX075-466	¾	.825	.985	.715	.905	.720	2.62	1.82	14	7
STX100-467	1	.880	1.065	.770	.985	.755	2.83	2.30	30	16
STX100-468	1	1.025	1.205	.915	1.125	.900	2.83	2.30	30	16
STX125-469	1¼	1.187	1.375	1.077	1.295	1.062	3.05	2.51	45	22
STX150-470	1½	1.357	1.625	1.240	1.545	1.182	3.76	3.26	80	43
STX150-550	1½	1.500	1.625	1.390	1.545	1.370	3.76	3.26	80	43
STX150-471	1½	1.600	1.875	1.490	1.795	1.470	3.76	3.26	80	43
STX200-472	2	1.700	1.965	1.590	1.885	1.557	4.05	3.62	125	66
STX200-473	2	1.900	2.187	1.790	2.107	1.757	4.05	3.62	125	66
STX200-474	2	2.100	2.375	1.990	2.280	1.995	4.15	4.02	150	80
STX250-475	2½	2.300	2.565	2.200	2.485	2.185	4.31	4.58	341	164
STX250-476	2½	2.500	2.750	2.380	2.656	2.365	4.31	4.58	341	164
STX300-478	3	2.580	2.840	2.477	2.750	2.460	5.64	5.10	497	239
STX300-479	3	2.790	3.060	2.677	2.970	2.660	5.80	5.33	609	293
STX350-480	3½	3.000	3.270	2.880	3.190	2.864	6.32	5.79	965	464
STX350-481	3½	3.210	3.480	3.080	3.390	3.062	6.32	5.79	965	464
STX400-482	4	3.420	3.690	3.307	3.590	3.290	6.63	6.19	1323	636
STX400-483	4	3.610	3.870	3.477	3.770	3.460	6.63	6.19	1323	636
STX400-484	4	3.810	4.030	3.650	3.930	3.630	7.09	6.90	1645	791
STX400-485	4	3.965	4.185	3.794	4.065	3.775	7.09	6.90	1645	791

* Approximate dimension before installation.

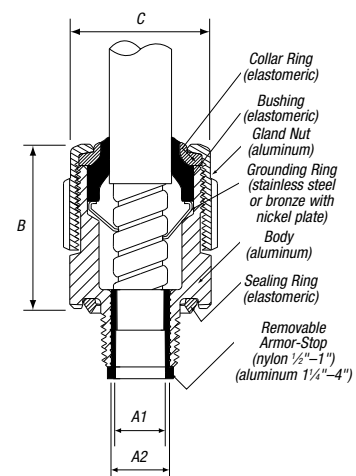
** One unit of SC65 putty type sealing compound contains 60 g. One unit of SC4-Kit liquid type sealing compound contains 66 cc and includes a dispensing syringe and fiber damming material.

CAUTION: STAR TECK XP® fittings must be installed with Thomas & Betts catalog numbers SC4-KIT or SC65 sealing compound (purchase separately). See installing instructions.

Note: Stainless Steel (SS suffix) STX and STEX fittings have a NEMA 4X rating.

Sealing Compounds

CAT. NO.	DESCRIPTION	VOLUME
SC65	Putty-Type Sealing Compound	60 grams
SC4-KIT	Liquid-Type Sealing Compound for use in high wire density applications (5 or more wires)	2.8 fl. oz. (66 cc)



UL Connectors When Used with Putty-Type Listed or Liquid-Type Compound for:

½" thru 3"	Class I	Div. 1	Groups A, B, C, D
	Class II	Div. 2	Groups F, G
	Class III		
			Enclosure Type 4

Connectors When Used with Putty-Type or Liquid-Type Compound for:

3½" & 4"	Class I	Div. 1	Groups B, C, D
	Class II	Div. 2	Groups F, G
	Class III		Enclosure Type 4

CSA Certified for:

Class I	Division 1 and 2	Groups A, B, C, D
Class II	Division 1 and 2	Groups E, F, G
Class III, SL (Integral Seal)		Enclosure Type 4

STAR TECK® Teck Cable Fittings

Greater range, fewer part numbers, less inventory. A fitting combination!

STAR TECK EXTREME® DIRECTOR™ Jacketed Metal-Clad and Teck Cable Termination Fittings

Terminating jacketed metal-clad and teck cable can be a time-consuming process, especially when angle adjustments are required. Current termination methods such as 90° elbows and LB conduit bodies take up a lot of space and lack flexibility.

To address these issues, Thomas & Betts introduces the electrical industry's first truly adjustable series of range-taking fittings, the STAR TECK EXTREME® DIRECTOR™.

STAR TECK EXTREME® DIRECTOR™ Cable Fittings are designed for optimum integrity in ordinary applications. They accept a range of jacketed metal-clad and teck cable diameters.

Featuring an exclusive swash-plate design, the STAR TECK EXTREME® DIRECTOR™ Cable Fittings adjust from 90° to 180°. A full circular bore makes cable insertion trouble free. Alignment guides serve as handy reference points for aligning installed fittings at the same angle.

What's more, STAR TECK EXTREME® DIRECTOR™ fittings require no disassembly prior to installation and can also be easily disconnected.

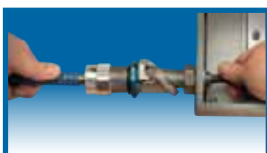


Save Time and Money!

Install



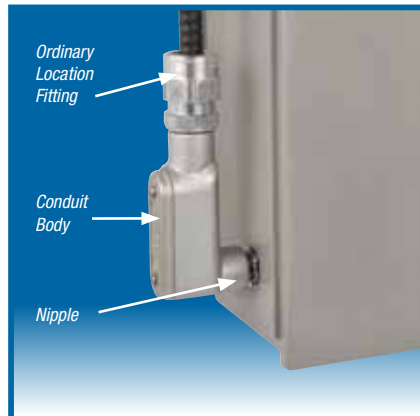
Insert



Rotate

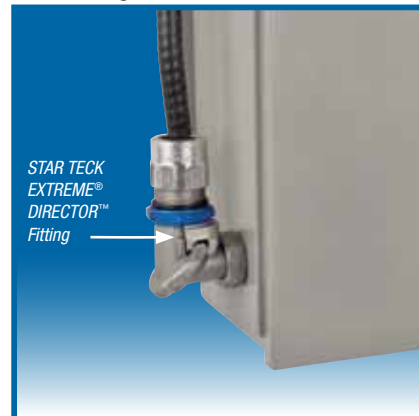


Conventional Method



Multiple components are less flexible and require added space.

Time-Saving Method



One component that can be used at any angle adds flexibility and requires less space.



Turn blue compression nut one-half turn to loosen and rotate hub. Tighten blue compression nut to hold hub in place at desired angle.

Thomas & Betts

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

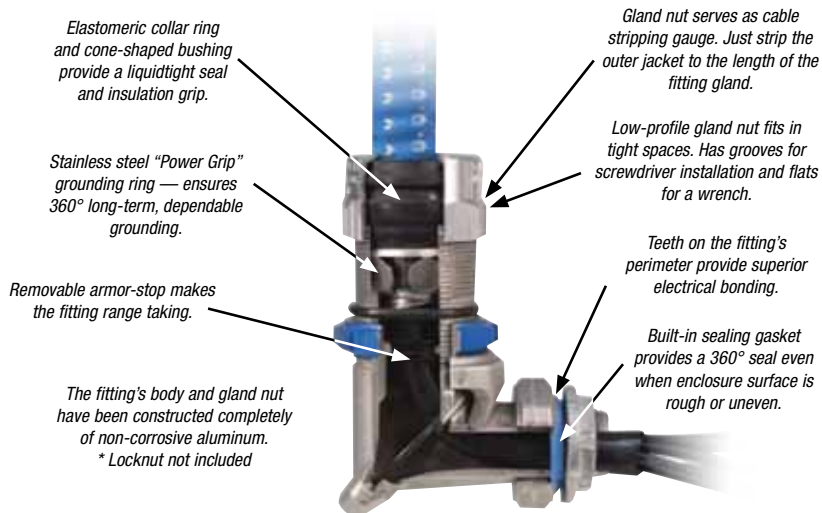
Technical Services
Tel: 888.862.3289

www.tnb.com

STAR TECK® Teck Cable Fittings

STAR TECK EXTREME® DIRECTOR™ Jacketed Metal-Clad and Teck Cable Termination Fittings (continued)

Inside STAR TECK EXTREME® DIRECTOR™ Cable Fittings



90° to 180° Rotation

Environment Classification

Meets NEC® Class I Division 2/Zone 2 and Class II Division 2/Zone 22 requirements when installed as per Articles 501.10/505.15 and 502.10/506.15
NEMA Type 4
UL File No. E38947

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STAR TECK EXTREME® DIRECTOR™ Cable Fittings



CAT. NO.	HUB SIZE (NPT)	GLAND TORQUE (LB.-IN.)	RANGE OVER JACKET (IN.)		RANGE OVER ARMOR (IN.)		THROAT DIA. MIN. (IN.)		OVERALL LENGTH (IN.)
			MIN.	MAX.	MIN.	MAX.	WITH ARMOR STOP	WITHOUT ARMOR STOP	
STED050	½	450	.600	.885	.520	.795	.505	.617	5.375
STED075	¾	600	.860	1.205	.780	1.125	.645	.819	5.875

STAR TECK® Teck Cable Fittings

Jacketed Metal-Clad Cable and Teck Cable

Metal-Clad Cable (Type MC) Ref. NEC® Article 330

“Metal-Clad Cable Type MC is a factory assembly of one or more conductors, each individually insulated and enclosed in a metallic sheath of interlocking tape, or a smooth or corrugated tube.”

Metal-Clad Cable Type MC is rated for use up to 5,000 volts. The National Electrical Code permits use of metallic sheath as an equipment grounding conductor.

Metal-Clad Cables are available with a variety of phase conductor insulations such as crosslinked polyethylene and silicone rubber ethylene propylene, depending on rated temperature of conductors and working potential. Metallic sheath can be of galvanized steel, aluminum, copper or bronze. A special outer covering such as PVC or Neoprene over metallic sheath is usually provided for environmental protection.

Metal-clad cable is not permitted in locations where it could be subject to physical damage. Metal-clad cable can be used exposed, concealed, in cable tray, in any approved raceway and with minor exceptions in hazardous locations. Type MC cable can also be used for services, feeders, branch circuits, power, lighting, control and signal circuits.

Use of metal-clad cable is permitted in wet locations, or where exposed to destructive corrosive conditions or can be directly buried in earth, concrete or exposed to cinder fills, strong chlorides, caustic alkalis, vapors, chlorine or hydrochloric acids provided the construction of cable, the conductors within the metallic sheath, the metallic sheath and protective cover over metallic sheath comply with requirements enumerated in Sec. 330.10 of the National Electrical Code.

Bend radius restrictions are dependent on the size of the cable and the type of sheath, i.e., smooth, interlocked armor, corrugated sheath or shielded conductors and varies from seven times to 15 times cable external diameter.

NEC Article 330 requires that approved fittings be used for termination. Where single-conductor cables carrying alternating current enter a ferrous metal box or enclosure, procedures described in NEC Section 300.20 must be followed to reduce effects of heating due to induced currents. These procedures include recommended arrangements of conductors, cutting of slots in metal between individual conductor holes, passing of conductors through insulating walls, or use of non-magnetic aluminum sheathed cable and aluminum terminating fittings.

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Please refer to the following for further details and complete information:

1. NEC Article 330...Metal Clad Cable (Type MC)
2. UL 4, ANSI C33.9...Safety Standards for Type MC Metal Clad Cable
3. UL 514B, Safety Standards for Outlet Boxes & Fittings
4. A-A50552...Federal Specification. Fittings for Cable, Power Electrical & Conduit Metal, Flexible
5. NEMA FM-1...Standards Publication. Fittings and Supports for Conduit and Cable Assemblies

Teck Cables

Teck cable derived its name from one of its first users, the Teck-Hughes Gold Mines in Kirkland Lake, Ontario. Teck 90 is CSA Type designation. Trade designation of this cable is Armored Cable.

Teck cables up to 5,000-volt working potential are manufactured in accordance with CSA Standard C22.2 No. 131 and are provided with a bare ground conductor and an optional outer jacket. Depending on phase conductor insulation, the cables are designated as Teck 90 (X-LINK) when insulation is cross-linked polyethylene and Teck 90 (EP) when insulation is ethylene propylene. Both cables are rated for 90° C service (dry location) and 75° C (wet locations). When Teck cable is suitable for installation down to -40° F, the cables are marked Teck 90 (X-LINK) minus 40 or Teck 90 (EP) minus 40.

Over 5,000 volts working potential Teck cables are manufactured in accordance with IPCEA standards and are certified by CSA. Cables are provided with or without ground wire as required.

Teck cables with outer jacket may be used for exposed or concealed wiring in wet or dry locations, indoors/outdoors and in corrosive environments. Teck cables are suitable for use in ventilated, non-ventilated and ladder-type cable troughs, in ventilated flexible cable ways in both dry and wet locations. Teck cable with outer jacket is suitable for direct earth burial and for Class II Division 2, Class III Division 1 & 2 hazardous locations per Canadian Electric Code.

Some of the features of Teck cable are its flexibility and ease of installation. Absence of dead air space within cable increases heat transfer and minimizes condensation. Overall protective covering provides good environmental protection.

Bend radii for permanent training during installation usually varies between seven times to 12 times the cable diameter depending on cable construction and manufacturer's recommendations. Larger radii bends are required for other conditions.

Section 12-3028 of the Canadian Electric Code requires that the terminating fittings used must provide adequate strain relief to terminal connections and ensure electrical continuity without injury to non-metallic sheath. Continuity is mandatory whether or not the armor is used as a grounding conductor. Except for dry locations free from corrosive atmosphere, the non-metallic jacket is not permitted to be stripped back to a point where armor is exposed after installation.

Where single conductor cables carrying 200 amps or more enter metal boxes through separate openings, certain precautions are required to prevent overheating of the metal by induction. Use of non-ferrous or non-metallic box connectors, locknuts and bushings and installation of non-magnetic panel inserts is suggested in the code.

Please refer to the following for further details and complete information:

1. CEC Section 12...Wiring Methods
CEC Section 4...Conductors
2. CSA C22.2 No. 131 & 131S
(Supplement #1)...Safety Standard for Type Teck Cable
3. CSA C22.2 No. 18...Safety Standards for Outlet Boxes, Conduit Boxes and Fittings
4. UL File E82038 — Volume 1, Section 3, Page 1, Revision 1/31/2007

Note: The materials herein, whether relating to the National Electrical Code, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise are not intended to provide all relevant information required for use and installation of our products. Refer to applicable codes, instructions and industry specifications prior to installation or use.

Spin-On® Series Fittings and Accessories

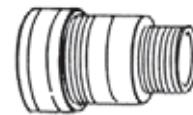
Spin-On® Series II Connectors and Accessories



CAT. NO.	HUB SIZE NPT	CABLE RANGE OVER ARMOR (IN.)	DIMENSIONS (IN.)		OPTIONAL CORROSION RESISTANT BOOT CAT. NO.
			A DIA.	B	
2-050-008	½	.380-.435	1¼	1½	NB050
2-050-010	½	.436-.500	1¼	1½	NB050
2-050-020	½	.501-.580	1¼	1½	NB050
2-050-030	½	.581-.650	1¼	1½	NB050
2-075-040	¾	.651-.730	1½	2½	NB075
2-075-050	¾	.731-.820	1½	2½	NB075
2-075-060	¾	.821-.880	1½	2½	NB075
2-100-070	1	.881-0.960	2	2½	NB100
2-100-080	1	.961-1.030	2	2½	NB100
2-100-090	1	1.031-1.100	2	2½	NB100
2-100-100	1	1.101-1.180	2	2½	NB100
2-125-110	1¼	1.181-1.240	2¼	2½	NB125
2-125-120	1¼	1.241-1.310	2¼	2½	NB125
2-125-130	1¼	1.311-1.390	2¼	2½	NB125
2-150-140	1½	1.391-1.480	2½	2½	NB150
2-150-150	1½	1.481-1.570	2½	2½	NB150
2-150-160	1½	1.571-1.660	2½	2½	NB150
2-200-170	2	1.661-1.750	3	2½	NB200
2-200-180	2	1.751-1.840	3	2½	NB200
2-200-190	2	1.841-1.930	3	2½	NB200
2-200-200	2	1.931-2.030	3	2½	NB200
2-250-210	2½	2.031-2.150	3¾	3¾	NB250
2-250-220	2½	2.151-2.270	3¾	3¾	NB250
2-250-230	2½	2.271-2.390	3¾	3¾	NB250
2-250-240	2½	2.391-2.510	3¾	3¾	NB250
2-300-250	3	2.511-2.640	4½	3¾	NB300
2-300-260	3	2.641-2.770	4½	3¾	NB300
2-300-270	3	2.771-2.900	4½	3¾	NB300
2-300-280	3	2.901-3.040	4½	3¾	NB300
2-350-300	3½	3.171-3.310	5	3¾	NB350
2-350-310	3½	3.311-3.450	5	3¾	NB350
2-350-320	3½	3.451-3.590	5	3¾	NB350
2-400-330	4	3.591-3.730	5¾	3¾	NB400
2-400-340	4	3.731-3.870	5¾	3¾	NB400

UL File No. E38947

CSA File No. LR 2884



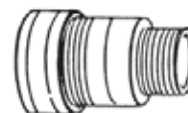
Connector
Aluminum



In corrosive environments, the T&B neoprene boot provides maximum corrosion protection to the connector. Simply match the connector hub size to the boot hub size to select the proper boot (NB Series).

Spin-On® Series Fittings and Accessories

Install a complete gas-blocked connector in a hazardous location!
Spin-On® X Connectors for Hazardous Locations



CAT. NO.	HUB SIZE NPT	CABLE RANGE OVER ARMOR (IN.)	DIMENSIONS (IN.)		SEALING COMPOUND REQUIRED	
			A DIA.	B	SC65** PUTTY (G)	SC4-KIT** LIQUID (CC)
4-075-008	3/4	.380-.435	1%	2%	25	12
4-075-010	3/4	.436-.500	1%	2%	25	12
4-075-020	3/4	.501-.580	1%	2%	25	12
4-075-030	3/4	.581-.650	1%	2%	25	12
4-075-040	3/4	.651-.730	1%	2%	25	12
4-100-050	1	.731-.820	2	2%	55	30
4-100-060	1	.821-.880	2	2%	55	30
4-100-070	1	.881-.960	2	2%	55	30
4-100-080	1	.916-1.030	2	2%	55	30
4-125-090	1 1/4	1.031-1.100	2 1/4	2 1/2	70	40
4-125-100	1 1/4	1.101-1.880	2 1/4	2 1/2	70	40
4-125-110	1 1/4	1.181-1.240	2 1/4	2 1/2	70	40
4-125-120	1 1/4	1.241-1.310	2 1/4	2 1/2	70	40
4-150-130	1 1/2	1.311-1.390	2%	2%	80	45
4-150-140	1 1/2	1.181-1.240	2%	2%	80	45
4-150-150	1 1/2	1.241-1.310	2%	2%	80	45
4-200-160	2	1.571-1.660	3	2%	95	55
4-200-170	2	1.661-1.750	3	2%	95	55
4-200-180	2	1.751-1.840	3	2%	95	55
4-200-190	2	1.841-1.930	3	2%	95	55
4-250-200	2 1/2	1.931-2.030	3%	3%	200	120
4-250-220	2 1/2	2.151-2.270	3%	3%	200	120
4-300-240	3	2.391-2.510	4%	3%	275	165
4-300-260	3	2.641-2.770	4%	3%	275	165
4-300-270	3	2.771-2.900	4%	3%	275	165
4-400-350	4	3.871-4.010	5%	3%	500	300

Spin-On® X Connectors for Hazardous Locations

- Each SPIN-ON® X catalog number is a complete compound-filled connector kit
- 3-piece construction — gland/body/insert with O-ring
- Red anodized gland identifies hazardous location fitting
- Compact size — overall length is 3/8 less than conventional fitting
- Installation time is 50% less than conventional
- Full tapered hub threads for gas-tight thread engagement
- Machined aluminum construction for corrosion resistance
- Sealing compound (sold separately) premixed for consistency — no jobsite variations
- Neoprene boots available for additional corrosion protection
- For control cable applications, order liquid compound separately

Suffix Cat. No. with S for steel, B for brass.

SPIN-ON® X is UL Listed for: Class I, Div. 2, Groups A, B, C, & D in 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2" Hub sizes. Class I, Div. 2, Groups C & D in 3", 3 1/2", and 4" Hub sizes. The entire line is UL listed for Class II, Div. 2, Groups F & G and Class III. CSA certified through 4" Hub size for Class I, Groups A, B, C, D; Class II, Groups E, F, G; and Class III.

UL File No. E82038

CSA File No. LR23086

Sealing Compounds

CAT. NO.	DESCRIPTION	VOLUME
SC65	Putty-Type Sealing Compound	60 grams
SC4-KIT	Liquid-Type Sealing Compound for use in high wire density applications (5 or more wires)	2.8 fl. oz. (66 cc)

Metallic Liquidtight Cord and Cable Connectors

Whatever the application. Whatever the size. Thomas & Betts is your connection to tough, versatile cord and cable fittings.

Thomas & Betts offers a complete line of rugged, reliable cord and cable fittings. All fittings are produced to the highest standards, combining innovative design and precision manufacturing methods to provide the products you need for your specific applications. Combining proven performance, installation advantages and availability of ranges, T&B is also your connection to lower installed costs for the life of your cord and cable requirements.

Use this guide to help you specify the fitting you need for your cord and cable requirements.

Cord and Cable Requirements

CORD AND CABLE TYPE	T&B FITTING
S, SO, SV, ST, STD, SJ,	Ranger® 2920NM# Series, 2920# Series
SJO, SJT, SJTO, SVO	Liquidtight Strain Relief 2500# Series
S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVO	Wire Mesh Grips WMG-PC Series for Portable Cord

Considerations for Selection

- Selection of the proper device or fitting involves consideration of the type of cable to be installed and the environment that will surround the cable installation.
- A proper matching of the cable and its fitting is necessary to prevent physical damage to the cable when installed.
- NEMA Applications: Fittings used in a trade size knockout requiring a NEMA 3R, 4, 6 or 13 listing require a 5262 Series sealing ring.

Cord and Cable Descriptions

Type SJ, tradename is Junior Hard Service Cord. The outer covering is Thermoset and it is a pendant or portable cord used in damp locations for hard usage.

Type SJO, tradename is Junior Hard Service Cord. The outer covering is oil-resistant Thermoset.

Type SJT, tradename is Junior Hard Service Cord. The outer covering is Thermoplastic.

Type SJTO, tradename is Junior Hard Service Cord. The outer covering is oil-resistant Thermoplastic.

Type SO, tradename is Hard Service Cord. The outer covering is oil-resistant Thermoset and it is a pendant or portable cord used in damp locations for extra-hard usage.

Suggested Specifications for Flexible Cord and Cable Fittings

- Flexible cord or cable and associated fittings shall be suitable for conditions of use and location and approved for the purpose by a nationally recognized testing laboratory, inspection agency or product evaluation organization
- Flexible cord or cable shall be so connected to the device or fitting that tension will not be transmitted to joints or terminal screws. Sufficient slack shall be provided to avoid sharp flexing and straining. Cord or cable shall be installed in such a manner that liquid will tend to run off the surface instead of draining towards the fitting
- Where flexible cord or cable exposed to intermittent or constant moisture and subjected to mechanical strain is terminated into a threaded or threadless opening, terminating fittings shall be of watertight strain relief type such as Thomas & Betts series 2920, 2920AL, 2920NM, 2520, 2631 or 2672. Fittings shall be equipped with a beveled moisture-resistant/oil-resistant synthetic rubber bushing
- Where space is limited inside the enclosure, a female hub type fitting such as Thomas & Betts series 2631 shall be furnished. A captivated resilient sealing O-Ring shall be included to positively protect against damage from overtorquing



Metallic Liquidtight Cord and Cable Connectors



2920 Ranger® Series



2920SST Ranger® Series



2920AL Ranger® Series



2516 Series

Ranger® Series of Liquidtight Flexible Cord and Cable Connectors

Application

- A liquidtight connector to connect flexible cord or cable to an enclosure and provide adequate strain relief

Features

- Liquidtight connection with enclosure is ensured by:
 - Taper threaded hub on 2520 series for female hub application
 - Using sealing ring series 5262 with 2520 series for knockout application
 - Captivated sealing O-Ring on 2631 series
 - Neoprene bushing makes liquidtight installation; applies pressure against cable the full length of bushing
 - Thermoplastic or stainless steel retaining ring
 - Will not abrade cord/cable jacket
 - Reduces installing torque effort
- UL Listed liquidtight, strain relief and as an outlet bushing; CSA certified watertight

Standard Material

Gland, Body.....Steel/Malleable Iron/Zinc Die Cast
 Retaining Ring.....Thermoplastic/Stainless Steel
 Bushing.....Neoprene
 O-Ring.....Buna N

Standard Finish

Electro Zinc Plated & Chromate Coated

Range

2520 Series, straight 0.125" outside diameter to 3.200" outside diameter Cord or Cable
 2200 Series, 45° 0.125" outside diameter to 1.485" outside diameter Cord or Cable

2267 Series, 90° 0.125" outside diameter to 1.875" outside diameter Cord or Cable

2900 and 4900 Ranger® Series 0.250" cable range

Cord/Cable Type S, SO, SV, ST, STO, SJ, SJO, SJT, SJTO, SVO & SVT

Listings/Compliances

UL File No. E-13938
 CSA LR-589, LR-4484
 UL 514
 CSA. 22.2 No. 18
 ANSI C33.84, NFPA 70-1978 (ANSI)

CAT. NO	SIZE	MIN.	MAX.	SVO, SV, SVT	SJ, SJO, SJT, SJTO			S, SO, ST, STO						
				#18	#18	#16	#14	#18	#16	#14	#12	#10	#8	#6
2 Conductor														
2920	1/2"	.125	.375	X	X	X	X							
2921	1/2"	.310	.560			X	X	X	X	X				
2922	1/2"	.500	.750				X	X	X	X	X	X		
2930	3/4"	.125	.375	X	X	X	X							
2931	3/4"	.310	.560			X	X	X	X	X				
2932	3/4"	.500	.750				X	X	X	X	X	X		
2940	1"	.310	.560			X	X	X	X	X				
2941	1"	.500	.750				X	X	X	X	X	X		
2942	1"	.700	.950				X						X	X
3 Conductor														
2920	1/2"	.125	.375	X	X	X								
2921	1/2"	.310	.560		X	X	X	X	X					
2922	1/2"	.500	.750							X	X	X		
2930	3/4"	.125	.375	X	X	X								
2931	3/4"	.310	.560		X	X	X	X	X					
2932	3/4"	.500	.750							X	X	X		
2940	1"	.310	.560			X	X	X	X					
2941	1"	.500	.750		X					X	X	X		
2942	1"	.700	.950									X	X	
4 Conductor														
2920	1/2"	.125	.375	X										
2921	1/2"	.310	.560		X	X	X	X	X					
2922	1/2"	.500	.750							X	X			
2930	3/4"	.125	.375	X										
2931	3/4"	.310	.560		X	X	X	X	X					
2932	3/4"	.500	.750							X	X			
2940	1"	.310	.560		X	X	X	X	X					
2941	1"	.500	.750							X	X			
2942	1"	.700	.950								X	X		

Metallic Liquidtight Cord and Cable Connectors

The Ranger® Series of Steel Liquidtight Cord Connectors

The Ranger® Series Steel Liquidtight Connector takes twice the cable range of most ordinary strain-relief connectors. T&B's Ranger Connectors enable you to reduce your inventory and save time with one connector that can do the work of two.



Features

- Extended range with superior strain relief
- Reduced overall size, fits into tighter spaces
- Gland nut designed to restrict cable bending

Materials

Body: Steel — 2920 series,
Malleable Iron — 4920
& 4960 series

Gland Nut, Grip: Steel — all series
Bushing: Rubber

Environment Classification

- Ordinary locations
- Wet or dry locations
- Fittings used in a trade size knockout requiring a NEMA 3R, 4, 6 or 13 listing require a 5262 Series sealing ring

Range

Cord Range: .125" to .950"

Hub Size Range: 1/2" to 1"

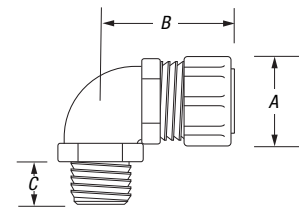
Application

- Provide means for passing a cord cable into an enclosure, through a bulkhead or into a rigid conduit
- Form a mechanical grip and water- and/or oil-resistant seal for cord
- Form a non-slip connection or termination for flexible cord

Cord & Cable Type

- S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVD

Steel Liquidtight Strain Relief Connectors — 90° Angle



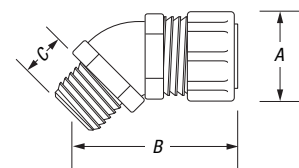
CAT. NO.	HUB SIZE	THROAT DIA.	CORD RANGE	DIMENSIONS (IN.)		
				A	B	C
4960	1/2"	19/32	.125-.375	1 1/8	1 3/4	5/8
4961	1/2"	19/32	.310-.560	1 1/8	1 3/4	5/8
4962	1/2"	19/32	.500-.750	1 1/8	1 23/64	5/8
4970	3/4"	25/32	.125-.375	1 1/8	1 25/32	11/16
4971	3/4"	25/32	.310-.560	1 1/8	1 25/32	11/16
4972	3/4"	25/32	.500-.750	1 1/8	1 25/32	11/16
4980	1"	1	.310-.560	1 1/8	2 1/2	19/16

All items shown on this page are suitable for use in hazardous locations where general-purpose equipment is specifically permitted by the NEC®, NEC 501-4(b).

UL File No. E-13938

CSA File No. 52391

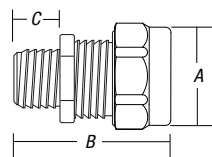
Steel Liquidtight Strain Relief Connectors — 45° Angle



CAT. NO.	HUB SIZE	THROAT DIA.	CORD RANGE	DIMENSIONS (IN.)		
				A	B	C
4920	1/2"	37/64	.125-.375	1 1/8	1 1/16	47/64
4921	1/2"	37/64	.310-.560	1 1/8	1 1/16	47/64
4922	1/2"	37/64	.500-.750	1 1/8	1 1/16	47/64
4930	3/4"	25/32	.125-.375	1 1/8	1 7/16	5/8
4931	3/4"	25/32	.310-.560	1 1/8	1 7/16	5/8
4932	3/4"	25/32	.500-.750	1 1/8	1 7/16	5/8

For wire mesh grips, refer to page E-142.

Steel Liquidtight Strain Relief Connectors — Straight



CAT. NO.	HUB SIZE	THROAT DIA.	CORD RANGE	DIMENSIONS (IN.)		
				A	B	C
2920	1/2"	47/64	.125-.375	1 1/8	1 3/4	5/8
2921	1/2"	47/64	.310-.560	1 1/8	1 3/4	5/8
2922	1/2"	47/64	.500-.750	1 1/8	1 3/4	5/8
2930	3/4"	1 1/16	.125-.375	1 1/8	1 25/32	5/8
2931	3/4"	1 1/16	.310-.560	1 1/8	1 25/32	5/8
2932	3/4"	1 1/16	.500-.750	1 1/8	1 25/32	5/8
2940	1"	1 1/16	.310-.560	1 1/8	1 3/4	3/4
2941	1"	1 1/16	.500-.750	1 1/8	1 3/4	3/4
2942	1"	3 1/2	.700-.950	1 1/8	1 7/8	3 1/2

Metallic Liquidtight Cord and Cable Connectors

The Ranger® Series of Non-Metallic Liquidtight Cord Connectors

The Ranger® Series Non-Metallic Liquidtight Cord Connector takes twice the cable range of most ordinary strain-relief connectors. T&B's Ranger Connectors enable you to reduce your inventory and save time with one connector that can do the work of two. The sturdy nylon material adds corrosion resistance to your installation.



Application

- Provide means for passing a cord into an enclosure or through a bulkhead or into a rigid conduit
- Form a mechanical grip and water- and/or oil-resistant seal for cord
- Form a nonslip connection or termination for flexible cord, cable (armored or unarmored)

Cord & Cable Type

- S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVD

Features

- Extended range with superior strain relief
- Reduced overall size, fits into tighter spaces
- Gland nut designed to restrict cable bending

Materials

Weather-stabilized nylon, temperature rated -34° C to 105° C

Bushing: Rubber

Environment Classification

Ordinary locations

Wet or dry locations

Fittings used in a trade size knockout requiring a NEMA 3R, 4, 6 or 13 listing require a 5262 Series sealing ring

Range

Cord Range: Straight — .125" to .950"

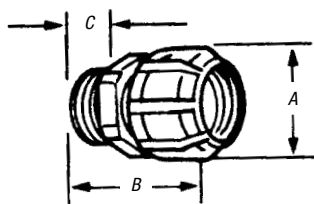
90° — .125" to .750"

Hub Size Range: Straight — ½" to 1"

90° — ½" to ¾"

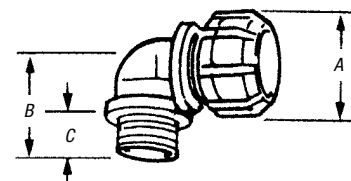
Listings/Compliances

UL Type 6 and 4X



Non-Metallic Liquidtight Strain Relief Connector — Straight

CAT. NO.	TRADE OR HUB SIZE	THROAT DIA.	CORD RANGE	DIMENSIONS (IN.)		
				A	B	C
2920NM	½"	.55	.125–.375	1 ¹ / ₃₂	2 ¹ / ₈	5 ¹ / ₈
2921NM	½"	.55	.310–.560	1 ¹ / ₃₂	2 ¹ / ₈	5 ¹ / ₈
2922NM	½"	.55	.500–.750	1 ¹³ / ₃₂	2 ⁵ / ₃₂	5 ¹ / ₈
2930NM	¾"	.79	.125–.375	1 ¹³ / ₃₂	2 ³ / ₁₆	5 ¹ / ₈
2931NM	¾"	.79	.310–.560	1 ¹³ / ₃₂	2 ³ / ₁₆	5 ¹ / ₈
2932NM	¾"	.79	.500–.750	1 ¹³ / ₃₂	2 ³ / ₁₆	5 ¹ / ₈
2940NM	1"	.98	.310–.560	1 ¹³ / ₃₂	2 ¹¹ / ₃₂	2 ⁵ / ₃₂
2941NM	1"	.98	.500–.750	1 ¹³ / ₃₂	2 ¹¹ / ₃₂	2 ⁵ / ₃₂
2942NM	1"	.98	.700–.950	1 ⁴³ / ₆₄	2 ³ / ₈	2 ⁵ / ₃₂



Non-Metallic Liquidtight Strain Relief Connector — 90° Elbow

CAT. NO.	TRADE OR HUB SIZE	THROAT DIA.	CORD RANGE	DIMENSIONS (IN.)		
				A	B	C
4960NM	½"	.55	.125–.375	1 ¹ / ₃₂	1 ¹ / ₄	5 ¹ / ₈
4961NM	½"	.55	.310–.560	1 ¹ / ₃₂	1 ¹ / ₄	5 ¹ / ₈
4970NM	¾"	.79	.125–.375	1 ¹³ / ₃₂	1 ³ / ₈	5 ¹ / ₈
4971NM	¾"	.79	.310–.560	1 ¹³ / ₃₂	1 ³ / ₈	5 ¹ / ₈
4972NM	¾"	.79	.500–.750	1 ¹³ / ₃₂	1 ³ / ₈	5 ¹ / ₈

UL File No. E 13938
 CSA File No. 52391
 Meets Coast Guard CG293

Metallic Liquidtight Cord and Cable Connectors

Type 304 stainless construction for your harshest environments!

The Ranger® Series of Stainless Steel Liquidtight Cord Connectors

Until now, there's been no ideal solution for liquidtight connections of portable cord to a box or enclosure in corrosive environments. Steel connectors rust, and non-metallic connectors can't withstand high temperatures or ultraviolet exposure.

In response to customer demand, Thomas & Betts has developed the latest addition to its high-performance line of Ranger® Cord Connectors. Made of Type 304 stainless steel, Ranger® Stainless Steel Liquidtight Cord Connectors stand up to highly corrosive environments — such as washdown areas in food and beverage or pharmaceutical processing — as well as high temperatures and UV exposure.

Application

- Provide means for passing a cord cable into an enclosure, through a bulkhead or into a rigid conduit
- Form a mechanical grip and water- and/or oil-resistant seal for cord
- Form a non-slip connection or termination for flexible cord

Cord & Cable Type

- SJ, SJE, SJE0, SJE00, SJO, SJOW, SJO0, SJOOW, SJT, SJTW, SJTO, SJTOW, SJT00, SJT00W, SO, SOW, SOO, SOOW, SV, ST, STD, SVD

Features

- Extended range with superior strain relief
- Reduced overall size, fits into tighter spaces
- Gland nut designed to restrict cable bending

Materials

Body, Gland Nut, Grip Type 304 stainless steel
 Bushing..... Thermoplastic rubber
 Grip Ring..... Nylon
 O-Ring (supplied)..... Buna N

Environment Classification

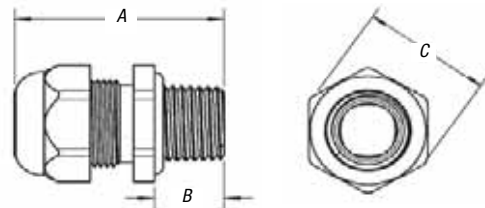
Ordinary locations (wet or dry)
 Temperature Rating -20° C to 105° C (-4° F to 221° F)

Range

Cord Range125" to .950"
 Hub Size Range ½" to 1"

Listings/Compliances

¼" and ⅜" Sizes UL Recognized
 ½" through 1" Sizes UL Listed and CSA Certified for use with portable cord; UL514B liquidtight cord connectors; UL Type 6 and 4X



Stainless Steel Cable Glands — ¼"–⅜" Hub Sizes



CAT. NO.	HUB SIZE (IN.)	CORD DIA. RANGE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
			A	B	C	
2918SST	¼	.118–.256	1.000	.250	.625	25
2919SST	⅜	.157–.315	1.313	.438	.750	25

Stainless Steel Liquidtight Strain-Relief Cord Connectors — ½"–1" Hub Sizes



CAT. NO.	HUB SIZE (IN.)	CORD DIA. RANGE (IN.)	DIMENSIONS (IN.)			STD. PKG. QTY.
			A	B	C	
2920SST	½	.125–.375	1.935	.610	1.125	25
2921SST	½	.310–.560	1.935	.610	1.125	25
2922SST	½	.500–.750	2.003	.610	1.125	25
2930SST	¾	.125–.375	2.063	.630	1.125	10
2931SST	¾	.310–.560	2.063	.630	1.125	10
2932SST	¾	.500–.750	2.063	.630	1.125	10
2940SST	1	.310–.560	2.178	.785	1.500	10
2941SST	1	.500–.750	2.218	.785	1.500	10
2942SST	1	.700–.950	2.218	.785	1.500	10

Metallic Liquidtight Cord and Cable Connectors

The Ranger® Series of Aluminum Liquidtight Cord Connectors

Application

- A liquidtight connector to connect flexible cord to an enclosure and provide adequate strain relief
- Form a mechanical grip and water and liquidtight seal
- Form a non-slip connection or termination for flexible cord

Cord & Cable Type

- SJ, SJE, SJEW, SJE0, SJE00, SJE00W, SJO, SJOW, SJ00, SJ00W, SJT, SJTW, SJTO, SJTOW, SJT00, SJT00W, SO, SOW, S00, S00W, SV, ST, STD, SVD

Features

- Available in straight or 90° designs
- Designed to accept a wide range of cables, offering nine fittings that cover cord ranges from .125" through .950"
- Slotted design gland nut to accommodate securing in tight spaces

- Installer can simply use screwdriver to get into the hard-to-reach area and secure the gland nut
- Marked with cable ranges and conduit hub sizes

Material

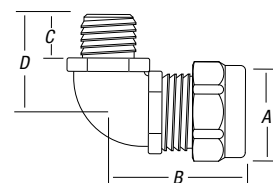
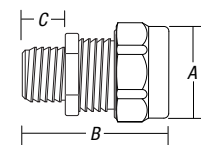
Body Copper-Free Aluminum
 Gland Nut, Grip..... Copper-Free Aluminum — All Series
 Bushing..... Thermoplastic Rubber
 Grip Ring..... Nylon

Environment Classification

Ordinary locations
 Wet or dry locations
 Temperature Range: -20° C to 105° C (-4° F to 221° F)

Range

Cord Range: .125" to .950"
 Hub Size Range: ½" to 1"



Aluminum Liquidtight Strain-Relief Connectors

CAT. NO.	HUB SIZE	CORD RANGE (IN.)	DIMENSIONS (IN.)				STD. PKG. QTY.	WT. PER 100
			A	B	C	D		
Straight								
2920AL	½"	.125-.375	1½	1¾	¾	—	25	8.50
2921AL	½"	.310-.560	1½	1¾	¾	—	25	8.05
2922AL	½"	.500-.750	1½	1¾	¾	—	25	9.95
2930AL	¾"	.125-.375	1½	1¾	¾	—	10	12.30
2931AL	¾"	.310-.560	1½	1¾	¾	—	10	11.90
2932AL	¾"	.500-.750	1½	1¾	¾	—	10	11.50
2940AL	1"	.310-.560	1½	1¾	1½	—	10	18.00
2941AL	1"	.500-.750	1½	1¾	1½	—	10	16.00
2942AL	1"	.700-.950	1½	1¾	3¼	—	10	16.70
90° Elbow								
4960AL	½"	.125-.375	1½	1¾	¾	1½	50	23.60
4961AL	½"	.360-.560	1½	1¾	¾	1½	50	11.60
4970AL	¾"	.125-.375	1½	1¾	¾	1½	50	17.2
4971AL	¾"	.310-.560	1½	1¾	¾	1½	50	30.00
4972AL	¾"	.500-.750	1½	1¾	¾	1½	50	33.09
4980AL	1"	.310-.560	1½	2¼	¾	1¾	25	21.50
4981AL	1"	.500-.750	1½	2¼	¾	1¾	25	22.36
4982AL	1"	.700-.950	1½	2¼	¾	2	25	18.20

* It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through connector body.
 All items shown on this page are suitable for use in hazardous locations where general-purpose equipment is specifically permitted by the NEC®. NEC 501-4(b).

UL File No. E-13938 CSA File No. 52391

For wire mesh grips, refer to page E-142.

Metallic Liquidtight Cord and Cable Connectors

T&B® Liquidtight Strain-Relief Cord Connectors



The T&B Steel Liquidtight Strain Relief Cord Connector is suited for most general control and power cable applications. This series features sturdy neoprene bushings and tapered hub threads.

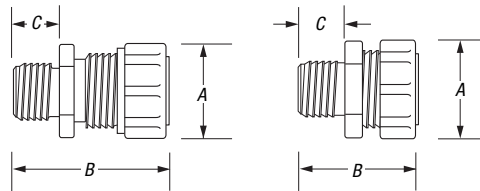


Fig. 1

Fig. 2



Application

- Provide means for passing a cord cable (armored or unarmored) into an enclosure, through a bulkhead or into a rigid conduit
- Form a mechanical grip and water- and/or oil-resistant seal for cord and unarmored or jacketed armored round cables
- Form a non-slip connection or termination for flexible cord, cable (armored or unarmored)
- Provide grounding continuity of cable armor

Cord & Cable Type

- S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVD

Features

- Extended range with superior strain relief
- Reduced overall size, fits into tighter spaces
- Gland nut designed to restrict cable bending

Materials

Body..... Cat. Nos. 2516–2519 — Steel
 Cat. Nos. 2520–2596 — Malleable Iron or Die-Cast Zinc
 2200 Series — Malleable Iron
 Gland..... Steel
 Bushing..... Neoprene

Environment Classification

Ordinary locations
 Wet or dry locations
 Fittings used in a trade size knockout requiring a NEMA 3R, 4, 6 or 13 listing require a 5262 Series sealing ring

UL Listed as liquidtight strain relief and outlet bushing.
 CSA certified watertight.

UL File No. E 13938

CSA File No. 589 & 4484

† UL not applicable.

* Remove sufficient outer covering of cable to permit conductors to pass through connector body.

Complies with JIC standards.

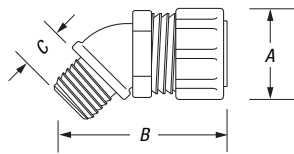
Temperature rating 105° C.

Suitable for hazardous locations use where general-purpose equipment is specifically permitted per NEC® Section 501-4(b).

CAT. NO.	CABLE SIZE (IN)		HUB SIZE	THROAT DIA. (MIN.)	FIG.	DIMENSIONS (IN.)			BUSHING PART NO.	GLAND-NUT MODEL NO.	RETAINER MODEL NO.	BODY MODEL NO.
	RANGE MIN.-MAX.					A	B	C				
2516†	.060–.125	¼"	⅜"	2	3/64	17/16	15/32	035-73377-5	035-73377-3	035-73377-9	035-73377-1	
2517†	.120–.250	¼"	⅜"	2	1/64	17/16	15/32	035-73377-6	035-73377-3	035-73377-9	035-73377-1	
2518†	.060–.150	⅜"	⅝"	2	3/32	1½	15/32	035-73377-7	035-73377-4	035-73377-9	035-73377-2	
2519†	.150–.300	⅜"	⅝"	2	3/32	1½	15/32	035-73377-8	035-73377-4	035-73377-9	035-73377-2	
2520	.125–.250	½"	⅞"	1	1½	1½	5/8	053-71411-1	053-71411-37	035-72735-1	053-71411-43	
2521	.250–.375	½"	⅞"	1	1½	1½	5/8	053-71411-2	053-71411-37	035-72735-1	053-71411-43	
2522	.375–.500	½"	⅞"	1	1½	1½	5/8	053-71411-3	053-71411-37	035-72735-2	053-71411-43	
2523	.450–.560	½"	⅞"	1	1½	1½	5/8	053-71411-4	053-71411-37	035-72735-2	053-71411-43	
2524*	.500–.625	½"	⅞"	1	1½	1¾	5/8	053-71411-59	053-71411-38	035-72735-3	033-72259-21	
2525*	.625–.750	½"	⅞"	1	1½	1¾	5/8	053-71411-60	053-71411-38	035-72735-3	033-72259-21	
2530	.125–.250	¾"	1⅜"	1	1½	1¾	5/8	033-72259-1	053-71411-38	035-72735-4	053-71411-44	
2531	.250–.375	¾"	1⅜"	1	1½	1¾	5/8	053-71411-5	053-71411-38	035-72735-4	053-71411-44	
2532	.375–.500	¾"	1⅜"	1	1½	1¾	5/8	053-71411-58	053-71411-38	035-72735-4	053-71411-44	
2534	.500–.625	¾"	1⅜"	1	1½	1¾	5/8	053-71411-59	053-71411-38	035-72735-3	053-71411-44	
2535	.625–.750	¾"	1⅜"	1	1½	1¾	5/8	053-71411-60	053-71411-38	035-72735-3	053-71411-44	
2536*	.750–.880	¾"	1⅜"	1	1½	1⅞	5/8	053-71411-61	053-71411-39	035-72735-5	033-72259-22	
2541	.250–.375	1"	1⅞"	1	1½	1⅞	5/8	053-71411-5	053-71411-38	035-72735-4	053-71411-45	
2542	.375–.500	1"	1⅞"	1	1½	1⅞	5/8	053-71411-58	053-71411-38	035-72735-4	053-71411-45	
2544	.500–.625	1"	1⅞"	1	1½	1⅞	5/8	053-71411-59	053-71411-38	035-72735-3	053-71411-45	
2545	.625–.750	1"	1⅞"	1	1½	1⅞	5/8	053-71411-60	053-71411-38	035-72735-3	053-71411-45	
2546	.750–.880	1"	1⅞"	1	1½	1⅞	5/8	053-71411-61	053-71411-39	035-72735-5	053-71411-46	
2547	.875–.985	1"	1⅞"	1	1½	1⅞	5/8	053-71411-62	053-71411-39	035-72735-5	053-71411-46	
2548*	.880–1.065	1"	1⅞"	1	2½	2½	5/8	053-71411-63	053-71411-40	035-72735-6	033-72259-23	
2549*	1.065–1.205	1"	1⅞"	1	2½	2½	5/8	053-71411-64	053-71411-40	035-72735-6	033-72259-23	
2558	.880–1.065	1¼"	1⅞"	1	2½	2½	5/8	053-71411-63	053-71411-40	035-72735-6	053-71411-47	
2559	1.065–1.205	1¼"	1⅞"	1	2½	2½	5/8	053-71411-64	053-71411-40	035-72735-6	053-71411-47	
2556*	1.187–1.375	1¼"	1⅞"	1	2½	2½	5/8	053-71411-18	053-71411-41	035-72735-7	033-72259-24	
2557*	1.375–1.485	1¼"	1⅞"	1	2½	2½	5/8	033-72259-2	053-71411-41	035-72735-7	033-72259-24	
2562	.812–1.000	1½"	1⅞"	1	2½	2½	5/8	033-72259-3	053-71411-41	035-72735-7	053-71411-48	
2563	1.000–1.187	1½"	1⅞"	1	2½	2½	5/8	053-71411-17	053-71411-41	035-72735-7	053-71411-48	
2564	1.187–1.375	1½"	1⅞"	1	2½	2½	5/8	053-71411-18	053-71411-41	035-72735-7	053-71411-48	
2565*	1.375–1.625	1½"	1⅞"	1	2½	2½	5/8	053-71411-65	053-71411-42	035-72735-8	033-72259-25	
2573	1.125–1.375	2"	1⅞"	1	2½	2½	5/8	053-71411-66	053-71411-42	035-72735-8	053-71411-49	
2574	1.375–1.625	2"	1⅞"	1	2½	2½	5/8	053-71411-65	053-71411-42	035-72735-8	053-71411-49	
2575	1.625–1.875	2"	1⅞"	1	2½	3½	5/8	053-71411-67	053-71411-42	035-72735-8	053-71411-49	
2576*	1.750–1.965	2"	1⅞"	1	3½	3½	5/8	033-72259-5	033-72259-17	035-72735-9	033-72259-26	
2577*	1.937–2.187	2"	1⅞"	1	3½	3½	5/8	033-72259-6	033-72259-17	035-72735-9	033-72259-26	
2584	1.750–1.965	2½"	2"	1	3½	3¾	1½	033-72259-5	033-72259-17	035-72259-14	033-72259-27	
2585	1.937–2.187	2½"	2"	1	3½	3¾	1½	033-72259-6	033-72259-18	033-72259-14	033-72259-27	
2586*	2.156–2.360	2½"	2½"	1	3½	4¼	1½	033-72259-7	033-72259-19	033-72259-15	033-72259-28	
2587*	2.350–2.565	2½"	2½"	1	3½	4¼	1½	033-72259-8	033-72259-19	033-72259-15	033-72259-28	
2592	2.156–2.360	3"	2½"	1	3½	4¼	1½	033-72259-7	033-72259-19	033-72259-15	033-72259-29	
2593	2.350–2.565	3"	2½"	1	3½	4¼	1½	033-72259-8	033-72259-19	033-72259-15	033-72259-29	
2594	2.535–2.750	3"	2½"	1	3½	4¼	1½	033-72259-9	033-72259-19	033-72259-15	033-72259-29	
2595*	2.735–2.985	3"	2½"	1	4½	4¾	1½	033-72259-10	033-72259-20	033-72259-16	033-72259-30	
2596*	2.970–3.220	3"	2½"	1	4½	4¾	1½	033-72259-11	033-72259-20	033-72259-16	033-72259-30	

Metallic Liquidtight Cord and Cable Connectors

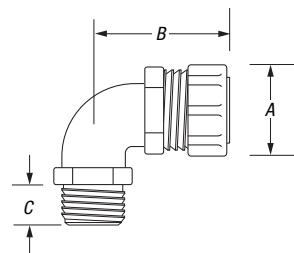
Liquidtight Strain-Relief Connectors — 45°



For wire mesh grips, refer to page E-142.

CAT. NO.	CABLE-SIZE MIN.-MAX. (IN.)	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.
			A	B	C	
2200	.125-.250	1/2"	1 1/8	1 1/32	9/16	37/64
2201	.250-.375	1/2"	1 1/8	1 1/32	9/16	37/64
2202	.375-.500	1/2"	1 1/8	1 1/32	9/16	37/64
2203	.450-.560	1/2"	1 1/8	1 1/32	9/16	37/64
2204*	.500-.625	1/2"	1 3/8	1 13/32	9/16	37/64
2205*	.625-.750	1/2"	1 3/8	1 13/32	9/16	37/64
2206	.125-.250	3/4"	1 3/8	1 13/32	5/8	25/32
2207	.250-.375	3/4"	1 3/8	1 13/32	5/8	25/32
2208	.375-.500	3/4"	1 3/8	1 13/32	5/8	25/32
2209	.500-.625	3/4"	1 3/8	1 13/32	5/8	25/32
2210	.625-.750	3/4"	1 3/8	1 13/32	5/8	25/32
2211*	.750-.880	3/4"	1 11/16	1 1/2	1 1/2	3/4
2213	.375-.500	1"	1 3/8	1 1/2	25/32	15/16
2214	.500-.625	1"	1 3/8	1 1/2	25/32	15/16
2215	.625-.750	1"	1 3/8	1 1/2	25/32	15/16
2216	.750-.875	1"	1 11/16	1 15/32	25/32	15/16
2217*	.875-.985	1"	1 11/16	1 15/32	25/32	15/16
2218*	.880-1.065	1"	2 1/16	1 31/32	25/32	15/16
2219*	1.065-1.205	1"	2 1/16	1 31/32	25/32	15/16
2220*	.880-1.065	1 1/4"	2 1/16	1 29/32	1 1/16	15/16
2221*	1.065-1.205	1 1/4"	2 1/16	1 29/32	1 1/16	15/16
2222*	1.187-1.375	1 1/4"	2 1/16	2 1/4	1 1/16	1 21/64
2223*	1.375-1.485	1 1/4"	2 1/16	2 1/4	1 1/16	1 21/64

Liquidtight Strain-Relief Connectors — 90°



CAT. NO.	CABLE-SIZE MIN.-MAX. (IN.)	HUB SIZE	DIMENSIONS (IN.)			THROAT DIA.
			A	B	C	
2268	.250-.375	1/2"	1 1/8	1 23/32	5/8	19/32
2269	.375-.500	1/2"	1 1/8	1 23/32	5/8	19/32
2270	.450-.560	1/2"	1 1/8	1 23/32	5/8	19/32
2250*	.500-.625	1/2"	1 3/8	1 11/16	9/16	39/64
2251*	.625-.750	1/2"	1 3/8	1 11/16	9/16	39/64
2252	.125-.250	3/4"	1 3/8	1 3/4	1/2	25/32
2271	.250-.375	3/4"	1 3/8	1 3/8	1/2	25/32
2272	.375-.500	3/4"	1 3/8	1 3/8	1/2	25/32
2273	.500-.625	3/4"	1 3/8	1 3/8	1/2	25/32
2274*	.620-.750	3/4"	1 3/8	1 3/8	1/2	25/32
2253*	.750-.880	3/4"	1 11/16	1 31/32	9/16	25/32
2254	.375-.500	1"	1 3/8	2	25/32	1
2255	.500-.625	1"	1 3/8	2	25/32	1
2256*	.625-.750	1"	1 3/8	2	25/32	1
2275	.750-.875	1"	1 11/16	2	5/8	1
2276	.875-.985	1"	1 11/16	2	5/8	1
2257*	.880-1.065	1"	2 1/16	2 21/32	25/32	1 5/16
2258*	1.065-1.205	1"	2 1/16	2 21/32	25/32	1 5/16
2277	.880-1.065	1 1/4"	2 1/16	2 7/8	1 1/16	1 5/16
2278	1.065-1.205	1 1/4"	2 1/16	2 7/8	1 1/16	1 5/16
2279*	1.187-1.375	1 1/4"	2 5/16	2 3/16	1 3/16	1 11/32
2280*	1.375-1.485	1 1/4"	2 5/16	2 19/16	1 3/16	1 11/32
2281	.812-1.000	1 1/2"	2 5/16	2 7/8	1 3/16	1 15/32
2282	1.000-1.187	1 1/2"	2 5/16	2 7/8	1 3/16	1 15/32
2283*	1.187-1.375	1 1/2"	2 5/16	2 7/8	1 3/16	1 15/32
2284	1.125-1.375	2"	2 25/32	3 1/4	2 7/32	1 31/32
2285	1.375-1.625	2"	2 25/32	3 1/4	2 7/32	1 31/32
2286	1.625-1.875	2"	2 25/32	3 1/4	2 7/32	1 31/32

UL Listed as liquidtight strain relief and outlet bushing.
CSA certified watertight.

UL File No. E 13938

CSA File No. 589 & 4484

* UL not applicable.

* Remove sufficient outer covering of cable to permit conductors to pass through connector body.

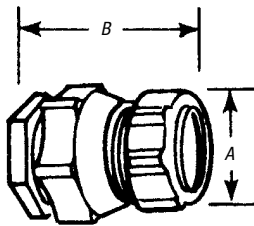
Complies with JIC standards.

Temperature rating 105° C.

Suitable for hazardous locations use where general-purpose equipment is specifically permitted per NEC®.

Metallic Liquidtight Cord and Cable Connectors

CHASE® Liquidtight Cord Connectors



CAT. NO.	CABLE SIZE RANGE SIZE (IN.)	THROAT DIA.	CORD RANGE	DIMENSIONS (IN.)	
				A	B
2631	.125-.250	1/2"	9/16"	1 1/16"	1 5/8"
2632	.250-.375	1/2"	9/16"	1 1/16"	1 5/8"
2633	.375-.500	1/2"	9/16"	1 1/16"	1 5/8"
2634	.450-.560	1/2"	9/16"	1 1/16"	1 5/8"
2637	.125-.250	3/4"	25/32"	1 5/16"	1 3/4"
2638	.250-.375	3/4"	25/32"	1 5/16"	1 3/4"
2639	.375-.500	3/4"	25/32"	1 5/16"	1 3/4"
2640	.500-.625	3/4"	25/32"	1 5/16"	1 3/4"
2641	.625-.750	3/4"	25/32"	1 5/16"	1 3/4"
2646	.500-.625	1"	1"	1 5/8"	1 13/16"
2647	.625-.750	1"	1"	1 5/8"	1 13/16"
2648	.750-.880	1"	1"	1 5/8"	1 13/16"

Suitable for hazardous locations use in Class I, Div. 2; Class II, Div. 1 and 2; Class III, Div. 1 and 2, where general-purpose equipment is specifically permitted per NEC® Section 500-2(a).

Complete with O-Ring seal and nylon insulated throat and neoprene bushing.

UL Listed as liquidtight strain relief and outlet bushing.
CSA certified watertight.

Temperature Rating: 105° C UL File No. E 13938

CSA File No. 589. CHASE® Liquidtight Cord Connectors are ideal for installation where space is limited inside the enclosure.

Conduit & Fittings — T&B® Cord & Cable Fittings

Multi-Hole Flexible Cord and Cable Connectors



CAT. NO.	HUB SIZE (IN.)	DIA. NO.	CORD DIA. (IN.)
2520-2	1/2"	2	.220
2530-2	3/4"	2	.220
2531-2	3/4"	2	.260
2531-3	3/4"	3	.260
2541-2	1"	2	.300
2542-2	1"	2	.375
2540-3	1"	3	.225
2541-3	1"	3	.300
2540-4	1"	4	.220
2555-2	1 1/4"	2	.500

Note: Range of cord dia. ±.010.

In many applications, you have only room for one fitting but you need to run two cables (for example, proximity switches). Now you can provide strain relief and liquidtight protection with T&B's new multi-hole liquidtight strain relief connectors. With the ever-increasing number of signal cables, now you have a solution to the problem of how to strain relieve multiple cables in one fitting.

Metallic Liquidtight Cord and Cable Connectors

The T&B WMG-PC Series Wire Mesh Grips for Portable Cord

T&B Wire Mesh grips are ordered separately and fit with your existing inventory of Ranger® connectors and liquidtight strain-relief connectors. There's no need to duplicate inventory.

Application

- Provides high gripping strength for adequate cable support and strain relief without damage to the cable sheath
- Compression of a tapered neoprene bushing ensures the watertight integrity of the fittings
- To meet National Electrical Code (NEC®) requirements for electrical installations in hazardous atmospheres, a sealing fitting may be required in conjunction with the cable and cord fitting

Cord & Cable Type

- S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVD

Features

- Prevents severe cord bends and pullouts
- Used in aluminum and/or steel fittings

How to select proper wiremesh grip:

1. Determine O.D. of portable cord, e.g., .200
2. Determine size of knockout or threaded hub, e.g. 1/2"
3. Select Cat. No. of strain relief connector, e.g., 2520, 2920AL.
4. Match up O.D. with grip range and strain relief to determine Cat. No. of Wiremesh Grip (e.g., .200 + 2520 = WMP-PC1)



2920 Series



2920AL Series



2516 Series



Now Includes Ranger® Series

Materials

Wiremesh made of stainless steel.
Retaining rings made of aluminum

Environment Classification

Ordinary locations

Range

.187 – 3.220



CAT. NO.	GRIP RANGE	STRAIN-RELIEF CONNECTOR								
		STRAIGHT			45°			90°		
		RANGER® STEEL	RANGER® ALUMINUM	T&B STEEL	RANGER® STEEL	T&B STEEL	RANGER® STEEL	RANGER® ALUMINUM	T&B STEEL	
WMG-PC1	.187-.250	2920	2920AL	2520	4920	2200	4960	4960AL	2267	
WMG-PC2	.250-.375	2920	2920AL	2521	4920	2201	4960	4960AL	2268	
WMG-PC3	.375-.500	2921	2921AL	2522	4921	2202	4961	4961AL	2269	
WMG-PC4	.500-.625	2922	2922AL	2524	4922	2204	4962	4962AL	2250	
		2932	2932AL	2534	4932	2209	4972	4972AL	2273	
		2941	2941AL	2544	4941	2214	4981	4981AL	2255	
WMG-PC5	.625-.750	2922	2922AL	2525	4922	2205	4962	4962AL	2251	
		2932	2932AL	2535	4932	2210	4972	4972AL	2274	
		2941	2941AL	2545	4941	2215	4981	4981AL	2256	
WMG-PC6	.187-.250	2930	2930AL	2530	4930	2206	4970	4970AL	2252	
WMG-PC7	.250-.375	2930	2930AL	2531	4930	2207	4970	4970AL	2271	
WMG-PC8	.375-.500	—	—	2541	—	—	—	—	—	
		2931	2931AL	2532	4931	2208	4961	4961AL	2272	
		2940	2940AL	2542	4940	2213	4980	4980AL	2254	
WMG-PC9	.750-.875	—	—	2536	—	2211	—	—	2253	
		2942	2942AL	2546	4942	2216	4982	4982AL	2275	
		—	—	2547	—	2217	—	—	2276	
WMG-PC10	.875-1.000	—	—	2548	—	2218	—	—	2257	
WMG-PC11	.875-1.000	—	—	2558	—	2220	—	—	2277	
WMG-PC12	1.000-1.125	—	—	2548	—	2218	—	—	2257	
		—	—	2558	—	2220	—	—	2277	
		—	—	2549	—	2219	—	—	2258	
WMG-PC13	1.125-1.250	—	—	2559	—	2221	—	—	2278	
		—	—	2549	—	—	2258	2258	2219	
		—	—	2559	—	2221	—	—	2278	
WMG-PC14	1.125-1.250	—	—	2556	—	—	2279	2279	2222	
		—	—	2563	—	—	—	—	2282	
		—	—	2564	—	—	—	—	2283	
WMG-PC15	1.250-1.375	—	—	—	—	2222	—	—	2256	
WMG-PC16*	1.375-1.500	—	—	2564	—	—	—	—	2283	
		—	—	2557	—	2223	—	—	2280	
		—	—	2573	—	—	—	—	2284	
WMG-PC17*	1.125-1.250	—	—	2573	—	—	—	—	2284	
WMG-PC18*	1.250-1.375	—	—	2573	—	—	—	—	2284	
WMG-PC19*	1.375-1.500	—	—	2565	—	—	—	—	2285	
		—	—	2574	—	—	—	—	—	
		—	—	2574	—	—	—	—	—	
WMG-PC20*	1.500-1.625	—	—	2565	—	—	—	—	2285	
		—	—	2574	—	—	—	—	—	
		—	—	2574	—	—	—	—	—	
WMG-PC21*	1.625-1.750	—	—	2575	—	—	—	—	2286	
WMG-PC22*	1.750-1.875	—	—	2575	—	—	—	—	2286	

*Replacement Gland Nut supplied with these catalog numbers only.

Non-Metallic Liquidtight Cord Connectors

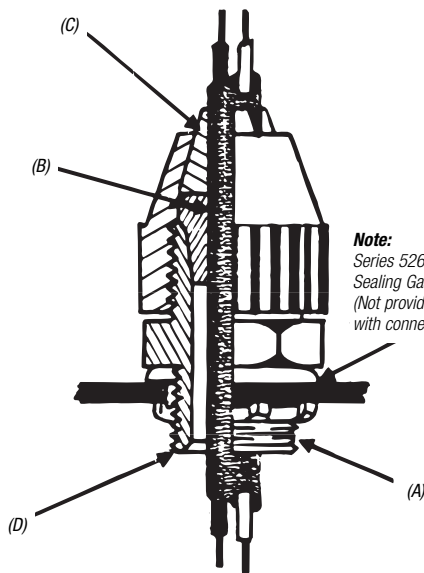
Non-Metallic Liquidtight Flexible Cord Connectors — Black Beauty® Series

Application

- A liquidtight connector to connect flexible cord to a box or enclosure and provide adequate strain relief

Features

- Taper Thread hub seals in female hub (A)
- Neoprene bushing provides liquidtight installation (B)
- Hand tightens — no tools needed for assembly
- Segmented chuck provides high mechanical pullout performance — will not cut or damage cord jacket (C)
- Corrosion- and weather-resistant plastic is excellent for outdoor/indoor use
- Plastic parts improve dielectric strength and provide insulated throat (D)
- Wide range — reduces inventories



Typical Installation

Note:
Series 5262
Sealing Gasket
(Not provided
with connector)

Standard Material

Body, Gland & Segmented Chuck Weather-stabilized thermoplastic rated for -34° C (-29° F) to 105° C (221° F) application
Bushing..... Neoprene

Standard Finish

All parts as molded

Range

.250 Outside Diameter to 1.020 Outside DiameterType S, SO, SV, ST, STO, SJ, SJO, SJT, SJTO, SVTO, SVO, SVT Flexible Cords & Cables

Listings/Compliances

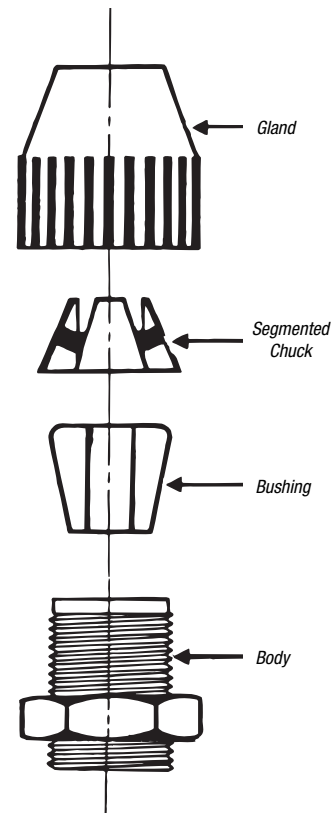
UL (UL File No. E-23018)
CSA LR-2884, LR-4484
UL 514B
CSA C22.2 No. 18
NFPA 70
Federal Standard H-28 (Threads)



2672 Series



2682 Series

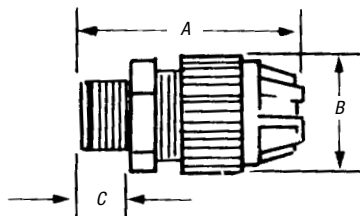


2672 Series

Non-Metallic Liquidtight Cord Connectors

Rugged, weather-stabilized nylon construction!

Black Beauty® Non-Metallic Liquidtight Strain-Relief Connector — Straight



- UL 94-V2 flammability rated
- Temperature rating: -34° C to +105° C
- Meets Coast Guard CG293



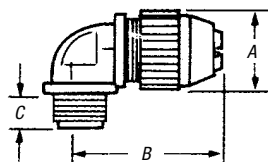
CAT. NO.	TRADE OR HUB SIZE	THROAT DIA. (IN.)	CORD RANGE (IN.)	DIMENSIONS (IN.)		
				A	B	C
2671	3/8"	.33	.125-.275	2.0	.90	.46
2690	1/2"	.33	.125-.275	2.3	.90	.60
2672	1/2"	.55	.250-.400	2.6	1.27	.60
2673*	1/2"	.55	.400-.560	2.6	1.27	.60
2691*	1/2"	.54	.560-.690	3.0	1.57	.60
2692*	1/2"	.54	.660-.780	3.0	1.57	.60
2693	3/4"	.55	.250-.400	2.7	1.27	.62
2694*	3/4"	.55	.400-.560	2.7	1.27	.62
2674	3/4"	.79	.560-.690	3.0	1.57	.62
2675	3/4"	.79	.660-.780	3.0	1.57	.62
2696*	3/4"	.76	.770-.895	3.2	1.89	.62
2676	1"	.98	.660-.780	3.3	1.89	.77
2677	1"	.98	.770-.895	3.3	1.89	.77
2678*	1"	.98	.870-1.020	3.3	1.89	.77
2699	1"	.98	.890-1.090	4.2	2.58	.77
2702	1 1/4"	1.25	.890-1.090	4.2	2.58	.80
2703	1 1/4"	1.25	1.080-1.280	4.0	2.58	.80
2704	1 1/4"	1.25	1.270-1.470	4.0	2.58	.80
2705-TB	1 1/2"	1.47	.890-1.150	4.2	2.95	.82
2706	1 1/2"	1.47	1.140-1.400	4.3	2.95	.82
2707	1 1/2"	1.47	1.390-1.650	4.3	2.95	.82
2708	2"	1.89	1.190-1.530	5.1	3.50	.84
2709	2"	1.89	1.520-1.860	4.9	3.50	.84
2710*	2"	1.89	1.850-2.190	4.9	3.50	.84

*Remove sufficient outer covering of cable to permit conductors to pass thru connector body. All items shown on this page are suitable for use in hazardous location where general-purpose equipment is specifically permitted by the NEC®. Class I, Div. 2. Class II, Div. 1 & 2. Class III, Div. 1 & 2.

UL File No. E 13938
CSA File No. 52391

90° angle with a standard-size body!

Black Beauty® Non-Metallic Liquidtight Strain-Relief Connector — 90° Elbow



- Weather-stabilized nylon construction
- UL 94-V2 flammability rated
- Temperature rating: -34° C to +105° C
- Meets Coast Guard CG293

CAT. NO.	TRADE OR HUB SIZE	THROAT DIA. (IN.)	CORD RANGE (IN.)	DIMENSIONS (IN.)		
				A	B	C
2680	3/8"	.33	.125-.275	2 9/32	1 1/4	.460
2681	1/2"	.55	.250-.400	—	—	—
2682*	1/2"	.55	.400-.560	—	—	—
2683	3/4"	.78	.560-.690	—	—	—
2684	3/4"	.78	.660-.780	—	—	—
2688	1"	.98	.560-.690	1 27/32	3/4	.770
2685	1"	.98	.660-.780	1 27/32	3/4	.770
2686	1"	.98	.770-.895	1 27/32	3 1/16	.770
2687*	1"	.98	.870-1.020	1 27/32	3	.770

*Remove sufficient outer covering of cable to permit conductors to pass thru connector body. 90° angle, standard size body. All items shown on this page are suitable for use in hazardous locations where general-purpose equipment is specifically permitted by the NEC. Class I, Div. 2. Class II, Div. 1 & 2. Class III, Div. 1 & 2.

UL File No. E 13938
CSA File No. 52391

Non-Metallic Liquidtight Cord Connectors

Low-profile cable gland perfect for tight spots.

Non-Metallic Cable Glands

T&B Nylon Cable Glands have a sturdy cable sealing mechanism that results in superior strain relief. The compact size ensures quick and easy installation in cramped spaces. The non-metallic construction provides excellent corrosion, chemical and impact resistance. The glands have long threads and locknuts are available.



- Halogen free
- Flame-retardant UL94V-0
- Rated IP68 5 BAR, suitable for NEMA 4 enclosures
- UL® Listed*, CSA Certified for certain ranges of cable
- Working temperatures: -30° C (-22° F) to 80° C (176° F)
Continuous, +150° C (276° F) Intermittent
- Meets VDE ratings

* Material not UV resistant. Sturdy Nylon 6 for strong, lightweight construction. Gray color shown; also available in black.



CAT. NO. FITTINGS	TRADE SIZE	COLOR	CORD RANGE		LENGTH OF THREAD		USE T&B LOCKNUT CAT. NO.	UNIT PKG.	STD. PKG.
			IN.	MM	IN.	MM			
NPT Threads									
CC-NPT38-B	3/8"	Black	.197-.394	5-10mm	.590	15mm	—	50	250
CC-NPT38-G	3/8"	Gray	.197-.394	5-10mm	.590	15mm	—	50	250
CC-NPT12-B	1/2"	Black	.394-.551	10-14mm	.590	15mm	LN501	50	250
CC-NPT12-G	1/2"	Gray	.394-.551	10-14mm	.590	15mm	LN501	50	250
CC-NPT34-B	3/4"	Black	.512-.709	13-18mm	.590	15mm	LN502	25	100
CC-NPT34-G	3/4"	Gray	.512-.709	13-18mm	.590	15mm	LN502	25	100
CC-NPT1-B	1"	Black	.709-.984	18-25mm	.709	18mm	LN503	20	100
CC-NPT1-G	1"	Gray	.709-.984	18-25mm	.709	18mm	LN503	20	100
ISO/Metric Threads									
CC-ISO16-G	16"	Gray	.197-.394	5-10mm	.394	10mm	LN-ISO16-G	50	200
CC-ISO20-G	20"	Gray	.236-.473	6-12mm	.590	15mm	LN-ISO20-G	50	200
CC-ISO25-G	25"	Gray	.512-.709	13-18mm	.590	15mm	LN-ISO25-G	25	100
CC-ISO32-G	32"	Gray	.709-.984	16-25mm	.590	15mm	LN-ISO32-G	20	100
CC-ISO40-G	40"	Gray	.748-1.10	22-32mm	.709	18mm	LN-ISO40-G	15	75
PG Threads									
CC-PG7-G	7"	Gray	.118-.256	3-6.5mm	.315	8mm	LN-PG7-G	50	200
CC-PG9-G	9"	Gray	.157-.315	4-8mm	.315	8mm	LN-PG9-G	50	200
CC-PG11-G	11"	Gray	.197-.394	5-10mm	.315	8mm	LN-PG11-G	25	100
CC-PG135-G	13 1/2"	Gray	.236-.473	6-12mm	.354	9mm	LN-PG135-G	25	100
CC-PG16-G	16"	Gray	.394-.551	10-14mm	.394	10mm	LN-PG16-G	25	100
CC-PG21-G	21"	Gray	.512-.709	13-18mm	.433	11mm	LN-PG21-G	10	50
CC-PG29-G	29"	Gray	.709-.984	18-25mm	.433	11mm	LN-PG29-G	10	50
CC-PG36-G	36"	Gray	.867-1.26	22-32mm	.512	13mm	LN-PG36-G	10	50

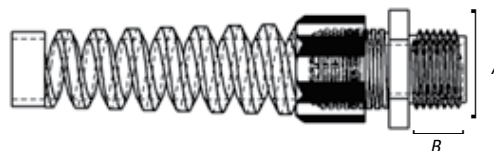
Listed under UL file E13938, control #137B. NPT and PG threaded Cable Glands are UL Listed; ISO/Metric Threaded Cable Glands are not UL Listed.

Non-Metallic Liquidtight Cord Connectors

Non-Metallic Cable/Cord Fitting with Integral Strain-Relief

Thomas & Betts is pleased to announce the new non-metallic spiral cable/cord connector. T&B spiral cable/cord connectors are ideal in environments where maximum protection is needed against conductor fatigue caused by flexing cables.

- Strain-relief is integral to the fitting, saving time and costs of additional parts for cable/cord installations
- UL Listed
- Rated IP68, suitable for NEMA 4 enclosures
- Meets VDE ratings for European applications



Specifications

Materials	Polyamide 6 (Body, Cap), Neoprene (Sealing Ring)
Colors Available	Black, Gray
Protection Class	IP68, 5 Bar
Temperature Range	-30° C to 80° C permanent (-22° F to 176° F)
Operating Temperature	Up to +150° C (+276° F) continuous

Please contact your Thomas & Betts sales representative regarding our custom grommet offering.

CAT. NO.	TRADE SIZE	MIN. CABLE RANGE	MAX. CABLE RANGE	USE T&B LOCKNUT CAT. NO.	COLOR	DIMENSIONS (IN.)		STD. PKG. QTY.
						A	B	
SP-NPT38-G	3/8"	.197	.394	—	Gray	.866	.590	25
SP-NPT38-B	3/8"	.197	.394	—	Black	.866	.590	25
SP-NPT12-G	1/2"	.394	.551	LN501	Gray	1.062	.590	25
SP-NPT12-B	1/2"	.394	.551	LN501	Black	1.062	.590	25
SP-NPT34-G	3/4"	.512	.709	LN502	Gray	1.299	.590	25
SP-NPT34-B	3/4"	.512	.709	LN502	Black	1.299	.590	25

Space and labor-saving cord fittings for panels.

Multi-Hole Cord Grip Connectors

- Ideal in limited-space environments where multiple cables run into an enclosure
- Small cables such as instrumentation wires, proximity device wiring and signal cables can run safely into the enclosure
- Rated IP68, suitable for NEMA 4 enclosures
- Easy to assemble, provide good strain relief, offer a wide clamping range and are simple to use



CAT. NO.	TRADE SIZE	NUMBER OF OPENINGS	CABLE RANGE		BODY LENGTH		LENGTH OF THREAD	STD. PKG. QTY.
			MINIMUM	MAXIMUM	MINIMUM	MAXIMUM		
CC-NPT12-G2	1/2"	2	.190"	.250"	1.051"	1.291"	.590"	50
CC-NPT12-G3	1/2"	3	.190"	.250"	1.051"	1.291"	.590"	50
CC-NPT34-G2	3/4"	2	.230"	.290"	1.283"	1.492"	.590"	25
CC-NPT34-G3	3/4"	3	.230"	.290"	1.283"	1.492"	.590"	25
CC-NPT34-G4	3/4"	4	.230"	.290"	1.283"	1.492"	.590"	25

Service Entrance Cable Fittings

Suggested Specifications for Service Entrance Fittings

All service fittings shall be approved for the purpose by a nationally recognized testing laboratory, inspection agency or product evaluation organization.

Where service raceway consists of a rigid metal conduit, intermediate metal conduit, electrical metallic tubing or where service entrance cable is used as service conductors, a suitable raintight service head conforming to Federal Standard W-C-586 shall be provided.

Fastening



Series 4175
Pipe Strap (EMT)



Series 1275/1275AL
Pipe Strap (Rigid Metal Conduit & IMC)



Series 1350/1350AL
Pipe Spacer
(Rigid Metal Conduit IMC & EMT)

Service raceway shall be securely fastened in place to the supporting surface at intervals as specified by the Code using suitable straps and spacers; straps and spacers shall be of malleable iron or steel construction, hot dipped galvanized or electro zinc plated conforming to Canadian Standards Association Standard C22.2 No. 18 and as manufactured by Thomas & Betts; series 1275 or 4175 straps and series 1350 spacers; aluminum straps or spacers such as series 1275AL and series 1350AL may be substituted when installed in environmental conditions that are more than normally corrosive.

Threaded Rigid Metal



Series 1490
Entrance ELL

Where threaded rigid metal service raceway enters the building, the raceway shall be equipped with a cast malleable iron/copper-free aluminum entrance ell with a burr-free end stop and taper tapped holes as manufactured by Thomas & Betts, series 1490.



Conduit & Fittings — T&B® Cord & Cable Fittings

Grounding & Bonding



Series 3870
Bonding & Grounding Bushing — Insulated

For grounding and bonding of service raceway, end of raceway or the terminating fitting shall be equipped with bonding locknuts and insulated metallic grounding and bonding bushing as required.

Bonding locknuts shall be of hardened steel or malleable iron construction, electro zinc plated, and provided with hardened bonding screws as manufactured by Thomas & Betts, series 106 bonding locknuts.

Insulated metallic grounding and bonding bushing shall be of malleable iron/steel construction, electro zinc plated and assembled with an insulator listed or certified for 150° C/302° F service as manufactured by Thomas & Betts, series 3870.



Series 106
Bonding Locknut

Service Entrance Cable Fittings

Suggested Specifications for Service Entrance Fittings *(continued)*

Where service entrance cable is used as overhead service conductors and code requires use of a service head, entrance caps shall be installed; caps shall be cast metal type of suitable ferrous or non-ferrous metal equipped with thermoset insulators and proper knockout openings; caps when installed with proper drip loop must ensure raintight conditions.

At the point where the service cable enters the building, a suitable sill plate shall be provided; sill/wall plate shall be sealed to ensure raintight conditions.



Terminating Fittings



Series 2111
Service Entrance Cable Connector



Series 2116
Underground Feeder Cable Connector



Series 3302M
Two-Screw Connector (Insulated)

Terminating fittings for service entrance cable (Type SE or USE) or underground feeder and branch — circuit cable (Type UF) in locations where exposed to intermittent or constant moisture or in dry locations and subjected to mechanical strain shall be of watertight strain-relief type as manufactured by Thomas & Betts, series 2111 or 2116; fittings shall be constructed of ferrous or non-ferrous metal and equipped with taper threaded hub, beveled moisture-resistant/oil-resistant synthetic rubber bushing.

In dry locations, nylon-insulated two-screw type fittings of malleable iron/steel construction electro zinc plated inside outside, including threads such as series 3302M manufactured by Thomas & Betts may be substituted.

Gaskets



Series 5262
Sealing Gasket

Where service entrance cable is terminated into a threadless opening using hub-type fittings, a gasket shall be provided between the outside of box or enclosure and fitting shoulder; gasket shall be of moisture-resistant/oil-resistant synthetic rubber type adequately protected by and permanently retained to a metallic retainer as manufactured by Thomas & Betts, series 5262.

Supports



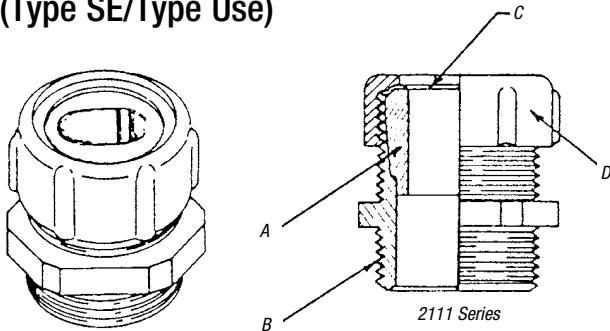
Series 1341
Cable Strap

Service entrance cable shall be adequately supported at intervals enumerated in code using cable straps conforming to requirements of Canadian Standards Association Standard CSA 22.2 No. 18; cable straps shall be of malleable iron/steel construction, hot-dipped galvanized or electro zinc plated as manufactured by Thomas & Betts, series 1341.

Service Entrance Cable Fittings

Service Entrance Cable Connector

(Type SE/Type Use)



Application

- To connect service entrance cables to a meter box or an enclosure

Standard Material/Finish

Body	Zinc Die Cast/As Cast
Gland	Steel/Electro Zinc Plated & Chromate Coated
Retaining Ring	Stainless Steel/Passivated
Bushing	Neoprene/As Molded

Range

Oval (Flat) Cable Size260 x .500 thru 1.062 x 1.765
Type USE Cable Size	(3) #12 thru (3) 4/0 AWG Conductors
Hub Size	1/2" thru 2" NPT (taper pipe threads)

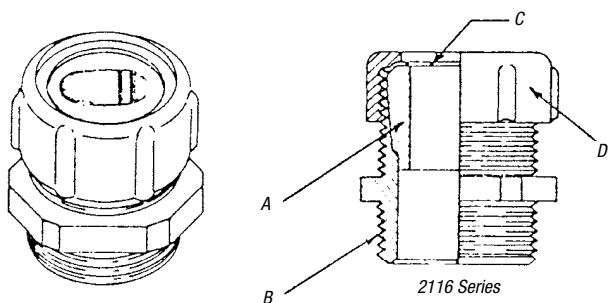
Features

- Neoprene bushing, resists oil and water; grips cable the full length of the bushing, providing adequate strain relief without damaging outer jacket (A)
- Taper threaded body (B)
- Stainless steel retaining ring protects cable jacket against abrasion; reduces installing torque effort (C)
- Rugged ribbed steel gland construction (D)
- Suitable for Type SE & USE Service Entrance Cable

Listings/Compliances

UL (UL File No. E15170)
CSA (LR589, LR4484)
UL514, NEMA FB1, Federal Standard
H-28 (Threads), NFPA70

Underground Feeder Cable Connectors



Application

- To connect underground feeder cables to a box or an enclosure

Standard Material/Finish

Body	Zinc Die Cast/As Cast
Gland	Steel/Electro Zinc Plated & Chromate Coated
Retaining Ring	Stainless Steel/Passivated
Bushing	Neoprene/As Molded

Range

Oval (Flat) Cable Size235 x .500 thru .260 x .740
Hub Size	1/2" thru 1" NPT (tapered pipe threads)

Features

- Neoprene bushing resists oil and water; grips cable the full length of the bushing providing adequate strain relief without damaging outer jacket (A)
- Taper threaded body (B)
- Stainless steel retaining ring protects cable jacket against abrasion; reduces installing torque effort (C)
- Rugged ribbed steel gland construction (D)

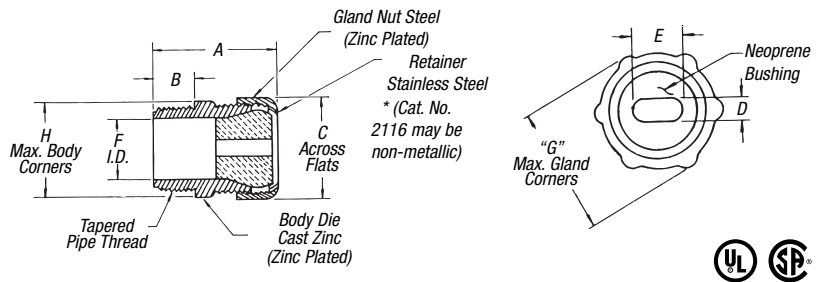
Listings/Compliances

UL
CSA (LR2884)
UL514B, NEMA FB1, Federal Standard
H-28 (Threads), NFPA70

Service Entrance Cable Fittings

Oil- and water-resistant neoprene bushing specially designed for sealing around underground feeder cable!

Underground Liquidtight Feeder-Cable Fittings



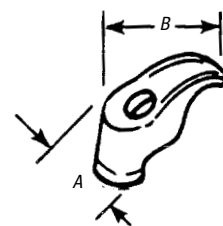
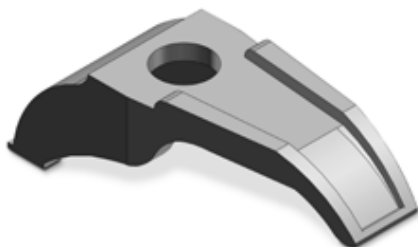
- Stainless steel retaining ring provides bearing surface for glandnut and eliminates cable twist
- Ribbed glandnut tightens easily with wrench to form high-strength connection

CAT. NO.	HUB SIZE	CABLE OPENING	DIMENSIONS (IN.)									
			A	B	C	D		E		F	G	H
						MIN.	MAX.	MIN.	MAX.			
2116-TB*	1/2"	.235 x .500	1 1/16	5/8	1	.060	.235	.350	.500	3/16	1 1/8	1 1/8
2237	3/4"	.230 x .430	1 1/16	5/8	1 1/32	.080	.230	.320	.430	13/16	1 1/8	1 1/8
2238	3/4"	.235 x .465	1 1/16	5/8	1 1/32	.050	.235	.340	.465	13/16	1 1/8	1 1/8
2239	3/4"	.240 x .685	1 1/16	5/8	1 1/32	.060	.240	.500	.685	13/16	1 1/8	1 1/8

* Not CSA Certified
UL File No. E-23017
CSA File No. 2884

Rocking action of foot allows each strap to accept a wide range of wire sizes!

Cable Straps



- Hole for 1/4" screw
- Hot-dipped galvanized malleable iron construction

CAT. NO.	WIRE SIZE	DIMENSIONS (IN.)	
		A	B
1341-TB	2-#10	5/8	1 1/8
1344	3-#6 or 3-#8	5/8	1 5/16
1345*	3-#4 or 3-#2	13/16	1 9/16
1346	3-1/0	3/4	2 1/16
1347	3-4/0	3/4	2 5/16

* Steel, hot-dipped galvanized.
UL not applicable
CSA Certified

Service Entrance Cable Fittings

Two-taper design — one slow and one fast — enables connectors to accept varied cable sizes for maximum take-up!

Watertight Connectors for Oval Cable



- Tapered neoprene bushings resist oil, sunlight and water
- Hex gland and body take same wrench opening
- Stainless-steel slip ring prevents cable from twisting as gland ring is tightened
- Threads on body tapered for water-sealing

CAT. NO.	HUB SIZE	OVAL CABLE RANGE	
		MAX.	MIN.
2111	1/2"	.420 x .560	.380 x .520
2232	3/4"	.385 x .600	.260 x .500
2233	3/4"	.500 x .750	.375 x .625
2234	3/4"	.555 x .800	.490 x .675
2432	1"	.385 x .600	.260 x .500
2433	1"	.500 x .750	.375 x .625
2434	1"	.555 x .800	.430 x .675
2438	1"	.565 x .855	.440 x .730
2439	1"	.635 x .975	.510 x .850
2442	1 1/4"	.635 x .975	.510 x .850
2443	1 1/4"	.640 x 1.050	.490 x .900
2446	1 1/4"	.750 x 1.150	.565 x .965
2454	1 1/2"	.840 x 1.275	.655 x 1.090
2447	1 1/2"	.880 x 1.425	.695 x 1.240
2448	2"	.968 x 1.500	.790 x 1.390
2449	2"	1.062 x 1.765	.850 x 1.550
2450	2"	1.820 x 1.190	1.700 x 1.050

UL File No. E-15170

CSA File No. 589

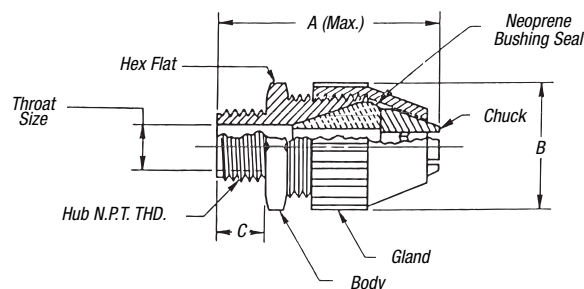
Note: These may be obsolete and replaced.

Hand tightens — no tools required!

Nylon UF-Cable Fittings for Corrosive Environments



- Tapered threaded hub
- Liquidtight and dust tight
- Corrosion- and weather-resistant nylon construction for both outdoor and indoor applications



CAT. NO.	HUB SIZE	UF CABLE RANGE		A	B	C
		MAX.	MIN.	MAX.	±.060	±.060
2827	1/2"	.550 x .280	.400 x .190	2.60	1.270	.600
2828	3/4"	.675 x .280	.525 x .190	3.00	1.570	.620
2829	3/4"	.775 x .280	.625 x .190	3.00	1.570	.620

UL File No. 15170

CSA File No. 589

MC and AC Cable Fittings

Metal-Clad Cable, Armored Cable and Flexible Metal Conduit

Armored Cable (Type AC) — Ref. NEC® Article 320

National Electrical Code® defines type AC armored cable as, "A fabricated assembly of insulated conductors in a flexible metallic enclosure."

- ACT** Indicates an armored cable employing conductors having thermoplastic (Type T) insulation.
- AC** Indicates an armored cable employing conductors having rubber insulation of code grade.
- ACH** Indicates an armored cable employing conductors having rubber insulation of the heat-resistant (75° C) grade.
- ACHH** Indicates an armored cable employing conductors having rubber insulation of the heat-resistant (90° C) grade.
- ACU** Indicates an armored cable employing conductors having rubber insulation of latex grade.
- "L"** Used as a suffix, it indicates that a lead covering has been applied over the conductor assembly.

All armored cables may employ copper or aluminum or copperclad aluminum conductors with the following sizes and are rated for 600 volts or less:

No. 14 AWG to No. 1 AWG Copper

No. 12 AWG to No. 1 AWG Aluminum or Copperclad Aluminum

Type AC cables except ACL carry an internal bonding strip of copper or aluminum in intimate contact with the armor for its entire length. Armored cable can be used for both exposed or concealed locations. With lead-covered conductors (Type ACL), the cable can be embedded in masonry or concrete and can be used in damp locations or where exposed to oil.

Armored cable is not permitted in locations where it will be subjected to physical damage or corrosive fumes. Armored cable cannot be used for direct burial in earth.

With minor exceptions, armored cable is also not permitted to be used in hoists or elevators, storage battery rooms, any hazardous locations, in commercial garages and in theaters or similar locations.

Codes require that cable shall be supported with straps or staples without damaging conductors and also limit the minimum bend radius to five times the diameter of type AC cable. Certain precautions are prescribed in code where cable is installed through joist rafters or similar wood members.

According to NEC 320 where armored cable is terminated, a fitting is required to protect conductors from abrasion. In addition, a bushing is required between the conductors and armor. Design of fitting has to be such that the insulating bushing is visible for inspection. Bushing is not required with lead-covered cables when properly installed.

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Please refer to the following for further details and complete information:

1. NEC Article 320...Armored Cable (Type AC Cable)
2. UL 4, ANSI C33.9...Safety Standards for Armored Cable
3. UL 514B, Safety Standards for Outlet Boxes and Fittings
4. A-A-50552...Federal Specification. Fittings for Cable, Power, Electrical and Conduit, Metal, Flexible
5. NEMA FB-1...Standards Publication. Fittings & Supports for Conduit and Cable Assemblies
6. CEC Section 12-700...Wiring Methods (Armored Cable)
7. CSA C22.2 No. 51...Safety Standards for Armored Cables
8. CSA C22.2 No. 18...Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Note: The materials herein, whether relating to the National Electrical Code, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation of our products. Refer to applicable codes, instructions and industry specifications prior to installation or use.

MC and AC Cable Fittings

Flexible Metal Conduit — Ref. NEC® Article 348

Flexible metal conduit can be used for exposed or concealed work in dry locations. It can be used for wet locations provided conductors within are lead covered or other approved type.

Flexible metal conduit cannot be used underground or embedded in poured concrete or aggregate. With rubber covered conductors, the conduit cannot be exposed to oil, gasoline or other materials having a deteriorating effect on rubber.

With minor exceptions use of flexible metal conduit is not permitted in hoists, in storage battery rooms and in any hazardous locations. Use of flexible metal conduit is restricted to systems under 600 volts.

According to NEC® Article 348, flexible metal conduit no longer than six feet and containing circuit conductors protected by overcurrent device rated for 20 amps or less is suitable as a grounding means provided, it is terminated in fittings approved for the purpose.

Flexible metal conduit longer than six feet is permitted to be used as a grounding means provided the conduit and the fitting are approved for the purpose. To date, there is no flexible metal conduit approved for the purpose by the Underwriters Laboratories.

In Class I & II, Division 2 hazardous areas, the conduit itself cannot be used as the grounding means. A bonding jumper must be installed in accordance with NEC Section 250.102. Flexible metal conduit is available with steel or aluminum armor in trade size 3/8" to 4". With few exceptions where 3/8" and 3/4" trade sizes are used, Code prohibits use of conduit less than "d" trade size. Bends in concealed work are restricted to 360 degrees total. No angle connectors are permitted in concealed raceway installations.

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Please refer to the following for further details and complete information:

1. NEC Article 348...Flexible Metal Conduit
2. UL 1, ANSI C33.92...Safety Standards for Flexible Metal Conduit
3. UL 514B, Safety Standards for Outlet Boxes and Fittings
4. A-A-50552...Federal Specification. Fittings for Cable, Power, Electrical and Conduit, Metal Flexible
5. WW-C-566...Federal Specification. Conduit, Metal, Flexible
6. NEMA FB1...Standards Publication. Fittings and Supports for Conduit and Cable Assemblies
7. CEC 12-1100...Wiring Method (Rigid & Flexible Conduit)
8. CSA C22.2 No. 56...Safety Standards for Flexible Metallic Conduit and Liquidtight Flexible Metal Conduit
9. CSA C22.2 No. 18...Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Suggested Specifications for Armored Cable and Flexible Metal Conduit Fittings

- Armored cable (metal-clad cable type AC) and flexible metal conduit shall conform to provisions of following applicable standards:

Armored Cable...UL 4/ANSI C33.9/CSA 22.2 No. 51

Flexible Metal Conduit...UL 1/ANSI C33.92/WW-C-566/CSA 22.2 No. 56

Type of cable used and conductors within flexible metal conduit shall be suitable for conditions of use and location.

- Where approved armored cable or flexible metal conduit is used as an equipment grounding conductor, terminating fitting used shall be of the grounding type as manufactured by Thomas & Betts, series 3110

- Where armored cable or flexible metal conduit terminates into a threadless or threaded opening, it shall be assembled with approved fittings; fittings shall be of malleable iron/steel construction, electro zinc plated inside/outside, equipped with nylon insulated throat and shall be of angled saddle type as manufactured by Thomas & Betts, series 3110. Direct-bearing screw type fittings shall not be used

- Suitable bushing as manufactured by Thomas & Betts, series 422 or 390, shall be provided between the conductors and armor



Series 3110
Armored Cable Connector
& Flexible Metal Conduit



Series 390
Anti-Short Bushing

MC and AC Cable Fittings

TITE-BITE® Connectors

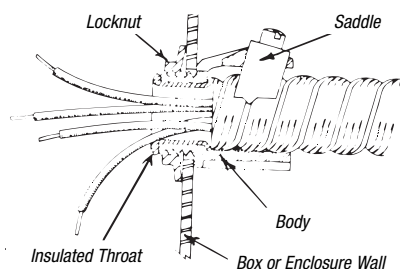
Application

- To connect and effectively bond metal-clad cables, armored cable or flexible metal conduit to a box or an enclosure

Features

- Provided with an angled saddle designed to:
- Insulated throat protects conductors during and after installation and reduces wire pull effort
- Heat-curved insulator in throat:
- Locknuts designed to provide effective bond between connector and box or enclosure, will not vibrate loose
- Designed with fewer installing screws — reduces installation time and labor cost
- Armor stop with viewing window
- Rugged all-steel or malleable iron construction
- Suitable as a grounding means per NEC® Article 348 for flexible metal conduit, NEC® Article 320 for armored cable and NEC® Article 330 for metal-clad cable
- Suitable for hazardous location use per Class 1 Division 2 NEC 501.10 (b)(2)

Typical Installation



3110 Series

Standard Material/Finish

Body Steel or Malleable Iron/ Electro Zinc Plated & Chromate Coated
Saddle Steel/Electro Zinc Plated & Chromate Coated
Screws Steel/Electro Zinc Plated & Chromate Coated
Insulator Thermoplastic/As Molded

Listings/Compliances

UL	514B
CSA	C22.2 No. 18
NEMA	FB1
UL	(UL File No. 23018)
CSA	(LR-2884, LR-4484)

**Super-Fast
Installation!**

*Up to 2X faster
than standard
connectors!*

**Very High
Cable Pull-Out
Resistance!**

**Now UL Listed
for New Interlocked
Armor Ground Type
Metal Clad Cable
(MCI-A)!**

RANGE	HUB SIZE	CONDUIT SIZE	CABLE OPENING
3110 Series Straight Connectors	½" to 4" NPS	¾" to 4"	.470" to 4.560"
3130 Series 90° Connectors	½" to 4" NPS	¾" to 4"	.470" to 4.560"

(All hubs provided with straight pipe threads NPS)

MC and AC Cable Fittings

Designed to resist vibration and strain!



TITE-BITE® Connectors — Nylon Insulated



- Super-fast installation and extreme pull-out resistance due to angled saddle design
- Steel or malleable iron construction
- Tough, insulated lining and Tite-Bite® design make these connectors a “must” when conductors are subject to vibration or strain
- Look for the unique T&B blue color to ensure the highest quality fitting

CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
	MAX.	MIN.			A†	B	C
2492*•#	.500	.370	3/8"	1/2"	1 1/16"	1 1/8"	7/16"
3110-TB**•	.660	.470	3/8"	1/2"	1 1/4"	1 1/8"	7/8"
3112#°	.920	.670	1/2"	1/2"	1 1/4"	1 1/8"	7/8"
3115#	1.125	.906	3/4"	3/4"	1 25/32"	1 1/4"	1 1/32"
3117#	1.468	1.250	1"	1"	2 3/8"	1 3/4"	1 1/8"
3118***	1.750	1.562	1 1/4"	1 1/4"	2 3/4"	2"	1 1/4"
3119***	2.031	1.812	1 1/2"	1 1/2"	3 1/8"	2 5/8"	1 3/4"
3120***	2.500	2.312	2"	2"	3 3/4"	2 3/4"	1 13/16"
3121***	3.062	2.812	2 1/2"	2 1/2"	4 3/8"	3 3/4"	2 1/4"
3122***	3.562	3.312	3"	3"	5"	3 3/4"	2 1/4"
3123****†	4.060	3.620	3 1/2"	3 1/2"	—	—	—
3124****†	4.560	4.120	4"	4"	—	—	—

Material: Steel thru 3/4" trade size.

UL File No. E 23018

CSA File No. 2884

#UL Listed for Metal Clad Cable (MCI).

•UL Listed for new Interlocked Armor Ground Type Metal Clad Cable (MCI-A).

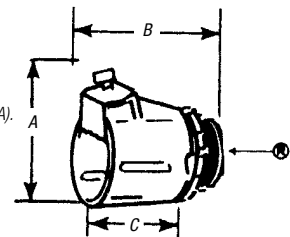
*Good for aluminum-sheathed cable.

**UL Listed for Armored Cable and Metal Clad Cable.

***UL Listed for Flexible Metal Conduit only.

†Approximate dimension with screw at minimum height.

††CSA not applicable.



Easy to install!

TITE-BITE® Connectors



- Easy to install with double-grip saddle
- 3/8" and 1/2" sizes made of formed steel, which produces uniform high quality and a smooth throat to protect conductor insulation
- 3/4" and larger size are malleable iron

CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
	MAX.	MIN.			A†	B	C
300-TB**•	.660	.470	3/8"	1/2"	1 1/4"	1 5/16"	7/16"
301-TB*•	.781	.460	3/8"	1/2"	1 1/8"	1 1/8"	7/8"
302-TB#•	.920	.670	1/2"	1/2"	1 1/8"	1 11/16"	1 1/64"
304#	1.093	.906	3/4"	3/4"	1 1/8"	1 11/16"	1 1/32"
306#	1.468	1.250	1"	1"	2 1/16"	1 3/4"	1 3/4"
308***	1.750	1.562	1 1/4"	1 1/4"	2 5/16"	2 1/32"	1 1/4"
310***	2.031	1.812	1 1/2"	1 1/2"	2 5/8"	2 9/16"	1 3/4"
312***	2.500	2.312	2"	2"	3 1/8"	2 9/16"	1 13/16"
314***	3.062	2.812	2 1/2"	2 1/2"	3 1/2"	3 1/8"	2 1/4"
316***	3.562	3.312	3"	3"	4 1/16"	3 3/16"	2 1/4"
318****†	4.060	3.620	3 1/2"	3 1/2"	—	—	—
320****†	4.560	4.120	4"	4"	—	—	—

Material: Steel thru 1/2" trade size.

UL File No. E 23018

CSA File No. 2884

#UL Listed for Metal Clad Cable (MCI).

•UL Listed for new Interlocked Armor Ground Type Metal Clad Cable (MCI-A).

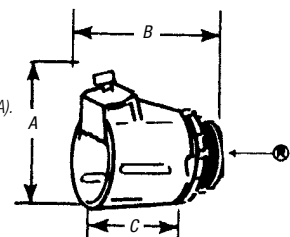
*Not UL Listed.

**UL Listed for Armored Cable and Metal Clad Cable.

***UL Listed for Flexible Metal Conduit only.

†Approximate dimension with screw at minimum height.

††CSA not applicable.



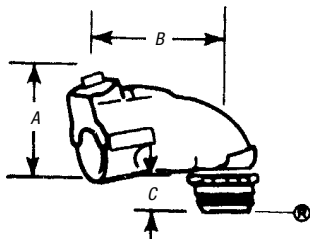
MC and AC Cable Fittings

The easiest and best connector to install when making sharp bends at the enclosure or equipment!

TITE-BITE® Connectors — 90° Angle Nylon Insulated



- Steel or malleable iron construction
- Offers all of the advantages of the straight connector with only one screw to tighten, except in the larger sizes, which have two
- Peep hole on top provides for easy inspection of ABC bushing
- Narrow design makes it easy to install connectors in adjacent knockouts



CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
	MAX.	MIN.			A†	B	C
3130-TB#•	.660	.470	3/8"	1/2"	1 11/32	1 19/32	15/16
3132#•	.920	.670	1/2"	1/2"	1 7/8	2 5/16	15/16
3135#	1.093	.906	3/4"	3/4"	2 1/8	2 1/8	9/16
3137#	1.468	1.250	1"	1"	2 21/32	2 1/8	1/2
3138***	1.750	1.562	1 1/4"	1 1/4"	3 3/16	3 3/32	9/16
3139***	2.031	1.812	1 1/2"	1 1/2"	4	4 1/8	11/16
3140***	2.500	2.312	2"	2"	4 15/16	5 1/16	11/16
3141***	3.062	2.812	2 1/2"	2 1/2"	6 3/32	6	3/4
3142***	3.562	3.312	3"	3"	7 11/32	7 1/16	3/4
3143****†	4.060	3.620	3 1/2"	3 1/2"	—	—	—
3144-TB****†	4.560	4.120	4"	4"	—	—	—

UL File No. E 23018

CSA File No. 2884

#UL Listed for Metal Clad Cable (MCI).

•UL Listed for new Interlocked Armor Ground Type Metal Clad Cable (MCI-A).

***UL Listed for flexible metal conduit only.

†Approximate dimension with screw at minimum height.

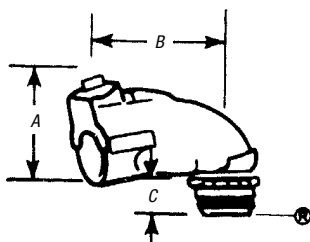
††CSA not applicable.

Angle clip provides secure mechanical grip that tightens under tension or vibration!



TITE-BITE® Connectors — 90° Angle

- Throat is long enough to install in cast housing knockouts
- 3/8" and 1/2" sizes of steel construction
- 3/4" and larger sizes made of malleable iron



CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
	MAX.	MIN.			A†	B	C
321#•	.660	.470	3/8"	1/2"	1 11/32	1 1/2	3/8
323#•	.920	.670	1/2"	1/2"	1 7/8	2 5/16	17/32
325#	1.093	.906	1/2"	3/4"	2 1/8	2 1/8	1/2
326-TB#	1.468	1.250	1"	1"	2 21/32	2 1/8	1
327-TB***	1.750	1.562	1 1/4"	1 1/4"	3 3/8	3 3/8	—
328***	2.031	1.812	1 1/2"	1 1/2"	4 1/8	4 1/8	—
329***	2.500	2.312	2"	2"	4 3/8	4 3/32	—
330-TB***	3.062	2.812	2 1/2"	2 1/2"	6 1/2	6	—
331***	3.562	3.312	3"	3"	5 25/32	7	—
332††	4.060	3.620	3 1/2"	3 1/2"	—	—	—
333††	4.560	4.120	4"	4"	—	—	—
3144-TB****†	4.560	4.120	4"	4"	—	—	—

UL File No. E 23018

CSA File No. 2884

#UL Listed for Metal Clad Cable (MCI).

•UL Listed for new Interlocked Armor Ground Type Metal Clad Cable (MCI-A).

***UL Listed for flexible metal conduit only.

†Approximate dimension with screw at minimum height.

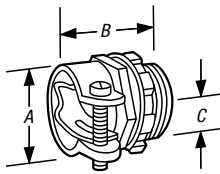
††CSA not applicable.



MC and AC Cable Fittings

Fits every size of armored cable, metal-clad cable and flexible metal conduit!

Squeeze Connectors — Straight



- Malleable iron or steel construction
- Catalog Nos. 252, 253-TB, 254-TB and 255 are steel
- Add "I" suffix for insulated throat

CAT. NO.	INS. CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
		MAX.	MIN.			A†	B	C
252***	—	.531	.437	5/16"	3/8"	13/16	29/32	11/32
253-TB***†	253-I-TB***†	.585	.455	3/8"	1/2"	31/32	113/64	5/8
254-TB	254-I-TB	.938	.812	1/2"	1/2"	17/32	1 1/8	13/32
255	255-I	1.094	.938	3/4"	3/4"	1 1/4	1 17/32	7/16
256	256-I	1.375	1.250	1"	1"	1 19/32	1 5/8	1/2
257***	257-I***	1.656	1.500	1 1/4"	1 1/4"	1 7/8	1 23/32	17/32
258***	258-I***	1.875	1.688	1 1/2"	1 1/2"	2 1/4	1 7/16	9/16
259***	259-I***	2.500	2.313	2"	2"	2 31/32	2 5/8	1 1/16
249***	249-I***	3.062	2.812	2 1/2"	2 1/2"	3 5/16	2 11/16	3/4
277***	277-I***	3.563	3.312	3"	3"	3 31/16	2 7/8	3/4
278-TB***††	278-I-TB***††	4.370	3.200	3 1/2"	3 1/2"	6 7/8	5 1/4	1 15/16
281-TB***††	281-I-TB***††	4.600	3.500	4"	4"	7 1/4	5 3/4	1 5/8

** UL Listed for armored cable only. Fitting material steel.

*** UL Listed for flexible metal conduit only.

† Approximate dimension with screw at minimum height.

†† cULus Certified

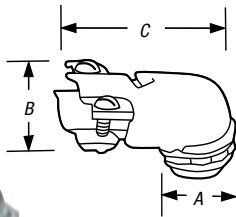
.485"–.660" cable opening range for 253-I-TB.

UL File No. E 23018

CSA File No. 2884

Only two screws to tighten!

Squeeze Connectors — 90° Angle



- Cap lifts off simply by loosening screws partway
- 3/8" and 1/2" sizes made of steel
- 3/4" and larger sizes made of malleable iron
- Add "I" suffix for insulated throat

CAT. NO.	INS. CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
		MAX.	MIN.			A†	B	C
266-TB	266-I-TB	.656	.406	3/8"	1/2"	1 1/2	1 13/32	1 7/16
272**	272-I**	.812	.688	3/8"	1/2"	1 1/8	1 1/8	—
268-TB	268-I-TB	.937	.813	1/2"	1/2"	1 11/16	1 13/16	1 1/8
279	279-I	1.000	.875	3/4"	3/4"	1 13/16	2 1/16	1 13/16
270	270-I	1.125	1.000	3/4"	3/4"	1 7/8	1 3/4	1 13/16
273-TB	273-I-TB	1.406	1.187	1"	1"	2 3/8	2 7/32	2 1/16
274***	274-I***	1.656	1.375	1 1/4"	1 1/4"	3	3	3
275***	275-I***	1.875	1.625	1 1/2"	1 1/2"	3 3/8	3 5/16	4
276***	276-I***	2.500	2.125	2"	2"	4 1/2	3 31/16	4 7/8
282-TB***††	282-I-TB***††	3.100	2.520	2 1/2"	2 1/2"	4 7/16	5 7/16	7 7/16
283-TB***††	283-I-TB***††	3.640	3.100	3"	3"	5 1/16	6 7/16	8 5/16
284-TB***††	284-I-TB***††	4.220	3.700	3 1/2"	3 1/2"	6 3/16	8 9/16	11 1/4
285-TB***††	285-I-TB***††	4.600	4.100	4"	4"	7 1/4	8 7/8	12 3/8

** UL Listed for armored cable only.

*** UL Listed for flexible metal conduit only.

† Approximate dimension with screw at minimum height.

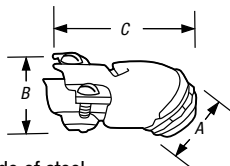
†† cULus Certified

UL File No. E23018

CSA File No. 2884

Fast and easy installation — simply loosen screws partway to lift off cap!

Squeeze Connectors — 45° Angle



- 3/8" and 1/2" sizes made of steel
- 3/4" size made of malleable iron
- Add "I" suffix for insulated throat

CAT. NO.	INS. CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
		MAX.	MIN.			A†	B	C
265	265-I	.656	.406	3/8"	1/2"	1 17/32	1 5/32	1 1/8
267	267-I	.937	.813	1/2"	1/2"	1 23/32	1 1/2	1 1/4
269	269-I	1.125	1.000	3/4"	3/4"	2	1 7/32	1 1/16

UL File No. E-23018

CSA File No. 2884

UL Listed for armored cable and flexible metal conduit.

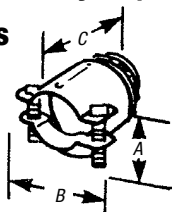
† Approximate dimension with screw at minimum height.

MC and AC Cable Fittings

Armor-gripping saddle stays open by itself when cable is being inserted!

Two-Screw Connectors

- Formed steel body
- Carefully round bushing



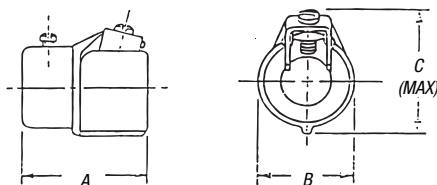
CAT. NO.	CABLE OPENING (IN.)		TRADE SIZE	K.O. SIZE	DIMENSIONS (IN.)		
	MAX.	MIN.			A†	B	C
3301-TB**	.656	.250	3/8"	1/2"	31/32	1 1/16	1 1/16
3312-TB	.937	.500	1/2"	1/2"	1 1/32	1 1/8	1 1/8

** UL Listed for armored cable only. UL File No. E 1383
CSA File No. 2884



TITE-BITE® design holds flexible metal cable firmly in place with a single screw!

Adapter — EMT to Flex



CAT. NO.	SIZE	DIMENSIONS (IN.)		
	FLEX TO EMT	A	B	C
503TB	1/2" - 1/2"	1 2/32	1 1/16	1 1/8
504	3/4" - 3/4"	1 25/32	1 1/16	2 1/8
505-TB	1" - 1"	2 1/32	2 1/16	2 5/8

CSA File No. 8994
UL File No. E-23018



Smooth plastic bushing protects conductor insulation from rough edges of armored cable and flexible metal conduit!

Anti-Short Bushing



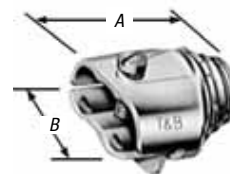
CAT. NO.	SIZE (AWG)
390	#14-2, #14-3, #12-2
391	#14-4, #12-3, #6-1, and #4-1
392	#12-4, #10-2, #10-3 and #2-1
393	#10-4, #8-2, #8-3, and #1-1
394	#8-4, #6-2, #6-3, #4-2, #4-3, and #6-4

Colorized. CSA File No. 589
Temperature Rating: 240° F. UL not applicable.

For flexible metal conduit and armored cable.

Duplex Clamp Connector

- Malleable iron construction

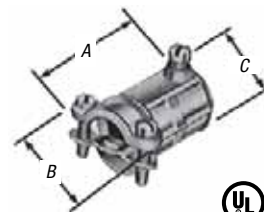


CAT. NO.	K.O. SIZE	DIMENSIONS (IN.)	
		A	B
291-TB	1/2"	1 1/32"	1 1/16"

UL File No. E 1383
CSA File No. 2884

One-piece fitting couples 3/8" flexible metal conduit to 1/2" EMT!

Combination Coupling



CAT. NO.	SIZE	DIMENSIONS (IN.)		
	FLEX TO EMT	A	B	C
449-TB	3/8" - 1/2"	1 2/32	1 1/32	1 5/16

Cable opening: max. .656, min. .250. UL File No. E-23018
CSA File No. 2884

Fast and easy installation!

Strap

- Elongated bolt hole makes alignment easy, even when holes in mounting surface are off center
- Snap-on design holds strap in place



CAT. NO.	SIZE
65-TB	3/8" Flex

Tray Cable Fittings

Increase safety for hazardous locations.

Silver Grip® TCF® Series — Tray Cord Fitting

Introducing the Silver Grip® Tray Cord Fitting — the safe, yet cost-efficient choice for increased safety when terminating portable cord and tray cable in hazardous locations. Designed for use in Class I, Gas and Vapor environments, the Silver Grip® Tray Cord Fitting provides efficient strain relief for cables entering enclosures and raceways, and for cords used on portable equipment.

- Now available in stainless steel in hub sizes from ½" to 1"
- Corrosion-resistant, non-magnetic aluminum construction
- Tapered neoprene bushing and O-ring seal out moisture and dirt ingress
- Chuck grip provides high mechanical pull-out performance. Exceeds applicable requirements
- Hand-tightens — no tools required

**Now Available
in Stainless
up to 1"**

Applications

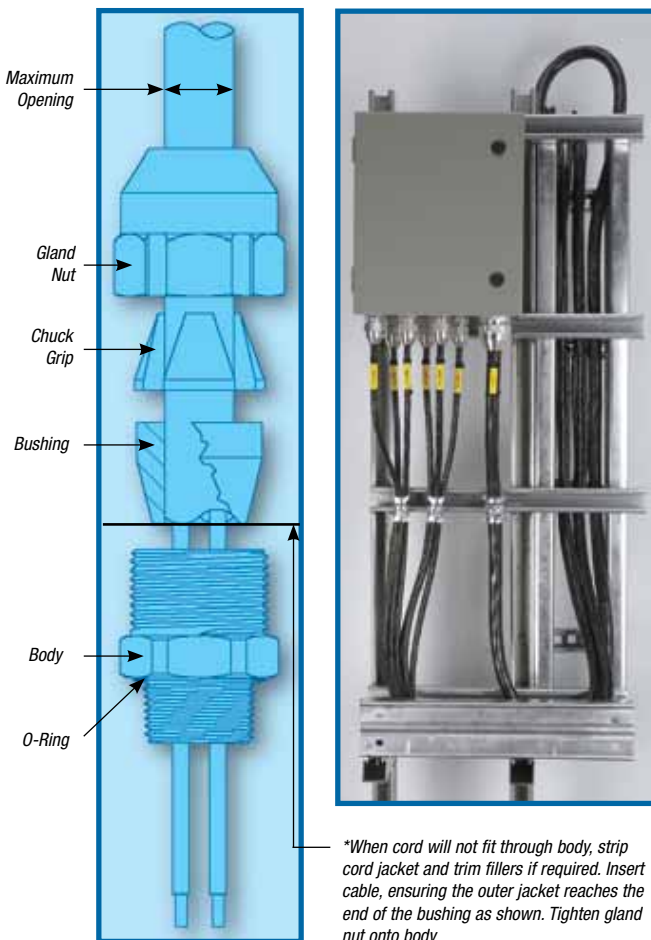
Tray Cable: Complies with IEC requirements for Class I, Zone 2 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF® fittings must be used in combination with a certified Class I hazardous location sealing fitting.

Portable Cord: Complies with IEC requirements for Class I, Zone 1 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF® fittings must be used in combination with a certified Class I hazardous location sealing fitting.

Note: Tray cable is not suitable for use in Zone 1 locations. Portable cord can be used in Zone 1 applications only when installed on portable equipment.

- CSA File Number LR4484
- Class 4418-03 Fittings for Hazardous Locations
- Class 4418-03 Fittings for Hazardous Locations — Certified to U.S. Standards
- Class I, Zone 1, AEx e II

Conduit & Fittings — T&B® Cord & Cable Fittings



CAT. NO.	HUB SIZE NPT	THROAT DIA. (IN.)	MIN. CABLE DIA. (IN.)	MAX. OPENING (IN.)	STD. PKG. QTY.
TCF050-27AL	½	.330	.150	.270	25
TCF050-40AL	½	.540	.250	.400	25
TCF050-54AL	½	.540	.400	.540	25
TCF050-67AL	½	.540	.540	.670	10
TCF050-78AL	½	.540	.660	.780	10
TCF075-40AL	¾	.540	.250	.400	15
TCF075-54AL	¾	.540	.400	.540	15
TCF075-67AL	¾	.780	.540	.670	10
TCF075-78AL	¾	.780	.660	.780	10
TCF075-88AL	¾	.765	.770	.880	10
TCF100-78AL	1	.980	.660	.780	10
TCF100-88AL	1	.980	.770	.880	10
TCF100-100AL	1	.980	.870	1.000	10
TCF125-109AL	1¼	1.255	.800	1.090	4
TCF125-128AL	1¼	1.255	1.080	1.280	4
TCF125-147AL	1¼	1.255	1.270	1.470	4
TCF150-115AL	1½	1.470	.890	1.150	2
TCF150-140AL	1½	1.470	1.140	1.400	2
TCF150-165AL	1½	1.470	1.390	1.650	2
TCF200-153AL	2	1.896	1.190	1.530	2
TCF200-186AL	2	1.896	1.520	1.860	2
TCF200-219AL	2	1.896	1.850	2.190	2
TCF250-252AL	2½	2.466	2.120	2.520	—
TCF300-278AL	3	2.780	2.380	2.780	—
TCF300-304AL	3	3.037	2.640	3.040	—
TCF300-330AL	3	3.068	2.900	3.300	—

For stainless steel (316), replace AL with SS6 (up to 1" only)

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

Non-Metallic Sheathed Cable Fittings

Non-Metallic Sheathed Cable

Ref. NEC® Article 334

Code defines non-metallic sheathed cable as, "A factory assembly of two or more insulated conductors having an outer sheath of moisture resistant, flame retardant, non-metallic material."

Non-metallic sheathed cable is constructed of insulated conductors (#14 to #2 AWG Copper or #12 to #2 AWG Aluminum or Copperclad Aluminum), and an outer non-metallic sheath classified as Type NM or Type NMC.

Non-metallic sheathed cable is provided with or without a bare or insulated equipment grounding conductor. Non-metallic sheathed cable is rated for 60° C service with voltage limitation of 600 volts.

Type NM — has flame-retardant moisture resistant sheath.

Type NMC — has flame-retardant, moisture-resistant, fungus-resistant and corrosion-resistant sheath.

Non-metallic sheathed cable is permitted by code to be used exposed or concealed in one, two or multifamily dwellings or other structures not exceeding three floors. Use of Type NM cable is restricted to dry locations whereas Type NMC can be used in dry, moist, damp or corrosive environments.

Non-metallic sheathed cable (both Type NM & NMC) is not permitted to be used as a service conductor, in commercial garages, in hoists or cannot be embedded in cement, concrete or aggregate. With minor exceptions, use of non-metallic sheathed cable is also prohibited in theaters or any hazardous locations.

NEC® Section 334.30 requires that cable be secured in place by suitable means so as not to injure the cable. Adequate protection for cable is also required when run is exposed, through joists or rafters, through floors, in unfinished basements and accessible attics.

Cable bends are limited to a minimum of five times the diameter of the cable.

NEC® 300.4(B) requires that cable be protected from physical damage when it passes through factory or field punched, cut or drilled holes in metal members. A bushing or grommet firmly secured in place is recommended.

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Please refer to the following for further details and complete information:

1. NEC® Article 334...Non-Metallic Sheathed Cable (Type NM & NMC)
2. NEC® Article 300...Wiring Methods
3. UL 719, ANSI C33.56...Safety Standards for Non-Metallic Sheathed Cable
4. UL 514B, Safety Standards for Outlet Boxes and Fittings
5. NEMA FB-1...Standards Publication. Fittings and Supports for Conduit and Cable Assemblies
6. CEC Section 12-600...Wiring Methods (Non-Metallic Sheathed Cable)
7. CSA C22.2 No. 48...Safety Standards for Non-Metallic Sheathed Cable
8. CSA C22.2 No. 18...Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

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Note:

The materials herein, whether relating to the National Electrical Code®, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation of our products. Refer to applicable codes, instructions and industry specifications prior to installation or use.

Non-Metallic Sheathed Cable Fittings

Suggested Specifications for Non-Metallic Sheathed Cable Fittings

- Where non-metallic sheathed cable or flexible cord terminates into a threaded or threadless opening, terminating fittings used shall be approved for the purpose by nationally recognized laboratory, inspection agency or product evaluation organization.
- Terminating fittings shall be of malleable iron, steel or thermoplastic construction designed to provide adequate strain relief and positively prevent damage to jacket or conductor insulation such as series 3300 or 3302M manufactured by Thomas & Betts.
- Ferrous metal fittings shall be electro zinc plated inside/ outside including threads and bushed with a nylon insulated throat.
- Thermoplastic material used for connector construction shall be of high impact strength suitable for 105° C/ 221° F service with a UL flammability rating of 94V-1.
- Where non-metallic sheathed cable passes through either factory or field punched, cut or drilled holes in metallic members, the cable shall be protected by thermoplastic bushing such as series 3210 manufactured by Thomas & Betts. Bushing shall be firmly secured in opening. Nylon bushed metallic fittings such as Thomas & Betts series 1942 may be substituted as required.

Series 3300
Non-Metallic Sheathed
Cable and Flexible Cord
Connectors (All Plastic)



Series 3302M
Non-Metallic Sheathed Cable and
Flexible Cord Connectors (Steel)



Series 3210
Knockout Bushings



Series 1942
Insulated Nipples

Non-Metallic Sheathed Cable Fittings

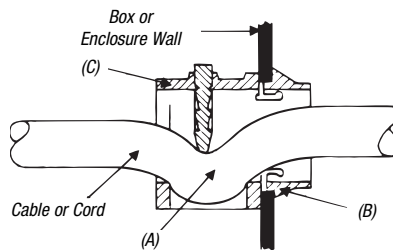
Non-Metallic Sheathed Cable and Flexible Cord Connectors (All Plastic)

Application

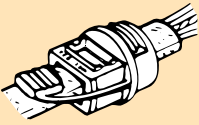
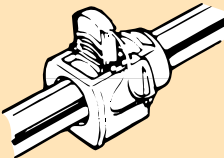




- To connect non-metallic sheathed cable and flexible cord to a box or an enclosure

Features

- Design provides strain relief by partially deflecting cable (A); therefore:
 - Connector will not damage outer covering or jacket of cable, or conductor insulation; designed to give safe trouble free installation
 - Holding power and cable strain relief are not affected by surface finish of outer covering or cable jacket
 - Connector provides superior holding power far in excess of listing agency requirements
- Snap-in one-piece design; accommodates variation in knockout dimensions, saves installation time (B).
- All high-impact thermoplastic construction provides:
 - Insulated throat; conductors are protected from abrasion
 - Improved dielectric strength, and eliminates potential shorts
 - Corrosion resistance
- Wide range — reduces inventories
- Connector may be pre-installed in box K.O. or on cable



Typical Installation

 <p>1. Remove sheath from end of cable (4" or more as required). Insert cable through connector as shown (Cable under button).</p>	 <p>2. Insert button into cavity.</p>	 <p>3. With grooved pliers or parallel jaw type pliers (commercially available), squeeze button into cord wires as far into connector body as possible. Note: It may be necessary to re-adjust pliers to ensure button is properly installed.</p>
 <p>4. Snap connector into knockout box. If desired, this step can be done prior to Step 1.</p>	 <p>5. To remove from knockout box, depress ears.</p>	 <p>6. To remove from cable, cut connector as shown.</p>

Range

CAT. NO.	CABLE/KNOCKOUT SIZE	CORD RANGE
3300	1/2"	#10-2, #12-2 & #14-2 Type NM Cable; .125" to .300" outside diameter cord
3201 & 3350	1/2"	#10-3, #12-3, #14-3, #10-2, #12-2, #14-2 Type NM Cable; also multiple (2) #12-2 and #14-2 Type NM Cable; .300" to .600" outside diameter cord
3202	3/4"	#8-3 and #6-3 type NM cables; also Multiple (2) #14-3 and #10-2 Type NM Cable; .500" to .850" outside diameter cord

Standard Material

All high-impact polycarbonate — UL Class 94V-1 suitable for 105° C application

Standard Finish

As molded (Black)

Listings/Compliances

UL (UL File No: E-23017)

CSA (Cat. #3201, 3350) for factory installation (LR-589, LR-2884)

UL 514B

CSA C22.2 #18 (Where applicable)

ANSI C33.84, NFPA 70

Non-Metallic Sheathed Cable Fittings

Non-Metallic Sheathed Cable and Flexible Cord Connectors (Steel)

Application

- To connect non-metallic sheathed cable and flexible cord to a box or an enclosure

Features

- Rugged all-steel/malleable iron construction (A)
- Rounded cable clamp grip provides superior mechanical holding power without damaging conductor insulation or outer jacket (B)
- Clamp designed to cover body opening for a neat and safe installation
- Screws thread into clamp and not body; screw heads are snug with body and ends of screws do not project beyond the body (C)
- Insulator firmly secured in place protects conductors and reduces wire pulling effort; protects threads from damaging during handling (D)
- Locknut designed to secure connector to a box or enclosure; will not vibrate loose

Standard Material

Body ½" thru 1" Steel; 1¼" thru 2" Malleable Iron
 Clamp ½" thru 1¼" Steel; 1¼" thru 2" Malleable Iron
 Locknut All Steel
 Insulator Thermoplastic

Standard Finish

All steel and malleable iron parts —
 Electro Zinc Plated & Chromate Coated

Range

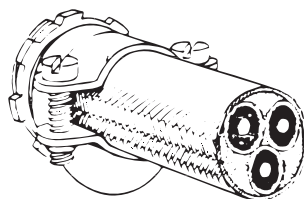
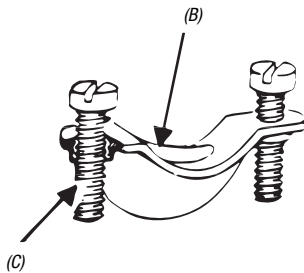
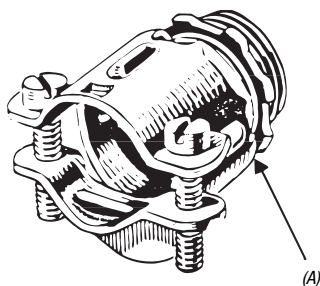
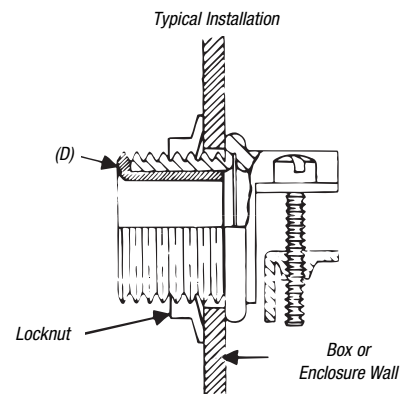
Hub Size ½" thru 2" Hubs
 Provided with Straight Pipe Threads (NPS.)
 Cable (2) #14 thru (4) #4 Type NM
 Cable Outside Diameter250" to 1.150"

Listings/Compliances

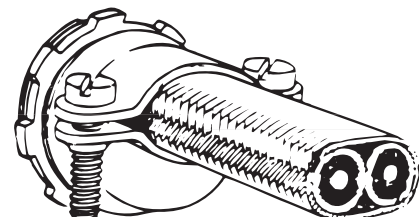
UL (UL File No: E-23017)
 CSA (LR-589, LR-2884)
 UL 514B
 CSA C22.2 No. 18
 NFPA 70
 NEMA FB1
 Federal Standard H-28 (Threads)



3302M Series
 Non-Metallic Sheathed Cable Connector



Typical Installation (Flexible Cord)



Typical Installation (NM-Sheathed Cable)

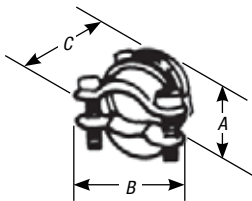
Non-Metallic Sheathed Cable Fittings

Steel or malleable iron

Two-Screw Connectors

Rounded cable grip and smooth bushing protect the cable sheath and wire insulation. Because saddle is threaded, screws do not travel or extend beyond the connector body as it is clamped to the cable. An extra lip on the saddle closes the unused part of the connector opening.

- Threaded saddle means screws don't travel or extend beyond connector body as it's clamped to cable
- Extra lip on saddle closes unused part of connector opening
- Steel or malleable iron construction
- Look for the unique T&B blue color ensuring the highest quality fitting



NON-INSULATED CAT. NO.	INSULATED CAT. NO.	K.O. SIZE	UL LISTED & CSA CERTIFIED		UL LISTED & CSA CERTIFIED SERVICE ENTRANCE CABLES	IN.			INSULATED CABLE OPENING (IN.)	
			SINGLE NM & NMC CABLE	PAIRS OF NM & NMC CABLE		A	B	C	MAX.	MIN.
3302-TB*	3302M-TB	1/2"	(2) #14, (2) #12, (2) #10, (3) #14, (3) #12, (3) #10	(2) #14, (2) #12	(2) #12 thru (2) #4, (3) #12, (3) #10	1	1 13/32	1	.590	.250
3303-TB	3303M	3/4"	(2) #8, (2) #6, (3) #8, (3) #6, (3) #4	(2) #12, (2) #10, (2) #8, (3) #14	(2) #8 thru (2) 1/0, (3) #8, (3) #6, (2) #6 + #8 GND, (2) #1, (2) 1/0, (3) #6 thru (3) #2	1 1/4	1 1/8	1 1/8	.750	.530
3304	3304M	1"	(3) #8, (3) #6, (3) #4	(2) #8, (3) #10	(2) #4 + #6 GND, (2) #3 + #5 GND, (2) #2 + #4 GND (3) #2 thru (3) 2/0, (2) #1 + #3 GND	1 1/2	1 1/8	1 1/4	.990	.690
3305	3305M	1 1/4"	—	(2) #8, (2) #6, (2) #4, (3) #8	(2) 1/0 + #2 GND, (2) 2/0 + #1 GND	1 29/32	2 1/4	1 1/4	1.320	.850
3306	3306M	1 1/2"	(3) #4, (3) #6	—	(3) 3/0, (3) 4/0, (2) 3/0 + 1/0 GND, (2) 4/0 + 2/0 GND	2 3/16	2 5/8	1 1/16	1.530	.930
3307	3307M	2"	Max. 1.98", Min. 1.15"	Max. 1.98", Min. 1.15"	—	2 3/4	3 1/4	1 7/8	—	—
3308†	—	2 1/2"	Max. 2.38", Min. 1.5"	Max. 2.38", Min. 1.5"	—	3 1/4	3 15/16	2 3/16	—	—
3309†	—	3"	Max. 2.88", Min. 1.75"	Max. 2.88", Min. 1.75"	—	3 13/16	4 1/16	2 3/16	1.980	1.150
3310†	—	3 1/2"	Max. 3.38", Min. 2.25"	Max. 3.38", Min. 2.25"	—	4 7/16	5 1/4	2 27/32	—	—
3311†	—	4"	Max. 3.88", Min. 2.5"	Max. 3.88", Min. 2.5"	—	4 7/8	5 15/16	3 3/32	—	—

*UL Listed for use with rubber and thermoplastic flexible cords (both single and multiple cords and two oval cables).

UL Listed for multiple cords and cables.

CSA File No. 2884

UL File No. E-23013 – 1/2" – 1 1/2"; U.L. File No. E-15170 – 2"

† Not UL Listed or CSA certified.

PMA[®]

PMA[®] Nylon Flexible Conduit Systems

In this section...



PMA[®] Nylon Flexible Conduit Systems

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Thomas & Betts

www.tnb.com

Overview

Areas of Application

Mechanical Engineering

A considerable number of PMA® cable protection systems are used in mechanical engineering. A few examples illustrate how varied the range of mechanical engineering applications is. You will find our products in machine tools, packaging machines, printing machines, as well as heating, ventilation, conveyer and filling systems. PMA® products also make a vital contribution to the smooth operation of high-voltage and emergency power systems, can production machinery and woodworking machines, etc. PMA® cable protection solutions safeguard cables, wires and data links against heat, cold, tensile stress, pressure stress and other external influences in the important mechanical engineering industry.



Automation

In the field of automation, there is a need for products that can withstand the stress of motion-intensive applications. Solutions developed by PMA® fully meet these requirements. Special conduit designs, supports and abrasion-protection sleeves provide optimal protection along the entire length of all moving elements, enabling engineers to achieve a massive reduction in torsional forces. There is a good reason why leading robotics manufacturers rely on PMA® technology.



Railway/Railway Infrastructure

PMA® products have proven their dependability in railway construction projects around the world. This is the reason why large corporations including Siemens, Alstom, Bombardier, Deutsche Bahn and SNCF have chosen us as supplier over a period of many years. Our special railway engineering product line provides protection and safety on signalling systems, couplings, trucks and gangways, as well as with roof and underfloor equipment. The range of applications is very extensive. PMA® products contribute to the safe operation of trams, locomotives, freight cars, high-speed trains and even roller coasters.



Countless Applications

PMA® cable protection products can be used in an extremely wide range of applications. The list is virtually endless and includes industries such as telecommunications, construction equipment and medical equipment. Wherever there is a need for cable protection, the PMA® product portfolio provides safe, dependable, forward-looking solutions. We can also develop custom solutions to meet your individual needs.



Overview

PMAFIX® Pro

Connectors

State-of-the-Art Design and Manufacturing Procedure for Highest Sealing Performance

The PMAFIX® Pro fitting series employs two-component injection-molding technology in a radical new design to set new standards for the cable protection industry in critical performance parameters, particularly sealing security.

Connectors: Male and female threads in polyamide and metal, straight, 45°, 90° and strain-relief types

Conduits: The PMAFIX® Pro system is compatible with the entire PMAFLEX® Pro and PMAFLEX® conduit range

Modes of Protection: IP68 and IP69K both in static and dynamic installations



PMA® SMART LINE

Connectors and Conduits

Modern, versatile and attractive

One-piece design, IP66 protection and simple, fast installation are the outstanding features of the Smart Line. Other characteristics, including a modern, functional design and an excellent price/performance ratio, make this product line a very attractive solution.

Connectors: Straight, 45° elbow and 90° elbow

Conduits: Conduit types made of PA6, PA12 and PP

Modes of Protection: IP66



PMA® EX-SYSTEM

Connectors, Conduits and Accessories

Electrostatic load discharging for explosion-endangered areas

The EX-System includes conduits, fittings and accessories for flexible protection of cables, wires and hoses against mechanical damage, UV-radiation and weathering in explosion-endangered areas classified as zones 1/21 (gas/dust) according to ATEX 137.

Connectors: Straight, 45° elbow, 90° elbow and 90° curved elbow, distributors

Conduits: Highly flexible, conduit sizes from Ø 10mm to 50mm

Applications: Areas where combustible gases, liquids or solids and (atmospheric) oxygen can form an explosive atmosphere and where any form of ignition has to be avoided

Installation: Simple push-in installation (IP66), safety and sealing system (IP68)



AUTOMATION

Accessories and Robotics

Protection and dependability in automation applications

PMA® products provide optimal cable protection in all automation applications. They give you dependable protection against abrasion, and they prevent wearing through the insulation. They are very flexible and deliver long service life in motion-intensive applications.

Applications:

Special conduit and accessories for robotics and automation applications provide:

- Reduced mechanical stress
- Longer service life
- Flexible design for motion-intensive applications



PMAFIX®/PMAFLEX®

Connectors and Conduits

Best selling and very popular

This product line offers solutions that meet the highest expectations: IP66–IP69K. It is based on a perfected system technology that makes installation easy. You can choose from a very large, varied range of connectors and conduit that has demonstrated its dependability in all types of applications for more than 20 years.

Connectors: Male and female thread in polyamide or metal, straight, 45° elbow, 90° elbow and 90° curved elbow, distribution

Conduits: More than 20 different types of conduit: light to heavy, flexible to highly flexible, conduit size from Ø 6mm to 125mm

Safety System: Unique safety clip system for connection with PMA conduit

Modes of Protection: IP66, IP68GT, IP68, IP69K



PMAJACK

Braided Hose, Terminators and Fittings

Braided protection

Polyamide/polyester and metal braids made of copper and steel provide dependable protection, bundling and shielding of electrical cables.

Applications: Mechanical cable protection, shielding of electromagnetic radiation



EMC/EMV

Connectors, Braided Hose and Shielding

Reliable shielding

This product line contains metal braids made of tin-plated copper as well as fittings made of nickel-plated aluminium or nickel-plated brass. The braid is designed to provide protection against electromagnetic interference. The fittings guarantee excellent clamping of the braid and good contact between the shielding braid and the conduit system.

Applications: The proven PMA® conduit system provides a high-grade shield for protection against electromagnetic radiation combined with mechanical cable protection



Nylon Flexible Conduits

Key: ● recommended
○ suitable (application details to be considered)


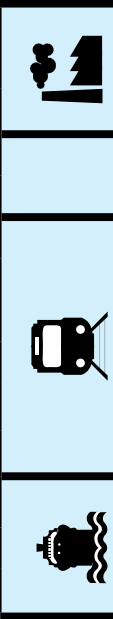









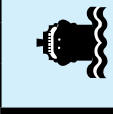



			PMAFLEX® Pro				PMAFLEX®					
			PHT	PLU	POH	PSX	CYF	CYFH	CYL	ESD	ESDP	
Application Areas	Machine Building	General Applications	static						●			
			dynamic	●					○			
		Heavy Loads	static									
			dynamic									
		Outdoor Applications	static									
			dynamic									
	Antistatic Requirements	static								●	●	
		dynamic								●	●	
	Traction	Outdoor Applications with Sunlight Exposure	static									
			dynamic									
		Outdoor Applications	static	○								
			dynamic	○								
Indoor Applications	static		●	●								
Traction Infra	Outdoor Applications with Sunlight Exposure	static										
	Indoor and Tunnel Applications	static		●								
Automation	Moving Systems	static	●					○				
	Systems with Extreme Movements	static										
	Moving Systems with Antistatic Requirements	static							●	●		
Ship + Off-Shore	Outdoor General Applications	static										
		dynamic	○									
	Indoor Applications	static							○			
		dynamic							○			
Passenger Area	static				○		○					
Energy	Outdoor Applications with Sunlight Exposure	static										
	Indoor Applications	static				○		○				
	Exposed to Radiation	static				●						
Others	Vehicle Building	static	○				●	●				
		indoor						○				
	Telecommunications	indoor										
		outdoor										
	Building Construction	indoor			●							
		outdoor										
	Ex Hazardous Areas (ATEX)	static							○			
	High-Temperature Applications	static	○			●						
Find on page E-			182	182	183	183	173	173	173	174	174	

Nylon Flexible Conduits

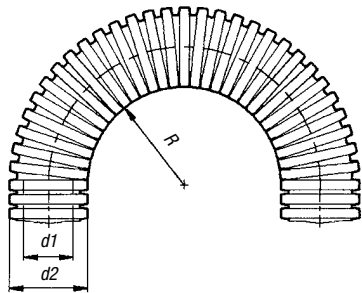
PMAFLEX®													PMAFLEX® Multi-Layer					PMA® FLEXPlus (UL Listed)			Smart Line			CoFlex		Ex		
PCL	PCS	PCSL	PEL	PIS/PIH	POS	PUE	PVD	R90	TEC	VAM	VAML	VCS	VOH	XCYL	XPCL	XSOL	XSOLL	XVCS1H	CUS	PUS	VUS	LLPA	LLPF	LLPO	PACO	PPCO	ESX	
●														●	●				●		○	●	●	●	●			
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175	175	176	176	177	177	178	178	—	179	179	180	180	181	185	185	186	186	187	188	188	189	—	—	—	184	184	—	

Nylon Flexible Conduits

Key: ✓ = correct

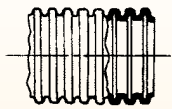
		PMAFLEX® Pro				PMAFLEX®					
		PHT (PAE)	PLU (PO)	POH (PO)	PSX (PEI)	CYF (PA6)	CYFH (PA6)	CYL (PA6)	ESD (PA12)	ESDP (PO)	
	Ductility										
	Reverse Bending Resistance										
	Compression Resistance										
	Low-Temperature Performance										
	High-Temperature Performance										
	Resistance to Weathering										
	UL Recognition File 							✓			
	Bi-National Recognition File UL1696 & CSA C22.2 No. 227.3-05 							✓			
	Bi-National Recognition File UL1660 & CSA C22.2 No. 227.2.1 										
	Free from Halogens and Cadmium		✓	✓	✓	✓	✓	✓	✓	✓	
	Non Flame Propagating EN61386					✓					
	EN45545 				✓						
	NF F 16-101 + 102 				✓						
	BS6853 			✓	✓						
	DIN 5510-2 				✓						
	UNI CEI 11170-3 Ed. 2005 				✓						
NFPA130 (ASTM E162 - ASTM E662 - ASTM E1354) BSS7239/SMP 800-C 											
	DNV (Type approved) 		✓					✓	✓		
	Lloyd's Register (Type approved) 		✓					✓	✓		
	Bureau Veritas (Type approved) 		✓					✓	✓		
Temp. Range	Continuous Operating Temperature (Acc. to DO 9.21-4510)	Min.	-50	-25	-25	-100	-30	-30	-40	-40	-20
		Max.	135	95	95	170	90	90	105	90	90
	Short-Term Max. Operating Temperature 168h (Acc. to DO 9.21-4360)		180		120	200	125	125	160	150	
Sizes	Nominal Widths Min.		07	10	10	10	07	23	07	07	10
	Nominal Widths Max.		48	48	48	48	17	48	125	95	48
	Metric Size Min.		10	12	12	12	10	25	10	10	12
	Metric Size Max.		50	50	50	50	20	50	146	106	50

Nylon Flexible Conduits



** stat. R = lowest recommended bending radius for static (fixed) installation.

*** dyn. R = lowest recommended bending radius for dynamic (flexible) installation.



Fine profile T
Tight bending radius



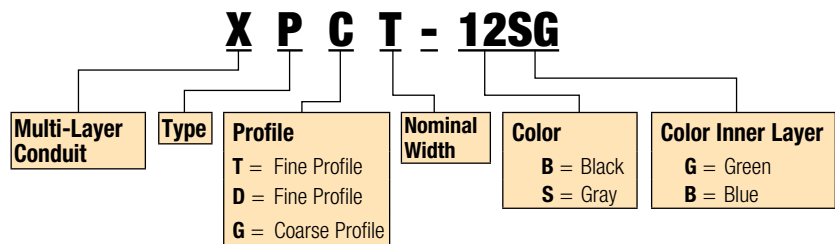
Coarse profile G
High pull-out strength

PMAFLEX[®] Conduits

PMAFLEX[®] covers more than 20 different conduit types for a variety of applications in cable protection. The PMAFLEX[®] range offers conduits for technically demanding applications and special requirements.

Conduit sizes range from 6mm to 125mm diameters, from lightweight to heavyweight, and pliable to highly flexible. Standard colors are black and gray.

Many conduits are specially approved, e.g. CSA, UL Recognition, NF, SNCF, DB, etc.



Nylon Flexible Conduits

CYF/CYFH Flexible, Medium/Heavy

- Use in automobile and truck industries
- High-grade, specially modified polyamide 6
- CYF: medium-wall (NW 07 to 17); CYFH: heavy-wall (NW 23 to 48)
- Self extinguishing
- Free from halogens and cadmium
- Good impact strength at low temperatures and in dry conditions

Temperature range: -30° C to 90° C;
Short term to 125° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.



CAT. NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS †	PU METER
CYFT-07B	7	10	6.2mm	10.0mm	15mm	100
CYFT-10B	10	12	9.6mm	13.0mm	20mm	100
CYFT-12B	12	16	12.0mm	15.8mm	30mm	100
CYFT-17B	17	20	16.2mm	21.2mm	40mm	100
CYFHG-23B	23	25	21.4mm	28.5mm	50mm	50
CYFHG-29B	29	32	27.2mm	34.4mm	60mm	50
CYFHG-36B	36	40	35.8mm	42.4mm	70mm	50
CYFHG-48B	48	50	46.8mm	54.4mm	80mm	50

Fine profile T
Tight bending radius

Coarse profile G
High pull-out strength

† stat. R = lowest recommended bending radius for static (fixed) installation.

CYL Very Flexible, Medium

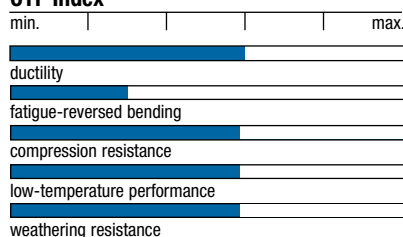
- Use in machine building and installation industries
- High-grade, specially formulated polyamide 6
- Very good flexibility
- Good impact strength at low temperatures and in dry conditions
- Self extinguishing
- Free from halogens and cadmium



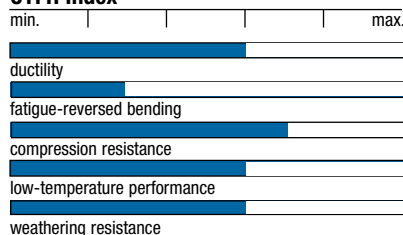
CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS †	PU METER
CYLT-07B	CYLT-07S	7	10	6.2mm	10.0mm	15mm	50
CYLT-10B	CYLT-10S	10	12	9.6mm	13.0mm	20mm	50
CYLT-12B*	CYLT-12S*	12	16	12.0mm	15.8mm	30mm	50
CYLT-17B*	CYLT-17S*	17	20	16.2mm	21.2mm	40mm	50
CYLT-23B*	CYLT-23S*	23	25	22.6mm	28.5mm	45mm	50
CYLT-29B*	CYLT-29S*	29	32	29.0mm	34.5mm	55mm	50
CYLT-36B*	CYLT-36S*	36	40	36.5mm	42.5mm	60mm	30
CYLT-48B*	CYLT-48S*	48	50	47.5mm	54.5mm	70mm	30
CYLG-23B*	CYLG-23S*	23	25	21.9mm	28.5mm	45mm	50
CYLG-29B*	CYLG-29S*	29	32	27.6mm	34.5mm	55mm	50
CYLG-36B*	CYLG-36S*	36	40	36.0mm	42.5mm	60mm	30
CYLG-48B*	CYLG-48S*	48	50	47.0mm	54.5mm	70mm	30
CYLG-56B	CYLG-56S	56	68	56.3mm	67.2mm	120mm	30
CYLG-70B	CYLG-70S	70	80	68.0mm	80.0mm	160mm	10
CYLG-95B	CYLG-95S	95	106	91.9mm	106.0mm	210mm	10
CYLG-125B	CYLG-125S	125	146	126.5mm	146.5mm	450mm	6

* CSA certified

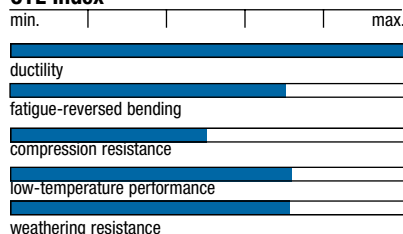
CYF Index



CYFH Index



CYL Index



Temperature range: -40° C to 105° C;
Short term to 160° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc. (see page E-266)

Nylon Flexible Conduits

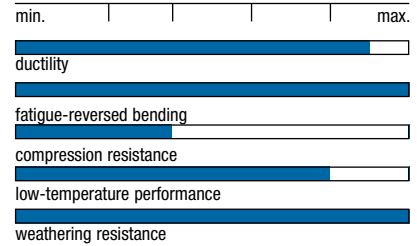
ESD Very Flexible, Medium

- For dynamic applications in robotics and automation where electrostatic charge and uncontrolled discharge need to be avoided
- High-grade, specially modified polyamide 12
- Prevents electrostatic charging
- For indoor and outdoor use (very good cold temperature performance)
- Excellent UV resistance and high dynamic-load resistance
- Free from halogens and cadmium



CAT NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
ESDT-07B	07	10	6.2mm	10.0mm	15mm	50
ESDT-10B	10	12	9.6mm	13.0mm	20mm	50
ESDT-12B	12	16	12.0mm	15.8mm	30mm	50
ESDT-17B	17	20	16.4mm	21.1mm	40mm	50
ESDT-23B	23	25	22.6mm	28.4mm	45mm	50
ESDT-29B	29	32	29.0mm	34.3mm	55mm	50
ESDT-36B	36	40	36.5mm	42.5mm	60mm	30
ESDT-48B	48	50	47.5mm	54.5mm	70mm	30
ESDG-56B	56	68	56.5mm	67.0mm	110mm	30
ESDG-70B	70	80	67.5mm	80.0mm	150mm	10
ESDG-95B	95	106	91.5mm	106.0mm	170mm	10

ESD Index



Temperature range: -40° C to 90° C;
Short term to 150° C

Chemical Resistance: Fuels, mineral oils, fats, alkalies, acids, etc.

ESDP Very Flexible, Medium

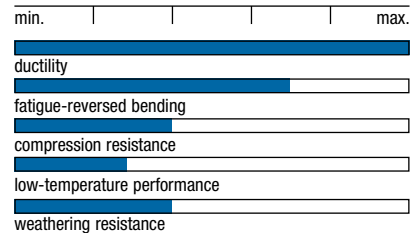
- For dynamic applications in automation, electronics and clean rooms where electrostatic charging and uncontrolled discharge must be avoided
- High-grade, specially modified polyolefin
- Prevents electrostatic charging
- Minimal migration
- Very good dynamic load resistance and good impact resistance
- Free from halogens and cadmium



CAT NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
ESDPT-07B	7	10	6.2mm	10.0mm	15mm	50
ESDPT-10B	10	12	9.6mm	13.0mm	20mm	50
ESDPT-12B	12	16	12.0mm	15.8mm	30mm	50
ESDPT-17B	17	20	16.4mm	21.1mm	40mm	50
ESDPT-23B	23	25	22.6mm	28.4mm	45mm	50
ESDPT-29B	29	32	29.0mm	34.3mm	55mm	50
ESDPT-36B	36	40	36.5mm	42.5mm	60mm	30
ESDPT-48B	48	50	47.5mm	54.5mm	70mm	30



ESDP Index



Temperature range: -20° C to 90° C
continuous

Chemical Resistance: Fuels, mineral oils, fats, alkalies, strong acids, etc.

Fine profile T
Tight bending radius

Coarse profile G
High pull-out strength

*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

PCL Very Flexible, Medium

- Specially modified polyamide 6/6.6 for cold impact
- Very good flexibility
- Self extinguishing
- Free from halogens and cadmium
- High impact strength also at low temperatures



CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT RADIUS [†]	PU METER
PCLT-07B	PCLT-07S	7	10	6.2mm	10.0mm	15mm	50
PCLT-10B	PCLT-10S	10	12	9.6mm	13.0 mm	20mm	50
PCLT-12B*	PCLT-12S	12	16	12.0mm	15.8mm	30mm	50
PCLT-17B *	PCLT-17S*	17	20	16.2mm	21.2mm	40mm	50
PCLT-23B*	PCLT-23S*	23	25	22.6mm	28.5mm	45mm	50
PCLT-29B*	PCLT-29S*	29	32	29.0mm	34.5mm	55mm	50
PCLT-36B*	PCLT-36S*	36	40	36.5mm	42.5mm	60mm	30
PCLT-48B*	PCLT-48S*	48	50	47.5mm	54.5mm	70mm	30
PCLG-17B*	PCLG-17S*	17	20	15.3mm	21.2mm	40mm	50
PCLG-23B*	PCLG-23S*	23	25	21.9mm	28.5mm	45mm	50
PCLG-29B*	PCLG-29S*	29	32	27.6mm	34.5mm	55mm	50
PCLG-36B*	PCLG-36S*	36	40	36.0mm	42.5mm	60mm	30
PCLG-48B*	PCLG-48S*	48	50	47.0mm	54.5mm	70mm	30
PCLG-56B	PCLG-56S	56	68	56.3mm	67.2mm	130mm	30
PCLG-70B	PCLG-70S	70	80	67.5mm	80.0mm	160mm	10
PCLG-95B	PCLG-95S	95	106	91.5mm	106.0mm	210mm	10
PCLG-125B	PCLG-125S	125	146	126.5mm	146.5mm	450mm	6

*CSA certified.


PCS Highly Flexible, Heavy

- High-grade, specially modified polyamide 12
- Excellent resistance to ultraviolet rays and atmospheric corrosion
- Excellent flexibility and is self extinguishing
- Good mechanical strength at low temperatures and dry conditions
- Free from halogens and cadmium




CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT RADIUS [†]	PU METER
PCST-07B	PCST-07S	7	10	6.0mm	10.0mm	15/40mm	100
PCST-10B	PCST-10S	10	12	9.2mm	13.0mm	20/50mm	50
PCST-12B*	PCST-12S*	12	16	11.8mm	15.8mm	25/70mm	50
PCST-17B*	PCST-17S*	17	20	16.0mm	21.2mm	35/80mm	50
PCSG-17B*	PCSG-17S*	17	20	15.2mm	21.2mm	35/85mm	50
PCSG-23B*	PCSG-23S*	23	25	22.0mm	28.5mm	40/110mm	50
PCSG-29B*	PCSG-29S*	29	32	27.7mm	34.4mm	50/130mm	50
PCSG-36B*	PCSG-36S*	36	40	35.8mm	42.4mm	60/180mm	30
PCSG-48B*	PCSG-48S*	48	50	46.8mm	54.4mm	70/220mm	30
PCSG-56B	PCSG-56S	56	68	56.1mm	67.2mm	130/280mm	30
PCSG-70B	PCSG-70S	70	80	66.5mm	80.0mm	170/360mm	10
PCSG-95B	PCSG-95S	95	106	91.0mm	106.0mm	250/470mm	10

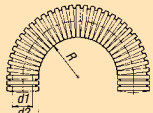
*CSA certified.



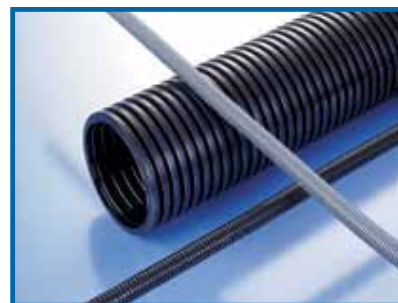
Fine profile T
Tight bending radius



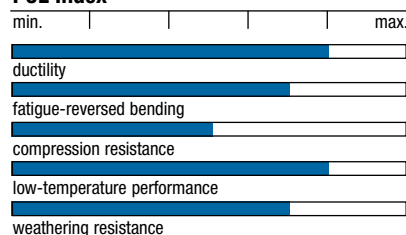
Coarse profile G
High pull-out strength



[†] stat. R = lowest recommended bending radius for static (fixed) installation.



PCL Index

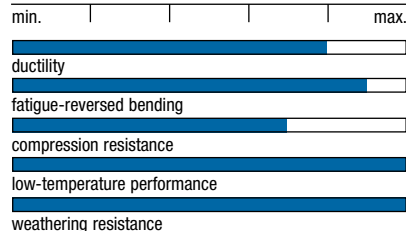


Temperature range: -50° C to 105° C;
Short term to 160° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.



PSC Index



Temperature range: -50° C to 95 °C;
Short term to 150° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.

Nylon Flexible Conduits

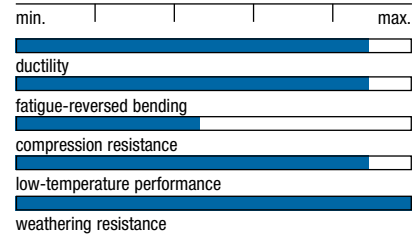
PCSL Very Flexible, Medium-Duty

- Use in dynamic installations in railway vehicles, or in external applications like solar systems and signalling
- High-grade, specially modified polyamide 12
- Excellent resistance to ultraviolet rays and atmospheric corrosion
- Excellent flexibility
- Good mechanical strength at low temperatures and dry conditions
- Self-extinguishing properties
- Free from halogens and cadmium

CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT RADIUS	PU METER
PCSLT-07B	PCSLT-07S	7	10	6.2mm	10.0mm	15mm	50
PCSLT-10B	PCSLT-10S	10	12	9.6mm	13.0mm	20mm	50
PCSLT-12B	PCSLT-12S	12	16	11.9mm	15.8mm	25mm	50
PCSLT-17B	PCSLT-17S	17	20	16.4mm	21.1mm	30mm	50
PCSLG-17B	PCSLG-17S	17	20	15.2mm	21.1mm	30mm	50
PCSLG-23B	PCSLG-23S	23	25	21.7mm	28.4mm	40mm	50
PCSLG-29B	PCSLG-29S	29	32	27.4mm	34.3mm	50mm	50
PCSLG-36B	PCSLG-36S	36	40	35.8mm	42.3mm	60mm	30
PCSLG-48B	PCSLG-48S	48	50	46.7mm	54.2mm	70mm	30



PCSL Index



Temperature range: -50° C to 95° C;
Short term to 150° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.

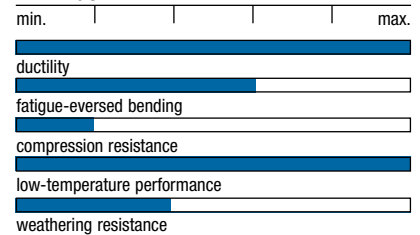
PEL Highly Flexible, Light/Soft

- Use in electrical cabinets and appliance construction
- Specially modified polyethylene
- Self extinguishing
- Low stiffness

CAT. NO. GRAY	CAT. NO. GRAY, SLITTED	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT RADIUS	PU METER
PELT-10S	PELT-10SL	10	12	9.7mm	12.7mm	20mm	50
PELT-12S	PELT-12SL	12	16	11.5mm	15.5mm	30mm	50
PELT-17S	PELT-17SL	17	20	16.0mm	20.9mm	35mm	50
PELT-23S	PELT-23SL	23	25	22.5mm	27.5mm	40mm	30
PELT-29S	PELT-29SL	29	32	28.5mm	33.8mm	50mm	30
PELT-36S	PELT-36SL	36	40	34.0mm	41.6mm	60mm	30
PELT-48S	PELT-48SL	48	50	47.0mm	53.2mm	70mm	30




PEL Index




Temperature range: -50° C to 60° C

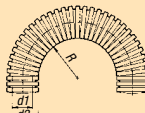
Chemical resistance: Fuels, mineral oils, fats, alkalies, acids, etc.



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

PIS/PIH Highly Flexible, Medium- and Heavy-Duty

- Use in dynamic applications in robotics and automation
- High-grade, specially modified polyamide 12
- PIS: medium-wall (nominal width 07 to 48); after PIH: heavy-wall (nominal width 56 to 125)
- Excellent resistance to ultraviolet rays and atmospheric corrosion
- Self extinguishing
- Excellent flexibility
- Free from halogens and cadmium
- Good mechanical strength at low temperatures and dry conditions



CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT RADIUS [†]	PU METER
PIST-07B	PIST-07S	7	10	6.2mm	10.0mm	15/40mm	50
PIST-10B	PIST-10S	10	12	9.6mm	13.0mm	20/50mm	50
PIST-12B	PIST-12S	12	16	11.9mm	15.8mm	25/65mm	50
PIST-17B	PIST-17S	17	20	16.4mm	21.1mm	30/65mm	50
PIST-23B	PIST-23S	23	25	22.6mm	28.4mm	35/90mm	50
PIST-29B	PIST-29S	29	32	29.0mm	34.3mm	45/110mm	50
PIST-36B	PIST-36S	36	40	36.5mm	42.5mm	60/165mm	30
PIST-48B	PIST-48S	48	50	47.5mm	54.5mm	70/180mm	30
PISG-17B	PISG-17S	17	20	15.2mm	21.1mm	30/80mm	50
PISG-23B	PISG-23S	23	25	21.7mm	28.4mm	40/100mm	50
PISG-29B	PISG-29S	29	32	27.4mm	34.3mm	50/120mm	50
PISG-36B	PISG-36S	36	40	35.8mm	42.3mm	60/180mm	30
PISG-48B	PISG-48S	48	50	46.7mm	54.2mm	70/200mm	30
PIHG-56B	PIHG-56S	56	68	56.3mm	67.2mm	110/270mm	30
PIHG-70B	PIHG-70S	70	80	67.2mm	79.6mm	150/350mm	30
PIHG-95B	PIHG-95S	95	106	91.3mm	106.0mm	170/450mm	30
PIHG-125B	PIHG-125S	125	146	126.5mm	146.5mm	350/480mm	20

† UL Recognized Component.

POS Very Flexible, Medium-Duty

- Use in automation as well as in machine building and industrial installations, especially where continuous movements occur
- High-grade, specially modified polyolefin
- Excellent reversed bending performance and flexibility
- Very good insulating characteristics
- Good impact resistance
- Free from halogens and cadmium

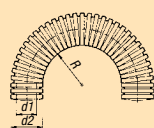
CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT RADIUS [†]	PU METER
POST-07B	POST-07S	7	10	6.2mm	10.0mm	15mm	50
POST-10B	POST-10S	10	12	9.6mm	13.0mm	20mm	50
POST-12B	POST-12S	12	16	11.9mm	15.8mm	30mm	50
POST-17B	POST-17S	17	20	16.2mm	21.2mm	35mm	50
POST-23B	POST-23S	23	25	22.6mm	28.5mm	40mm	50
POST-29B	POST-29S	29	32	29.0mm	34.5mm	50mm	50
POST-36B	POST-36S	36	40	36.5mm	42.5mm	60mm	30
POST-48B	POST-48S	48	50	47.5mm	54.5mm	70mm	30
POSG-29B	POSG-29S	29	32	27.6mm	34.5mm	50mm	50
POSG-36B	POSG-36S	36	40	36.0mm	42.5mm	60mm	30
POSG-48B	POSG-48S	48	50	47.0mm	54.5mm	70mm	30
POSG-70B	POSG-70S	70	80	67.2mm	79.6mm	150mm	30
POSG-95B	POSG-95S	95	106	91.3mm	106.0mm	170mm	30



Fine profile T
Tight bending radius



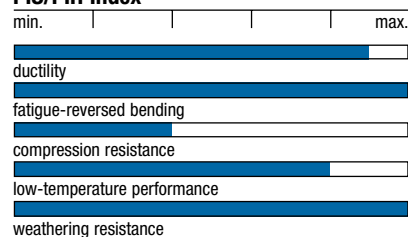
Coarse profile G
High pull-out strength



[†]stat. R = lowest recommended bending radius for static (fixed) installation.



PIS/PIH Index

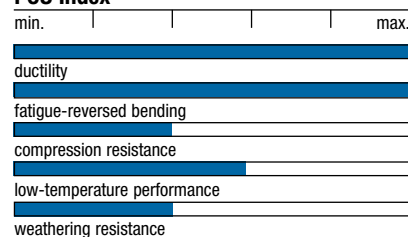


Temperature range: -50° C to 95° C;
Short term to 150° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.



POS Index



Temperature range: -25° C to 95° C;
Short term to 130° C

Chemical resistance: Strong acids

Nylon Flexible Conduits

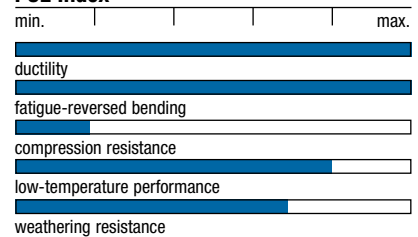
PUE Highly Flexible, Medium

- Use in dynamic applications in robotics and automation
- Specially modified polyurethane
- Free from halogens and cadmium
- Excellent chafing properties

CAT. NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PUET-12B	12	16	11.8mm	15.8mm	25/45mm	50
PUET-17B	17	20	16.0mm	21.2mm	30/50mm	50
PUET-23B	23	25	22.4mm	28.5mm	35/70mm	50
PUET-29B	29	32	28.8mm	34.5mm	40/90mm	30
PUET-36B	36	40	35.8mm	42.4mm	50/120mm	30
PUET-48B	48	50	48.6mm	54.5mm	60/130mm	21
PUEG-56B	56	68	56.3mm	67.2mm	90/170mm	30
PUEG-70B	70	80	68.2mm	80.5mm	100/220mm	30



PUE Index



Temperature range: -60° C to 50° C

Chemical resistance: Fuels, mineral oils and fats, etc.

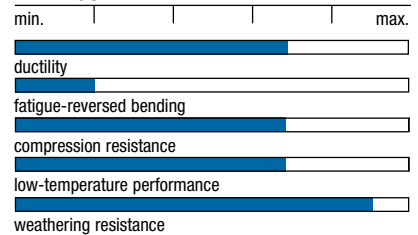
PVD Pliable, Medium

- Use in machine building applications with long-term high-temperature requirements as well as in the chemical and food industries
- Specially formulated PVDF
- Excellent chemical resistance also at high temperatures
- Self extinguishing and free from cadmium
- Excellent UV resistance and very good abrasion resistance
- High stiffness

CAT. NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PVDT-10P	10	12	9.5mm	12.6mm	10mm	50
PVDT-12P	12	16	11.8mm	15.5mm	30mm	50
PVDT-17P	17	20	16.0mm	20.8mm	40mm	50
PVDT-23P	23	25	22.6mm	28.0mm	45mm	50
PVDT-29P	29	32	29.0mm	34.1mm	50mm	50



PVD Index



Temperature range: -60° C to 150° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, strong acids, etc.

Fine profile T
Tight bending radius

Coarse profile G
High pull-out strength

*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

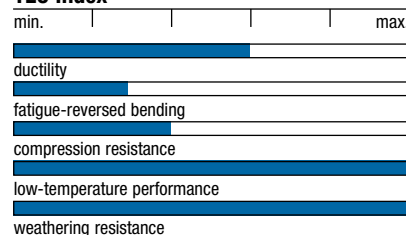
TEC Flexible, Light-Duty

- Use in chemical installations or applications with increased temperature requirements
- Specially formulated PFA
- Very good resistance to extreme low and high temperatures
- Self extinguishing
- Excellent resistance to highly corrosive chemicals

CAT NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
TECT-10B	10	12	9.9mm	13.0mm	9mm	50
TECT-13B	13	—	12.5mm	16.0mm	12mm	50
TECT-17B	17	20	16.8mm	21.1mm	15mm	25
TECT-23B	23	25	23.8mm	28.8mm	26mm	25
TECT-29B	29	32	28.2mm	33.0mm	30mm	25



TEC Index



Temperature range: -200° C to 200° C;
Short term to 260° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, strong acids, etc.

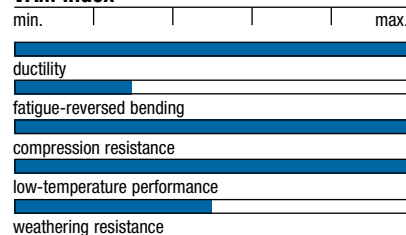
VAM Flexible, Heavy

- In passenger areas of railway vehicles
- Excellent fire safety characteristics allow application in public buildings like hospitals, hotels, airports, train and subway
- High-grade, specially formulated polyamide 6
- Good resistance to ultraviolet rays and weathering
- High impact and compression strength
- High stiffness
- Free from halogens and cadmium
- Outstanding self-extinguishing characteristics
- Minimal development of smoke and gases

CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
VAMT-07B	VAMT-07S	7	10	6.0mm	10.0mm	20mm	50
VAMT-10B	VAMT-10S	10	12	9.2mm	13.0mm	25mm	50
VAMT-12B	VAMT-12S	12	16	11.8mm	15.8mm	30mm	50
VAMT-17B	VAMT-17S	17	20	16.0mm	21.2mm	40mm	50
VAMG-17B	VAMG-17S	17	20	15.2mm	21.2mm	40mm	50
VAMG-23B	VAMG-23S	23	25	22.0mm	28.5mm	50mm	50
VAMG-29B	VAMG-29S	29	32	27.7mm	34.4mm	60mm	50
VAMG-36B	VAMG-36S	36	40	35.8mm	42.4mm	70mm	30
VAMG-48B	VAMG-48S	48	50	46.8mm	54.4mm	80mm	30




VAM Index




Temperature range: -40° C to 105° C;
Short term to 160° C

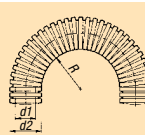
Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

VAML Flexible, Medium

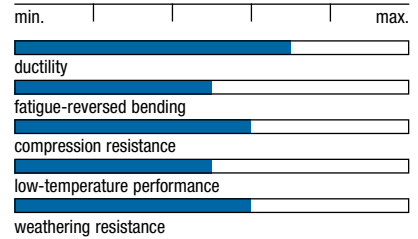
- Use in passenger areas of railway vehicles
- Excellent fire safety characteristics for public buildings
- Specially modified polyamide 6
- Good impact strength
- Good resistance to ultra violet rays and weathering
- Outstanding self-extinguishing characteristics
- Minimal development of smoke and gases
- Free from halogens and cadmium



Temperature range: -40° C to 105° C; short-term to 160° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.

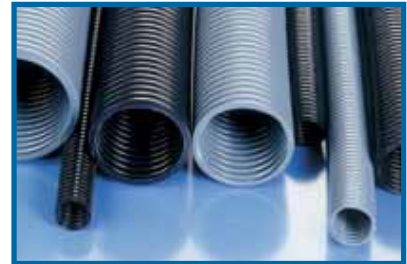
VAML Index



CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
VAMLT-07B	VAMLT-07S	7	10	6.2mm	10.0mm	15mm	50
VAMLT-10B	VAMLT-10S	10	12	9.6mm	13.0mm	20mm	50
VAMLT-12B	VAMLT-12S	12	16	12.0mm	15.8mm	30mm	50
VAMLG-17B	VAMLG-17S	17	20	15.3mm	21.2mm	40mm	50
VAMLG-23B	VAMLG-23S	23	25	22.6mm	28.5mm	45mm	50
VAMLG-29B	VAMLG-29S	29	32	27.6mm	34.5mm	55mm	50
VAMLG-36B	VAMLG-36S	36	40	36.0mm	42.5mm	65mm	30
VAMLG-48B	VAMLG-48S	48	50	47.0mm	54.5mm	75mm	30
VAMLG-56B	VAMLG-56S	56	68	56.3mm	67.2mm	140mm	30
VAMLG-70B	VAMLG-70S	70	80	67.5mm	80.0mm	160mm	10
VAMLG-95B	VAMLG-95S	95	106	91.5mm	106.0mm	210mm	10
VAMLG-125B	VAMLG-125S	125	148	126.0mm	146.5mm	450mm	6

VCS Flexible, Heavy

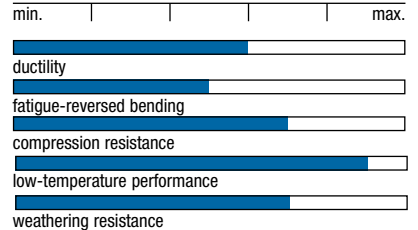
- Use in external applications, static installations in railway vehicles
- High-grade, specially formulated polyamide 6
- Very good resistance to ultraviolet rays and weathering
- Good flexibility
- Self extinguishing
- High compression and impact strengths at low temperature and low humidity
- Free from halogens and cadmium



Temperature range: -50° C to 105° C; short-term to 160° C


Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids, etc.

VCS Index




CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
VCST-07B	VCST-07S	7	10	6.0mm	10.0mm	20mm	100
VCST-10B	VCST-10S	10	12	9.2mm	13.0mm	25mm	50
VCST-12B*	VCST-12S*	12	16	11.8mm	15.8mm	30mm	50
VCST-17B*	VCST-17S*	17	20	16.0mm	21.2mm	40mm	50
VCSG-17B*	VCSG-17S*	17	20	15.2mm	21.2mm	40mm	50
VCSG-23B*	VCSG-23S*	23	25	22.0mm	28.5mm	50mm	50
VCSG-29B*	VCSG-29S*	29	32	27.7mm	34.4mm	60mm	50
VCSG-36B*	VCSG-36S*	36	40	35.8mm	42.4mm	70mm	30
VCSG-48B*	VCSG-48S*	48	50	46.8mm	54.4mm	80mm	30
VCSG-56B	VCSG-56S	56	68	56.1mm	67.2mm	150mm	30
VCSG-70B	VCSG-70S	70	80	66.5mm	80.0mm	200mm	10
VCSG-95B	VCSG-95S	95	106	91.0mm	106.0mm	300mm	10

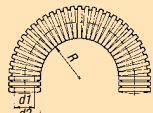
* CSA Certified



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

VOH Pliable, Very Heavy

- Use to make exterior connections on heavy machine equipment
- High-grade specially modified polyamide 6
- High degree of mechanical protection and outstanding pull-out resistance
- For exterior applications in machinery and installations from nominal width 17 according to UL standards
- Self extinguishing
- Robust construction
- Free from halogens and cadmium



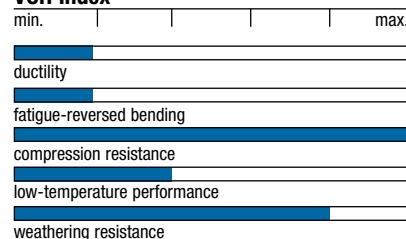
Temperature range: -40° C to 105° C; short-term to 160° C


Chemical resistance: Fuels, mineral oils, fats, alkalis, weak acids, etc.




CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
VOHD-07B	VOHD-07S	7	10	5.8mm	10.0mm	30mm	50
VOHD-10B	VOHD-10S	10	12	9.0mm	13.0mm	35mm	50
VOHD-12B	VOHD-12S	12	16	11.6mm	15.8mm	40mm	50
VOHG-17B	VOHG-17S	17	20	14.5mm	21.0mm	60mm	50
VOHG-23B	VOHG-23S	23	25	21.1mm	28.5mm	70mm	50
VOHG-29B	VOHG-29S	29	32	26.6mm	34.5mm	80mm	50
VOHG-36B	VOHG-36S	36	40	35.0mm	42.5mm	90mm	30
VOHG-48B	VOHG-48S	48	50	46.5mm	54.5mm	100mm	30
VOHG-56B	VOHG-56S	56	68	55.5mm	67.2mm	135mm	30
VOHG-70B	VOHG-70S	70	80	67.0mm	80.0mm	200mm	10
VOHG-95B	VOHG-95S	95	106	90.5mm	106.0mm	300mm	10
VOHG-125B	VOHG-125S	125	146	126.0mm	146.5mm	300mm	6

VOH Index

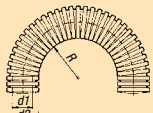




Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

PHT Highly Flexible, Medium/Heavy-Duty

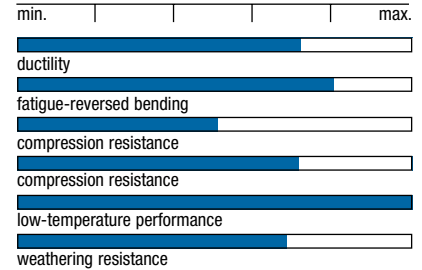
- For applications at high and very low temperatures
- For dynamic applications
- High-grade, specially formulated polyamide elastomer
- High resistance to ultra violet rays and atmospheric corrosion
- Excellent flexibility and high compress strength
- Extremely good impact resistance at very low temperatures
- Enhanced temperature range compared to standard polyamides
- Free from halogens and cadmium



CAT. NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT./DYN. RADIUS*	PU METER
PHTT-07B	07	10	6.2mm	10.0mm	15/40mm	50
PHTT-10B	10	12	9.6mm	13.0mm	20/55mm	50
PHTT-12B	12	16	12.0mm	15.8mm	30/65mm	50
PHTT-17B	17	20	16.2mm	21.2mm	40/70mm	50
PHTT-23B	23	25	22.6mm	28.5mm	45/95mm	50
PHTG-17B	17	20	15.2mm	21.2mm	40/75mm	50
PHTG-23B	23	25	22.0mm	28.5mm	45/100mm	50
PHTG-29B	29	32	27.7mm	34.5mm	55/120mm	50
PHTG-36B	36	40	35.8mm	42.5mm	60/180mm	30
PHTG-48B	48	50	46.8mm	54.5mm	70/200mm	30

Temperature range: -50° C to 135° C;
short term: 180° C

PHT Index



PLU Flexible, Medium-Duty, Semi-Rigid, for Static Applications

- For static applications with the highest fire safety performance requirements (e.g. London Underground)
- Specially modified polyolefin
- Excellent flammability characteristics
- Self-extinguishing properties
- Very good insulating characteristics
- Very good flexibility
- Impact resistance
- Free from halogens and cadmium



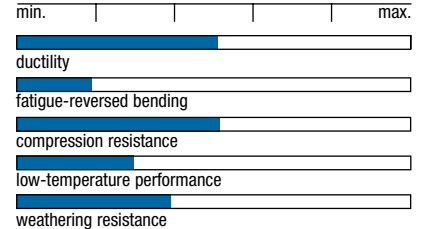
CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PLUT-10B	PLUT-10S	10	9.5mm	13.0mm	20mm	50	50
PLUT-12B	PLUT-12S	12	11.8mm	15.8mm	30mm	50	50
PLUG-17B	PLUG-17S	17	15.3mm	21.2mm	40mm	50	50
PLUG-23B	PLUG-23S	23	22.2mm	28.5mm	45mm	50	50
PLUG-29B	PLUG-29S	29	28.7mm	34.5mm	55mm	50	50
PLUG-36B	PLUG-36S	36	36.3mm	42.5mm	65mm	50	30
PLUG-48B	PLUG-48S	48	47.3mm	54.5mm	70mm	50	30




Temperature range: -25° C to 95° C


Chemical resistance: Strong acids and alkalis

PLU Index

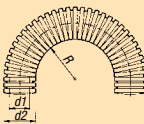




Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



* stat. R = lowest recommended radius for static (fixed) installation.

Nylon Flexible Conduits

POH Very Flexible, Very Supple, Very High Stability, Medium-Duty, Highest Levels of Fire and Passenger Safety


- For applications with the highest fire safety performance requirements
- Specially modified polyolefin
- Excellent fire safety characteristics
- Self extinguishing
- Free from halogens and cadmium
- High ductility and formability enable easy installation
- Very good flexibility
- Very good insulating characteristics
- Impact resistance

CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
POHT-10B	POHT-10S	10	12	9.2mm	13.0mm	13.0mm	50
POHT-12B	POHT-12S	12	16	11.8mm	15.8mm	15.8mm	50
POHG-17B	POHG-17S	17	20	15.7mm	21.2mm	21.2mm	50
POHG-23B	POHG-23S	23	25	22.0mm	28.5mm	28.5mm	50
POHG-29B	POHG-29S	29	32	27.4mm	34.4mm	34.4mm	50
POHG-36B	POHG-36S	36	40	35.8mm	42.4mm	42.4mm	30
POHG-48B	POHG-48S	48	50	46.8mm	54.5mm	54.5mm	30


PSX Flexible, Light-Wall

- For applications with the highest fire safety performance requirements
- For applications with extreme temperature conditions
- For applications exposed to radiation
- Specially modified polyetherimide
- Excellent fire safety characteristics
- Self extinguishing
- Very good insulating characteristics
- High radiation resistance
- Good flexibility
- Impact resistant
- Low smoke density and toxicity
- Free from halogens and cadmium
- High impact strength also at low temperatures

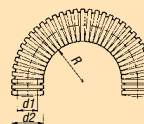
CAT. NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PSXT-10B	07	10	9.8mm	13.0mm	20mm	50
PSXT-12B	10	12	12.2mm	15.8mm	30mm	50
PSXG-17B	12	17	15.8mm	21.2mm	40mm	50
PSXG-23B	17	23	22.3mm	28.5mm	45mm	50
PSXG-29B	23	29	28.0mm	34.5mm	55mm	50
PSXG-36B	17	36	36.5mm	42.5mm	60mm	50
PSXG-48B	23	48	47.5mm	54.5mm	70mm	30



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



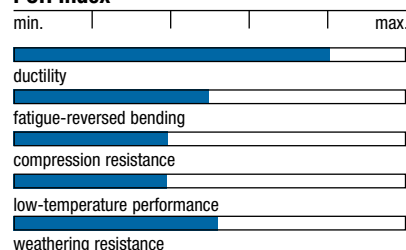
* stat. R = lowest recommended radius for static (fixed) installation.



Temperature range: -25° C to 95° C; short term +120° C

Chemical resistance: Strong acids and alkalis

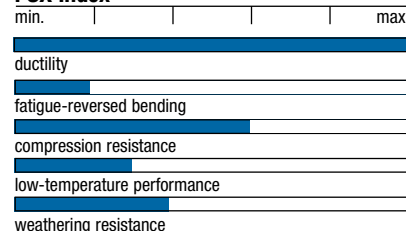
POH Index



Temperature range: -100° C to 170° C; short term to 200° C

Chemical resistance: Oils, fats, acids, alcohols and hot water

PSX Index



Nylon Flexible Conduits

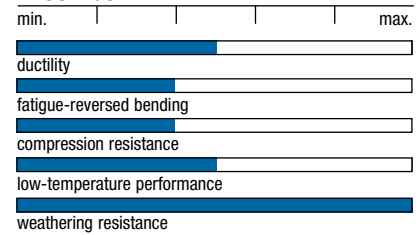
PACO Flexible, Divisible

- Use in machine building and plant construction
- Specially modified polyamide 6
- Easy installation and trouble-free retrofitting, applicable also for repairs
- Can be opened and closed again in longitudinal direction any time
- Self extinguishing
- Free from halogens and cadmium

CAT NO. BLACK	CONDUIT SIZE NW	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PACO-07B	07	6.5mm	10.1mm	45mm	50
PACO-10B	10	8.8mm	13.5mm	55mm	50
PACO-12B	12	11.3mm	16.3mm	60mm	50
PACO-14B	14	13.2mm	18.7mm	75mm	50
PACO-17B	17	16.5mm	21.8mm	90mm	50
PACO-20B	20	20.2mm	25.7mm	105mm	50
PACO-23B	23	23.9mm	31.3mm	125mm	50
PACO-29B	29	27.8mm	35.9mm	150mm	25
PACO-37B	37	32.5mm	41.9mm	170mm	25
PACO-45B	45	43.0mm	54.2mm	200mm	25
PACO-70B	70	66.5mm	79.8mm	300mm	10



PACO Index



Temperature range: -40° C to 100° C;
Short term to 150° C

Chemical resistance:

Fuels, mineral oils, fats, alkalies, weak acids, etc.

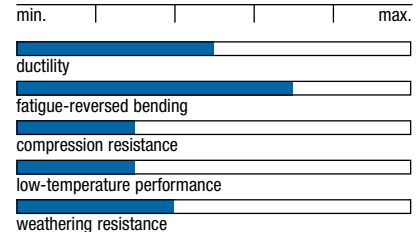
PPCO Flexible, Divisible

- Use in machine building and plant construction
- Specially modified polypropylene PP
- Easy installation and trouble-free retrofitting, applicable also for repairs
- Can be opened and closed again in longitudinal direction any time

CAT NO. BLACK	CONDUIT SIZE NW	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PPCO-07B	07	6.3mm	10.0mm	60 mm	50
PPCO-10B	10	8.4mm	13.4mm	70 mm	50
PPCO-12B	12	11.0mm	16.1mm	80 mm	50
PPCO-14B	14	12.5mm	18.5mm	95 mm	50
PPCO-17B	17	16.0mm	21.5mm	110 mm	50
PPCO-20B	20	19.2mm	25.3mm	130 mm	50
PPCO-23B	23	23.4mm	30.8mm	155 mm	50
PPCO-29B	29	27.3mm	35.5mm	180 mm	25
PPCO-37B	37	31.0mm	41.4mm	190 mm	25
PPCO-45B	45	42.7mm	54.0mm	205 mm	25
PPCO-70B	70	66.0mm	79.5mm	300 mm	10




PPCO Index




Temperature range: -20° C to 95° C;
Short term to 120° C

Chemical resistance:

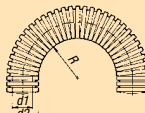
Fuels, mineral oils, fats, alkalies, weak acids, etc.



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

XCYL Very Flexible, Medium-Duty


- Use in machine building and equipment
- Outer layer: high-grade, specially formulated polyamide 6
- Inner layer: specially modified polyolefin
- Very long lifetime — more than 20 years
- Excellent cold temperature performance
- Low-friction inner layer facilitates cable insertion
- Very good resistance to ultraviolet rays and atmospheric corrosion
- Very good mechanical strength while simultaneously highly flexible
- Impermeable to water and steam

CAT NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
XCYL-12BB	12	16	11.7mm	15.5mm	30mm	50
XCYL-17BB	17	20	15.2mm	21.0mm	40mm	50
XCYL-23BB	23	25	21.7mm	28.4mm	50mm	50
XCYL-29BB	29	32	27.5mm	34.3mm	60mm	50
XCYL-36BB	36	40	35.8mm	42.2mm	70mm	30
XCYL-48BB	48	50	46.8mm	54.3mm	80mm	30


XPCL Highly Flexible, Medium-Duty

- Use in machine building and equipment with high requirements
- Outer layer: high-grade, specially formulated polyamide 6
- Intermediate layer: special bonding compound
- Inner layer: specially modified polyolefin
- Self extinguishing
- Very long lifetime, 15–20 years for standard applications
- Easy cable insertion, low-friction inner layer
- Impermeable to water and steam
- Excellent flexibility
- Good mechanical strength even at low temperatures and low humidity

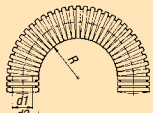
CAT NO. BLACK	CAT NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
XPCL-12BB	XPCL-12SB	12	16	11.8mm	15.6mm	30mm	50
XPCL-17BB	XPCL-17SB	17	20	16.6mm	21.0mm	40mm	50
XPCLG-17BB	XPCLG-17SB	17	20	15.6mm	20.9mm	40mm	50
XPCLG-23BB	XPCLG-23SB	23	25	21.9mm	28.5mm	45mm	50
XPCLG-29BB	XPCLG-29SB	29	32	27.6mm	34.5mm	55mm	50
XPCLG-36BB	XPCLG-36SB	36	40	36.0mm	42.5mm	60mm	30
XPCLG-48BB	XPCLG-48SB	48	50	47.0mm	54.5mm	70mm	30



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength

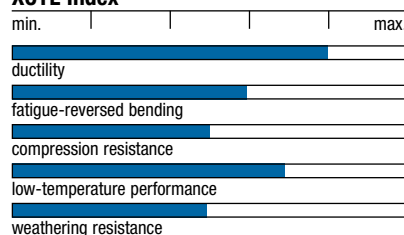


*stat. R = lowest recommended bending radius for static (fixed) installation.



NEW!

XCYL Index

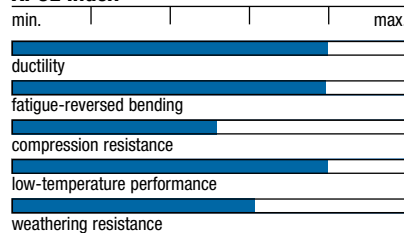


Temperature range: -40° C to +105° C;
Short term to +160° C



NEW!

XPCL Index



Temperature range: -50° C to +105° C;
Short term to +160° C

Nylon Flexible Conduits

XSOL Highly Flexible, Medium-Duty

- All-purpose, especially in long-term external applications, e.g. energy technology, transportation
- Outer layer: high-grade, specially formulated polyamide 12
- Intermediate layer: special bonding compound
- Inner layer: high-grade, specially modified polyamide 6
- Very long lifetime, up to 20–30 years
- Very high flexibility
- Very good mechanical strength
- High impact resistance at low temperature and humidity
- Excellent fire safety characteristics
- Excellent chemical resistance
- Free from halogens and cadmium

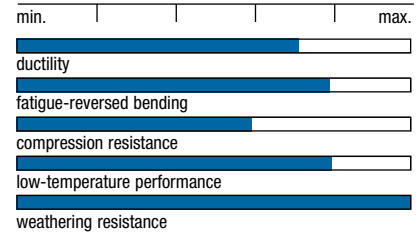


NEW!



CAT. NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
XSOLT-12BG	12	16	11.8mm	15.6mm	50mm	50
XSOLG-17BG	17	20	15.2mm	21.0mm	50mm	50
XSOLG-23BG	23	25	22.0mm	28.5mm	50mm	50
XSOLG-29BG	29	32	27.5mm	34.5mm	50mm	50
XSOLG-36BG	36	40	35.8mm	42.5mm	30mm	30
XSOLG-48BG	48	50	46.8mm	54.5mm	30mm	30

XSOL Index



Temperature range: -50° C to +95° C;
Short term to +150° C

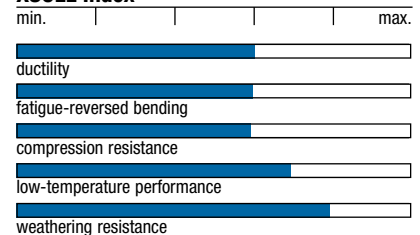
XSOLL Highly Flexible, Medium-Duty

- All-purpose, especially in long-term external applications, e.g. energy technology, transportation, etc.
- Outer layer: high-grade, specially formulated polyamide 12
- Intermediate layer: special bonding compound
- Inner layer: high-grade, specially modified polyamide 6
- Very long lifetime — greater than 20 years
- Very good resistance to UV and weathering
- High flexibility and very good mechanical strength
- High impact resistance at low temperature and humidity
- Good fire safety characteristics
- Excellent chemical resistance
- Free from halogens and cadmium




NEW!


XSOLL Index



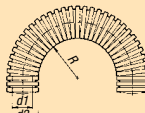
Temperature range: -40° C to +95° C;
Short term to +150° C



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

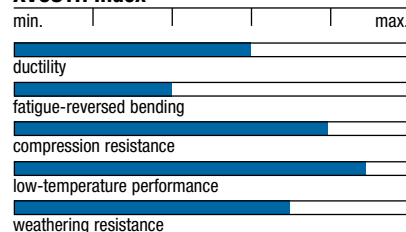
XVCS1H Flexible, Heavy-Duty

- Use in track side applications
- Outer layer: high-grade, specially formulated polyamide 6
- Inner layer: specially modified polyolefin
- High conduit ductility and formability enable easy installation
- Very long lifetime — greater than 20 years
- Excellent cold temperature performance
- Low friction inner layer facilitates cable insertion
- Very good resistance to ultraviolet rays and atmospheric corrosion
- Very good mechanical strength while simultaneously highly flexible
- Impermeable to water and steam



NEW!

XVCS1H Index




Temperature range: -50° C to +90° C;
Short term to +120° C




CAT. NO. BLACK	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
XVCS1H-12BG†	12	16	11.7 mm	15.5 mm	30 mm	50
XVCS1H-17BG	17	20	15.2 mm	21.0 mm	40 mm	50
XVCS1H-23BG	23	25	21.7 mm	28.4 mm	50 mm	50
XVCS1H-29BG	29	32	27.5 mm	34.3 mm	60 mm	50
XVCS1H-36BG	36	40	35.8 mm	42.2 mm	70 mm	30
XVCS1H-48BG	48	50	46.8 mm	54.3 mm	80 mm	30

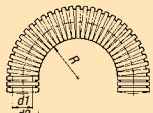
† XVCS1H-12BG is not a UL Recognized Component.



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

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Technical Services
Tel: 888.862.3289

Thomas & Betts

Nylon Flexible Conduits

CUS Flexible, Heavy

- Use in machine building, installation industries and in electrical installations
- High-grade, specially modified polyamide 6
- Cost effective
- Very good flexibility
- Good impact strength also at low temperatures and dry conditions
- Self extinguishing
- Free from halogens and cadmium

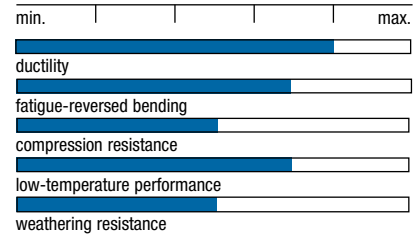


CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
CUSG-17B	CUSG-17S	17	20	16.2mm	21.2mm	40mm	100
CUSG-23B	CUSG-23S	23	25	21.9mm	28.5mm	45mm	100
CUSG-29B	CUSG-29S	29	32	27.6mm	34.4mm	55mm	100
CUSG-36B	CUSG-36S	36	40	36.0mm	42.4mm	60mm	100
CUSG-48B	CUSG-48S	48	50	47.0mm	54.4mm	70mm	100



NEW!

CUS Index



Temperature range: -40° C to 105° C;
Short term to 160° C

PUS Very Flexible, Heavy

- Use in long-term external and dynamic applications, like solar systems, signalling, CCTV
- High-grade, specially modified polyamide 12
- Excellent resistance to ultraviolet rays and atmospheric corrosion
- Excellent flexibility and is self extinguishing
- Good mechanical strength at low temperatures and dry conditions
- Free from halogens and cadmium

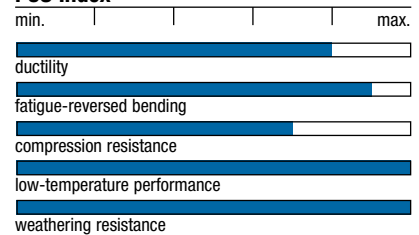


CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT./DYN RADIUS*	PU METER
PUSG-17B	PUSG-17S	17	20	15.2mm	21.2mm	35/85mm	100
PUSG-23B	PUSG-23S	23	25	22.0mm	28.5mm	40/110mm	100
PUSG-29B	PUSG-29S	29	32	27.7mm	34.4mm	50/130mm	100
PUSG-36B	PUSG-36S	36	40	35.8mm	42.4mm	60/180mm	100
PUSG-48B	PUSG-48S	48	50	46.8mm	54.4mm	70/220mm	100



NEW!


PUS Index




Temperature range: -50° C to 95° C;
Short term to 150° C

Chemical resistance:

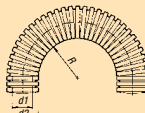
Fuels, mineral oils, fats, alkalis, weak acids, etc.



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

Nylon Flexible Conduits

VUS Flexible, Heavy

- Meet high requirements in machine building and plant construction
- Use where high compression resistance is required
- Great for external applications
- High-grade, specially modified polyamide 6
- Very good resistance to ultraviolet rays and weathering
- Good flexibility and self-extinguishing
- High mechanical strength at low temperatures and low humidity
- Free from halogens and cadmium

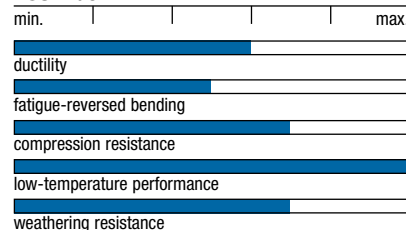


NEW!



CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
VUSG-17B	VUSG-17S	17	20	15.2mm	21.2mm	40mm	100
VUSG-23B	VUSG-23S	23	25	22.0mm	28.5mm	50mm	100
VUSG-29B	VUSG-29S	29	32	27.7mm	34.4mm	60mm	100
VUSG-36B	VUSG-36S	36	40	35.8mm	42.4mm	70mm	100
VUSG-48B	VUSG-48S	48	50	46.8mm	54.4mm	80mm	100


VUS Index




Temperature range: -50° C to 105° C;
Short term to 160° C

Chemical resistance:

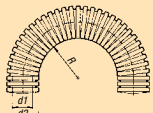
Fuels, mineral oils, fats, alkalies, weak acids, etc.



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

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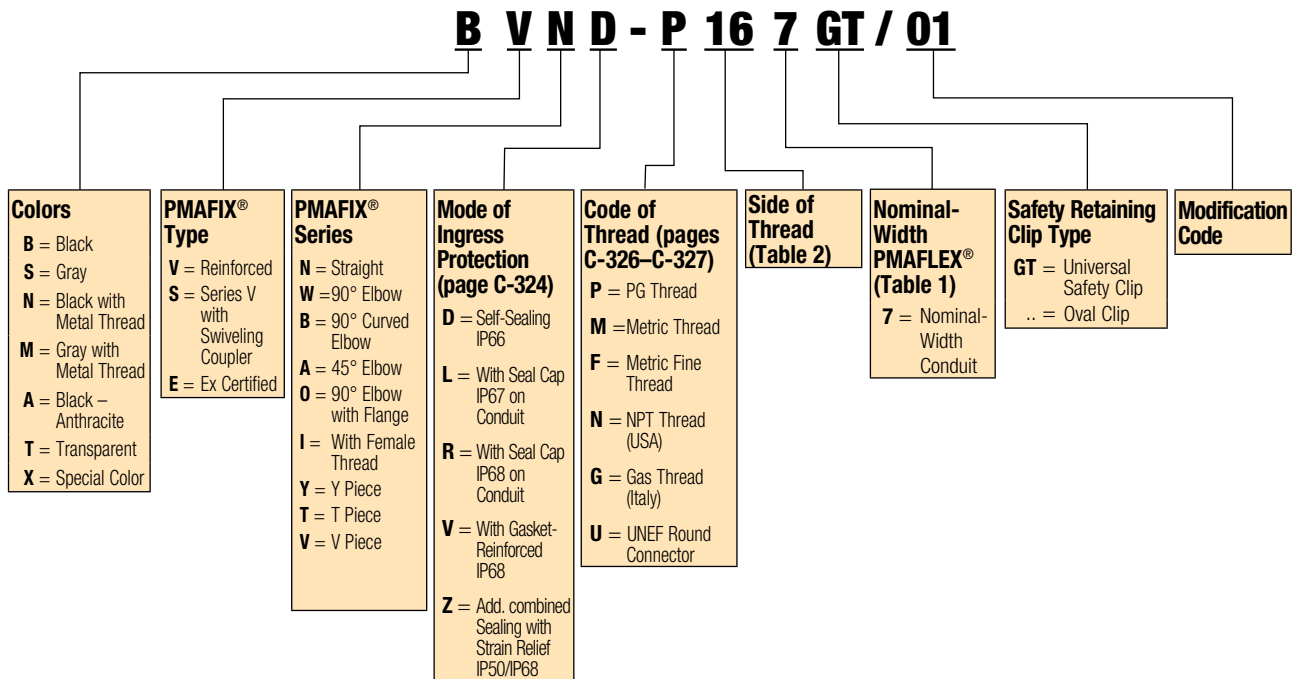
United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

Thomas & Betts

Connectors for Nylon Flexible Conduits

PMAFIX[®] Connectors



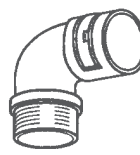
PMAFIX[®] Connector Series



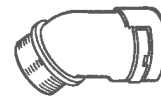
Series N



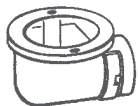
Series W



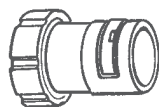
Series B



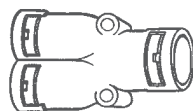
Series A



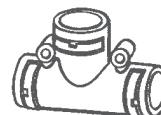
Series O



Series I



Series Y



Series T



Series V

Connectors for Nylon Flexible Conduits

Thread Codes

Table 1
PMAFIX[®]/PMAFLEX[®] Code

NOMINAL WIDTH	UK SIZES	PMA CODE
7	10	M
10	12	0
12	16	2
17	20	7
23	25	3
29	32	9
36	40	6
48	50	8

Types of Connector for Female Thread Adapters

TYPE	PMA CODE
AMP	A
Souriau (ex BURNDY)	B
With O-Ring Groove (MIL C 5015)	G

Table 2
Thread Codes

THREAD METRIC	PMA CODE	THREAD PG	PMA CODE	THREAD GAS	PMA CODE	THREAD NPT	PMA CODE	THREAD UNEF	PMA CODE
M12x1.5	M12	PG07	P07	G ¼"	G00			¾-28 UNEF	U09
M16x1.5	M16	PG09	P09	G ⅜"	G01			7/16-28 UNEF	U10
M20x1.5	M20	PG11	P11	G ½"	G02	N ½"	N02	½-28 UNEF	U12
		PG13.5	P13	G ¾"	G04	N ¾"	N04	9/16-24 UNEF	U13
M25x1.5	M25	PG16	P16	G 1"	G06	N 1"	N06	5/8-24 UNEF	U15
M32x1.5	M32	PG21	P21	G 1¼"	G07	N 1¼"	N07	11/16-24 UNEF	U16
M40x1.5	M40	PG29	P29	G 1½"	G08	N 1½"	N08	¾-20 UNEF	U18
M50x1.5	M50	PG36	P36	G 2"	G09	N 2"	N09	13/16-20 UNEF	U20
M63x1.5	M63	PG42	P42	G 2¼"	G10			7/8-20 UNEF	U21
		PG48	P48	G 2½"	G11			15/16-20 UNEF	U23
								1-20 UNEF	U24
M 8x1.0	F08							1 1/16-18 UNEF	U26
M12x1.0	F12							1 3/16-18 UNEF	U29
M18x1.0	F18							1 1/4-18 UNEF	U30
M30x1.5	F30							1 5/16-18 UNEF	U32
								1 3/8-18 UNEF	U34
								1 7/16-18 UNEF	U35
								1 5/8-18 UNEF	U40
								1 11/16-20 UN	U41
								1 ¾-18 UNS	U43
								2-18 UNS	U50
								2 ¼-16 UN	U56
								2 5/8-12 UN	U57
								2 ½-16 UN	U62

Connectors for Nylon Flexible Conduits

PMAFIX® Connector Safety and Sealing Systems

IP66 — IP66 Static, IP54 Dynamic

- One-piece fitting
- Conical sealing method
- Easy push-in installation
- Pre-installed safety clip AFN2
- Fits any type of conduit profile (T and G)
- Excellent pull-out strength
- Re-opening only possible with a screwdriver for safety reasons



IP68GT — IP68 static, IP67 dynamic, IP69K

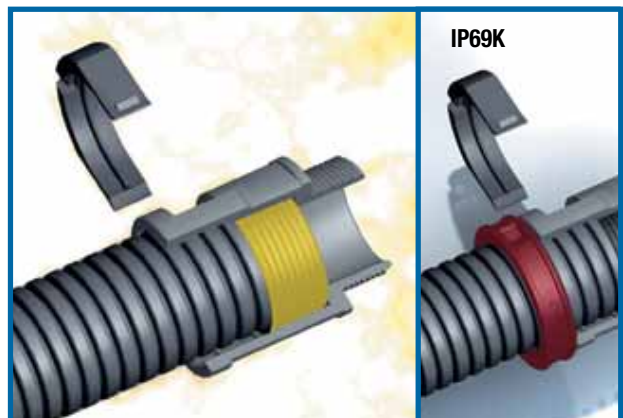
- Single-piece PMAFIX® IP68GT fitting with integrated sealing cap and pre-installed locking clip
- Simple push-in assembly (as with the proven PMAFIX® IP66 system)
- Extra-long sealing cap guarantees the highest level of ingress protection
- Compatible with all types of PMA® conduits
- Identical approvals as with the PMAFIX® IP68 system
- The complete PMAFIX® IP68 product range is available as a GT single-component version
- Fast modification of specification drawings through simple addition of “GT” to the existing order number (e.g. BVNV-M257 becomes BVNV-M257GT)

NEW!



IP68 — IP68 static, IP67 dynamic, IP69K

- High sealing through additional seal cap
- For highest dynamic applications
- Fits any type of conduit profile (T and G)
- Excellent pull-out strength
- Re-opening only possible with a screwdriver for safety reasons
- Additional water-protection ring WPS for IP69K ingress protection in conjunction with the IP68 system
- To be applied right after the IP68 connector onto the conduit



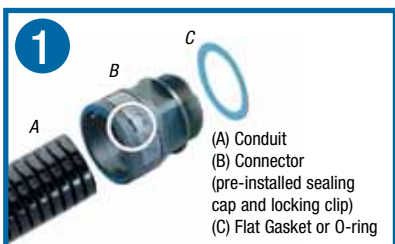
Connectors for Nylon Flexible Conduits

IP66 Installation



Locking clip pre-installed in all IP66 connectors

IP68GT Installation

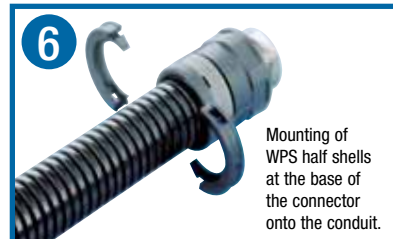
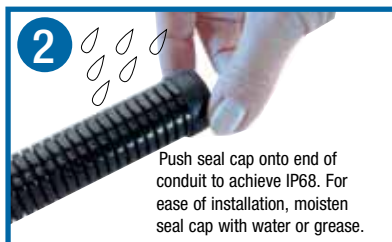
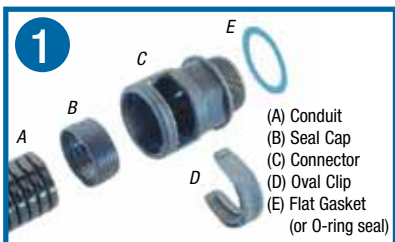


Pre-installed sealing cap and locking clip in all IP68GT connectors

**For safety reasons, oval clip will not fit if seal cap is not fully installed.*

Follow O-ring manufacturer's guidelines when using O-rings for sealing purposes.

IP68 Installation (IP69K)



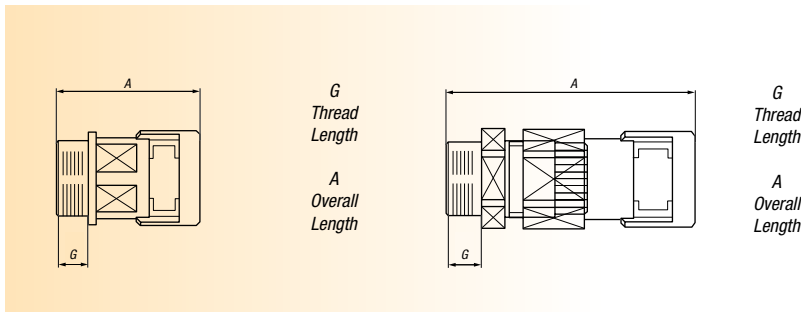
**For safety reasons, oval clip will not fit if seal cap is not fully installed. Follow O-ring manufacturer's guidelines when using O-rings for sealing purposes.*

Connectors for Nylon Flexible Conduits

VN Straight, Metric, Polyimide

The designation PMAFIX® describes a very large range of connectors for PMA conduits with the patented PMA® safety clip system. Connectors are available for ingress protection IP66 and IP68. IP66 connectors are fitted with a pre-installed universal safety clip that ensures a quick push-in installation. IP68 connectors for increased requirements will be delivered with a special conduit seal cap. The new PMAFIX IP68GT fittings combine simplest push-in assembly with highest sealing performance.

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Can be easily re-opened with a screwdriver
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD METRIC	FITS TO CONDUIT		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
_VND-M12MGT	_NVN-M12M	M12x1.5	7	10	11.0mm	34.5mm
_VND-M120GT	_NVN-M120	M12x1.5	10	12	11.0mm	36.5mm
_VND-M160GT	_NVN-M160	M16x1.5	10	12	11.0mm	36.5mm
_VND-M162GT	_NVN-M162	M16x1.5	12	16	11.0mm	39.5mm
_VND-M200GT	_NVN-M200	M20x1.5	10	12	11.0mm	36.5mm
_VND-M202GT	_NVN-M202	M20x1.5	12	16	11.0mm	39.5mm
_VND-M207GT	_NVN-M207	M20x1.5	17	20	11.0mm	47.5mm
_VND-M203GT	_NVN-M203	M20x1.5	23	25	11.0mm	51.0mm
_VND-M257GT	_NVN-M257	M25x1.5	17	20	12.0mm	48.5mm
_VND-M253GT	_NVN-M253	M25x1.5	23	25	12.0mm	52.0mm
_VND-M323GT	_NVN-M323	M32x1.5	23	25	15.0mm	55.5mm
_VND-M329GT	_NVN-M329	M32x1.5	29	32	15.0mm	56.0mm
_VND-M409GT	_NVN-M409	M40x1.5	29	32	19.0mm	60.0mm
_VND-M406GT	_NVN-M406	M40x1.5	36	40	19.0mm	72.5mm
_VND-M506GT	_NVN-M506	M50x1.5	36	40	19.0mm	72.0mm
_VND-M508GT	_NVN-M508	M50x1.5	48	50	19.0mm	72.5mm
_VND-M638GT	_NVN-M638	M63x1.5	48	50	19.0mm	72.0mm

_ = Insert "B" to order black or "S" to order gray.

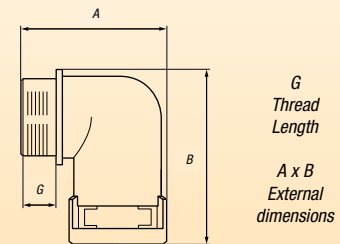
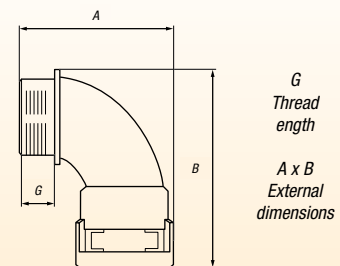
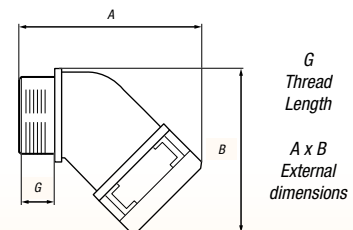
▲ IP68GT available. Please add "GT" after the catalog no.
(Functional description PMAFIX IP68GT, pages E-192-E-193).



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)



Connectors for Nylon Flexible Conduits

VNZ Straight, Metric, Strain Relief, Polyamide

- For cable protection systems in a wide range of applications
- For separation of damp and dry areas
- High-grade formulated polyamide 6, very high impact resistance
- Easy installation: simply push the conduit in
- High conduit pull-out strength
- Integrated strain relief optimally holds and seals cables
- If several conductors are used with the connector, multiple sealing inserts should be considered
- Very good chemical properties, free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2), strain-relief insert
- IP68GT: Fitting with pre-assembled universal clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), strain-relief insert, conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD METRIC	FITS TO CONDUIT		TERMINAL RANGE	THREAD LENGTH	OVERALL LENGTH
			NW	METRIC			
_VNDZ-M160GT	—	M16x1.5	10	12	5.0–10.0mm	8.0mm	62.0mm
_VNDZ-M162GT	_VNZ-M162S	M16x1.5	12	16	5.0–10.0mm	8.0mm	62.0mm
_VNDZ-M207GT	_VNZ-M207S	M20x1.5	17	20	10.0–14.0mm	8.0mm	71.5mm
_VNDZ-M253GT	_VNZ-M253S	M25x1.5	23	25	13.0–18.0mm	8.0mm	81.0mm
_VNDZ-M329GT	_VNZ-M329S	M32x1.5	29	32	18.0–25.0mm	10.0mm	85.0mm
_VNDZ-M406GT	_VNZ-M406S	M40x1.5	36	40	22.0–32.0mm	10.0mm	116.5mm
_VNDZ-M508GT	_VNZ-M508S	M50x1.5	48	50	30.0–38.0mm	12.0mm	120.5mm
_VNDZ-M638GT	_VNZ-M638S	M63x1.5	48	50	34.0–44.0mm	12.0mm	120.5mm

_ = Insert "B" to order black or "S" to order gray.

Note: MDE multiple sealing inserts are available for this product.

▲ IP68GT available. Please replace final "S" with "GT". (Functional description PMAFIX IP68GT, pages E-192–E-193).

VA 45° Elbow, Metric, Polyamide

- For cable protection systems in a wide range of applications
- High-grade specially formulated polyamide 6
- Extremely high impact resistance
- Vibration-proof connection to PMAFLEX conduits
- Easy installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seals (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD METRIC	FITS TO CONDUIT		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
_VAD-M120GT	—	M12x1.5	10	12	11.0mm	43.5 x 37.0mm
_VAD-M160GT	_VAV-M160	M16x1.5	10	12	11.0mm	43.5 x 38.0mm
_VAD-M162GT	_VAV-M162	M16x1.5	12	16	11.0mm	48.0 x 40.0mm
_VAD-M202GT	_VAV-M202	M20x1.5	12	16	11.0mm	48.0 x 41.5mm
_VAD-M207GT	_VAV-M207	M20x1.5	17	20	11.0mm	55.5 x 51.5mm
_VAD-M253GT	_VAV-M253	M25x1.5	23	25	12.0mm	65.0 x 58.5mm
_VAD-M329GT	_VAV-M329	M32x1.5	29	32	15.0mm	73.5 x 66.5mm
_VAD-M406GT	_VAV-M406	M40x1.5	36	40	19.0mm	92.5 x 85.5mm
_VAD-M506GT	_VAV-M506	M50x1.5	36	40	19.0mm	92.5 x 89.5mm
_VAD-M508GT	_VAV-M508	M50x1.5	48	50	19.0mm	100.0 x 96.0mm
_VAD-M638GT	_VAV-M638	M63x1.5	48	50	19.0mm	100.0 x 104.0mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192–E-193).

Connectors for Nylon Flexible Conduits

VB 90° Curved Elbow, Metric, Polyamide

- For cable protection systems in a wide range of applications
- High-grade specially formulated polyamide
- Easy installation, high conduit pull-out strength
- Easy threading of wires and cables
- Self extinguishing
- Free from halogens and phosphor
- Excellent impact strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
<u>VBD-M207GT</u>	<u>VBV-M207</u>	M20x1.5	17	20	11.0mm	47.5 x 73.0mm
<u>VBD-M257GT</u>	<u>VBV-M257</u>	M25x1.5	17	20	12.0mm	48.5 x 76.0mm
<u>VBD-M253GT</u>	<u>VBV-M253</u>	M25x1.5	23	25	12.0mm	57.5 x 83.0mm
<u>VBD-M323GT</u>	<u>VBV-M323</u>	M32x1.5	23	25	15.0mm	61.0 x 87.5mm
<u>VBD-M329GT</u>	<u>VBV-M329</u>	M32x1.5	29	32	15.0mm	70.5 x 93.0mm
<u>VBD-M409GT</u>	<u>VBV-M409</u>	M40x1.5	29	32	19.0mm	74.5 x 98.5mm
<u>VBD-M406GT</u>	<u>VBV-M406</u>	M40x1.5	36	40	19.0mm	85.0 x 121.0mm
<u>VBD-M506GT</u>	<u>VBV-M506</u>	M50x1.5	36	40	19.0mm	85.0 x 125.0mm
<u>VBD-M508GT</u>	<u>VBV-M508</u>	M50x1.5	48	50	19.0mm	98.5 x 130.0mm
<u>VBD-M638GT</u>	<u>VBV-M638</u>	M63x1.5	48	50	19.0mm	98.5 x 138.0mm

_ = Insert with "B" to order black or "S" to order gray.

For smaller conduit sizes NW 07 to NW 12, appropriate standard elbows of type VW are available.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, (pages E-192-E-193).

VW 90° Elbow, Metric, Polyamide

- For cable protection systems in a wide range of applications
- High-grade specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX conduits
- Easy installation: simply push the conduit in
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
<u>VWD-M12MGT</u>	<u>VWV-M12M</u>	M12x1.5	7	10	11.0mm	32.0 x 35.0mm
<u>VWD-M120GT</u>	<u>VWV-M120</u>	M12x1.5	10	12	11.0mm	34.0 x 39.5mm
<u>VWD-M160GT</u>	<u>VWV-M160</u>	M16x1.5	10	12	11.0mm	34.0 x 40.5mm
<u>VWD-M162GT</u>	<u>VWV-M162</u>	M16x1.5	12	16	11.0mm	38.5 x 46.0mm
<u>VWD-M200GT</u>	—	M20x1.5	10	12	11.0mm	34.0 x 42.5mm
<u>VWD-M202GT</u>	<u>VWV-M202</u>	M20x1.5	12	16	11.0mm	38.5 x 47.5mm
<u>VWD-M207GT</u>	<u>VWV-M207</u>	M20x1.5	17	20	11.0mm	43.5 x 58.5mm
<u>VWD-M253GT</u>	<u>VWV-M253</u>	M25x1.5	23	25	12.0mm	54.0 x 65.0mm
<u>VWD-M329GT</u>	<u>VWV-M329</u>	M32x1.5	29	29	15.0mm	64.5 x 73.0mm
<u>VWD-M406GT</u>	<u>VWV-M406</u>	M40x1.5	36	36	19.0mm	78.0 x 96.0mm
<u>VWD-M508GT</u>	<u>VWV-M508</u>	M50x1.5	48	48	19.0mm	91.5 x 106.0mm

_ = Insert with "B" to order black or "S" to order gray.

For the sizes NW 17 to NW 48, curved elbows of type VB are available.

▲ IP68GT available. Please add "GT" after the Catalog no. (Functional description PMAFIX IP68GT, (pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VN Straight, Metric, Metal

- Use in railway vehicle and heavy machine construction
- High-grade specially formulated polyamide, thread made of nickel-plated brass
- Self extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4 or OR)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4 or OR)

CAT. NO. IP68, BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
NVNV-M120-10	MVNV-M120-10	M12x1.5	10	12	10.0mm	40.0mm
NVNV-M120-5	MVNV-M120-5	M12x1.5	10	12	5.0mm	35.0mm
NVNV-M160-10	MVNV-M160-10	M16x1.5	10	12	10.0mm	40.0mm
NVNV-M160-5	MVNV-M160-5	M16x1.5	10	12	5.0mm	35.0mm
NVNV-M162-10	MVNV-M162-10	M16x1.5	12	16	10.0mm	43.0mm
NVNV-M162-5	MVNV-M162-5	M16x1.5	12	16	5.0mm	38.0mm
NVNV-M202-10	MVNV-M202-10	M20x1.5	12	16	10.0mm	43.0mm
NVNV-M202-6	MVNV-M202-6	M20x1.5	12	16	6.0mm	39.0mm
NVNV-M207-10	MVNV-M207-10	M20x1.5	17	20	10.0mm	51.0mm
NVNV-M207-6	MVNV-M207-6	M20x1.5	17	20	6.0mm	47.0mm
NVNV-M257-11	MVNV-M257-11	M25x1.5	17	20	11.0mm	52.0mm
NVNV-M257-7	MVNV-M257-7	M25x1.5	17	20	7.0mm	48.0mm
NVNV-M253-11	MVNV-M253-11	M25x1.5	23	25	11.0mm	54.0mm
NVNV-M253-7	MVNV-M253-7	M25x1.5	23	25	7.0mm	50.0mm
NVNV-M323-13	MVNV-M323-13	M32x1.5	23	25	13.0mm	56.0mm
NVNV-M323-8	MVNV-M323-8	M32x1.5	23	25	8.0mm	51.0mm
NVNV-M329-13	MVNV-M329-13	M32x1.5	29	32	13.0mm	57.3mm
NVNV-M329-8	MVNV-M329-8	M32x1.5	29	32	8.0mm	52.3mm
NVNV-M409-13	MVNV-M409-13	M40x1.5	29	32	13.0mm	57.3mm
NVNV-M409-8	MVNV-M409-8	M40x1.5	29	32	8.0mm	52.3mm
NVNV-M406-13	MVNV-M406-13	M40x1.5	36	40	13.0mm	71.4mm
NVNV-M406-8	MVNV-M406-8	M40x1.5	36	40	8.0mm	66.4mm
NVNV-M506-14	MVNV-M506-14	M50x1.5	36	40	14.0mm	72.4mm
NVNV-M506-9	MVNV-M506-9	M50x1.5	36	40	9.0mm	67.4mm
NVNV-M508-14	MVNV-M508-14	M50x1.5	48	50	14.0mm	72.4mm
NVNV-M508-9	MVNV-M508-9	M50x1.5	48	50	9.0mm	67.4mm
NVNV-M638-14	MVNV-M638-14	M63x1.5	48	50	14.0mm	72.4mm
NVNV-M638-10	MVNV-M638-10	M63x1.5	48	50	10.0mm	68.4mm

▲ IP68GT available. Please add "GT" prior to the thread length (for example, NVNV-M120GT-10).
(Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VNZ Straight, Metric, Strain Relief, Metal



CAT. NO. COMPLETE, BLACK ▲	CAT. NO. FITTING * ▲	CAT. NO. INSERT	THREAD METRIC	FITS TO CONDUIT SIZE		TERMINAL RANGE	THREAD LENGTH	OVERALL LENGTH
				NW	METRIC			
NVNZ-M120S/P1	NVNZ-M120R/P	DE-M120/P1	M12x1.5	10	12	4.0–6.5mm	5.0mm	48.5mm
NVNZ-M120S/P2		DE-M120/P2	M12x1.5	10	12	5.0–8.0mm	5.0mm	48.5mm
NVNZ-M120S/P3		DE-M120/P3	M12x1.5	10	12	6.5–9.5mm	5.0mm	48.5mm
NVNZ-M160S/P1	NVNZ-M160R/P	DE-M160/P1	M16x1.5	10	12	4.0–6.5mm	6.0mm	49.5mm
NVNZ-M160S/P2		DE-M160/P2	M16x1.5	10	12	5.0–8.0mm	6.0mm	49.5mm
NVNZ-M160S/P3		DE-M160/P3	M16x1.5	10	12	6.5–9.5mm	6.0mm	49.5mm
NVNZ-M202S/P1	NVNZ-M202R/P	DE-M202/P1	M20x1.5	12	16	4.0–6.5mm	6.0mm	54.0mm
NVNZ-M202S/P3		DE-M202/P3	M20x1.5	12	16	6.5–9.5mm	6.0mm	54.0mm
NVNZ-M202S/P4		DE-M202/P4	M20x1.5	12	16	7.0–10.5mm	6.0mm	4.0mm
NVNZ-M207S/P3	NVNZ-M207R/P	DE-M207/P3	M20x1.5	17	20	6.5–9.5mm	6.5mm	60.0mm
NVNZ-M207S/P4		DE-M207/P4	M20x1.5	17	20	7.0–10.5mm	6.5mm	60.0mm
NVNZ-M207S/P5		DE-M207/P5	M20x1.5	17	20	9.0–13.0mm	6.5mm	60.0mm
NVNZ-M253S/P5	NVNZ-M253R/P	DE-M253/P5	M25x1.5	23	25	9.0–13.0mm	7.5mm	72.5mm
NVNZ-M253S/P6		DE-M253/P6	M25x1.5	23	25	11.5–15.5mm	7.5mm	72.5mm
NVNZ-M257S/P4	NVNZ-M257R/P	DE-M257/P4	M25x1.5	17	20	7.0–10.0mm	7.5mm	61.5mm
NVNZ-M257S/P5		DE-M257/P5	M25x1.5	17	20	9.0–13.0mm	7.5mm	61.5mm
NVNZ-M257S/P6		DE-M257/P6	M25x1.5	17	20	11.5–15.5mm	7.5mm	61.5mm
NVNZ-M323S/P4	NVNZ-M323R/P	DE-M323/P4	M32x1.5	23	25	14.0–18.0mm	8.0mm	73.0mm
NVNZ-M323S/P5	NVNZ-M323R1/P	DE-M323/P5	M32x1.5	23	25	17.0–20.5mm	8.0mm	73.0mm
NVNZ-M329S/P2	NVNZ-M329R/P	DE-M329/P2	M32x1.5	29	32	14.0–18.0mm	8.0mm	73.0mm
NVNZ-M329S/P3		DE-M329/P3	M32x1.5	29	32	17.0–20.5mm	8.0mm	73.0mm
NVNZ-M329S/P4		DE-M329/P4	M32x1.5	29	32	20.0–25.0mm	8.0mm	73.0mm
NVNZ-M406S/P1	NVNZ-M406R/P	DE-M406/P1	M40x1.5	36	40	20.0–25.0mm	9.0mm	87.0mm
NVNZ-M406S/P2		DE-M406/P2	M40x1.5	36	40	24.0–28.0mm	9.0mm	87.0mm
NVNZ-M409S/P1	NVNZ-M409R/P	DE-M409/P1	M40x1.5	29	32	11.5–15.5mm	8.0mm	73.0mm
NVNZ-M409S/P2		DE-M409/P2	M40x1.5	29	32	14.0–18.0mm	8.0mm	73.0mm
NVNZ-M409S/P3		DE-M409/P3	M40x1.5	29	32	17.0–20.5mm	8.0mm	73.0mm
NVNZ-M409S/P4		DE-M409/P4	M40x1.5	29	32	20.0–25.0mm	8.0mm	73.0mm
NVNZ-M409S/P5		DE-M409/P5	M40x1.5	29	32	24.0–28.0mm	8.0mm	73.0mm
NVNZ-M506S/P1	NVNZ-M506R/P	DE-M506/P1	M50x1.5	36	40	27.0–32.0mm	9.0mm	89.5mm
NVNZ-M506S/P3		DE-M506/P3	M50x1.5	36	40	32.0–36.0mm	9.0mm	89.5mm
NVNZ-M508S/P2	NVNZ-M508R/P	DE-M508/P2	M50x1.5	48	50	32.0–36.0mm	9.0mm	92.0mm
NVNZ-M508S/P3		DE-M508/P3	M50x1.5	48	50	36.0–40.0mm	9.0mm	92.0mm
NVNZ-M638S/P1	NVNZ-M638R/P	DE-M638/P1	M63x1.5	48	50	35.0–40.0mm	10.0mm	90.5mm
NVNZ-M638S/P2		DE-M638/P2	M63x1.5	48	50	39.0–44.0mm	10.0mm	90.5mm

* = without insert

Note: MDE multiple sealing inserts are available for this product.

▲ IP68GT available. Please replace "S" or "R" with "GT" (for example, NVNZ-M120GT/P1, NVNZ-M120GT/P).

(Functional description PMAFIX IP68GT, pages E-192–E-193).



- Use in railway vehicle and heavy machine construction and for the separation of damp and dry areas
- High-grade, specially formulated polyamide 6, thread made of nickel-plate brass, sealing inserts are made from TPE-V
- Very high impact resistance
- Integrated strain relief and optimal ingress protection at the cable (up to IP68/10 bar)
- High thread and system connection strength
- Vibration-resistant connection to PMAFLEX conduits
- Easy assembly
- High conduit pull-out strength
- Very good chemical properties
- Polyamide free from halogens and cadmium
- Excellent impact strength
- Fits fine (T) and coarse (G) conduit profiles
- For several conductors, multiple sealing inserts are available (MDE)

Temperature range: -40° C to 105° C;
Short term to 135° C

Content of delivery:

IP68GT:

Complete: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); sealing insert, O-ring (OR)

Fitting*: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); O-ring (OR)

IP68:

Complete: Fitting with oval clips (OVN2), sealing insert, conduit seal (NVN3), O-ring (OR)

Fitting*: Fitting with oval clips (OVN2), conduit seal (NVN3), O-ring (OR)

Connectors for Nylon Flexible Conduits

VNZ Straight, Metric, Strain Relief, Metal (continued)



CAT. NO. ▲ COMPLETE, BLACK	CAT. NO. ▲ FITTING *	CAT. NO. INSERT	THREAD METRIC	FITS TO CONDUIT SIZE		TERMINAL RANGE	THREAD LENGTH	OVERALL LENGTH
				NW	METRIC			
NVNZ-M160S/P1-L	NVNZ-M160R/ P-L	DE-M160/P1	M16x1.5	10	12	4.0–6.5mm	15.0mm	58.5mm
NVNZ-M160S/P2-L		DE-M160/P2	M16x1.5	10	12	5.0–8.0mm	15.0mm	58.5mm
NVNZ-M160S/P3-L		DE-M160/P3	M16x1.5	10	12	6.5–9.5mm	15.0mm	58.5mm
NVNZ-M202S/P1-L	NVNZ-M202R/ P-L	DE-M202/P1	M20x1.5	12	16	4.0–6.5mm	15.0mm	62.5mm
NVNZ-M202S/P3-L		DE-M202/P3	M20x1.5	12	16	6.5–9.5mm	15.0mm	62.5mm
NVNZ-M202S/P4-L		DE-M202/P4	M20x1.5	12	16	7.0–10.5mm	15.0mm	62.5mm
NVNZ-M207S/P3-L	NVNZ-M207R/ P-L	DE-M207/P3	M20x1.5	17	20	6.5–9.5mm	15.0mm	68.5mm
NVNZ-M207S/P4-L		DE-M207/P4	M20x1.5	17	20	7.0–10.5mm	15.0mm	68.5mm
NVNZ-M207S/P5-L		DE-M207/P5	M20x1.5	17	20	9.0–13.0mm	15.0mm	68.5mm
NVNZ-M257S/P5-L	NVNZ-M257R/ P-L	DE-M257/P5	M25x1.5	17	20	9.0–13.0mm	15.0mm	69.0mm
NVNZ-M257S/P6-L		DE-M257/P6	M25x1.5	17	20	11.5–15.5mm	15.0mm	69.0mm
NVNZ-M323S/P4-L	NVNZ-M323R/ P-L	DE-M323/P4	M32x1.5	23	25	14.0–18.0mm	15.0mm	80.0mm
NVNZ-M323S/P5-L	NVNZ-M323R1/ P-L	DE-M323/P5	M32x1.5	23	25	17.0–20.5mm	15.0mm	80.0mm
NVNZ-M329S/P2-L	NVNZ-M329R/ P-L	DE-M329/P2	M32x1.5	29	32	14.0–18.0mm	15.0mm	91.0mm
NVNZ-M329S/P3-L		DE-M329/P3	M32x1.5	29	32	17.0–20.5mm	15.0mm	91.0mm
NVNZ-M409S/P3-L	NVNZ-M409R/ P-L	DE-M409/P3	M40x1.5	29	32	17.0–20.5mm	15.0mm	80.0mm
NVNZ-M409S/P4-L		DE-M409/P4	M40x1.5	29	32	20.0–25.0mm	15.0mm	80.0mm
NVNZ-M409S/P5-L		DE-M409/P5	M40x1.5	29	32	24.0–28.0mm	15.0mm	80.0mm
NVNZ-M506S/P1-L	NVNZ-M506R/ P-L	DE-M506/P1	M50x1.5	36	40	27.0–32.0mm	15.0mm	94.5mm
NVNZ-M506S/P3-L		DE-M506/P3	M50x1.5	36	40	32.0–36.0mm	15.0mm	94.5mm
NVNZ-M508S/P2-L	NVNZ-M508R/ P-L	DE-M508/P2	M50x1.5	48	50	32.0–36.0mm	15.0mm	97.0mm
NVNZ-M508S/P3-L		DE-M508/P3	M50x1.5	48	50	36.0–40.0mm	15.0mm	97.0mm
NVNZ-M638S/P1-L	NVNZ-M638R/ P-L	DE-M638/P1	M63x1.5	48	50	35.0–40.0mm	15.0mm	95.5mm
NVNZ-M638S/P2-L		DE-M638/P2	M63x1.5	48	50	39.0–44.0mm	15.0mm	95.5mm

* = without insert

Note: MDE multiple sealing inserts are available for this product.

▲ IP68GT available. Please replace "S" or "R" with "GT" (for example, NVNZ-M120GT/P1).

(Functional description PMAFIX IP68GT, pages E-192–E-193).

Connectors for Nylon Flexible Conduits

VA 45° Elbow, Metric, Metal

- Use in railway vehicle and heavy machine construction
- Specially formulated polyamide 6, nickel-plated brass thread
- Very high impact resistance
- High thread and system connection strength
- Vibration-proof connection to PMAFLEX conduits
- Easy assembly



CAT. NO. IP68, BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
NVAV-M120-10	MVAV-M120-10	M12x1.5	10	12	10.0mm	48.5 x 37.0mm
NVAV-M120-5	MVAV-M120-5	M12x1.5	10	12	5.0mm	43.5 x 37.0mm
NVAV-M162-10	MVAV-M162-10	M16x1.5	12	16	10.0mm	53.0 x 40.5mm
NVAV-M162-5	MVAV-M162-5	M16x1.5	12	16	5.0mm	48.0 x 40.5mm
NVAV-M207-10	MVAV-M207-10	M20x1.5	17	20	10.0mm	60.5 x 51.5mm
NVAV-M207-6	MVAV-M207-6	M20x1.5	17	20	6.0mm	56.5 x 51.5mm
NVAV-M253-11	MVAV-M253-11	M25x1.5	23	25	11.0mm	70.0 x 60.5mm
NVAV-M253-7	MVAV-M253-7	M25x1.5	23	25	7.0mm	66.0 x 60.5mm
NVAV-M257-11	MVAV-M257-11	M25x1.5	17	20	11.0mm	61.5 x 54.5mm
NVAV-M323-13	MVAV-M323-13	M32x1.5	23	25	13.0mm	72.0 x 64.5mm
NVAV-M329-13	MVAV-M329-13	M32x1.5	29	32	13.0mm	77.0 x 68.0mm
NVAV-M329-8	MVAV-M329-8	M32x1.5	29	32	8.0mm	72.0 x 68.0mm
NVAV-M406-13	MVAV-M406-13	M40x1.5	36	40	13.0mm	94.0 x 87.5mm
NVAV-M406-8	MVAV-M406-8	M40x1.5	36	40	8.0mm	89.0 x 87.5mm
NVAV-M409-13	MVAV-M409-13	M40x1.5	29	32	13.0mm	77.0 x 73.0mm
NVAV-M506-14	MVAV-M506-14	M50x1.5	36	40	14.0mm	95.0 x 92.5mm
NVAV-M508-14	MVAV-M508-14	M50x1.5	48	50	14.0mm	102.0 x 101.0mm
NVAV-M508-9	MVAV-M508-9	M50x1.5	48	50	9.0mm	97.0 x 101.0mm
NVAV-M638-14	MVAV-M638-14	M63x1.5	48	50	14.0mm	102.0 x 104.0mm
NVAV-M638-10	MVAV-M638-10	M63x1.5	48	50	10.0mm	98.0 x 104.0mm

▲ IP68GT available. Please add "GT" prior to the thread length (e.g. NVAV-M120GT-10).
(Functional description PMAFIX IP68GT, pages E-192-E-193).



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3GT); thread seal (SVN4 or OR)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4 or OR)

VB 90° Curved Elbow, Metric, Metal

- Use in railway vehicle and heavy machine construction
- High-grade formulated polyamide, thread made of nickel-plated brass
- Self extinguishing
- Free from halogens and cadmium
- Excellent impact strength



CAT. NO. IP68, BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
NVBV-M207-10	MVBV-M207-10	M20x1.5	17	20	10.0mm	51.0 x 73.0mm
NVBV-M207-6	MVBV-M207-6	M20x1.5	17	20	6.0mm	47.0 x 73.0mm
NVBV-M257-11	MVBV-M257-11	M25x1.5	17	20	11.0mm	52.0 x 76.0mm
NVBV-M257-7	MVBV-M257-7	M25x1.5	17	20	7.0mm	48.0 x 76.0mm
NVBV-M253-11	MVBV-M253-11	M25x1.5	23	25	11.0mm	62.5 x 85.0mm
NVBV-M253-7	MVBV-M253-7	M25x1.5	23	25	7.0mm	58.5 x 85.0mm
NVBV-M323-13	MVBV-M323-13	M32x1.5	23	25	13.0mm	64.5 x 89.0mm
NVBV-M323-8	MVBV-M323-8	M32x1.5	23	25	8.0mm	59.5 x 89.0mm
NVBV-M329-13	MVBV-M329-13	M32x1.5	29	32	13.0mm	74.0 x 94.5mm
NVBV-M329-8	MVBV-M329-8	M32x1.5	29	32	8.0mm	69.0 x 94.5mm
NVBV-M409-13	MVBV-M409-13	M40x1.5	29	32	13.0mm	75.5 x 100.5mm
NVBV-M409-8	MVBV-M409-8	M40x1.5	29	32	8.0mm	70.5 x 100.5mm
NVBV-M406-13	MVBV-M406-13	M40x1.5	36	40	13.0mm	86.5 x 123.0mm
NVBV-M406-8	MVBV-M406-8	M40x1.5	36	40	8.0mm	81.5 x 123.0mm
NVBV-M506-14	MVBV-M506-14	M50x1.5	36	40	14.0mm	87.5 x 130.0mm
NVBV-M506-9	MVBV-M506-9	M50x1.5	36	40	9.0mm	82.5 x 130.0mm
NVBV-M508-14	MVBV-M508-14	M50x1.5	48	50	14.0mm	100.5 x 135.0mm
NVBV-M508-9	MVBV-M508-9	M50x1.5	48	50	9.0mm	95.5 x 135.0mm
NVBV-M638-10	MVBV-M638-10	M63x1.5	48	50	14.0mm	100.5 x 138.0mm
NVBV-M638-14	MVBV-M638-14	M63x1.5	48	50	10.0mm	96.5 x 138.0mm

Appropriate standard elbows of type VW are available for smaller conduit sizes NW 10 to NW 12.

▲ IP68GT available. Please add "GT" prior to the thread length (e.g. NVBV-M207GT-10).
(Functional description PMAFIX IP68GT, pages E-192-E-193).



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4 or OR)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4 or OR)

Connectors for Nylon Flexible Conduits

VW 90° Elbow, Metric, Metal

- Use in railway vehicle and heavy machine construction
- High-grade formulated polyamide, thread made of nickel-plated brass
- Self extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4 or OR)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4 or OR)

CAT. NO. IP68, BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
NVWV-M120-10	MVWV-M120-10	M12x1.5	10	12	10.0mm	37.5 x 39.5mm
NVWV-M120-5	MVWV-M120-5	M12x1.5	10	12	5.0mm	32.5 x 39.5mm
NVWV-M160-10	MVWV-M160-10	M16x1.5	10	12	10.0mm	37.5 x 41.5mm
NVWV-M160-5	MVWV-M160-5	M16x1.5	10	12	5.0mm	32.5 x 41.5mm
NVWV-M162-10	MVWV-M162-10	M16x1.5	12	16	10.0mm	42.0 x 46.5mm
NVWV-M162-5	MVWV-M162-5	M16x1.5	12	16	5.0mm	37.0 x 46.5mm
NVWV-M202-10	MVWV-M202-10	M20x1.5	12	16	10.0mm	42.0 x 49.0mm
NVWV-M202-6	MVWV-M202-6	M20x1.5	12	16	6.0mm	38.0 x 49.0mm
NVWV-M207-10	MVWV-M207-10	M20x1.5	17	20	10.0mm	47.0 x 58.5mm
NVWV-M207-6	MVWV-M207-6	M20x1.5	17	20	6.0mm	43.0 x 58.5mm
NVWV-M253-11	MVWV-M253-11	M25x1.5	23	25	11.0mm	59.0 x 67.0mm
NVWV-M253-7	MVWV-M253-7	M25x1.5	23	25	7.0mm	55.0 x 67.0mm
NVWV-M329-13	MVWV-M329-13	M32x1.5	29	32	13.0mm	68.0 x 74.5mm
NVWV-M329-8	MVWV-M329-8	M32x1.5	29	32	8.0mm	63.0 x 74.5mm
NVWV-M406-13	MVWV-M406-13	M40x1.5	36	40	13.0mm	80.5 x 98.0mm
NVWV-M406-8	MVWV-M406-8	M40x1.5	36	40	8.0mm	75.5 x 98.0mm
NVWV-M508-14	MVWV-M508-14	M50x1.5	48	50	14.0mm	95.5 x 111.0mm
NVWV-M508-9	MVWV-M508-9	M50x1.5	48	50	9.0mm	90.5 x 111.0mm
NVWV-M638-14	MVWV-M638-14	M63x1.5	48	50	14.0mm	94.5 x 114.0mm
NVWV-M638-10	MVWV-M638-10	M63x1.5	48	50	10.0mm	90.5 x 114.0mm

▲ IP68GT available. Please add "GT" prior to the thread length (e.g. NVWV-M120GT-10).
(Functional description PMAFIX IP68GT, pages E-192-E-193).

VWZ 90° Elbow, Metric, Strain Relief, Metal

- Use in railway vehicle construction and heavy machine construction
- Separate damp and dry areas
- High-grade formulated polyamide PA straight fitting with nickel-plated brass female thread, zinc diecast (90° elbow), sealing insert TPE-V
- With corresponding seals, IP68 static/IP67 dynamic cable = IP68 (10 bar)
- Self extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 135° C

Content of delivery:

- IP68GT: Complete: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); sealing insert, O-ring (OR)
Fitting*: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); O-ring (OR)
- IP68: Complete: Fitting with oval clips (OVN2), sealing insert, conduit seal (NVN3), O-ring (OR)
Fitting*: Fitting with oval clips (OVN2), conduit seal (NVN3), O-ring (OR)

CAT. NO. IP68 ▲	CAT. NO. ▲ COMPLETE, BLACK	CAT. NO. ▲ FITTING *	CAT. NO. INSERT	THREAD METRIC	FITS TO CONDUIT SIZE		TERMINAL RANGE	THREAD LENGTH	OVERALL LENGTH
					NW	METRIC			
NVWZ-M160S/P1	NVWZ-M160R/P	DE-M160/P1	DE-M160/P1	M16x1.5	10	12	4.0-6.5mm	8.0mm	65.0mm
NVWZ-M160S/P2		DE-M160/P2	DE-M160/P2	M16x1.5	10	12	5.0-8.0mm	8.0mm	65.0mm
NVWZ-M160S/P3		DE-M160/P3	DE-M160/P3	M16x1.5	10	12	6.5-9.5mm	8.0mm	65.0mm
NVWZ-M202S/P1	NVWZ-M202R/P	DE-M202/P1	DE-M202/P1	M20x1.5	12	16	4.0-6.5mm	8.0mm	74.5mm
NVWZ-M202S/P3		DE-M202/P3	DE-M202/P3	M20x1.5	12	16	6.5-9.5mm	8.0mm	74.5mm
NVWZ-M202S/P4		DE-M202/P4	DE-M202/P4	M20x1.5	12	16	7.0-10.5mm	8.0mm	74.5mm
NVWZ-M207S/P3	NVWZ-M207R/P	DE-M207/P3	DE-M207/P3	M20x1.5	17	20	6.5-9.5mm	8.0mm	81.0mm
NVWZ-M207S/P4		DE-M207/P4	DE-M207/P4	M20x1.5	17	20	7.0-10.5mm	8.0mm	81.0mm
NVWZ-M207S/P5		DE-M207/P5	DE-M207/P5	M20x1.5	17	20	9.0-13.0mm	8.0mm	81.0mm
NVWZ-M257S/P5	NVWZ-M257R/P	DE-M257/P5	DE-M257/P5	M25x1.5	17	20	9.0-13.0mm	8.0mm	84.0mm
NVWZ-M257S/P6		DE-M257/P6	DE-M257/P6	M25x1.5	17	20	11.5-15.5mm	8.0mm	84.0mm

* = without insert

▲ IP68GT available. Please replace "S" with "GT" (for example NVWZ-M160GT/P1).
(Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VN Straight, PG, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
_VND-P07MGT-11	_VNV-P07M	7	7	10	11.0mm	34.5mm
_VND-P07MGT-8	—	7	7	10	8.0mm	31.5mm
_VND-P070GT-11	_VNV-P070	7	10	12	11.0mm	36.5mm
_VND-P070GT-8	—	7	10	12	8.0mm	33.5mm
_VND-P072GT-11	_VNV-P072	7	12	16	11.0mm	39.0mm
_VND-P072GT-8	—	7	12	16	8.0mm	36.0mm
_VND-P09MGT-11	_VNV-P09M	9	7	10	11.0mm	34.5mm
_VND-P09MGT-8	—	9	10	12	8.0mm	31.5mm
_VND-P090GT-11	_VNV-P090	9	10	12	11.0mm	36.5mm
_VND-P090GT-8	—	9	10	12	8.0mm	33.5mm
_VND-P092GT-11	_VNV-P092	9	12	16	11.0mm	39.0mm
_VND-P092GT-8	—	9	12	16	8.0mm	36.0mm
_VND-P097GT-11	_VNV-P097	9	17	20	11.0mm	47.5mm
_VND-P097GT-8	—	9	17	20	8.0mm	44.5mm
_VND-P11MGT-11	_VNV-P11M	11	7	10	11.0mm	34.5mm
_VND-P11MGT-8	—	11	7	10	8.0mm	31.5mm
_VND-P110GT-11	_VNV-P110	11	10	12	11.0mm	36.5mm
_VND-P110GT-8	—	11	10	12	8.0mm	33.5mm
_VND-P112GT-11	_VNV-P112	11	12	16	11.0mm	39.0mm
_VND-P112GT-8	—	11	12	16	8.0mm	36.0mm
_VND-P117GT-11	_VNV-P117	11	17	20	11.0mm	47.5mm
_VND-P117GT-8	—	11	17	20	8.0mm	44.5mm
_VND-P13MGT-11	_VNV-P13M	13.5	7	10	11.0mm	34.5mm
_VND-P13MGT-8	—	13.5	7	10	8.0mm	31.5mm
_VND-P130GT-11	_VNV-P130	13.5	10	12	11.0mm	36.5mm
_VND-P130GT-8	—	13.5	10	12	8.0mm	33.5mm
_VND-P132GT-11	_VNV-P132	13.5	12	16	11.0mm	39.0mm
_VND-P132GT-8	—	13.5	12	16	8.0mm	36.0mm
_VND-P137GT-11	_VNV-P137	13.5	17	20	11.0mm	47.5mm
_VND-P137GT-8	—	13.5	17	20	8.0mm	44.0mm
_VND-P160GT-11	—	16	10	12	11.0mm	36.5mm
_VND-P160GT-8	—	16	10	12	8.0mm	33.5mm
_VND-P162GT-11	_VNV-P162	16	12	16	11.0mm	39.0mm
_VND-P163GT-11	_VNV-P163	16	23	25	11.0mm	51.5mm
_VND-P163GT-8	—	16	23	25	8.0mm	48.0mm
_VND-P167GT-11	_VNV-P167	16	17	20	11.0mm	47.5mm
_VND-P167GT-8	—	16	17	20	8.0mm	44.5mm
_VND-P213GT	_VNV-P213	21	23	25	12.0mm	52.0mm
_VND-P296GT	_VNV-P296	29	36	40	12.0mm	67.5mm
_VND-P299GT	_VNV-P299	29	29	32	12.0mm	53.0mm
_VND-P366GT	_VNV-P366	36	36	40	13.0mm	66.0mm
_VND-P368GT	_VNV-P368	36	48	50	13.0mm	68.5mm
_VND-P428GT	_VNV-P428	42	48	50	13.0mm	68.5mm
_VND-P488GT	_VNV-P488	48	48	50	13.0mm	66.5mm

— = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VNZ Straight, PG, Strain Relief, Polyamide

- For cable protection systems in a wide range of applications
- Separate damp and dry areas
- High-grade, specially formulated polyamide 6
- Very high impact resistance, high conduit pull-out strength
- Easy mounting: simple push-in installation
- Integrated strain relief optimally holds and seals cables
- If several conductors are used with the connector, multiple sealing inserts should be considered
- Very good chemical properties
- Free from halogens and cadmium
- Excellent impact strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); strain-relief insert and thread seal (SVN4)

IP68: Fitting with oval clips (OVN2), strain-relief insert, conduit and thread seal (NVN3, SVN4)

For several conductors, multiple sealing inserts are available (MDE)



CAT. NO. IP66	CAT. NO. IP68 ▲	FITS TO CONDUIT SIZE			TERMINAL RANGE	THREAD LENGTH	OVERALL LENGTH
		THREAD PG	NW	METRIC			
_VNDZ-P090GT	_VNZ-P090S	9	10	12	4.0–8.0mm	8.0mm	53.0mm
_VNDZ-P112GT	_VNZ-P112S	11	12	16	5.0–10.0mm	8.0mm	59.0mm
_VNDZ-P132GT	_VNZ-P132S	13.5	12	16	6.0–12.0mm	9.0mm	62.0mm
_VNDZ-P137GT	_VNZ-P137S	13.5	17	20	6.0–12.0mm	9.0mm	69.0mm
_VNDZ-P167GT	_VNZ-P167S	16	17	20	10.0–14.0mm	10.0mm	72.0mm
_VNDZ-P163GT	_VNZ-P163S	16	23	25	10.0–14.0mm	12.0mm	79.0mm
_VNDZ-P213GT	_VNZ-P213S	21	23	25	13.0–18.0mm	12.0mm	82.0mm
_VNDZ-P299GT	_VNZ-P299S	29	29	32	18.0–25.0mm	11.0mm	85.0mm
_VNDZ-P366GT	_VNZ-P366S	36	36	40	22.0–32.0mm	13.0mm	106.0mm
_VNDZ-P488GT	_VNZ-P488S	48	48	50	34.0–44.0mm	14.0mm	112.0mm

_ = Insert "B" to order black or "S" to order gray.

Note: MDE multiple sealing inserts are available for this product.

▲ IP68GT available. Please replace "S" at the end with "GT" (for example, BVNZ-P112GT/P1).
(Functional description PMAFIX IP68GT, pages E-192–E-193).

Connectors for Nylon Flexible Conduits

VA 45° Elbow, PG, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
VAD-P090GT	VAV-P090	9	10	12	11.0mm	43.0 x 37.0mm
VAD-P112GT	VAV-P112	11	12	16	11.0mm	48.0 x 40.0mm
VAD-P132GT	VAV-P132	13.5	12	16	11.0mm	48.0 x 41.5mm
VAD-P137GT	VAV-P137	13.5	17	20	11.0mm	55.5 x 51.5mm
VAD-P167GT	VAV-P167	16	17	20	11.0mm	55.5 x 51.5mm
VAD-P213GT	VAV-P213	21	23	25	11.0mm	63.0 x 58.0mm
VAD-P299GT	VAV-P299	29	29	32	12.0mm	69.0 x 66.0mm
VAD-P366GT	VAV-P366	36	36	40	13.0mm	86.0 x 86.0mm
VAD-P488GT	VAV-P488	48	48	50	13.0mm	94.0 x 100.0mm

— = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

VB 90° Curved Elbow, PG, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX conduits
- High conduit pull-out strength
- Smooth elbow allows easy guidance through connector
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
VBD-P167GT	VBV-P167	16	17	20	11.0mm	47.5 x 73.0mm
VBD-P213GT	VBV-P213	21	23	25	12.0mm	57.5 x 85.0mm
VBD-P299GT	VBV-P299	29	29	32	12.0mm	67.5 x 96.0mm
VBD-P366GT	VBV-P366	36	36	40	13.0mm	79.0 x 123.0mm
VBD-P488GT	VBV-P488	48	48	50	13.0mm	92.5 x 135.0mm

— = Insert "B" to order black or "S" to order gray.

Appropriate standard elbows of type VW are available for smaller conduit sizes NW 07 to NW 12.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VW 90° Elbow, PG, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
_VWD-P07MGT-11	_VWV-P07M	7	7	10	11.0mm	32.0 x 35.0mm
_VWD-P07MGT-8	—	7	7	10	8.0mm	29.0 x 35.0mm
_VWD-P070GT-11	_VWV-P070	7	10	12	11.0mm	34.0 x 39.5mm
_VWD-P070GT-8	—	7	10	12	8.0mm	31.0 x 39.5mm
_VWD-P072GT-11	_VWV-P072	7	12	16	11.0mm	38.5 x 44.5mm
_VWD-P072GT-8	—	7	12	16	8.0mm	35.5 x 44.5mm
_VWD-P09MGT-11	_VWV-P09M	9	7	10	11.0mm	32.0 x 36.5mm
_VWD-P09MGT-8	—	9	7	10	8.0mm	29.0 x 36.5mm
_VWD-P090GT-11	_VWV-P090	9	10	12	11.0mm	34.0 x 39.5mm
_VWD-P090GT-8	—	9	10	12	8.0mm	31.0 x 39.5mm
_VWD-P092GT-11	_VWV-P092	9	12	16	11.0mm	38.5 x 44.5mm
_VWD-P092GT-8	—	9	12	16	8.0mm	35.5 x 44.5mm
_VWD-P11MGT-11	_VWV-P11M	11	7	10	11.0mm	32.0 x 38.0mm
_VWD-P11MGT-8	—	11	7	10	8.0mm	29.0 x 38.0mm
_VWD-P110GT-11	_VWV-P110	11	10	12	11.0mm	34.0 x 41.0mm
_VWD-P110GT-8	—	11	10	12	8.0mm	31.0 x 41.0mm
_VWD-P112GT-11	_VWV-P112	11	12	16	11.0mm	38.5 x 46.0mm
_VWD-P112GT-8	—	11	12	16	8.0mm	35.5 x 46.0mm
_VWD-P13MGT-11	_VWV-P13M	13.5	7	10	11.0mm	32.0 x 39.5mm
_VWD-P13MGT-8	—	13.5	7	10	8.0mm	29.0 x 39.5mm
_VWD-P130GT-11	_VWV-P130	13.5	10	12	11.0mm	34.0 x 42.5mm
_VWD-P130GT-8	—	13.5	10	12	8.0mm	31.0 x 42.5mm
_VWD-P132GT-11	_VWV-P132	13.5	12	16	11.0mm	38.5 x 47.5mm
_VWD-P132GT-8	—	13.5	12	16	8.0mm	35.5 x 47.5mm
_VWD-P137GT-11	_VWV-P137	13.5	17	20	11.0mm	43.5 x 58.5mm
_VWD-P137GT-8	—	13.5	17	20	8.0mm	40.5 x 58.5mm
_VWD-P167GT-11	_VWV-P167	16	17	20	11.0mm	43.5 x 58.5mm
_VWD-P167GT-8	—	16	17	20	8.0mm	40.5 x 58.5mm
_VWD-P213GT	_VWV-P213	21	23	25	12.0mm	54.0 x 67.0mm
_VWD-P299GT	_VWV-P299	29	29	32	12.0mm	61.5 x 74.5mm
_VWD-P366GT	_VWV-P366	36	36	40	13.0mm	72.0 x 98.0mm
_VWD-P488GT	_VWV-P488	48	48	50	13.0mm	85.5 x 111.0mm

_ = Insert "B" to order black or "S" to order gray.

Curved elbows of type VB are available for the sizes NW 17 to NW 48.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VN Straight, PG, Metal

- Use in railway vehicle and heavy machine construction
- High-grade, specially formulated polyamide, thread made of nickel-plated brass
- Self extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP68 BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
NVNV-P090	MVNV-P090	9	10	12	12.0mm	42.0mm
NVNV-P112	MVNV-P112	11	12	16	12.0mm	45.0mm
NVNV-P137	MVNV-P137	13.5	17	20	13.0mm	54.0mm
NVNV-P167	MVNV-P167	16	17	20	13.0mm	54.0mm
NVNV-P213	MVNV-P213	21	23	25	14.0mm	57.0mm
NVNV-P293	MVNV-P293	29	23	25	14.0mm	57.0mm
NVNV-P299	MVNV-P299	29	29	32	14.0mm	58.5mm
NVNV-P366	MVNV-P366	36	36	40	17.0mm	75.5mm
NVNV-P488	MVNV-P488	48	48	50	17.0mm	75.5mm

▲ IP68GT available. Please add "GT" after the order no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

VNZ Straight, PG, Strain Relief, Metal

- Use in railway vehicle and heavy machine construction
- Separate damp and dry areas
- High-grade, specially formulated polyamide 6, thread made of nickel-plated brass, sealing inserts made from TPE-V
- Integrated strain relief and optimal ingress protection at the cable (up to IP68/10 bar)
- High thread and system connection strength
- Vibration-resistant connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Very good chemical properties
- Polyamide free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 135° C

Content of delivery:

- IP68GT: Complete: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); sealing insert, O-ring (OR)
 - Fitting*: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); O-ring (OR)
 - IP68: Complete: Fitting with oval clips (OVN2), sealing insert, conduit seal (NVN3), O-ring (OR)
 - Fitting*: Fitting with oval clips (OVN2), conduit seal (NVN3), O-ring (OR)
 - Insert: Sealing insert
- For several conductors, multiple sealing inserts are available (MDE)

CAT. NO. IP68 COMPLETE, BLACK ▲	CAT. NO. IP68 FITTING * ▲	CAT. NO. INSERT	THREAD PG	FITS TO CONDUIT SIZE		TERMINAL RANGE	THREAD LENGTH	OVERALL LENGTH
				NW	METRIC			
NVNZ-P090S/P3	NVNZ-P090R/P	DE-P090/P3	9	10	12	6.5-9.5mm	6.0mm	49.5mm
NVNZ-P110S/P1	NVNZ-P110R/P	DE-P110/P1	11	10	12	4.0-6.5mm	6.0mm	52.0mm
NVNZ-P110S/P3		DE-P110/P3	11	10	12	6.5-9.5mm	6.0mm	52.0mm
NVNZ-P112S/P1	NVNZ-P112R/P	DE-P112/P1	11	12	16	4.0-6.5mm	6.0mm	53.5mm
NVNZ-P112S/P3		DE-P112/P3	11	12	16	6.5-9.5mm	6.0mm	53.5mm
NVNZ-P112S/P4		DE-P112/P4	11	12	16	7.0-10.5mm	6.0mm	53.5mm
NVNZ-P160S/P1	NVNZ-P160R/P1	DE-P110/P1	16	10	16	4.5-6.5mm	6.5mm	52.5mm
NVNZ-P167S/P3	NVNZ-P167R/P	DE-P167/P3	16	17	20	6.5-9.5mm	6.5mm	61.0mm
NVNZ-P167S/P4		DE-P167/P4	16	17	20	7.0-10.5mm	6.5mm	61.0mm
NVNZ-P167S/P5		DE-P167/P5	16	17	20	9.0-13.0mm	6.5mm	61.0mm
NVNZ-P167S/P6		DE-P167/P6	16	17	20	11.5-15.5mm	6.5mm	61.0mm
NVNZ-P213S/P4	NVNZ-P213R/P	DE-P213/P4	21	23	25	14.0-18.0mm	7.0mm	72.0mm
NVNZ-P213S/P5	NVNZ-P213R1/P	DE-P213/P5	21	23	25	17.0-20.5mm	7.0mm	72.0mm
NVNZ-P299S/P3	NVNZ-P299R/P	DE-P299/P3	29	29	32	17.0-20.5mm	8.0mm	73.5mm
NVNZ-P299S/P4		DE-P299/P4	29	29	32	20.0-25.0mm	8.0mm	73.5mm
NVNZ-P299S/P5		DE-P299/P5	29	29	32	24.0-28.0mm	8.0mm	73.5mm
NVNZ-P366S/P1	NVNZ-P366R/P	DE-P366/P1	36	36	40	27.0-32.0mm	9.0mm	88.0mm
NVNZ-P366S/P2		DE-P366/P2	36	36	40	29.0-34.0mm	9.0mm	88.0mm
NVNZ-P366S/P3		DE-P366/P3	36	36	40	32.0-36.0mm	9.0mm	88.0mm
NVNZ-P488S/P1	NVNZ-P488R/P	DE-P488/P1	48	48	50	35.0-40.0mm	10.0mm	90.5mm
NVNZ-P488S/P2	NVNZ-P488R/P	DE-P488/P2	48	48	50	39.0-44.0mm	10.0mm	90.5mm

* = without insert

Note: MDE multiple sealing inserts are available for this product.

▲ IP68GT available. Please replace "S" or "R" with "GT" (for example NVNZ-P112GT/P1) (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VA 45° Elbow, PG, Metal

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide, thread made of nickel-plated brass
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Polyamide free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP68 BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
NVAV-P090	MVAV-P090	9	10	12	12.0mm	50.5 x 37.0mm
NVAV-P112	MVAV-P112	11	12	16	12.0mm	55.0 x 40.5mm
NVAV-P137	MVAV-P137	13.5	17	20	13.0mm	63.5 x 50.0mm
NVAV-P167	MVAV-P167	16	17	20	13.0mm	63.5 x 50.0mm
NVAV-P213	MVAV-P213	21	23	25	14.0mm	73.0 x 60.5mm
NVAV-P299	MVAV-P299	29	29	32	14.0mm	78.0 x 68.0mm
NVAV-P366	MVAV-P366	36	36	40	17.0mm	98.0 x 87.5mm
NVAV-P488	MVAV-P488	48	48	50	17.0mm	105.0 x 101.0mm

▲ IP68GT available. Please add "GT" after the catalog no.
(Functional description PMAFIX IP68GT, pages E-192-E-193).

VB 90° Curved Elbow, PG, Metal

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide, thread made of nickel-plated brass
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Polyamide free from halogens and cadmium
- Extremely high thread and system connection strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP68 BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
NVBV-P167	MVBV-P167	16	17	20	13.0mm	54.0 x 73.0mm
NVBV-P213	MVBV-P213	21	23	25	14.0mm	65.5 x 85.0mm
NVBV-P299	MVBV-P299	29	29	32	14.0mm	75.0 x 96.0mm
NVBV-P366	MVBV-P366	36	36	40	17.0mm	90.5 x 123.0mm
NVBV-P488	MVBV-P488	48	48	50	17.0mm	103.5 x 135.0mm

Appropriate standard elbows of type VW are available for smaller conduit sizes NW 07 to NW 12.

▲ IP68GT available. Please add "GT" after the catalog no.
(Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VW 90° Elbow, PG, Metal

- Use in railway vehicle and heavy machine construction
- High-grade, specially formulated polyamide, thread made of nickel-plated brass
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Polyamide free from halogens and cadmium
- Extremely high thread and system connection strength
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C



CAT. NO. IP66, BLACK ▲	CAT. NO. IP68, GRAY ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
NVWV-P090	MVWV-P090	9	10	12	12.0mm	39.5 x 39.5mm
NVWV-P112	MVWV-P112	11	12	16	12.0mm	45.5 x 45.0mm
NVWV-P137	MVWV-P137	13.5	17	20	13.0mm	50.0 x 58.5mm
NVWV-P167	MVWV-P167	16	17	20	13.0mm	50.0 x 58.5mm
NVWV-P213	MVWV-P213	21	23	25	14.0mm	62.0 x 67.0mm
NVWV-P299	MVWV-P299	29	29	32	14.0mm	69.0 x 74.5mm
NVWV-P366	MVWV-P366	36	36	40	17.0mm	83.5 x 98.0mm
NVWV-P488	MVWV-P488	48	48	50	17.0mm	96.5 x 111.0mm

Curved elbows of type VB are available for the sizes NW 17 to NW 48.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

Connectors for Nylon Flexible Conduits

VN Straight, Gas, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX[®] conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66 ▲	CAT. NO. IP68 ▲	THREAD GAS	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
_VND-G00MG	_VNV-G00M	¼"	7	10	11.0mm	34.5mm
_VND-G00GT	_VNV-G000	¼"	10	12	11.0mm	36.5mm
_VND-G010GT	_VNV-G010	⅜"	10	12	11.0mm	36.5mm
_VND-G012GT	_VNV-G012	⅜"	12	16	11.0mm	39.0mm
_VND-G022GT	_VNV-G022	½"	12	16	13.0mm	41.0mm
_VND-G027GT	_VNV-G027	½"	17	20	13.0mm	49.5mm
_VND-G043GT	_VNV-G043	¾"	23	25	14.0mm	54.0mm
_VND-G069GT	_VNV-G069	1"	29	32	15.0mm	56.0mm
_VND-G076GT	_VNV-G076	1¼"	36	40	18.0mm	71.0mm
_VND-G088GT	_VNV-G088	1½"	48	50	18.0mm	71.5mm
_VND-G098GT	_VNV-G098	2"	48	50	18.0mm	71.5mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

VA 45° Elbow, Gas, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX[®] conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD GAS	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
_VAD-G000GT	_VAV-G000	¼"	10	12	11.0mm	43.5 x 37.0mm
_VAD-G012GT	_VAV-G012	¼"	12	16	11.0mm	48.0 x 40.0mm
_VAD-G027GT	_VAV-G027	⅜"	17	20	13.0mm	57.5 x 51.5mm
_VAD-G043GT	_VAV-G043	⅜"	23	25	14.0mm	67.0 x 60.0mm
_VAD-G069GT	_VAV-G069	½"	29	32	15.0mm	73.5 x 67.0mm
_VAD-G076GT	_VAV-G076	½"	36	40	18.0mm	91.5 x 85.5mm
_VAD-G088GT	—	¾"	48	50	18.0mm	99.0 x 96.0mm
_VAD-G098GT	_VAV-G098	1"	48	50	18.0mm	99.0 x 101.0mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VW 90° Elbow, Gas, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)



CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD GAS	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
_VWD-G00MGT	_VWV-G00M	¼"	7	10	11.0mm	32.0 x 36.5mm
_VWD-G000GT	_VWV-G000	¼"	10	12	11.0mm	34.0 x 39.5mm
_VWD-G010GT	_VWV-G010	⅜"	10	12	11.0mm	34.0 x 40.5mm
_VWD-G012GT	_VWV-G012	⅜"	12	16	11.0mm	38.5 x 46.0mm
_VWD-G022GT	_VWV-G022	½"	12	16	13.0mm	40.5 x 47.5mm
_VWD-G027GT	_VWV-G027	½"	17	20	13.0mm	45.5 x 58.5mm
_VWD-G043GT	_VWV-G043	¾"	23	25	14.0mm	56.0 x 66.5mm
_VWD-G069GT	_VWV-G069	1"	29	32	15.0mm	64.5 x 73.5mm
_VWD-G076GT	_VWV-G076	1¼"	36	40	18.0mm	77.0 x 96.0mm
_VWD-G088GT	_VWV-G088	1½"	48	50	18.0mm	90.5 x 106.0mm
_VWD-G098GT	_VWV-G098	2"	48	50	18.0mm	90.5 x 111.0mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the order no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VN Straight, NPT, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX[®] conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD NPT	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
_VND-N022GT	_VNV-N022	½"	12	16	13.0mm	41.5mm
_VND-N027GT	_VNV-N027	½"	17	20	13.0mm	49.5mm
_VND-N043GT	_VNV-N043	¾"	23	25	14.0mm	54.0mm
_VND-N069GT	_VNV-N069	1"	29	32	15.0mm	56.0mm
_VND-N076GT	_VNV-N076	1¼"	36	40	18.0mm	71.0mm
_VND-N088GT	_VNV-N088	1½"	48	50	18.0mm	71.5mm
_VND-N098GT	_VNV-N098	2"	48	50	18.0mm	71.5mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

VA 45° Elbow, NPT, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX[®] conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD NPT	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
_VAD-N022GT	_VAV-N022	½"	12	16	13.0mm	50.0 x 41.5mm
_VAD-N027GT	_VAV-N027	½"	17	20	13.0mm	57.5 x 51.5mm
_VAD-N043GT	_VAV-N043	¾"	23	25	14.0mm	67.0 x 60.0mm
_VAD-N069GT	_VAV-N069	1"	29	32	15.0mm	73.5 x 67.0mm
_VAD-N076GT	_VAV-N076	1¼"	36	40	18.0mm	91.5 x 85.5mm
_VAD-N088GT	_VAV-N088	1½"	48	50	18.0mm	99.0 x 96.0mm
_VAD-N098GT	_VAV-N098	2"	48	50	18.0mm	99.0 x 101.0mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

Connectors for Nylon Flexible Conduits

VW 90° Elbow, NPT, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- Easy mounting: simple conduit push-in installation
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (SVN4)
- IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

CAT. NO. IP66	CAT. NO. IP68 ▲	THREAD NPT	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
_VWD-N022GT	_VWV-N022	½"	12	16	13.0mm	40.5 x 47.5mm
_VWD-N027GT	_VWV-N027	½"	17	20	13.0mm	45.5 x 58.5mm
_VWD-N043GT	_VWV-N043	¾"	23	25	14.0mm	56.0 x 66.5mm
_VWD-N069GT	_VWV-N069	1"	29	32	15.0mm	64.5 x 73.5mm
_VWD-N076GT	_VWV-N076	1¼"	36	40	18.0mm	77.0 x 96.0mm
_VWD-N088GT	_VWV-N088	1½"	48	50	18.0mm	90.5 x 106.0mm
_VWD-N098GT	_VWV-N098	2"	48	50	18.0mm	90.5 x 111.0mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

VO Flange 90°, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Standard flange seal FG04 made from EPDM; flange seal FG04/01 made from NBR on demand
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties, free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2), flange seal (FG04)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); flange seal (FG04)
- IP68: Fitting with oval clips (OVN2), conduit and flange seal (NVN3, FG04)

CAT. NO. IP66	CAT. NO. IP68 ▲	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH X LENGTH X DEPTH	SCREW SIZES
		NW	METRIC		
_VOD-P167GT	_VOV-P167	17	20	46.0 x 66.0 x 35.5mm	2 x M5
_VOD-P213GT	_VOV-P213	23	25	65.5 x 70.0 x 43.0mm	2 x M6
_VOD-P299GT	_VOV-P299	29	32	67.0 x 78.0 x 49.5mm	4 x M6
_VOD-P366GT	_VOV-P366	36	40	85.0 x 102.0 x 65.5mm	4 x M6
_VOD-P488GT	_VOV-P488	48	50	86.0 x 119.0 x 77.5mm	4 x M6

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VI Female Thread Adapter, Metric, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66, BLACK	CAT. NO. IP68, BLACK ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
BVID-M12MGT	—	M12x1.5	7	10	8.0mm	32.0mm
BVID-M160GT	BVIR-M160	M16x1.5	10	12	8.0mm	33.5mm
BVID-M162GT	BVIR-M162	M16x1.5	12	16	8.0mm	36.5mm
—	BVIR-M202	M20x1.5	12	16	8.0mm	36.5mm
BVID-M207GT	BVIR-M207	M20x1.5	17	20	8.0mm	44.5mm
BVID-M253GT	BVIR-M253	M25x1.5	23	25	8.0mm	48.5mm
—	BVIR-M257	M25x1.5	17	20	8.0mm	44.5mm
BVID-M329GT	BVIR-M329	M32x1.5	29	32	10.0mm	51.5mm
BVID-M406GT	BVIR-M406	M40x1.5	36	40	10.0mm	65.5mm
BVID-M508GT	BVIR-M508	M50x1.5	48	50	10.0mm	65.5mm
BVID-M638GT	BVIR-M638	M63x1.5	48	50	10.0mm	65.5mm

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).



VIR: IP68 static/IP67 dynamic, conduit side

VID: IP66 static/IP54 dynamic, conduit side

Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

IP66: Fitting with pre-assembled universal safety clips (AFN2)

IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)

IP68: Fitting with oval clips (OVN2), conduit seal (NVN3)

VI Female Thread Adapter, Metric, Metal

- Use in machine and railway construction and industry
- High-grade, specially formulated polyamide 6, thread made of nickel-plated brass
- Very high impact resistance
- High thread and system connection strengths
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP68, BLACK ▲	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
		NW	METRIC		
NVIR-M120	M12x1.5	10	12	7.0mm	35.5mm
NVIR-M162	M16x1.5	12	16	9.0mm	40.5mm
NVIR-M207	M20x1.5	17	20	10.5mm	50.5mm
NVIR-M253	M25x1.5	23	25	10.5mm	53.0mm
NVIR-M329	M32x1.5	29	32	11.0mm	55.0mm
NVIR-M406	M40x1.5	36	40	13.5mm	71.0mm
NVIR-M508	M50x1.5	48	50	15.0mm	73.0mm
NVIR-M638	M63x1.5	48	50	17.5mm	78.0mm

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).



VIR: IP68 static/IP67 dynamic, conduit side

Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)

IP68: Fitting with oval clips (OVN2), conduit seal (NVN3)

Connectors for Nylon Flexible Conduits

FI/VI Female Thread Adapter, PG, Polyamide

- For machine, vehicle and traction building
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



VIR: IP68 static/IP67 dynamic, conduit side
FIL: IP67 static/IP65 dynamic, conduit side

Temperature range: -40° C to 105° C;
 Short term to 160° C

Content of delivery:

- IP67: Fitting with oval clips (OVN2), conduit seal (NFN3)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)
- IP68: Fitting with oval clips (OVN2), conduit seal (NVN3)

CAT. NO. IP67, BLACK	CAT. NO. IP68, BLACK ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
BFIL-P07M	—	7	7	10	8.0mm	29.0mm
BFIL-P070	—	7	10	12	8.0mm	34.5mm
—	BVIR-P070	7	10	12	8.0mm	33.5mm
BFIL-P090	—	9	10	12	8.0mm	32.5mm
—	BVIR-P090	9	10	12	8.0mm	33.5mm
BFIL-P112	—	11	12	16	8.0mm	32.5mm
—	BVIR-P112	11	12	16	8.0mm	36.5mm
BFIL-P117	—	11	17	20	8.0mm	35.0mm
BFIL-P132	—	13.5	12	16	8.0mm	32.5mm
BFIL-P137	—	13.5	17	20	8.0mm	33.5mm
BFIL-P160	—	16	10	12	7.0mm	37.0mm
BFIL-P167	—	16	17	20	8.0mm	33.5mm
—	BVIR-P167	16	17	20	8.0mm	44.5mm
BFIL-P217	—	21	17	20	10.5mm	35.5mm
BFIL-P213	—	21	23	25	8.0mm	39.0mm
BFIL-P293	—	29	23	25	9.0mm	42.0mm
BFIL-P299	—	29	29	32	9.0mm	43.0mm
BFIL-P363	—	36	23	25	12.0mm	51.0mm
BFIL-P369	—	36	29	32	16.0mm	52.0mm
BFIL-P366	—	36	36	25	13.0mm	64.0mm
BFIL-P488	—	48	48	50	13.0mm	65.0mm

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

VI Female Thread Adapter PG, Metal

- For machine, vehicle and traction building
- High-grade, specially formulated polyamide 6, thread made of nickel-plated brass
- Very high impact resistance
- High thread and system connection strengths
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



VIZR: IP68 static/IP67 dynamic, conduit side

Temperature range: -40° C to 105° C;
 Short term to 160° C

Content of delivery:

- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)
- IP68: Fitting with oval clips (OVN2), conduit seal (NVN3)

CAT. NO. IP68, BLACK ▲	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
		NW	METRIC		
NVIZR-P07M	7	7	10	6.0mm	33.0mm
NVIZR-P090	9	10	12	9.0mm	37.5mm
NVIZR-P110	11	10	12	9.0mm	39.5mm
NVIZR-P112	11	12	16	9.0mm	41.5mm
NVIZR-P167	16	17	20	9.5mm	49.5mm
NVIZR-P213	21	23	25	10.0mm	56.5mm
NVIZR-P299	29	29	32	12.5mm	56.5mm
NVIZR-P366	36	36	40	13.0mm	73.0mm
NVIZR-P488	48	48	50	14.0mm	75.0mm

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

Connectors for Nylon Flexible Conduits

VI Female Thread Adapter, UNEF for AMP CPC Series, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Suitable for the AMP connector series CPC
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66, BLACK	CAT. NO. IP68, BLACK ▲	THREAD UNEF	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
BVIDA-U15MGT	BVIRA-U15M	5/8"-24	7	10	8.0mm	31.5mm
BVIDA-U150GT	BVIRA-U150	5/8"-24	10	12	8.0mm	33.5mm
BVIDA-U152GT	BVIRA-U152	5/8"-24	12	16	8.0mm	36.5mm
BVIDA-U180GT	BVIRA-U180	3/4"-20	10	12	8.0mm	33.5mm
BVIDA-U182GT	BVIRA-U182	3/4"-20	12	16	8.0mm	36.5mm
BVIDA-U187GT	BVIRA-U187	3/4"-20	17	20	8.0mm	44.5mm
BVIDA-U232GT	BVIRA-U232	15/16"-20	12	16	8.0mm	38.5mm
BVIDA-U237GT	BVIRA-U237	15/16"-20	17	20	8.0mm	46.5mm
BVIDA-U233GT	BVIRA-U233	15/16"-20	23	25	8.0mm	48.5mm
BVIDA-U347GT	BVIRA-U347	1 1/8"-18	17	20	8.0mm	46.5mm
BVIDA-U343GT	BVIRA-U343	1 1/8"-18	23	25	8.0mm	48.5mm
BVIDA-U402GT	BVIRA-U402	1 1/8"-18	12	16	7.0mm	55.5mm
BVIDA-U407GT	BVIRA-U407	1 1/8"-18	17	20	7.0mm	61.5mm
BVIDA-U403GT	BVIRA-U403	1 1/8"-18	23	25	7.0mm	60.5mm

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).

VI Female Thread Adapter, UNEF for Souriau UTG-6/ITT Cannon Trident, Polyamide

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Suitable for the Souriau connector series UTG-6 - ITT Cannon Trident
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66, BLACK	CAT. NO. IP68, BLACK ▲	THREAD UNEF	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
			NW	METRIC		
BVIDB-U162GT	BVIRB-U162	1 1/8"-24	12	16	4.0mm	43.5mm
BVIDB-U202GT	BVIRB-U202	1 3/8"-20	12	16	4.5mm	44.0mm
BVIDB-U232GT	BVIRB-U232	1 5/8"-20	12	16	4.5mm	49.0mm
BVIDB-U237GT	BVIRB-U237	1 5/8"-20	17	20	4.5mm	52.0mm
BVIDB-U267GT	BVIRB-U267	1 7/8"-18	17	20	4.5mm	52.0mm
BVIDB-U297GT	BVIRB-U297	1 7/8"-18	17	20	6.5mm	55.5mm
BVIDB-U293GT	BVIRB-U293	1 3/8"-18	23	25	6.5mm	52.0mm
BVIDB-U323GT	BVIRB-U323	1 7/8"-18	23	25	6.5mm	52.0mm
BVIDB-U357GT	BVIRB-U357	1 7/8"-18	17	20	6.5mm	58.5mm
BVIDB-U353GT	BVIRB-U353	1 7/8"-18	23	25	6.5mm	54.0mm
BVIDB-U359GT	BVIRB-U359	1 7/8"-18	29	32	6.5mm	50.5mm

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).



VIRA: IP68 static/IP67 dynamic, conduit side
VIDA: IP66 static/IP54 dynamic, conduit side

Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)
- IP68: Fitting with oval clips (OVN2), conduit seal (NVN3)



VIRB: IP68 static/IP67 dynamic, conduit side
VIDB: IP66 static/IP54 dynamic, conduit side

Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)
- IP68: Fitting with oval clips (OVN2), conduit seal (NVN3)

Connectors for Nylon Flexible Conduits

VI Female Thread Adapter, UNEF for MIL C 5015

- Use in machine, vehicle and traction building industries
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66, BLACK	CAT. NO. IP68, BLACK ▲	THREAD UNEF	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGHT
			NW	METRIC		
—	BVIVG-U152	5/8"-24	12	16	8.0mm	36.5mm
—	BVIVG-U187	3/4"-20	17	20	9.0mm	46.5mm
—	BVIVG-U210	7/8"-20	10	07	9.0mm	37.0mm
BVIDG-U212GT	BVIVG-U212	7/8"-20	12	16	9.0mm	38.5mm
BVIDG-U217GT	BVIVG-U217	7/8"-20	17	20	9.0mm	46.5mm
BVIDG-U242GT	BVIVG-U242	1"-20	12	16	9.0mm	40.5mm
—	BVIVG-U243	1"-20	23	25	9.0mm	55.0mm
BVIDG-U247GT	BVIVG-U247	1"-20	17	20	9.0mm	47.5mm
—	BVIVG-U292	1 1/16"-18	12	16	9.0mm	40.5mm
BVIDG-U293GT	BVIVG-U293	1 3/16"-18	23	25	9.0mm	55.0mm
BVIDG-U297GT	BVIVG-U297	1 3/16"-18	17	20	9.0mm	47.5mm
—	BVIVG-U299	1 3/16"-18	29	29	9.0mm	47.0mm
—	BVIVG-U352	1 7/16"-18	12	16	9.0mm	39.0mm
BVIDG-U353GT	BVIVG-U353	1 7/16"-18	23	25	9.0mm	52.0mm
—	BVIVG-U356	1 7/16"-18	36	40	9.0mm	63.0mm
BVIDG-U357GT	BVIVG-U357	1 7/16"-18	17	20	9.0mm	46.5mm
BVIDG-U359GT	BVIVG-U359	1 7/16"-18	29	29	9.0mm	52.0mm
BVIDG-U433GT	BVIVG-U433	1 3/4"-18 UNS	23	25	10.0mm	52.0mm
BVIDG-U436GT	BVIVG-U436	1 3/4"-18 UNS	36	40	10.0mm	62.5mm
—	BVIVG-U437	1 3/4"-18 UNS	17	20	10.0mm	46.5mm
BVIDG-U439GT	BVIVG-U439	1 3/4"-18 UNS	29	32	10.0mm	51.5mm
—	BVIVG-U503	2"-18 UNS	23	25	10.0mm	51.5mm
—	BVIVG-U503/01	2"-18 UNS	23	25	10.0mm	62.5mm
BVIDG-U506GT	BVIVG-U506	2"-18 UNS	36	40	10.0mm	62.5mm
—	BVIVG-U508	2"-18 UNS	48	50	10.0mm	64.5mm
BVIDG-U509GT	BVIVG-U509	2"-18 UNS	29	32	10.0mm	55.0mm
—	BVIVG-U563	2 1/4"-16 UN	23	25	10.0mm	51.0mm
BVIDG-U566GT	BVIVG-U566	2 1/4"-16 UN	36	40	10.0mm	62.0mm
—	BVIVG-U568	2 1/4"-16 UN	48	50	10.0mm	64.0mm
BVIDG-U569GT	BVIVG-U569	2 1/4"-16 UN	29	32	10.0mm	51.0mm
—	BVIVG-U628	2 1/2"-16 UN	48	500	10.0mm	64.0mm

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).



VIVG: IP68 static/IP67 dynamic, conduit- and thread side

VIDG: IP66 static/IP54 dynamic, conduit- and thread side

Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

IP66: Fitting with pre-assembled universal safety clips (AFN2), thread seal (OR)

IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); thread seal (O-Ring)

IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, OR)

FI Female Thread Adapter, Fine-Metric, Transparent

- Use in machine and vehicle building, in connection with electronic sensors
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Light-emitting diodes are recognizable through the connector
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties, free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP67, TRANSPARENT	THREAD FINE-METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGHT
		NW	METRIC		
TFIL-F08M	8	7	10	6.5mm	29.5mm
TFIL-F12M	12	7	10	6.0mm	56.0mm
TFIL-F18M	18	7	10	6.0mm	56.5mm
TFIL-F30M	30	7	10	6.0mm	56.5mm
TFIL-F120	12	10	12	6.0mm	57.0mm
TFIL-F180	18	10	12	6.0mm	57.0mm
TFIL-F300	30	10	12	6.0mm	57.0mm



FI: IP67 static/IP65 dynamic, conduit side

Temperature range: -40° C to 105° C;
Short term to 120° C

Content of delivery:

Fitting with oval clip (OVN2), conduit seal (NFN3)

Connectors for Nylon Flexible Conduits

VY Y Pieces

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66	CAT. NO. IP68 ▲	INPUT FITS TO CONDUIT SIZE		OUTPUTS FITS TO CONDUIT SIZE	
		NW	METRIC	NW	METRIC
_VYD-10070GT	_VYR-100707	10	12	7	10
_VYD-121010GT	_VYR-121010	12	16	10	12
_VYD-171212GT	_VYR-171212	17	20	12	16
_VYD-231717GT	_VYR-231717	23	25	17	20
_VYD-292323GT	_VYR-292323	29	32	23	25
_VYD-362929GT	_VYR-362929	36	40	29	32
_VYD-483636GT	_VYR-483636	48	50	36	40

_ = Insert "B" to order black or "S" to order gray.

The input/output sizes can be adapted with the AVD/AVR conduit adapters.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192-E-193).



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Distributor fitting with pre-assembled universal safety clips (AFN2)
- IP68GT: Distributor fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)
- IP68: Distributor fitting with oval clips (OVN2), conduit seal (NVN3)

FV V Pieces

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66	CAT. NO. IP67	INPUT FITS TO CONDUIT SIZE		OUTPUTS FITS TO CONDUIT SIZE	
		NW	METRIC	NW	METRIC
_FVD-10070GT	_FVL-100707	10	12	7	10
_FVD-101010GT	_FVL-101010	10	12	10	12
_FVD-121010GT	_FVL-121010	12	16	10	12
_FVD-171010GT	_FVL-171010	17	20	10	12
_FVD-171212GT	_FVL-171212	17	20	12	16
_FVD-231717GT	_FVL-231717	23	25	17	20

_ = Insert "B" to order black or "S" to order gray.



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Distributor fitting with pre-assembled universal safety clips (AFN2)
- IP67: Distributor fitting with oval clips (OVN2), conduit seals (NFN3)

Connectors for Nylon Flexible Conduits

FT/VT T Pieces

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



Temperature range: -40° C to 105° C;
Short term to 160° C



CAT. NO. IP66	CAT. NO. IP67 ▲	INPUT FITS TO CONDUIT SIZE		OUTPUTS FITS TO CONDUIT SIZE	
		NW	METRIC	NW	METRIC
_FTD-101010GT	—	10	12	10	12
_FTD-121212GT	—	12	16	12	16
_FTD-171717GT	—	17	20	17	20
_FTD-292323GT	_FTL-292323 (!)	29	32	23	25
_FTD-292929GT	—	29	32	29	32
—	_VTR-101010	10	12	10	12
—	_VTR-121212	12	16	12	16
—	_VTR-171717	17	20	17	20
_VDD-232323GT	_VTR-232323	23	25	23	25
—	_VTR-292929	29	32	29	32
_VTD-363636GT	_VTR-363636	36	40	36	40
_VTD-484848GT	_VTR-484848	48	50	48	50

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" after the catalog no. (Functional description PMAFIX IP68GT, pages E-192–E-193).

(!) Please note: The article "FTL" (IP67) will be discontinued! For new applications we recommend _VTR (IP68).

Content of delivery:

- IP66: Distributor fitting with pre-assembled universal safety clips (AFN2)
- IP67: Distributor fitting with oval clips (OVN2), conduit seals (NFN3)
- IP68GT: Distributor fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)
- IP68: Distributor fitting with oval clips (OVN2), conduit seals (NVN3)

Connectors for Nylon Flexible Conduits

GPS One-Piece System Supports

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- One-piece construction, stackable
- Excellent impact resistance
- Heavy design, high retention forces
- Applicable with standard metal C rails
- Easy pre-installation by conduit snap-in
- Clasp for easy pre-mounting and final assembly
- Very good chemical properties
- Free from halogens and cadmium
- Fits (T) and coarse (G) conduit profiles
- The following nominal widths can be combined for stacking:
NW 17 with NW 23, NW 29 with NW 36,
NW 48 with NW 56



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

System support and 2-piece screws for securing of the lid (optional); without mounting accessories

CAT. NO. FINE PROFILE	FITS TO CONDUIT SIZE			DIMENSIONS		
	NW	METRIC	DIN-NW	WIDTH	HEIGHT	DEPTH
BGPS-17	17	20	2	70.0mm	51.0mm	30.0mm
BGPS-23	23	25	2	70.0mm	51.0mm	30.0mm
BGPS-29	29	32	3	85.0mm	65.0mm	30.0mm
BGPS-36	36	40	3	85.0mm	65.0mm	30.0mm
BGPS-48	48	50	4	115.0mm	92.5mm	30.0mm
BGPS-56	56	—	4	115.0mm	92.5mm	30.0mm

_ = Replace with "B" to order black or "S" to order gray.

GP System Supports for Stacking

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide
- Variable stacking possibilities — due to the block system, a high rigidity is guaranteed
- Strain relief due to gripping around conduit
- Especially suitable for dynamic applications due to rounded edges
- Variety of support possibilities
- Self extinguishing, free from halogens and cadmium
- Excellent impact strength



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

System support with assembling screws; without mounting accessories

CAT. NO. FINE PROFILE	CAT. NO. COARSE PROFILE	FITS TO CONDUIT SIZE		DIMENSIONS		
		NW	METRIC	WIDTH	HEIGHT	DEPTH
_GP-16T	_GP-16G	17	20	47.5mm	66.0mm	36.0mm
_GP-21T	_GP-21G	23	25	47.5mm	66.0mm	36.0mm
_GP-29T	_GP-29G	29	32	61.5mm	66.0mm	36.0mm
_GP-36T	_GP-36G	36	40	61.5mm	66.0mm	36.0mm
_GP-48T	_GP-48G	48	50	76.0mm	66.0mm	36.0mm
_	_GP-56G	56	—	87.0mm	78.0mm	36.0mm

_ = Insert "B" to order black or "S" to order gray.

Connectors for Nylon Flexible Conduits

SGB Tube Clamps

- Especially suitable for the mounting of static conduits
- Galvanized steel according to DIN 3016
- Elastomer free from halogens (EPDM)
- For the mounting of static conduits
- Smooth connection to PMAFLEX® corrugated conduits
- Good ozone and aging resistance



Temperature range: -50° C to 105° C

CAT. NO. FINE PROFILE, BLACK	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH	FIXING SCREW
	NW	METRIC		
SGB-07	7	10	13.0mm	(1) M4
SGB-09	10	12	13.0mm	(1) M4
SGB-11	12	16	13.0mm	(1) M4
SGB-16	17	20	16.0mm	(1) M5
SGB-21	23	25	16.0mm	(1) M5
SGB-29	29	32	19.0mm	(1) M6
SGB-36	36	40	19.0mm	(1) M6
SGB-48	48	50	19.0mm	(1) M6

GN Half Shells

- Used for fixing PMA® conduits in conjunction with beam systems, particularly in traction and machine applications
- High-grade, specially formulated polyamide
- Variable combinations
- Strain relief due to gripping around conduit
- Especially suitable for dynamic applications due to rounded edges
- Variety of support possibilities
- Self extinguishing
- Free from halogens and cadmium
- Excellent impact strength



Temperature range: -40° C to 105° C;
Short term to 160° C

CAT. NO. FINE PROFILE, BLACK	CAT. NO. COARSE PROFILE, BLACK	FITS TO CONDUIT SIZE		OUTSIDE DIAMETER	DIMENSIONS WIDTH
		NW	METRIC		
BGN-S12T	—	12	16	26.5mm	34.0mm
BGN-S17T	BGN-S17G	17	20	32.0mm	34.0mm
BGN-S23T	BGN-S23G	23	25	39.5mm	34.0mm
BGN-S29T	BGN-S29G	29	32	47.0mm	34.0mm
BGN-S36T	—	36	40	55.0mm	36.5mm
—	BGN-S36G	36	40	55.0mm	34.0mm
BGN-S48T	—	48	50	66.5mm	36.5mm
—	BGN-S48G	48	50	66.5mm	34.0mm
—	BGN-S70G	70	80	93.5mm	38.0mm

Connectors for Nylon Flexible Conduits

GL Tube Clamps

- Used in general machine and installation applications
- High-grade, specially formulated polyamide
- Self extinguishing
- Free from halogens and cadmium

CAT. NO. BLACK	CAT. NO. GRAY	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH	FIXING SCREW
		NW	METRIC		
BGL-07	SGL-07	07	10	25.0	(1) M4
BGL-10	SGL-10	10	12	27.0	(1) M4
BGL-12	SGL-12	12	16	31.0	(1) M4
BGL-17	SGL-17	17	20	39.5	(1) M5
BGL-23	SGL-23	23	25	49.0	(1) M5
BGL-29	SGL-29	29	32	57.0	(1) M6



Temperature range: -40° C to 105° C

GH Tube Clamps

- Used in general machine and installation applications
- High-grade, specially formulated polyamide
- Self extinguishing
- Free from halogens and cadmium
- Nominal widths: 23–95mm

CAT. NO. BLACK	CAT. NO. GRAY	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH	FIXING SCREW
		NW	METRIC		
BGH-23	SGH-23	23	25	58.0mm	(2) M5
BGH-29	SGH-29	29	32	70.0mm	(2) M6
BGH-36	SGH-36	36	40	80.0mm	(2) M6
BGH-48	SGH-48	48	50	94.0mm	(2) M6



Temperature range: -40° C to 105° C;

Large-Size Nylon Flexible Conduits and Connectors

GGV Flange, Straight

- Use in railway vehicle construction as well as in a wide range of industrial applications with high sealing and safety requirements
- High-grade, specially formulated polyamide 6
- Flange seal FGO4 made from EPDM
- Flange seal FGO4/01 made from NBR on special request
- Very high impact strength
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Ingress protection: IP68, IP69K
- Very good chemical properties
- Free from halogens and cadmium
- If the application temperature is above 70° C, we recommend using an additional internal conduit support sleeve (BES)



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Flange part, fixation clamps (including two screws), conduit seal (NVN3), flange seal (FGO4 or FGO4/01)



CAT. NO. BLACK	FITS TO NW	DIMENSIONS		
		WIDTH	HEIGHT	DEPTH
BGGV-56	56	82.0mm	97.0mm	42.0mm
BGGV-70	70	97.0mm	114.0mm	48.0mm
BGGV-95	95	126.0mm	146.0mm	53.0mm

GOV Flange, 90° Elbow

- Use in railway vehicle construction as well as in a wide range of industrial applications with high sealing and safety requirements
- High-grade, specially formulated polyamide 6
- Flange seal FGO4 made from EPDM
- Flange seal FGO4/01 made from NBR on special request
- Very high impact strength
- Vibration-proof connection to PMAFLEX® conduits
- High conduit pull-out strength
- Ingress protection: IP68, IP69K
- Very good chemical properties
- Free from halogens and cadmium
- If the application temperature is above 70° C, we recommend using an additional internal conduit support sleeve (BES)



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Flange part, fixation clamps (including two screws), conduit seal (NVN3), flange seal (FGO4 or FGO4/01)



CAT. NO. BLACK	FITS TO NW	DIMENSIONS		
		WIDTH	HEIGHT	DEPTH
BGOV-56	56	82.0mm	97.0mm	101.0mm
BGOV-70	70	97.0mm	114.0mm	115.0mm
BGOV-95	95	126.0mm	146.0mm	151.0mm

Large-Size Nylon Flexible Conduits and Connectors

GG Flange, Straight

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Flange seal FGO4 made from EPDM
- Flange seal FGO4/01 made from NBR
- Very high impact strength
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Ingress protection: IP50 (IP65 with conduit seal ring)
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Flange part, fixation clamps (including two screws), flange seal (FGO4 or FGO4/01), conduit seal ring (SGO3, optional for IP65)



CAT. NO. BLACK	CAT. NO. GRAY	FITS TO NW	DIMENSIONS		
			WIDTH	HEIGHT	DEPTH
BGG-56	SGG-56	56	82.0mm	97.0mm	42.0mm
BGG-70	SGG-70	70	97.0mm	114.0mm	48.0mm
BGG-95	SGG-95	95	126.0mm	146.0mm	53.0mm
BGG-125	SGG-125	125	—	194.0mm	79.0mm

GO Flange, 90° Elbow

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Flange seal FGO4 made from EPDM
- Flange seal FGO4/01 made from NBR
- Very high impact strength
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Ingress protection: IP50 (IP65 with conduit seal ring)
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Flange part, fixation clamps (including two screws), flange seal (FGO4 or FGO4/01), conduit seal ring (SGO3, optional for IP65)



CAT. NO. BLACK	CAT. NO. GRAY	FITS TO NW	DIMENSIONS		
			WIDTH	HEIGHT	DEPTH
BGO-56	SGO-56	56	82.0mm	97.0mm	101.0mm
BGO-70	SGO-70	70	97.0mm	114.0mm	115.0mm
BGO-95	SGO-95	95	126.0mm	146.0mm	149.0mm

Large-Size Nylon Flexible Conduits and Connectors

GG Straight, Male Thread

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Easy mounting with locking clamps
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Ingress protection: IP50 (IP65 when using enclosed conduit and thread seal ring)
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Threaded connector body, fixation clamps (including two screws), conduit seal ring (SG03, optional for IP65)



CAT. NO. BLACK	CAT. NO. GRAY	THREAD	FITS TO NW	THREAD LENGTH	DIMENSIONS HEIGHT	DIMENSIONS DEPTH
BGG-M6356	SGG-M6356	M63x1.5	56	18.0mm	98.0mm	57.5mm
BGG-P3656	SGG-P3656	PG 36	56	18.0mm	98.0mm	57.3mm

GI Straight, Female Thread

- For cable protection systems in a wide range of applications
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Easy mounting with locking clamps
- Vibration-proof connection to PMAFLEX[®] conduits
- High conduit pull-out strength
- Ingress protection: IP50 (IP65 on conduit side with enclosed conduit seal ring)
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

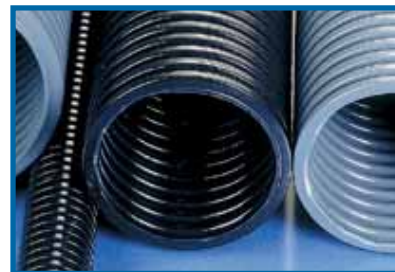
Threaded connector body, fixation clamps (including two screws), conduit seal ring (SG03, optional for IP65)



CAT. NO. BLACK	CAT. NO. GRAY	THREAD	FITS TO NW	THREAD LENGTH	DIMENSIONS HEIGHT	DIMENSIONS DEPTH
BGI-M7556	SGI-M7556	M75x1.5	56	15.0mm	98.0mm	53.3mm

Large-Size Nylon Flexible Conduits and Connectors

Jumbo Conduits



CAT. NO. BLACK	CAT. NO. GRAY	CONDUIT SIZE NW	CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT./DYN. RADIUS	PU METER
PCLG-56B	PCLG-56S	56	68	56.3mm	67.2mm	130/_mm	30
PCLG-70B	PCLG-70S	70	80	67.5mm	80.0mm	160/_mm	30/10
PCLG-95B	PCLG-95S	95	106	91.5mm	106.0mm	210/_mm	30/10
PCLG-125B	PCLG-125S	125	146	126.5mm	146.5mm	450/_mm	6
PIHG-56B	PIHG-56S	56	68	56.3mm	67.2mm	110/270mm	30
PIHG-70B	PIHG-70S	70	80	67.2mm	79.6mm	150/350mm	30/10
PIHG-95B	PIHG-95S	95	106	91.3mm	106.0mm	170/450mm	30/10
PIHG-125B	PIHG-125S	125	146	126.5mm	146.5mm	350/480mm	20
VOHG-56B	VOHG-56S	56	68	55.5mm	67.2mm	135/_mm	30
VOHG-70B	VOHG-70S	70	80	67.0mm	80.0mm	200/_mm	10
VOHG-95B	VOHG-95S	95	106	90.5mm	106.0mm	300/_mm	10
VOHG-125B	VOHG-125S	125	146	126.0mm	146.5mm	480/_mm	6
VCSG-56B	VCSG-56S	56	68	56.1mm	67.2mm	150/_mm	30
VCSG-70B	VCSG-70S	70	80	66.5mm	80.0mm	200/_mm	10
VCSG-95B	VCSG-95S	95	106	91.0mm	106.0mm	300/_mm	10
PCSG-56B	PCSG-56S	56	68	56.1mm	67.2mm	130/280mm	30
PCSG-70B	PCSG-70S	70	80	66.5mm	80.0mm	170/360mm	10
PCSG-95B	PCSG-95S	95	106	91.0mm	106.0mm	250/470mm	10
PUEG-56B	—	56	68	56.3mm	67.2mm	90/170mm	30
PUEG-70B	—	70	80	68.2mm	80.2mm	100/220mm	30
CYLG-56B	CYLG-56S	56	68	56.3mm	67.2mm	120/_mm	30
CYLG-70B	CYLG-70S	70	80	68.0mm	80.0mm	160/_mm	30/10
CYLG-90B	CYLG-95S	95	106	91.9mm	106.0mm	210/_mm	10
CYLG-125B	CYLG-125S	125	146	126.5mm	146.5mm	450/_mm	6

Conduit & Fittings — PMA[®] Nylon Flexible Conduit Systems

Large-Size Nylon Flexible Conduits and Connectors

GH Tube Clamps

- For mounting conduits in a wide range of applications
- High-grade, specially formulated polyamide 6
- One-piece design
- Integrated rib provides axial strain relief
- Allows turning of the conduit, thus avoiding torsion stresses
- Pre-fixation on the conduit possible
- Allows solid fixation with two screws
- Self extinguishing
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles
- No corrosion



Temperature range: -40° C to 105° C

CAT. NO. BLACK	CAT. NO. GRAY	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH	FIXING SCREW
		NW	METRIC		
BGH-56	SGH-56	56	63	26.0mm	(2) M8
BGH-70	SGH-70	70	80	30.0mm	(2) M8
BGH-95	SGH-95	95	106	30.0mm	(2) M8

SGS Tube Clamps

- For mounting of static conduits
- Galvanized steel
- Elastomer profile (EPDM)
- Elastomer profile, free from halogens
- Smooth connection to PMAFLEX® corrugated conduits
- Good ozone and aging resistance



Temperature range: -50° C to 105° C

CAT. NO. BLACK	FITS TO NW	DIMENSIONS		
		WIDTH	HEIGHT	DEPTH
SGS-36	36	80.0mm	48.0mm	19.0mm
SGS-48	48	94.0mm	58.0mm	19.0mm
SGS-56	56	118.0mm	72.0mm	24.0mm
SGS-70	70	130.0mm	85.0mm	24.0mm
SGS-95	95	156.0mm	110.0mm	24.0mm
SGS-125	125	200.0mm	152.0mm	24.0mm

SG03 Conduit Seal Rings

- Used at the conduit end for sealing between the PMAGRIP flanges GG/GI/GO and PMAFLEX® Jumbo conduits
- Nitrile rubber

CAT. NO. BLACK	FITS TO NW	INSIDE DIAMETER	OUTSIDE DIAMETER	DIMENSIONS
				WIDTH
SG03-56	56	49.5mm	61.0mm	1.5mm
SG03-70	70	61.5mm	74.0mm	1.5mm
SG03-95	95	86.0mm	102.0mm	1.5mm
SG03-125	125	122.0mm	142.0mm	2.0mm



Temperature range: -40° C to 105° C

Divisible-System Nylon Flexible Conduits and Connectors

TN Divisible Connectors, Metric

- Connect with divisible PMA® COFLEX conduits and PMA® COFIX lock nuts
- For installation upon fully assembled cable looms or repair in machine and plant construction
- High-grade, specially formulated polyamide 6
- High impact resistance
- Easy installation
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 100° C;
Short term 130° C

CAT. NO. BLACK	THREAD METRIC	FITS TO CONDUIT COFLEX NW	INSIDE DIAMETER	OUTSIDE DIAMETER	DIMENSIONS WIDTH
BTNO-M1610	M16x1.5	10	11.0mm	25.5mm	36.0mm
BTNO-M2014	M20x1.5	14	14.5mm	29.0mm	41.0mm
BTNO-M2520	M25x1.5	20	19.0mm	35.0mm	43.0mm
BTNO-M3223	M32x1.5	23	26.0mm	44.0mm	50.5mm
BTNO-M4037	M40x1.5	37	32.0mm	53.0mm	59.0mm
BTNO-M5045	M50x1.5	45	42.0mm	69.0mm	67.5mm

GTN Divisible Lock Nuts, Metric

- Connect with divisible PMA® COFLEX conduits and PMA® COFIX lock nuts
- For installation upon fully assembled cable looms or repair in machine and plant construction
- High-grade, specially formulated polyamide 6
- High impact resistance
- Easy installation
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 100° C;
Short term 130° C

CAT. NO. BLACK	THREAD METRIC	FITS TO COFLEX CONNECTOR	OUTSIDE DIAMETER	DIMENSIONS WIDTH
BGTN-M1610	M16x1.5	BTNO-M1610	21.5mm	8.0mm
BGTN-M2014	M20x1.5	BTNO-M2014	29.0mm	8.0mm
BGTN-M2520	M25x1.5	BTNO-M2520	35.5mm	9.0mm
BGTN-M3223	M32x1.5	BTNO-M3223	44.0mm	12.0mm
BGTN-M4037	M40x1.5	BTNO-M4037	52.5mm	15.0mm
BGTN-M5045	M50x1.5	BTNO-M5045	69.0mm	15.0mm

Divisible-System Nylon Flexible Conduits and Connectors

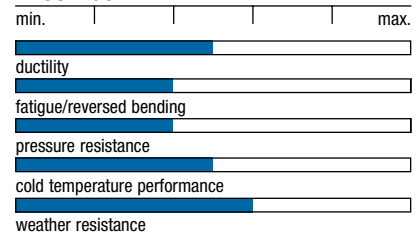
PACO Flexible Medium, Divisible

- Use in machine building and plant construction
- Specially modified polyamide 6
- Easy installation, trouble-free retrofitting, applicable also for repairs
- Can be opened and closed again in longitudinal direction any time
- Self extinguishing
- Free from halogens and cadmium



CAT. NO. BLACK	CONDUIT SIZE NW	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PACO-07B	07	6.5mm	10.1mm	45mm	50
PACO-10B	10	8.8mm	13.5mm	55mm	50
PACO-12B	12	11.3mm	16.3mm	60mm	50
PACO-14B	14	13.2mm	18.7mm	75mm	50
PACO-17B	17	16.5mm	21.8mm	90mm	50
PACO-20B	20	20.2mm	25.7mm	105mm	50
PACO-23B	23	23.9mm	31.3mm	125mm	50
PACO-29B	29	27.8mm	35.9mm	150mm	25
PACO-37B	37	32.5mm	41.9mm	170mm	25
PACO-45B	45	43.0mm	54.2mm	200mm	25
PACO-70B	70	66.5mm	79.8mm	300mm	10

PACO Index



Temperature range: -40° C to 100° C;
Short term to 150° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids and bases, etc.

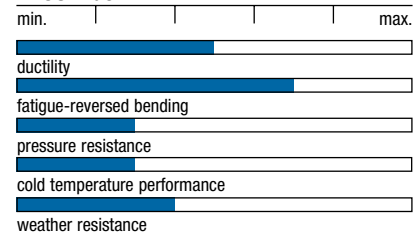
PPCO Very Flexible Medium, Divisible

- Use in machine building and plant construction
- Specially modified polypropylene
- Easy installation, trouble-free retrofitting, applicable also for repairs
- Can be opened and closed again in longitudinal direction any time



CAT. NO. BLACK	CONDUIT SIZE NW	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
PPCO-07B	07	6.3mm	10.0mm	60mm	50
PPCO-10B	10	8.4mm	13.4mm	70mm	50
PPCO-12B	12	11.0mm	16.1mm	80mm	50
PPCO-14B	14	12.5mm	18.5mm	95mm	50
PPCO-17B	17	16.0mm	21.5mm	110mm	50
PPCO-20B	20	19.2mm	25.3mm	130mm	50
PPCO-23B	23	23.4mm	30.8mm	155mm	50
PPCO-29B	29	27.3mm	35.5mm	180mm	25
PPCO-37B	37	31.0mm	41.4mm	190mm	25
PPCO-45B	45	42.7mm	54.0mm	205mm	25
PPCO-70B	70	66.0mm	79.5mm	300mm	10

PPCO Index

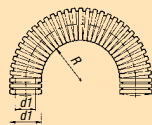


Temperature range: -20° C to 95° C;
Short term to 120° C

Chemical resistance: Fuels, mineral oils, fats, alkalies, weak acids and bases, etc.

Fine profile T
Tight bending radius

Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

Divisible-System Nylon Flexible Conduits and Connectors

FH System Supports

- Use in machine building and plant construction
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Optimal axial strain relief due to integrated rib
- Quick installation due to single-hole fixing
- For increased stress due to heavy cables and wires, closing with cable tie is possible
- Very good chemical properties
- Free from halogens and cadmium
- Fits to rail system supports FHS



Temperature range: -40° C to 105° C;
Short term to 160° C

CAT. NO. BLACK	FIXING SCREW	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH X LENGTH X DEPTH
		COLFLEX	NW	
BFH-09	M5	10		20 x 19 x 23mm
BFH-01	M5	14		20 x 24 x 27mm
BFH-20	M6	20		20 x 35 x 40mm
BFH-23	M6	23		20 x 43 x 45.5mm
BFH-37	M6	37		20 x 52 x 52mm
BFH-48	M6	45		20 x 66 x 66mm

GB Tube Clamps

- For the mounting of static conduits
- Galvanized steel according to DIN 3016
- Elastomer profile (EPDM), free from halogens
- Smooth connection to PMAFLEX® corrugated conduits
- Good ozone and aging resistance



Temperature range: -50° C to 105° C

Chemical resistance: Very good weather, ozone and aging resistance; resistant to mineral oils and fats

CAT. NO. BLACK	FITS TO CONDUIT SIZE		FITS TO CONDUIT SIZE COLFLEX	DIMENSIONS WIDTH
	NW	METRIC		
SGB-09	10	12	10	13.0mm
SGB-14	—	—	14	13.0mm
SGB-20	—	—	20	15.0mm
SGB-23	—	—	23	15.0mm
SGB-36	36	40	37	19.0mm
SGB-48	48	50	45	19.0mm

Special Products

SB 90° Curved Elbow, Metric, Metal, Swivel

- For applications with high technical requirements, mainly in machine building
- Suitable for occasional rotation
- High-grade formulated polyamide 6, thread and integrated swivel adapter made from nickel-plated brass
- Very high impact resistance
- High thread and system connection strength
- Suitable for occasional rotation
- Round guidance within the connector
- Easy introduction of wires and cables
- Vibration-proof connection to PMAFLEX® conduits
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP68, BLACK	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
		NW	METRIC		
NSBV-M207-10	M20x1.5	17	20	10.0mm	62.5 x 74.5mm
NSBV-M253-11	M25x1.5	23	25	11.0mm	73.0 x 87.5mm
NSBV-M329-13	M32x1.5	29	32	13.0mm	86.5 x 98.0mm
NSBV-M406-13	M40x1.5	36	40	13.0mm	98.5 x 127.5mm
NSBV-M409-13	M40x1.5	29	32	13.0mm	86.5 x 98.0mm
NSBV-M508-14	M50x1.5	48	50	14.0mm	113.0 x 139.0mm
NSBV-M638-14	M63x1.5	48	50	14.0mm	110.0 x 139.0mm



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Fitting with oval clips (OVN2),
conduit and thread seals (NVN3, SVN4 or OR)

SB 90° Curved Elbow, PG, Metal, Swivel

- For applications with high technical requirements, mainly in machine building
- Suitable for occasional rotation
- High-grade formulated polyamide 6, thread and integrated swivel adapter made from nickel-plated brass
- Very high impact resistance
- High thread and system connection strength
- Suitable for occasional rotation
- Round guidance within the connector
- Easy introduction of wires and cables
- Vibration-proof connection to PMAFLEX® conduits
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP68, BLACK	THREAD PG	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
		NW	METRIC		
NSBV-P167-6.5	16	17	20	6.5mm	58.0 x 75.5mm
NSBV-P213-7	21	23	25	7.0mm	69.0 x 87.5mm
NSBV-P299-8	29	29	32	8.0mm	80.0 x 98.0mm
NSBV-P366-9	36	36	40	9.0mm	91.5 x 127.5mm
NSBV-P488-10	48	48	50	10.0mm	106.0 x 139.0mm



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Fitting with oval clips (OVN2), conduit and thread seals (NVN3, SVN4 or OR)

SWA Swivel Adapters, Metric

- Allow PMA® connectors to swivel freely in applications where such movements is occasionally necessary
- Nickel-plated brass
- Connect to PMA® connectors with metal threads
- Include thread edge protection
- Include corresponding seals up to IP67/IP68

CAT. NO. IP67	THREAD METRIC	OUTSIDE DIAMETER	DIMENSIONS LENGTH
SWA-M16-10	M16x1.5	23.0mm	37.5mm
SWA-M20-10	M20x1.5	27.0mm	38.5mm
SWA-M25-11	M25x1.5	32.0mm	41.0mm
SWA-M32-13	M32x1.5	45.0mm	46.5mm
SWA-M40-13	M40x1.5	55.0mm	47.5mm
SWA-M50-14	M50x1.5	59.0mm	49.5mm
SWA-M63-14	M63x1.5	75.0mm	52.0mm



Temperature range: -40° C to 105° C

Content of delivery:

Adapter, thread seal (SVN4 or OR)

Special Products

SWA Swivel Adapters, PG

- Allow PMA® connectors to swivel freely in applications where such movements is occasionally necessary
- Nickel-plated brass
- Connect to PMA connectors with metal threads
- With thread edge protection
- With corresponding seals up to IP67/IP68

CAT. NO. IP67	THREAD PG	OUTSIDE DIAMETER	DIMENSIONS LENGTH
SWA-P09	9	23.0mm	44.5mm
SWA-P11	11	27.0mm	45.5mm
SWA-P16	16	32.0mm	48.0mm
SWA-P21	21	40.0mm	51.0mm
SWA-P29	29	50.0mm	52.0mm
SWA-P36	36	59.0mm	55.0mm
SWA-P48	48	70.0mm	55.0mm



Temperature range: -40° C to 105° C

Content of delivery:

Adapter, thread seal (SVN4 or OR)

SCA Spin Couplers, Metric

- Allow the easy positioning of elbow connectors with metal threads
- Nickel-plated brass
- Connect to PMA® connectors with metal threads
- High fastening torque
- Include thread edge protection
- Up to IP68 (IEC 60529/EN 60529)

CAT. NO. IP68	THREAD METRIC	OUTSIDE DIAMETER	DIMENSIONS LENGTH
SCA-M16-10	M16x1.5	22.0mm	32.0mm
SCA-M20-10	M20x1.5	26.0mm	33.0mm
SCA-M25-11	M25x1.5	32.0mm	35.0mm
SCA-M32-13	M32x1.5	39.0mm	39.5mm
SCA-M40-13	M40x1.5	50.0mm	41.0mm
SCA-M50-14	M50x1.5	59.0mm	43.5mm
SCA-M63-14	M63x1.5	75.0mm	45.5mm



Temperature range: -40° C to 105° C

Content of delivery:

Adapter, thread seal (SVN4)

SCA Spin Couplers, PG

- Allow the easy positioning of elbow connectors with metal threads
- Nickel-plated brass
- Connect to PMA® connectors with metal threads
- High fastening torque
- Include thread edge protection
- Up to IP68 (IEC 60529/EN 60529)

CAT. NO. IP68	THREAD PG	OUTSIDE DIAMETER	DIMENSIONS LENGTH
SCA-P09	9	22.0mm	35.0mm
SCA-P11	11	26.0mm	36.0mm
SCA-P16	16	29.0mm	38.0mm
SCA-P21	21	39.0mm	41.0mm
SCA-P29	29	44.0mm	42.5mm
SCA-P36	36	59.0mm	49.0mm
SCA-P48	48	69.0mm	50.5mm



Temperature range: -40° C to 105° C

Content of delivery:

Adapter, thread seal (SVN4)

Special Products

VN-REM Connection to Solid Tube, Metric

- Use in railway vehicle construction and other applications where metric metal tubes are to be connected with the flexible PMAFLEX® system
- High-grade, specially formulated polyamide 6; jubilee clip made of galvanized bright steel
- Very high impact resistance
- Quick connection of solid metal tubes with flexible PMA® conduits
- Available with or without jubilee clip
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



VNR: IP68 static/IP67 dynamic, conduit side

Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

IP68: Fitting with oval clips (OVN2), conduit seal (NVN3); clamp according to catalog number

IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); clamp according to catalog number)

CAT. NO. IP68 WITHOUT CLAMP ▲	CAT. NO. IP68 WITH CLAMP ▲	FITS TO CONDUIT SIZE			INSIDE DIAMETER	OVERALL LENGTH
		NW	METRIC	STEEL TUBE METRIC		
_VNR-REM162	_VNR-REM162-24	12	16	M16	16.0mm	54.0mm
_VNR-REM207	_VNR-REM207-28	17	20	M20	20.0mm	65.0mm
_VNR-REM253	_VNR-REM253-32	23	25	M25	26.0mm	71.0mm
_VNR-REM329	_VNR-REM329-44	29	32	M32	32.0mm	71.0mm
_VNR-REM406	_VNR-REM406-50	36	40	M40	40.0mm	90.0mm
_VNR-REM508	_VNR-REM508-65	48	50	M50	50.0mm	90.0mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" to catalog no. or insert before clamp size (e.g. BVNR-REM162GT, BVNR-REM162GT24). (Functional description PMAFIX IP68GT, pages E-192-E-193).

VN-RE Connection to Solid Tube, PG

- Use in railway vehicle with PG dimensions, construction and other applications where metal tubes are to be connected with the flexible PMAFLEX® system
- High-grade, specially formulated polyamide 6; jubilee clip made of galvanized bright steel
- Very high impact resistance
- Quick connection of solid metal tubes with flexible PMA® conduits
- Available with or without jubilee clip
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



VNR: IP68 static/IP67 dynamic, conduit side

Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

Fitting with oval clips (OVN2), conduit seal (NVN3); clamp according to catalog number

CAT. NO. IP68 WITHOUT CLAMP ▲	CAT. NO. IP68 WITH CLAMP ▲	FITS TO CONDUIT SIZE			INSIDE DIAMETER	OVERALL LENGTH
		NW	METRIC	STEEL TUBE PG		
_VNR-RE12	_VNR-RE12-24	12	16	PG11	18.5mm	56.0mm
_VNR-RE1317	_VNR-RE1317-28	17	20	PG13	20.4mm	65.0mm
_VNR-RE17	_VNR-RE17-28	17	20	PG16	22.5mm	65.0mm
_VNR-RE23	_VNR-RE23-32	23	25	PG21	28.5mm	71.0mm
_VNR-RE29	_VNR-RE29-44	29	32	PG29	37.0mm	71.0mm
_VNR-RE36	_VNR-RE36-50	36	40	PG36	47.0mm	84.0mm
_VNR-RE48	_VNR-RE48-65	48	50	PG48	59.3mm	90.0mm

_ = Insert "B" to order black or "S" to order gray.

▲ IP68GT available. Please add "GT" to catalog no. or insert before clamp size (e.g. BVNR-REM162GT, BVNR-REM162GT24). (Functional description PMAFIX IP68GT, pages E-192-E-193).

Special Products

VSG Connection Splices for Flexible Conduits

- Use in railway vehicle construction and machine tooling
- High-grade formulated polyamide
- Self extinguishing
- Free from halogens and cadmium
- High pull-out strength
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66	CAT. NO. IP68	FITS TO CONDUIT SIZE		OUTSIDE DIAMETER	OVERALL LENGTH
		NW	METRIC		
<u>VSGD-1212GT</u>	<u>VSGR-1212</u>	12	16	23.5mm	66.0mm
<u>VSGD-1717GT</u>	<u>VSGR-1717</u>	17	20	30.0mm	89.0mm
<u>VSGD-2323GT</u>	<u>VSGR-2323</u>	23	25	37.0mm	103.0mm
<u>VSGD-2929GT</u>	<u>VSGR-2929</u>	29	32	44.0mm	100.0mm
<u>VSGD-3636GT</u>	<u>VSGR-3636</u>	36	40	53.0mm	130.0mm
<u>VSGD-4848GT</u>	<u>VSGR-4848</u>	48	50	61.0mm	136.0mm

_ = Insert "B" to order black or "S" to order gray.



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Connection splice with pre-installed universal safety clips (AFN2)
- IP68: Connection splice with oval clips (OVN2), conduit seal (NVN3)

AV Conduit Adapters

- Use in connection with PMAFIX®/PMAFLEX® system
- High-grade, specially formulated polyamide 6
- Very high impact resistance
- Allows variable application of the PMAFIX® system, particularly of PMA® distribution pieces
- High conduit pull-out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles



CAT. NO. IP66, BLACK	CAT. NO. IP68, BLACK	FITS TO CONDUIT SIZE		OUTPUT FITS TO CONDUIT SIZE		OVERALL LENGTH
		NW	METRIC	NW	METRIC	
<u>BAVD-10/07GT</u>	<u>BAVR-10/07</u>	10	12	07	10	43.0mm
<u>BAVD-12/10GT</u>	<u>BAVR-12/10</u>	12	16	10	12	46.0mm
<u>BAVD-17/10GT</u>	<u>BAVR-17/10</u>	17	20	10	12	53.0mm
<u>BAVD-17/12GT</u>	<u>BAVR-17/12</u>	17	20	12	16	54.0mm
<u>BAVD-23/10GT</u>	<u>BAVR-23/10</u>	23	25	10	12	54.0mm
<u>BAVD-23/12GT</u>	<u>BAVR-23/12</u>	23	25	12	16	53.0mm
<u>BAVD-23/17GT</u>	<u>BAVR-23/17</u>	23	25	17	20	62.0mm
<u>BAVD-29/10GT</u>	<u>BAVR-29/10</u>	29	32	10	12	56.5mm
<u>BAVD-29/12GT</u>	<u>BAVR-29/12</u>	29	32	12	16	55.0mm
<u>BAVD-29/17GT</u>	<u>BAVR-29/17</u>	29	32	17	20	61.0mm
<u>BAVD-29/23GT</u>	<u>BAVR-29/23</u>	29	32	23	25	64.0mm
<u>BAVD-36/29GT</u>	<u>BAVR-36/29</u>	36	40	29	32	81.0mm
<u>BAVD-48/36GT</u>	<u>BAVR-48/36</u>	48	50	36	40	88.5mm



Temperature range: -40° C to 105° C;
Short term to 160° C

Content of delivery:

- IP66: Adapter with pre-assembled universal safety clips (AFN2)
- IP68: Adapter with oval clips (OVN2), conduit seal (NVN3)

Special Products

RKS Conduit Terminal Sleeves

- Used at the end of conduits where no connectors with threads are necessary
- Specially modified polyamide
- Self extinguishing
- Free from halogens and cadmium

CAT. NO. BLACK	FITS TO CONDUIT SIZE NW	FITS TO CONDUIT SIZE METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	DIMENSIONS LENGTH
RKS-07	7	10	4.5mm	12.5mm	16.0mm
RKS-10	10	12	8.0mm	15.5mm	16.0mm
RKS-12	12	16	10.0mm	19.0mm	20.0mm
RKS-17	17	20	13.0mm	24.0mm	21.0mm
RKS-23	23	25	20.0mm	32.0mm	22.0mm
RKS-29	29	32	25.0mm	38.0mm	22.0mm
RKS-36	36	40	33.5mm	46.0mm	25.0mm
RKS-48	48	50	45.0mm	58.0mm	25.0mm
RKS-56	56	63	54.0mm	71.0mm	28.0mm



Temperature range: -40° C to 105° C;
Short term 160° C

SS/SV Abrasion-Protection Sleeves

- Abrasion protection for corrugated conduits exposed to chafing
- High-grade, specially modified polyamide 6
- Increase the lifetime of moving conduits
- Excellent chafing characteristics
- Very good chemical properties
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles

CAT. NO. BLACK	FITS TO CONDUIT SIZE NW	FITS TO CONDUIT SIZE METRIC	OUTSIDE DIAMETER	DIMENSIONS LENGTH
BSS-17	17	20	42.0mm	22.0mm
BSS-23	23	25	49.0mm	26.0mm
BSS-29	29	32	55.0mm	26.0mm
BSS-36	36	40	63.0mm	30.0mm
BSS-48	48	50	75.0mm	30.0mm
BSS-56G	56	—	90.0mm	33.0mm
BSV-70G	70	—	108.0mm	60.0mm



Temperature range: -40° C to 105° C;
Short term 160° C

Content of delivery:
Abrasion-protection sleeves with assembling screws

Accessories and Tools

AFN2 Universal Safety Clips

- Pre-installed in the IP66 and IP68GT range of connectors
- Allow for a quick and easy connection to PMAFLEX® conduits by just pushing the conduit into the connector
- High-grade formulated polyamide
- Self extinguishing
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles

CAT. NO. IP66, DARK GRAY	FITS TO NW	FITS TO PROFILE	DIMENSIONS WIDTH	DIMENSIONS LENGTH	DIMENSIONS THICKNESS
AFN2-07GT	7	G + T	14.0mm	14.0mm	7.0mm
AFN2-10GT	10	G + T	17.5mm	17.0mm	8.0mm
AFN2-12GT	12	G + T	20.5mm	20.0mm	7.3mm
AFN2-17GT	17	G + T	26.5mm	22.0mm	8.0mm
AFN2-23GT	23	G + T	34.0mm	27.5mm	11.8mm
AFN2-29GT	29	G + T	40.5mm	32.0mm	11.8mm
AFN2-36GT	36	G + T	49.5mm	38.8mm	9.5mm
AFN2-48GT	48	G + T	62.0mm	47.0mm	9.5mm



Temperature range: -40° C to 105° C;
Short term 160° C

OVN2 Oval Clips

- Secure the conduit within the PMAFIX® connectors and distributors
- Connections made with a high degree of safety
- High-grade formulated polyamide
- Easy to install
- Self extinguishing
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles

CAT. NO. IP68, DARK GRAY	FITS TO NW	FITS TO PROFILE	DIMENSIONS WIDTH	DIMENSIONS LENGTH	DIMENSIONS THICKNESS
OVN2-07	7	G + T	14.0mm	14.0mm	6.0mm
OVN2-10	10	G + T	17.5mm	17.0mm	7.0mm
OVN2-12	12	G + T	21.0mm	19.0mm	6.0mm
OVN2-17	17	G + T	26.5mm	22.5mm	7.0mm
OVN2-23	23	G + T	34.0mm	27.5mm	10.5mm
OVN2-29	29	G + T	40.5mm	32.0mm	10.5mm
OVN2-36	36	G + T	49.5mm	39.0mm	8.5mm
OVN2-48	48	G + T	62.0mm	47.0mm	8.5mm



Temperature range: -40° C to 105° C;
Short term 160° C

WPS Water-Impact Protection

- Increased protection of PMAFIX® fittings against water jet impact
- Meet increased ingress protection requirements regarding high-pressure/steam jet cleaning
- High-grade, specially formulated polyamide 6, extremely shock resistant
- Self extinguishing
- Free from halogens and cadmium
- Based on PMAFIX®/PMAFLEX® system with ingress protection of IP68
- Additional protection against water jet impact; increased protection up to IP69K
- Two-piece water-impact protection with click cap
- Fits all PMAFLEX® conduit profiles

CAT. NO. IP69K, BLACK	FITS TO NW	FITS TO PROFILE	OUTSIDE DIAMETER	DIMENSIONS THICKNESS
WPS-NW10	10	G + T	22.0mm	8.0mm
WPS-NW12	12	G + T	26.0mm	8.0mm
WPS-NW17	17	G + T	33.0mm	8.0mm
WPS-NW23	23	G + T	40.0mm	9.0mm
WPS-NW29	29	G + T	47.0mm	9.5mm
WPS-NW36	36	G + T	59.0mm	10.0mm
WPS-NW48	48	G + T	71.0mm	10.0mm



Temperature range: -45° C to 105° C;
Short term 160° C

Accessories and Tools

MN Hexagonal Lock Nuts, Metric, Polyamide

- High-grade, specially formulated polyamide 6, 30% reinforced fiberglass
- High tightening torques
- Safe system connection
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 105° C;
Short term 150° C

CAT. NO. BLACK	CAT. NO. GRAY	FITS TO THREAD METRIC	WRENCH SIZE	DIMENSIONS HEIGHT (MIN.)
BMN-M12	GMN-M12	M12x1.5	18.0mm	5.0mm
BMN-M16	GMN-M16	M16x1.5	22.0mm	5.0mm
BMN-M20	GMN-M20	M20x1.5	26.0mm	6.0mm
BMN-M25	GMN-M25	M25x1.5	32.0mm	5.6mm
BMN-M32	GMN-M32	M32x1.5	41.0mm	7.0mm
BMN-M40	GMN-M40	M40x1.5	50.0mm	7.0mm
BMN-M50	GMN-M50	M50x1.5	60.0mm	8.0mm
BMN-M63	GMN-M63	M63x1.5	75.0mm	8.0mm

MN Hexagonal Lock Nuts, PG, Polyamide

- High-grade, specially formulated polyamide 6, 30% reinforced fiberglass
- High tightening torques
- Safe system connection
- Very good chemical properties
- Free from halogens and cadmium



Temperature range: -40° C to 105° C;
Short term 150° C

CAT. NO. BLACK	CAT. NO. GRAY	FITS TO THREAD PG	WRENCH SIZE	DIMENSIONS HEIGHT (MIN.)
BMN-07	GMN-07	7	19.0mm	5.0mm
BMN-09	GMN-09	9	22.0mm	5.0mm
BMN-11	GMN-11	11	24.0mm	5.0mm
BMN-13	GMN-13	13.5	27.0mm	6.0mm
BMN-16	GMN-16	16	30.0mm	6.0mm
BMN-21	GMN-21	21	36.0mm	7.0mm
BMN-29	GMN-29	29	46.0mm	7.0mm
BMN-36	GMN-36	36	60.0mm	8.0mm
BMN-48	GMN-48	48	70.0mm	8.0mm

Accessories and Tools

MM Hexagonal Lock Nuts, Metric, Metal

- Brass galvanically nickel plated
- Maximum possible torque
- Safe system connection



CAT. NO. METAL	FITS TO THREAD METRIC	WRENCH SIZE	DIMENSIONS HEIGHT (MIN.)
GMM-M12	M12x1.5	15.0mm	2.8mm
GMM-M16	M16x1.5	19.0mm	2.8mm
GMM-M20	M20x1.5	24.0mm	3.0mm
GMM-M25	M25x1.5	30.0mm	3.5mm
GMM-M32	M32x1.5	36.0mm	4.0mm
GMM-M40	M40x1.5	46.0mm	4.5mm
GMM-M50	M50x1.5	60.0mm	5.0mm
GMM-M63	M63x1.5	70.0mm	5.5mm

MM Hexagonal Lock Nuts, PG, Metal

- Brass galvanically nickel plated
- Maximum possible torque
- Safe system connection



CAT. NO. METAL	FITS TO THREAD PG	WRENCH SIZE	DIMENSIONS HEIGHT (MIN.)
GMM-07	7	15.0mm	2.8mm
GMM-09	9	18.0mm	2.8mm
GMM-11	11	21.0mm	3.0mm
GMM-13	13.5	23.0mm	3.0mm
GMM-16	16	26.0mm	3.0mm
GMM-21	21	32.0mm	3.5mm
GMM-29	29	41.0mm	4.0mm
GMM-36	36	51.0mm	5.0mm
GMM-42	42	60.0mm	5.0mm
GMM-48	48	64.0mm	5.5mm

Accessories and Tools

ME Enlargers, Metric, Brass

- Used to enlarge metric threads
- Easy mounting, equipped with hexagonal ring
- Brass galvanically nickel plated
- For enlargement of an existing thread



CAT. NO. METAL, STANDARD	THREAD OUTSIDE		THREAD INSIDE		INSIDE DIAMETER	TOTAL LENGTH	WRENCH SIZE
	METRIC	LENGTH	METRIC	LENGTH			
M12M16M	M12x1.5	5mm	M16x1.5	7.0mm	8.0mm	16.0mm	18
M16M20M	M16x1.5	5mm	M20x1.5	7.5mm	12.0mm	16.5mm	22
M20M25M	M20x1.5	6mm	M25x1.5	8.0mm	15.0mm	18.5mm	27
M25M32M	M25x1.5	7mm	M32x1.5	9.0mm	21.0mm	20.5mm	34
M32M40M	M32x1.5	8mm	M40x1.5	10.0mm	26.0mm	23.5mm	42
M40M50M	M40x1.5	8mm	M50x1.5	13.0mm	34.0mm	30.0mm	52
M50M63M	M50x1.5	9mm	M63x1.5	16.0mm	44.0mm	32.5mm	65

MR Reducers, Metric, Brass

- Used to reduce metric threads
- Available in round and hexagonal form
- Brass galvanically nickel plated



CAT. NO. METAL, STANDARD	CAT. NO. METAL HEXAGONAL	THREAD OUTSIDE METRIC	THREAD INSIDE METRIC
M16M12M	M16M12M/6	M16x1.5	M12x1.5
M20M12M	M20M12M/6	M20x1.5	M12x1.5
M20M16M	M20M16M/6	M20x1.5	M16x1.5
M25M16M	M25M16M/6	M25x1.5	M16x1.5
M25M20M	M25M20M/6	M25x1.5	M20x1.5
M32M20M	M32M20M/6	M32x1.5	M20x1.5
M32M25M	M32M25M/6	M32x1.5	M25x1.5
M40M25M	M40M25M/6	M40x1.5	M25x1.5
M40M32M	M40M32M/6	M40x1.5	M32x1.5
M50M32M	M50M32M/6	M50x1.5	M32x1.5
M50M40M	M50M40M/6	M50x1.5	M40x1.5
M63M40M	M63M40M/6	M63x1.5	M40x1.5
M63M50M	M63M50M/6	M63x1.5	M50x1.5

Accessories and Tools

ME Enlargers, PG, Brass

- Used to enlarge PG threads
- Brass galvanically nickel plated

CAT. NO. METAL, STANDARD	THREAD OUTSIDE		THREAD INSIDE		OUTSIDE DIAMETER	TOTAL LENGTH
	PG	LENGTH	PG	LENGTH		
0709M	7.0	5.0mm	9.0	7.0mm	17.0mm	15.0mm
0911M	9.0	6.0mm	11.0	7.0mm	20.0mm	16.5mm
0913M	9.0	6.0mm	13.5	7.5mm	22.0mm	17.5mm
1113M	11.0	6.0mm	13.5	8.0mm	22.0mm	17.5mm
1116M	11.0	6.5mm	16.0	8.5mm	24.0mm	19.0mm
1121M	11.0	6.5mm	21.0	10.0mm	30.0mm	21.0mm
1316M	13.5	6.5mm	16.0	7.5mm	24.0mm	19.0mm
1321M	13.5	6.5mm	21.0	8.5mm	30.0mm	21.0mm
1621M	16.0	6.5mm	21.0	8.5mm	30.0mm	21.0mm
1629M	16.0	6.5mm	29.0	11.0mm	39.0mm	22.5mm
2129M	21.0	7.0mm	29.0	11.5mm	39.0mm	23.0mm
2936M	29.0	8.0mm	36.0	12.0mm	50.0mm	27.5mm
4248M	42.0	10.0mm	48.0	1.0mm	64.0mm	33.0mm



MR Reducers, PG, Brass

- Used to reduce PG threads
- Brass galvanically nickel plated

CAT. NO. METAL, STANDARD	THREAD OUTSIDE		THREAD INSIDE		OUTSIDE DIAMETER	TOTAL LENGTH
	PG	LENGTH	PG	LENGTH		
0907M	9.0	6.0mm	7		17.0mm	8.5mm
1107M	11.0	6.0mm	7		20.0mm	8.5mm
1109M	11.0	6.0mm	9		20.0mm	8.5mm
1307M	13.5	6.5mm	7		22.0mm	9.0mm
1309M	13.5	6.5mm	9		22.0mm	9.0mm
1311M	13.5	6.5mm	11		22.0mm	9.0mm
1607M	16.0	6.5mm	7		24.0mm	9.5mm
1609M	16.0	6.5mm	9		24.0mm	9.5mm
1611M	16.0	6.5mm	11		24.0mm	9.5mm
1613M	16.0	6.5mm	13.5		24.0mm	9.5mm
2111M	21.0	7.0mm	11		30.0mm	10.0mm
2113M	21.0	7.0mm	13.5		30.0mm	10.0mm
2116M	21.0	7.0mm	16		30.0mm	10.0mm
2916M	29.0	8.0mm	16		39.0mm	11.5mm
2921M	29.0	8.0mm	21		39.0mm	11.5mm
3621M	36.0	9.0mm	21		50.0mm	12.5mm
3629M	36.0	9.0mm	29		50.0mm	12.5mm
4229M	42.0	10.0mm	29		57.0mm	14.0mm
4236M	42.0	10.0mm	36		57.0mm	14.0mm
4836M	48.0	10.0mm	36		64.0mm	14.0mm
4842M	48.0	10.0mm	42		64.0mm	14.0mm



Accessories and Tools

NR Reducers, PG, Polyamide

- Reduce connecting threads
- Polyamide reinforced fiberglass

CAT. NO.	THREAD OUTSIDE PG	THREAD INSIDE PG	LENGTH	OUTSIDE DIAMETER
1109N	11	9	18.0mm	22.5mm
1309N	13.5	9	11.5mm	27.0mm
1311N	13.5	11	21.5mm	25.0mm
1609N	16	9	13.0mm	29.0mm
1611N	16	11	12.5mm	29.0mm
1613N	16	13.5	24.5mm	28.5mm
2113N	21	13.5	13.5mm	35.5mm
2116N	21	16	13.5mm	35.5mm
2921N	29	21	13.5mm	46.0mm
3629N	36	29	21.5mm	54.5mm



Temperature range: -40° C to 105° C

NVN3 Sealing Caps, Reinforced, IP68

- Connect PMAFIX® connectors ("V" series and PMAFLEX® corrugated conduits)
- Specially modified polyesterelastomer
- Suitable for sealing
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles

CAT. NO. BLACK	FITS TO CONDUIT SIZE NW	FITS TO CONDUIT SIZE METRIC	LENGTH
NVN3-07	7	10	9.0mm
NVN3-09	10	12	9.0mm
NVN3-11	12	16	12.0mm
NVN3-16	17	23	16.5mm
NVN3-21	23	25	13.0mm
NVN3-29	29	32	14.0mm
NVN3-36	36	40	17.5mm
NVN3-48	48	50	17.5mm



Temperature range: -40° C to 105° C

NFN3 Sealing Caps, IP67

- Connect PMAFIX® connectors ("F" series and PMAFLEX® corrugated conduits)
- Specially modified polyesterelastomer
- Suitable for sealing
- Free from halogens and cadmium
- Fits fine (T) and coarse (G) conduit profiles

CAT. NO. WHITE	FITS TO CONDUIT SIZE NW	FITS TO CONDUIT SIZE METRIC	LENGTH
NFN3-07	7	10	9.0mm
NFN3-09	10	12	9.0mm
NFN3-11	12	16	9.0mm
NFN3-16	17	23	9.0mm
NFN3-21	23	25	9.0mm
NFN3-29	29	32	9.0mm
NFN3-36	36	40	11.0mm
NFN3-48	48	50	11.0mm



Temperature range: -40° C to 105° C

Accessories and Tools

SVN4 Flat Gaskets, Metric

- Suitable for the reinforced PMAFIX® connectors with polyamide or metal threads
- NBR reinforced with aramide fibers (asbestos free)
- Guarantee ingress protection of up to IP68
- Up to IP68

CAT. NO. IP68	FITS TO THREAD METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	WIDTH
SVN4-M12	M12x1.5	12.0mm	20.0mm	1.5mm
SVN4-M12/02	M12x1.5	12.0mm	23.0mm	1.5mm
SVN4-M16	M16x1.5	16.0mm	22.0mm	1.5mm
SVN4-M16/02	M16x1.5	16.0mm	25.0mm	1.5mm
SVN4-M20	M20x1.5	20.0mm	27.0mm	1.5mm
SVN4-M20/02	M20x1.5	20.0mm	33.0mm	1.5mm
SVN4-M25	M25x1.5	25.0mm	35.0mm	1.5mm
SVN4-M25/02	M25x1.5	25.0mm	39.0mm	1.5mm
SVN4-M32	M32x1.5	32.0mm	43.0mm	1.5mm
SVN4-M32/02	M32x1.5	32.0mm	49.0mm	1.5mm
SVN4-M40	M40x1.5	40.0mm	55.0mm	1.5mm
SVN4-M40/02	M40x1.5	40.0mm	64.0mm	1.5mm
SVN4-M50	M50x1.5	50.0mm	69.0mm	1.5mm
SVN4-M50/02	M50x1.5	50.0mm	74.0mm	1.5mm
SVN4-M63	M63x1.5	63.0mm	75.0mm	1.5mm



Temperature range: -40° C to 200° C;
Short term 350° C

SVN4 Flat Gaskets, PG

- Suitable for the reinforced PMAFIX® connectors with polyamide or metal threads
- NBR reinforced with aramide fibers (asbestos free)
- Guarantee ingress protection of up to IP68
- Up to IP68

CAT. NO. IP68	FITS TO THREAD PG	INSIDE DIAMETER	OUTSIDE DIAMETER	WIDTH
SVN4-07	7	12.5mm	16.5mm	1.5mm
SVN4-09	9	15.2mm	20.0mm	1.5mm
SVN4-11	11	18.6mm	24.0mm	1.5mm
SVN4-13	13.5	20.4mm	31.0mm	1.5mm
SVN4-16	16	22.5mm	31.0mm	1.5mm
SVN4-21	21	28.3mm	37.0mm	1.5mm
SVN4-29	29	37.0mm	48.0mm	1.5mm
SVN4-36	36	47.0mm	57.0mm	1.5mm
SVN4-42	42	54.0mm	60.0mm	1.5mm
SVN4-48	48	59.3mm	69.0mm	1.5mm



Temperature range: -40° C to 200° C;
Short term 350° C

SVN4 Flat Gaskets, Gas

- Suitable for the reinforced PMAFIX® connectors with polyamide or metal threads
- NBR reinforced with aramide fibers (asbestos free)
- Guarantee ingress protection of up to IP68
- Up to IP68

CAT. NO. IP68	FITS TO THREAD GAS	INSIDE DIAMETER	OUTSIDE DIAMETER	WIDTH
SVN4-G00	¼"	13.2mm	20.0mm	1.5mm
SVN4-G01	⅜"	16.7mm	22.0mm	1.5mm
SVN4-G02	½"	21.0mm	28.0mm	1.5mm
SVN4-G04	¾"	26.5mm	34.0mm	1.5mm
SVN4-G06	1"	33.3mm	42.0mm	1.5mm
SVN4-G07	1¼"	41.9mm	53.0mm	1.5mm
SVN4-G08	1½"	47.8mm	62.0mm	1.5mm
SVN4-G09	2"	59.6mm	69.0mm	1.5mm



Temperature range: -40° C to 200° C;
Short term 350° C

Accessories and Tools

514 Plug Screws, Metric

- Suitable for an accurate termination where no thread holes in casing and distribution boxes are needed
- Free from halogens and cadmium
- IP54
- Product with metric thread: PA-GF

CAT. NO. GRAY	FITS TO THREAD METRIC	OUTSIDE DIAMETER	DIMENSIONS HEIGHT	THREAD LENGTH
514-M12	M12x1.5	15.0mm	8.0mm	6.0mm
514-M16	M16x1.5	20.0mm	9.0mm	6.0mm
514-M20	M20x1.5	24.0mm	9.5mm	6.0mm
514-M25	M25x1.5	30.0mm	11.5mm	8.0mm
514-M32	M32x1.5	37.0mm	12.0mm	8.0mm
514-M40	M40x1.5	46.0mm	13.0mm	8.0mm
514-M50	M50x1.5	56.0mm	15.0mm	10.0mm
514-M63	M63x1.5	70.0mm	17.0mm	12.0mm



Temperature range: 40° C to 100° C;
Short term 150° C

514 Plug Screws, PG

- Suitable for an accurate termination where no thread holes in casing and distribution boxes are needed
- Free from halogens and cadmium
Battery: Ni-MH 14.4V 3.0Ah
- IP54
- Product with PG thread: PS

CAT. NO. GRAY	FITS TO THREAD PG	OUTSIDE DIAMETER	DIMENSIONS HEIGHT	THREAD LENGTH
514-07	7	15.0mm	8.0mm	6.0mm
514-09	9	19.0mm	9.5mm	6.5mm
514-11	11	22.0mm	10.0mm	6.5mm
514-13	13.5	25.0mm	10.0mm	6.5mm
514-16	16	27.0mm	10.0mm	6.5mm
514-21	21	33.0mm	12.0mm	8.0mm
514-29	29	44.0mm	11.5mm	8.0mm
514-36	36	55.0mm	14.0mm	10.0mm
514-48	48	68.0mm	16.0mm	12.0mm



Temperature range: -40° C to 100° C;
Short term 150° C

Accessories and Tools

PMACUT Cutting Tools

- Excellent tool for cutting all PMA® conduits
- Guarantees precise and safe 90° angle cut
- Material: Metal
- Color: Red



CAT. NO. CUTTING TOOL	CAT. NO. SPARE BLADE	CUTTING RANGE	FOR PMAFLEX NW
PMACUT-38	FP-38	0-38mm	7-29
PMACUT-52	FP-52	0-52mm	23-48

EWZ Draw-In Tools

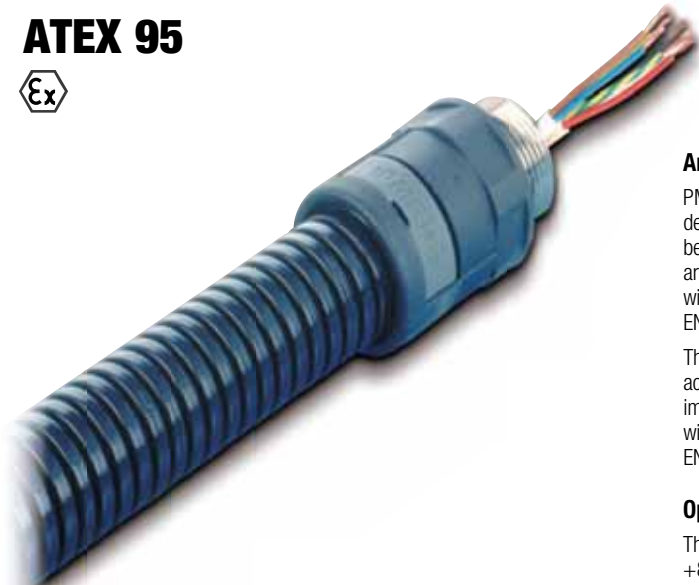
- Suitable for drawing in cables or wires into PMA® COFLEX or other slit conduits
- Designed in a handy shape and are equipped with a practical hand grip for wedging or with hole for direct holding of the wires
- Can be used whenever a drawing-in assistance for slit conduits is helpful
- Material: Polyamide
- Color: Black



CAT. NO. BLACK WITH HOLE	CAT. NO. BLACK WITH HANDLE	FITS TO CONDUIT SIZE NW	DIMENSIONS WIDTH X LENGTH X DEPTH
EWZ-02	EWZ-03	7.5-34	117.7 x 45.2 x 71.9mm

Hazardous Location ATEX Systems

ATEX 95



Polyamide Cable Protection: 30 years of experience, now ATEX 95 certified

- Products for the protection of cables, wires and hoses against not only mechanical damage but also the influences of UV radiation, weathering and chemicals
- Products made of specially modified, load-discharging polyamide materials (PA11, PA12) for use in explosion-endangered zones 1/2 (gas) and 21/22 (dust)
- ATEX marking:

CE 1258  II 2G Ex eb IIC SEV 05 ATEX 0105 II 2D Ex tb IIIC

- Identical in function to the standard product range PMAFIX®/PMAFLEX® (successfully used in applications as railway, machinery, automation, etc., more than 30 years)
- Two sealing systems fulfilling IP66 or IP68
- System safety: For security reasons, re-opening is only possible with the use of a screwdriver
- Flexible conduits, excellent for applications with continual reversed bending
- Quick and simple installation, reduced total installation costs (compared to other explosion-proof cable protection systems)
- No corrosion, long service life
- Low weight

Area of Application

PMA® Ex-System products constitute an equipment group II category 2G device in accordance with Directive 94/9/EC (ATEX 95) Appendix I which may be implemented in zones 1/2 as well as in gas groups IIA, IIB and IIC which are subject to explosion risk due to combustible substances, in accordance with Directive 99/92/EC (ATEX 137). The requirements in accordance with EN 60079-14 shall be adhered to on use/installation.

The products constitute an equipment group II category 2D device in accordance with Directive 94/9/EC (ATEX 95) Appendix I which may be implemented in zones 21/22 with explosive air/dust mixtures in accordance with Directive 99/92/EC (ATEX 137). The requirements in accordance with EN 60079-14 shall be adhered to on use/installation.

Operation, Service and Maintenance

The defined ambient and operating temperature range is -20° C to +85° C and -40° C to +85° C for the conduit type XESX (temperature range for electrical equipment in accordance with EN 60079-0).

A visual examination of the cable protection system shall be performed in periodic maintenance of systems and components, but no later than every 5 years. In the event of visible damage (holes, cracks, signs of heavy wear) to conduits, fittings or accessories, the damaged parts shall be replaced. (In the event of apparent mechanical damage, it shall be ensured that no incorrect handling takes place.)

Only ATEX-approved original PMA® parts shall be used for the replacement of ATEX-approved parts.

These operating and assembly instructions include important information for service and maintenance and should therefore be retained.

Assembly

To ensure the discharge of electrical currents and thus to ensure antistatic behaviour, ATEX-approved PMA® conduits shall be used exclusively in combination with special PMA® connectors and accessories which are also ATEX-approved. These connectors and accessories (seals, fasteners) are also made of discharging material and are designated with the conformity marking.

The ATEX-approved connectors or accessories shall always be in direct contact with a metallic surface (ground). No insulating materials (e.g. adhesives) and no components which are not ATEX-approved shall be used between the discharging plastic parts or between plastic parts and metal surfaces.

Hazardous Location ATEX Systems

ATEX Multilayer Conduits

The PMA® EX-system is suitable for the protection of cables, wires and hoses against mechanical damage, UV radiation and weathering in explosion-endangered areas classified as zones 1/2 (gas) and 21/22 (dust) according to ATEX 137.

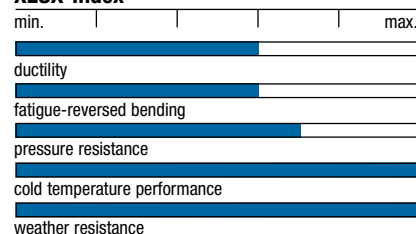
The multilayer conduit offers electrostatic load-discharging properties and comes with a range of compatible ATEX approved fittings and installation accessories.

XESX Highly Flexible, Medium Wall

The PMA® Ex-System multilayer conduit type XESX offers an electrostatically discharging property, very high mechanical load capacity and low-temperature impact strength. Excellent UV and weathering resistance allow outdoor installation exposed to constant sunlight.



XESX-Index



CAT. NO. BLACK	CONDUIT SIZE NW	REC. FITTING THREAD METRIC	INSIDE DIAMETER	OUTSIDE DIAMETER	STAT. RADIUS*	PU METER
XESXT-12BY	12	M16/M20	11.8	15.6mm	30/70mm	50
XESXG-17BY	17	M20/M25	15.2	21.0mm	35/85mm	50
XESXG-23BY	23	M25/M32	22.0	28.5mm	40/110mm	50
XESXG-29BY	29	M32/M40	27.5	34.4mm	50/130mm	50
XESXG-36BY	36	M40/M50	35.8	42.4mm	60/180mm	30
XESXG-48BY	48	M50/M63	46.8	54.4mm	70/220mm	30

- Specially modified polyamide and polyethylene
- Electrostatic discharging
- Free from halogens and cadmium
- Very high mechanical load capacity and low-temperature impact strength
- Very good UV-resistance
- High abrasion resistance
- Highest dynamic load capacity
- Very good chemical properties
- **Temperature range:** -50° C to +90° C continuous; +150° C short-term; -40° C to +85° C (for ATEX use)



Fine profile T
Tight bending radius



Coarse profile G
High pull-out strength



*stat. R = lowest recommended bending radius for static (fixed) installation.

***dyn. R = lowest recommended bending radius for dynamic (flexible) installation

Hazardous Location ATEX Systems



ATEX Connectors

PMA® Ex-System connectors together with PMA® Ex-System protection conduits are used for flexible protection of cables, wires and hoses against mechanical damage, UV radiation and weathering in explosion-endangered areas classified as zones 1/2 (gas) and 21/22 (dust) according to ATEX 137.

Connectors are available with ingress protection up to and including IP66 or IP68.

IP66 connectors are fitted with a pre-installed universal safety clip which ensures a quick push-in installation of the conduit.

IP68 connectors for increased requirements will be delivered with a special conduit sealing cap.

IP66



IP66 static IP54 dynamic

- One-piece fitting, conical sealing method
- Easy push-in installation
- Pre-installed safety clip AFN2
- Fits any type of conduit profile (T and G)
- Excellent pull-out strength
- For safety reasons, re-opening is only possible with a screwdriver

IP68



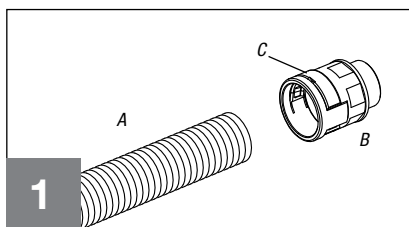
IP68 static IP67 dynamic

- High sealing through additional seal cap
- For highest dynamic applications
- Fits any type of conduit profile (T and G)
- Excellent pull-out strength
- For safety reasons, re-opening is only possible with a screwdriver

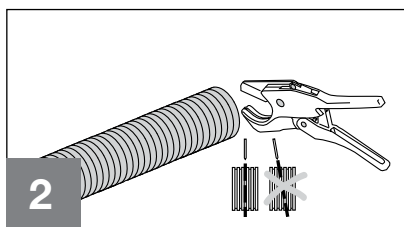
Hazardous Location ATEX Systems

IP66

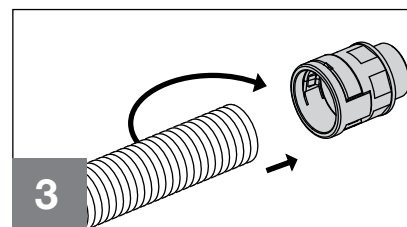
Installation of IP66 Safety System



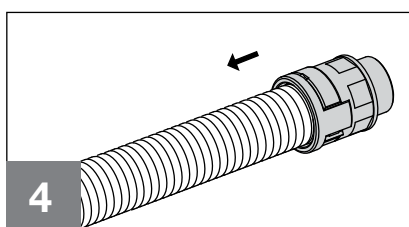
1
A. Conduit
B. Fitting
C. Universal safety clip



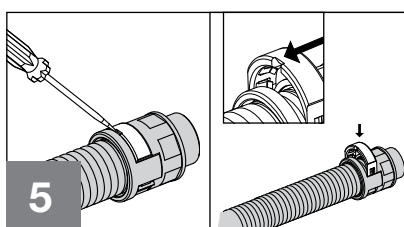
2
Straight cut of conduit (A).



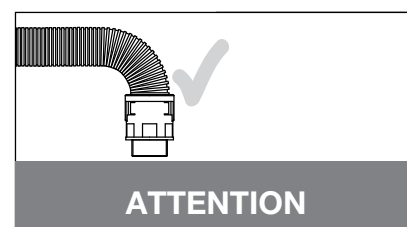
3
Push in the conduit (A) with a slight twist until the stop.



4
Pull back the conduit (A) slightly to ensure the locking mechanism is fully engaged.



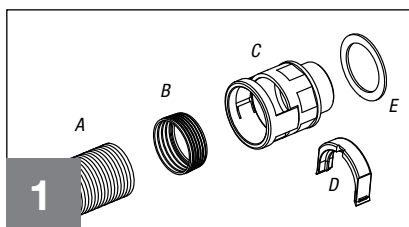
5
To re-open use a screwdriver. The screwdriver slot at the oval clip (C) must point towards the conduit.



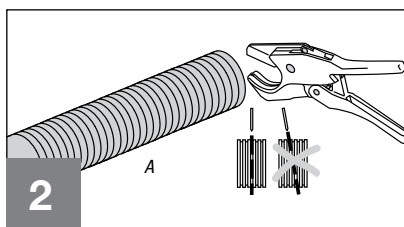
6
ATTENTION
If bending the conduit, please maintain the recommended bending radius.

IP68

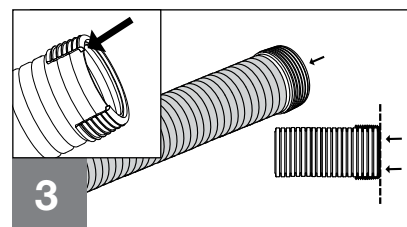
Installation of IP68 Safety System



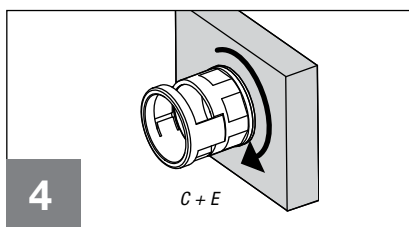
1
A. Conduit
B. Ex Seal cap (yellow)
C. Fitting
D. Oval clip
E. Thread seal (O-ring or flat seal)



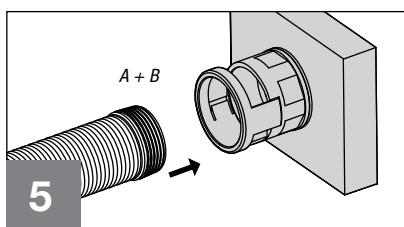
2
Straight cut of conduit (A).



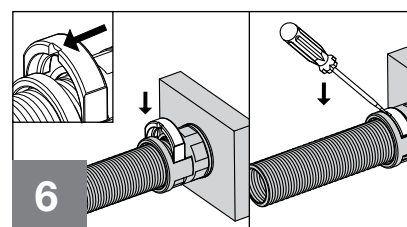
3
Push seal cap (B) completely onto conduit in order to achieve IP68.



4
Place seal (E) onto fitting thread (C) and screw in.



5
Push conduit with seal cap (A+B) into the fitting until seal cap is no longer visible in the locking element window.



6
Insert Oval clip (D) in the locking element window and click into place. The screwdriver slot must point towards the conduit. To re-open, use a screwdriver.

Hazardous Location ATEX Systems

END Straight, Metric, IP66

These PMA[®] Ex-System connectors allow a quick push-in installation of PMA[®] Ex-System conduits.

CAT. NO. IP66	THREAD SIZE METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
		NW	METRIC		
BEND-M120GT	M12x1.5	10	12	11.0mm	36.5mm
BEND-M160GT	M16x1.5	10	12	11.0mm	36.5mm
BEND-M162GT	M16x1.5	12	16	11.0mm	39.5mm
BEND-M202GT	M20x1.5	12	16	11.0mm	39.5mm
BEND-M207GT	M20x1.5	17	20	11.0mm	47.5mm
BEND-M257GT	M25x1.5	17	20	12.0mm	48.5mm
BEND-M253GT	M25x1.5	23	25	12.0mm	52.0mm
BEND-M323GT	M32x1.5	23	25	15.0mm	55.5mm
BEND-M329GT	M32x1.5	29	32	15.0mm	56.0mm
BEND-M409GT	M40x1.5	29	32	19.0mm	60.0mm
BEND-M406GT	M40x1.5	36	40	19.0mm	72.5mm
BEND-M506GT	M50x1.5	36	40	19.0mm	72.0mm
BEND-M508GT	M50x1.5	48	50	19.0mm	72.5mm
BEND-M638GT	M63x1.5	48	50	19.0mm	72.0mm



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

EAD 45° Elbow, Metric, IP66

These PMA[®] Ex-System connectors allow a quick push-in installation of the PMA[®] Ex-System conduits.

CAT. NO. IP66	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
		NW	METRIC		
BEAD-M120GT	M12x1.5	10	12	11.0mm	43.5 x 37.0mm
BEAD-M160GT	M16x1.5	10	12	11.0mm	43.5 x 38.0mm
BEAD-M162GT	M16x1.5	12	16	11.0mm	48.0 x 40.0mm
BEAD-M202GT	M20x1.5	12	16	11.0mm	48.0 x 41.5mm
BEAD-M207GT	M20x1.5	17	20	11.0mm	55.5 x 51.5mm
BEAD-M253GT	M25x1.5	23	25	12.0mm	65.0 x 58.5mm
BEAD-M329GT	M32x1.5	29	32	15.0mm	73.5 x 66.5mm
BEAD-M406GT	M40x1.5	36	40	19.0mm	92.5 x 85.5mm
BEAD-M506GT	M50x1.5	36	40	19.0mm	92.5 x 89.5mm
BEAD-M508GT	M50x1.5	48	50	19.0mm	100.0 x 96.0mm
BEAD-M638GT	M63x1.5	48	50	19.0mm	100.0 x 104.0mm



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

Hazardous Location ATEX Systems

EBD 90° Curved Elbow, Metric, IP66

These PMA[®] Ex-System connectors allow a quick push-in installation of the PMA[®] Ex-System conduits.

CAT. NO. IP66	THREAD SIZE METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
		NW	METRIC		
BEBD-M207GT	M20x1.5	17	20	11.0mm	47.5 x 73.0mm
BEBD-M257GT	M25x1.5	17	20	12.0mm	48.5 x 76.0mm
BEBD-M253GT	M25x1.5	23	25	12.0mm	57.5 x 83.0mm
BEBD-M323GT	M32x1.5	23	25	15.0mm	61.0 x 87.5mm
BEBD-M329GT	M32x1.5	29	21	15.0mm	70.5 x 93.0mm
BEBD-M409GT	M40x1.5	29	32	19.0mm	74.5 x 98.5mm
BEBD-M406GT	M40x1.5	36	40	19.0mm	85.0 x 121.0mm
BEBD-M506GT	M50x1.5	36	40	19.0mm	85.0 x 125.0mm
BEBD-M508GT	M50x1.5	48	50	19.0mm	98.5 x 130.0mm
BEBD-M638GT	M63x1.5	48	50	19.0mm	98.5 x 138.0mm



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

EWD 90° Elbow, Metric, IP66

These PMA[®] Ex-System connectors allow a quick push-in installation of the PMA[®] Ex-System conduits.

CAT. NO. IP66	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	OVERALL LENGTH
		NW	METRIC		
BEWD-M120GT	M12x1.5	10	12	11.0mm	34.0 x 39.5mm
BEWD-M160GT	M16x1.5	10	12	11.0mm	34.0 x 40.5mm
BEWD-M162GT	M16x1.5	12	16	11.0mm	38.5 x 46.0mm
BEWD-M202GT	M20x1.5	12	16	11.0mm	38.5 x 47.5mm



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

Hazardous Location ATEX Systems

ENV Straight, Metric, Metal Thread, IP68

The metal thread and the sealing up to IP68 allow use of these PMA® Ex-System fittings in applications with increased requirements.

CAT. NO. IP68	THREAD METRIC	FITS TO CONDUIT SIZE			EXTERNAL DIMENSIONS
		NW	METRIC	THREAD LENGTH	
NENV-M120-10	M12x1.5	10	12	10.0mm	40.0mm
NENV-M160-10	M16x1.5	10	12	10.0mm	40.0mm
NENV-M162-10	M16x1.5	12	16	10.0mm	43.0mm
NENV-M202-10	M20x1.5	12	16	10.0mm	43.0mm
NENV-M207-10	M20x1.5	17	20	10.0mm	51.0mm
NENV-M257-11	M25x1.5	17	20	11.0mm	52.0mm
NENV-M253-11	M25x1.5	23	25	11.0mm	54.0mm
NENV-M323-13	M32x1.5	23	25	13.0mm	56.0mm
NENV-M329-13	M32x1.5	29	32	13.0mm	57.3mm
NENV-M409-13	M40x1.5	29	32	13.0mm	57.3mm
NENV-M406-13	M40x1.5	36	40	13.0mm	71.4mm
NENV-M506-14	M50x1.5	36	40	14.0mm	72.4mm
NENV-M508-14	M50x1.5	48	50	14.0mm	72.4mm
NENV-M638-14	M63x1.5	48	50	14.0mm	72.4mm

ENZ Straight with Strain Relief, Metric, Metal Thread, IP68

The metal thread and the sealing up to IP68 allow use of these PMA® Ex-System fittings in applications with increased requirements. Due to the integrated Pflitsch insert, cables are held and at the same time sealed up to IP68 (10 bar). Furthermore, these connectors can be used where damp and dry areas have to be separated.

CAT. NO. IP68	TERMINAL RANGE	THREAD METRIC	FITS TO CONDUIT SIZE		THREAD LENGTH	EXTERNAL DIMENSIONS
			NW	METRIC		
NENZ-M120S/P1	4.5–6.0mm	M12x1.5	10	12	5.0mm	48.5mm
NENZ-M120S/P2	5.0–8.0mm	M12x1.5	10	12	5.0mm	48.5mm
NENZ-M120S/P3	6.5–9.5mm	M12x1.5	10	12	5.0mm	48.5mm
NENZ-M160S/P1	4.0–6.5mm	M16x1.5	10	12	6.0mm	49.5mm
NENZ-M160S/P2	5.0–8.0mm	M16x1.5	10	12	6.0mm	49.5mm
NENZ-M160S/P3	6.5–9.5mm	M16x1.5	10	12	6.0mm	49.5mm
NENZ-M202S/P1	4.0–6.5mm	M20x1.5	12	16	6.5mm	54.0mm
NENZ-M202S/P3	6.5–9.5mm	M20x1.5	12	16	6.5mm	54.0mm
NENZ-M202S/P4	7.0–10.5mm	M20x1.5	12	16	6.5mm	54.0mm
NENZ-M207S/P3	6.5–9.5mm	M20x1.5	17	20	6.5mm	60.0mm
NENZ-M207S/P4	7.0–10.5mm	M20x1.5	17	20	6.5mm	60.0mm
NENZ-M207S/P5	9.0–13.0mm	M20x1.5	17	20	6.5mm	60.0mm
NENZ-M257S/P5	9.0–13.0mm	M25x1.5	17	20	7.5mm	61.5mm
NENZ-M257S/P6	11.5–15.5mm	M25x1.5	17	20	7.5mm	61.5mm
NENZ-M323S/P4	14.0–18.0mm	M32x1.5	23	25	8.0mm	73.0mm
NENZ-M323S/P5	17.0–20.5mm	M32x1.5	23	25	8.0mm	73.0mm
NENZ-M409S/P4	20.0–25.0mm	M40x1.5	29	32	8.0mm	73.0mm
NENZ-M409S/P5	24.0–28.0mm	M40x1.5	29	32	8.0mm	73.0mm
NENZ-M506S/P1	27.0–32.0mm	M50x1.5	36	40	10.0mm	89.5mm
NENZ-M506S/P3	32.0–36.0mm	M50x1.5	36	40	10.0mm	89.5mm
NENZ-M508S/P2	32.0–36.0mm	M50x1.5	48	50	10.0mm	92.0mm
NENZ-M508S/P3	36.0–40.0mm	M50x1.5	48	50	10.0mm	92.0mm
NENZ-M638S/P1	35.0–40.0mm	M63x1.5	48	50	10.0mm	90.5mm
NENZ-M638S/P2	39.0–44.0mm	M63x1.5	4	50	10.0mm	90.5mm



- Specially modified electrostatic-discharging polyamide
- Thread made of nickel-plated brass
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)



- Specially modified electrostatic-discharging polyamide
- Strain-relief socket made of nickel-plated brass, sealing insert TPE-V
- With corresponding seals IP68 static / IP67 dynamic cable = IP68 (10 bar)
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

Content of delivery:

Complete: Fitting with oval clips (OVN2), Pflitsch sealing insert (DE), conduit seal (NEN3), O-ring (OR)

Hazardous Location ATEX Systems

EAV 45° Elbow, Metric, Metal Thread, IP68

The metal thread and the sealing up to IP68 allow use of these PMA® Ex-System fittings in applications with increased requirements.

CAT. NO. IP68	THREAD METRIC	FITS TO CONDUIT SIZE			EXTERNAL DIMENSIONS
		NW	METRIC	THREAD LENGTH	
NEAV-M120-10	M12x1.5	10	12	10.0mm	48.5 x 37.0mm
NEAV-M162-10	M16x1.5	12	16	10.0mm	53.0 x 40.5mm
NEAV-M207-10	M20x1.5	17	20	10.0mm	60.5 x 51.5mm
NEAV-M257-11	M25x1.5	17	20	11.0mm	61.5 x 54.5mm
NEAV-M253-11	M25x1.5	23	25	11.0mm	70.0 x 60.5mm
NEAV-M323-13	M32x1.5	23	25	13.0mm	72.0 x 64.5mm
NEAV-M329-13	M32x1.5	29	32	13.0mm	77.0 x 68.0mm
NEAV-M409-13	M40x1.5	29	32	13.0mm	77.0 x 73.0mm
NEAV-M406-13	M40x1.5	36	40	13.0mm	94.0 x 87.5mm
NEAV-M506-14	M50x1.5	36	40	14.0mm	95.0 x 92.5mm
NEAV-M508-14	M50x1.5	48	50	14.0mm	102.0 x 101.0mm
NEAV-M638-14	M63x1.5	48	50	14.0mm	102.0 x 104.0mm

EBV 90° Curved Elbow, Metric, Metal Thread, IP68

The metal thread and the sealing up to IP68 allow use of these PMA® Ex-System fittings in applications with increased requirements.

CAT. NO. IP68	THREAD METRIC	FITS TO CONDUIT SIZE			EXTERNAL DIMENSIONS
		NW	METRIC	THREAD LENGTH	
NEBV-M207-10	M20x1.5	17	20	10.0mm	51.0 x 73.0mm
NEBV-M257-11	M25x1.5	17	20	11.0mm	52.0 x 76.0mm
NEBV-M253-11	M25x1.5	23	25	11.0mm	62.5 x 85.0mm
NEBV-M323-13	M32x1.5	23	25	13.0mm	64.5 x 89.0mm
NEBV-M329-13	M32x1.5	29	32	13.0mm	74.0 x 94.5mm
NEBV-M409-13	M40x1.5	29	32	13.0mm	75.5 x 100.5mm
NEBV-M406-13	M40x1.5	36	40	13.0mm	86.5 x 123.0mm
NEBV-M506-14	M50x1.5	36	40	14.0mm	87.5 x 130.0mm
NEBV-M508-14	M50x1.5	48	50	14.0mm	100.5 x 135.0mm
NEBV-M638-14	M63x1.5	48	50	14.0mm	100.5 x 138.0mm

EWV 90° Elbow, Metric, Metal Thread, IP68

The metal thread and the sealing up to IP68 allow use of these PMA® Ex-System fittings in applications with increased requirements.

CAT. NO. IP68	THREAD METRIC	FITS TO CONDUIT SIZE			EXTERNAL DIMENSIONS
		NW	METRIC	THREAD LENGTH	
NEWV-M120-10	M12x1.5	10	12	10.0mm	37.5 x 39.5mm
NEWV-M160-10	M16x1.5	10	12	10.0mm	37.5 x 41.5mm
NEWV-M162-10	M16x1.5	12	16	10.0mm	42.0 x 46.5mm
NEWV-M202-10	M20x1.5	12	16	10.0mm	42.0 x 49.0mm



- Specially modified electrostatic-discharging polyamide
- Thread made of nickel-plated brass
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)



- Specially modified electrostatic-discharging polyamide
- Thread made of nickel-plated brass
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)



- Specially modified electrostatic-discharging polyamide
- Thread made of nickel-plated brass
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

Hazardous Location ATEX Systems

ENR-REM Connection to Solid Metal Tube

With these products, solid metal tubes can easily and quickly be connected with flexible PMA® Ex-System conduits. The connection is fixed onto the solid tube with a jubilee clip made of stainless steel.

CAT NO. WITHOUT JUBILEE CLIP, IP68	CAT NO. WITH JUBILEE CLIP, IP68	FITS TO METAL TUBE		EXTERNAL DIMENSIONS
		NW	METRIC	
BENR-REM162	BENR-REM162-24	12	M16	54.0mm
BENR-REM207	BENR-REM207-28	17	M20	65.0mm
BENR-REM253	BENR-REM253-32	23	M25	71.0mm
BENR-REM329	BENR-REM329-44	29	M32	71.0mm
BENR-REM406	BENR-REM406-50	36	M40	90.0mm
BENR-REM508	BENR-REM508-65	48	M50	90.0mm



- Specially modified electrostatic-discharging polyamide
- Clamp made of stainless steel
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

ESGD/ESGR Splice Connector

These PMA® connection splices are used for an optimum connection of PMA® Ex-System conduits and enable the highest grade of safety and sealing.

CAT NO. IP66	CAT NO. IP68	FITS TO CONDUIT SIZE		EXTERNAL DIMENSIONS
		NW	METRIC	
BESGD-1212GT	BESGR-1212	12	16	66.0mm
BESGD-1717GT	BESGR-1717	17	20	89.0mm
BESGD-2323GT	BESGR-2323	23	25	103.0mm
BESGD-2929GT	BESGR-2929	29	32	100.0mm
BESGD-3636GT	BESGR-3636	36	40	130.0mm
BESGD-4848GT	BESGR-4848	48	50	136.0mm



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

EYD/EYR Y Piece

These PMA® Ex-System junctions allow the splitting of cable looms and rerouting of the split looms into different directions.

CAT NO. IP66	CAT NO. IP68	INPUT FITS TO CONDUIT SIZE		OUTPUTS FITS TO CONDUIT SIZE	
		NW	METRIC	NW	METRIC
BEYD-121010GT	BEYR-121010	12	16	10	12
BEYD-171212GT	BEYR-171212	17	20	12	16
BEYD-231717GT	BEYR-231717	23	25	17	20
BEYD-292323GT	BEYR-292323	29	32	23	25
BEYD-362929GT	BEYR-362929	36	40	29	32
BEYD-483636GT	BEYR-483636	48	50	36	40



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

Hazardous Location ATEX Systems

ETD/ETR T Piece

These PMA® Ex-System junctions allow the splitting of cable looms and rerouting of the split looms into different directions.

CAT NO. IP66	CAT NO. IP68	INPUT FITS TO CONDUIT SIZE		OUTPUTS FIT TO CONDUIT SIZE	
		NW	METRIC	NW	METRIC
BETD-101010GT	BETR-101010	10	12	10	12
BETD-121212GT	BETR-121212	12	16	12	16
BETD-171717GT	BETR-171717	17	20	17	20
BETD-232323GT	BETR-232323	23	25	23	25
BETD-292929GT	BETR-292929	29	32	29	32
BETD-363636GT	BETR-363636	36	40	36	40
BETD-484848GT	BETR-484848	48	50	48	50

NEW!



- High-grade, specially modified polyamide12
- Electrostatically discharging
- Extremely shock resistant
- Free from halogens and cadmium
- Very good chemical properties

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

EAVD/EAVR Conduit Adapter

PMA® Ex-System conduit adapters allow variable applications of conduit sizes within the PMA® Ex-System, particularly with PMA® Ex-System junctions.

CAT NO. IP66	CAT NO. IP68	INPUT FITS TO CONDUIT SIZE		OUTPUTS FIT TO CONDUIT SIZE	
		NW	METRIC	NW	METRIC
BEAVD-12/10GT	BEAVR-12/10	12	16	10	12
BEAVD-17/12GT	BEAVR-17/12	17	20	12	16
BEAVD-23/17GT	BEAVR-23/17	23	25	17	20
BEAVD-29/23GT	BEAVR-29/23	29	32	23	25
BEAVD-36/29GT	BEAVR-36/29	36	40	29	32
BEAVD-48/36GT	BEAVR-48/36	48	50	36	40

NEW!



- High-grade, specially modified polyamide 12
- Electrostatically discharging
- Very high impact resistant
- Free from halogens and cadmium
- Very good chemical properties

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

Hazardous Location ATEX Systems

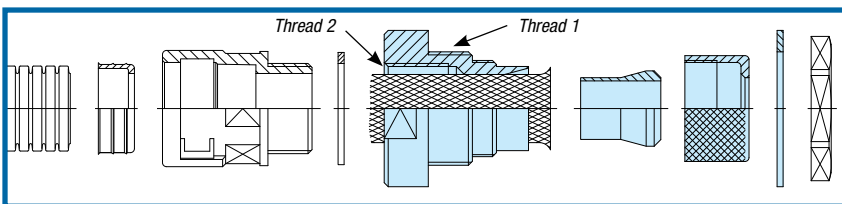
HEAK EMC Connector

This PMA® Ex-System EMC connector can be used together with PMA® tinned copper braids and PMA® Ex-System conduits and connectors to provide shielding against electromagnetic interference in explosion-endangered areas.

NEW!



CAT NO. BLACK, IP68	THREAD METRIC		FITS TO NW	FITS TO F.CK	FITS TO F.CU	ID MIN.	THREAD LENGTH	OVERALL LENGTH
	1	2						
HEAK-M32/25-13	M32x1.5	M25x1.5	23	20	20	16.8mm	13.0mm	42.0mm
HEAK-M40/32-13	M40x1.5	M32x1.5	29	20/(25)	20	22.4mm	13.0mm	51.0mm
HEAK-M50/40-14	M50x1.5	M40x1.5	36	30/(35)	40	32.4mm	14.0mm	58.0mm
HEAK-M63/63-14	M63x1.5	M63x1.5	48	35	40	43.4mm	14.0mm	57.5mm



Content of delivery includes blue shaded products.

- Nickel-plated aluminum
- Up to IP68 in connection with the PMAFIX® product range
- Thread 1: on casing side, Thread 2: on conduit side
- At thread 2 PMAFIX® fittings straight and elbows may be applied; also standard cable glands may be applicable for screened cables depending on final use
- Low transfer impedances
- 360° clamping effect: High degree of safety in case of short-circuiting

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

Hazardous Location ATEX Systems

EH-0 One-Piece System Support

The one-piece PMA® Ex-System support is designed for the fixation of PMA® Ex-System corrugated conduits in explosion-endangered zones 1/21 (gas/dust) according to ATEX 137.

CAT NO.	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH X HEIGHT X DEPTH	FIXING SCREW
	NW	METRIC		
BEH-10-0	10	12	20.5 x 24.5 x 20.0mm	1 x M5
BEH-12-0	12	16	24.0 x 27.0 x 20.0mm	1 x M5
BEH-17-0	17	20	30.0 x 34.0 x 20.0mm	1 x M6
BEH-23-0	23	25	38.5 x 42.0 x 20.0mm	1 x M6
BEH-29-0	29	32	45.5 x 48.0 x 20.0mm	1 x M6
BEH-36-0	36	40	55.5 x 56.0 x 20.0mm	1 x M6
BEH-48-0	48	50	67.5 x 68.0 x 20.0mm	1 x M6



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

EPS One-Piece System Support

The one-piece system supports offer clasps for easy pre-mounting and final assembly, fixation on standard rails type C and strain relief due to gripping around the conduit. In addition, these products are partially stackable.

CAT NO.	FITS TO CONDUIT SIZE		DIMENSIONS WIDTH X HEIGHT X DEPTH
	NW	METRIC	
BEPS-17	17	20	70.0 x 51.0 x 30.0mm
BEPS-23	23	25	70.0 x 51.0 x 30.0mm
BEPS-29	29	32	85.0 x 65.0 x 30.0mm
BEPS-36	36	40	85.0 x 65.0 x 30.0mm
BEPS-48	48	50	115.0 x 92.5 x 30.0mm



- Specially modified electrostatic-discharging polyamide
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength
- Useable with standard rails type C

Temperature range: -50° C to +90° C (material limits); -20° C to +85° C (for ATEX use)

MM Hexagonal Lock Nuts, Metric, Metal

These hexagonal lock nuts are suitable for a wide range of applications. Maximum possible torques guarantee a safe connection of the system.

CAT NO.	FITS TO THREAD METRIC	WRENCH SIZE	DIMENSIONS HEIGHT (MIN.)
GMM-M12	M12x1.5	15.0mm	2.8mm
GMM-M16	M16x1.5	19.0mm	2.8mm
GMM-M20	M20x1.5	24.0mm	3.0mm
GMM-M25	M25x1.5	30.0mm	3.5mm
GMM-M32	M32x1.5	36.0mm	4.0mm
GMM-M40	M40x1.5	46.0mm	4.5mm
GMM-M50	M50x1.5	60.0mm	5.0mm
GMM-M63	M63x1.5	70.0mm	5.5mm



- Brass galvanically nickel-plated
- Maximum possible torque
- Safe system connection

Technical Information

Testing Methods

Conformance with standards: Additional services to benefit you

PMA[®] products conform to worldwide standards and regulations. As a pioneer in the field of cable protection, we have always given high priority to our own testing facilities, and we have consciously introduced stringent in-house standards. This approach has enabled us to exercise a significant influence on the development of international standards. Standards committees with responsibility for cable systems regularly ask our company to provide advice or participate as an active member.

High quality products from A–Z

From basic items to high-tech products, all of our products meet the most stringent quality requirements. Some of their outstanding features include:

- Resistance to temperature, weathering, UV radiation and chemical agents
- High system pull-out resistance
- Excellent fire protection characteristics (flammability, smoke density, and toxicity)
- Excellent system ingress protection up to IP69K
- Extremely long service life
- Conformance to the EN ISO 9001:2000 quality standard

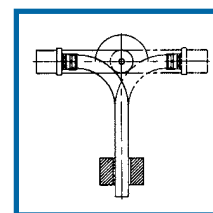
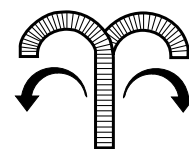


Technical Information

Reversed Bending Test with Swinging Movements

DO 9.21-4425 IEC EN 61386

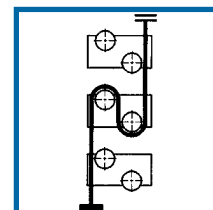
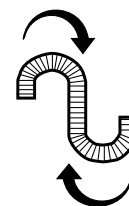
This standard is based on a cyclic reversed bending test (pivoting) of conduits under various conditions (temperature). The conduits are dynamically loaded and evaluated at the upper and lower application temperature limits. The test is performed based on IEC EN 61386. The minimum requirement corresponds to the specifications of IEC EN 61386. For PMA, the test is not considered completed for final evaluation until cracking or fracture. The number of cycles to fracture determines the fatigue strength of the conduit.



Reversed Bending Test

DO 9.21-4420

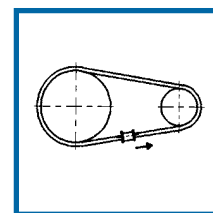
This standard describes a cyclic reversed bending test with additional tensile loading (lifting) on flexible conduits under standard ambient conditions (23° C/50% relative humidity). The conduit is loaded until fracture. The number of cycles to fracture determines the fatigue strength of the conduit.



Reversed Bending Test

DO 9.21-4220

This standard describes a cyclic bending test (rotation in an oval pattern) on flexible conduits under standard ambient conditions (23° C/50% relative humidity). The conduit is tested until failure. The number of cycles to fracture determines the fatigue strength of the conduit.

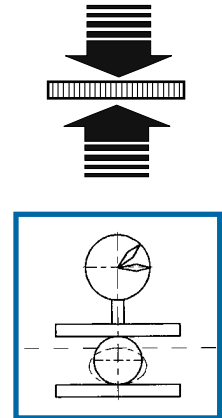


Technical Information

Peak Load Test

DO 9.21-4320 IEC EN 61386

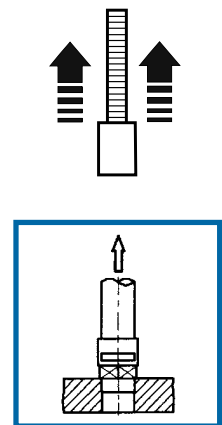
This standard describes the peak load test on conduits under standard ambient conditions (23° C/50% relative humidity). The conduit is deformed by a defined amount between two plates. The restoring force established over a specific time (by relaxation of the conduit) describes the crushing pressure or compressive strength.



Pull-Out Test

DO 9.21-4610 IEC EN 61386

This standard defines the system pull-out test on conduits and connectors under standard ambient conditions (23° C/50% relative humidity). The conduits are mounted with the appropriate system connectors. The pull-out strength of the system is determined in a tensile test.



Impact Test

DO 9.21-4330 IEC EN 61386

This standard describes the impact strength test on conduits at various temperatures. The specimen is placed on a steel plate, centered under an impact head with a defined profile. The impact head impacts the center of the specimen surface. In contrast to international specifications, deformation behavior (buckling) is determining rather than fracture behavior. The impact test is considered to be passed if no fracture or cracking can be detected after the impact, as well as no excessive permanent deformation of the conduit in accordance with PMA[®] specifications.

