Belden

15 Industrial Automation and Control Cables

Table of Contents

Please refer to "Terms of Use of Master Catalog" on page 16.30.

Introduction

When it's time to specify cabling to meet the needs of your current or future control, power, video or data applications, Belden's wide range of industrial automation, industrial equipment and instrumentation/process control cable products offer the consistent quality, versatility and proven performance to meet your long-term requirements. They're expressly designed with multiple armoring and jacketing options to meet the harsh conditions found in the petrochemical, pharmaceutical, mining, power generation, wastewater treatment, pulp and paper, food processing and transportation industries.

To satisfy the demanding applications found in these industries, Belden employs industry-standard quality control procedures and the very latest manufacturing processes to ensure absolute cable consistency during every production run.

In addition, to further ensure you get the right cable for your needs, our staff of highly knowledgeable application and technical specialists stand ready to guide you through the cable selection process.

Innovative Technology

When shielding is required, our innovative technology delivers maximum effectiveness. Belden's exclusive patented Beldfoil® design, with its aluminum/polyester foil, was the first shield to offer 100 percent cable protection against radiated emission and ingress at audio and radio frequencies.

Intrinsically Safe Wiring

In accordance with NEC Article 504, intrinsically safe cables are colored blue for easy identification. Belden offers several industrial cables in intrinsically safe blue to meet your requirements for intrinsically safe wiring. Contact the NEC and/or your local inspector for specific guidelines.

Custom Capabilities

UL PLTC and TC Listed constructions can be produced with XLPE (cross-linked polyethylene) insulation and/or a CPE Jacket. Other alternative insulating and jacketing materials are available for various hazardous environments with UL Listing.

Plus, most of our Industrial cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find an Industrial cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

Armoring Capabilities

Belden also has the capability to protect electronic, instrumentation and control cables with interlocking armor and smooth or corrugated protective metal tapes.

To Specify Part Number:

1	2	3456
Overall Jacket Type	Armor Type	Core Trade Number

Overall Jacket Type

Code	Material
1	PVC
3	CPE
4	TPE
5	HDPE
6	Oil Res II
7	Haloarrest® I

Armor Type

Code	Material
2	Aluminum Interlock
3	Steel Interlock

PLC/DCS Cable Cross Reference Guide

Part No.	Description
ABB/Bailey Controls	
Infinet	
9880	Network Trunk Cable
9463	Blue Hose® (Standard)
Masterpiece 200	
9880	Network Trunk Cable
9907	Thin Network Trunk Cable
MICRO-DCI	
3105A	1 Pair, RS-485
MICROLINK	
9860	Twinax, 16 AWG, 124 Ohm
Modcell	
3105A	1 Pair, RS-485
Allen-Bradley/Rockwell Automation	
ControlNet™	
See Protocol listings on page 15.4.	
DeviceNet™	
See Protocol listings on page 15.4.	
DH	
9463	Blue Hose (Standard)
9463F	Flexible Version (9463)
129463	Aluminum Armor (9463)
139463	Steel Armor (9463)
189463	Cast Aluminum (9463)
YR28826	Dual Version (9463)
9463DB	Direct Burial (9463)
YR29565	Various Color Jackets (9463)
3072F	600V TC Rated (9463)
YR41101	Low Smoke, Halogen Free
YR28764	Super Thick (PLTC)
89463	FEP* 200°C, Plenum
DH-485	
3074F	600V Tray Cable
3106A	1.5 Pair, RS-485 (PLTC)
9842	2 Pair, RS-485
YM39500	Flexible Version (3106A)
Longline Communications	
8723	Interface Cable
88723	Plenum Version
Cutler-Hammer/Westinghouse	
IMPACC System	
YR29090	Proprietary Trunk Cable
I/Q System	
9463	Blue Hose (Standard)

*Fluorinated Ethylene-propylene

ControlNet is a ControlNet International trademark.
DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark.

PLC/DCS Cable Cross Reference Guide *(continued)*

Part No.	Description
Emerson Process Management (Fisher/Rosemount Controls)	
Fieldbus (Type SP50 ISA/IEC)	
See Protocol listings on page 15.4.	
Hart	
See Protocol listings on page 15.4.	
Provox Plus	
3094A	RG-11 Quad Shield PVC
3131A	RG-6 Quad Shield PVC
GE Fanuc	
Genius I/O System	
YR29841	PLTC Version
9182	Communications Bus
89182	Plenum Version
Honeywell	
Access 4000 System	
9248	RG-6 PVC
Fieldbus (Type SP50 ISA/IEC)	
See Protocol listings on page 15.4.	
IPC 620 System I/O	
9271	Twinax, 25 AWG, 124 Ohm
IPC 620 System Serial Interface	
9729	Up to 4,000 ft.
9182	Up to 10,000 ft.
89182	Plenum
3000 UCN & LCN	
3131A	RG-6 Quad Shield PVC
3094A	RG-11 Quad Shield PVC
Honeywell Microswitch Division	
Smart Distributed System	
3086A	Mini
3087A	Micro
Invensys/Foxboro	
Fieldbus (Type SP50 ISA/IEC)	
See Protocol listings on page 15.4.	
I/A Series Carrier Band	
8233	Small Trunk
3095A	Plenum
9290	Drop Cable
I/A Series Fieldbus	
9207	Twinax
89207	200°C, Plenum
3073F	600V Tray Cable
I/A Series Node Bus	
9880	Trunk Cable
89880	Plenum Version

Part No.	Description
Limitorque	
DCC100	
3105A	Actuator Bus Cable, 1 Pair, RS-485
Matsushita	
FP Series C-NET	
9207	Twinax, 20 AWG, Stranded, 100 Ohm
9860	Twinax, 16 AWG, Solid, 124 Ohm
FP Series MEWNET-F	
9207	Twinax, 20 AWG, Stranded, 100 Ohm
9860	Twinax, 16 AWG, Solid, 124 Ohm
FP Series MEWNET-H	
9248	RG-6, 75 Ohm, 18 AWG
FP Series MEWNET-TR	
9207	Twinax, 20 AWG, Stranded, 100 Ohm
9860	Twinax, 16 AWG, Solid, 124 Ohm
FP Series MEWNET-W	
9207	Twinax, 20 AWG, Stranded, 100 Ohm
9806	4 Pair, RS-232, RS-422
FP Series MEWNET-W2	
9207	Twinax, 20 AWG, Stranded, 100 Ohm
9860	Twinax, 16 AWG, Solid, 124 Ohm
FP Series TRNET	
9207	Twinax, 20 AWG, Stranded, 100 Ohm
9860	Twinax, 16 AWG, Solid, 124 Ohm
Modicon/Schneider AEG	
Modbus	
8777	Modem Drop Cable, 22 AWG, 3 Pair
128777	Aluminum Armor (8777)
138777	Steel Armor (8777)
88777	FEP* 200°C, Plenum
Modbus II	
3092A	RG-6 Quad Shield PVC
3132A	RG-6 Quad Shield, 150°C, Plenum
3092F	RG-6 Quad Shield PVC, Flexible Version
123092A	Aluminum Armor (3092A)
133092A	Steel Armor (3092A)
Modbus Plus	
YM29560	24 AWG, 1 Pair, RS-485
YC39000	Aluminum Armor (YM29560)
YC39222	Steel Armor (YM29560)
YQ29258	24 AWG, 1 Pair, 150°C, Plenum

Part No.	Description
Modicon/Schneider AEG *(continued)*	
Remote I/O	
3092A	RG-6 Quad Shield PVC
3092F	RG-6 Quad Shield PVC, Flexible Version
123092A	Aluminum Armor (3092A)
133092A	Steel Armor (3092A)
123092F	Aluminum Armor, RG-6 Quad Shield PVC
3132A	RG-6 Quad Shield, 150°C, Plenum
3094A	RG-11 Quad Shield PVC
123094A	Aluminum Armor (3094A)
133094A	Steel Armor (3094A)
3095A	RG-11 Quad Shield, 150°C, Plenum
Omron	
SYSBUS-2	
3073F	600V Tray Cable Twinax
SYSMAC LINK	
9231	Coax
Phoenix Contact	
DeviceNet™	
See Protocol listings on page 15.4.	
Interbus®-S	
See Protocol listings on page 15.4.	
Profibus DP FMS & PA	
See Protocol listings on page 15.4.	
Reliance/A-B	
Auto Max Distributed Power	
MTB6002	2 Fiber Breakout
I100255	2 Fiber Loose Tube PVC
I100266	2 Fiber Loose Tube CPE
R-Net	
9259	RG-59 PVC
89259	RG-59, 200°C, Plenum
Rotork	
Pakscan II E RS-485	
3105A	22 AWG, 1 Pair, RS-485
Siemens/Moore	
FMC (Field Mountable Controller)	
3105A	1 Pair, RS-485
3106A	1.5 Pair, RS-485
3107A	2 Pair, RS-485
3108A	3 Pair, RS-485
3109A	4 Pair, RS-485

*Fluorinated Ethylene-propylene

DeviceNet is an Open DeviceNet Vendor Association, Inc. trademark.
Interbus is a Phoenix Contact trademark.

PLC/DCS Cable Cross Reference Guide *(continued)*

Part No.	Description
Siemens/Moore *(continued)*	
Hiway	
9860	Network Trunk Cable
MODULNET	
3094A	RG-11 Quad Shield PVC
3131A	RG-6 Quad Shield PVC
Profibus DP & FMS (Purple)	
See Protocol listings on this page.	
Profibus PA (Blue)	
See Protocol listings on this page.	
SINEC Series H1	
9907	Thin Network Trunk Cable
9880	Network Trunk Cable
SINEC Series H2B	
3131A	RG-6 Quad Shield
3094A	RG-11 Quad Shield
SINEC Series L1	
3107A	2 Pair, RS-485
SINEC Series L2	
3079A	300V Twinax
Thicknet Ethernet Trunk	
9880	Network Trunk Cable
129880	Aluminum Interlocked Armor Trunk
139880	Steel Interlocked Armor Trunk
Thinnet Ethernet Trunk	
9907	Thin Network Trunk Cable
Smar	
Fieldbus (Type SP50 ISA/IEC)	
See Protocol listings on this page.	
Profibus DP, FMS & PA	
See Protocol listings on this page.	
RS-485	
See Protocol listings on this page.	
Square D/Schneider AEG	
FIP/Fieldbus	
3079A	22 AWG, 1 Pair, Shielded
123079A	Aluminum Armor (3079A)
Model 50, RS-422 Cable	
8760	18 AWG, 1 Pair, Shielded
128760	Aluminum Armor (8760)
Passport I/O — I/O Net	
3105A	22 AWG, 1 Pair, RS-485
123105A	Aluminum Armor (3105A)
3106A	22 AWG, 1.5 Pair, RS-485
123106A	Aluminum Armor (3106A)

Part No.	Description
Square D/Schneider AEG *(continued)*	
Seriplex®	
3124A	CBL-1822-P20
3125A	CBL-1622-P16
3126A	CBL-162212-P16
123124A	Aluminum Armor (3124A)
123125A	Aluminum Armor (3125A)
123126A	Aluminum Armor (3126A)
SY/Net Network Trunk Cable	
9463	Blue Hose® (Standard)
9463F	Flexible Version (9463)
129463	Aluminum Armor (9463)
139463	Steel Armor (9463)
189463	Cast Aluminum (9463)
YR28826	Dual Version (9463)
9463DB	Direct Burial (9463)
YR29565	Various Color Jackets (9463)

Industrial Communications Protocol

ControlNet™	
3092A	RG-6 PVC Quad Shield
3092F	RG-6 PVC Quad Shield, Flex Version, Aluminum Braid
YR28890	RG-6 PVC Flex Version, Copper Braid
3093A	RG-6 FEP* Quad Shield, Plenum
123092A	Aluminum Armor (3092A)
133092A	Steel Armor (3092A)
DeviceNet™	
3082A	PVC (Thick)
3082F	High-Flex (Thick)
3082K	CL2 (Flat)
3082KP	Auxiliary Power (Flat)
3083A	CPE (Thick)
3084A	PVC (Thin)
3084F	High-Flex (Thin)
3085A	CPE (Thin)
7895A	CL2 PVC (Cable III Mid)
7896A	CL1 PVC (Type V Trunk Cable)
7897A	CL1 PVC (Thick)
7900A	CL1 Unshielded (Drop Cable IV)
Fieldbus (Type SP50 ISA/IEC)	
3076F	Type A, H1 1900m (31.25K)
3077F	Type B, H1 1200m (31.25K)
HSE	Copper & Fiber (See *Cables for Industrial Ethernet* on page 15.5)

Part No.	Description
Square D/Schneider AEG *(continued)*	
SY/Net Network Trunk Cable	
3072F	600V TC Rated (9463)
YR41194	Low Smoke, Halogen Free
YR28764	Super Thick (PLTC)
89463	FEP* 200°C, Plenum
SY/Net TNIM Cable	
9272	20 AWG, 1 Pair, Shielded
89272	FEP* 200°C, Plenum
Yokogawa	
Fieldbus (Type SP50 ISA/IEC)	
See Protocol listings on this page.	
Westinghouse	
WDPF	
9292	RG-11 PVC

Hart	
3105A	1 Pair, RS-485
3106A	1.5 Pair, RS-485
3107A	2 Pair, RS-485
Interbus®-S	
3119A	18/3C, 24/3 Pair, Composite
3120A	24/3 Pair
Profibus DP & FMS (Purple)	
3079A	300V Twinax
Profibus PA (Blue)	
3076F	18 AWG, 2 Conductors, Type A
RS-485	
9841	1 Pair
82841	1 Pair, Plenum
89841	1 Pair, Plenum, High-Temperature
9842	2 Pair
82842	2 Pair, Plenum
9843	3 Pair
9844	4 Pair
3105A	1 Pair (PLTC)
3106A	1.5 Pair (PLTC)
3107A	2 Pair (PLTC)
3108A	3 Pair (PLTC)
3109A	4 Pair (PLTC)

*Fluorinated Ethylene-propylene

Industrial Data Solutions® — Industrial Ethernet

DataTuff® and MediaTuff® Twisted Pair and TrayOptic® Fiber Optic Cables — Overview

The reliability of your industrial Ethernet network depends on the cable infrastructure. Data transmission errors can lead to interruptions in critical control functions resulting in lost production time and even safety issues. Belden's family of industrial Ethernet cables is designed to withstand the rigors of industrial environments. Whether it's exposure to oil and sunlight, temperature variation, abrasion and crushing, or the presence of electromagnetic interference (EMI) or radio frequency interference (RFI), turn to Belden for the solution

Belden offers an extensive line of high performance cables in both copper constructions with DataTuff cables as well as fiber optic designs with TrayOptic cables.

Performance Assurance from Blue Hose® to Industrial Ethernet

To assist you in achieving optimum network performance, Belden has built quality and reliability into each cable it manufactures. Decades of leadership and experience in supplying reliable high-end cable solutions, such as Blue Hose, to industrial networks and control systems are combined to give you industrial Ethernet cables that perform to maximum network capability.

Our dedication to quality manufacturing practices and processes assures consistent products of uncompromising quality.

Installable Performance™ with Patented Bonded-Pair Technology

Belden's Bonded-Pair versions of DataTuff cables are unique in the industry to give you an Installable Performance advantage. This patented design yields superior electrical performance even after the effects and stresses of pulling, twisting and bending during typical installations. This performance advantage is achieved by bonding the individual insulated conductors along their longitudinal axes, resulting in uniform conductor-to-conductor spacing and the elimination of gaps between conductors that can occur during installation. This is a critical construction feature because non-uniform conductor spacing and gaps change the physical characteristics of the cable such that the electrical performance of the cable suffers. Only Bonded-Pair cables deliver the electrical integrity you demand.

TrayOptic Cables

Belden® TrayOptic cables are a line of indoor/outdoor fiber optic cables designed to meet the demanding requirements of industrial applications. When the installation demands the combination of sophisticated fiber optic technology and rugged durability, turn to Belden.

Cables for Industrial Ethernet (IEEE 802.3 and TIA/EIA-568-B)

Fiber (62.5/125/245 Micron)
Multimode • PVC or CPE Jackets

Part No.	Jacket Material	No. of Fibers
Riser (NEC/CEC OFNR FT4)		
I100255	PVC	2
I100266	CPE	2
I100455	PVC	4
I100466	CPE	4
I100655	PVC	6
I100666	CPE	6
I400855	PVC	8
I400866	CPE	8
I601055	PVC	10
I601255	PVC	12
I601266	CPE	12
Tray (NEC/CEC OFN FT1)		
I601855	PVC	18
I601866	CPE	18
I602455	PVC	24
I602466	CPE	24

50 Micron and Single-mode fiber available upon request.

Copper • Twisted Pairs • Heavy-duty Sunlight and Oil-resistant Jackets

Part No.	Description	Shielding	Jacket
Category 5e			
7923A	Bonded-Pairs	Unshielded	
7929A	Bonded-Pairs	Foil	
7921A	Bonded-Pairs	Foil + Braid	
11700A	Bonded-Pairs	Unshielded	Upjacketed
121700A	Bonded-Pairs	Unshielded	Armored
7924A	Bonded-Pairs	Unshielded	Flexible
7928A	Bonded-Pairs	Unshielded	Hi & Low Temp, Oil Res II, Gas Res
7918A	Unbonded	Unshielded	
7919A	Unbonded	Foil	
Category 6			
11872A	Bonded-Pairs	Unshielded	Upjacketed
121872A	Bonded-Pairs	Unshielded	Armored

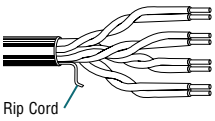
Industrial Data Solutions® — Industrial Ethernet

Category 5e DataTuff® Twisted Pair Cables
Heavy-Duty Sunlight and Oil-Resistant Jackets

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nom. Insulated Conductor OD		Nominal OD		Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm							

24 AWG Bonded-Pairs Solid Bare Copper • Rip Cord • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • .030″ Industrial Grade Black PVC Jacket

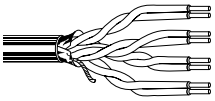


	7923A	NEC:	4	1000	304.8	28.0	12.7	.038	.97	.230	5.94	1	2.0	65.3	63.3	60.8	100±12	20.0
	new	CMR		2000	609.6	54.0	24.5	x	x			4	4.0	56.3	52.3	48.7	100±12	23.0
		CEC:						.075	1.91			8	5.7	51.8	46.1	42.7	100±12	24.5
		CMR FT4										10	6.4	50.3	43.9	40.8	100±12	25.0
												16	8.1	47.3	39.1	36.7	100±12	25.0
												25	10.3	44.3	34.1	32.8	100±15	24.3
												31.25	11.6	42.9	31.3	30.9	100±15	23.6
												62.5	16.8	38.4	21.6	24.8	100±15	21.5
												100	21.7	35.3	17.1	20.8	100±15	20.1
												155	27.7	32.5	4.7	16.9	100±18	19.0
												200	32.0	30.8	3.0	14.7	100±18	19.0
												250	36.4	29.3	—	12.8	100±20	18.0
												350	44.3	27.2	—	9.9	100±22	17.0

RJ-45 Compatible • -25°C Cold Bend
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

24 AWG Bonded-Pairs Solid Bare Copper • Overall Beldfoil® Shield • Drain Wire* • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • .030″ Industrial Grade Black PVC Jacket

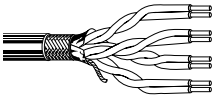


Shielded	**7929A**	NEC:	4	1000	304.8	36.0	16.3	.045	1.14	.265	6.73	1	2.0	62.3	60.3	60.8	100±15	20.0
	new	CMR		2000	609.6	70.0	31.8	x	x			4	4.1	53.3	49.2	48.7	100±15	23.0
		CEC:						.088	2.24			10	6.5	47.3	41.8	40.8	100±15	25.0
		CMR FT4										16	8.2	44.3	36.0	36.7	100±15	25.0
												31.25	11.7	39.9	28.2	30.9	100±15	23.6
												62.5	17.0	35.4	18.4	24.8	100±15	21.5
												100	22.0	32.3	10.3	20.8	100±15	20.1
												200	32.4	27.8	1.0	14.7	100±25	15.0

RJ-45 Compatible • -25°C Cold Bend
U.S. Patents 5,606,151 and 5,734,126
Shield is bonded to jacket inner wall for electrical stability.
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

24 AWG Bonded-Pairs Solid Bare Copper • Overall Beldfoil + 70% TC Braid • Solid Spiral Drain Wire • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • .030″ Industrial Grade Black PVC Jacket



Shielded Festoon Cable	**7921A**	NEC:	4	1000	304.8	55.0	24.9	.047	1.19	.330	8.38	1	2.0	62.3	60.3	60.8	100±15	20.0
	new	CMR		2000	609.6	108.0	49.0	x	x			4	4.1	53.3	49.2	48.7	100±15	23.0
		CEC:						.091	2.31			10	6.5	47.3	41.8	40.8	100±15	25.0
		CMR FT4										16	8.2	44.3	36.0	36.7	100±15	25.0
												31.25	11.7	39.9	28.2	30.9	100±15	23.6
												62.5	17.0	35.4	18.4	24.8	100±15	21.5
												100	22.0	32.3	10.3	20.8	100±15	20.1

-25°C Cold Bend
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

ACR = Attenuation Crosstalk Ratio • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • TC = Tinned Copper

*Drain wire is 24 AWG stranded tinned copper.

Color Codes: DataTuff

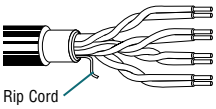
Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Industrial Data Solutions® — Industrial Ethernet

Category 5e DataTuff® Twisted Pair Cables
Heavy-Duty Sunlight and Oil-Resistant Jackets

24 AWG Bonded-Pairs Solid Bare Copper • Rip Cord • See Color Code Chart (below)

Upjacketed • Polyolefin Insulation • PVC Inner Jacket • .035″ Industrial Grade Black or Gray PVC Outer Jacket

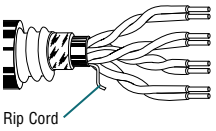


Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Conductor OD Inch	Nom. Insulated Conductor OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
	11700A	NEC:	4	1000	304.8	39.0	17.7	.038	.97	.285	7.24	1	2.0	65.3	63.3	60.8	100±12	20.0
		CMR		3000	914.4	117.0	53.2	x	x			4	4.0	56.3	52.3	48.7	100±12	23.0
		CEC:						.075	1.91	Nominal Core OD:		8	5.7	51.8	46.1	42.7	100±12	24.5
		CMR FT4								.200	5.08	10	6.4	50.3	43.9	40.8	100±12	25.0
												16	8.1	47.3	39.1	36.7	100±12	25.0
												25	10.3	44.3	34.1	32.8	100±15	24.3
												31.25	11.6	42.9	31.3	30.9	100±15	23.6
												62.5	16.8	38.4	21.6	24.8	100±15	21.5
												100	21.7	35.3	17.1	20.8	100±15	20.1
												155	27.7	32.5	4.7	16.9	100±18	19.0
												200	32.0	30.8	3.0	14.7	100±18	19.0
												250	36.4	29.3	—	12.8	100±20	18.0
												350	44.3	27.2	—	9.9	100±22	17.0

RJ-45 Compatible • -25°C Cold Bend
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

24 AWG Bonded-Pairs Solid Bare Copper • Mylar® Wrap • Rip Cord • See Color Code Chart (below)

Interlocked AL Armor • Polyolefin Insulation • PVC Inner Jacket • .045″ Industrial Grade Black or Gray PVC Outer Jacket

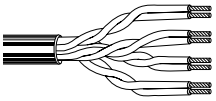


Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Conductor OD Inch	Nom. Insulated Conductor OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
	121700A	NEC:	4	1000	304.8	155.0	70.5	.038	.97	.530	13.46	1	2.0	65.3	63.3	60.8	100±12	20.0
		CMG		3000	914.4	465.0	211.4	x	x			4	4.0	56.3	52.3	48.7	100±12	23.0
		CEC:						.075	1.91	Nominal Core OD:		8	5.7	51.8	46.1	42.7	100±12	24.5
		HL CMG FT4								.200	5.08	10	6.4	50.3	43.9	40.8	100±12	25.0
												16	8.1	47.3	39.1	36.7	100±12	25.0
												25	10.3	44.3	34.1	32.8	100±15	24.3
												31.25	11.6	42.9	31.3	30.9	100±15	23.6
												62.5	16.8	38.4	21.6	24.8	100±15	21.5
												100	21.7	35.3	17.1	20.8	100±15	20.1
												155	27.7	32.5	4.7	16.9	100±18	19.0
												200	32.0	30.8	3.0	14.7	100±18	19.0
												250	36.4	29.3	—	12.8	100±20	18.0
												350	44.3	27.2	—	9.9	100±22	17.0

RJ-45 Compatible • -25°C Cold Bend
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 1 meter intervals. • Verified to TIA/EIA-568-B.2, Category 5e

24 AWG Bonded-Pairs Stranded (7x32) Tinned Copper • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • .030″ Industrial Grade Black PVC Jacket



Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Conductor OD Inch	Nom. Insulated Conductor OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
Flexible	**7924A**	NEC:	4	1000	304.8	30.0	13.6	.039	.99	.242	6.15	1	2.4	65.3	62.9	60.8	100±12	20.0
	new	CMR		2000	609.6	58.0	26.3	x	x			4	4.8	56.3	51.5	48.7	100±12	23.0
		CEC:						.077	1.96			8	6.8	51.8	45.0	42.7	100±12	24.5
		CMR FT4										10	7.7	50.3	42.6	40.8	100±12	25.0
												16	9.7	47.3	37.5	36.7	100±12	25.0
												25	12.4	44.3	31.9	32.8	100±15	24.3
												31.25	13.9	42.9	29.0	30.9	100±15	23.6
												62.5	20.2	38.4	18.3	24.8	100±15	21.5
												100	26.0	35.3	9.2	20.8	100±15	20.1
												155	33.2	32.5	—	16.9	100±18	19.0
												200	38.4	30.8	—	14.7	100±18	19.0
												250	43.7	29.3	—	12.8	100±20	18.0
												350	53.2	27.2	—	9.9	100±22	17.0

RJ-45 Compatible • -25°C Cold Bend
U.S. Patents 5,606,151; 5,734,126 and 5,763,823
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

ACR = Attenuation Crosstalk Ratio • AL = Aluminum • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss

Color Codes: DataTuff

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Mylar is a DuPont trademark.

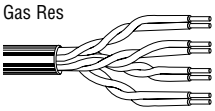
Industrial Data Solutions® — Industrial Ethernet

Category 5e DataTuff® Twisted Pair Cables
Heavy-Duty Sunlight and Oil-Resistant Jackets

24 AWG Bonded-Pairs Solid Bare Copper • See Color Code Chart (below)

FEP Insulation • Black FEP Jacket

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Conductor OD Inch	Nom. Insulated Conductor OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
High & Low Temp Oil Res I & II Gas Res	**7928A** new	NEC: Limited Combustible FHC 25/50 CMP CEC: CMP FT6	4	1000	304.8	24.0	10.9	.036 x .071	.91 x 1.80	.187	4.75	1	2.0	65.3	63.3	60.8	100±12	20.0
												4	4.0	56.3	52.3	48.7	100±12	23.0
												8	5.7	51.8	46.1	42.7	100±12	24.5
												10	6.4	50.3	43.9	40.8	100±12	25.0
												16	8.1	47.3	39.1	36.7	100±12	25.0
												25	10.3	44.3	34.1	32.8	100±15	24.3
												31.25	11.6	42.9	31.3	30.9	100±15	23.6
												62.5	16.8	38.4	21.6	24.8	100±15	21.5
												100	21.7	35.3	17.1	20.8	100±15	20.1
												155	27.7	32.5	4.7	16.9	100±18	19.0
												200	32.0	30.8	3.0	14.7	100±18	19.0
												250	36.4	29.3	—	12.8	100±20	18.0
												350	44.3	27.2	—	9.9	100±22	17.0

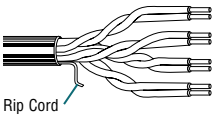


RJ-45 Compatible • -70°C
U.S. Patents 5,606,151 and 5,734,126
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

24 AWG Solid Bare Copper • Twisted Pairs • Rip Cord • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • .030″ Industrial Grade Black PVC Jacket

Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Conductor OD Inch	Nom. Insulated Conductor OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
7918A new	NEC: CMR CEC: CMR FT4	4	1000	304.8	28.0	12.7	.037	.94	.230	5.84	1	2.0	62.3	60.3	60.8	100±15	20.0
			2000	609.6	54.0	24.5					4	4.1	53.3	49.2	48.7	100±15	23.0
											10	6.5	47.3	41.8	40.8	100±15	25.0
											16	8.2	44.3	36.0	36.7	100±15	25.0
											31.25	11.7	39.9	28.2	30.9	100±15	23.6
											62.5	17.0	35.4	18.4	24.8	100±15	21.5
											100	22.0	32.3	10.3	20.8	100±15	20.1
											200	32.4	27.8	1.0	14.7	100±25	15.0

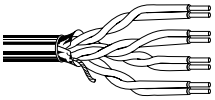


RJ-45 Compatible • -25°C Cold Bend
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

24 AWG Solid Bare Copper • Twisted Pairs • Overall Beldfoil® Shield • Drain Wire* • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • .030″ Industrial Grade Black PVC Jacket

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Conductor OD Inch	Nom. Insulated Conductor OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
Shielded	**7919A** new	NEC: CMR CEC: CMR FT4	4	1000	304.8	36.0	16.3	.042	1.07	.265	6.73	1	2.0	62.3	60.3	60.8	100±15	20.0
				2000	609.6	70.0	31.8					4	4.1	53.3	49.2	48.7	100±15	23.0
												10	6.5	47.3	41.8	40.8	100±15	25.0
												16	8.2	44.3	36.0	36.7	100±15	25.0
												31.25	11.7	39.9	28.2	30.9	100±15	23.6
												62.5	17.0	35.4	18.4	24.8	100±15	21.5
												100	22.0	32.3	10.3	20.8	100±15	20.1
												200	32.4	27.8	1.0	14.7	100±25	15.0



RJ-45 Compatible • -25°C Cold Bend
Shield is bonded to jacket inner wall for electrical stability.
*Drain wire is 24 AWG stranded tinned copper.
Jacket sequentially marked at 2 ft. intervals. • Third party verified to TIA/EIA-568-B.2, Category 5e

ACR = Attenuation Crosstalk Ratio • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss

Color Codes: DataTuff

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

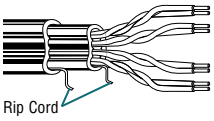
Industrial Data Solutions® — Industrial Ethernet

Category 6 MediaTuff® Twisted Pair Cables

Heavy-Duty Jackets

23 AWG Bonded-Pairs Solid Bare Copper • Rip Cord • See Color Code Chart (below)

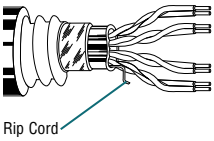
Upjacketed • Polyolefin Insulation • PVC Inner Jacket • .035″ Industrial Grade Black or Gray PVC Jacket

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Cond. OD Inch	Nom. Insulated Cond. OD mm	Nominal Core OD Inch	Nominal Core OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
 Rip Cord	11872A	NEC: CMR CEC: CMR FT4	4	1000	304.8	66.0	30.0	.041 x .080	1.04 x 2.03	.365 x .165	9.27 x 4.19	.475 x .265	12.07 x 6.73	1	1.9	72.3	70	64.8	100±12	20.0
														4	3.7	63.3	59	52.7	100±12	23.0
														10	5.9	57.3	51	44.8	100±12	25.0
														16	7.5	54.3	46	40.7	100±12	25.0
														31.25	10.6	49.9	39	34.9	100±15	23.6
														62.5	15.4	45.4	30	28.8	100±15	21.5
														100	19.8	42.3	25	24.8	100±15	21.0
														155	25.1	39.5	14	20.9	100±15	21.0
														200	29.0	37.9	10	18.7	100±15	21.0
														310	31.7	34.9	—	14.9	100±20	18.0
														350	39.8	34.2	—	13.9	100±22	17.0
														400*	43.0	33.3	—	12.7	100±25	14.0
														500*	49.0	31.8	—	10.8	100±25	14.0

RJ-45 Compatible • -25°C Cold Bend
U.S. Patents 5,606,151, 5,734,126 and 5,821,467
Jacket sequentially marked at 2 ft. intervals. • Verified to TIA/EIA-568-B.2-1, Category 6

23 AWG Bonded-Pairs Solid Bare Copper • Mylar® Wrap • Rip Cord • See Color Code Chart (below)

Interlocked AL Armor • Polyolefin Insulation • PVC Inner Jacket • .055″ Industrial Grade Black or Gray PVC Outer Jacket

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths Ft.	Standard Lengths m	Standard Unit Wt. Lbs.	Standard Unit Wt. kg	Nom. Insulated Cond. OD Inch	Nom. Insulated Cond. OD mm	Nominal Core OD Inch	Nominal Core OD mm	Nominal OD Inch	Nominal OD mm	Freq. (MHz)	Max. Atten. (dB/ 100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/ 100m)	Min. PSUM ELFEXT (dB/ 100m)	Input Imped. (Ω)	Min. RL (dB)
 Rip Cord	121872A	NEC: CMG CEC: HL CMG FT4	4	1000	304.8	293.0	133..2	.041 x .080	1.04 x 2.03	.365 x .165	9.27 x 4.19	.684	17.37	1	1.9	72.3	70	64.8	100±12	20.0
														4	3.7	63.3	59	52.7	100±12	23.0
														10	5.9	57.3	51	44.8	100±12	25.0
														16	7.5	54.3	46	40.7	100±12	25.0
														31.25	10.6	49.9	39	34.9	100±15	23.6
														62.5	15.4	45.4	30	28.8	100±15	21.5
														100	19.8	42.3	25	24.8	100±15	21.0
														155	25.1	39.5	14	20.9	100±15	21.0
														200	29.0	37.9	10	18.7	100±15	21.0
														310	31.7	34.9	—	14.9	100±20	18.0
														350	39.8	34.2	—	13.9	100±22	17.0
														400*	43.0	33.3	—	12.7	100±25	14.0
														500*	49.0	31.8	—	10.8	100±25	14.0

RJ-45 Compatible • -40°C
U.S. Patents 5,606,151, 5,734,126 and 5,821,467
Jacket sequentially marked at 1 meter intervals. • Verified to TIA/EIA-568-B.2-1, Category 6

ACR = Attenuation Crosstalk Ratio • AL = Aluminum • ELFEXT = Equal Level Far-end Crosstalk • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss

*Values provided for information only.

Color Codes: MediaTuff

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Mylar is a DuPont trademark.

Industrial Data Solutions® — Industrial Ethernet

TrayOptic® Fiber Optic Cables

Loose Tube — Indoor/Outdoor Riser & Tray

Product Description

The TrayOptic series cables are designed for indoor/outdoor industrial applications. All TrayOptic cables have been upgraded with a water-blocking agent. The TrayOptic series carry the IEEE 383 flame approval. All TrayOptic series products utilize the LCF™ (Laser Certified Fiber) to handle tomorrow's Gigabit Ethernet light sources and expanded bandwidth requirements. TrayOptic cables are also available with 50 micron or single-mode fiber upon request. For a complete listing of fiber optic cables, refer to Fiber Optical Cables in section 10.

Product Specifications

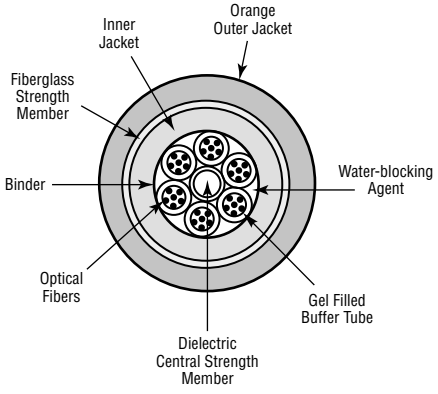
Fiber Counts*	2 through 24
Fiber Size	62.5µm
Buffer Sizes	
≤ 6 Fibers	2.0mm
> 6 Fibers	2.5mm
Jacket Materials	PVC or CPE
Flame Test	Passes IEEE 383 and UL 1581 Vertical Tray Flame Tests
UL Listing NEC/CEC	
2 to 12 Fibers	OFNR FT4
18 to 24 Fibers	OFN FT1
Strength Members	Dielectric Central Member/ Fiberglass Yarn
Temperature Range	-40 to +75°C
Crush Resistance	1500 lbs./in. min.
Impact Resistance	3.3 ft.-lbs./25 impacts min.
Flexing	25 cycles, 12 lbs., 20 x OD radius min.
Twist/Bend	25 cycles, 12 lbs., 20 x OD radius min.
Minimum Bend Radius	
Installation	20 x OD
Long Term	10 x OD
Maximum Recommended Load (Lbs.)	
Installation	600
Long Term	180

*1- through 6-fiber cables are single fiber per tube.

Fiber Specifications

	62.5µm
Max. Attenuation (dB/km @850/1300nm)	3.5/1.0
Min. Bandwidth (MHz-km @850/1300nm)	220/600
Numerical Aperture	0.275

Part No.	Jacket Material	No. of Fibers	Outer Diameter		Weight	
			Inch	mm	Lbs./1000′	kg/km
Riser (NEC/CEC OFNR FT4)						
62.5/125/250 Micron (Core/Clad/Coating)						
I100255	PVC	2	.469	11.91	93	138
I100266	CPE	2	.469	11.91	89	132
I100455	PVC	4	.469	11.91	91	135
I100466	CPE	4	.469	11.91	80	119
I100655	PVC	6	.469	11.91	89	120
I100666	CPE	6	.469	11.91	85	126
I400855	PVC	8	.572	14.53	140	190
I400866	CPE	8	.572	14.53	132	196
I601055 new	PVC	10	.572	14.53	135	183
I601255	PVC	12	.572	14.53	135	183
I601266	CPE	12	.572	14.53	139	207
Tray (NEC/CEC OFN FT1)						
62.5/125/250 Micron (Core/Clad/Coating)						
I601855	PVC	18	.572	14.53	133	180
I601866	CPE	18	.572	14.53	136	202
I602455	PVC	24	.572	14.53	133	180
I602466	CPE	24	.572	14.53	137	204



Industrial Data Solutions® — Industrial Ethernet

Coaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

Thinnet 10Base2 Ethernet • 20 AWG Stranded (19x32) .037″ Tinned Copper • Duobond® II + 93% Tinned Copper Braid Shield

Foam Polyethylene Insulation • Gray PVC Jacket

UL AWM Style 1354 (30V 60°C)	**9907**	NEC:	500	152.4	12.5	5.7	20 AWG	.102	2.59	Duobond II	.185	4.70	50	80%	25.4	83.3	1	.43	1.4
		CL2	U-1000	U-304.8	25.0	11.4	(19x32)			+ 93%							10	1.30	4.3
		CM	1000	304.8	25.0	11.4	.037″			TC Braid							50	2.90	9.5
		CEC:	1640	500.0	39.4	17.9	TC			5.8Ω/M′							100	4.20	13.8
		CM	U-2500	U-762.0	60.0	27.3	8.8Ω/M′			19.0Ω/km							200	6.10	20.0
			2500	762.0	62.5	28.4	28.9Ω/km										400	8.90	29.2
			3280	1000.0	82.0	37.3											700	12.10	39.7
																	900	13.90	45.6
DEC Part No. 17-01248-00																	1000	14.80	48.6

For Plenum versions of 9907, see 89907 or 82907.

Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket

150°C	**89907**	NEC:	500†	152.4	13.0	5.9	20 AWG	.095	2.41	Duobond II	.160	4.06	50	80%	25.4	83.3	1	.43	1.4
		CL2P	1000	304.8	24.0	10.9	(19x32)			+ 93%							10	1.30	4.3
		CMP	2500†	762.0	60.0	27.3	.037″			TC Braid							50	2.90	9.5
		CEC:					TC			5.8Ω/M′							100	4.20	13.8
		CMP FT6					8.8Ω/M′			19.0Ω/km							200	6.10	20.0
							28.9Ω/km										400	9.20	30.2
RG-58/U Type																	700	12.90	42.3
DEC Part No. 17-01246-00																	900	15.00	49.2
Suitable for Outdoor and Direct Burial applications.																	1000	16.00	52.5

Thicknet 10Base5 Ethernet • 12 AWG Solid .086″ Bare Copper • Duobond IV* Quad Shield

Foam Polyethylene Insulation • Yellow PVC Jacket

UL AWM Style 1478 (30V 60°C)	**9880**	NEC:	500	152.4	66.0	30.0	12 AWG	.243	6.17	Duobond IV	.405	10.29	50	78%	26.0	85.0	1	.19	.62
		CL2	1000	304.8	131.0	59.5	(solid)			(Duobond II							5	.37	1.21
		CM	1640	500.0	219.0	99.9	.086″			+ 94% TC Braid							10	.52	1.71
		CEC:					BC			+ Duofoil®							50	1.20	3.94
		CM					1.4Ω/M′			+ 90% TC							100	1.70	5.58
							4.7Ω/km			Braid)							200	2.55	8.37
										1.5Ω/M′							400	3.90	12.80
										5.0Ω/km							700	5.50	18.10
DEC Part No. 17-00451-00																	900	6.50	21.30
Ring-band stripes marked every 2.5 meters to aid users in tap placement.																	1000	6.90	22.60

For Plenum version of 9880, see 89880.

Plenum • Foam FEP Insulation • Orange Fluorocopolymer Jacket

150°C	**89880**	NEC:	500†	152.4	67.0	30.5	12 AWG	.245	6.22	Duobond IV	.375	9.53	50	78%	26.0	85.0	1	.18	.59
		CL2P	1000†	304.8	134.0	60.9	(solid)			(Duobond II							5	.37	1.21
		CMP	1640†	500.0	224.7	102.1	.086″			+ 90% TC Braid							10	.52	1.71
		CEC:					BC			+ Duofoil							50	1.15	3.77
		CMP FT6					1.4Ω/M′			+ 90% TC							100	1.65	5.41
							4.7Ω/km			Braid)							200	2.45	8.04
										1.5Ω/M′							400	3.80	12.50
DEC Part No. 17-00324-00										5.0Ω/km							700	5.60	18.40
Ring-band stripes marked every 2.5 meters to aid users in tap placement.																	900	6.80	22.30
Suitable for Outdoor and Direct Burial applications.																	1000	7.20	23.60

BC = Bare Copper • DCR = DC Resistance • TC = Tinned Copper

Contact the Belden Customer Service Department for a Comprehensive Connector Cross Reference. **1-800-BELDEN-1**.
For cable manufactured to latest government revision or other MIL-SPEC requirements, please contact your nearest Belden Regional Sales Office.

*Duobond IV = Duobond II + 94% tinned copper braid + Duofoil® + 90% tinned copper braid.
(Plenum version is Duobond II + 90% tinned copper braid + Duofoil + 90% tinned copper braid.)

†Spools and/or UnReel® cartons are one piece, but length may vary ±10% from length shown.

Industrial Data Solutions® — Industrial Twinax

Belden® Blue Hose® Selection Guide for PLC and DCS Applications

Blue Hose cable provides factory floor interface to PLCs and other control network devices. The product line comes in a variety of constructions to meet the demands of various industrial environments.

Part No.	Description	Specifications
9463	**Blue Hose Standard Data Highway Cable** A Standard Data Highway Cable that is sometimes referred to as Blue Hose. Designed to be used in light industrial environments. Available in Blue, Brown, Orange or Violet up to 10,000 ft. special lengths.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil® + 55% tinned copper braid and drain wire, Blue sunlight-resistant PVC jacket. Nominal diameter: .238″.
3072F	**600V Data Highway Cable — UL Type TC** A DataTray® cable designed for cable tray use in industrial applications. Cable can occupy same tray or conduit as 600V power cables. See Allen-Bradley guide for spacing/ampacity limitations.	1-pair, 18 AWG stranded (7x26) tinned copper, flame-retardant polyolefin insulation (color coded Blue, White), Beldfoil + 55% tinned copper braid and drain wire, Dark Blue sunlight-resistant PVC jacket. Nominal diameter: .324″. UL-1277 600V TC.
9463F	**High-Flexibility Festooning Cable** A highly flexible cable that is ideal for use in high-flex applications such as festoon, C-track and robotics. The cable also has heavier braid coverage for better noise immunity.	1-pair, 20 AWG stranded (42x36) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 85% tinned copper braid, Blue sunlight-resistant PVC jacket. Nominal diameter: .243″.
YR28826*	**Dual Data Highway Cable** Dual Data Highway/Remote I/O cable has two Twinax pairs individually shielded with an overall braid. Designed for use in daisy chain applications or applications requiring one Data Highway and one Remote I/O line.	2-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), each pair Beldfoil shielded (1 pair Blue tape and 1 pair Green tape), 85% tinned copper braid and drain wire, Blue PVC jacket. Nominal diameter: .382″.
YC39151*	**Dual Armored Data Highway Cable** Features two twinax pairs individually shielded with an overall braid, an inner PVC jacket, aluminum interlocked armor, with an outer PVC jacket. Designed for use in daisy chain applications or applications requiring one Data Highway and one Remote I/O line, with the extra mechanical protection and electrical shielding provided by the armor.	2-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), each pair Beldfoil shielded, 55% tinned copper braid and drain wire, Blue PVC inner jacket, aluminum interlocked armor, Blue sunlight-resistant PVC outer jacket. Nominal diameter: .820″.
9463DB	**Gel-Filled Direct Burial Cable** A gel-filled Data Highway cable featuring a low-density polyethylene (LDPE) jacket. Especially suited for high-moisture environments and burial applications. (Allen-Bradley recommends using fiber optics for outdoor applications.)	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, CoreGuard® flooding compound, Blue sunlight-resistant low density polyethylene jacket. Nominal diameter: .240″.
89463	**Plenum Cable** A plenum, 200°C grade cable that is suitable for installations where high and low temperatures, as well as corrosive environments, are encountered.	1-pair, 20 AWG stranded (7x28) tinned copper, FEP insulation (color coded Blue, Clear), Beldfoil + 56% tinned copper braid and drain wire, Blue FEP jacket. Nominal diameter: .203″.
YR28764*	**Thick-Wall, Heavy-Duty Cable — UL Type PLTC FT4** A rugged, heavy-duty cable specially designed for abusive environments. A .069″ thick jacket provides extra protection against cuts and abrasion.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue sunlight-resistant PVC jacket. Nominal diameter: .380″.
YR41104*	**Low Smoke, Zero Halogen Cable** For applications concerned with smoke emissions, toxicity and electronic component corrosion.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue Haloarrest® jacket. Nominal diameter: .259″.
129463	**Aluminum Interlocked Armor Blue Hose Cable** Features interlocked aluminum armor combined with a PVC jacket and is an ideal alternative to conduit installation. Provides both mechanical protection and electrical shielding. Up to 25 Data Highway cables can be bundled under one sheath.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue PVC inner jacket, aluminum interlocked armor, Blue PVC sunlight-resistant outer jacket. Nominal armor diameter: .563″.
139463	**Steel Interlocked Armor Blue Hose Cable** Features interlocked galvanized steel armor combined with a PVC jacket. Provides mechanical protection and electrical shielding, as well as prevention against the low-frequency 60 Hz magnetic noise from power lines. Up to 25 cables can be bundled under one sheath.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue PVC inner jacket, steel interlocked armor, Blue sunlight-resistant outer PVC jacket. Nominal armor diameter: .563″.
189463	**Continuously Corrugated Aluminum Armor Blue Hose Cable** Features continuously corrugated aluminum armor combined with a PVC jacket. Provides mechanical protection, electrical shielding and is impervious to moisture.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, Blue PVC inner jacket, continuously corrugated aluminum armor, Blue sunlight-resistant PVC outer jacket. Nominal armor diameter: .500″.
YR29565*	**Colored Blue Hose** When your application calls for multiple Data Highway cables you can rest assured that Belden has the solution. This special construction is available in Red, Yellow, Green, White or Pink.	1-pair, 20 AWG stranded (7x28) tinned copper, polyethylene insulation (color coded Blue, Clear), Beldfoil + 55% tinned copper braid and drain wire, sunlight-resistant PVC jacket. Nominal diameter: .243″.

*Custom made product. Minimum order quantity may apply.

Industrial Data Solutions® — Industrial Twinax

Blue Hose® Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
78 Ohm • 20 AWG Stranded (7x28) .038″ Tinned Copper • Beldfoil® + 55% Tinned Copper Braid Shield (100% Shield Coverage)																			
Polyethylene Insulation • Blue Sunlight-resistant PVC Jacket (Color Code: Clear, Blue)																			
Blue Hose UL AWM Style 2464 (300V 80°C)	**9463**	NEC: CM CL2 CEC: CM	100 U-500 500 U-1000 1000▲ 6000▲ 10000◆	30.5 U-152.4 152.4 U-304.8 304.8 1828.7 3048.0	4.6 18.5 18.5 37.0 37.0 222.0 370.0	2.1 8.4 8.4 16.8 16.8 100.9 168.2	20 AWG (7x28) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.154	3.91	Beldfoil +55% TC Braid 4.1Ω/M′ 13.4Ω/km	.238	6.05	78	66%	19.7	64.6	1 10 50 100 200 400	.6 2.1 3.6 7.5 11.0 16.0	2.0 6.9 11.8 24.6 36.1 52.5
 Z- Fold®																			
Allen-Bradley P/N 1770-CD P-7K-SC-182141-MSHA* ▲1000 ft. and 6000 ft. put-ups also available in Brown, Orange or Violet. ◆10000 ft. put-up available in Brown, Orange or Violet only.												CPE jacket optional.							
Polyethylene Insulation • Blue Sunlight-resistant LDPE Jacket (Color Code: Clear, Blue)																			
Flooded Direct Burial Blue Hose 300V 80°C	**9463DB** new		1000 5000	304.8 1524.0	33.0 155.0	15.0 70.5	20 AWG (7x28) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.154	3.91	Beldfoil +55% TC Braid 4.1Ω/M′ 13.4Ω/km	.240	6.10	78	66%	19.7	64.6	1 10 50 100 200 400	.6 2.1 3.6 7.5 11.0 16.0	2.0 6.9 11.8 24.6 36.1 52.5
 Z- Fold®																			
Allen-Bradley P/N 1770-CD																			
78 Ohm • 20 AWG Stranded (42x36) .038″ Tinned Copper • Overall Beldfoil + 85% Tinned Copper Braid Shield (100% Coverage)																			
Polyethylene Insulation • Blue Sunlight-resistant PVC Jacket (Color Code: Clear, Blue)																			
High-Flex Blue Hose UL AWM Style 2464 (300V 60°C)	**9463F** new	NEC: CM CL2 CEC: CM	1000 5000	304.8 1524.0	42.0 205.0	19.1 93.2	20 AWG (42x36) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.154	3.91	Beldfoil +85% TC Braid 5.0Ω/M′ 6.4Ω/km	.243	6.17	78	66%	19.7	64.6	1 10 50 100 200 400	.6 2.1 3.6 7.5 11.0 16.0	2.0 6.9 11.8 24.6 36.1 52.5
																			
Allen-Bradley P/N 1770-CD P-7K-SC-182141-MSHA*																			
78 Ohm • 20 AWG Stranded (7x28) .038″ Tinned Copper • Overall Beldfoil + 56% Tinned Copper Braid Shield (100% Coverage)																			
Plenum • FEP Insulation • Blue FEP Jacket (Color Code: Clear, Blue)																			
High Temperature Blue Hose 300V 200°C	**89463** new	NEC: CMP CL2P CEC: CMP FT6	1000 2500	304.8 762.0	36.0 90.0	16.4 40.9	20 AWG (7x28) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.151	3.83	Beldfoil +56% TC Braid 4.1Ω/M′ 13.4Ω/km	.203	5.16	78	69%	19.7	64.6	1 10 50 100 200 400	.6 2.1 3.6 7.5 11.0 16.0	2.0 6.9 11.8 24.6 36.1 52.5
 Z- Fold®																			
Allen-Bradley P/N 1770-CD																			

DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • LDPE = Low-density Polyethylene • TC = Tinned Copper

*Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification.

Industrial Data Solutions® — Industrial Twinax

Blue Hose® and Other Twinaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

78 Ohm • 20 AWG Stranded (7x28) Tinned Copper • Overall Beldfoil® + 55% Tinned Copper Braid Shield (100% Coverage)

Aluminum Interlocked Armor • PE Insulation • Blue Sunlight-resistant PVC Outer Jacket* (Color Code: Clear, Blue)

Aluminum Armored Blue Hose 300V 60°C	**129463** new	NEC: CMG CL2 CEC: CM, CMG FT4, HLBCD (Haz Loc)	1000 6000	304.8 1828.8	122.0 924.0	55.5 420.0	20 AWG (7x28) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.154	3.91	Beldfoil +55% TC Braid 4.1Ω/M′ 13.4Ω/km	Core: .238 Armor: .563	6.05 14.30	78	66%	19.7	64.6	1 10 50 100 200 400	.6 2.1 3.6 7.5 11.0 16.0	2.0 6.9 11.8 24.6 36.1 52.5

*Blue PVC inner jacket.
Allen-Bradley P/N 1770-CD

Steel Interlocked Armor • PE Insulation • Blue Sunlight-resistant PVC Outer Jacket* (Color Code: Clear, Blue)

Steel Armored Blue Hose 300V 60°C	**139463** new	NEC: CMG CL2 CEC: CM, CMG FT4, HLBCD (haz loc)	1000 6000	304.8 1828.8	220.0 1488.0	100.0 676.4	20 AWG (7x28) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.154	3.91	Beldfoil +55% TC Braid 4.1Ω/M′ 13.4Ω/km	Core: .238 Armor: .563	6.05 14.30	78	66%	19.7	64.6	1 10 50 100 200 400	.6 2.1 3.6 7.5 11.0 16.0	2.0 6.9 11.8 24.6 36.1 52.5

*Blue PVC inner jacket.
Allen-Bradley P/N 1770-CD

Continuously Corrugated AL Armor • PE Insulation • Blue Sunlight-resistant PVC Outer Jacket* (Color Code: Clear, Blue)

Continuously Armored Blue Hose 300V 60°C	**189463** new	NEC: PLTC	6000	1828.8	864.0	392.7	20 AWG (7x28) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.154	3.91	Beldfoil +55% TC Braid 4.1Ω/M′ 13.4Ω/km	Core: .238 Armor: .500	6.05 12.70	78	66%	19.7	64.6	1 10 50 100 200 400	.6 2.1 3.6 7.5 11.0 16.0	2.0 6.9 11.8 24.6 36.1 52.5

*Blue PVC inner jacket.
Allen-Bradley P/N 1770-CD

78 Ohm • 20 AWG Stranded (7x28) .038″ Tinned Copper • 93% Tinned Copper Braid Shield

Polyethylene Insulation • Blue PVC Jacket (Color Code: Clear, Blue)

UL AWM Style 2092 (300V 60°C)	**9272**	NEC: CM CEC: CM	100 U-500 500 U-1000 1000	30.5 U-152.4 152.4 U-304.8 304.8	4.9 20.0 20.0 39.0 40.0	2.2 9.1 9.1 17.7 18.2	20 AWG (7x28) .038″ Tinned Copper 9.5Ω/M′ 31.0Ω/km	.156	3.96	93% TC Braid Shield 3.4Ω/M′ 11.2Ω/km	.244	6.20	78	66%	19.7	64.6	1 10 50 100 200 400	.6 2.1 5.0 7.5 11.0 16.0	2.0 6.9 16.4 24.6 36.1 52.5

For Plenum version of 9272, see 89272.

CPE jacket optional.

95 Ohm • RG-22B/U Type • 18 AWG Stranded (7x26) Bare Copper† • (2) Tinned Copper Braids (95% Coverage)

Polyethylene Insulation • Black Non-contaminating PVC Jacket

80°C VW-1	**9250**		500 1000	152.4 304.8	64.5 128.0	29.3 58.2	18 AWG (7x26) .046″ BC 6.6Ω/M′ 21.5Ω/km	.285	7.24	2 TC Braid 95% Shield .9Ω/M′ 3.0Ω/km	.420	10.67	95	66%	16.0	52.5	1 10 20 50 100 400	.3 .9 1.3 2.1 3.0 6.3	1.0 3.0 4.3 6.9 9.8 20.7

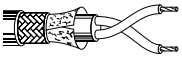
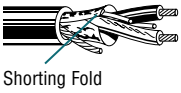
CPE jacket optional.

†1 conductor has tinned center strand.

AL = Aluminum • BC = Bare Copper • DCR = DC Resistance • PE = Polyethylene • TC = Tinned Copper

Industrial Data Solutions® — Industrial Twinax

Twinaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
100 Ohm • 20 AWG Stranded (7x28) .037″ One Tinned, One Bare Copper • Duofoil® + 86% Tinned Copper Braid Shield (100% Shield Coverage)																			
Polyethylene Insulation • Black PVC Jacket																			
75°C	**9207**	NEC:	100	30.5	7.1	3.2	20 AWG	.236	5.99	Duofoil	.330	8.38	100	66%	15.5	50.9	1	.3	1.0
		CMG CL2	U-500	U-152.4	34.0	15.5	(7x28)			+ 86%							10	1.2	3.9
		CEC:	500	152.4	33.5	15.2	.037″			TC Braid							50	2.8	9.2
		CMG FT4	1000	304.8	68.0	30.9	1 TC			2.5Ω/M′		For Plenum version of 9207, see 89207.					100	4.1	13.5
			1640	500.0	111.5	50.7	1 BC			8.2Ω/km							200	6.4	21.0
			2000	609.6	136.0	61.8	9.5Ω/M′					CPE jacket optional.					400	10.2	33.5
IBM P/N 7362211			3280	1000.0	219.8	99.9	31.0Ω/km												
			5000	1524.0	350.0	159.1													
124 Ohm • 25 AWG Stranded (7x33) .021″ Tinned Copper • Beldfoil® (100% Shield Coverage) • Stranded Tinned Copper Drain Wire																			
Polyethylene Insulation • Blue PVC Jacket (Color Code: Clear, Blue)																			
UL AWM	**9271**	NEC:	100	30.5	3.7	1.7	25 AWG	.170	4.32	100%	.240	6.10	124	66%	12.2	40.0	1	.6	2.0
Style 2092		CM	U-500	U-152.4	14.0	6.4	(7x33)			Beldfoil							10	1.7	5.6
(300V 60°C)		CEC:	500	152.4	14.0	6.4	.021″			Shield							50	3.6	11.8
		CM	U-1000	U-304.8	27.0	12.3	Tinned			12.0Ω/M′							100	5.0	16.4
			1000	304.8	28.0	12.7	Copper			39.4Ω/km							200	6.9	22.6
							31.8Ω/M′					CPE jacket optional.					400	9.6	31.5
Shorting Fold							104.3Ω/km												
124 Ohm • 16 AWG Solid .051″ Bare Copper • Duofoil + 90% Tinned Copper Braid Shield (100% Shield Coverage)																			
Foam Polyethylene Insulation • Black PVC Jacket (Color Code: White, Blue)																			
UL AWM	**9860**	NEC:	500	152.4	52.0	23.6	16 AWG	.322	8.18	Duofoil	.440	11.18	124	78%	10.9	35.8	1	.18	.6
Style 2448		CMX	1000	304.8	103.0	46.8	(solid)			+90%							10	.71	2.3
(30V 60°C)		CEC:	2000	609.6	202.0	91.8	.051″			TC Braid							50	1.8	5.9
		CMX					Bare			1.3Ω/M′							100	2.9	9.5
							Copper			4.3Ω/km							200	4.1	13.5
							4.2Ω/M′					CPE jacket optional.					400	6.2	20.3
							13.8Ω/km												
150 Ohm • 22 AWG Stranded (19x34) .031″ Tinned Copper • Duofoil (100% Shield Coverage) • Stranded Tinned Copper Drain Wire																			
Datalene® Insulation • Black PVC Jacket (Color Code: Black, Yellow)																			
UL AWM	**9182**	NEC:	U-500	U-152.4	23.0	10.5	22 AWG	.275	6.98	100%	.345	8.76	150	78%	8.8	28.9	1	.4	1.3
Style 2668		CL2X CMX	500	152.4	23.5	10.7	(19x34)			Duofoil							10	1.2	3.9
(30V 60°C)		CEC:	1000	304.8	45.0	20.5	.031″			Shield							50	2.7	8.7
VW-1		CMX					Tinned			6.3Ω/M′		For Plenum version of 9182, see 89182.					100	4.3	14.1
							Copper			20.7Ω/km							200	6.2	20.3
							14.0Ω/M′					Dual version: YR41609					400	8.8	28.9
							45.9Ω/km					CPE jacket optional.							
Plenum • Foam FEP Insulation • Black FEP Jacket (Color Code: Black, Yellow)																			
	89182	NEC:	100	30.5	6.4	2.9	22 AWG	.278	7.06	100%	.307	7.80	150	78%	8.8	28.9	1	.4	1.3
		CMP	500†	152.4	28.0	12.7	(19x34)			Duofoil							10	1.2	3.9
		CL2P	1000†	304.8	53.0	24.1	.031″			Shield							50	2.7	8.7
		CEC:					Tinned			6.3Ω/M′							100	4.3	14.1
		CMP FT6					Copper			20.7Ω/km							200	6.2	20.3
							14.0Ω/M′										400	8.8	28.9
							45.9Ω/km												

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • TC = Tinned Copper

†Spools are one piece, but length may vary ±10% from length shown.

Industrial Data Solutions® — Industrial Twinax

DataTray® 600V Twinaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
18 AWG Stranded (7x26) Tinned Copper • Overall Beldfoil® + 55% Tinned Copper Braid Shield (100% Coverage)																			
Flame-retardant Polyolefin Insulation • Dark Blue Sunlight-resistant PVC Jacket (Color Code: White, Blue)																			
UL Type TC 600V 75°C	**3072F**	NEC: CMG, ITC TC, PLTC CEC: CMG FT4	250 500 1000 2500 5000 10000	76.2 152.4 304.8 762.0 1524.0 3048.0	17.5 34.0 69.0 170.0 345.0 710.0	8.0 15.5 31.4 77.3 156.8 322.7	18 AWG (7x26) .046″ Tinned Copper 6.9Ω/M′ 22.7Ω/km	.192	4.88	Beldfoil +55% TC Braid (100% Shield) 3.2Ω/M′ 10.4Ω/km	.324	8.23	78	65%	19.5	64	1 10 50 100 200 400	.7 2.0 3.8 5.5 7.8 10.8	2.3 6.6 12.5 18.0 25.6 35.4
 Z-Fold® P-MSHA-C-7K-1827*												For CPE jacketed version order Part No. YM45044. CPE jacket optional.								
UL Type TC 600V 75°C	**3073F**	NEC: CMG, ITC TC, PLTC CEC: CMG FT4	250 1000 5000	76.2 304.8 1524.0	21.0 85.0 420.0	9.5 38.6 190.9	18 AWG (7x26) .046″ Tinned Copper 6.9Ω/M′ 22.7Ω/km	.246	6.25	Beldfoil +55% TC Braid (100% Shield) 2.9Ω/M′ 9.6Ω/km	.388	9.86	100	65%	15.3	50.2	1 10 50 100 200 400	.6 1.6 3.0 4.3 6.1 7.6	1.8 5.2 9.8 14.2 20.1 24.9
 Z-Fold®												CPE jacket optional.								
UL Type TC 600V 75°C	**3074F**	NEC: CMG, ITC TC, PLTC CEC: CMG FT4	500 1000 2500	152.4 304.8 762.0	52.5 100.0 250.0	23.9 45.5 113.6	18 AWG (7x26) .046″ Tinned Copper 6.9Ω/M′ 22.7Ω/km	.328	8.33	Beldfoil +55% TC Braid (100% Shield) 2.8Ω/M′ 9.1Ω/km	.460	11.68	124	65%	12.3	40.3	1 10 50 100 200 400	.5 1.2 2.4 3.5 4.9 6.8	1.5 3.9 7.9 11.4 16.2 22.4
 Z-Fold®												CPE jacket optional.								

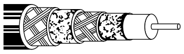
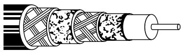
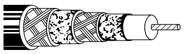
DCR = DC Resistance • TC = Tinned Copper if conductor, or Tray Cable if NEC rating.

*Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration certification.

Industrial Data Solutions® — Industrial Coax

ControlNet™ Quad Shielded Coax

ControlNet is a high-speed serial communication system for communication between devices that require time-critical application exchange.

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths Ft.	Standard Lengths m	Standard Unit Weight Lbs.	Standard Unit Weight kg	Conductor (stranding) Diameter Nom. DCR	Nominal Core OD Inch	Nominal Core OD mm	Shielding Materials Nom. DCR	Nominal OD Inch	Nominal OD mm	Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance pF/Ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation dB/100 Ft.	Nominal Attenuation dB/100m
RG-6/U Type • 18 AWG Solid Bare Copper-covered Steel • Duobond® IV* Quad Shield																			
Foam Polyethylene Insulation • PVC Jacket (Black or Intrinsically Safe Blue)																			
	**3092A**	NEC: CL2R CMR CEC: CMG FT4	500 1000 2000 2500▲	152.4 304.8 609.6 762.2	22.0 42.0 84.0 100.0	10.0 19.1 38.2 45.5	18 AWG (solid) .040″ BCCS 28.0Ω/M′ 91.8Ω/km	.180	4.57	Duobond IV Quad Shield 3.6Ω/M′ 11.8Ω/km	.298	7.57	75	82%	16.2	53.1	1 2 5 10 20 50 100 200 300 400	.35 .38 .45 .59 .86 1.37 1.97 2.82 3.48 4.04	1.2 1.3 1.5 1.9 2.8 4.5 6.5 9.3 11.4 13.3
Sweep tested 5 MHz to 50 MHz. CPE jacket optional.																			
▲2500 ft. put-up available in Black only. For Rockwell authorized Flexible ControlNet order YR28890 (Tinned Copper Braid version).																			
Plenum • Foam FEP Insulation • Fluorocopolymer Jacket (Black or Intrinsically Safe Blue◆)																			
150°C 	**3093A**	NEC: CMP CEC: CMP FT6	1000◆ 2000 2500	304.8 609.6 762.0	40.0 80.0 100.0	18.2 36.4 45.5	18 AWG (solid) .040″ BCCS 28.0Ω/M′ 91.8Ω/km	.170	4.32	Duobond IV Quad Shield 3.6Ω/M′ 11.8Ω/km	.274	6.96	75	82%	16.3	53.5	1 2 5 10 20 50 100 200 300 400	.36 .38 .50 .65 .95 1.50 2.12 2.99 3.66 4.23	1.2 1.3 1.6 2.1 3.1 4.9 7.0 9.8 12.0 13.9
Sweep tested 5 MHz to 50 MHz.																			
◆Blue available as standard in 1000 ft. only. Suitable for Outdoor and Direct Burial applications.																			
RG-6/U Type • 20 AWG Stranded (105x40) Bare Copper • Duobond IV* Quad Shield																			
Foam Polyethylene Insulation • PVC Jacket (Black or Intrinsically Safe Blue)																			
High-Flex 	**3092F** new	NEC: CL2 CM CEC: CM	1000 5000	304.8 1524.0	45.0 225.0	20.5 102.3	20 AWG (105x40) .040″ Bare Copper 10.5Ω/M′ 34.4Ω/km	.183	4.65	Duobond IV Quad Shield 3.6Ω/M′ 11.8Ω/km	.303	7.70	75	79%	17.0	55.8	1 2 5 10 20 50 100 200 300 400	.36 .47 .80 1.20 2.00 3.20 4.60 6.50 8.00 9.30	1.2 1.5 2.6 3.9 6.6 10.5 15.1 21.3 26.2 30.5
Sweep tested 5 MHz to 400 MHz. CPE jacket optional.																			
IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.																			

BCCS = Bare Copper-covered Steel • DCR = DC Resistance

*Duobond IV Quad Shield = Duobond II Foil + 60% aluminum braid + Duofoil + 40% aluminum braid.

15 • Industrial Cables

ControlNet is a ControlNet International trademark.

Industrial Data Solutions® — Industrial Coax

ControlBus™ Quad Shielded Coax

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

RG-6/U Type • 20 AWG Stranded (105x40) Bare Copper • Duobond® IV* Quad Shield

Foam Polyethylene Insulation • PVC Jacket (Black or Intrinsically Safe Blue)

High-Flex	3092F new	NEC: CL2 CM CEC: CM	1000 5000	304.8 1524.0	45.0 225.0	20.5 102.3	20 AWG (105x40) .040″ Bare Copper 10.5Ω/M′ 34.4Ω/km	.183	4.65	Duobond IV Quad Shield 3.6Ω/M′ 11.8Ω/km	.303	7.70	75	79%	17.0	55.8	1 2 5 10 20 50 100 200 300 400	.36 .47 .80 1.20 2.00 3.20 4.60 6.50 8.00 9.30	1.2 1.5 2.6 3.9 6.6 10.5 15.1 21.3 26.2 30.5

Sweep tested 5 MHz to 400 MHz.
CPE jacket optional.

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.

RG-6/U Type • 18 AWG Solid Bare Copper-covered Steel • Duobond IV* Quad Shield

Foam Polyethylene Insulation • Gray PVC Jacket

	3131A	NEC: CL2R CMR CEC: CMR FT4	1000† 2500	304.8 762.2	41.0 97.5	18.6 44.3	18 AWG (solid) .040″ BCCS 28.0Ω/M′ 91.8Ω/km	.180	4.57	Duobond IV Quad Shield 3.6Ω/M′ 11.8Ω/km	.298	7.57	75	82%	16.2	53.1	1 2 5 10 20 50 100 200 300 400	.35 .38 .45 .59 .86 1.37 1.97 2.82 3.48 4.04	1.2 1.3 1.5 1.9 2.8 4.5 6.5 9.3 11.4 13.3

Sweep tested 5 MHz to 400 MHz.
CPE jacket optional.

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.
Tap marks every 2.6 meters to aid users in installation.

Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket

150°C	3132A	NEC: CMP CEC: CMP FT6	1000	304.8	36.0	16.4	18 AWG (solid) .040″ BCCS 28.0Ω/M′ 91.8Ω/km	.170	4.32	Duobond IV Quad Shield 3.6Ω/M′ 11.8Ω/km	.274	6.96	75	82%	16.3	53.5	1 2 5 10 20 50 100 200 300 400	.36 .38 .50 .65 .95 1.50 2.12 2.99 3.66 4.23	1.2 1.3 1.6 2.1 3.1 4.9 7.0 9.8 12.0 13.9

Sweep tested 5 MHz to 400 MHz.

IEEE 802.4 MAP/IEEE 802.7 Mini-MAP.
Tap marks every 2.6 meters to aid users in installation.
Suitable for Outdoor and Direct Burial applications.

RG-11/U Type • 14 AWG Solid Bare Copper-covered Steel • Duobond IV* Quad Shield

Foam Polyethylene Insulation • Gray PVC Jacket

	3094A	NEC: CL2R CMR CEC: CMG FT4	500† 1000† 2000	152.4 304.8 609.6	31.0 62.0 120.0	14.1 28.2 54.5	14 AWG (solid) .064″ BCCS 11.0Ω/M′ 36.1Ω/km	.280	7.11	Duobond IV Quad Shield 1.8Ω/M′ 5.9Ω/km	.407	10.34	75	82%	16.2	53.1	1 2 5 10 20 50 100 200 300 400	.30 .32 .40 60 .71 .90 1.20 1.70 2.08 2.40	1.0 1.0 1.3 2.0 2.3 3.0 3.9 5.9 6.8 7.9

Sweep tested 5 MHz to 400 MHz.
CPE jacket optional.

IEEE 802.4 MAP
Tap marks every 2.6 meters to aid users in installation.

Plenum • Foam FEP Insulation • Gray Fluorocopolymer Jacket

150°C	3095A	NEC: CMP CEC: CMP FT6	1000†	304.8	76.0	34.5	14 AWG (solid) .064″ BCCS 11.0Ω/M′ 36.1Ω/km	.280	7.11	Duobond IV Quad Shield 1.8Ω/M′ 5.9Ω/km	.387	9.83	75	82%	16.5	54.1	1 2 5 10 20 50 100 200 300 400	.20 .22 .28 .39 .60 1.20 1.70 2.50 3.04 3.50	.7 .7 .9 1.3 2.0 3.9 5.6 8.2 10.0 11.5

Sweep tested 5 MHz to 400 MHz.

IEEE 802.4 MAP
Tap marks every 2.6 meters to aid users in installation.
Suitable for Outdoor and Direct Burial applications.

BCCS = Bare Copper-covered Steel • DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene

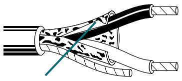
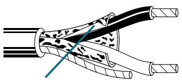
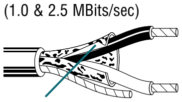
*Duobond IV Quad Shield = Duobond II Foil + 60% aluminum braid + Duofoil® + 40% aluminum braid.
†Spools are one piece, but length may vary ±10% from length shown.

Industrial Data Solutions® — Industrial Data

DataBus® ISA/SP-50 Fieldbus* or Profibus Cables

Fieldbus is a standardized digital communications protocol that enables a simple pair of wires to power and carry the communication signals between field devices and a control room.

Profibus is one of the largest open industrial fieldbus networks in the world.

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
Fieldbus*/Profibus PA • 18 AWG Stranded (7x26) Tinned Copper • Beldfoil® (100% Shield Coverage) • Tinned Copper Drain Wire																			
Polyolefin Insulation • Orange or Blue PVC Jacket (Color Code: Blue, Orange)																			
Type A 300V 75°C (31.25 KBits/sec)  Shorting Fold	**3076F**	NEC: PLTC CM ITC CEC: CM	250 500 1000 2500 5000	76.2 152.4 304.8 762.0 1524.0	10.5 18.5 34.0 85.0 170.0	4.8 8.4 15.5 38.6 77.3	18 AWG (7x26) .048″ Tinned Copper 7.3Ω/M′ 24.0Ω/km	—	—	100% Beldfoil Shield 7.5Ω/M′ 24.6Ω/km	.253	6.43	100 @ 31.25 KHz CPE jacket optional.	66%	24.0	78.7	.039	.08	.26
Fieldbus: Orange jacket. Profibus PA: Intrinsically Safe Blue jacket.																			
Fieldbus* • 22 AWG Stranded (7x30) Tinned Copper • Beldfoil (100% Shield Coverage) • Tinned Copper Drain Wire																			
Polyolefin Insulation • Orange PVC Jacket (Color Code: Blue, Orange)																			
Type B 300V 75°C (31.25 KBits/sec)  Shorting Fold	**3077F**	NEC: PLTC CM ITC CEC: CM	500 1000	152.4 304.8	11.0 23.0	5.0 10.5	22 AWG (7x30) .030″ Tinned Copper 17.1Ω/M′ 56.0Ω/km	—	—	100% Beldfoil Shield 11.4Ω/M′ 37.4Ω/km	.196	4.97	100 @ 31.25 KHz CPE jacket optional.	66%	23.5	77.1	.039	.14	.45
Cellular Polyolefin Insulation • Orange PVC Jacket (Color Code: Blue, Orange)																			
High Speed▲ 300V 75°C (1.0 & 2.5 MBits/sec)  Shorting Fold	**3078F**	NEC: PLTC CM CEC: CM	250 500 1000 2500	76.2 152.4 304.8 762.0	12.0 23.0 44.0 115.0	5.5 10.5 20.0 52.3	22 AWG (7x30) .030″ Tinned Copper 17.1Ω/M′ 56.0Ω/km	—	—	100% Beldfoil Shield 3.3Ω/M′ 11.1Ω/km	.351	8.92	150 @ 1 MHz CPE jacket optional.	78%	8.5	27.9	.250 .625 1.250 3.125	.18 .26 .34 .55	.59 .85 1.12 1.81
Profibus DP • 22 AWG Solid Bare Copper • Beldfoil + 65% Tinned Copper Braid Shield (100% Shield Coverage)																			
Cellular Polyolefin Insulation • Chrome or Violet PVC Jacket (Color Code: Red, Green)																			
300V 75°C 	**3079A**	NEC: PLTC CMG CEC: CMG FT4	1000 2000 3600	304.8 609.6 1097.6	46.0 94.0 169.2	20.9 42.7 76.9	22 AWG (solid) .026″ Bare Copper 16.0Ω/M′ 52.5Ω/km	.198	5.03	Beldfoil + 65% TC Braid Shield (100% Coverage) 3.9Ω/M′ 12.8Ω/km	.315	8.00	150 For CPE jacketed version order Part No. YR45047. For LSOH (FRNC) jacketed version, order Part No. YR44731.	78%	9.0	29.5	.2 4.0 16.0 100.0 300.0	.27 .67 1.37 3.75 6.52	.9 2.2 4.5 12.3 21.4
Siemens Sinec L2 cable.																			

DCR = DC Resistance • TC = Tinned Copper

*Capacitance Unbalance not per ISA/SP-50 Fieldbus

▲For HSE, see Industrial Ethernet Section for copper and fiber cables.

Industrial Data Solutions® — Industrial Data

DeviceBus® for ODVA DeviceNet™

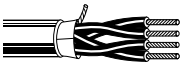
DeviceNet is an open industrial network standard that addresses all kinds of field devices. It allows interchangeability of simple devices and total direct connectivity of larger, more complex communication links.

Features and Benefits

- Data and power in one cable
- Reduced cable and installation costs
- Twisted and shielded for noise immunity (round versions)
- Easier connectivity (flat versions)
- Fully compliant with ODVA specs

DeviceNet Communications Rate Table

Communications Rate	Maximum Distance																			
	3082A		3082F		3082K		3083A		3084F		3084A/3085A		7895A		7896A		7897A		7900A	
	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m
125 Kbps	1640	500	1640	500	1378	420	1640	500	328	100	328	100	984	300	1378	420	1640	500	328	100
250 Kbps	820	250	820	250	656	200	820	250	328	100	328	100	820	250	656	200	820	250	328	100
500 Kbps	328	100	328	100	328	100	328	100	328	100	328	100	328	100	328	100	328	100	328	100

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
600V Class 1 Thick • 15 and 18 AWG Stranded Tinned Copper • 100% Individually Foil Shielded + Overall 65% TC Braid • Drain Wire*																		
PVC/Nylon Insulation (Power) • **FEP Insulation** (Data) • **Lt. Gray Sunlight/Oil-resistant PVC Jacket**																		
High Velocity Thick 600V 75°C	**7897A** new	NEC: TC	500 1000 2000	152.4 304.8 609.6	63.5 124.0 250.0	28.9 56.4 113.6	(2)15 AWG TC (19x28) 3.6Ω/M′ 11.8Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M′ 5.7Ω/km	Power Pair: Red/Black Data Pair: Blue/White	.440	11.18	120	— Data: 75%	12.0	39.4	.125 .500 1.000	.13 .25 .40	.43 .82 1.31
																		
*18 AWG stranded (19x30) tinned copper drain wire. Meter marks on jacket to aid users in installation.																		
600V Class 1 ODVA Cable V • 16 and 18 AWG Stranded Tinned Copper • 100% Individually Foil Shielded + Overall 65% TC Braid • Drain Wire*																		
PVC/Nylon Insulation (Power) • **F-R Polypropylene Insulation** (Data) • **Lt. Gray Sunlight/Oil-resistant PVC Jacket**																		
Open Wiring 600V 75°C	**7896A** new	NEC: TC	500 1000 2000	152.4 304.8 609.6	70.0 136.0 276.0	31.8 64.8 125.5	(2)16 AWG TC (19x29) 4.9Ω/M′ 16.1Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M′ 5.7Ω/km	Power Pair: Red/Black Data Pair: Blue/White	.502	12.75	120	— Data: 64%	14.7	48.2	.125 .500 1.000	.13 .25 .40	.43 .82 1.31
																		
C(UL) AWM I/II A/B *18 AWG stranded (19x30) tinned copper drain wire. Meter marks on jacket to aid users in installation.																		
600V Class 1 ODVA Cable IV • 16 and 18 AWG Stranded Tinned Copper • Unshielded																		
PVC/Nylon Insulation (Power) • **F-R Polypropylene Insulation** (Data) • **Lt. Gray Sunlight/Oil-resistant PVC Jacket**																		
Drop 600V 75°C	**7900A** new	NEC: TC	500 1000	152.4 304.8	45.0 92.0	20.5 41.8	(2)16 AWG TC (19x29) 4.9Ω/M′ 16.1Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	Unshielded	Power Pair: Red/Black Data Pair: Blue/White	.430	10.92	120	— Data: 64%	14.7	48.2	.125 .500 1.000	.13 .25 .40	.43 .82 1.31
																		
Meter marks on jacket to aid users in installation.																		

DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • F-R = Flame-retardant • TC = Tinned Copper if conductor, or Tray Cable if NEC rating.

Industrial Data Solutions® — Industrial Data

DeviceBus® for ODVA DeviceNet™

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

300V Class 2 Thick • 15 and 18 AWG Stranded Tinned Copper • 100% Individually Foil Shielded + Overall 65% TC Braid • Drain Wire*

PVC Insulation (Power) • **FPE Insulation** (Data) • **Lt. Gray Sunlight/Oil-resistant PVC Jacket**

Thick 75°C	**3082A** new	NEC: CMG, PLTC CEC: CMG FT4	500 1000 2000	152.4 304.8 609.6	64.0 128.0 260.0	29.1 58.2 118.2	(2)15 AWG TC (19x28) 3.6Ω/M′ 11.8Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M′ 5.9Ω/km	Power Pair: Red/Black Data Pair: Blue/White	.460	11.68	120	— Data: 75%	12.0	39.4	.125 .500 1.000	.13 .25 .36	.43 .82 1.18

UL AWM 20201 • C(UL) AWM I/II A
*18 AWG stranded (19x30) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

High-Flex Thick 75°C	**3082F** new	NEC: CMG, PLTC CEC: CMG FT4	500 1000 2000	152.4 304.8 609.6	72.0 140.0 284.0	32.7 63.6 129.1	(2)15 AWG TC (65x33) 3.6Ω/M′ 11.8Ω/km (2)18 AWG TC (65x36) 6.9Ω/M′ 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M′ 5.9Ω/km	Power Pair: Red/Black Data Pair: Blue/White	.460	12.07	120	— Data: 75%	12.0	39.4	.125 .500 1.000	.13 .25 .36	.43 .82 1.18

UL AWM 20201 • C(UL) AWM I/II A
*18 AWG stranded (65x36) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

PVC Insulation (Power) • **FPE Insulation** (Data) • **Yellow CPE Jacket**

Thick 80°C	**3083A**	NEC: CMG, PLTC CEC: CMG FT4	1000 2000	304.8 609.6	133.0 270.0	60.5 122.7	(2)15 AWG TC (19x28) 3.6Ω/M′ 11.8Ω/km (2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	100% Individual Foil + Overall 65% TC Braid 1.8Ω/M′ 5.9Ω/km	Power Pair: Red/Black Data Pair: Blue/White	.475	12.07	120	— Data: 75%	12.0	39.4	.125 .500 1.000	.13 .25 .36	.43 .82 1.18

*18 AWG stranded (19x30) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

DCR = DC Resistance • FPE = Foam Polyethylene • TC = Tinned Copper if conductor, or Tray Cable if NEC rating.

Industrial Data Solutions® — Industrial Data

DeviceBus® for ODVA DeviceNet™

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

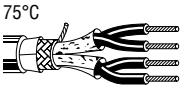
300V Class 2 Thin • 22 and 24 AWG Stranded Tinned Copper • 100% Individually Foil Shielded + Overall 65% TC Braid • Drain Wire*

PVC Insulation (Power) • **FPE Insulation** (Data) • **Lt. Gray Sunlight/Oil-resistant PVC Jacket**

Thin 75°C	**3084A**	NEC: CL2 CMG	500	152.4	26.0	11.8	(2)22 AWG TC (154x44) 17.5Ω/M′ 57.4Ω/km	100% Individual Foil + Overall	Power Pair: Red/Black	.280	7.11	120	—	12.0	39.4	.125	.29	.95
			1000	304.8	49.0	22.3										.500	.50	1.64
		CEC: CMG FT4	2000	609.6	100.0	45.5										1.000	.70	2.30
							(2)24 AWG TC (105x44) 28.0Ω/M′ 91.9Ω/km	65% TC Braid 3.2Ω/M′ 10.5Ω/km	Data Pair: Blue/White				Data: 75%					

C(UL) AWM I/II A
*22 AWG stranded (19x34) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

High-Flex Thin 75°C	**3084F** new	NEC: CL2 CMG	500	152.4	23.5	10.7	(2)22 AWG TC (154x44) 17.5Ω/M′ 57.4Ω/km	100% Individual Foil + Overall	Power Pair: Red/Black	.275	6.99	120	—	12.0	39.4	.125	.29	.95
			1000	304.8	45.0	20.5										.500	.50	1.64
		CEC: CMG FT4	2000	609.6	90.0	40.9										1.000	.70	2.30
							(2)24 AWG TC (105x44) 28.0Ω/M′ 91.9Ω/km	65% TC Braid 3.2Ω/M′ 10.5Ω/km	Data Pair: Blue/White				Data: 75%					



C(UL) AWM I/II A
*22 AWG stranded (26x36) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

PVC Insulation (Power) • **FPE Insulation** (Data) • **Yellow CPE Jacket**

Thin 80°C	**3085A**	NEC: CL2 CMG	500	152.4	25.0	11.4	(2)22 AWG TC (154x44) 17.5Ω/M′ 57.4Ω/km	100% Individual Foil + Overall	Power Pair: Red/Black	.280	7.11	120	—	12.0	39.4	.125	.29	.95
			1000	304.8	47.0	21.4										.500	.50	1.64
		CEC: CMG FT4	2000	609.6	96.0	43.6										1.000	.70	2.30
							(2)24 AWG TC (105x44) 28.0Ω/M′ 91.9Ω/km	65% TC Braid 3.2Ω/M′ 10.5Ω/km	Data Pair: Blue/White				Data: 75%					

*22 AWG stranded (19x34) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

300V Class 2 ODVA Cable III • 20 and 18 AWG Stranded TC • 100% Individually Foil Shielded + Overall 65% TC Braid • Drain Wire*

PVC Insulation (Power) • **FPE Insulation** (Data) • **Lt. Gray Sunlight/Oil-resistant PVC Jacket**

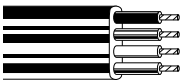
Mid 75°C	**7895A** new	NEC: CMG PLTC	500	152.4	42.0	19.1	(2)20 AWG TC (19x32) 10.9Ω/M′ 35.8Ω/km	100% Individual Foil + Overall	Power Pair: Red/Black	.378	9.60	120	—	12.0	39.4	.125	.29	.95
			1000	304.8	83.0	37.7										.500	.50	1.64
		CEC: CMG FT4														1.000	.70	2.30
							(2)18 AWG TC (19x30) 6.9Ω/M′ 22.6Ω/km	65% TC Braid 3.2Ω/M′ 10.5Ω/km	Data Pair: Blue/White				Data: 75%					

UL AWM 20201
*20 AWG stranded (19x32) tinned copper drain wire.
Meter marks on jacket to aid users in installation.

Flat • 16 AWG Stranded (19x29) Tinned Copper • Unshielded

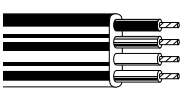
PVC Insulation (Power) • **FPE Insulation** (Data) • **Lt. Gray Sunlight-resistant PVC Jacket**

Class 2 300V 75°C	**3082K** new	NEC: CMG CL2 PLTC	246	75.0	30.8	14.0	(4)16 AWG TC (19x29) 4.9Ω/M′ 16.1Ω/km	Unshielded	Power Pair: Red/Black	.760 x .210	10.92 x 5.33	120	—	12.0	39.4	.125	.13	.43
			656	200.0	78.7	35.8										.500	.25	.82
			1378	420.0	165.4	75.2										1.000	.40	1.31
		CEC: CMG FT4							Data Pair: Blue/White				Data: 75%					



PVC Insulation • Black Sunlight-resistant PVC Jacket

Class 1 Power 600V 75°C	**3082KP** new	NEC: CMG, ITC, PLTC, TC	246	75.0	32.0	14.5	(4)16 AWG TC (19x29) 4.9Ω/M′ 16.1Ω/km	Unshielded	Red/Black, Blue/White	.760 x .210	10.92 x 5.33	—	—	—	—	—	—	—
			656	200.0	81.3	37.0												
			1378	420.0	170.9	77.7												
		CEC: CMG FT4																



DCR = DC Resistance • FPE = Foam Polyethylene • F-R = Flame-retardant • TC = Tinned Copper if conductor, or Tray Cable if NEC rating.

Industrial Data Solutions® — Industrial Data

DeviceBus® for Honeywell Smart Distributed System

22 AWG Stranded Tinned Copper • Each Pair Individually Beldfoil® Shielded

PVC Insulation (Power) • **Cellular PE Insulation** (Data) • **Dark Gray PVC Jacket**

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths Ft.	Standard Lengths m	Standard Unit Weight Lbs.	Standard Unit Weight kg	Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD Inch	Nominal OD mm	Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance pF/Ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation dB/ 100 Ft.	Nominal Attenuation dB/ 100m
UL AWM Style 2464 30V 80°C CSA AWM I/II A	**3087A**	NEC: CL2 CEC: FT1	500 1000 2000	152.4 304.8 609.6	22.0 41.0 84.0	10.0 18.6 38.2	(4)22 AWG (19x34) .030″ Tinned Copper 17.5Ω/M′ 57.4Ω/km	100% Beldfoil Each Pair	Power Pair: Blue/Brown Data Pair: Black/White	.290	7.37	120	— Data: 76%	12.0	39.4	.125 .500 1.000	.23 .42 .60	.76 1.38 1.97

Micro Cable (Drop)

16 and 20 AWG Stranded Tinned Copper • Each Pair Individually Beldfoil Shielded

PVC Insulation (Power) • **Cellular PE Insulation** (Data) • **Dark Gray PVC Jacket**

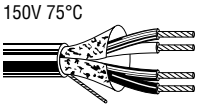
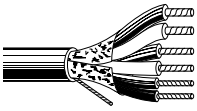
Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths Ft.	Standard Lengths m	Standard Unit Weight Lbs.	Standard Unit Weight kg	Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD Inch	Nominal OD mm	Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance pF/Ft.	Nominal Capacitance pF/m	Nominal Attenuation MHz	Nominal Attenuation dB/ 100 Ft.	Nominal Attenuation dB/ 100m
UL AWM Style 2464 30V 80°C CSA AWM I/II A	**3086A**	NEC: CL2 CEC: FT1	500 1000	152.4 304.8	40.0 80.0	18.2 36.4	(2)16 AWG TC (19x29) .067″ 3.6Ω/M′ 11.8Ω/km (2)20 AWG TC (19x32) .041″ 10.0Ω/M′ 32.8Ω/km	100% Beldfoil Each Pair	Power Pair: Blue/Brown Data Pair: Black/White	.398	10.11	120	— Data: 76%	12.0	39.4	.125 .500 1.000	.18 .35 .47	.59 1.15 1.54

Mini Cable (Trunk)

DCR = DC Resistance • TC = Tinned Copper

Industrial Data Solutions® — Industrial Data

DeviceBus® for Square D/Seriplex®

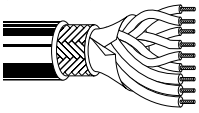
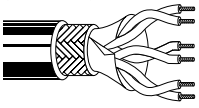
Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance	
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m
18 and 22 AWG Stranded Tinned Copper • Overall 100% Beldfoil® Shield • 22 AWG Drain Wire															
Foam HDPE Insulation (Power) • **Foam HDPE Insulation** (Data) • **Orange PVC Jacket**															
150V 75°C 	**3124A**	NEC: CL2 CM CEC: CM	500 1000	152.4 304.8	25.0 47.0	11.4 21.4	(2)18 AWG (16x30) .040″ TC 6.8Ω/M′ 21.3Ω/km (2)22 AWG (7x30) .030″ TC 18.1Ω/M′ 59.4Ω/km	100% Overall Beldfoil Shield 10.7Ω/M′ 35.1Ω/km	Power Pair: Red/Black Data Pair: White/Green	.308	7.82	150	— Data: 78%	9.0	30.0
16 and 22 AWG Stranded Tinned Copper • Overall 100% Beldfoil Shield • 22 AWG Drain Wire															
Foam HDPE Insulation (Power) • **Foam HDPE Insulation** (Data) • **Orange PVC Jacket**															
150V 75°C 	**3125A**	NEC: CL2 CM CEC: CM	500 1000	152.4 304.8	31.5 63.0	14.3 28.6	(2)16 AWG (26x30) .060″ TC 4.5Ω/M′ 14.8Ω/km (2)22 AWG (7x30) .030″ TC 18.1Ω/M′ 59.4Ω/km	100% Overall Beldfoil Shield 10.0Ω/M′ 32.8Ω/km	Power Pair: Red/Black Data Pair: White/Green	.368	9.35	150	— Data: 78%	9.0	30.0
16, 22 and 12 AWG Stranded Tinned Copper • Overall 100% Beldfoil Shield • 22 AWG Drain Wire															
Foam HDPE Insulation (Control) • **Foam HDPE Insulation** (Data) • **PVC Insulation** (Power) • **Orange PVC Jacket**															
150V 75°C 	**3126A**	NEC: CL2 CM CEC: CM	500 1000	152.4 304.8	57.5 114.0	26.1 51.8	(2)16 AWG (26x30) .060″ TC 4.5Ω/M′ 14.8Ω/km (2)22 AWG (7x30) .030″ TC 18.1Ω/M′ 59.4Ω/km (2)12 AWG (65x30) .090″ TC 1.8Ω/M′ 5.9Ω/km	100% Overall Beldfoil Shield 9.5Ω/M′ 31.2Ω/km	Control Pair: Red/Black Data Pair: White/Green Power Pair: Black/White, Red/White	.486 x .363	12.34 x 9.22	150	— Data: 78% —	9.0	30.0

DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper

Square D/Seriplex is a Square D/Schneider AEG trademark.

Industrial Data Solutions® — Industrial Data

DeviceBus® for Phoenix Contact InterBus®-S

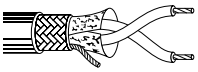
Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Shielding Materials Nom. DCR	Color Code	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance	
			Ft.	m	Lbs.	kg				Inch	mm			pF/Ft.	pF/m
18 and 24 AWG Stranded Tinned Copper • Overall 100% Beldfoil® Shield + 90% Tinned Copper Braid															
PVC Insulation (Power) • **PE Insulation** (Data) • **Green Polyurethane Jacket**															
UL AWM Style 20233 (300V 80°C) 	**3119A**		500 1000	152.4 304.8	35.5 71.0	16.1 32.3	(3)18 AWG (7x24) .060″ TC 3.7Ω/M′ 12.1Ω/km (3pr)24 AWG (7x32) .024″ TC 24.0Ω/M′ 78.7Ω/km	100% Overall Beldfoil + 90% TC Braid 2.7Ω/M′ 8.9Ω/km	Power: Red, Blue, Green w/ Yellow Stripe Data: White/Brown, Pink/Gray, Yellow/Green	.333	8.46	100	— Data: 66%	15.4	50.5
24 AWG Stranded Tinned Copper • Overall 100% Beldfoil Shield + 90% Tinned Copper Braid															
PE Insulation • Green Polyurethane Jacket															
UL AWM Style 20233 (300V 80°C) 	**3120A**		500 1000	152.4 304.8	28.0 56.0	12.7 25.5	(3pr)24 AWG (7x32) TC 24.0Ω/M′ 78.7Ω/km	100% Overall Beldfoil + 90% TC Braid 2.7Ω/M′ 8.9Ω/km	White/Brown, Pink/Gray, Yellow/Green	.313	7.95	100	66%	15.4	50.5

DCR = DC Resistance • TC = Tinned Copper

InterBus-S is a Phoenix Contact trademark.

Industrial Data Solutions® — Industrial Data

EIA Industrial RS-485 PLTC/CM

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m
22 AWG Stranded (7x30) Tinned Copper • Twisted Pairs • Overall 100% Beldfoil® Shield + 90% TC Braid • 22 AWG Stranded TC Drain Wire																		
Datalene® Insulation • Black UV Resistant PVC Jacket (CPE jacket optional)																		
Oil Res II 300V 	**3105A**	NEC: CM PLTC CEC: CM FT1	1	See Chart Below	500 1000 5000	152.4 304.8 1523.9	25.0 50.0 255.0	11.4 22.7 115.9	14.7Ω/M′ 48.2Ω/km	2.9Ω/M′ 9.5Ω/km	.286	7.26	120	78%	11.0	36.1	20.0	65.6
													For CPE jacketed version order Part No. YR44345					
	3106A	NEC: CM PLTC CEC: CM FT1	1.5†	See Chart Below	500 1000 5000	152.4 304.8 1523.9	27.0 51.0 260.0	12.3 23.2 118.2	14.7Ω/M′ 48.2Ω/km	2.8Ω/M′ 9.2Ω/km	.302	7.67	120	78%	11.0	36.1	20.0	65.6
													For CPE jacketed version order Part No. YR46721					
	3107A	NEC: CM PLTC CEC: CM FT1	2	See Chart Below	1000 4000 5000	304.8 1219.2 1523.9	73.0 300.0 385.0	33.2 136.4 175.0	14.7Ω/M′ 48.2Ω/km	1.4Ω/M′ 4.6Ω/km	.356	9.04	120	78%	11.0	36.1	20.0	65.6
													For CPE jacketed version order Part No. YR46792					
	3108A	NEC: CM PLTC CEC: CM FT1	3	See Chart Below	1000 2000	304.8 609.6	93.0 184.0	42.3 83.6	14.7Ω/M′ 48.2Ω/km	1.4Ω/M′ 4.6Ω/km	.420	10.67	120	78%	11.0	36.1	20.0	65.6
													For CPE jacketed version order Part No. YR45287					
	3109A	NEC: CM PLTC CEC: CM FT1	4	See Chart Below	1000 2000	304.8 609.6	107.0 218.0	48.6 99.1	14.7Ω/M′ 48.2Ω/km	1.1Ω/M′ 3.6Ω/km	.420	10.67	120	78%	11.0	36.1	20.0	65.6
													For CPE jacketed version order Part No. YR44768					

DCR = DC Resistance • TC = Tinned Copper

* Capacitance between conductors.
** Capacitance between one conductor and other conductors connected to shield.
† All conductors are under the braid shield; one pair is under the Beldfoil shield.

Color Code Chart

Pair No.	Color Combination
1	White/Blue Stripe Blue/White Stripe
2	White/Orange Stripe Orange/White Stripe
3	White/Green Stripe Green/White Stripe
4	White/Brown Stripe Brown/White Stripe

Industrial Data Solutions® — Interconnect Cable

Shielded Twisted Pair Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m
24 AWG Stranded (7x32) • Tinned Copper • Twisted Pairs • Individually Shielded with 100% Beldfoil® • 24 AWG Stranded TC Drain Wire																		
Datalene® Insulation • Chrome PVC Jacket																		
UL AWM Style 2493 (300V 60°C)	**9729**	NEC: CM	2	See Chart 3 (Tech Info Section)	100	30.5	4.3	2.0	24.0Ω/M′ 78.7Ω/km	18.0Ω/M′ 59.1Ω/km	.317	8.05	100	78%	12.5	41.0	23.2	76.1
		CEC: CM			500	152.4	20.5	9.3										
					1000	304.8	39.0	17.7										
					10000	3048.0	390.0	177.8										
Z-Fold®																		
													For Plenum version of 9729, see 89729 or 82729.					
22 AWG Stranded (7x30) • Tinned Copper • Twisted Pairs • Individually Shielded with 100% Beldfoil • 22 AWG Stranded TC Drain Wire																		
Polypropylene Insulation • Chrome PVC Jacket																		
UL AWM Style 2919 (30V 80°C)	**8777**	NEC: CM	3	See Chart 3 (Tech Info Section)	100	30.5	5.3	2.4	15.0Ω/M′ 49.2Ω/km	10.6Ω/M′ 34.8Ω/km	.273	6.93	50	66%	30	98	55	180
		CEC: CM			250	76.2	11.3	5.1										
					U-500	U-152.4	21.0	9.5										
					500	152.4	21.0	9.5										
					U-1000	U-304.8	41.0	18.7										
					1000	304.8	42.0	19.1										
					1640	499.9	67.2	30.6										
					3280	999.7	137.8	62.6										
					5000	1524.0	210.0	95.5										
					10000	3048.0	450.0	204.5										
Z-Fold®																		
													For Plenum versions of 8777, see 88777, 87777 or 82777.					
22 AWG Stranded (7x30) • Tinned Copper • Twisted Pairs • Individually Shielded with 100% Beldfoil • 24 AWG Stranded TC Drain Wire																		
Polypropylene Insulation • Chrome PVC Jacket (Pairs Cabled on Common Axis to Reduce Diameter)																		
300V RMS 60°C	**8723**	NEC: CM	2	Red/Black, Green/White	100	30.5	2.3	1.0	15.0Ω/M′ 49.2Ω/km	16.6Ω/M′ 54.5Ω/km	.168	4.27	45	66%	35	115	62	203
		CEC: CM			U-500	U-152.4	10.5	4.8										
					500	152.4	10.0	4.5										
					U-1000	U-304.8	20.0	9.1										
					1000	304.8	20.0	9.1										
					1640	499.9	32.8	14.9										
					U-2000	U-609.6	40.0	18.2										
					2000	609.6	40.0	18.2										
					3280	999.7	65.6	29.8										
					5000	1524.0	95.0	43.2										
					10000	3048.0	200.0	90.9										
													For Plenum versions of 8723, see 88723, 87723 or 82723.					
Plenum • FEP Insulation • Red FEP Jacket (Pairs Cabled on Common Axis to Reduce Diameter)																		
300V RMS, Non-conduit	**88723**	NEC: CMP	2	Red/Black, Green/White	100	30.5	3.4	1.5	16.0Ω/M′ 52.5Ω/km	16.6Ω/M′ 54.5Ω/km	.148	3.76	40	69%	35	115	67	220
		CEC: CMP FT6			500	152.4	11.0	5.0										
					1000	304.8	21.0	9.5										
Z-Fold®																		
18 AWG Stranded Conductors (16x30) • Tinned Copper • Twisted Pair • Overall 100% Beldfoil Shield • 20 AWG Stranded TC Drain Wire																		
Polyethylene Insulation • Chrome PVC Jacket																		
UL AWM Style 2092 (300V 60°C)	**8760**	NEC: CM	1	Black, Clear	250	76.2	6.8	3.1	—	—	.222	5.64	—	—	24	79	44	144
		CEC: CM			U-500	U-152.4	13.0	5.9										
					500	152.4	13.0	5.9										
					U-1000	U-304.8	26.0	11.8										
					1000	304.8	25.0	11.4										
					2000	609.6	50.0	22.7										
					5000	1524.0	135.0	61.4										
					10000	3048.0	260.0	118.2										
Shorting Fold													For Plenum versions of 8760, see 88760, 87760 or 82760.					

DCR = DC Resistance • TC = Tinned Copper

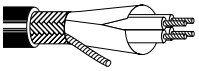
* Capacitance between conductors.
** Capacitance between one conductor and other conductors connected to shield.

VFD (Variable Frequency Drive) Cable

1000V UL Flexible Motor Supply Cable

VFD cables carry the power from AC drive systems to AC motors and are designed to withstand harsh operating environments characterized by high voltage spikes, high noise levels and adverse environmental conditions.

Description	Part No.	AWG	Cond. Stranding	Standard Lengths		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm
4-conductor (3) Stranded TC Signals + (1) Full-sized Ground • Overall Beldfoil® + 85% TC Braid Shield • Full Sized TC Drain Wire*													
XLPE Insulation • Black Sunlight-resistant PVC Jacket (ICEA Method 4 Color Code: Black and Numbered, Green Ground)													
1000V UL Flexible Motor Supply Cable 600V UL 1277 Type TC 1000V CSA AWM I/II A/B FT4 Open Wiring per NEC Article 340 90°C Wet/Dry	**29500**	16	26x30	250 500 1000 6000	76.2 152.4 304.8 1829.3	40.3 93.5 169.0 1068.0	18.3 42.5 76.8 485.5	.48	12.19	83	368	3.9	99.06
	29501	14	41x30	250 500 1000 5000	76.2 152.4 304.8 1524.0	55.0 124.0 243.0 1105.0	25.0 56.4 110.5 502.3	.55	13.97	174	773	4.5	114.30
	29502	12	65x30	250 500 1000 5000	76.2 152.4 304.8 1524.0	69.8 151.5 298.0 1570.0	31.7 68.9 135.5 713.6	.60	15.24	243	1081	4.8	121.92
	29503	10	105x30	250 500 1000 5000	76.2 152.4 304.8 1524.0	91.3 194.5 375.0 2025.0	41.5 88.4 170.5 920.5	.66	16.76	329	1463	5.4	137.16
	29504	8	7x19x29	250 500 1000 5000	76.2 152.4 304.8 1524.0	158.5 332.0 660.0 3135.0	72.0 150.9 300.0 1425.0	.89	22.61	523	2326	7.3	185.42
	29505	6	7x19x27	250 1000 3500	76.2 304.8 1066.8	221.3 906.0 3206.0	100.6 411.8 1457.3	.99	25.15	840	3736	8.0	203.20
	29506	4	7x19x25	250 1000 3000	76.2 304.8 914.4	319.5 1250.0 3843.0	145.2 568.2 1746.8	1.15	29.21	1327	5903	9.2	233.68
	29507	2	7x19x23	250 500 1000 2000	76.2 152.4 304.8 609.6	437.8 875.5 1711.0 3682.0	199.0 398.0 777.7 1673.6	1.29	32.77	2110	9386	10.5	266.70



XHHW-2, RHW-2 rated singles.
Suitable for Direct Burial applications.

TC = Tinned Copper if conductor, or Tray Cable if NEC rating. • XLPE = Cross-linked Polyethylene

*Drain wire and ground wire are the same AWG size as conductor.

Belden Infinity® Flexible Automation Cable

Overview and Application Guide

Belden Infinity is a complete line of control, data, video, and power cables specifically designed to handle the rigorous speeds and near-constant motion encountered in automated equipment such as robots, pick and place machines, automatic handling systems, multi-axis machine tools, and conveyor systems.

When the application demands highly flexible cables offering exceptional cable life and performance, specify Belden Infinity.

Belden Infinity Means More Performance And Longer Life

Reduced Cable Memory — Belden Infinity's unique design, including no central core conductor, and neutralized cabling, results in cables that are relaxed, with almost no memory.

Greater Flex Life — Belden Infinity cables offer superior flexibility and are able to handle the vigorous motions and high speeds encountered in automated equipment.

Greater System Uptime — Belden Infinity cables combine specialized manufacturing techniques with precision copper stranding and rugged insulation and jacketing compounds to maximize flex life and reliability.

No Talc Problems — Unlike the potentially harmful talc used in other cables, Belden's non-toxic, non-irritating slipper compound facilitates flexing and also complies with OSHA regulations. It's safer for employees and operators and is less likely to contaminate solder joints or mechanical compounds.

CE Conformity — All Belden Infinity cables are CE marked per the Conformité Européenne low voltage directive, allowing trade of product in Europe.

Custom Designs — Other designs available upon request.

Product Series Descriptions

- **C-TC+** — The C-TC+ series is designed for C-track and extreme flex applications up to 9 million flex cycles*. This series utilizes super fine stranding and some of the tightest lay lengths allowed by UL, providing outstanding flex life.
- **FCC** — The FCC series is a cost effective alternative for C-track and moderate flexing applications rated up to 1 million flex cycles*.
- **Flex Data Cables** — Belden Infinity Flex Data cables are designed for industrial applications where precise data transmission is combined with high-flexing. These cables are ideal for effective operation of computer controlled equipment or other automated production processes, even in harsh environments.
- **Flex Vision** — Belden Infinity Vision cables are continuous flex video cables designed for machine vision applications. They are ideal for motion-controlled video and with inspection and measurement equipment.

Application Guide

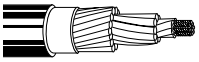
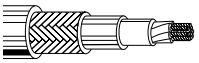
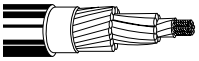
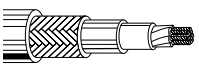
Belden Infinity Series	C-Track Systems	Multi-Axis Machining	Robotics	Automated Assembly Systems	Material Handling Systems	Pick & Place Systems	Automated Storage Retrieval	Gantry Systems	Machine Vision	Motion-Controlled Video	Inspection & Measure Equip.	Festooning	Servo	Power
FCC Oil & abrasion resistant 600V UL & CSA rated Life Expectancy: Over 1 million flex cycles*	●	●		●	●	●	●	●			●	●	●	●
C-TC+ Oil & abrasion resistant 600V UL & CSA rated Life Expectancy: Over 9 million flex cycles*	★	★	●	★	★	★	★	★			★	★	★	★
DATA Oil & abrasion resistant 300V UL & CSA rated Life Expectancy: Over 1 million flex cycles*	●	●	●	●	●	●	●	●			●	●		
VISION Abrasion resistant 30V UL & CSA rated Life Expectancy: Over 1 million flex cycles*	●	●		●	●	●	●	●	★	✚	✚	●		

● Satisfactory ✚ Superior ★ Supreme

*Based on Belden recommended installation guidelines.

Belden Infinity® Flexible Automation Cable

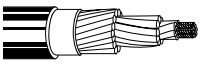
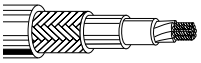
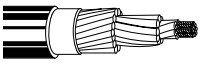
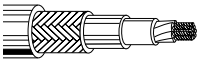
600V C-TC+ Control Cables for Extreme Flexing
(9 Million Flex Cycles*)

Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
20 AWG Stranded (74x38) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7101A**	3	250 500 1000	76.2 152.4 304.8	11.0 24.5 47.0	5.0 11.1 21.4	.020	.51	.045	1.14	.275	6.99	45	200
	**7102A**	4	250 500 1000	76.2 152.4 304.8	13.3 27.5 53.0	6.0 12.5 24.1	.020	.51	.045	1.14	.295	7.49	59	262
	7105A	9	250 500 1000	76.2 152.4 304.8	29.8 52.0 104.0	13.5 23.6 47.3	.020	.51	.055	1.40	.435	11.05	130	578
	7106A	12	250 500 1000	76.2 152.4 304.8	32.3 66.5 134.0	14.7 30.2 60.9	.020	.51	.055	1.40	.455	11.56	178	791
	7107A	18	250 500	76.2 152.4	50.0 101.0	22.7 45.9	.020	.51	.065	1.65	.545	13.84	260	1156
Temp Rating: -40° to 90°C (-5° to 90°C flexing)	**7108A**	25	250 500	76.2 152.4	71.5 143.5	32.5 65.2	.020	.51	.080	2.03	.665	16.89	370	1645
20 AWG Stranded (74x38) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Orange Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7106AS**	12	250 500	76.2 152.4	57.5 116.0	26.1 52.7	.020	.51	Inner: .025 Outer: .055	.64 1.40	.535	13.59	194	863
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
18 AWG Stranded (114x38) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7110A**	3	250 500 1000	76.2 152.4 304.8	12.8 26.0 50.0	5.8 11.8 22.7	.020	.51	.035	.89	.300	7.62	69	306
	**7113A**	7	250 500 1000	76.2 152.4 304.8	29.0 55.5 111.0	13.2 25.2 50.5	.020	.51	.060	1.52	.438	11.13	155	689
	7115A	12	250 500 1000	76.2 152.4 304.8	40.3 84.5 169.0	18.3 38.4 76.8	.020	.51	.060	1.52	.513	13.03	270	1201
	7116A	18	250 500	76.2 152.4	63.0 126.0	28.6 57.3	.020	.51	.060	1.52	.598	15.19	400	1779
	7117A	25	250 500	76.2 152.4	89.3 179.0	40.6 81.4	.020	.51	.083	2.11	.744	18.90	570	2535
Temp Rating: -40° to 90°C (-5° to 90°C flexing)	**7118A**	34	250 500	76.2 152.4	108.8 216.0	49.4 98.2	.020	.51	.083	2.11	.822	20.88	775	3447
18 AWG Stranded (114x38) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Orange Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7111AS**	4	250 500	76.2 152.4	4.0 60.5	1.8 27.5	.020	.51	Inner: .025 Outer: .050	.64 1.27	.405	10.29	84	323
	**7115AS**	12	250 500 1000	76.2 152.4 304.8	72.8 144.5 287.0	33.1 65.7 130.5	.020	.51	Inner: .025 Outer: .065	.64 1.65	.600	15.24	252	1121
	7117AS	25	250 500	76.2 152.4	138.8 277.5	63.1 126.1	.020	.51	Inner: .025 Outer: .080	.64 2.03	.815	20.70	273	1214
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

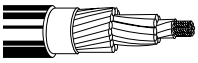
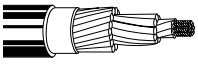
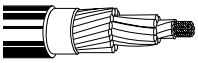
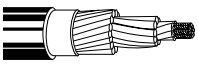
600V C-TC+ Control Cables for Extreme Flexing
(9 Million Flex Cycles*)

Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
16 AWG Stranded (190x38) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7122A**	3	250 500 1000	76.2 152.4 304.8	16.3 43.5 84.0	7.4 19.8 38.2	.020	.51	.045	1.14	.325	8.26	114	507
	**7125A**	7	250 500 1000	76.2 152.4 304.8	38.5 73.5 148.0	17.5 33.4 67.3	.020	.51	.060	1.52	.480	12.19	260	1156
	7126A	9	250 500 1000	76.2 152.4 304.8	49.3 97.5 195.0	22.4 44.3 88.6	.020	.51	.060	1.52	.545	13.84	340	1512
	7127A	12	250 500 1000	76.2 152.4 304.8	53.3 122.5 243.0	24.2 55.7 110.5	.020	.51	.060	1.52	.570	14.48	450	2001
	7128A	18	250 500	76.2 152.4	85.3 172.0	38.8 78.2	.020	.51	.060	1.52	.670	17.02	680	3025
	7129A	25	250 500	76.2 152.4	124.5 247.5	56.5 112.5	.020	.51	.080	2.03	.820	20.83	950	4226
	7130A	34	250 500	76.2 152.4	166.3 336.0	75.6 152.7	.020	.51	.080	2.03	.900	22.86	1290	5738
Temp Rating: -40° to 90°C (-5° to 90°C flexing)	**7132A**	50	250 500	76.2 152.4	230.5 464.5	104.8 211.1	.020	.51	.085	2.16	1.070	27.18	1900	8452
16 AWG Stranded (190x38) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Orange Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7121AS**	2	250 500	76.2 152.4	21.5 43.0	9.8 19.5	.020	.51	Inner: .025 Outer: .040	.64 1.02	.375	9.53	76	338
	**7123AS**	4	250 500	76.2 152.4	40.8 78.0	18.5 35.5	.020	.51	Inner: .025 Outer: .040	.64 1.02	.420	10.67	154	685
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
14 AWG Stranded (266x38) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7136A**	4	250 500	76.2 152.4	39.0 74.5	17.7 33.9	.025	.64	.050	1.27	.430	10.92	212	943
	**7142A**	25	250 500	76.2 152.4	246.8 495.0	112.2 225.0	.025	.64	.090	2.29	1.000	25.40	1330	5916
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
14 AWG Stranded (266x38) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Orange Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7136AS**	4	250 500	76.2 152.4	74.0 145.0	33.6 65.9	.025	.64	Inner: .025 Outer: .045	.64 1.14	.500	12.70	248	1103
	**7141AS**	18	250 500	76.2 152.4	204.0 403.0	92.7 183.2	.025	.64	Inner: .025 Outer: .070	.64 1.78	.890	22.61	958	4261
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

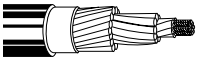
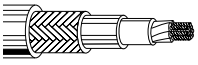
600V C-TC+ Control Cables for Extreme Flexing
(9 Million Flex Cycles*)

Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
12 AWG Stranded (413x38) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7145A**	4	250 500 1000	76.2 152.4 304.8	72.5 146.0 290.0	33.0 66.4 131.8	.030	.76	.075	1.91	.545	13.84	274	1218
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
10 AWG Stranded (658x38) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7147A**	4	250 500	76.2 152.4	78.3 156.5	35.6 71.1	.030	.76	.075	1.91	.605	15.37	527	2331
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
6 AWG Stranded (665x34) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7152A**	3	250 500	76.2 152.4	133.8 266.0	60.8 120.9	.060	1.52	.075	1.91	.825	20.96	1100	4893
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
2 AWG Stranded (1666x34) Bare Copper • Unshielded (Color Code: Red w/numbers + Green/Yellow ground)														
PVC Insulation • Orange Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7158A**	3	250	76.2	334.8	152.2	.070	1.78	.100	2.54	1.160	29.46	2499	11,117
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

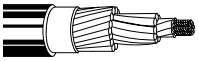
600V FCC Control Cables for Moderate Flexing
(1 Million Flex Cycles*)

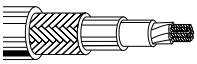
Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
20 AWG Stranded (10x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7400A**	2	250 500 1000	76.2 152.4 304.8	11.0 25.0 44.0	5.0 11.4 20.0	.022	.56	.040	1.02	.240	6.10	26	115
	**7401A**	3	250 500 1000	76.2 152.4 304.8	13.0 30.0 59.0	5.9 13.6 26.8	.022	.56	.040	1.02	.250	6.35	39	173
	7402A	4	250 500 1000	76.2 152.4 304.8	15.0 33.0 64.0	6.8 15.0 29.1	.022	.56	.040	1.02	.275	6.99	52	231
	7403A	5	250 500 1000	76.2 152.4 304.8	17.5 38.0 72.0	8.0 17.3 32.7	.022	.56	.040	1.02	.300	7.62	65	289
	7404A	7	250 500 1000	76.2 152.4 304.8	22.0 44.5 86.0	10.0 20.2 39.1	.022	.56	.040	1.02	.345	8.76	91	404
	7405A	9	250 500 1000	76.2 152.4 304.8	29.5 71.5 144.0	13.4 32.5 65.5	.022	.56	.053	1.35	.410	10.41	117	520
	7406A	12	250 500 1000	76.2 152.4 304.8	30.8 88.5 177.0	14.0 40.2 80.5	.022	.56	.053	1.35	.420	10.67	156	693
	7407A	18	250 500	76.2 152.4	53.5 104.0	24.3 47.3	.022	.56	.053	1.35	.500	12.70	234	1040
Temp Rating: -40° to 90°C (-5° to 90°C flexing)	**7408A**	25	250 500	76.2 152.4	65.3 130.5	29.7 59.3	.022	.56	.065	1.65	.615	15.62	325	1445
20 AWG Stranded (10x30) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Gray Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7401AS**	3	250 500 1000	76.2 152.4 304.8	27.8 54.0 105.0	12.6 24.5 47.7	.022	.56	Inner: .025 Outer: .035	.64 .89	.320	8.13	45	200
	**7402AS**	4	250 500	76.2 152.4	32.8 64.0	14.9 29.1	.022	.56	Inner: .025 Outer: .035	.64 .89	.330	8.38	52	231
	7403AS	5	250 500	76.2 152.4	34.8 68.0	15.8 30.9	.022	.56	Inner: .025 Outer: .035	.64 .89	.370	9.40	65	289
	7404AS	7	250 500	76.2 152.4	37.8 71.5	17.2 32.5	.022	.56	Inner: .025 Outer: .040	.64 1.02	.420	10.67	91	404
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

600V FCC Control Cables for Moderate Flexing
(1 Million Flex Cycles*)

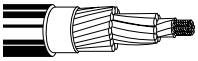
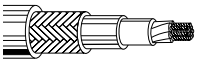
Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
18 AWG Stranded (16x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7409A**	2	250 500 1000	76.2 152.4 304.8	13.3 26.5 51.0	6.0 12.0 23.2	.022	.56	.040	1.02	.264	6.71	50	222
	**7410A**	3	250 500 1000	76.2 152.4 304.8	16.3 25.0 48.0	7.4 11.4 21.8	.022	.56	.040	1.02	.280	7.11	74	329
	7411A	4	250 500 1000	76.2 152.4 304.8	18.8 31.0 58.0	8.5 14.1 26.4	.022	.56	.040	1.02	.305	7.75	98	435
	7412A	5	250 500 1000	76.2 152.4 304.8	21.8 36.0 69.0	9.9 16.4 31.4	.022	.56	.040	1.02	.330	8.38	122	542
	7413A	7	250 500 1000	76.2 152.4 304.8	27.5 46.0 120.0	12.5 20.9 54.5	.022	.56	.040	1.02	.385	9.78	171	760
	7414A	9	250 500 1000	76.2 152.4 304.8	36.5 87.0 174.0	16.6 39.5 79.1	.022	.56	.050	1.27	.452	11.48	220	978
	7415A	12	250 500 1000	76.2 152.4 304.8	40.0 75.5 161.0	18.2 34.3 73.2	.022	.56	.050	1.27	.475	12.07	292	1298
	7416A	18	250 500	76.2 152.4	55.8 112.5	25.3 51.1	.022	.56	.050	1.27	.560	14.22	440	1957
	7417A	25	250 500	76.2 152.4	74.3 149.0	33.8 67.7	.022	.56	.072	1.83	.696	12.68	520	2313
	7418A	34	250 500	76.2 152.4	111.3 215.5	50.6 98.0	.022	.56	.072	1.83	.788	20.02	830	3692
	7419A	41	250 500	76.2 152.4	148.3 295.0	67.4 134.1	.022	.56	.075	1.91	.860	21.84	1001	4453
Temp Rating: -40° to 90°C (-5° to 90°C flexing)	**7420A**	50	250	76.2	186.5	84.8	.022	.56	.083	2.11	.940	23.88	1220	5427

Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
18 AWG Stranded (16x30) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Gray Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7411AS**	4	250 500	76.2 152.4	29.0 56.5	13.2 25.7	.022	.56	Inner: .025 Outer: .032	.64 .81	.365	9.27	83	369
	**7413AS**	7	250 500	76.2 152.4	37.5 74.0	17.0 33.6	.022	.56	Inner: .025 Outer: .035	.64 .89	.450	11.43	145	645
	7415AS	12	250 500	76.2 152.4	61.5 124.0	28.0 56.4	.022	.56	Inner: .025 Outer: .045	.64 1.14	.550	13.97	230	1023
	7416AS	18	250 500	76.2 152.4	83.3 169.0	37.8 76.8	.022	.56	Inner: .025 Outer: .055	.64 1.40	.650	16.51	374	1663
	7417AS	25	250 500	76.2 152.4	113.8 228.0	51.7 103.6	.022	.56	Inner: .025 Outer: .060	.64 1.52	.765	19.43	520	2313
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

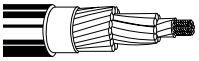
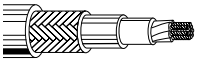
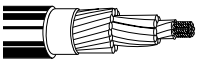
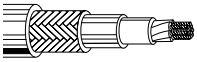
600V FCC Control Cables for Moderate Flexing
(1 Million Flex Cycles*)

Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
16 AWG Stranded (26x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7421A**	2	500 1000	152.4 304.8	35.0 68.0	15.9 30.9	.022	.56	.040	1.02	.290	7.37	70	311
	**7422A**	3	250 500 1000	76.2 152.4 304.8	18.8 34.5 65.0	8.5 15.7 29.5	.022	.56	.040	1.02	.305	7.75	105	467
	7423A	4	250 500 1000	76.2 152.4 304.8	22.5 41.5 80.0	10.2 18.9 36.4	.022	.56	.040	1.02	.330	8.38	140	622
	7424A	5	250 500 1000	76.2 152.4 304.8	27.5 49.5 96.0	12.5 22.5 43.6	.022	.56	.040	1.02	.360	9.14	175	778
	7425A	7	250 500 1000	76.2 152.4 304.8	35.0 64.0 129.0	15.9 29.1 58.6	.022	.56	.040	1.02	.425	10.80	236	1049
	7426A	9	250 500 1000	76.2 152.4 304.8	50.5 95.0 190.0	23.0 43.2 86.4	.022	.56	.060	1.52	.540	13.72	304	1352
	7427A	12	250 500 1000	76.2 152.4 304.8	55.3 114.0 220.0	25.1 51.8 100.0	.022	.56	.065	1.65	.565	14.35	405	1801
	7428A	18	250 500	76.2 152.4	79.0 158.0	35.9 71.8	.022	.56	.065	1.65	.650	16.51	608	2704
	7429A	25	250 500	76.2 152.4	109.0 218.5	49.5 99.3	.022	.56	.060	1.52	.750	19.05	875	3892
Temp Rating: -40° to 90°C (-5° to 90°C flexing)	**7430A**	34	250 500	76.2 152.4	171.3 341.0	77.8 155.0	.022	.56	.075	1.91	.878	22.30	1145	5093
16 AWG Stranded (26x30) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Gray Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7422AS**	3	250 500	76.2 152.4	30.5 59.5	13.9 27.0	.022	.56	Inner: .025 Outer: .032	.64 .81	.370	9.40	105	467
	**7423AS**	4	250 500	76.2 152.4	36.0 68.0	16.4 30.9	.022	.56	Inner: .025 Outer: .035	.64 .89	.400	10.16	140	622
	7427AS	12	250 500	76.2 152.4	81.8 164.5	37.2 74.8	.022	.56	Inner: .025 Outer: .060	.64 1.52	.630	16.00	420	1868
	7428AS	18	250 500	76.2 152.4	119.0 238.5	54.1 108.4	.022	.56	Inner: .025 Outer: .070	.64 1.78	.740	18.80	630	2802
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

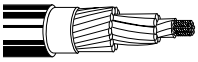
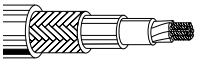
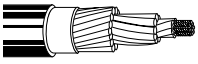
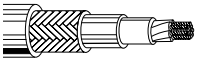
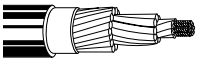
600V FCC Control Cables for Moderate Flexing
(1 Million Flex Cycles*)

Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
14 AWG Stranded (41x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7434A**	2	250 500 1000	76.2 152.4 304.8	34.0 66.5 92.0	15.5 30.2 41.8	.023	.58	.045	1.14	.335	8.51	201	894
	**7435A**	3	250 500 1000	76.2 152.4 304.8	39.8 78.5 98.0	18.1 35.7 44.5	.023	.58	.045	1.14	.350	8.89	201	894
	7436A	4	250 500 1000	76.2 152.4 304.8	49.3 95.0 131.0	22.4 43.2 59.5	.023	.58	.050	1.27	.395	10.03	201	894
	7438A	7	250 500 1000	76.2 152.4 304.8	74.8 150.5 202.0	34.0 68.4 91.8	.023	.58	.060	1.52	.525	13.34	373	1659
	7439A	9	250 500 1000	76.2 152.4 304.8	110.8 223.0 334.0	50.3 101.4 151.8	.023	.58	.070	1.78	.620	15.75	480	2135
	7440A	12	250 500 1000	76.2 152.4 304.8	142.5 285.5 427.0	64.8 129.8 194.1	.023	.58	.075	1.91	.660	16.76	640	2847
Temp Rating: -40° to 90°C (-5° to 90°C flexing)	**7442A**	25	250 500	76.2 152.4	223.8 454.5	101.7 206.6	.023	.58	.090	2.29	.930	23.62	1337	5947
14 AWG Stranded (41x30) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Gray Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7436AS**	4	250 500	76.2 152.4	49.3 95.0	22.4 43.2	.023	.58	Inner: .025 Outer: .055	.64 1.40	.482	12.24	212	943
	**7438AS**	7	250 500	76.2 152.4	74.8 150.5	34.0 68.4	.023	.58	Inner: .025 Outer: .060	.64 1.52	.563	14.30	371	1650
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
12 AWG Stranded (65x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7444A**	3	250 500	76.2 152.4	53.5 103.5	24.3 47.0	.028	.71	.060	1.52	.450	11.43	253	1125
	**7445A**	4	250 500	76.2 152.4	63.5 124.0	28.9 56.4	.028	.71	.070	1.78	.505	12.83	338	1503
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
12 AWG Stranded (65x30) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Gray Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7445AS**	4	250 500	76.2 152.4	85.8 171.5	39.0 78.0	.028	.71	Inner: .030 Outer: .070	.76 1.78	.580	14.73	338	1503
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

600V FCC Control Cables for Moderate Flexing
(1 Million Flex Cycles*)

Description	Part No.	No. of Cond.	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Maximum Pull Tension	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	Lbs.	N
10 AWG Stranded (105x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7447A**	4	250 500	76.2 152.4	70.8 142.5	32.2 64.8	.030	.76	.070	1.78	.570	14.48	672	3014
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
10 AWG Stranded (105x30) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Gray Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7447AS**	4	250 500	76.2 152.4	92.8 185.5	42.2 84.3	.030	.76	Inner: .035 Outer: .065	.89 1.65	.660	16.76	546	2428
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
8 AWG Stranded (168x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7449A**	3	250 500	76.2 152.4	102.0 163.0	46.4 74.1	.045	1.14	.070	1.78	.655	16.64	690	3069
	7450A	4	250 500	76.2 152.4	113.8 228.0	51.7 103.6	.045	1.14	.070	1.78	.715	18.16	920	4092
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
8 AWG Stranded (168x30) Bare Copper • 85% Tinned Copper Braid Shield (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • PVC Inner Jacket • Gray Oil- and Abrasion-resistant PVC Outer Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7450AS**	4	250 500	76.2 152.4	141.3 281.0	64.2 127.7	.045	1.14	Inner: .040 Outer: .065	1.02 1.65	.815	20.70	872	3879
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														
6 AWG Stranded (266x30) Bare Copper • Unshielded (Color Code: Black w/numbers + Green/Yellow ground)														
PVC Insulation • Gray Oil- and Abrasion-resistant PVC Jacket														
UL AWM Style 2587 (600V 90°C) CSA AWM I/II A/B	**7453A**	4	250	76.2	185.0	84.1	.060	1.52	.085	2.16	.925	23.50	1472	6548
														
Temp Rating: -40° to 90°C (-5° to 90°C flexing)														

*Based on proper installation techniques in a C-track cable guide.

Belden Infinity® Flexible Automation Cable

300V Flex Data Cables
(1 Million Flex Cycles*)

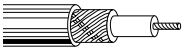
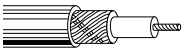
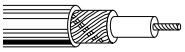
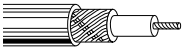
Description	Part No.	No. of Pairs	UL NEC/ C(UL) CEC Type	RS Type	Color Code	Standard Lengths		Standard Unit Weight		Nominal OD		Maximum Capacitance		Nom. Imped. (Ω)
						Ft.	m	Lbs.	kg	Inch	mm	pF/Ft.	pF/m	
Flex Data • 24 AWG Stranded (41x40) Bare Copper • Twisted Pairs • Overall 100% Beldfoil® + 85% TC Braid Shield • Drain Wire†														
Foam Polyethylene Insulation with Skin • Bright Green Oil-resistant PVC Jacket														
300V 80°C 	**7200A**	1	NEC: CM CEC: CM	232 485	White, Blue	500 1000	152.4 304.8	20.5 40.0	9.3 18.2	.240	6.10	15.0	49.2	120
	7201A	2	NEC: CM CEC: CM	232 485	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	26.0 48.0	11.8 21.8	.322	8.18	15.0	49.2	120
	7202A	3	NEC: CM CEC: CM	232 485	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	27.5 52.0	12.5 23.6	.347	8.81	15.0	49.2	120
	7203A	4	NEC: CM CEC: CM	232 485	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	30.0 59.0	13.6 26.8	.372	9.45	15.0	49.2	120
	7205A	1	NEC: CM CEC: CM	232 422	White, Blue	500 1000	152.4 304.8	19.5 37.0	8.9 16.8	.232	5.89	14.0	45.9	100
	7206A	1	NEC: CM CEC: CM	232 485	White, Blue	500 1000	152.4 304.8	35.0 67.0	15.9 30.5	.302	7.67	10.0	32.8	150
Temp Rating: -20° to 80°C (-5° to 90°C flexing)														

TC = Tinned Copper

* Based on proper installation techniques in a C-track cable guide.
† 24 AWG stranded (41x40) tinned copper drain wire.

Belden Infinity® Flexible Automation Cable

75 Ohm Flex Vision Coax Cables
(1 Million Flex Cycles*)

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal Core OD		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg	Conductor	Shield	Inch	mm	Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
Sub-Mini Type • 30 AWG Stranded (7x38) Tinned Cadmium Bronze • 95% Tinned Copper "French Braid" Shield																			
Foam Polyethylene Insulation • Electric Blue Belflex® Jacket																			
UL AWM Style 1354 30V 80°C CSA AWM I/II A/B	**7500A**	CEC: FT1	250 500 1000	76.2 152.4 304.8	3.0 4.5 9.0	1.4 2.0 4.1	108.0Ω/M′ 354.0Ω/km	13.3Ω/M′ 43.6Ω/km	.056	1.42	.110	2.79	75	78%	16.7	54.8	2.2 5 10 30 50 100	.9 1.4 2.0 3.4 4.4 6.4	.03 .05 .07 .11 .14 .21
																			
Mini Type • 25 AWG Stranded (19x38) Bare Copper • 95% Tinned Copper "French Braid" Shield																			
Foam Polyethylene Insulation • Electric Blue Belflex Jacket																			
UL AWM Style 1354 30V 80°C CSA AWM I/II A/B	**7501A**	CEC: FT1	250 500 1000	76.2 152.4 304.8	4.0 7.5 14.0	1.8 3.4 6.4	35.0Ω/M′ 114.8Ω/km	9.1Ω/M′ 29.9Ω/km	.090	2.29	.146	3.71	75	77%	17.7	58.1	2.2 5 10 30 50 100	.6 .9 1.3 2.2 2.9 4.2	.02 .03 .04 .07 .10 .14
																			
RG-59 Type • 22 AWG Stranded (19x34) Bare Copper • 95% Tinned Copper "French Braid" Shield																			
Foam Polyethylene Insulation • Electric Blue Belflex Jacket																			
UL AWM Style 1354 30V 80°C CSA AWM I/II A/B	**7502A**	CEC: FT1	250 500 1000	76.2 152.4 304.8	10.5 18.0 34.0	4.8 8.2 15.5	13.4Ω/M′ 44.0Ω/km	6.4Ω/M′ 21.0Ω/km	.146	3.71	.242	6.15	75	79%	18.0	59.1	2.2 5 10 30 50 100	.4 .5 .8 1.4 1.8 2.7	.01 .02 .03 .05 .06 .09
																			
RG-6/U Type • 20 AWG Stranded (7x15x40) Bare Copper • 95% Tinned Copper "French Braid" Shield																			
Foam Polyethylene Insulation • Electric Blue Belflex Jacket																			
UL AWM Style 1354 30V 80°C CSA AWM I/II A/B	**7503A**	CEC: FT1	250 500 1000	76.2 152.4 304.8	12.0 21.0 40.0	5.5 9.5 18.2	8.1Ω/M′ 26.6Ω/km	11.0Ω/M′ 36.1Ω/km	.185	4.70	.275	6.99	75	80%	17.3	56.8	2.2 5 10 30 50 100	.3 .4 .6 1.1 1.5 2.2	.01 .01 .02 .04 .05 .07
																			
RG-11 Type • 16 AWG Stranded (7x37x40) Bare Copper • 95% Tinned Copper "French Braid" Shield																			
Foam Polyethylene Insulation • Electric Blue Belflex Jacket																			
UL AWM Style 1354 30V 80°C CSA AWM I/II A/B	**7504A**	CEC: FT1	250 500 1000	76.2 152.4 304.8	21.8 42.5 84.0	9.9 19.3 38.2	3.5Ω/M′ 11.5Ω/km	3.6Ω/M′ 11.8Ω/km	.285	7.24	.405	10.29	75	81%	17.3	56.8	2.2 5 10 30 50 100	.2 .3 .4 .8 1.0 1.5	.01 .01 .01 .03 .03 .05
																			

DCR = DC Resistance

*Based on proper installation techniques in a C-track cable guide.

Instrumentation Cable

300V Power-Limited Tray Cables — Overview

Construction

Soft annealed bare or tinned copper with PVC flame retardant insulation and jacket. Other insulation and jacket options are available (see table below). Communication wire included on all multi-pair/multi-triad 1000 and 3000 series part numbers, 22 AWG (7x30) bare copper, orange PVC insulation. Nylon rip cord included in all PVC/PVC instrumentation cables.

Other Construction Options:

UL Listed for PLTC	
Insulation/Jacket	Max. Temp Rating
XLPE/PVC	90°C
XLPE/CPE	90°C
PVC/PVC	105°C
PVC/CPE	105°C
PE/PVC	75°C
FPE/PVC	75°C
TPE/TPE	105°C
XLPE/Haloarrest® I	90°C
XLPE/Hypalon®	90°C

Voltage Rating

300 Volts

Temperature Rating

See table above.

Application

These cables are suitable for installation in wet or dry locations. Cable jackets are resistant to sunlight, moisture and vapor penetration.

Unshielded

Twisted non-shielded pairs and triads provide a minimal OD allowing greater tray and conduit fill. Non-shielded instrument pairs may be utilized when recommended by the instrument manufacturer and used in a metallic conduit.

Overall Shield

Recommended for use in instrumentation applications where signals are transmitted in excess of 100 millivolts except in areas where high voltage and current sources create excessive noise interference. The Beldfoil® shield with drain wire provides 100% coverage for maximum shield effectiveness.

Individually Shielded and Overall Shielded

Individually shielded pairs or triads with an overall shield are recommended for use in instrumentation applications where optimum noise rejection is required. Individual pair/triad shields are fully isolated from each other and contain a separate drain wire for grounding, to provide maximum protection from crosstalk and common mode interference. Cables with an overall shield provide additional electrostatic noise protection.

Specifications

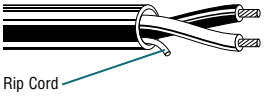
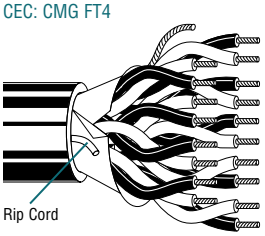
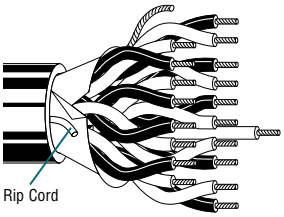
- UL Subject 13
- UL Subject 2250
- NEC Article 725 Class 2 and Class 3 Circuits
- NEC Article 727
- NEC Type PLTC Listed, which is approved for cable tray use in Class 1, Division 2, hazardous areas and non-hazardous areas, cable trays, raceways, conduit and supported by messenger wires.
- Sunlight-resistant.
- NEC Type ITC Listed, which is approved for cable tray use, raceways, hazardous locations according to Articles 501, 502, 503, and 504; or as aerial cable on a messenger, and under raised floors in control rooms and rack rooms where arranged to prevent damage to the cable. Usages are allowed based on qualified persons servicing all installations.
- UL 1581 Vertical Tray Flame Test comparable to IEEE 383 (70,000 BTU/hr.) Flame Test.
- PVC/PVC Constructions are CEC CMG FT4 and IEEE 1202 rated.
- Design options — call 1-800-BELDEN-1 or 1-800-BELDEN-3.

Standard lengths may be subject to tolerance. Custom lengths may be available upon request. Contact the Belden Electronics Division Customer Service Department for additional information. 1-800-BELDEN-1 or 1-800-BELDEN-3.

Hypalon is a DuPont trademark.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
22 AWG Pairs Stranded (7x30) Tinned Copper • Twisted Pairs															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9407**	1	E2	U-500 U-1000	U-152.4 U-304.8	9.5 18.0	4.3 8.2	.037	.94	.198	5.03	19	84	2.00	50.80
															
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9322**	1	E2	U-500 U-1000	U-152.4 U-304.8	11.0 22.0	5.0 10.0	.037	.94	.200	5.08	28	124	2.00	50.80
	**9512**	2	E2	500 1000	152.4 304.8	21.0 42.0	9.5 19.1	.042	1.07	.308	7.82	46	204	3.00	76.20
	9513	3	E2	500 1000	152.4 304.8	25.5 51.0	11.6 23.2	.042	1.07	.324	8.23	63	280	3.25	82.55
	9514	4	E2	500 1000	152.4 304.8	32.5 67.0	14.8 30.5	.042	1.07	.356	9.04	80	355	3.50	88.90
	9516	6	E2	500 1000	152.4 304.8	45.5 94.0	20.7 42.7	.053	1.35	.418	10.62	118	524	4.25	107.95
	9520	9	E2	500 1000	152.4 304.8	64.5 121.0	29.3 55.0	.053	1.35	.454	11.53	172	765	4.75	120.65
	9521	11	E2	500 1000	152.4 304.8	72.0 146.0	32.7 66.4	.053	1.35	.506	12.85	200	889	5.35	135.89
	9524	15	E2	500 1000	152.4 304.8	89.5 178.0	40.7 80.9	.053	1.35	.594	15.09	280	1245	6.00	152.40
	9526	19	E2	500 1000	152.4 304.8	114.5 224.0	52.0 101.8	.063	1.60	.644	16.36	350	1557	6.33	160.78
	9527	27	E2	500 1000	152.4 304.8	156.5 321.0	71.1 145.9	.063	1.60	.763	19.38	500	2224	7.50	190.50
	9551	51	E2	1000	304.8	567.0	257.7	.074	1.88	1.017	25.83	937	4168	9.50	241.30
22 AWG Pairs Stranded (7x30) Bare Copper* • Twisted Pairs															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3000A**	2	E1	Bulk	Bulk	—	—	.043	1.09	.310	7.87	46	204	3.00	76.20
	**3004A**	4	E1	Bulk	Bulk	—	—	.042	1.07	.351	8.92	80	355	3.50	88.90
	3006A	8	E1	Bulk	Bulk	—	—	.053	1.35	.454	11.53	172	765	4.75	120.65
	3008A	12	E1	Bulk	Bulk	—	—	.053	1.35	.536	13.61	210	934	5.00	127.00
	3010A	16	E1	Bulk	Bulk	—	—	.053	1.35	.594	15.09	290	1290	6.00	152.40
	3012A	24	E1	Bulk	Bulk	—	—	.065	1.65	.749	19.02	440	1957	7.50	190.50
	3014A	50	E1	Bulk	Bulk	—	—	.075	1.91	.950	24.13	915	4070	9.50	241.30

F-R = Flame-retardant

*For tinned copper conductors, order with B suffix.

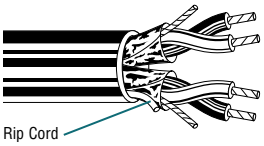
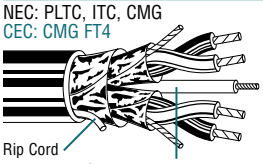
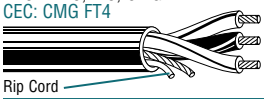
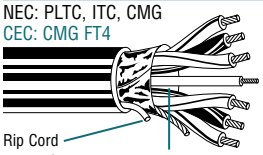
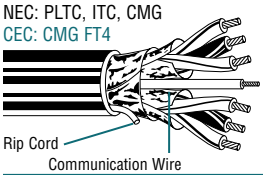
E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs/ Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
22 AWG Pairs Stranded (7x30) Tinned Copper • Twisted Pairs *(continued)*															
Individually Shielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9328**	2	E2	500 1000	152.4 304.8	22.5 46.0	10.2 20.9	.042	1.07	.323	8.20	54	240	3.00	76.20
 Rip Cord	**9329**	3	E2	500 1000	152.4 304.8	29.0 60.0	13.2 27.3	.042	1.07	.341	8.66	54	240	3.50	88.90
	9330	4	E2	500 1000	152.4 304.8	37.0 72.0	16.8 32.7	.042	1.07	.372	9.45	65	289	3.50	88.90
	9331	6	E2	500 1000	152.4 304.8	54.0 108.0	24.5 49.1	.053	1.35	.457	11.61	101	449	4.33	109.98
	9332	9	E2	500 1000	152.4 304.8	75.0 145.0	34.1 65.9	.053	1.35	.530	13.46	160	711	5.00	127.00
	9333	11	E2	500 1000	152.4 304.8	89.0 177.0	40.5 80.5	.053	1.35	.592	15.04	160	711	5.50	139.70
	9335	19	E2	500 1000	152.4 304.8	141.5 287.0	64.3 130.5	.063	1.60	.711	18.06	264	1174	6.50	165.10
	9337	51	E2	500 1000	152.4 304.8	392.5 741.0	178.4 336.8	.074	1.88	1.132	28.75	658	2927	10.00	254.00
22 AWG Pairs Stranded (7x30) Bare Copper* • Twisted Pairs															
Individually Shielded + Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3001A**	2	E1	Bulk	Bulk	—	—	.042	1.07	.324	8.23	54	240	3.25	82.55
 Rip Cord Communication Wire	**3005A**	4	E1	Bulk	Bulk	—	—	.043	1.09	.360	9.14	115	511	3.50	88.90
	3007A	8	E1	Bulk	Bulk	—	—	.053	1.35	.497	12.62	250	1112	5.25	133.35
	3009A	12	E1	Bulk	Bulk	—	—	.053	1.35	.570	14.48	300	1334	5.75	146.05
	3011A	16	E1	Bulk	Bulk	—	—	.064	1.63	.674	17.12	350	1557	6.25	158.75
	3013A	24	E1	Bulk	Bulk	—	—	.065	1.65	.800	20.32	540	2402	8.00	203.20
	3015A	50	E1	Bulk	Bulk	—	—	.075	1.91	1.050	26.67	1330	5916	10.50	266.70
22 AWG Triads Stranded (7x30) Tinned Copper • Twisted Triads															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9491**	1	E1	U-500 U-1000	U-152.4 U-304.8	12.0 24.0	5.5 10.9	.037	.94	.208	5.28	29	129	2.00	50.80
 Rip Cord															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9363**	1	E1	U-500 U-1000	U-152.4 U-304.8	13.5 26.0	6.1 11.8	.037	.94	.210	5.33	29	129	2.00	50.80
 Rip Cord															
22 AWG Triads Stranded (7x30) Bare Copper* • Twisted Triads															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3002A**	2	E1	Bulk	Bulk	—	—	.043	1.09	.330	8.38	62	275	3.50	88.90
 Rip Cord Communication Wire															
Individually Shielded + Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3003A**	2	E1	Bulk	Bulk	—	—	.043	1.09	.330	8.38	82	364	3.25	82.55
 Rip Cord Communication Wire															

F-R = Flame-retardant

*For tinned copper conductors, order with B suffix.

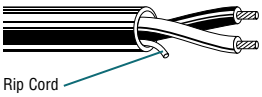
E1, E2 = Refer to Industrial Technical Information section for color code. Alternate color coding available upon request. • Multiple pair or triad cables have each pair/triad numbered for ease of identification.

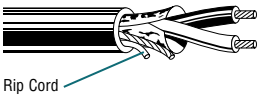
Bulk = Non-stocked item. Specify length, 1 piece per reel.

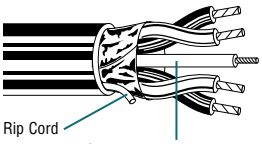
Instrumentation Cable

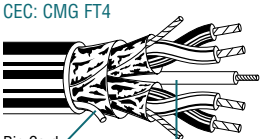
300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
20 AWG Pairs Stranded (19x32) Tinned Copper • Twisted Pairs															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9408**	1	E2	U-500 U-1000	U-152.4 U-304.8	12.0 23.0	5.5 10.5	.037	.94	.214	5.44	31	138	2.00	50.80
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9320**	1	E2	U-500 U-1000	U-152.4 U-304.8	13.5 26.0	6.1 11.8	.037	.94	.217	5.51	40	178	2.00	50.80
20 AWG Pairs Stranded (7x28) Bare Copper* • Twisted Pairs															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1033A**	1	E1	1000 10000	304.8 3048.0	29.0 300.0	13.2 136.4	.037	.94	.213	5.41	42	187	2.25	57.15
	3016A	2	E1	Bulk	Bulk	—	—	.042	1.07	.332	8.43	92	409	3.75	95.25
	1056A	4	E1	10000	3048.0	970.0	440.9	.053	1.35	.408	10.36	135	601	4.25	107.95
	1057A	8	E1	10000	3048.0	1410.0	640.9	.053	1.35	.472	11.99	247	1099	5.00	127.00
	1058A	12	E1	7500	2286.0	1537.5	698.9	.053	1.35	.564	14.33	359	1597	6.00	152.40
	1059A	16	E1	5000	1524.0	1275.0	579.5	.064	1.63	.649	16.48	471	2095	6.50	165.10
	1060A	24	E1	5000	1524.0	1735.0	788.6	.064	1.63	.786	19.96	695	3092	8.25	209.55
	1061A	36	E1	2500	762.0	1347.5	612.5	.074	1.88	.960	24.38	1031	4587	10.00	254.00
	1062A	50	E1	2500	762.0	1825.0	829.5	.074	1.88	1.117	28.37	1423	6330	11.50	292.10
Individually Shielded + Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1075A**	2	E1	10000	3048.0	760.0	345.5	.042	1.07	.337	8.56	97	432	3.75	95.25
	1076A	4	E1	7500	2286.0	802.5	364.8	.053	1.35	.411	10.44	171	761	4.50	114.30
	1077A	8	E1	7500	2286.0	1335.0	606.8	.053	1.35	.514	13.06	320	1424	5.50	139.70
	1078A	12	E1	7500	2286.0	2010.0	913.6	.064	1.63	.637	16.18	468	2082	6.75	171.45
	1079A	16	E1	5000	1524.0	1630.0	740.9	.064	1.63	.704	17.88	617	2745	7.50	190.50
	1091A	20	E1	5000	1524.0	2030.0	922.7	.064	1.63	.780	19.81	765	3403	8.25	209.55
	1080A	24	E1	2500	762.0	1267.5	576.1	.074	1.88	.863	21.92	914	4066	9.00	228.60
	1081A	36	E1	2000	609.6	1436.0	652.7	.074	1.88	1.035	26.29	1359	6046	10.50	266.70
	1082A	50	E1	2000	609.6	1858.0	844.5	.074	1.88	1.215	30.86	1878	8355	12.75	323.85









F-R = Flame-retardant

*For Tinned copper conductors, order with B suffix.

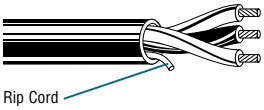
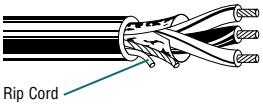
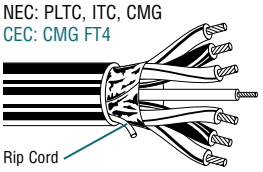
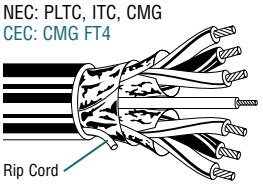
E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
20 AWG Triads Stranded (19x32) Tinned Copper • Twisted Triads															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9492**	1	E1	U-500 U-1000	U-152.4 U-304.8	15.5 30.0	7.0 13.6	.037	.94	.225	5.72	46	205	2.25	57.15
															
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9364**	1	E1	U-500 U-1000	U-152.4 U-304.8	17.5 34.0	8.0 15.5	.037	.94	.228	5.79	46	205	2.25	57.15
															
20 AWG Triads Stranded (7x28) Bare Copper* • Twisted Triads															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1526A**	1	E1	10000	3048.0	320.0	145.5	.037	.94	.224	5.69	42	187	2.25	57.15
	**3017A**	2	E1	Bulk	Bulk	—	—	.055	1.40	.380	9.65	97	432	4.00	101.60
	3020A	4	E1	Bulk	Bulk	—	—	.055	1.40	.470	11.94	174	774	4.75	120.65
	3021A	8	E1	Bulk	Bulk	—	—	.055	1.40	.560	14.22	330	1468	5.00	127.00
	3022A	12	E1	Bulk	Bulk	—	—	.066	1.68	.710	18.03	485	2158	7.00	177.80
	3023A	16	E1	Bulk	Bulk	—	—	.064	1.63	.821	20.85	600	2669	7.75	196.85
	3024A	24	E1	Bulk	Bulk	—	—	.074	1.88	1.031	26.19	920	4093	9.25	234.95
Individually Shielded + Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3018A**	2	E1	Bulk	Bulk	—	—	.055	1.40	.420	10.67	102	454	4.25	107.95
	**1083A**	4	E1	10000	3048.0	1410.8	640.9	.053	1.35	.499	12.67	228	1014	4.75	120.65
	1084A	8	E1	7500	2286.0	1852.5	842.0	.064	1.63	.575	10.81	432	1922	6.25	158.75
	1085A	12	E1	5000	1524.0	1765.0	802.3	.064	1.63	.714	18.14	636	2829	7.75	196.85
	1092A	16	E1	5000	1524.0	2190.0	995.5	.064	1.63	.793	20.14	841	3741	8.50	215.90
	1086A	20	E1	2500	762.0	1622.5	737.5	.074	1.88	.996	25.30	1250	5561	10.75	273.05
	3067A	24	E1	Bulk	Bulk	—	—	.074	1.88	1.292	32.82	1410	6273	13.00	330.20

F-R = Flame-retardant

*For Tinned copper conductors, order with B suffix.

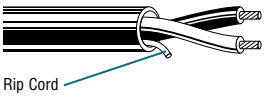
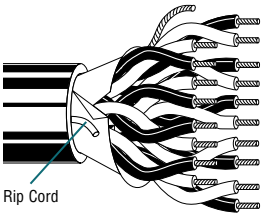
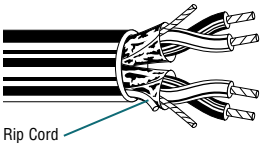
E1 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
18 AWG Pairs Stranded (19x30) Tinned Copper • Twisted Pairs															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9409**	1	E2	U-500	U-152.4	14.5	6.6	.037	.94	.230	5.84	49	218	2.25	57.15
 Rip Cord															
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9318**	1	E2	U-500 U-1000	U-152.4 U-304.8	18.0 35.0	8.2 15.9	.037	.94	.233	5.92	60	267	2.25	57.15
 Rip Cord	**9552**	2	E2	500 1000	152.4 304.8	35.5 69.0	16.1 31.4	.042	1.07	.375	9.53	65	289	3.75	95.25
	9553	3	E2	500 1000	152.4 304.8	48.5 95.0	22.0 43.2	.053	1.35	.420	10.67	145	645	4.25	107.95
	9554	4	E2	500 1000	152.4 304.8	55.0 109.0	25.0 49.5	.053	1.35	.447	11.35	187	832	4.50	114.30
	9556	6	E2	500 1000	152.4 304.8	78.5 153.0	35.7 69.5	.053	1.35	.497	12.62	270	1201	5.00	127.00
	9559	9	E2	500 1000	152.4 304.8	107.5 213.0	48.9 96.8	.053	1.35	.579	14.71	395	1757	6.00	152.40
	9563	11	E2	500 1000	152.4 304.8	134.5 273.0	61.1 124.1	.063	1.60	.665	16.89	478	2126	6.75	171.45
	9565	15	E2	500 1000	152.4 304.8	169.0 342.0	76.8 155.5	.063	1.60	.739	18.77	640	2847	7.50	190.50
Individually Shielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9368**	2	E2	500 1000	152.4 304.8	37.5 73.0	17.0 33.2	.042	1.07	.378	9.60	125	556	3.75	95.25
 Rip Cord	**9369**	3	E2	500 1000	152.4 304.8	55.0 109.0	25.0 49.5	.053	1.35	.423	10.74	220	979	4.25	107.95
	3029A	4	E1	Bulk	Bulk	—	—	.053	1.35	.461	11.71	296	1317	4.50	114.30
	9388	4	E2	500 1000	152.4 304.8	71.5 135.0	32.5 61.4	.053	1.35	.461	11.71	296	1317	4.50	114.30
	9389	6	E2	500 1000	152.4 304.8	97.0 190.0	44.1 86.4	.053	1.35	.538	13.67	440	1957	5.25	133.35
	9390	9	E2	500 1000	152.4 304.8	138.5 272.0	63.0 123.6	.064	1.63	.652	16.56	666	2963	6.50	165.10
	9391	11	E2	500 1000	152.4 304.8	158.5 321.0	72.0 145.9	.064	1.63	.729	18.52	815	3626	7.25	184.15
	9392	15	E2	500 1000	152.4 304.8	209.0 428.0	95.0 194.5	.064	1.63	.808	20.52	1100	4893	8.00	203.20

F-R = Flame-retardant

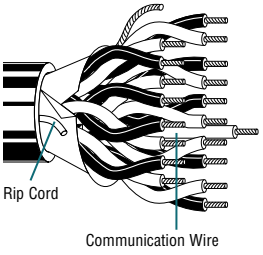
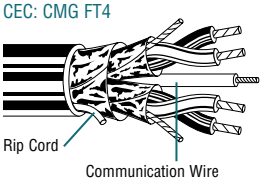
E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
18 AWG Pairs Stranded (7x26) Bare Copper • Twisted Pairs															
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket (See chart below for other options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1032A**	1	E1	1000 10000	304.8 3048.0	39.0 410.0	17.7 186.4	.037	.94	.233	5.92	67	298	2.50	63.50
	**3025A**	2	E1	Bulk	Bulk	—	—	.042	1.07	.375	9.53	112	498	3.50	88.90
	1529A	3	E1	7500	2286.0	742.5	337.5	.053	1.35	.415	10.54	165	734	4.25	107.95
	1466A	4	E1	7500	2286.0	870.0	395.5	.053	1.35	.452	11.48	211	939	4.50	114.30
	1467A	8	E1	7500	2286.0	1432.5	651.1	.053	1.35	.542	13.77	389	1731	5.50	139.70
	1468A	12	E1	5000	1524.0	2350.0	1068.2	.064	1.63	.673	17.09	560	2491	6.75	171.45
	3034A	16	E1	Bulk	Bulk	—	—	.066	1.68	.738	18.75	640	2847	7.50	190.50
	1471A	24	E1	2500	762.0	1302.5	592.0	.074	1.88	.932	23.67	1105	4916	9.25	234.95
	1472A	36	E1	1250	381.0	910.0	413.6	.074	1.88	1.062	26.97	1640	7296	10.50	266.70
	3041A	50	E1	Bulk	Bulk	—	—	.074	1.88	1.240	31.50	2240	10049	12.75	323.85
Individually Shielded + Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart for other options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1474A**	2	E1	7500	2286.0	720.0	327.3	.053	1.35	.408	10.16	149	663	4.00	101.60
	**1475A**	4	E1	7500	2286.0	1057.5	480.7	.053	1.35	.468	11.89	267	1188	4.75	120.65
	1476A	8	E1	5000	1524.0	1185.0	538.6	.053	1.35	.590	14.99	501	2229	6.00	152.40
	1477A	12	E1	5000	1524.0	1815.0	825.0	.064	1.63	.733	18.62	779	3465	7.25	184.15
	3035A	16	E1	Bulk	Bulk	—	—	.064	1.63	.805	20.45	850	3781	8.50	215.90
	1480A	24	E1	2500	762.0	1712.5	778.4	.074	1.88	1.019	25.88	1440	6406	10.25	260.35
	1481A	36	E1	1250	381.0	1165.0	529.5	.074	1.88	1.163	29.54	2148	9556	11.75	298.45
	3042A	50	E1	Bulk	Bulk	—	—	.084	2.13	1.389	35.28	2935	13057	14.00	355.60

F-R = Flame-retardant

E1 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

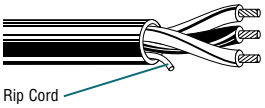
Conductor, Insulation and Jacket Options

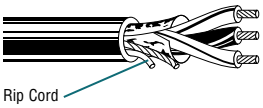
To Specify:	Bare	Tinned	Insulation/Jacket
1234 A Start with Part No. / Add or replace letter code	**A**	**B**	PVC/PVC
	C	**D**	XLPE/PVC
	K	**L**	TPE/TPE
	Q	**R**	XLPE/CPE
	S	**T**	XLPE/Haloarrest® I

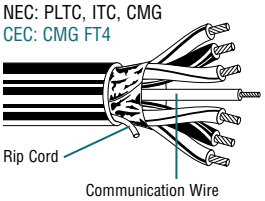
Instrumentation Cable

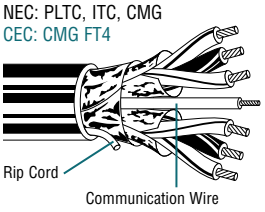
300V Power-Limited Tray Cables

Description	Part No.	No. of Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
18 AWG Triads Stranded (19x30) Tinned Copper • Twisted Triads															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9493**	1	E1	U-500 U-1000	U-152.4 U-304.8	19.5 39.0	8.9 17.7	.037	.94	.242	6.15	62	276	2.25	57.15
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9365**	1	E1	U-500 U-1000	U-152.4 U-304.8	22.5 44.0	10.2 20.0	.037	.94	.245	6.22	74	329	2.50	63.50
18 AWG Triads Stranded (7x26) Bare Copper • Twisted Triads															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart below for other options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1036A**	1	E1	1000 10000	304.8 3048.0	46.0 470.0	20.9 213.6	.037	.94	.245	6.22	90	400	2.50	63.50
	3027A	2	E1	Bulk	Bulk	—	—	.055	1.40	.420	10.67	165	734	4.25	107.95
	3030A	4	E1	Bulk	Bulk	—	—	.055	1.40	.500	12.70	240	1068	4.50	114.30
	3032A	8	E1	Bulk	Bulk	—	—	.064	1.63	.665	16.89	501	2229	5.75	146.05
	3036A	16	E1	Bulk	Bulk	—	—	.077	1.96	.900	22.86	1050	4671	9.00	228.60
	3038A	24	E1	Bulk	Bulk	—	—	.077	1.96	1.020	25.91	1450	6450	10.25	260.35
Individually Shielded + Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart for options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3028A**	2	E1	Bulk	Bulk	—	—	.055	1.40	.450	11.43	175	779	4.50	114.30
	3031A	4	E1	Bulk	Bulk	—	—	.053	1.35	.513	13.03	255	1134	5.25	133.35
	3033A	8	E1	Bulk	Bulk	—	—	.064	1.63	.685	17.40	560	2491	6.50	165.10
	3068A	12	E1	Bulk	Bulk	—	—	.063	1.60	.826	20.98	800	3559	8.50	215.90
	3037A	16	E1	Bulk	Bulk	—	—	.074	1.88	.940	23.88	1320	5872	10.50	266.70
	3039A	24	E1	Bulk	Bulk	—	—	.074	1.88	1.158	29.41	1620	7207	11.25	285.75









F-R = Flame-retardant

E1 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

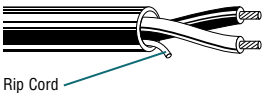
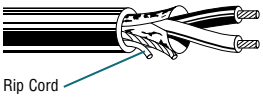
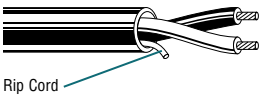
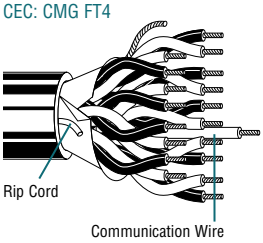
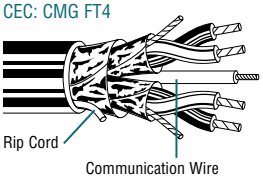
Conductor, Insulation and Jacket Options**

To Specify:	Bare	Tinned	Insulation/Jacket
1234 A Start with Part No. / Add or replace letter code	**A**	**B**	PVC/PVC
	C	**D**	XLPE/PVC
	K	**L**	TPE/TPE
	Q	**R**	XLPE/CPE
	S	**T**	XLPE/Haloarrest® I

**For 1000 and 3000 Series cables only.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
16 AWG Pairs Stranded (19x29) Tinned Copper • Twisted Pairs															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9410**	1	E2	U-500 U-1000	U-152.4 U-304.8	19.0 37.0	8.6 16.8	.037	.94	.254	6.45	60	267	2.50	63.50
															
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9316**	1	E2	U-500 U-1000	U-152.4 U-304.8	21.5 43.0	9.8 19.5	.037	.94	.256	6.50	90	400	2.50	63.50
															
16 AWG Pairs Stranded (7x24) Bare Copper • Twisted Pairs															
Unshielded • F-R PVC Insulation • F-R PVC Jacket (See chart below for other insulation and jacket options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1035A**	1	E1	1000 10000	304.8 3048.0	38.0 410.0	17.3 186.4	.037	.94	.254	6.45	72	320	2.50	63.50
															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart below for other options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1030A**	1	E1	1000 10000	304.8 3048.0	45.0 470.0	20.5 213.6	.037	.94	.257	6.53	94	418	2.50	63.50
	**3043A**	2	E1	Bulk	Bulk	—	—	.053	1.35	.437	11.10	188	836	4.50	114.30
	1528A	3	E1	7500	2286.0	982.5	446.6	.053	1.35	.457	11.61	259	1152	4.75	120.65
	1484A	4	E1	7500	2286.0	1200.0	545.5	.053	1.35	.495	12.57	330	1468	5.00	127.00
	1485A	8	E1	7500	2286.0	2002.5	910.2	.053	1.35	.597	15.16	616	2740	6.00	152.40
	1486A	12	E1	5000	1524.0	1965.0	893.2	.064	1.63	.749	19.02	902	4013	7.50	190.50
	3050A	16	E1	Bulk	Bulk	—	—	.064	1.63	.838	21.29	1187	5281	8.50	215.90
	1489A	24	E1	1250	381.0	923.8	419.9	.074	1.88	1.047	26.59	1758	7821	10.50	266.70
	1490A	36	E1	1250	381.0	1313.8	597.2	.074	1.88	1.197	30.40	2615	11633	11.75	298.45
	3056A	50	E1	Bulk	Bulk	—	—	.088	2.24	1.550	39.37	3615	16082	15.50	393.70
Individually Shielded + Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart for options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1492A**	2	E1	7500	2286.0	885.0	402.3	.053	1.35	.450	11.43	232	1032	4.50	114.30
	**1493A**	4	E1	7500	2286.0	1402.5	637.5	.055	1.40	.516	13.11	420	1868	5.00	127.00
	1494A	8	E1	5000	1524.0	1645.0	747.7	.066	1.68	.677	17.20	795	3537	7.00	177.80
	1495A	12	E1	2500	762.0	1180.0	536.4	.066	1.68	.816	20.73	1170	5205	8.25	209.55
	3051A	16	E1	Bulk	Bulk	—	—	.074	1.88	.936	23.77	1546	6878	10.00	254.00
	1498A	24	E1	1250	381.0	1111.3	505.1	.074	1.88	1.149	29.18	2296	10214	11.50	292.10
	1499A	36	E1	1250	381.0	1622.5	737.5	.084	2.13	1.334	33.88	3422	15223	13.50	342.90
	3057A	50	E1	Bulk	Bulk	—	—	.088	2.24	1.600	40.64	4735	21064	16.00	406.40

F-R = Flame-retardant

E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:
1234 A Start with Part No. — Add or replace letter code

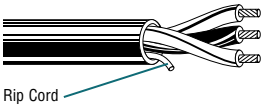
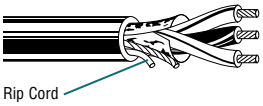
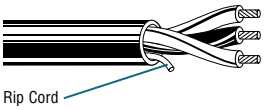
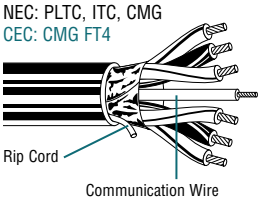
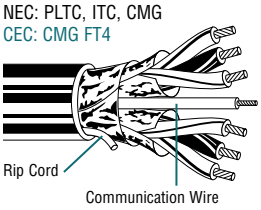
Conductor, Insulation and Jacket Options**

Bare	Tinned	Insulation/Jacket
A	B	PVC/PVC
C	D	XLPE/PVC
K	L	TPE/TPE
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

**For 1000 and 3000 Series cables only.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
16 AWG Triads Stranded (19x29) Tinned Copper • Twisted Triads															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9494**	1	E1	U-500 U-1000	U-152.4 U-304.8	25.0 50.0	11.4 22.7	.037	.94	.268	6.81	91	405	2.75	69.85
															
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9366**	1	E1	U-500 U-1000	U-152.4 U-304.8	29.0 58.0	13.2 26.4	.037	.94	.270	6.86	116	516	2.75	69.85
															
16 AWG Triads Stranded (7x24) Bare Copper • Twisted Triads															
Unshielded • F-R PVC Insulation • F-R PVC Jacket (See chart below for other options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1034A**	1	E1	1000 4000	304.8 1219.2	51.0 204.0	23.2 92.7	.037	.94	.268	6.81	107	476	2.75	69.85
															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart below for other options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**1031A**	1	E1	1000 10000	304.8 3048.0	58.0 600.0	26.4 272.7	.037	.94	.271	6.88	130	578	2.75	69.85
	3044A	2	E1	Bulk	Bulk	—	—	.053	1.35	.483	12.27	259	1152	4.75	120.65
	3046A	4	E1	Bulk	Bulk	—	—	.053	1.35	.566	14.38	473	2104	5.75	146.05
	3048A	8	E1	Bulk	Bulk	—	—	.063	1.60	.754	19.15	902	4013	7.50	190.50
	3052A	16	E1	Bulk	Bulk	—	—	.074	1.88	1.032	26.21	1758	7821	11.25	285.75
	3054A	24	E1	Bulk	Bulk	—	—	.074	1.88	1.174	29.82	2615	11633	11.75	298.45
															
Individually Shielded + Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart for options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3045A**	2	E1	Bulk	Bulk	—	—	.053	1.35	.491	12.47	304	1352	5.00	127.00
	3047A	4	E1	Bulk	Bulk	—	—	.053	1.35	.569	14.45	563	2505	6.00	152.40
	3049A	8	E1	Bulk	Bulk	—	—	.064	1.63	.764	19.41	1081	4809	8.00	203.20
	3069A	12	E1	Bulk	Bulk	—	—	.074	1.88	.998	25.35	1500	6673	10.00	254.00
	3053A	16	E1	Bulk	Bulk	—	—	.074	1.88	1.142	29.01	2117	9418	11.50	292.10
	3055A	24	E1	Bulk	Bulk	—	—	.084	2.13	1.320	33.53	3153	14026	13.25	336.55
															

F-R = Flame-retardant

E1 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:

1234 A

Start with Part No. — Add or replace letter code

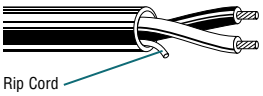
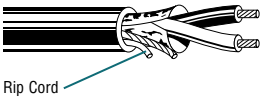
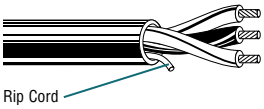
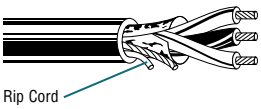
Conductor, Insulation and Jacket Options**

Bare	Tinned	Insulation/Jacket
A	B	PVC/PVC
C	D	XLPE/PVC
K	L	TPE/TPE
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

**For 1000 and 3000 Series cables only.

Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs/ Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
14 AWG Pairs Stranded (42x30) Tinned Copper • Twisted Pairs															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9411**	1	E2	U-500 1000	U-152.4 304.8	28.5 60.0	13.0 27.3	.042	1.07	.322	8.18	124	552	3.25	82.55
															
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9314**	1	E2	U-500 1000	U-152.4 304.8	35.5 71.0	16.1 32.3	.042	1.07	.324	8.23	140	623	3.25	82.55
															
14 AWG Triads Stranded (42x30) Tinned Copper • Twisted Triads															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9495**	1	E1	500 1000	152.4 304.8	45.5 92.0	20.7 41.8	.042	1.07	.340	8.64	186	827	3.50	88.90
															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9367**	1	E1	500 1000	152.4 304.8	43.0 88.0	19.5 40.0	.042	1.07	.343	8.71	188	836	3.50	88.90
															

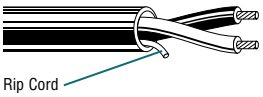
F-R = Flame-retardant

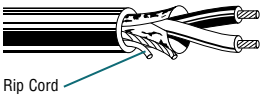
E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

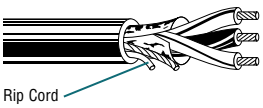
Instrumentation Cable

300V Power-Limited Tray Cables

Description	Part No.	No. of Pairs/ Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
12 AWG Pairs Stranded (65x30) Tinned Copper • Twisted Pairs															
Unshielded • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9412**	1	E2	500 U-1000	152.4 U-304.8	40.0 80.0	18.2 36.4	.042	1.07	.370	9.40	197	876	4.25	107.95
Overall 100% Beldfoil® Shield • F-R PVC Insulation • F-R PVC Jacket															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**9312**	1	E2	500 1000	152.4 304.8	49.0 96.0	22.3 43.6	.042	1.07	.373	9.47	225	1001	4.25	107.95
12 AWG Triads Stranded (7x20) Bare Copper • Twisted Triads															
Overall 100% Beldfoil Shield • F-R PVC Insulation • F-R PVC Jacket (See chart below for other options)															
NEC: PLTC, ITC, CMG CEC: CMG FT4	**3102A**	1	E1	Bulk	Bulk	—	—	.053	1.35	.416	10.57	315	1401	3.50	88.90







F-R = Flame-retardant

E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

Conductor, Insulation and Jacket Options**

To Specify:	Bare	Tinned	Insulation/Jacket
1234 A Start with Part No. / Add or replace letter code	**A**	**B**	PVC/PVC
	C	**D**	XLPE/PVC
	K	**L**	TPE/TPE
	Q	**R**	XLPE/CPE
	S	**T**	XLPE/Haloarrest® I

**For 1000 and 3000 Series cables only.

Instrumentation Cable

Thermocouple Extension Cables and Thermocouple Wire — Overview

Construction
Thermocouple Extension Cable

Conductor material determined by the thermocouple extension wire type. FEP or PVC insulated with FEP or PVC jacket. Nylon rip cord included in all thermocouple extension cables except high-temperature FEP jacketed cables. Communication wire included on all multi-pair, non-FEP constructions — 22 AWG (7x30) bare copper orange PVC insulation.

NOTE: The temperature ranges in Table A are applicable only to the thermocouple conductors and not to the cable. The cable must never be exposed to temperatures higher than the maximum temperature ratings shown in Table B.

Table B:
Other Insulation/Jacket Options

UL Listed for PLTC	
Insulation/Jacket	**Max. Temp Rating**
XLPE/PVC	90°C
XLPE/CPE	90°C
PVC/PVC	105°C
PVC/CPE	105°C
PE/PVC	75°C
FPE/PVC	75°C
TPE/TPE	105°C
XLPE/Haloarrest® I	90°C
FEP/FEP	200°C

Application

Unshielded

Parallel non-shielded extension wire may be utilized in low noise environments when recommended by the instrument manufacturer.

Overall Shield

Recommended, except in areas where high voltage and current sources create excessive noise interference. The Beldfoil® shield with drain wire provides 100% coverage for maximum shield effectiveness.

Individually Shielded

Individually shielded pairs are recommended for use in applications where optimum noise rejection is required.

PVC Insulated, PVC Jacketed Cable Specifications

- UL Subject 13
- UL 1581 Vertical Tray Flame Test comparable to IEEE 383 (70,000 BTU) Flame Test
- ANSI/MC 96.1–1982
- NEC CMG
- NEC Type PLTC Listed, which is approved for cable tray use in Class 1, Division 2, hazardous areas and non-hazardous areas, cable trays, raceways, conduit and supported by messenger wires.
- NEC Type ITC Listed, which is approved for cable tray use, raceways hazardous locations according to Articles 501, 502, 503 and 504; or as aerial on a cable messenger, and under raised floors in control rooms and rack rooms where arranged to prevent damage to the cable. Usages are allowed based on qualified persons servicing all installations.
- PVC/PVC constructions are CEC CMG FT4 and IEEE 1202 rated.
- UL 1277 TC versions approved for use in Class 1 trays available as special.

Shielded Twisted Pair
(FEP insulated, FEP jacketed cable specifications)

- UL Subject 13
- UL 910 Steiner Tunnel Flame Test comparable to FT6 Flame Test
- ANSI/MC 96.1–1982
- NEC Type CL3P/PLTC Listed, which is approved for use in ducts, plenums and other space used for environmental air.
- UL 1277 TC versions approved for use in Class 1 trays available as special.

Thermocouple Wire

Conductor material determined by the thermocouple type. FEP insulated and jacketed flat constructions.

FEP thermocouple wire is impervious to chemical attack and is flame retardant.

Table A: Thermocouple Identification and Limits of Error — Reference Junction 0°C*

ANSI Symbol	Temperature Range (°C)	Limits of Error Standard (°C)	Jacket Color	Insulation Color Code		Conductor Identification	
				Positive (+)	Negative (-)	Positive (+)	Negative (-)
E	0 to 340 340 to 540	±1.7°C ±.50%	Brown	Purple	Red	Chromel® Non-magnetic	Constantan Silver Color
J	0 to 293 293 to 480	±2.2°C ±.75%	Brown	White	Red	Iron Magnetic	Constantan Non-magnetic
K	0 to 293 293 to 980	±2.2°C ±.75%	Brown	Yellow	Red	Chromel Non-magnetic	Alumel® Magnetic
T	0 to 133 133 to 260	±1.0°C ±.75%	Brown	Blue	Red	Copper Copper Color	Constantan Non-magnetic
EX	0 to 200	±1.7°C	Purple	Purple	Red	Chromel	Constantan
JX	0 to 200	±2.2°C	Black	White	Red	Iron	Constantan
KX	0 to 200	±2.2°C	Yellow	Yellow	Red	Chromel	Alumel
TX	0 to 100	±1.0°C	Blue	Blue	Red	Copper	Constantan

Limits of error per ANSI MC96.1-1982. Limits shown do not include system or installation error. Percentages refer to the temperature being measured.

*The Temperature Range and Limits of Error are for standard grade thermocouples, Reference ANSI MC96.1-1982 for special grade thermocouples. The Temperature Ranges for type E, J, K and T thermocouple wires listed above pertain to 20 AWG wire.

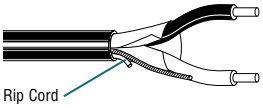
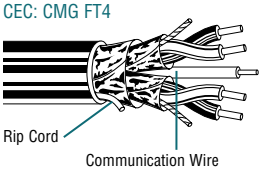
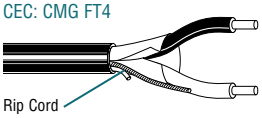
Additional constructions available upon request.

Chromel and Alumel are Hoskins Manufacturing Company trademarks.

Standard lengths may be subject to tolerance. Custom lengths may be available upon request. Contact the Belden Electronics Division Customer Service Department for additional information. 1-800-BELDEN-1 or 1-800-BELDEN-3.

Instrumentation Cable

Thermocouple Extension Cables

Description	Part No.	ANSI Type	No. of Pairs	Color Code	Jacket Color	Standard Lengths		Standard Unit Weight		Insulation Thickness		Nominal OD	
						Ft.	m	Lbs.	kg	Inch	mm	Inch	mm
20 AWG Pairs Solid Conductors • (See chart on page 15.52 for conductor specifications by ANSI Type)													
Overall 100% Beldfoil® Shield • PVC Insulation • PVC Jacket													
300V 105°C NEC: PLTC, ITC, CMG CEC: CMG FT4  Rip Cord	**3111A**	JX	1	White, Red	Black	5000	1524.0	115.0	52.3	.016	.41	.206	5.23
	1102A	JX	4	White, Red	Black	5000	1524.0	410.0	186.4	.016	.41	.365	9.27
	1001A	JX	8	White, Red	Black	5000	1524.0	680.0	309.1	.016	.41	.461	11.70
	1002A	JX	12	White, Red	Black	5000	1524.0	895.0	406.8	.016	.41	.551	13.99
	3112A	KX	1	Yellow, Red	Yellow	5000	1524.0	120.0	54.5	.016	.41	.206	5.23
	1103A	KX	8	Yellow, Red	Yellow	5000	1524.0	675.0	306.8	.016	.41	.461	11.70
	3113A	TX	1	Blue, Red	Blue	5000	1524.0	115.0	52.3	.016	.41	.206	5.23
Individually Shielded + Overall 100% Beldfoil Shield • PVC Insulation • PVC Jacket													
300V 105°C NEC: PLTC, ITC, CMG CEC: CMG FT4  Rip Cord Communication Wire	**1112A**	EX	4	Purple, Red	Purple	5000	1524.0	475.0	215.9	.016	.41	.383	9.73
	3115A	JX	2	White, Red	Black	5000	1524.0	315.0	143.2	.016	.41	.332	8.43
	1006A	JX	4	White, Red	Black	5000	1524.0	480.0	218.2	.016	.41	.383	9.73
	1007A	JX	8	White, Red	Black	5000	1524.0	830.0	377.3	.016	.41	.503	12.78
	1008A	JX	12	White, Red	Black	5000	1524.0	1155.0	525.0	.016	.41	.603	15.32
	1009A	JX	16	White, Red	Black	5000	1524.0	1490.0	677.3	.016	.41	.692	17.58
	1012A	KX	4	Yellow, Red	Yellow	5000	1524.0	530.0	240.9	.016	.41	.383	9.73
	1013A	KX	8	Yellow, Red	Yellow	5000	1524.0	825.0	375.0	.016	.41	.503	12.78
	1014A	KX	12	Yellow, Red	Yellow	5000	1524.0	1195.0	543.2	.016	.41	.603	15.32
	1015A	KX	16	Yellow, Red	Yellow	5000	1524.0	1480.0	672.7	.016	.41	.692	12.58
	1016A	KX	24	Yellow, Red	Yellow	4000	1219.2	1716.0	780.0	.016	.41	.850	21.59
	1017A	KX	36	Yellow, Red	Yellow	3000	914.4	1854.0	842.7	.016	.41	.989	25.12
	1025A	TX	12	Blue, Red	Blue	4000	1219.2	996.0	452.7	.016	.41	.603	15.32
16 AWG Pairs Solid Conductors • (See chart on page 15.52 for conductor specifications by ANSI Type)													
Overall 100% Beldfoil Shield • PVC Insulation • PVC Jacket													
300V 105°C NEC: PLTC, ITC, CMG CEC: CMG FT4  Rip Cord	**1101A**	EX	1	Purple, Red	Purple	10000	3048.0	450.0	204.5	.017	.43	.248	6.30
	1000A	JX	1	White, Red	Black	1000 10000	304.8 3048.0	42.0 450.0	19.1 204.5	.017	.43	.248	6.30
	1018A	KX	1	Yellow, Red	Yellow	1000 10000	304.8 3048.0	42.0 450.0	19.1 204.5	.017	.43	.248	6.30
	1023A	TX	1	Blue, Red	Blue	10000	3048.0	450.0	204.5	.017	.43	.248	6.30

Multiple pair cables have each pair numbered for ease of identification.

Instrumentation Cable

High-Temperature Thermocouple Extension Cables and Thermocouple Wire

Description	Part No.	ANSI Type	No. of Pairs/ Cond.	Color Code	Jacket Color	Standard Lengths Ft.	Standard Lengths m	Standard Unit Weight Lbs.	Standard Unit Weight kg	Insulation Thickness Inch	Insulation Thickness mm	Nominal OD Inch	Nominal OD mm
High-Temp Extension Cable • 20 AWG Solid Conductors • (See chart on page 15.52 for conductor specifications by ANSI Type)													
Plenum • Unshielded • FEP Insulation • FEP Jacket													
300V 200°C NEC: PLTC, CL3P	**83932**	KX	2/c	Yellow, Red	Yellow	500 1000	152.4 304.8	7.0 14.0	3.2 6.4	.010	.25	.076 x .128	1.93 x 3.25
	83934	TX	2/c	Blue, Red	Blue	1000	304.8	15.0	6.8	.010	.25	.076 x .128	1.93 x 3.25
High-Temp Extension Cable • 20 AWG Stranded (7x28) • (See chart on page 15.52 for conductor specifications by ANSI Type)													
Plenum • Unshielded • FEP Insulation • FEP Jacket													
300V 200°C NEC: PLTC, CL3P	**83930**	JX	2/c	White, Red	Black	500 1000	152.4 304.8	7.5 15.0	3.4 6.8	.010	.25	.082 x .140	2.08 x 3.56
Plenum • Overall 100% Beldfoil® Shield • FEP Insulation • FEP Jacket													
300V 200°C NEC: PLTC, CL3P	**83955**	EX	1 pr.	Purple, Red	Purple	500 1000	152.4 304.8	9.0 18.0	4.1 8.2	.010	.25	.145	3.68
	83950	JX	1 pr.	White, Red	Black	500 1000	152.4 304.8	9.5 18.0	4.3 8.2	.010	.25	.145	3.68
	83952	KX	1 pr.	Yellow, Red	Yellow	500 1000	152.4 304.8	9.5 18.0	4.3 8.2	.010	.25	.145	3.68
	83954	TX	1 pr.	Blue, Red	Blue	500 1000	152.4 304.8	9.0 18.0	4.1 8.6	.010	.25	.145	3.68
High-Temp Extension Cable • 16 AWG Pairs Solid Conductors • (See chart on page 15.52 for conductor specifications by ANSI Type)													
Plenum • Overall 100% Beldfoil Shield • FEP Insulation • FEP Jacket													
300V 200°C NEC: PLTC, CL3P	**1114A**	EX	1	Purple, Red	Purple	5000	1524.0	160.0	72.7	.010	.25	.172	4.37
	1115A	JX	1	White, Red	Black	5000	1524.0	155.0	70.5	.010	.25	.172	4.37
	1116A	KX	1	Yellow, Red	Yellow	5000	1524.0	160.0	72.7	.010	.25	.171	4.34
	1117A	TX	1	Blue, Red	Blue	5000	1524.0	160.0	72.7	.010	.25	.172	4.37
High-Temp Extension Cable • 16 AWG Pairs Stranded (7x24) • (See chart on page 15.52 for conductor specifications by ANSI Type)													
Plenum • Overall 100% Beldfoil Shield • FEP Insulation • FEP Jacket													
300V 200°C NEC: PLTC, CL3P	**83951**	JX	1	White, Red	Black	500 1000	152.4 304.8	17.5 37.0	8.0 16.8	.010	.25	.189	4.80
	83953	KX	1	Yellow, Red	Yellow	500 1000	152.4 304.8	18.0 34.0	8.2 15.5	.010	.25	.187	4.75
High-Temp Thermocouple Wire • 20 AWG Solid Conductors • (See chart on page 15.52 for conductor specifications by ANSI Type)													
Plenum • Unshielded • FEP Insulation • FEP Jacket													
300V 200°C NEC: PLTC, CL3P	**83915**	E	2/c	Purple, Red	Brown	500 1000	152.4 304.8	8.0 15.0	3.6 6.8	.010	.25	.076 x .128	1.93 x 3.25
	83900	J	2/c	White, Red	Brown	100 500 1000	30.5 152.4 304.8	2.1 7.5 14.0	1.0 3.4 6.4	.010	.25	.076 x .128	1.93 x 3.25
	83905	K	2/c	Yellow, Red	Brown	100 500 1000	30.5 152.4 304.8	2.1 7.5 14.0	1.0 3.4 6.4	.010	.25	.076 x .128	1.93 x 3.25
	83910	T	2/c	Blue, Red	Brown	100 500 1000	30.5 152.4 304.8	2.1 7.5 14.0	1.0 3.4 6.4	.010	.25	.076 x .128	1.93 x 3.25

FEP = Fluorinated Ethylene-propylene

Multiple pair cables have each pair numbered for ease of identification.

Instrumentation Cable

600V Tray Cables – Overview

Construction

Soft annealed bare or tinned copper conductors. PVC insulated with a nylon overcoat, 90°C PVC Jacket, TFN, TFFN or THHN style singles. Nylon rip cord included in all PVC-Nylon/PVC instrumentation cables.

Tray Cable Construction Options

UL Listed for MC and TC			
Insulation/Jacket	Max. Temp Rating		Flame Tests
	Wet	Dry	
PVC—Nylon/PVC (THHN or THWN) 14 AWG & larger	75°C	90°C	UL 1581 FT4/ IEEE 1202
PVC—Nylon/PVC (TFN or TFFN) 16 & 18 AWG	NA	90°C	UL 1581 FT4/ IEEE 1202
XLPE (XHHW–2)/ PVC or CPE 14 AWG & larger	90°C	90°C	UL 1581 FT4/ IEEE 1202 VW-1 rated singles
XLPE (RFH–2)/ PVC or CPE 16 & 18 AWG	75°C	75°C	UL 1581 FT4/ IEEE 1202 VW-1 rated singles
FRPO/PVC 18 AWG & larger	—	75°C	UL 1581
TPE/TPE	75°C	90°C	UL 1581
FRPO/PVC	75°C	90°C	UL 1581
XLPE/Haloarrest® I (XHHW-2) 14 AWG & larger	90°C	90°C	UL 1581 VW-1 rated singles
XLPE/Haloarrest I 16 & 18 AWG (RFH-2)	75°C	75°C	UL 1581
FEP/PVC	90°C	90°C	UL 1581
XLPE/Hypalon® (XHHW-2) 14 AWG & larger	90°C	90°C	UL 1581 VW-1 rated singles
XLPE/Hypalon (RFH-2) 16 & 18 AWG	75°C	75°C	UL 1581 VW-1 rated singles

Voltage Rating

600 Volts

Temperature Rating

See table above.

Application

These cables are suitable for installation in wet or dry locations. Cable jackets are resistant to sunlight, moisture and vapor penetration. The cables can be used in raceways, and (supported by messenger wire), outdoor applications and direct burial applications.

Unshielded

Twisted non-shielded instrument pairs provide a minimal OD allowing greater tray and conduit fill. Non-shielded instrument pairs may be utilized when recommended by the instrument manufacturer and used in a metallic conduit.

Overall Shield

Recommended for use in instrumentation applications where signals are transmitted in excess of 100 millivolts except in areas where high voltage and current sources creates excessive noise interference. The Beldfoil® shield with drain wire provides 100% coverage for maximum shield effectiveness.

Individually Shielded and Overall Shielded

Individually shielded pairs or triads with an overall shield are recommended for use in instrumentation applications where optimum noise rejection is required. Individual pair/triad shields are fully isolated from each other and contain a separate drain wire for grounding, to provide maximum protection from crosstalk and common mode interference. Cables with an overall shield provide additional electrostatic noise protection.

To Specify:

1234 A

1234: Start with Part No.
A: Add or replace letter code

Specifications

- UL Subject 1277
- UL 1581 Vertical Tray Flame Test comparable to IEEE 383 (70,000 BTU/hr.) Flame Test
- NEC Type TC Listed, which is approved for cable tray use in Class 1, Division 2 areas, per NEC Articles 340, 318 and 501 and for Class 1 circuits as permitted in Article 725
- Bare Copper Constructions are NEC Type NPLF Listed, which is approved for use in Non Power Limited Fire Protective Signaling circuits, per NEC Article 760
- PVC-Nylon/PVC, XLPE/PVC and XLPE/CPE constructed cables meet IEEE 1202/FT4 (70,000 BTU) Flame Tests

MC Cable Ratings Optional

Customize any 600V TC instrumentation cable, with armor and a full-sized ground. See chart below to specify.

To Specify MC Rated Cable

1 2 3456 A

1: Overall Jacket Type
2: Armor Type
3456: Core 4-digit Part No. 600V TC Instrumentation
A: Conductor, Insulation, Inner Jacket Type

Overall Jacket Type

Code	Material
1	PVC
3	CPE
4	TPE
5	HDPE
6	Oil Res II
7	Haloarrest I

Armor Type

Code	Material
2	Aluminum Interlock
3	Steel Interlock

Conductor, Insulation and Jacket Options**

Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest I

**For 1000 and 3000 Series cables only.

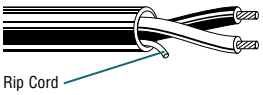
Hypalon is a DuPont trademark.

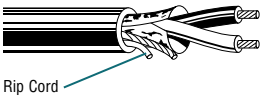
Standard lengths may be subject to tolerance. Custom lengths may be available upon request. Contact the Belden Electronics Division Customer Service Department for additional information. 1-800-BELDEN-1 or 1-800-BELDEN-3.

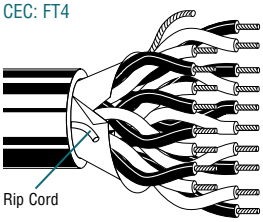
Instrumentation Cable

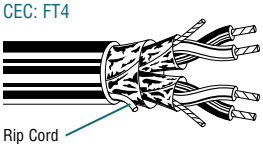
600V Tray Cables

Description	Part No.	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
18 AWG Pairs Stranded (19x30) Tinned Copper • Twisted Pairs															
Unshielded • PVC/Nylon Insulation • PVC Jacket															
NEC: TC CEC: FT4	**9486**	1	E2	1000	304.8	44.0	20.0	.048	1.22	.275	6.99	45	200	2.75	69.85
Overall 100% Beldfoil® Shield • PVC/Nylon Insulation • PVC Jacket															
NEC: TC	**9341**	1	E2	500	152.4	24.0	10.9	.048	1.22	.276	7.01	67	298	2.75	69.85
CEC: FT4				1000	304.8	46.0	20.9								
18 AWG Pairs Stranded (7x26) Bare Copper • Twisted Pairs															
Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**1120A**	1	E2	10000	3048.0	450.0	204.5	.048	1.22	.269	6.83	67	298	2.75	69.85
	3088A	1	E1	Bulk	Bulk	—	—	.048	1.22	.269	6.83	67	298	2.75	69.85
	1063A	2	E1	10000	3048.0	780.0	354.5	.053	1.35	.417	10.59	112	498	4.25	107.95
	1064A	4	E1	7500	2286.0	930.0	422.7	.053	1.35	.480	12.19	202	898	4.75	120.65
	1065A	8	E1	7500	2286.0	1665.0	756.8	.064	1.63	.599	15.21	381	1695	6.00	152.40
	1066A	12	E1	5000	1524.0	1535.0	697.7	.064	1.63	.719	18.26	560	2491	7.25	184.15
	1067A	16	E1	5000	1524.0	1920.0	872.7	.064	1.63	.804	20.42	739	3288	8.00	203.20
	1068A	24	E1	2500	762.0	1502.5	683.0	.084	2.13	1.032	26.21	1098	4885	10.25	260.35
	1087A	36	E1	1250	381.0	1042.5	473.9	.084	2.13	1.174	29.82	1635	7273	11.75	298.45
	1088A	50	E1	1250	381.0	1437.5	653.4	.084	2.13	1.375	34.93	2262	10063	14.50	368.30
Individually Shielded + Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart for options)															
NEC: TC, NPLF CEC: FT4	**1048A**	2	E1	7500	2286.0	630.0	286.4	.048	1.22	.432	10.97	140	623	4.00	101.60
	1049A	4	E1	7500	2286.0	1117.5	508.0	.053	1.35	.498	12.65	258	1148	5.00	127.00
	1050A	8	E1	7500	2286.0	2010.0	913.6	.064	1.63	.663	16.84	493	2193	6.50	165.10
	1051A	12	E1	5000	1524.0	1960.0	890.9	.064	1.63	.798	20.27	728	3239	7.75	196.85
	1052A	16	E1	2500	762.0	1350.0	613.6	.084	2.13	.927	23.55	963	4284	9.00	228.60
	1053A	24	E1	2500	762.0	1837.5	835.2	.084	2.13	1.135	28.83	1434	6379	11.25	285.75
	1054A	36	E1	1250	381.0	1307.5	594.3	.084	2.13	1.299	32.99	2139	9516	13.00	338.20
	1038A	50	E1	1000	304.8	1272.0	578.2	.084	2.13	1.527	38.79	2962	13177	15.25	387.35









E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

Conductor, Insulation and Jacket Options**

To Specify:
1234 A Start with Part No. — Add or replace letter code

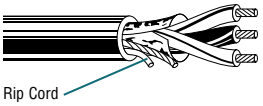
Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

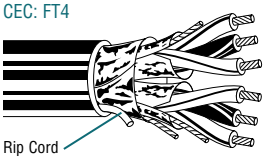
**For 1000 and 3000 Series cables only.

Instrumentation Cable

600V Tray Cables

Description	Part No.	No. of Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
18 AWG Triads Stranded (7x26) Bare Copper • Twisted Triads															
Overall 100% Beldfoil® Shield • PVC/Nylon Insulation • PVC Jacket (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**1121A**	1	E2	500 1000 10000	152.4 304.8 3048.0	25.0 50.0 500.0	11.4 22.7 227.3	.048	1.22	.282	7.16	90	400	2.75	69.85
	3089A	1	E1	Bulk	Bulk	—	—	.048	1.22	.284	7.21	90	400	2.75	69.85
Individually Shielded + Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart for options)															
NEC: TC, NPLF CEC: FT4	**3064A**	2	E1	Bulk	Bulk	—	—	.048	1.22	.493	12.52	185	823	4.75	120.65
	1093A	4	E1	7500	2286.0	1492.5	678.4	.064	1.63	.577	14.66	347	1544	6.00	152.40
	1094A	8	E1	5000	1524.0	1770.0	804.5	.064	1.63	.743	18.87	672	2989	7.50	190.50
	1095A	12	E1	2500	762.0	1332.5	605.7	.084	2.13	.939	23.85	997	4435	9.75	247.65
	3066A	16	E1	Bulk	Bulk	—	—	.084	2.13	1.046	26.57	1322	5881	10.50	266.70
	1096A	24	E1	2000	609.6	1946.0	884.5	.084	2.13	1.280	32.51	1971	8768	13.00	330.20





E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:

1234 A

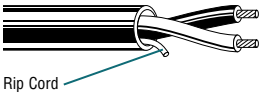
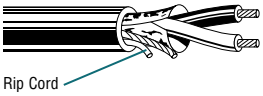
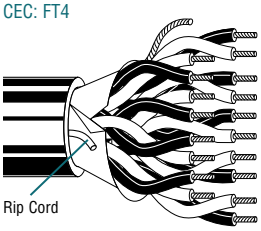
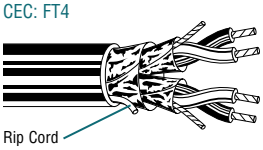
Start with Part No. — Add or replace letter code

Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

Instrumentation Cable

600V Tray Cables

Description	Part No.	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
16 AWG Pairs Stranded (19x29) Tinned Copper • Twisted Pairs															
Unshielded • PVC/Nylon Insulation • PVC Jacket															
NEC: TC CEC: FT4	**9487**	1	E2	500 1000	152.4 304.8	26.5 52.0	12.0 23.6	.048	1.22	.299	7.59	70	311	3.00	76.20
															
Overall 100% Beldfoil® Shield • PVC/Nylon Insulation • PVC Jacket															
NEC: TC CEC: FT4	**9342**	1	E2	500 1000	152.4 304.8	30.0 60.0	13.6 27.3	.048	1.22	.301	7.65	105	467	3.00	76.20
															
16 AWG Pairs Stranded (7x24) Bare Copper • Twisted Pairs															
Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart below for other options)															
NEC: TC/NPLF CEC: FT4	**1118A**	1	E2	10000	3048.0	560.0	254.5	.048	1.22	.302	7.67	105	467	3.00	76.20
	3090A	1	E1	Bulk*	Bulk*	—	—	.048	1.22	.302	7.67	105	467	3.00	76.20
	1069A	2	E1	7500	2286.0	720.0	327.3	.048	1.22	.451	11.46	179	796	4.50	114.30
	1527A	3	E1	7500	2286.0	1020.0	463.6	.053	1.35	.486	12.34	250	1112	4.75	120.65
	1070A	4	E1	7500	2286.0	1387.5	630.7	.066	1.68	.558	14.17	321	1428	5.50	139.70
	1071A	8	E1	7500	2286.0	2250.0	1022.7	.066	1.68	.670	17.02	607	2700	6.75	171.45
	1072A	12	E1	5000	1524.0	2095.0	952.3	.066	1.68	.804	20.42	893	3973	8.00	203.20
	1073A	16	E1	2500	762.0	1455.0	661.4	.084	2.13	.928	23.57	1178	5240	9.50	241.30
	1074A	24	E1	1250	381.0	1053.8	479.0	.089	2.26	1.147	29.13	1892	8417	11.50	292.10
	1089A	36	E1	1250	381.0	1401.3	636.9	.084	2.13	1.297	32.94	2606	11593	13.00	330.20
	1090A	50	E1	1250	381.0	941.3	427.8	.084	2.13	1.588	40.34	3606	16042	16.00	406.40
															
Individually Shielded + Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart for options)															
NEC: TC, NPLF CEC: FT4	**1055A**	2	E1	7500	2286.0	885.0	402.3	.048	1.22	.416	10.57	223	992	4.25	107.95
	1037A	3	E1	7500	2286.0	1087.5	494.3	.048	1.22	.476	12.09	317	1410	4.75	120.65
	1039A	4	E1	7500	2286.0	1515.0	688.6	.064	1.63	.578	14.68	411	1828	5.75	146.05
	1040A	6	E1	5000	1524.0	1455.0	661.4	.064	1.63	.674	17.12	599	2665	6.75	171.45
	1041A	8	E1	5000	1524.0	1815.0	825.0	.064	1.63	.725	18.42	786	3497	7.25	184.15
	1042A	12	E1	2500	762.0	1340.0	609.1	.084	2.13	.868	22.05	1161	5165	8.75	222.25
	1043A	16	E1	2500	762.0	1765.0	802.3	.084	2.13	1.013	25.73	1537	6838	10.25	260.35
	1044A	20	E1	2500	762.0	2042.5	928.4	.084	2.13	1.121	28.47	1912	8506	11.25	285.75
	1045A	24	E1	1250	381.0	1248.8	567.6	.084	2.13	1.244	31.60	2287	10174	12.50	317.50
	1046A	36	E1	1250	381.0	1798.8	817.6	.084	2.13	1.423	36.14	3413	15183	14.25	361.95
	1047A	50	E1	1000	304.8	358.0	162.7	.084	2.13	1.713	43.51	4726	21024	17.25	438.15
															

E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

Conductor, Insulation and Jacket Options**

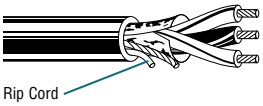
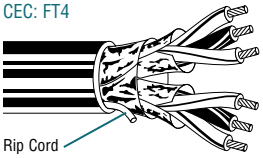
To Specify:
1234 A Start with Part No. — Add or replace letter code

Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

**For 1000 and 3000 Series cables only.

Instrumentation Cable

600V Tray Cables

Description	Part No.	No. of Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
16 AWG Triads Stranded (7x24) Bare Copper • Twisted Triads															
Overall 100% Beldfoil® Shield • PVC/Nylon Insulation • PVC Jacket (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**1119A**	1	E2	500 1000 10000	152.4 304.8 3048.0	36.0 69.0 710.0	16.4 31.4 322.7	.048	1.22	.317	8.05	143	636	3.00	76.20
 Rip Cord	**3091A**	1	E1	Bulk*	Bulk*	—	—	.048	1.22	.317	8.05	143	636	3.00	76.20
Individually Shielded + Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart for options)															
NEC: TC, NPLF CEC: FT4	**1097A**	4	E1	5000	1524.0	1425.0	647.7	.064	1.63	.646	16.41	554	2465	6.50	165.10
 Rip Cord	**1098A**	8	E1	2500	762.0	1362.5	619.3	.084	2.13	.877	22.28	1072	4769	8.75	222.25
	1099A	12	E1	2500	762.0	1890.0	859.1	.089	2.26	1.065	27.05	1590	7073	10.50	266.70
	3118A	16	E1	Bulk*	Bulk*	—	—	.084	2.13	1.234	31.34	1771	7879	12.25	311.15
	1100A	24	E1	1250	381.0	1758.8	799.4	.084	2.13	1.447	36.75	3144	13986	14.50	368.30
	3130A	36	E1	Bulk*	Bulk*	—	—	.110	2.79	1.773	45.03	3600	16015	18.00	457.20

E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

Multiple pair or triad cables have each pair/triad numbered for ease of identification.

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:

1234 A

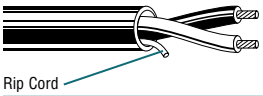
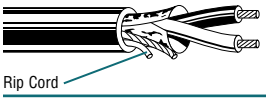
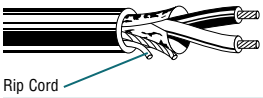
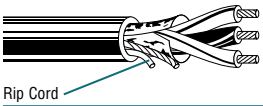
Start with Part No. — Add or replace letter code

Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

Instrumentation Cable

600V Tray Cables

Description	Part No.	No. of Pairs/ Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
14 AWG Pairs Stranded (42x30) Tinned Copper • Twisted Pairs															
Unshielded • PVC/Nylon Insulation • PVC Jacket															
NEC: TC CEC: FT4	**9488**	1	E2	1000	304.8	78.0	35.5	.048	1.22	.359	9.12	107	476	3.50	88.90
 Rip Cord															
Overall 100% Beldfoil® Shield • PVC/Nylon Insulation • PVC Jacket															
NEC: TC CEC: FT4	**9343**	1	E2	500 1000	152.4 304.8	43.5 85.0	19.8 38.6	.048	1.22	.358	9.09	160	712	3.50	88.90
 Rip Cord															
14 AWG Pairs Stranded (7x22) Bare Copper • Twisted Pairs															
Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**3080A**	1	E1	Bulk*	Bulk*	—	—	.048	1.22	.342	8.69	160	712	3.50	88.90
 Rip Cord															
14 AWG Triads Stranded (7x22) Bare Copper • Twisted Triads															
Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket															
NEC: TC, NPLF CEC: FT4	**3081A**	1	E1	Bulk*	Bulk*	—	—	.048	1.22	.361	9.17	200	890	3.50	88.90
 Rip Cord															

E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

Conductor, Insulation and Jacket Options**

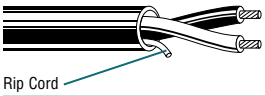
To Specify:
1234 A Start with Part No. — Add or replace letter code

Bare	Tinned	Insulation/Jacket
A	**B**	PVC-Nylon/PVC
C	**D**	XLPE/PVC
E	**F**	FRPO/PVC
G	**H**	XLPE/TPE
K	**L**	TPE/TPE
M	**N**	PVC-Nylon/Oil Res II
Q	**R**	XLPE/CPE
S	**T**	XLPE/Haloarrest® I

**For 1000 and 3000 Series cables only.

Instrumentation Cable

600V Tray Cables

Description	Part No.	No. of Pairs/ Triads	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
12 AWG Pairs Stranded (37x27) Tinned Copper • Twisted Pairs															
Unshielded • PVC/Nylon Insulation • PVC Jacket															
NEC: TC CEC: FT4	**9489**	1	E2	1000	304.8	89.0	40.5	.045	1.14	.380	9.65	170	756	3.75	95.25
 Rip Cord															
Overall 100% Beldfoil® Shield • PVC/Nylon Insulation • PVC Jacket															
NEC: TC CEC: FT4	**9344**	1	E2	500 1000	152.4 304.8	53.5 106.0	24.3 48.2	.045	1.14	.384	9.75	253	1126	3.75	95.25
 Rip Cord															
12 AWG Pairs Stranded (7x20) Bare Copper • Twisted Pairs															
Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**3103A**	1	E1	Bulk*	Bulk*	—	—	.048	1.22	.380	9.65	253	1126	3.75	95.25
 Rip Cord															
12 AWG Triads Stranded (7x20) Bare Copper • Twisted Triads															
Overall 100% Beldfoil Shield • PVC/Nylon Insulation • PVC Jacket (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**3104A**	1	E1	Bulk*	Bulk*	—	—	.048	1.22	.395	10.03	315	8001	4.00	101.60
 Rip Cord															

E1, E2 = Refer to Industrial Technical Information section for color code.
Alternate color coding available upon request.

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:

1234 A

Start with Part No. — Add or replace letter code

Conductor, Insulation and Jacket Options**

Bare	Tinned	Insulation/Jacket
A	**B**	PVC-Nylon/PVC
C	**D**	XLPE/PVC
E	**F**	FRPO/PVC
G	**H**	XLPE/TPE
K	**L**	TPE/TPE
M	**N**	PVC-Nylon/Oil Res II
Q	**R**	XLPE/CPE
S	**T**	XLPE/Haloarrest® I

**For 1000 and 3000 Series cables only.

Control Cable

600V Type TC Cables — Overview

Introduction

Belden offers a wide selection of UL-rated 600V Tray Cable for a variety of control applications.

Multi-conductor versions are available from 18 to 1 AWG. These are unshielded and shielded versions that come with various insulation and jacket combinations.

These TC cables are installed in cable trays, ducts and conduit and can be used in direct burial applications. They are extensively used in manufacturing facilities, especially in the process industries such as petrochemical, steel, pulp and paper, cement and mining.

These flexible, space efficient cables can be substantially more economical than traditional wiring methods.

Construction

Soft annealed bare or tinned copper conductors, with various insulation and jacketing options as seen in chart below.

Tray Cable Construction Options

UL Listed for MC and TC			
Insulation/Jacket	Max. Temp Rating		Flame Tests
	Wet	Dry	
PVC—Nylon/PVC (THHN or THWN) 14 AWG & larger	75°C	90°C	UL 1581 FT4/ IEEE 1202
PVC—Nylon/PVC (TFN or TFFN) 16 & 18 AWG	NA	90°C	UL 1581 FT4/ IEEE 1202
XLPE (XHHW–2)/ PVC or CPE 14 AWG & larger	90°C	90°C	UL 1581 FT4/ IEEE 1202 VW-1 rated singles
XLPE (RFH–2)/ PVC or CPE 16 & 18 AWG	75°C	75°C	UL 1581 FT4/ IEEE 1202 VW-1 rated singles
FRPO/PVC 18 AWG & larger	—	75°C	UL 1581
TPE/TPE	75°C	90°C	UL 1581
FRPO/PVC	75°C	90°C	UL 1581
XLPE/Haloarrest® I (XHHW-2) 14 AWG & larger	90°C	90°C	UL 1581 VW-1 rated singles
XLPE/Haloarrest I 16 & 18 AWG (RFH-2)	75°C	75°C	UL 1581
FEP/PVC	90°C	90°C	UL 1581
XLPE/Hypalon® (XHHW-2) 14 AWG & larger	90°C	90°C	UL 1581 VW-1 rated singles
XLPE/Hypalon (RFH-2) 16 & 18 AWG	75°C	75°C	UL 1581 VW-1 rated singles

Voltage Rating

600 Volt TC

Temperature Rating

See Tray Cable Construction chart above.

Application

These cables are suitable for installation in wet or dry locations. Cable jackets are resistant to sunlight, moisture and vapor penetration. The cables can be used in raceways (supported by messenger wire), outdoor applications and direct burial applications.

Unshielded

Cabled non-shielded conductors provide a minimal O.D. allowing greater tray and conduit fill. Non-shielded control cable may be utilized when recommended by the equipment manufacturer and used in a metallic conduit.

Overall Shield

Recommended for use in control applications where signals are transmitted in excess of 100 millivolts, except in areas where high voltage and current sources create excessive noise interference. The Beldfoil® shield with drain wire provides 100% coverage for maximum shield effectiveness.

Only 2-conductor round constructions can be shielded. Flat constructions cannot be shielded.

Ground Wire

- Non-insulated, bare copper ground wires are included for constructions 8 through 2 AWG. Non-insulated, bare copper, full sized ground wires may be requested on other constructions.
- All shielded PVC-Nylon/PVC constructions include full sized ground (drain) wires.

Color Code

Multi-conductor control cables (10 AWG to 18 AWG) are printed alpha-numerically in addition to being color coded per ICEA Table E2.

8 AWG and larger are black and numbered per ICEA Method 4.

Refer to Industrial Technical Information for ICEA color code charts.

Specifications

- UL Subject 1277
- UL Subject 1424 (per outline for NPLF requirements dated May 3, 1979)
- UL 1581 Vertical Flame Test comparable to IEEE 383 (70,000 BTU/hr) Flame Test
- Approved for cable tray use in Class 1, Division 2 areas, per NEC Articles 340, 318 and 501, and for Class 1 circuits as permitted in Article 725
- PVC-Nylon/PVC, XLPE/PVC and XLPE/CPE constructed cables meet IEEE 1202/FT4 (70,000 BTU/hr) Flame Tests

Standard lengths may be subject to tolerance. Custom lengths may be available upon request. Contact the Belden Electronics Division Customer Service Department for additional information. 1-800-BELDEN-1 or 1-800-BELDEN-3.

Hypalon is a DuPont trademark.

Control Cable

600V Type TC Cables

Description	Part No.	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
18 AWG Multi-conductor Stranded (7x26) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27916A**†	2	E2	10000	3048.0	420.0	190.9	.045	1.14	.19 x .28	4.83 x 7.11	26	116	1.90	48.26
	27325A††	2	E2	Bulk*	Bulk*	—	—	.045	1.14	.27	6.86	26	116	3.00	76.20
	27334A	3	E2	Bulk*	Bulk*	—	—	.045	1.14	.28	7.11	39	173	3.25	82.55
	27326A	4	E2	10000	3048.0	620.0	281.8	.045	1.14	.31	7.87	52	231	3.50	88.90
	27335A	5	E2	Bulk*	Bulk*	—	—	.045	1.14	.33	8.38	65	289	4.00	101.60
	27600A	6	E2	Bulk*	Bulk*	—	—	.045	1.14	.36	9.14	78	347	4.25	107.95
	27327A	7	E2	Bulk*	Bulk*	—	—	.045	1.14	.36	9.14	91	405	4.25	107.95
	27601A	8	E2	Bulk*	Bulk*	—	—	.045	1.14	.38	9.65	104	463	4.50	114.30
	27336A	9	E2	Bulk*	Bulk*	—	—	.045	1.14	.41	10.41	117	520	5.00	127.00
	27328A	10	E2	Bulk*	Bulk*	—	—	.060	1.52	.44	11.18	130	578	5.75	146.05
	27602A	11	E2	Bulk*	Bulk*	—	—	.060	1.52	.45	11.43	143	636	5.75	146.05
	27329A	12	E2	Bulk*	Bulk*	—	—	.060	1.52	.46	11.68	155	690	5.75	146.05
	27603A	13	E2	Bulk*	Bulk*	—	—	.060	1.52	.48	12.19	169	752	6.00	152.40
	27604A	14	E2	Bulk*	Bulk*	—	—	.060	1.52	.48	12.19	182	810	6.00	152.40
	27605A	15	E2	Bulk*	Bulk*	—	—	.060	1.52	.51	12.95	195	867	6.25	158.75
	27606A	16	E2	Bulk*	Bulk*	—	—	.060	1.52	.52	13.21	208	925	6.25	158.75
	27607A	17	E2	Bulk*	Bulk*	—	—	.060	1.52	.57	14.48	220	979	6.75	171.45
	27608A	18	E2	Bulk*	Bulk*	—	—	.060	1.52	.57	14.48	233	1037	6.75	171.45
	27609A	19	E2	Bulk*	Bulk*	—	—	.060	1.52	.57	14.48	247	1099	6.75	171.45
	27610A	20	E2	Bulk*	Bulk*	—	—	.060	1.52	.59	14.99	260	1157	7.00	177.80
	27611A	25	E2	Bulk*	Bulk*	—	—	.060	1.52	.65	16.51	325	1446	7.75	196.85
	27612A	30	E2	Bulk*	Bulk*	—	—	.060	1.52	.69	17.53	390	1735	8.25	209.55
	27613A	37	E2	Bulk*	Bulk*	—	—	.080	2.03	.74	18.80	481	2140	9.50	241.30
	27614A	50	E2	Bulk*	Bulk*	—	—	.080	2.03	.91	23.11	650	2892	11.00	279.40
	27632A	60	E2	Bulk*	Bulk*	—	—	.080	2.03	.96	24.38	780	3470	12.50	317.50
18 AWG Multi-conductor Stranded (7x26) Bare Copper • Overall 100% Beldfoil® Shield with Drain Wire															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27325AS**	2	E2	10000	3048.0	460.0	209.1	.048	1.22	.276	7.01	67	298	2.80	71.12
	27334AS	3	E2	10000	3048.0	560.0	254.5	.048	1.22	.292	7.42	90	400	2.90	73.66
	27326AS	4	E2	10000	3048.0	690.0	313.6	.048	1.22	.315	8.00	112	498	3.10	81.28

E2 = Refer to Industrial Technical Information section for color code.

† Flat construction; overall shield not available.

†† Twisted Conductors.

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

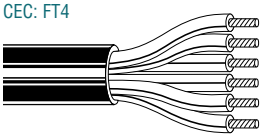
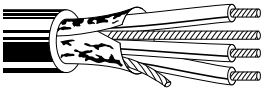
To Specify:		
12345	**A**	**S**
Start with core Part No.	add Conductor, Insulation, Jacket type	add "S" for optional Beldfoil Shield

Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket
A	**B**	PVC-Nylon/PVC
C	**D**	XLPE/PVC
E	**F**	FRPO/PVC
G	**H**	XLPE/TPE
K	**L**	TPE/TPE
M	**N**	PVC-Nylon/Oil Res II
Q	**R**	XLPE/CPE
S	**T**	XLPE/Haloarrest® I

Control Cable

600V Type TC Cables

Description	Part No.	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
16 AWG Multi-conductor Stranded (7x24) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27917A**†	2	E2	10000	3048.0	480.0	218.2	.045	1.14	.22 x .34	5.59 x 8.64	41	182	2.00	50.80
	**27337A**††	2	E2	Bulk*	Bulk*	—	—	.045	1.14	.34	8.64	41	182	3.50	88.90
	27331A	3	E2	10000	3048.0	680.0	309.1	.045	1.14	.36	9.14	62	276	3.50	88.90
	27338A	4	E2	10000	3048.0	780.0	354.5	.045	1.14	.39	9.91	83	369	4.00	101.60
	27339A	5	E2	10000	3048.0	950.0	431.8	.045	1.14	.43	10.92	103	458	4.25	107.95
	27615A	6	E2	Bulk*	Bulk*	—	—	.045	1.14	.46	11.68	124	552	4.50	114.30
	27323A	7	E2	10000	3048.0	1280.0	581.8	.045	1.14	.46	11.68	145	645	4.50	114.30
	27616A	8	E2	10000	3048.0	1390.0	631.8	.045	1.14	.50	12.70	165	734	5.00	127.00
	27340A	9	E2	Bulk*	Bulk*	—	—	.045	1.14	.57	14.48	186	827	5.75	146.05
	27617A	10	E2	Bulk*	Bulk*	—	—	.045	1.14	.61	15.49	207	921	6.00	152.40
	27618A	11	E2	Bulk*	Bulk*	—	—	.045	1.14	.61	15.49	227	1010	6.00	152.40
	27341A	12	E2	5000	1524.0	900.0	409.1	.045	1.14	.63	16.00	248	1103	6.25	158.75
	27619A	13	E2	Bulk*	Bulk*	—	—	.045	1.14	.66	16.76	269	1197	6.50	165.10
	27620A	14	E2	Bulk*	Bulk*	—	—	.045	1.14	.66	16.76	290	1290	6.50	165.10
	27621A	15	E2	Bulk*	Bulk*	—	—	.060	1.52	.70	17.78	310	1379	7.00	177.80
	27330A	16	E2	Bulk*	Bulk*	—	—	.060	1.52	.70	17.78	331	1472	7.00	177.80
	27622A	17	E2	Bulk*	Bulk*	—	—	.060	1.52	.74	18.80	351	1561	7.50	190.50
	27623A	18	E2	Bulk*	Bulk*	—	—	.060	1.52	.74	18.80	372	1655	7.50	190.50
	27624A	19	E2	Bulk*	Bulk*	—	—	.060	1.52	.74	18.80	392	1744	7.50	190.50
	27625A	20	E2	Bulk*	Bulk*	—	—	.060	1.52	.77	19.56	412	1833	7.75	196.85
	27324A	25	E2	Bulk*	Bulk*	—	—	.080	2.03	.90	22.86	515	2291	9.00	228.60
	27626A	30	E2	Bulk*	Bulk*	—	—	.080	2.03	.95	24.13	619	2754	9.50	241.30
	27627A	37	E2	Bulk*	Bulk*	—	—	.080	2.03	1.02	25.91	763	3394	10.25	260.35
	27628A	50	E2	Bulk*	Bulk*	—	—	.080	2.03	1.12	28.45	1031	4587	11.25	285.75
	27633A	60	E2	Bulk*	Bulk*	—	—	.080	2.03	1.26	32.00	1237	5503	13.00	330.20
16 AWG Multi-conductor Stranded (7x24) Bare Copper • Overall 100% Beldfoil® Shield with Drain Wire															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27337AS**	2	E2	10000	3048.0	690.0	313.6	.047	1.19	.302	7.67	107	476	3.00	76.20
	**27331AS**	3	E2	10000	3048.0	760.0	345.5	.048	1.22	.320	8.13	143	636	3.20	81.28

E2 = Refer to Industrial Technical Information section for color code.

† Flat construction; overall shield not available.

†† Twisted Conductors.

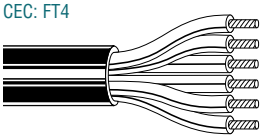
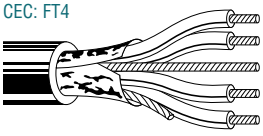
*Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:		
12345	**A**	**S**
Start with core Part No.	add Conductor, Insulation, Jacket type	add "S" for optional Beldfoil Shield

Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket
A	**B**	PVC-Nylon/PVC
C	**D**	XLPE/PVC
E	**F**	FRPO/PVC
G	**H**	XLPE/TPE
K	**L**	TPE/TPE
M	**N**	PVC-Nylon/Oil Res II
Q	**R**	XLPE/CPE
S	**T**	XLPE/Haloarrest® I

Control Cable
600V Type TC Cables

Description	Part No.	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
14 AWG Multi-conductor Stranded (7x22) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27080A**†	2	E2	10000	3048.0	640.0	290.9	.045	1.14	.21 x .32	5.33 x 8.13	87	387	2.00	50.80
	**27636A**††	2	E2	Bulk*	Bulk*	—	—	.045	1.14	.33	8.38	87	387	3.70	93.98
	27081A	3	E2	10000	3048.0	830.0	377.3	.045	1.14	.33	8.38	131	583	4.00	101.60
	27082A	4	E2	10000	3048.0	1030.0	468.2	.045	1.14	.36	9.14	174	774	4.25	107.95
	27083A	5	E2	10000	3048.0	1380.0	627.3	.045	1.14	.39	9.91	218	970	4.75	120.65
	27084A	6	E2	Bulk*	Bulk*	—	—	.045	1.14	.43	10.92	262	1166	5.00	127.00
	27085A	7	E2	10000	3048.0	1640.0	745.5	.045	1.14	.43	10.92	306	1361	5.00	127.00
	27086A	8	E2	Bulk*	Bulk*	—	—	.045	1.14	.47	11.94	350	1557	5.75	146.05
	27087A	9	E2	5000	1524.0	1235.0	561.4	.045	1.14	.50	12.70	393	1748	6.25	158.75
	27088A	10	E2	5000	1524.0	1255.0	570.5	.060	1.52	.57	14.48	437	1944	6.75	171.45
	27089A	11	E2	Bulk*	Bulk*	—	—	.060	1.52	.60	15.24	481	2140	6.75	171.45
	27090A	12	E2	5000	1524.0	1480.0	672.7	.060	1.52	.61	15.49	524	2331	7.00	177.80
	27091A	13	E2	Bulk*	Bulk*	—	—	.060	1.52	.64	16.26	568	2527	7.25	184.15
	27092A	14	E2	Bulk*	Bulk*	—	—	.060	1.52	.64	16.26	611	2718	7.25	184.15
	27093A	15	E2	Bulk*	Bulk*	—	—	.060	1.52	.68	17.27	655	2914	7.75	196.85
	27094A	16	E2	5000	1524.0	1920.0	872.7	.060	1.52	.66	16.76	699	3110	7.75	196.85
	27095A	17	E2	Bulk*	Bulk*	—	—	.060	1.52	.70	17.78	742	3301	8.00	203.20
	27096A	18	E2	Bulk*	Bulk*	—	—	.060	1.52	.70	17.78	786	3497	8.00	203.20
	27097A	19	E2	5000	1524.0	2220.0	1009.1	.060	1.52	.70	17.78	830	3692	8.00	203.20
	27098A	20	E2	Bulk*	Bulk*	—	—	.060	1.52	.74	18.80	874	3888	9.00	228.60
	27099A	21	E2	Bulk*	Bulk*	—	—	.060	1.52	.75	19.05	918	4084	9.00	228.60
	27100A	22	E2	Bulk*	Bulk*	—	—	.060	1.52	.78	19.81	961	4725	9.50	241.30
	27101A	23	E2	Bulk*	Bulk*	—	—	.060	1.52	.78	19.81	1005	4471	9.50	241.30
	27102A	24	E2	Bulk*	Bulk*	—	—	.060	1.52	.83	21.08	1048	4662	10.00	254.00
	27103A	25	E2	5000	1524.0	2995.0	1361.4	.060	1.52	.83	21.08	1092	4858	10.00	254.00
	27104A	26	E2	Bulk*	Bulk*	—	—	.060	1.52	.83	21.08	1136	5054	10.00	254.00
	27105A	27	E2	Bulk*	Bulk*	—	—	.080	2.03	.89	22.61	1179	5245	10.00	254.00
	27106A	28	E2	Bulk*	Bulk*	—	—	.080	2.03	.92	23.37	1223	5441	10.50	266.70
	27107A	29	E2	Bulk*	Bulk*	—	—	.080	2.03	.92	23.37	1266	5632	10.50	266.70
	27108A	30	E2	Bulk*	Bulk*	—	—	.080	2.03	.90	22.86	1310	5828	10.50	266.70
	27629A	37	E2	5000	1524.0	4395.0	1997.7	.080	2.03	.96	24.38	1616	7189	11.50	292.10
	27912A	50	E2	Bulk*	Bulk*	—	—	.080	2.03	1.13	28.70	1642	7305	11.70	297.18
14 AWG Multi-conductor Stranded (7x22) Bare Copper • Overall 100% Beldfoil® Shield with Drain Wire															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27081AS**	3	E2	10000	3048.0	1010.0	459.1	.048	1.22	.362	9.19	218	970	3.60	91.44
	**27082AS**	4	E2	10000	3048.0	1270.0	577.3	.048	1.22	.391	9.93	273	1214	3.90	99.06

E2 = Refer to Industrial Technical Information section for color code.

† Flat construction; overall shield not available.
†† Twisted Conductors.

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

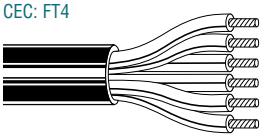
To Specify:		
12345	**A**	**S**
Start with core Part No.	add Conductor, Insulation, Jacket type	add "S" for optional Beldfoil Shield

Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

Control Cable

600V Type TC Cables

Description	Part No.	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
12 AWG Multi-conductor Stranded (7x20) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27109A**†	2	E2	10000	3048.0	820.0	372.7	.045	1.14	.25 x .42	6.35 x 10.67	122	543	2.20	55.88
	**27641A**††	2	E2	Bulk*	Bulk*	—	—	.045	1.14	.42	10.67	122	543	4.00	101.60
	27110A	3	E2	10000	3048.0	1050.0	477.3	.045	1.14	.44	11.18	182	810	4.50	114.30
	27111A	4	E2	10000	3048.0	1350.0	613.6	.045	1.14	.48	12.19	243	1081	4.75	120.65
	27112A	5	E2	10000	3048.0	1650.0	750.0	.045	1.14	.53	13.46	304	1352	5.25	133.35
	27113A	6	E2	Bulk*	Bulk*	—	—	.045	1.14	.60	15.24	365	1624	6.00	152.40
	27114A	7	E2	10000	3048.0	2310.0	1050.0	.045	1.14	.60	15.24	426	1895	6.00	152.40
	27115A	8	E2	Bulk*	Bulk*	—	—	.060	1.52	.65	16.51	486	2162	6.50	165.10
	27116A	9	E2	5000	1524.0	1660.0	754.5	.060	1.52	.70	17.78	547	2433	7.00	177.80
	27117A	10	E2	Bulk*	Bulk*	—	—	.060	1.52	.75	19.05	608	2705	7.50	190.50
	27118A	11	E2	Bulk*	Bulk*	—	—	.060	1.52	.75	19.05	669	2976	7.50	190.50
	27119A	12	E2	5000	1524.0	2065.0	938.6	.060	1.52	.78	19.81	729	3243	7.75	196.85
	27120A	13	E2	Bulk*	Bulk*	—	—	.060	1.52	.82	20.83	790	3514	8.25	209.55
	27121A	14	E2	Bulk*	Bulk*	—	—	.060	1.52	.82	20.83	851	3786	8.25	209.55
	27122A	15	E2	Bulk*	Bulk*	—	—	.060	1.52	.91	23.11	911	4053	9.00	228.60
	27123A	16	E2	Bulk*	Bulk*	—	—	.060	1.52	.91	23.11	972	4324	9.00	228.60
	27124A	17	E2	Bulk*	Bulk*	—	—	.060	1.52	.95	24.13	1033	4595	9.50	241.30
	27125A	18	E2	Bulk*	Bulk*	—	—	.060	1.52	.95	24.13	1093	4862	9.50	241.30
	27126A	19	E2	Bulk*	Bulk*	—	—	.060	1.52	.95	24.13	1154	5134	9.50	241.30
	27127A	20	E2	Bulk*	Bulk*	—	—	.080	2.03	.98	24.89	1217	5414	9.75	247.65
	27128A	21	E2	Bulk*	Bulk*	—	—	.080	2.03	1.01	25.65	1276	5676	10.00	254.00
	27129A	22	E2	Bulk*	Bulk*	—	—	.080	2.03	1.05	26.67	1337	5948	10.50	266.70
	27130A	23	E2	Bulk*	Bulk*	—	—	.080	2.03	1.05	26.67	1397	6215	10.50	266.70
	27131A	24	E2	Bulk*	Bulk*	—	—	.080	2.03	1.11	28.19	1458	6486	11.00	279.40
	27132A	25	E2	Bulk*	Bulk*	—	—	.080	2.03	1.11	28.19	1519	6757	11.00	279.40
	27133A	26	E2	Bulk*	Bulk*	—	—	.080	2.03	1.11	28.19	1580	7029	11.00	279.40
	27134A	27	E2	Bulk*	Bulk*	—	—	.080	2.03	1.13	28.70	1641	7300	11.25	285.75
	27135A	28	E2	Bulk*	Bulk*	—	—	.080	2.03	1.17	29.72	1701	7567	11.75	298.45
	27136A	29	E2	Bulk*	Bulk*	—	—	.080	2.03	1.17	29.72	1783	7932	11.75	298.45
	27137A	30	E2	Bulk*	Bulk*	—	—	.080	2.03	1.17	29.72	1823	8110	11.75	298.45
	27630A	37	E2	Bulk*	Bulk*	—	—	.080	2.03	1.27	32.26	2248	10000	12.75	323.85
	27634A	50	E2	Bulk*	Bulk*	—	—	.080	2.03	1.49	37.85	2600	11566	15.50	393.70

E2 = Refer to Industrial Technical Information section for color code.

† Flat construction; overall shield not available.
†† Twisted Conductors.

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:

12345 A S

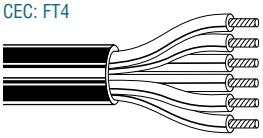
Start with core Part No. — add Conductor, Insulation, Jacket type — add "S" for optional Beldfoil® Shield

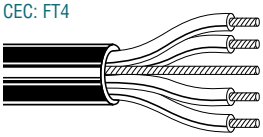
Conductor, Insulation and Jacket Options

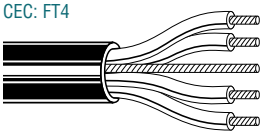
Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

Control Cable
600V Type TC Cables

Description	Part No.	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
10 AWG Multi-conductor Stranded (7x18) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27138A**†	2	E2	10000	3048.0	1240.0	563.6	.045	1.14	.28 x .46	7.11 x 11.68	164	730	.30	7.62
	27643A††	2	E2	Bulk*	Bulk*	—	—	.045	1.14	.46	11.68	164	730	4.30	109.22
	27139A	3	E2	10000	3048.0	1740.0	790.9	.045	1.14	.49	12.45	247	1099	5.00	127.00
	27140A	4	E2	10000	3048.0	2190.0	995.5	.045	1.14	.57	14.48	329	1464	6.00	152.40
	27141A	5	E2	10000	3048.0	2840.0	1290.9	.060	1.52	.62	15.75	412	1833	6.30	160.02
	27142A	6	E2	Bulk*	Bulk*	—	—	.060	1.52	.67	17.02	494	2198	6.80	172.72
	27143A	7	E2	Bulk*	Bulk*	—	—	.060	1.52	.67	17.02	576	2562	6.80	172.72
	27144A	8	E2	Bulk*	Bulk*	—	—	.060	1.52	.73	18.54	659	2932	7.30	185.42
	27145A	9	E2	Bulk*	Bulk*	—	—	.060	1.52	.78	19.81	741	3296	7.80	198.12
	27146A	10	E2	Bulk*	Bulk*	—	—	.060	1.52	.91	23.11	823	3661	9.00	228.60
	27147A	11	E2	Bulk*	Bulk*	—	—	.060	1.52	.91	23.11	905	4026	9.00	228.60
	27148A	12	E2	Bulk*	Bulk*	—	—	.080	2.03	.92	23.37	988	4395	9.30	236.22
8 AWG Multi-conductor Stranded (7x16) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27149A**	2	**	Bulk*	Bulk*	—	—	.060	1.52	.62	15.75	262	1166	6.00	152.40
	27150A	3	**	5000	1524.0	1855.0	843.2	.060	1.52	.65	16.51	392	1744	6.30	160.02
	27151A	4	**	5000	1524.0	2035.0	925.0	.060	1.52	.72	18.29	523	2327	6.80	172.72
6 AWG Multi-conductor Stranded (7x14) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27152A**	2	**	Bulk*	Bulk*	—	—	.060	1.52	.69	17.53	420	1868	6.80	172.72
	27153A	3	**	5000	1524.0	2390.0	1086.4	.060	1.52	.73	18.54	630	2803	7.00	177.80
	27154A	4	**	5000	1524.0	2860.0	1300.0	.060	1.52	.80	20.32	840	3737	7.80	198.12







**ICEA Method 4 Color Code

**ICEA Method 4 Color Code

E2 = Refer to Industrial Technical Information section for color code.

† Flat construction; overall shield not available.
†† Twisted Conductors.

**Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:		
12345	**A**	**S**
Start with core Part No.	add Conductor, Insulation, Jacket type	add "S" for optional Beldfoil® Shield

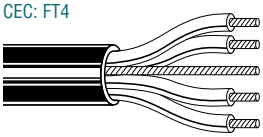
Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket
A	**B**	PVC-Nylon/PVC
C	**D**	XLPE/PVC
E	**F**	FRPO/PVC
G	**H**	XLPE/TPE
K	**L**	TPE/TPE
M	**N**	PVC-Nylon/Oil Res II
Q	**R**	XLPE/CPE
S	**T**	XLPE/Haloarrest® I

Control Cable

600V Type TC Cables

Description	Part No.	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Jacket Thickness		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
4 AWG Multi-conductor Stranded (7x12) Bare Copper															
PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)															
NEC: TC, NPLF CEC: FT4	**27155A**	2	**	Bulk*	Bulk*	—	—	.060	1.52	.77	19.56	664	2954	7.80	198.12
	27156A	3	**	5000	1524.0	3220.0	1463.6	.080	2.03	.82	20.83	995	4426	8.50	215.90
	27157A	4	**	Bulk*	Bulk*	—	—	.080	2.03	.97	24.64	1327	5903	9.50	241.30

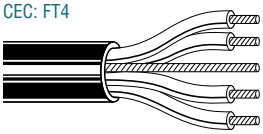


**ICEA Method 4 Color Code

2 AWG Multi-conductor Stranded (7x10) Bare Copper

PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)

NEC: TC, NPLF CEC: FT4	**27158A**	2	**	Bulk*	Bulk*	—	—	.080	2.03	.97	24.64	1055	4693	9.30	236.22
	27159A	3	**	5000	1524.0	5255.0	2388.6	.080	2.03	.98	24.89	1582	7038	10.00	254.00
	27160A	4	**	Bulk*	Bulk*	—	—	.080	2.03	1.09	27.69	2110	9387	11.00	279.40

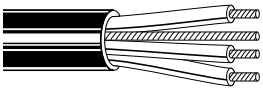


**ICEA Method 4 Color Code

1 AWG Multi-conductor Stranded (19x14) Bare Copper

PVC/Nylon Insulation and PVC Jacket Constructions (See chart below for other options)

NEC: TC, NPLF CEC: FT4	**27161A**	3	**	Bulk*	Bulk*	—	—	.080	2.03	1.15	29.21	1950	8675	11.50	292.10



**ICEA Method 4 Color Code

*Bulk = Non-stocked item. Specify length, 1 piece per reel.

To Specify:

12345 A S

Start with core Part No. — add Conductor, Insulation, Jacket type — add "S" for optional Beldfoil® Shield

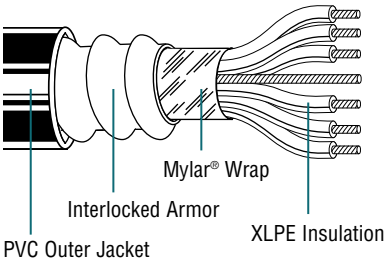
Conductor, Insulation and Jacket Options

Bare	Tinned	Insulation/Jacket
A	B	PVC-Nylon/PVC
C	D	XLPE/PVC
E	F	FRPO/PVC
G	H	XLPE/TPE
K	L	TPE/TPE
M	N	PVC-Nylon/Oil Res II
Q	R	XLPE/CPE
S	T	XLPE/Haloarrest® I

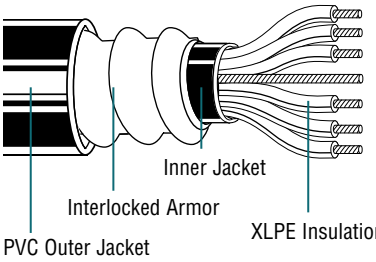
Control Cable

600V Type MC Metal Clad and Teck-Style® Cables — Overview

Metal Clad



Teck-Style



Introduction

Belden® Metal Clad (MC) and Teck-Style cables are designed to meet demanding industrial needs by combining rugged durability and corrosion resistance with flexibility and easy handling.

MC and Teck-Style cables are available in a wide range of in-stock and custom constructions to meet the needs of pulp and paper, chemical, petroleum and other demanding industrial and resource industry environments. They are ideal for use in wet or dry areas; ventilated, non-ventilated or ladder-type cable troughs; ventilated flexible cableways; and for direct burial. Custom cables are available to meet exacting requirements.

Belden Type MC Cable is marked sunlight-resistant for cable tray use in direct burial designations, and cable constructions are listed to NEC Type MC.

Teck-Style cables are price-competitive, high-performance, UL 1569 certified cables with a flame-retardant XHHW insulated conductor and an inner PVC jacket for mechanical moisture and corrosion protection.

Construction

Class B stranded bare copper conductors, cross-linked polyethylene insulation, bare copper ground wire, standard aluminum or optional galvanized steel interlocking armor, PVC outer jacket.

- Thermoset insulation — XHHW-2 conductors
- NEC conductor temperature 90°C dry and 90°C wet

Voltage Rating

14 AWG — 2 AWG: 600 Volt

Application

Type MC Cable is a general-purpose cable used in the pulp and paper, mining, petroleum and chemical industries as well as in commercial buildings.

MC Cable may be used under the following conditions:

- Exposed or concealed wiring in dry or wet conditions
- In ventilated, non-ventilated or ladder-type cable trays in dry or wet conditions
- On walls or beams
- Directly buried
- Class I and II Div. 2 and Class III Div. 1 and 2 hazardous locations

Minimum Bending Radius

12 times the overall cable diameter

Pulling Tensions:

The combined use of Kellems grips and pulling eyes is recommended.

Design Advantages

Insulation Properties

- High tensile strength
- Impact- and crush-resistant
- Heat-resistant
- Excellent elongation
- Moisture-resistant
- Good low temperature properties
- 90°C dry and 90°C wet

Electrical Properties

- High insulation resistance
- Low dielectric loss
- High dielectric strength

Other Features

- Corrosion-resistant
- Versatile and flexible
- Provides cost savings as conduit and ducts are not required

Specifications

- UL 44
- UL 1569
- UL 1581 (70,000 BTU/hr) Vertical Tray Flame Test
- Meets IEEE 1202 Flame Test

Mylar is a DuPont trademark.

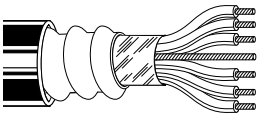
Control Cable

600V Type MC Metal Clad Cables

14 AWG Stranded (7x22) Bare Copper • 14 AWG Bare Copper Ground Wire

Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket

NEC: MC

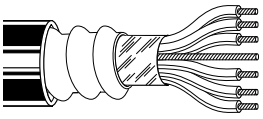


Description	Part Number		No. of Cond.	Insulation Thickness		Outer Jacket Thickness		Armor OD		Nominal OD		Minimum Bend Radius	
	Aluminum Armor	Steel Armor		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
	27243	**28243**	2	.030	.76	.050	1.27	.48	12.19	.58	14.73	7.3	185.42
	27244	**28244**	3	.030	.76	.050	1.27	.50	12.70	.61	15.49	7.6	193.04
	27245	**28245**	4	.030	.76	.050	1.27	.54	13.72	.64	16.26	7.9	200.66
	27246	**28246**	5	.030	.76	.050	1.27	.57	14.48	.68	17.27	8.4	213.36
	27247	**28247**	6	.030	.76	.050	1.27	.62	15.75	.72	18.29	8.9	226.06
	27248	**28248**	7	.030	.76	.050	1.27	.62	15.75	.72	18.29	8.9	226.06
	27269	**28269**	8	.030	.76	.050	1.27	.69	17.53	.80	20.32	9.4	238.76
	27535	**28535**	9	.030	.76	.050	1.27	.70	17.78	.80	20.32	10.0	254.00
	27249	**28249**	10	.030	.76	.050	1.27	.75	19.05	.85	21.59	10.5	266.70
	27250	**28250**	12	.030	.76	.050	1.27	.77	19.56	.87	22.10	10.8	274.32
	27251	**28251**	15	.030	.76	.050	1.27	.87	22.10	.98	24.89	11.6	294.64
	27969	**28969**	19	.030	.76	.050	1.27	1.00	25.40	1.11	28.19	12.1	307.34
	27252	**28252**	20	.030	.76	.050	1.27	1.03	26.16	1.14	28.96	13.3	337.82
	27270	**28270**	25	.030	.76	.050	1.27	1.10	27.94	1.21	30.73	14.4	365.76
	27253	**28253**	30	.030	.76	.050	1.27	1.18	29.97	1.29	32.77	15.1	383.54
	27292	**28292**	37	.030	.76	.050	1.27	1.14	28.96	1.24	31.50	16.1	408.94
	27433	**28433**	40	.030	.76	.050	1.27	1.28	32.51	1.40	35.56	16.7	424.18
	27434	**28434**	50	.030	.76	.050	1.27	1.40	35.56	1.52	38.61	18.4	467.36

12 AWG Stranded (7x20) Bare Copper • 12 AWG Bare Copper Ground Wire

Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket

NEC: MC



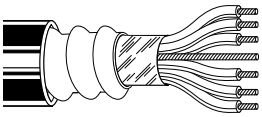
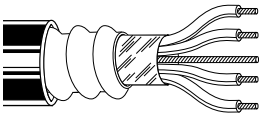
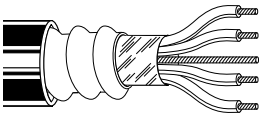
	27254	**28254**	2	.030	.76	.050	1.27	.52	13.21	.62	15.75	7.8	198.12
	27255	**28255**	3	.030	.76	.050	1.27	.54	13.72	.64	16.26	8.0	203.20
	27256	**28256**	4	.030	.76	.050	1.27	.58	14.73	.68	17.22	8.5	215.90
	27271	**28271**	5	.030	.76	.050	1.27	.62	15.75	.72	18.29	9.1	231.14
	27272	**28272**	6	.030	.76	.050	1.27	.67	17.02	.77	19.56	9.6	243.84
	27273	**28273**	7	.030	.76	.050	1.27	.67	17.02	.77	19.56	9.6	243.84
	27274	**28274**	8	.030	.76	.050	1.27	.77	19.56	.88	22.35	10.2	259.08
	27538	**28538**	9	.030	.76	.050	1.27	.76	19.30	.86	21.84	10.8	274.32
	27275	**28275**	10	.030	.76	.050	1.27	.80	20.32	.91	23.11	11.5	292.10
	27276	**28276**	12	.030	.76	.050	1.27	.84	21.34	.94	23.88	11.7	297.18
	27277	**28277**	15	.030	.76	.050	1.27	.94	23.88	1.05	26.67	13.4	340.36
	27539	**28539**	19	.030	.76	.055	1.40	1.05	26.67	1.16	29.46	14.0	355.60
	27278	**28278**	20	.030	.76	.055	1.40	1.16	29.46	1.27	32.26	14.6	370.84
	27279	**28279**	25	.030	.76	.055	1.40	1.26	32.00	1.37	34.80	15.8	401.32
	27280	**28280**	30	.030	.76	.055	1.40	1.29	32.77	1.40	35.56	16.8	426.72
	27540	**28540**	37	.030	.76	.055	1.40	1.44	36.58	1.55	39.37	17.8	452.12
	27432	**28432**	40	.030	.76	.055	1.40	1.50	38.10	1.63	41.40	18.4	467.36

Color Code: Use ICEA Table E2 with printed numbers.

Non-stocked items. Specify length, 1 piece per reel.

Control Cable

600V Type MC Metal Clad Cables

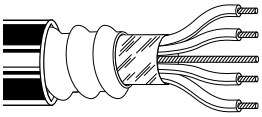
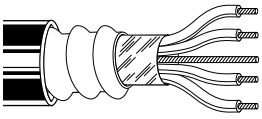
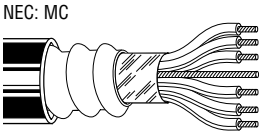
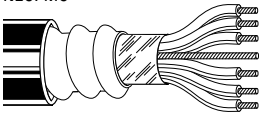
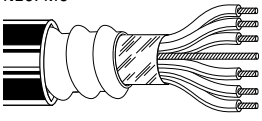
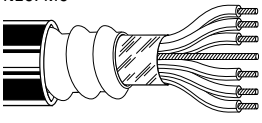
Description	Part Number		No. of Cond.	Insulation Thickness		Outer Jacket Thickness		Armor OD		Nominal OD		Minimum Bend Radius	
	Aluminum Armor	Steel Armor		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
10 AWG Stranded (7x18) Bare Copper • 10 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC 	**27257**	**28257**	2	.030	.76	.050	1.27	.56	14.22	.67	17.02	8.4	213.36
	27258	**28258**	3	.030	.76	.050	1.27	.58	14.73	.69	17.53	8.6	218.44
	27259	**28259**	4	.030	.76	.050	1.27	.62	15.75	.74	18.80	9.2	233.68
	27281	**28281**	5	.030	.76	.050	1.27	.68	17.27	.79	20.07	12.8	325.12
	27282	**28282**	6	.030	.76	.050	1.27	.74	18.80	.84	21.34	10.4	264.16
	27283	**28283**	7	.030	.76	.050	1.27	.74	18.80	.84	21.34	10.4	264.16
	27284	**28284**	8	.030	.76	.050	1.27	.81	20.57	.92	23.37	11.2	284.48
	27541	**28541**	9	.030	.76	.050	1.27	.87	22.10	.98	24.89	11.8	299.72
	27285	**28285**	10	.030	.76	.050	1.27	.89	22.61	1.03	26.16	13.3	337.82
	27286	**28286**	12	.030	.76	.050	1.27	1.01	25.65	1.12	28.45	13.7	347.98
	27287	**28287**	15	.030	.76	.050	1.27	1.09	27.69	1.22	30.99	14.8	375.92
	27288	**28288**	20	.030	.76	.055	1.40	1.22	30.99	1.35	34.24	16.2	411.48
	27289	**28289**	25	.030	.76	.055	1.40	1.32	33.53	1.47	37.34	17.8	452.12
	27290	**28290**	30	.030	.76	.055	1.40	1.42	36.07	1.55	39.37	18.6	472.44
8 AWG Stranded (7x16) Bare Copper • 10 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC 	**27291**	**28291**	2	.045	1.14	.050	1.27	.70	17.78	.81	20.57	9.8	248.92
	27260	**28260**	3	.045	1.14	.050	1.27	.72	18.29	.82	20.83	10.2	259.08
	27261	**28261**	4	.045	1.14	.050	1.27	.78	19.81	.88	22.35	10.9	276.86
6 AWG Stranded (7x14) Bare Copper • 8 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC 	**27293**	**28293**	2	.045	1.14	.050	1.27	.76	19.30	.87	22.10	10.7	271.78
	27262	**28262**	3	.045	1.14	.050	1.27	.80	20.32	.90	22.86	11.2	284.48
	27263	**28263**	4	.045	1.14	.050	1.27	.87	22.10	.97	24.64	12.1	307.34

Color Code: For sizes 14, 12, 10, use ICEA Table E2 with printed numbers.
For sizes 8 and larger, use ICEA Method 4 with printed numbers.

Non-stocked items. Specify length, 1 piece per reel.

Control Cable

600V Type MC Metal Clad Cables

Description	Part Number		No. of Cond.	Insulation Thickness		Outer Jacket Thickness		Armor OD		Nominal OD		Minimum Bend Radius	
	Aluminum Armor	Steel Armor		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
4 AWG Stranded (7x12) Bare Copper • 8 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC	**27264**	**28264**	3	.045	1.14	.050	1.27	.90	22.86	1.00	25.40	13.1	332.74
	**27265**	**28265**	4	.045	1.14	.050	1.27	1.97	50.04	1.08	27.43	14.2	360.68
2 AWG Stranded (7x10) Bare Copper • 6 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC	**27267**	**28267**	3	.045	1.14	.050	1.27	1.02	25.78	1.13	28.58	14.7	373.38
	**27268**	**28268**	4	.045	1.14	.050	1.27	1.11	28.27	1.22	30.99	15.9	403.86
Composite 14 AWG (7x22) **and 12 AWG** (7x20) Stranded Bare Copper • 12 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC	**27428**	**28428**	3c/14 3c/12	.030 .030	.76 .76	.050	1.27	.70	17.78	.81	20.57	9.7	246.38
													
Composite 14 AWG (7x22) **and 10 AWG** (7x18) Stranded Bare Copper • 10 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC	**27429**	**28429**	3c/14 3c/10	.030 .030	.76 .76	.050	1.27	.74	18.80	.85	21.39	10.2	259.08
													
Composite 14 AWG (7x22) **and 8 AWG** (7x16) Stranded Bare Copper • 10 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC	**27430**	**28430**	3c/14 3c/8	.030 .045	.76 1.14	.050	1.27	.83	21.08	.94	23.88	11.2	284.48
													
Composite 14 AWG (7x22) **and 6 AWG** (7x14) Stranded Bare Copper • 8 AWG Bare Copper Ground Wire													
Aluminum or Steel Interlocked Armor • Cross-linked Polyethylene Insulation • PVC Jacket													
NEC: MC	**27431**	**28431**	3c/14 3c/6	.030 .045	.76 1.14	.050	1.27	.89	22.61	1.01	25.65	12.0	304.80
													

Color Code: For sizes 14, 12, 10, use ICEA Table E2 with printed numbers.
For sizes 8 and larger, use ICEA Method 4 with printed numbers.

Non-stocked items. Specify length, 1 piece per reel.

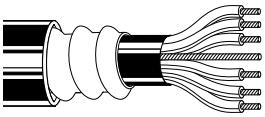
Control Cable

600V Type MC Teck-Style® Cables

14 AWG Stranded (7x22) Bare Copper • 14 AWG Bare Copper Ground Wire

Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket

NEC: MC

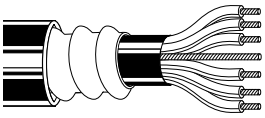


Description	Part Number		No. of Cond.	Insulation Thickness		Inner Jacket OD		Armor OD		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
	Aluminum Armor	Steel Armor		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
	27840	28840	2	.030	.76	.37	9.40	.56	14.22	.67	17.02	66	294	8.0	203
	27841	28841	3	.030	.76	.39	9.91	.58	14.73	.69	17.53	98	436	8.3	211
	27842	28842	4	.030	.76	.43	10.92	.62	15.75	.73	18.54	131	583	8.7	221
	27843	28843	5	.030	.76	.47	11.94	.66	16.76	.77	19.56	164	730	9.2	234
	27844	28844	6	.030	.76	.51	12.95	.70	17.78	.81	20.57	191	850	9.7	246
	27845	28845	7	.030	.76	.51	12.95	.70	17.78	.81	20.57	225	1001	9.7	246
	27846	28846	8	.030	.76	.58	14.73	.77	19.56	.88	22.35	260	1157	10.5	267
	27847	28847	10	.030	.76	.67	17.02	.93	23.62	1.04	26.42	321	1428	12.5	318
	27848	28848	12	.030	.76	.69	17.53	.95	24.13	1.06	26.92	388	1726	12.7	323
	27849	28849	15	.030	.76	.77	19.56	1.03	26.16	1.14	28.96	481	2140	13.7	348
	27850	28850	20	.030	.76	.86	21.84	1.12	28.45	1.23	31.24	649	2887	15.3	389
	27851	28851	25	.030	.76	.92	23.37	1.18	29.97	1.30	33.02	810	3603	16.3	414
	27852	28852	30	.030	.76	.98	24.89	1.24	31.50	1.36	34.54	975	4337	17.0	432
	27885	28885	40	.030	.76	1.09	27.69	1.35	34.29	1.47	37.34	1301	5788	18.5	470
	27886	28886	50	.030	.76	1.19	30.23	1.45	36.83	1.57	39.88	1630	7251	19.8	503

12 AWG Stranded (7x20) Bare Copper • 12 AWG Bare Copper Ground Wire

Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket

NEC: MC



	27853	28853	2	.030	.76	.41	10.41	.60	15.24	.71	18.03	104	463	8.5	206
	27854	28854	3	.030	.76	.43	10.92	.62	15.75	.73	18.54	156	694	8.8	224
	27855	28855	4	.030	.76	.47	11.94	.66	16.76	.77	19.56	207	921	9.2	234
	27856	28856	5	.030	.76	.52	13.21	.71	18.03	.82	20.83	260	1157	9.8	249
	27857	28857	6	.030	.76	.59	14.99	.78	19.81	.89	22.61	310	1379	10.7	272
	27858	28858	7	.030	.76	.59	14.99	.78	19.81	.89	22.61	361	1606	10.7	272
	27859	28859	8	.030	.76	.64	16.26	.83	21.08	.94	23.88	415	1846	11.3	287
	27860	28860	10	.030	.76	.75	19.05	1.01	25.65	1.12	28.45	520	2313	13.4	340
	27861	28861	12	.030	.76	.77	19.56	1.03	26.16	1.14	28.96	619	2754	13.7	348
	27862	28862	15	.030	.76	.87	22.10	1.13	28.70	1.25	31.75	718	3194	15.0	381
	27863	28863	20	.030	.76	.96	24.38	1.22	30.99	1.33	32.78	1040	4627	15.9	404
	27864	28864	25	.030	.76	1.04	26.42	1.30	33.02	1.42	36.07	1301	5788	17.0	432
	27865	28865	30	.030	.76	1.15	29.21	1.41	35.81	1.53	38.86	1560	6940	18.3	465
	27887	28887	40	.030	.76	1.20	30.48	1.54	39.12	1.67	42.42	2020	8986	20.0	508

Color Code: Use ICEA Table E2 with printed numbers.

Non-stocked items. Specify length, 1 piece per reel.

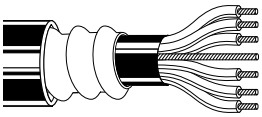
Control Cable

600V Type MC Teck-Style® Cables

10 AWG Stranded (7x18) Bare Copper • 10 AWG Bare Copper Ground Wire

Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket

NEC: MC

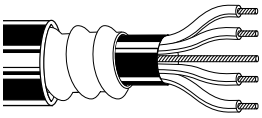


Part Number		No. of Cond.	Insulation Thickness		Inner Jacket OD		Armor OD		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
Aluminum Armor	Steel Armor		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
27866	**28866**	2	.030	.76	.46	11.68	.65	16.51	.74	18.80	166	738	9.1	231
27867	**28867**	3	.030	.76	.48	12.19	.67	17.02	.77	16.56	249	1108	9.4	239
27868	**28868**	4	.030	.76	.56	14.22	.75	19.05	.84	21.34	330	1468	10.3	262
27869	**28869**	5	.030	.76	.67	17.02	.86	21.84	.96	24.38	415	1846	11.6	295
27870	**28870**	6	.030	.76	.67	17.02	.86	21.84	.96	24.38	491	2184	11.6	295
27877	**28877**	7	.030	.76	.70	17.78	.90	22.86	1.00	25.40	560	2491	12.1	307
27878	**28878**	8	.030	.76	.75	19.05	.95	24.13	1.05	26.67	640	2847	12.7	323
27879	**28879**	10	.030	.76	.78	19.81	1.04	26.42	1.15	29.21	801	3563	13.8	351
27880	**28880**	12	.030	.76	.89	22.61	1.15	29.21	1.26	32.00	960	4271	15.1	384
27881	**28881**	15	.030	.76	.93	23.62	1.19	30.23	1.30	33.02	1195	5316	15.6	396
27882	**28882**	20	.030	.76	1.06	26.92	1.32	33.53	1.44	36.58	1600	7118	17.3	439
27883	**28883**	25	.030	.76	1.12	28.45	1.44	36.58	1.58	40.13	1990	8853	19.0	483
27884	**28884**	30	.030	.76	1.28	32.51	1.54	39.12	1.67	42.42	2355	10477	20.0	508

8 AWG Stranded (7x16) Bare Copper • 10 AWG Bare Copper Ground Wire

Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket

NEC: MC

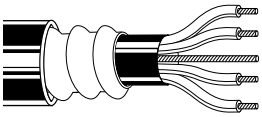


27871	**28871**	2	.045	1.14	.59	14.99	.78	19.81	.89	22.61	264	1174	10.7	272
27872	**28872**	3	.045	1.14	.62	15.75	.81	20.57	.91	23.11	396	1762	10.9	277
27873	**28873**	4	.045	1.14	.68	17.27	.94	23.88	1.05	26.67	528	2349	12.6	320

6 AWG Stranded (7x14) Bare Copper • 8 AWG Bare Copper Ground Wire

Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket

NEC: MC

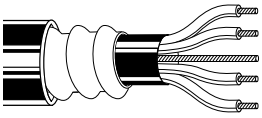


27874	**28874**	2	.060	1.52	.71	18.03	.97	24.64	1.08	27.43	420	1868	13.0	330
27875	**28875**	3	.060	1.52	.76	19.30	1.02	25.91	1.13	28.70	630	2803	13.5	343
27876	**28876**	4	.060	1.52	.88	23.35	1.14	28.96	1.25	31.75	840	3737	15.0	381

4 AWG Stranded (7x12) Bare Copper • 8 AWG Bare Copper Ground Wire

Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket

NEC: MC

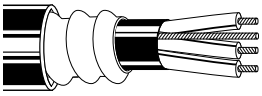


27894	**28894**	3	.060	1.52	.91	23.11	1.17	29.72	1.29	32.77	1002	4458	15.5	394
27895	**28895**	4	.060	1.52	.99	25.15	1.25	31.75	1.37	34.80	1335	5939	16.4	417

3 AWG Stranded (7x11) Bare Copper • 6 AWG Bare Copper Ground Wire

Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket

NEC: MC



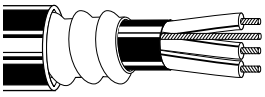
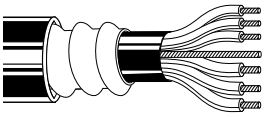
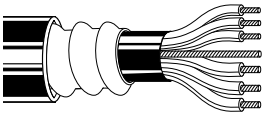
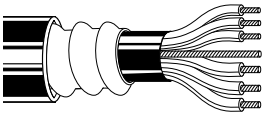
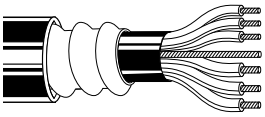
27896	**28896**	3	.060	1.52	.96	24.38	1.22	30.99	1.33	33.78	1263	5619	16.0	406

Color Code: For sizes 14, 12, 10, use ICEA Table E2 with printed numbers.
For sizes 8 and larger, use ICEA Method 4 with printed numbers.

Non-stocked items. Specify length, 1 piece per reel.

Control Cable

600V Type MC Teck-Style® Cables

Description	Part Number		No. of Cond.	Insulation Thickness		Inner Jacket OD		Armor OD		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
	Aluminum Armor	Steel Armor		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
2 AWG Stranded (7x10) Bare Copper • 6 AWG Bare Copper Ground Wire															
Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket															
NEC: MC	**27888**	**28888**	3	.060	1.52	1.08	27.43	1.28	32.51	1.40	35.56	1593	7087	16.8	427
	**27889**	**28889**	4	.060	1.52	1.12	28.45	1.38	35.05	1.50	38.10	2124	9449	18.0	457
Composite 14 AWG (7x22) **and 12 AWG** (7x20) • 12 AWG Bare Copper Ground Wire															
Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket															
NEC: MC	**27890**	**28890**	3c/14	.030	.76	.56	14.22	.75	19.05	.86	21.84	202	899	10.3	262
			3c/12	.030	.76										
Composite 14 AWG (7x22) **and 10 AWG** (7x18) • 10 AWG Bare Copper Ground Wire															
Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket															
NEC: MC	**27891**	**28891**	3c/14	.030	.76	.61	15.49	.80	20.32	.91	23.11	305	1357	10.9	277
			3c/10	.030	.76										
Composite 14 AWG (7x22) **and 8 AWG** (7x16) • 10 AWG Bare Copper Ground Wire															
Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket															
NEC: MC	**27892**	**28892**	3c/14	.045	1.14	.70	17.78	.96	24.38	1.07	27.18	435	1935	12.8	325
			3c/8	.030	.76										
Composite 14 AWG (7x22) **and 6 AWG** (7x14) • 8 AWG Bare Copper Ground Wire															
Aluminum or Steel Armor • Cross-linked Polyethylene Insulation • PVC Inner Jacket • PVC Outer Jacket															
NEC: MC	**27893**	**28893**	3c/14	.060	1.52	.90	22.86	1.15	29.21	1.26	32.00	655	2914	15.1	384
			3c/6	.030	.76										

Color Code: For sizes 14, 12, 10, use ICEA Table E2 with printed numbers.
For sizes 8 and larger, use ICEA Method 4 with printed numbers.

Non-stocked items. Specify length, 1 piece per reel.

CSA Instrumentation Cable

300V CIC

Belden offers a complete line of high performance and high quality CSA certified instrumentation cables (300V/600V and CIC/ACIC). These cables are designed to minimize noise and signal interference to deliver clean signals in harsh petrochemical, pulp and paper and process industry environments, as well as for use in general manufacturing operations.

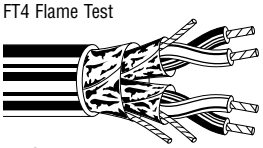
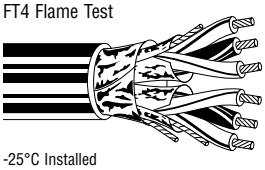
Contact Belden Customer Service for other options:

- 150V
- XLPE insulation
- Thermocouple alloy conductors
- Overall foil shield only
- Other pair and triad counts

Description	Part Number	No. of Pairs or Triads	Cable Weight		Jacket Thickness		Nominal OD	
			Lbs./1000 Ft.	kg/km	Inch	mm	Inch	mm
20 AWG Pairs Stranded (7x28) Tinned Copper • Individual Beldfoil® + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires								
PVC Insulation • Black PVC Jacket (Color Code: Black and White with Numbers)								
CSA C22.2#239, Type CIC CSA C22.2 #0.3 Clause 4.31 Low Acid Test FT4 Flame Test	**22671**	1	71	48	.045	1.14	.260	6.60
	22638	2	143	96	.045	1.14	.400	10.16
	22639	4	217	146	.045	1.14	.460	11.68
	22640	6	320	215	.045	1.14	.570	14.48
	22641	8	405	272	.060	1.52	.610	15.49
	22676	12	573	385	.060	1.52	.730	18.54
	22643	16	722	485	.060	1.52	.810	20.57
	22647	24	1103	741	.080	2.03	1.040	26.42
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22670**	36	1548	1040	.080	2.03	1.190	30.23
20 AWG Triads Stranded (7x28) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires								
PVC Insulation • Black PVC Jacket (Color Code: Black, White and Red with Numbers)								
CSA C22.2#239, Type CIC CSA C22.2 #0.3 Clause 4.31 Low Acid Test FT4 Flame Test	**22660**	1	89	60	.045	1.14	.270	6.86
	22662	2	177	119	.045	1.14	.420	10.67
	22663	4	277	186	.045	1.14	.490	12.47
	22672	8	521	350	.060	1.52	.650	16.51
	22673	16	1000	672	.080	2.03	.910	23.11
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22674**	24	1414	950	.080	2.03	1.110	28.19
18 AWG Pairs Stranded (7x26) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires								
PVC Insulation • Black PVC Jacket (Color Code: Black and White with Numbers)								
CSA C22.2#239, Type CIC CSA C22.2 #0.3 Clause 4.31 Low Acid Test FT4 Flame Test	**22645**	1	97	65	.045	1.14	.300	7.62
	22633	2	196	132	.045	1.14	.480	12.45
	22648	4	338	227	.045	1.14	.580	14.73
	22634	6	473	318	.060	1.52	.670	17.02
	22635	8	570	283	.060	1.52	.730	18.54
	22636	12	869	584	.060	1.52	.920	23.37
	22654	16	1095	736	.080	2.03	1.020	25.91
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22637**	24	1552	1045	.080	2.03	1.260	32.00
18 AWG Triads Stranded (7x26) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires								
PVC Insulation • Black PVC Jacket (Color Code: Black, White and Red with Numbers)								
CSA C22.2#239, Type CIC CSA C22.2 #0.3 Clause 4.31 Low Acid Test FT4 Flame Test	**22677**	1	121	81	.045	1.14	.303	7.70
	22678	2	256	172	.045	1.14	.480	12.19
	22679	4	427	287	.060	1.52	.620	15.75
	22680	8	597	401	.060	1.52	.710	18.03
	22681	16	740	497	.060	1.52	.770	19.56
	22682	24	1130	759	.080	2.03	.980	24.89
	22683	16	1436	965	.080	2.03	1.090	27.69
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22684**	24	2049	1377	.080	2.03	1.340	34.04

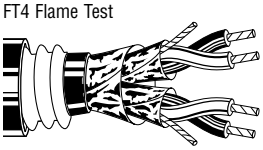
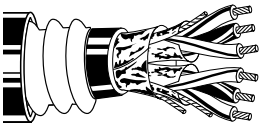
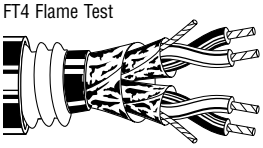
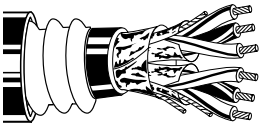
CSA Instrumentation Cable

300V CIC

Description	Part Number	No. of Pairs or Triads	Cable Weight		Jacket Thickness		Nominal OD	
			Lbs./1000 Ft.	kg/km	Inch	mm	Inch	mm
16 AWG Pairs Stranded (7x24) Tinned Copper • Individual Beldfoil® + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires								
PVC Insulation • Black PVC Jacket (Color Code: Black and White with Numbers)								
CSA C22.2#239, Type CIC CSA C22.2 #0.3 Clause 4.31 Low Acid Test FT4 Flame Test  -25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22646**	1	122	82	.045	1.14	.320	8.13
	22628	2	262	176	.045	1.14	.520	13.21
	22629	4	438	294	.060	1.52	.628	15.95
	22630	6	603	405	.060	1.52	.740	18.80
	22631	8	752	505	.060	1.52	.800	20.32
	22632	12	350	771	.080	2.03	1.010	25.65
	22685	16	1461	982	.080	2.03	1.120	28.45
	22686	24	2091	1405	.080	2.03	1.380	35.05
16 AWG Triads Stranded (7x24) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires								
PVC Insulation • Black PVC Jacket (Color Code: Black, White and Red with Numbers)								
CSA C22.2#239, Type CIC CSA C22.2 #0.3 Clause 4.31 Low Acid Test FT4 Flame Test  -25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22603**	1	152	102	.045	1.14	.329	8.36
	22687	2	344	231	.045	1.14	.580	14.73
	22675	4	564	379	.060	1.52	.670	17.02
	22688	6	819	550	.060	1.52	.780	19.81
	22689	8	1063	714	.080	2.03	.940	23.90
	22690	12	1524	1024	.080	2.03	1.080	27.43

CSA Instrumentation Cable

300V ACIC Armored Cables

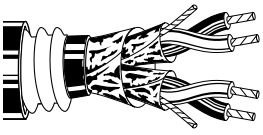
Description	Part No.		No. of Pairs/ Triads	Cable Weight Aluminum Armor		Cable Weight Steel Armor		Insulation Thickness		Nominal OD Inner Jacket		Nominal OD Outer Jacket	
	Aluminum Armor	Steel Armor		Lbs./ 1000 Ft.	kg/km	Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm
20 AWG Pairs Stranded (7x28) Tinned Copper • Individual Beldfoil® + Polyester Isolation Tape • Overall Beldfoil • Drain Wires													
Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket													
CSA C22.2#239, Type ACIC CSA C22.2#174, HLABCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**23543**	**26530**	1	140	208	230	342	.020	.51	.26	6.6	.56	14.2
	23534	**26531**	2	206	306	325	483	.020	.51	.40	10.2	.70	17.8
	23514	**26532**	4	255	379	390	580	.020	.51	.46	11.7	.76	19.3
	23513	**26533**	6	297	441	494	734	.020	.51	.57	14.5	.88	22.4
	**23503**	**26534**	8	361	537	565	840	.020	.51	.63	16.0	.92	23.5
	23521	**26535**	12	480	713	682	1010	.020	.51	.75	19.1	1.06	26.9
	23532	**26536**	16	600	891	900	1337	.020	.51	.79	20.1	1.16	29.5
	23506	**26537**	24	800	1188	1175	1745	.020	.51	1.05	26.7	1.42	36.1
	23544	**26538**	36	1050	1559	1500	2228	.020	.51	1.14	29.0	1.57	39.8
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**23575**	**26546**	50	1468	2180	2010	2985	.020	.51	1.37	34.8	1.75	44.5
20 AWG Triads Stranded (7x28) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil • Drain Wires													
Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket													
CSA C22.2#239, Type ACIC CSA C22.2#174, HLBCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**23545**	**26539**	1	139	207	235	350	.020	.51	.27	6.9	.57	14.5
	23546	**26540**	2	210	312	345	513	.020	.51	.43	10.9	.73	18.5
	23547	**26541**	4	270	401	425	631	.020	.51	.50	12.7	.80	20.3
	23548	**26542**	8	444	660	650	965	.020	.51	.69	17.5	1.00	25.4
	**23571**	**26553**	12	632	940	970	1440	.020	.51	.82	20.8	1.24	31.5
	23549	**26543**	16	740	1100	1090	1619	.020	.51	.91	23.1	1.28	32.5
	23550	**26544**	24	990	1410	1360	2020	.020	.51	1.11	28.2	1.48	37.6
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)													
18 AWG Pairs Stranded (7x26) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil • Drain Wires													
Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket													
CSA C22.2#239, Type ACIC CSA C22.2#174, HLABCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**23533**	**26514**	1	160	237	258	383	.025	.64	.30	7.6	.60	15.2
	23511	**26515**	2	247	367	384	570	.025	.64	.48	12.2	.78	19.8
	23530	**26516**	4	340	505	500	745	.025	.64	.58	14.7	.88	22.4
	23528	**26517**	6	420	625	610	906	.025	.64	.67	17.0	.98	24.9
	**23531**	**26518**	8	543	808	827	1230	.025	.64	.73	18.5	1.03	26.1
	23524	**26519**	12	717	1065	1045	1555	.025	.64	.90	22.9	1.28	32.6
	23519	**26520**	16	850	1265	1210	1800	.025	.64	.99	25.1	1.37	34.8
	23542	**26521**	24	1100	1632	1510	2245	.025	.64	1.24	31.5	1.63	41.4
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**23554**	**26555**	36	1465	2180	1960	2910	.025	.64	1.41	35.8	1.80	45.7
18 AWG Triads Stranded (7x26) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil • Drain Wires													
Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket													
CSA C22.2#239, Type ACIC CSA C22.2#174, HLBCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**23505**	**26522**	1	175	260	275	410	.025	.64	.33	8.4	.61	15.4
	23516	**26523**	2	275	407	417	620	.025	.64	.51	13.0	.81	20.6
	23515	**26524**	4	385	572	555	825	.025	.64	.62	15.7	.93	23.6
	23508	**26525**	6	535	790	780	1160	.025	.64	.75	19.1	1.11	28.2
	**23523**	**26526**	8	680	1010	995	1476	.025	.64	.81	20.6	1.18	30.0
	23512	**26527**	12	916	1360	1215	1805	.025	.64	1.03	26.2	1.40	35.6
	23537	**26528**	16	1020	1515	1400	2080	.025	.64	1.13	28.7	1.50	38.1
	23536	**26529**	24	1335	1985	1775	2340	.025	.64	1.37	34.8	1.80	45.7
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)													

Color Code: Pairs — Black and White with Numbers.
Triads — Black, White and Red with Numbers.

CSA Instrumentation Cable

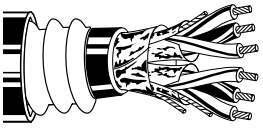
300V ACIC Armored Cables

Description	Part No.		No. of Pairs/ Triads	Cable Weight Aluminum Armor		Cable Weight Steel Armor		Insulation Thickness		Nominal OD Inner Jacket		Nominal OD Outer Jacket	
	Aluminum Armor	Steel Armor		Lbs./ 1000 Ft.	kg/km	Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm
16 AWG Pairs Stranded (7x24) Tinned Copper • Individual Beldfoil® + Polyester Isolation Tape • Overall Beldfoil • Drain Wires													
Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket													
CSA C22.2#239, Type ACIC CSA C22.2#174, HLABCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**23501**	**26500**	1	175	262	280	417	.025	.64	.33	8.4	.62	15.7
	23527	**26501**	2	280	418	425	635	.025	.64	.52	13.2	.81	20.5
	23509	**26503**	4	395	590	570	848	.025	.64	.63	16.0	.93	23.6
	23500	**26504**	6	510	755	715	1065	.025	.64	.73	18.5	1.03	26.2
	23510	**26505**	8	625	930	910	1354	.025	.64	.79	20.1	1.16	29.5
	23525	**26506**	12	875	1300	1230	1828	.025	.64	1.00	25.4	1.37	34.8
	23539	**26507**	16	1054	1570	1445	2150	.025	.64	1.11	28.2	1.48	37.6
	23538	**26508**	24	1397	2080	1840	2739	.025	.64	1.36	34.5	1.75	44.5
	23568	**26551**	36	1920	2856	2460	3658	.025	.64	1.60	40.6	1.97	49.9



-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

16 AWG Triads Stranded (7x24) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil • Drain Wires													
Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket													
CSA C22.2#239, Type ACIC CSA C22.2#174, HLBCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**23507**	**26502**	1	190	280	295	438	.025	.64	.35	8.9	.63	16.1
	23522	**26509**	2	342	508	500	746	.025	.64	.58	14.7	.90	22.9
	23520	**26510**	4	450	677	640	954	.025	.64	.68	17.3	.95	25.2
	23529	**26511**	6	650	967	928	1375	.025	.64	.78	19.8	1.19	30.2
	23526	**26512**	8	825	1227	1130	1676	.025	.64	.93	23.6	1.30	33.0
	23541	**26513**	12	1082	1610	1511	2250	.025	.64	1.13	28.7	1.50	38.1
	23567	**26545**	16	1285	1912	1705	2530	.025	.64	1.25	31.8	1.64	41.7
	23578	**26547**	24	1725	2560	2200	3268	.025	.64	1.58	40.1	1.95	49.4



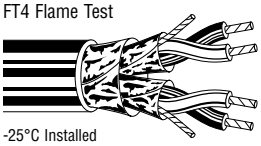
-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

Color Code: Pairs — Black and White with Numbers.
Triads — Black, White and Red with Numbers.

CSA Instrumentation Cable

600V CIC

Description	Part Number	No. of Pairs or Triads	Cable Weight		Jacket Thickness		Nominal OD	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm
18 AWG Pairs Stranded (7x26) Tinned Copper • Individual Beldfoil® + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires								
PVC Insulation • Black PVC Jacket (Color Code: Black and White with Numbers)								
CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22417**	1	109	73	.045	1.14	.32	8.13
	22405	2	229	154	.045	1.14	.51	12.95
	22404	4	374	251	.060	1.52	.63	16.00
	22418	8	632	425	.060	1.52	.79	20.07
	22421	12	970	652	.080	2.03	1.00	25.40
	22419	24	1741	1170	.080	2.03	1.36	34.54

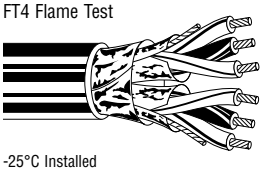


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

18 AWG Triads Stranded (7x26) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires

PVC Insulation • Black PVC Jacket (Color Code: Black, White and Red with Numbers)

CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22442**	1	131	88	.045	1.14	.34	8.64
	22443	2	299	201	.060	1.52	.58	14.73
	22444	4	476	320	.060	1.52	.68	16.73
	22445	8	893	600	.080	2.03	.88	22.35

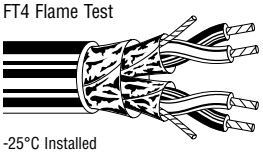


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

16 AWG Pairs Stranded (7x24) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires

PVC Insulation • Black PVC Jacket (Color Code: Black and White with Numbers)

CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22416**	1	129	87	.045	1.14	.34	8.64
	22409	2	229	201	.045	1.14	.59	14.99
	22410	4	469	315	.060	1.52	.68	17.27
	22446	6	667	448	.060	1.52	.79	20.07
	22411	8	841	565	.080	2.03	.90	22.86
	22412	12	1235	830	.080	2.03	1.09	27.69
	22447	24	2250	1512	.080	2.03	1.49	37.85

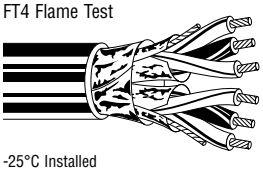


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

16 AWG Triads Stranded (7x24) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil Shield • Drain Wires

PVC Insulation • Black PVC Jacket (Color Code: Black, White and Red with Numbers)

CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22413**	1	167	112	.045	1.14	.36	9.14
	22448	2	372	250	.045	1.14	.62	15.75
	22414	4	606	407	.060	1.52	.72	18.29
	22415	8	1144	769	.080	2.03	.96	24.38

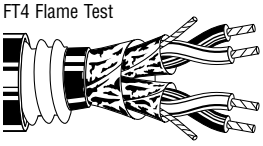


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

CSA Instrumentation Cable

600V ACIC Armored Cables

Description	Part No.		No. of Pairs/ Triads	Cable Weight Aluminum Armor		Cable Weight Steel Armor		Insulation Thickness		Nominal OD Inner Jacket		Nominal OD Outer Jacket	
	Aluminum Armor	Steel Armor		Lbs./ 1000 Ft.	kg/km	Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm
18 AWG Pairs Stranded (7x26) Tinned Copper • Individual Beldfoil® + Polyester Isolation Tape • Overall Beldfoil • Mylar® Separator • Drain Wires													
Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket													
CSA C22.2#239, Type ACIC CSA C22.2#174, HLABCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**24511**	**25506**	1	154	229	257	382	.030	.76	.32	8.13	.61	15.49
	24512	**25514**	2	238	354	387	575	.030	.76	.51	12.95	.82	20.83
	24513	**25503**	4	335	499	504	750	.030	.76	.63	16.00	.93	23.62
	24514	**25505**	8	536	798	829	1233	.030	.76	.79	20.27	1.15	29.21
	24515	**25501**	12	739	1100	1092	1624	.030	.76	1.00	25.40	1.36	34.54
	24520	**25517**	24	1169	1740	1674	2490	.030	.76	1.36	34.54	1.75	44.45

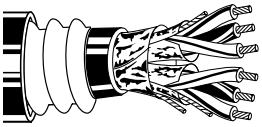


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

18 AWG Triads Stranded (7x26) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil • Drain Wires

Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket

CSA C22.2#239, Type ACIC CSA C22.2#174, HLBCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**24516**	**25500**	1	166	246	276	410	.030	.76	.34	8.64	.63	16.00
	24517	**25522**	2	293	435	455	676	.030	.76	.58	14.73	.89	22.61
	24518	**25520**	4	391	583	572	851	.030	.76	.66	16.76	.99	25.15
	24519	**25523**	8	673	1002	988	1470	.030	.76	.88	22.35	1.29	32.77

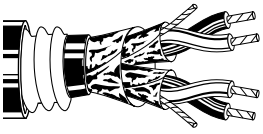


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

16 AWG Pairs Stranded (7x24) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil • Mylar Separator • Drain Wires

Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket

CSA C22.2#239, Type ACIC CSA C22.2#174, HLABCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**24500**	**25504**	1	171	254	279	415	.030	.76	.34	8.64	.64	16.26
	24505	**25510**	2	299	445	455	677	.030	.76	.59	14.99	.89	22.61
	24502	**25511**	4	450	669	583	868	.030	.76	.68	17.27	.98	24.89
	24506	**25512**	6	576	857	880	1310	.030	.76	.79	20.07	1.16	29.46
	24503	**25513**	8	679	1010	1005	1495	.030	.76	.90	22.86	1.27	32.26
	24504	**25518**	12	908	1351	1280	1905	.030	.76	1.09	27.69	1.46	37.08
	24510	**25519**	24	1502	2235	2030	3020	.030	.76	1.49	37.85	1.88	47.75

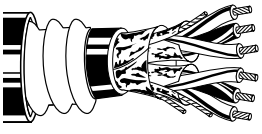


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

16 AWG Triads Stranded (7x24) Tinned Copper • Individual Beldfoil + Polyester Isolation Tape • Overall Beldfoil • Drain Wires

Interlocked Armor • PVC Insulation • PVC Inner Jacket • Chrome PVC Outer Jacket

CSA C22.2#239, Type ACIC CSA C22.2#174, HLBCD CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**24501**	**25502**	1	195	289	309	460	.030	.76	.36	9.14	.66	16.76
	24507	**25507**	2	339	504	465	691	.030	.76	.62	15.75	.94	23.88
	24508	**25509**	4	464	690	793	1180	.030	.76	.72	18.29	1.05	26.67
	24509	**25508**	8	807	1201	1250	1860	.030	.76	.96	24.38	1.33	33.78



-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

Color Code: Pairs — Black and White with Numbers.
Triads — Black, White and Red with Numbers.

Mylar is DuPont trademark.

CSA Control Cable

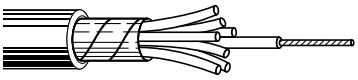
600V CIC Multi-conductor Cables

Description	Part Number	No. of Cond.	Cable Weight		Insulation Thickness		Jacket Thickness		Nominal OD	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm
14 AWG Stranded (7x22) Bare Copper Conductors										
Cross-linked Polyethylene Insulation • Black PVC Jacket (Color Code: Black and Numbered)										
CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22100**	2	62	92	.030	.76	.045	1.14	.367	9.32
	22101	3	81	120	.030	.76	.045	1.14	.388	9.86
	22102	4	101	150	.030	.76	.045	1.14	.423	10.74
	22103	5	122	181	.030	.76	.045	1.14	.462	11.73
	22104	6	143	213	.030	.76	.045	1.14	.504	12.80
	22105	7	160	238	.030	.76	.045	1.14	.504	12.80
	22106	8	197	293	.030	.76	.060	1.52	.576	14.63
	22107	9	220	326	.030	.76	.060	1.52	.618	15.70
	22108	10	226	336	.030	.76	.060	1.52	.669	17.00
	22110	12	279	415	.030	.76	.060	1.52	.689	17.50
	22114	16	357	531	.030	.76	.060	1.52	.764	19.41
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22118**	20	467	695	.030	.76	.080	2.03	.886	22.50
12 AWG Stranded (7x20) Bare Copper Conductors										
Cross-linked Polyethylene Insulation • Black PVC Jacket (Color Code: Black and Numbered)										
CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22120**	2	82	122	.030	.76	.045	1.14	.405	10.29
	22121	3	109	162	.030	.76	.045	1.14	.429	10.90
	22122	4	140	207	.030	.76	.045	1.14	.469	11.91
	22123	5	170	252	.030	.76	.045	1.14	.515	13.08
	22124	6	214	318	.030	.76	.060	1.52	.591	15.01
	22125	7	240	357	.030	.76	.060	1.52	.591	15.01
	22126	8	270	402	.030	.76	.060	1.52	.639	16.23
	22127	9	302	449	.030	.76	.060	1.52	.687	17.45
	22128	10	336	499	.030	.76	.060	1.52	.745	18.92
	22130	12	390	579	.030	.76	.060	1.52	.768	19.51
	22134	16	584	794	.030	.76	.080	2.03	.893	22.68
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22138**	20	655	975	.030	.76	.080	2.03	.992	25.20
10 AWG Stranded (7x18) Bare Copper Conductors										
Cross-linked Polyethylene Insulation • Black PVC Jacket (Color Code: Black and Numbered)										
CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22140**	2	148	219	.030	.76	.045	1.14	.736	18.69
	22141	3	189	281	.030	.76	.045	1.14	.763	19.38
	22142	4	248	368	.030	.76	.060	1.52	.839	21.31
	22143	5	293	436	.030	.76	.060	1.52	.891	22.63
	22144	6	338	503	.030	.76	.060	1.52	.944	23.98
	22145	7	378	562	.030	.76	.060	1.52	.944	23.98
	22146	8	424	630	.030	.76	.060	1.52	.999	25.37
	22147	9	469	698	.030	.76	.060	1.52	1.074	29.28
	22148	10	548	816	.030	.76	.080	2.03	1.182	30.02
	22150	12	631	939	.030	.76	.080	2.03	1.209	30.71
	22152	14	717	1067	.030	.76	.080	2.03	1.255	31.88
-25°C Installed -40°C to +105°C (Dry) (75°C Wet)	**22154**	16	805	1197	.030	.76	.080	2.03	1.307	33.20

CSA Control Cable

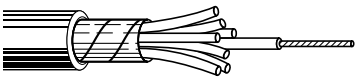
600V CIC Multi-conductor Cables

Description	Part Number	No. of Cond.	Cable Weight		Insulation Thickness		Jacket Thickness		Nominal OD	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm
8 AWG Stranded (7x16) Bare Copper Conductors										
Cross-linked Polyethylene Insulation • Black PVC Jacket (Color Code: Black and Numbered)										
CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22160**	2	240	357	.045	1.14	.060	1.52	.863	21.08
	22161	3	308	458	.045	1.14	.060	1.52	.898	22.81
	22162	4	379	564	.045	1.14	.060	1.52	.957	24.31



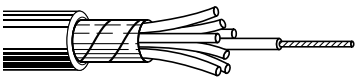
-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

6 AWG Stranded (7x14) Bare Copper Conductors										
Cross-linked Polyethylene Insulation • Black PVC Jacket (Color Code: Black and Numbered)										
CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22170**	2	279	414	.060	1.52	.060	1.52	.711	18.06
	22171	3	383	570	.060	1.52	.060	1.52	.756	19.22



-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

4 AWG Stranded (7x12) Bare Copper Conductors										
Cross-linked Polyethylene Insulation • Black PVC Jacket (Color Code: Black and Numbered)										
CSA C22.2#239, Type CIC CSA C22.2#0.3, Clause 4.31 Low Acid Test FT4 Flame Test	**22180**	2	390	580	.060	1.52	.060	1.52	.800	20.32
	22181	3	580	863	.060	1.52	.080	2.03	.891	22.63

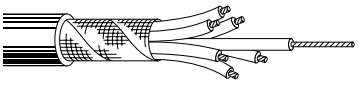


-25°C Installed
-40°C to +105°C (Dry) (75°C Wet)

CSA Control Cable

600V Type TC/CIC Cables

Description	Part Number	No. of Cond.	Cable Weight		Jacket Thickness		Nominal OD	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm
14 AWG Stranded (7x22) Bare Copper • Separator Tape								
Cross-linked Polyethylene Insulation • Black PVC Jacket								
CSA C22.2#230 Type TC CSA C22.2#239 Type CIC FT4 Flame Test	**27000**	2	110	164	.045	1.14	.368	9.35
	27001	3	127	189	.045	1.14	.388	9.86
	27002	4	151	224	.045	1.14	.420	10.67
	27003	5	175	260	.045	1.14	.460	11.68
	27004	6	198	295	.045	1.14	.500	12.70
	27005	7	218	324	.045	1.14	.500	12.70
	27006	8	249	370	.060	1.52	.610	15.49
	27007	9	276	411	.060	1.52	.630	16.00
	27008	10	328	488	.060	1.52	.630	16.00
	27009	11	333	495	.060	1.52	.650	16.51
	27010	12	359	535	.060	1.52	.650	16.51
	27011	13	390	580	.060	1.52	.755	19.18
	27012	14	409	609	.060	1.52	.755	19.18
	27013	15	434	646	.060	1.52	.755	19.18
	27014	16	454	675	.070	1.78	.810	20.57
	27015	17	485	722	.075	1.91	.860	21.84
	27016	18	505	751	.075	1.91	.860	21.84
	27017	19	525	781	.075	1.91	.860	21.84
	27018	20	558	831	.080	2.03	.887	22.53
	27019	21	578	860	.080	2.03	.920	23.37
	27020	22	614	914	.085	2.16	.970	24.64
	27021	23	634	944	.085	2.16	.970	24.64
	27022	24	716	1065	.090	2.29	1.040	26.42
	27023	25	735	1094	.090	2.29	1.040	26.42
	27024	26	755	1124	.090	2.29	1.040	26.42
	27025	27	773	1151	.095	2.41	1.070	26.42
	27026	28	795	1183	.095	2.41	1.100	27.94
	27027	29	815	1213	.095	2.41	1.100	27.94
	27028	30	832	1238	.095	2.41	1.100	27.94
-25°C Installed -40°C to +90°C (Wet/Dry)	**27830**	37	997	1484	.095	2.41	1.190	30.23

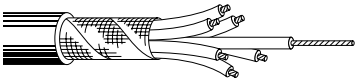


Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

600V Type TC/CIC Cables

Description	Part Number	No. of Cond.	Cable Weight		Jacket Thickness		Nominal OD	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm
12 AWG Stranded (7x20) Bare Copper • Separator Tape								
Cross-linked Polyethylene Insulation • Black PVC Jacket								
CSA C22.2#230 Type TC CSA C22.2#239 Type CIC FT4 Flame Test	**27029**	2	138	205	.045	1.14	.404	10.26
	27030	3	163	242	.045	1.14	.427	10.85
	27031	4	194	288	.045	1.14	.466	11.84
	27032	5	227	338	.045	1.14	.509	12.93
	27033	6	266	396	.060	1.52	.554	14.07
	27034	7	294	438	.060	1.52	.554	14.07
	27035	8	319	475	.060	1.52	.680	17.27
	27036	9	376	546	.060	1.52	.730	18.54
	27037	10	444	661	.060	1.52	.757	19.23
	27038	11	447	665	.060	1.52	.757	19.23
	27039	12	491	731	.060	1.52	.757	19.23
	27040	13	529	787	.075	1.91	.870	22.10
	27041	14	557	829	.075	1.91	.870	22.10
	27042	15	592	881	.075	1.91	.920	23.37
	27043	16	620	923	.075	1.91	.920	23.37
	27044	17	665	990	.080	2.03	.970	24.64
	27045	18	693	1032	.080	2.03	.970	24.64
	27046	19	722	1075	.080	2.03	.970	24.64
	27047	20	769	1145	.080	2.03	1.020	25.91
	27048	21	798	1187	.080	2.03	1.020	25.91
	27049	22	846	1259	.080	2.03	1.070	27.18
	27050	23	875	1302	.080	2.03	1.070	27.18
	27051	24	976	1452	.080	2.03	1.130	28.70
	27052	25	1004	1495	.080	2.03	1.130	28.70
	27053	26	1033	1538	.080	2.03	1.130	28.70
	27054	27	1049	1561	.080	2.03	1.130	28.70
	27055	28	1078	1605	.080	2.03	1.200	30.48
	27056	29	1107	1648	.080	2.03	1.200	30.48
	27057	30	1143	1701	.080	2.03	1.200	30.48
-25°C Installed -40°C to +90°C (Wet/Dry)	**27831**	37	1377	2049	.080	2.03	1.227	31.17

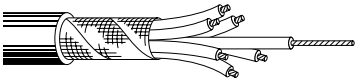


Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

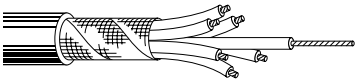
600V Type TC/CIC Cables

Description	Part Number	No. of Cond.	Cable Weight		Jacket Thickness		Nominal OD	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm
10 AWG Stranded (7x18) Bare Copper • Separator Tape								
Cross-linked Polyethylene Insulation • Black PVC Jacket								
CSA C22.2#230 Type TC CSA C22.2#239 Type CIC FT4 Flame Test	**27058**	2	185	276	.045	1.14	.440	11.18
	27059	3	227	338	.045	1.14	.478	12.14
	27060	4	273	406	.060	1.52	.554	14.07
	27061	5	323	480	.060	1.52	.640	16.26
	27062	6	370	551	.060	1.52	.657	16.69
	27063	7	413	615	.065	1.65	.700	17.78
	27064	8	472	703	.070	1.78	.770	19.56
	27065	9	523	778	.070	1.78	.820	20.83
	27066	10	619	921	.070	1.78	.890	22.61
	27067	11	661	984	.070	1.78	.890	22.61
	27068	12	691	1029	.070	1.78	.920	23.37
	27069	13	744	1108	.075	1.91	.980	24.89
	27070	14	787	1171	.075	1.91	.980	24.89
	27071	15	847	1260	.080	2.03	1.040	26.42
	27072	16	889	1323	.080	2.03	1.040	26.42
	27073	17	951	1416	.085	2.16	1.100	27.94
	27074	18	994	1480	.085	2.16	1.100	27.94
	27075	19	1037	1543	.085	2.16	1.100	27.94
-25°C Installed -40°C to +90°C (Wet/Dry)	**27076**	20	1128	1679	.095	2.41	1.190	30.23



8 AWG Stranded (7x16) Bare Copper • Separator Tape

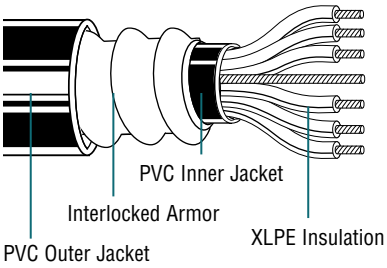
Cross-linked Polyethylene Insulation • Black PVC Jacket								
CSA C22.2#230 Type TC CSA C22.2#239 Type CIC FT4 Flame Test	**27077**	2	283	421	.060	1.52	.600	15.24
	27078	3	341	508	.060	1.52	.619	15.72
	27079	4	419	623	.075	1.91	.730	18.54
-25°C Installed -40°C to +90°C (Wet/Dry)								



Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

600V ACIC and Teck90 Cables — Overview



Introduction

Belden® Teck90 and ACIC cables are designed to meet demanding industrial needs by combining rugged durability and corrosion resistance with flexibility and easy handling.

Teck90 and ACIC Cables are available in a wide range of in-stock and custom constructions to meet the needs of pulp and paper, chemical, petroleum and other demanding industrial and resource industry environments. They are ideal for use in wet or dry areas; ventilated, non-ventilated or ladder-type cable troughs; ventilated flexible cableways; and for direct burial.

Belden Teck90 Cable is marked with "FT4," "HL" designations, and cable constructions are certified to CSA Standard C22.2#131 and C22.2#174 for use in a wide range of hazardous locations. Both inner and outer jackets meet the acid gas evolution requirement of 14% maximum required by CSA Standard C22.2#0.3 Clause 4.31.

Custom cables are available upon request.

Construction

Class B stranded bare copper conductors, cross-link polyethylene insulation, bare copper ground wire, PVC inner jacket, aluminum steel interlocking armor, PVC outer jacket.

- Galvanized steel interlocking armor available as an option.

Voltage Rating

18 to 16 AWG — 600V ACIC

14 to 8 AWG — 600 Volts

14 to 4/0 AWG — 1000 Volts

Temperature Rating

-40°C to 90°C (Dry/Wet)

-25°C installed

Application

Teck90 and ACIC are general-purpose cables used in the pulp and paper, mining, petroleum and chemical industries as well as in commercial buildings.

Teck90 and ACIC may be used under the following conditions:

- Exposed or concealed wiring in dry or wet conditions
- In ventilated, non-ventilated or ladder-type cable trays in dry or wet conditions
- On walls or beams
- Directly buried
- CEC Class I, Division I locations

Minimum Bending Radius:

12 times the overall cable diameter

Pulling Tensions

The combined use of Kellems grips and pulling eyes is recommended.

Design Advantages

Insulation Properties

- High tensile strength
- Impact- and crush-resistant
- Heat-resistant
- Excellent elongation
- Moisture-resistant
- Good low temperature properties

Electrical Properties

- High insulation resistance
- Low dielectric loss
- High dielectric strength

Other Features

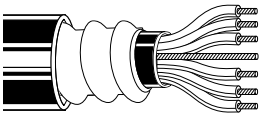
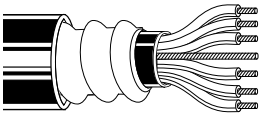
- Corrosion-resistant
- Versatile and flexible
- Provides cost savings as conduit and ducts are not required
- ACIC has a blue jacket

Specifications

- CSA Standard C22.2#131
- CSA Standard C22.2#174 "Cables and Cable Glands for Use in Hazardous Locations"
- CSA Standard C22.2#0.3 Clause 4.31 "Low Acid Gas"
- CSA Standard C22.2#0.3 Clause 4.11.4 "Cables with FT4 Marking"

CSA Control Cable

600V ACIC Cables

Description	Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
18 AWG (7x26) Bare Copper • 18 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .030″ (.76mm) XLPE Insulation • PVC Inner Jacket • Blue PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**29030**	2	163	244	.32	8.13	.52	13.21	.62	15.75	26	116	7.4	187.96
	**29031**	3	177	264	.34	8.64	.54	13.72	.64	16.26	39	173	7.6	193.04
	29032	4	195	291	.37	9.40	.57	14.48	.67	17.02	52	231	8.0	203.20
	29033	5	219	327	.41	10.41	.61	15.49	.71	18.03	65	289	8.5	215.90
	29034	6	239	357	.45	11.43	.65	16.51	.75	19.05	78	347	9.0	228.60
	29035	7	245	366	.45	11.43	.65	16.51	.75	19.05	91	405	9.0	228.60
	29036	8	266	397	.48	12.19	.68	17.27	.78	19.81	104	463	9.3	236.22
	29038	10	331	494	.56	14.22	.76	19.30	.87	22.10	130	578	10.6	269.24
	29040	12	353	527	.62	15.75	.82	20.83	.93	23.62	156	694	11.1	281.94
	29043	15	401	599	.65	16.51	.85	21.59	.96	24.38	190	845	11.5	292.10
	29048	20	466	696	.73	18.54	.93	23.62	1.04	26.42	250	1112	12.4	314.96
	29053	25	589	879	.79	20.07	1.05	26.67	1.16	29.46	295	1312	13.9	353.06
	29058	30	698	1042	.88	22.35	1.14	28.96	1.25	31.75	350	1557	15.0	381.00
HAZ LOC	**29068**	40	827	1234	.97	24.64	1.23	31.24	1.35	34.29	470	2091	16.2	411.48
CSA C22.2#0.3 Clause 4.31 Low Acid Gas	**29078**	50	965	1440	1.09	27.69	1.35	34.29	1.47	37.34	590	2625	17.6	447.04
16 AWG (7x24) Bare Copper • 16 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .030″ (.76mm) XLPE Insulation • PVC Inner Jacket • Blue PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**29017**	2	202	301	.34	8.64	.54	13.72	.65	16.51	62	276	7.7	195.58
	**29004**	3	221	330	.36	9.14	.56	14.22	.66	16.76	66	294	7.9	200.66
	29018	4	242	361	.39	9.91	.59	14.99	.70	17.78	82	365	8.3	210.82
	29019	5	264	394	.42	10.67	.62	15.75	.73	18.54	99	440	8.6	218.44
	29005	6	292	435	.46	11.68	.66	16.76	.77	19.56	115	512	9.1	231.14
	29020	7	314	469	.47	11.94	.67	17.02	.77	19.56	132	587	9.2	233.68
	29021	8	364	543	.50	12.70	.70	17.78	.80	20.32	149	663	9.6	243.84
	29022	10	412	615	.61	15.49	.81	20.57	.92	23.37	182	810	10.9	276.86
	29006	12	441	658	.63	16.00	.83	21.08	.94	23.88	215	956	11.2	284.48
	29023	15	502	749	.68	17.27	.88	22.35	1.00	25.40	264	1174	11.9	302.26
	29007	20	636	949	.77	19.56	1.03	26.16	1.13	28.70	347	1544	13.7	347.98
	29024	25	845	1261	.89	22.61	1.15	29.21	1.26	32.00	430	1913	15.1	383.54
	29008	30	922	1376	.94	23.88	1.20	30.48	1.30	33.02	512	2278	15.8	401.32
	29009	40	1109	1655	1.06	26.92	1.32	33.53	1.41	35.81	678	3016	17.3	439.42
HAZ LOC	**29016**	50	1306	1949	1.19	30.23	1.45	36.83	1.54	39.12	843	3750	18.8	477.52
CSA C22.2#0.3 Clause 4.31 Low Acid Gas	**29025**	60	1390	2075	1.27	32.26	1.53	38.86	1.66	42.16	1015	4515	19.9	505.46

XLPE = Cross-linked Polyethylene

Color Code: #1 conductor is white; remaining conductors are black with number coding. Other color codes available upon request.

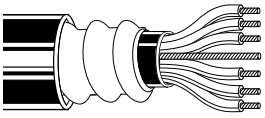
CSA Control Cable

600V Teck90 Cables

14 AWG (7x22) Bare Copper • 14 AWG Bare Copper Ground Wire

Aluminum Interlocked Armor • .030″ (.76mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket

CSA C22.2#239
FT4 Flame Test



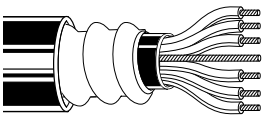
HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
		Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
C5500	2	198	296	.36	9.14	.56	14.22	.66	16.76	66	294	7.8	198.12
C5501	3	222	331	.39	9.91	.58	14.73	.66	16.76	98	436	8.2	208.28
C5502	4	251	375	.42	10.67	.62	15.75	.71	18.03	131	583	8.5	215.90
C5503	5	284	424	.47	11.94	.66	16.76	.74	18.80	164	730	9.0	228.60
C5504	6	317	473	.51	12.95	.70	17.78	.78	19.81	191	850	9.5	241.30
C5505	7	331	494	.51	12.95	.70	17.78	.78	19.81	225	1001	9.5	241.30
C5506	8	414	618	.58	14.73	.77	19.56	.86	21.84	260	1157	10.4	264.16
C5508	10	510	761	.67	17.02	.93	23.62	.95	24.13	321	1428	12.3	312.42
C5510	12	551	822	.69	17.53	.95	24.13	.97	24.64	388	1726	12.6	320.04
C5513	15	636	949	.77	19.56	1.03	26.16	1.11	28.19	481	2140	14.1	358.14
C5518	20	810	1209	.90	22.86	1.16	29.46	1.24	31.50	649	2887	15.1	383.54
C5523	25	948	1415	.90	22.86	1.24	31.50	1.33	33.78	810	3603	16.1	408.94
C5528	30	1047	1563	1.05	26.67	1.30	33.02	1.40	35.56	975	4337	16.8	426.72
C5529	40	1310	1955	1.20	30.48	1.42	36.07	1.51	38.35	1301	5788	18.3	464.82
C6064	50	1620	2418	1.35	34.29	1.60	40.64	1.66	42.16	1630	7251	20.5	520.70

12 AWG (7x20) Bare Copper • 14 AWG Bare Copper Ground Wire

Aluminum Interlocked Armor • .030″ (.76mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket

CSA C22.2#239
FT4 Flame Test



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
		Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
C5530	2	225	336	.41	10.41	.60	15.24	.69	17.53	104	463	8.3	210.82
C5531	3	261	390	.43	10.92	.62	15.75	.70	17.78	156	694	8.6	218.44
C5532	4	301	449	.47	11.94	.66	16.76	.73	18.54	207	921	9.1	231.14
C5533	5	348	519	.52	13.21	.71	18.03	.78	19.81	260	1157	9.1	231.14
C5534	6	435	649	.59	14.99	.78	19.81	.86	21.84	310	1379	10.5	266.70
C5535	7	450	672	.59	14.99	.78	19.81	.86	21.84	361	1606	10.5	266.70
C5536	8	506	755	.64	16.26	.83	21.08	.92	23.37	415	1846	11.1	281.94
C5538	10	633	945	.75	19.05	1.01	25.65	1.02	25.91	520	2313	13.3	337.82
C5540	12	696	1039	.77	19.56	1.03	26.16	1.12	28.45	619	2754	13.5	342.90
C5543	15	823	1228	.90	22.86	1.16	29.46	1.24	31.50	779	3465	15.1	383.54
C5548	20	1035	1545	.99	25.15	1.25	31.75	1.34	34.04	1040	4627	16.5	419.10
C5553	25	1230	1836	1.10	27.94	1.36	34.54	1.45	36.83	1301	5788	17.6	447.04
C5558	30	1390	2075	1.20	30.48	1.46	37.08	1.51	38.35	1560	6940	17.6	447.04

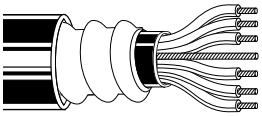
XLPE = Cross-linked Polyethylene

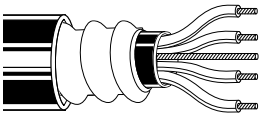
Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

600V Teck90 Cables

Description	Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
10 AWG (7x18) Bare Copper • 12 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .030″ (.76mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5560**	2	278	415	.48	12.19	.66	16.76	.72	18.29	166	738	8.9	226.06
	C5561	3	327	488	.50	12.70	.70	17.78	.75	19.05	249	1108	9.2	233.68
	C5562	4	405	604	.57	14.48	.77	19.56	.79	20.07	330	1468	10.1	256.64
	C5563	5	487	727	.63	16.00	.83	21.08	.93	23.62	415	1846	11.5	292.10
	C5564	6	556	830	.68	17.27	.88	22.35	.93	23.62	491	2184	11.5	292.10
	C5565	7	627	936	.69	17.53	.89	22.61	.99	25.15	550	2447	11.8	299.72
	C5566	8	739	1103	.74	18.80	.94	23.88	1.00	25.40	600	2669	12.4	314.96
	C5568	10	964	1439	.84	21.34	1.10	27.94	1.24	31.50	705	3136	14.4	365.76
	C5570	12	1067	1593	.93	23.62	1.19	30.23	1.26	32.00	809	3599	15.6	396.24
	C5573	15	1297	1936	.99	25.15	1.25	31.75	1.37	34.80	996	4431	16.3	414.02
	C5578	20	1546	2307	1.13	28.70	1.39	35.31	1.47	37.34	1328	5908	16.9	429.26
HAZ LOC CSA C22.2#0.3 Clause 4.31 Low Acid Gas	**C5579**	25	1802	2690	1.26	32.00	1.52	38.61	1.60	40.64	1661	7389	19.7	500.38
	C5580	30	2142	3197	1.34	34.04	1.60	40.64	1.66	42.16	1992	8862	20.6	523.24
8 AWG (7x16) Bare Copper • 10 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .045″ (1.14mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5583**	2	407	607	.59	14.99	.78	19.81	.86	21.84	264	1174	10.6	269.24
	C5581	3	471	703	.63	16.00	.83	21.08	.90	22.86	396	1762	10.8	274.32
	C5582	4	606	904	.69	17.53	.89	22.61	.97	24.64	528	2349	12.5	317.50





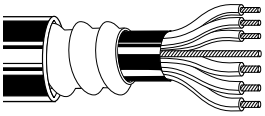
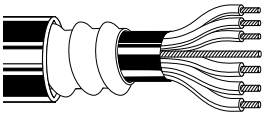
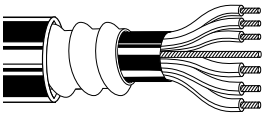
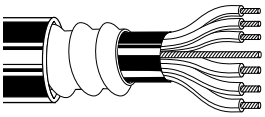
Dual Rated 600V, 1000V
HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

XLPE = Cross-linked Polyethylene

Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

600V Teck90 Cables

Description	Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
Composite 14 AWG (7x22) **and 12 AWG** (7x20) Bare Copper • 14 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .031″ (.79mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**6054**	3c/14 3c/12	369	551	.58	14.73	.75	19.05	.89	22.61	202	899	10.2	259.08
														
HAZ LOC CSA C22.2#0.3 Clause 4.31 Low Acid Gas														
Composite 14 AWG (7x22) **and 10 AWG** (7x18) Bare Copper • 12 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .031″ (.79mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**6051**	3c/14 3c/10	432	645	.63	16.00	.80	20.32	.94	23.88	305	1357	10.8	274.32
														
HAZ LOC CSA C22.2#0.3 Clause 4.31 Low Acid Gas														
Composite 14 AWG (7x22) **and 8 AWG** (7x16) Bare Copper • 10 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .046″ (1.17mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**6059**	3c/14 3c/8	608	907	.70	17.78	.87	22.10	1.07	27.18	435	1935	12.7	322.58
														
HAZ LOC CSA C22.2#0.3 Clause 4.31 Low Acid Gas														
Composite 14 AWG (7x22) **and 6 AWG** (7x14) Bare Copper • 8 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .061″ (1.55mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**6060**	3c/14 3c/6	849	1267	.89	22.61	1.15	29.21	1.27	32.26	655	2914	15.0	381.00
														
HAZ LOC CSA C22.2#0.3 Clause 4.31 Low Acid Gas														

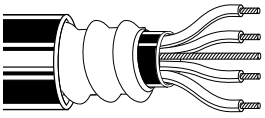
XLPE = Cross-linked Polyethylene

Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

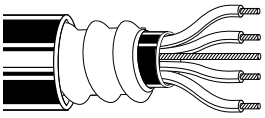
1000V Teck90 Cables

Description	Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
14 AWG (7x22) Bare Copper • 14 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .045″ (1.14mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5701**	3	251	375	.47	11.94	.67	17.02	.73	18.54	98	436	9.2	233.68
	C5702	4	301	449	.51	12.95	.71	18.03	.81	20.57	131	583	9.7	246.38



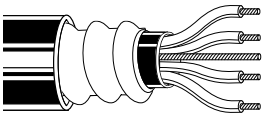
HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

12 AWG (7x20) Bare Copper • 14 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .045″ (1.14mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5730**	2	253	378	.48	12.19	.68	17.27	.74	18.80	104	463	9.3	236.22
	C5731	3	291	434	.51	12.95	.71	18.03	.76	19.30	156	694	9.7	246.38
	C5732	4	368	549	.59	14.99	.79	20.07	.85	21.59	207	921	10.8	274.32



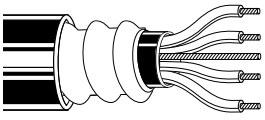
HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

10 AWG (7x18) Bare Copper • 12 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .045″ (1.14mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5760**	2	285	425	.56	14.22	.76	19.30	.79	20.07	166	738	10.3	261.62
	C5761	3	389	581	.59	14.99	.79	20.07	.85	21.59	249	1108	10.8	274.32
	C5762	4	460	687	.65	16.51	.85	21.59	.90	22.86	330	1468	11.5	292.10



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

8 AWG (7x16) Bare Copper • 10 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .045″ (1.14mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5583**	2	407	607	.59	14.99	.78	19.81	.86	21.84	264	1174	10.6	269.24
	C5581	3	471	703	.63	16.00	.83	21.08	.90	22.86	396	1762	10.8	274.32
	C5582	4	606	905	.69	17.53	.89	22.61	.97	24.64	528	2349	12.5	317.50



Dual Rated 600V, 100V
HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

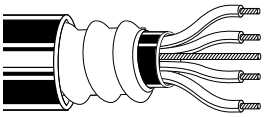
XLPE = Cross-linked Polyethylene

Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

1000V Teck90 Cables

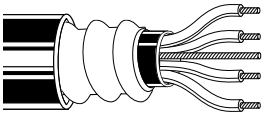
Description	Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
6 AWG (7x14) Bare Copper • 8 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .060″ (1.53mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5590**	2	567	846	.73	18.54	.99	25.15	1.10	27.94	420	1868	12.8	325.12
	C5591	3	714	1066	.78	19.81	1.04	26.42	1.15	29.21	630	2803	13.4	340.36
	C5592	4	927	1384	.89	22.61	1.15	29.21	1.24	31.50	840	3737	14.9	378.46



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

4 AWG (7x12) Bare Copper • 8 AWG Bare Copper Ground Wire

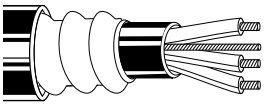
Aluminum Interlocked Armor • .060″ (1.53mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5601**	3	961	1434	.91	23.11	1.17	29.72	1.23	31.24	1002	4458	15.2	386.08
	C5602	4	1202	1794	.99	25.15	1.25	31.75	1.33	33.78	1236	5498	16.2	411.48



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

3 AWG (7x11) Bare Copper • 6 AWG Bare Copper Ground Wire

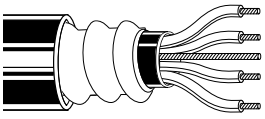
Aluminum Interlocked Armor • .060″ (1.53mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5611**	3	1126	1681	.97	24.64	1.23	31.24	1.30	33.02	1263	5619	15.8	401.32



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

2 AWG (7x10) Bare Copper • 6 AWG Bare Copper Ground Wire

Aluminum Interlocked Armor • .060″ (1.53mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5621**	3	1291	1927	1.02	25.91	1.28	32.51	1.37	34.80	1593	7087	16.5	419.10
	C5622	4	1691	2524	1.12	28.45	1.38	35.05	1.48	37.59	2124	9449	17.7	449.58



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

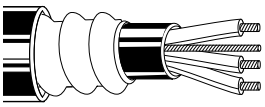
XLPE = Cross-linked Polyethylene

Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

CSA Control Cable

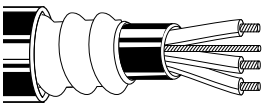
1000V Teck90 Cables

Description	Part No.	No. of Cond.	Cable Weight		Inner Jacket OD		Armor OD		Outer Jacket		Maximum Pull Tension		Minimum Bend Radius	
			Lbs./ 1000 Ft.	kg/km	Inch	mm	Inch	mm	Inch	mm	Lbs.	N	Inch	mm
1 AWG (19x14) Bare Copper • 6 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .080″ (2.03mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5625**	3	1620	2418	1.25	31.75	1.51	38.35	1.59	40.39	1980	8808	19.5	495.30



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

1/0 AWG (19x12) Bare Copper • 6 AWG Bare Copper Ground Wire														
Aluminum Interlocked Armor • .080″ (2.03mm) XLPE Insulation • PVC Inner Jacket • Black PVC Outer Jacket														
CSA C22.2#239 FT4 Flame Test	**C5627**	3	1912	2854	1.34	34.04	1.60	40.64	1.67	42.42	2500	11122	20.6	523.24



HAZ LOC
CSA C22.2#0.3 Clause 4.31 Low Acid Gas

XLPE = Cross-linked Polyethylene

Color Code: 2 conductors — Black, White (If required, a Red conductor can be used in place of White.)
3 conductors — Black, Red, Blue (If required, a White conductor can be used in place of Blue.)
4 conductors — Black, Red, Blue, White
5 or more conductors — number coded

Technical Information

Color Code Tables

ICEA Table E1*

Cond. No.	Base Color	Tracer	Tracer	Cond. No.	Base Color	Tracer	Tracer
1	Black	—	—	26	Orange	Black	White
2	White	—	—	27	Blue	Black	White
3	Red	—	—	28	Black	Red	Green
4	Green	—	—	29	White	Red	Green
5	Orange	—	—	30	Red	Black	Green
6	Blue	—	—	31	Green	Black	Orange
7	White	Black	—	32	Orange	Black	Green
8	Red	Black	—	33	Blue	White	Orange
9	Green	Black	—	34	Black	White	Orange
10	Orange	Black	—	35	White	Red	Orange
11	Blue	Black	—	36	Orange	White	Blue
12	Black	White	—	37	White	Red	Blue
13	Red	White	—	38	Black	White	Green
14	Green	White	—	39	White	Black	Green
15	Blue	White	—	40	Red	White	Green
16	Black	Red	—	41	Green	White	Blue
17	White	Red	—	42	Orange	Red	Green
18	Orange	Red	—	43	Blue	Red	Green
19	Blue	Red	—	44	Black	White	Blue
20	Red	Green	—	45	White	Black	Blue
21	Orange	Green	—	46	Red	White	Blue
22	Black	White	Red	47	Green	Orange	Red
23	White	Black	Red	48	Orange	Red	Blue
24	Red	Black	White	49	Blue	Red	Orange
25	Green	Black	White	50	Black	Orange	Red

Pair cables are Black, White and numbered. Triad cables are Black, White, Red and numbered.

ICEA Table E2*

Cond. No.	Base Color	Tracer	Cond. No.	Base Color	Tracer
1	Black	—	19	Orange	Blue
2	Red	—	20	Yellow	Blue
3	Blue	—	21	Brown	Blue
4	Orange	—	22	Black	Orange
5	Yellow	—	23	Red	Orange
6	Brown	—	24	Blue	Orange
7	Red	Black	25	Yellow	Orange
8	Blue	Black	26	Brown	Orange
9	Orange	Black	27	Black	Yellow
10	Yellow	Black	28	Red	Yellow
11	Brown	Black	29	Blue	Yellow
12	Black	Red	30	Orange	Yellow
13	Blue	Red	31	Brown	Yellow
14	Orange	Red	32	Black	Brown
15	Yellow	Red	33	Red	Brown
16	Brown	Red	34	Blue	Brown
17	Black	Blue	35	Orange	Brown
18	Red	Blue	36	Yellow	Brown

Pair cables are Black, Red and numbered. Triad cables are Black, Red, Blue and numbered.
Colors repeat after 36 conductors. There are no Green or White conductors or stripes.

*Reference ICEA S-73-532

ICEA Method 4: All conductors Black*

Cond.	Conductor Printing	Cond.	Conductor Printing
1st	"1–ONE–1"	26th	"26–TWENTY-SIX–26"
2nd	"2–TWO–2"	27th	"27–TWENTY-SEVEN–27"
3rd	"3–THREE–3"	28th	"28–TWENTY-EIGHT–28"
4th	"4–FOUR–4"	29th	"29–TWENTY-NINE–29"
5th	"5–FIVE–5"	30th	"30–THIRTY–30"
6th	"6–SIX–6"	31st	"31–THIRTY-ONE–31"
7th	"7–SEVEN–7"	32nd	"32–THIRTY-TWO–32"
8th	"8–EIGHT–8"	33rd	"33–THIRTY-THREE–33"
9th	"9–NINE–9"	34th	"34–THIRTY-FOUR–34"
10th	"10–TEN–10"	35th	"35–THIRTY-FIVE–35"
11th	"11–ELEVEN–11"	36th	"36–THIRTY-SIX–36"
12th	"12–TWELVE–12"	37th	"37–THIRTY-SEVEN–37"
13th	"13–THIRTEEN–13"	38th	"38–THIRTY-EIGHT–38"
14th	"14–FOURTEEN–14"	39th	"39–THIRTY-NINE–39"
15th	"15–FIFTEEN–15"	40th	"40–FORTY–40"
16th	"16–SIXTEEN–16"	41st	"41–FORTY-ONE–41"
17th	"17–SEVENTEEN–17"	42nd	"42–FORTY-TWO–42"
18th	"18–EIGHTEEN–18"	43rd	"43–FORTY-THREE–43"
19th	"19–NINETEEN–19"	44th	"44–FORTY-FOUR–44"
20th	"20–TWENTY–20"	45th	"45–FORTY-FIVE–45"
21st	"21–TWENTY-ONE–21"	46th	"46–FORTY-SIX–46"
22nd	"22–TWENTY-TWO–22"	47th	"47–FORTY-SEVEN–47"
23rd	"23–TWENTY-THREE–23"	48th	"48–FORTY-EIGHT–48"
24th	"24–TWENTY-FOUR–24"	49th	"49–FORTY-NINE–49"
25th	"25–TWENTY-FIVE–25"	50th	"50–FIFTY–50"

Technical Information

Gland Information for Armored Cables

Thomas and Betts

Part No.	Hub Size NPT	Range Over Jacket			
		Minimum		Maximum	
		Inch	mm	Inch	mm
ST050-462	1/2	.525	13.34	.650	16.51
ST050-464	1/2	.600	15.24	.760	19.30
ST050-465	1/2	.725	18.42	.885	22.48
ST050-466	1/2	.825	20.96	.985	25.02
ST075-467	3/4	.880	22.35	1.065	27.05
ST075-468	3/4	1.025	26.04	1.205	30.61
ST100-469	1	1.187	30.15	1.375	34.93
ST125-470	1-1/4	1.350	34.29	1.625	41.28
ST125-550	1-1/4	1.500	38.10	1.625	41.28
ST125-471	1-1/4	1.600	40.64	1.875	47.63
ST150-472	1-1/2	1.700	43.18	1.965	49.91
ST150-473	1-1/2	1.900	48.26	2.187	55.55
ST200-551	2	1.900	48.26	2.187	55.55
ST200-474	2	2.100	53.34	2.375	60.33
ST200-475	2	2.300	58.42	2.565	65.15
ST200-476	2	2.500	63.50	2.750	69.85
ST250-477	2-1/2	2.380	60.45	2.640	67.06
ST250-478	2-1/2	2.580	65.53	2.840	72.14
ST300-479	3	2.790	70.87	3.060	77.72
ST300-480	3	3.000	76.20	3.270	83.06
ST300-481	3	3.210	81.53	3.480	88.39
ST350-482	3-1/2	3.420	86.67	3.690	93.73
ST350-483	3-1/2	3.610	91.69	3.870	98.30
ST400-484	4	3.810	96.77	4.030	102.36
ST400-485	4	3.965	100.71	4.185	106.30
ST400-486	4	4.120	104.65	4.340	110.24

Crouse Hinds

NPT Thread Size	Armor OD Range (Inch)	Non-Hazardous Part No.	Hazardous Part No.
1/2	.440 to .650	TMC165	TMCX165*
3/4	.600 to .850	TMC285	TMCX285*
1	.800 to 1.120	TMC3112	TMCX3112*
1-1/4	1.100 to 1.400	TMC4140	TMCX4140*
1-1/2	1.330 to 1.610	TMC5161	TMCX5161*
2	1.570 to 2.060	TMC6206	TMCX6206*
2-1/2	1.930 to 2.470	TMC7247	TMCX7247*
3	2.450 to 3.020	TMC8302	TMCX8302
3-1/2	2.950 to 3.520	TMC9352	TMCX9352
4	3.500 to 4.020	TMC10402	TMCX10402

*TMCX Catalog numbers listed are suitable for use with Type TC tray cable in hazardous locations when installed in accordance with NEC Articles 501-5(e) and 502-5. TMCX series is not suitable for use in Class III locations when used with tray cable.

Hawke

Hawke Size Ref.	Standard Seal 1348 Diameter				Alternative Seal 1498 Diameter				NPT Size
	Minimum		Maximum		Minimum		Maximum		
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
711-A	.590	14.99	.820	20.83	.470	11.94	.610	15.49	1/2
711-B	.790	20.07	.060	26.92	.630	16.00	.840	21.34	3/4
711-C	.930	23.62	1.310	33.27	.830	21.08	1.090	27.69	1
711-C2	1.260	32.00	1.690	42.93	1.100	27.94	1.340	34.04	1-1/4
711-D	1.690	42.93	2.060	52.32	1.300	33.02	1.610	40.89	2
711-E	2.050	52.07	2.560	65.02	1.810	45.97	2.160	54.86	2-1/2
711-F	2.560	65.02	3.070	77.98	2.240	56.90	2.640	67.06	3
711-H	2.990	75.95	3.520	89.41	Special Order				3-1/2
711-J	3.500	88.90	4.110	104.39	Special Order				4

Adalet — PLM

Part No.**	Diameter Over Jacket				Conduit Size
	Minimum		Maximum		
	Inch	mm	Inch	mm	
PS/PSX 45-05	.350	8.89	.450	11.43	1/2
PS/PSX 55-05	.450	11.43	.550	13.97	1/2
PS/PSX 65-05	.550	13.97	.650	16.51	1/2
PS/PSX 75-05	.650	16.51	.750	19.05	1/2
PS/PSX 85-05	.750	19.05	.850	21.59	1/2
PS/PSX 95-05	.850	21.59	.950	24.13	1/2
PS/PSX 99-07	.850	21.59	.990	25.15	3/4
PS/PSX 107-07	.920	23.37	1.070	27.18	3/4
PS/PSX 113-07	.980	24.89	1.130	28.70	3/4
PS/PSX 121-07	1.070	27.18	1.210	30.73	3/4
PS/PSX 112-10	1.000	25.40	1.120	28.45	1
PS/PSX 125-10	1.120	28.45	1.250	31.25	1
PS/PSX 138-10	1.220	30.99	1.380	35.05	1
PS/PSX 138-12	1.280	32.51	1.380	35.05	1-1/4
PS/PSX 156-12	1.380	35.05	1.560	39.62	1-1/4
PS/PSX 174-12	1.560	39.62	1.740	44.20	1-1/4
PS/PSX 188-12	1.740	44.20	1.880	47.75	1-1/4
PS/PSX 174-15	1.600	40.64	1.740	44.20	1-1/2
PS/PSX 188-15	1.740	44.20	1.880	47.75	1-1/2
PS/PSX 200-15	1.880	47.75	2.000	50.80	1-1/2
PS/PSX 218-15	2.000	50.80	2.180	55.37	1-1/2
PS/PSX 219-20	2.050	52.07	2.190	55.63	2
PS/PSX 236-20	2.190	55.63	2.360	59.94	2
PS/PSX 247-20	2.350	59.69	2.470	62.74	2
PS/PSX 261-20	2.470	62.74	2.610	66.29	2
PS/PSX 263-25	2.460	62.48	2.630	66.80	2-1/2
PS/PSX 280-25	2.620	66.55	2.800	71.12	2-1/2
PS/PSX 296-25	2.800	71.12	2.960	75.18	2-1/2
PS/PSX 297-30	2.800	71.12	2.970	75.44	3
PS/PSX 311-30	2.950	74.93	3.110	78.99	3
PS/PSX 327-30	3.100	78.74	3.270	83.06	3
PS/PSX 343-30	3.260	82.80	3.430	87.12	3
PS/PSX 359-30	3.420	86.87	3.590	91.19	3
PS/PSX 375-35	3.520	89.41	3.750	95.25	3-1/2
PS/PSX 392-35	3.750	95.25	3.920	99.57	3-1/2
PS/PSX 412-35	3.900	99.06	4.120	104.65	3-1/2
PS/PSX 423-40	4.050	102.87	4.230	107.44	4
PS/PSX 437-40	4.200	106.68	4.370	111.00	4
PS/PSX 451-40	4.340	110.24	4.510	114.55	4
PS/PSX 462-40	4.430	112.52	4.620	117.35	4

** Use PS for non-hazardous locations and PSX for hazardous locations.

Technical Information

Approvals and Standards/Performance Data for Halogen Free/Low Smoke Cable

XLPE Insulation	
Physical: (per UL-44)	
Tensile (min)	1500 psi
Elongation (min)	150%
Deformation (max)	3.35
LOI	27
Halogen content by weight	<0.2%
NBS Smoke Chamber (.035″ wall)	
Flaming Mode	66 D_m corrected typical
Smoldering Mode	183 D_m corrected typical

Haloarrest® I Jacket	
Physical	
Tensile (min)	1500 psi
Elongation (min)	100%
Tear resistance	74 lbs/inch
LOI	38
Halogen Content	
IEC 754-1	0%
BS6425	0%
MIL-C-24643	<0.2%
NBS Smoke Chamber (.100″ wall)	
Flaming Mode	141 D_m corrected typical
Smoldering Mode	311 D_m corrected typical
Acid Gas	
IEC 754-2	4.3 pH, 28 µS/cm
VDE 0472 Part 813	4.3 pH, 27 µS/cm
Toxicity Index	
NES 713	1

Halogen Free/Low Smoke Cable Specifications

300V, 90°C PLTC-LS
NEC 725/UL 13 & 1685

Instrumentation
- 22 to 12 AWG, BC or TC
- 90°C XLPE insulation
- Unshielded or shielded
- Haloarrest I jacket

600V, 90°C TC-LS
NEC 340/UL 1277 & 1685

Instrumentation
- 18 to 12 AWG, BC or TC
- 90°C XLPE insulation
- UL 44 RH or RHH – 90°C dry
- Shielded or unshielded
- Haloarrest I jacket

Control or Power
- 14 to 2 AWG, BC or TC
- 90°C XLPE insulation
- UL 44 RH or RHH — 90°C dry
- Shielded or unshielded
- Haloarrest I jacket

Hazardous Locations Cable Reference

Article 500

Class I Division 1 Hazards
- Locations where flammable gases or vapors may exist under normal operating conditions, under frequent repair or maintenance operations, or where breakdown or faulty operation of process equipment might also cause simultaneous failure of electrical equipment.
- Use conduit or MI cable with approved termination fittings.

Class I Division 2 Hazards
- Locations where flammable gases, vapors or volatile liquids are handled either in a closed system, or confined within suitable enclosures, or where hazardous concentrations are normally prevented by positive mechanical ventilation. Areas adjacent to Division 1 areas belong in Division 2.
- Use PLTC, ITC, TC, MC, MV, MI with approved termination fittings.

Class II Division 1
- Locations where combustible dusts exist under normal conditions.
- Use conduit or MI with approved termination fittings.

Class II Division 2
- Locations where combustible dusts exist under abnormal conditions.
- Use conduit or PLTC, ITC, TC, MC with ventilated channel cable trays.
- Use conduit or MC, MI with approved termination fittings.

Class III Division 1
- Locations where easily ignitible fibers and flyings exist under normal conditions.
- Use conduit or MC, MI with approved termination fittings.

Class III Division 2
- Locations where easily ignitible fibers and flyings exist under abnormal conditions.
- Use conduit or MC, MI with approved termination fittings.

Article 504

Intrinsically Safe
- Equipment and wiring that are incapable of releasing sufficient electrical energy under normal or abnormal conditions to cause ignition of a specific hazardous atmospheric mixture in its most easily ignited concentration.

Technical Information

UL Approved Insulation/Jacketing Options

UL Listed for PLTC	
Insulation/Jacket	**Max. Temp Rating**
XLPE/PVC	90°C
XLPE/CPE	90°C
PVC/PVC	105°C
PVC/CPE	105°C
PE/PVC	75°C
FPE/PVC	75°C
TPE/TPE	105°C
XLPE/Haloarrest® I	90°C
XLPE/Hypalon®	90°C
FEP/FEP	200°C

UL Listed for MC and TC			
Insulation/Jacket	**Max. Temp Rating**		**Flame Tests**
	Wet	**Dry**	
PVC-Nylon/PVC (THHN or THWN) 14 AWG & larger	75°C	90°C	UL 1581 FT4/ IEEE 1202
PVC-Nylon/PVC (TFN or TFFN) 16 & 18 AWG	NA	90°C	UL 1581 FT4/ IEEE 1202
XLPE (XHHW–2)/ **PVC or CPE** 14 AWG & larger	90°C	90°C	UL 1581 FT4/ IEEE 1202 VW-1 rated singles
XLPE (RFH–2)/ **PVC or CPE** 16 & 18 AWG	75°C	75°C	UL 1581 FT4/ IEEE 1202 VW-1 rated singles
FRPO/PVC 18 AWG & larger	—	75°C	UL 1581
TPE/TPE	75°C	90°C	UL 1581
FRPO/PVC	75°C	90°C	UL 1581
XLPE/Haloarrest I (XHHW-2) 14 AWG & larger	90°C	90°C	UL 1581 VW-1 rated singles
XLPE/Haloarrest I 16 & 18 AWG (RFH-2)	75°C	75°C	UL 1581
FEP/PVC	90°C	90°C	UL 1581
XLPE/Hypalon (XHHW-2) 14 AWG & larger	90°C	90°C	UL 1581 VW-1 rated singles
XLPE/Hypalon (RFH-2) 16 & 18 AWG	75°C	75°C	UL 1581 VW-1 rated singles

Abbreviations Key	
CPE	**Chlorinated Polyethylene**
FEP	**Fluorinated Ethylene-propylene**
FPE	**Foam Polyethylene**
FRPO	**Flame-Retardant Polyolefin**
PE	**Polyethylene**
PVC	**Polyvinyl Chloride** Nylon insulated singles are type THHN or THWN for conductors 14 AWG or larger. Conductor sizes 16 and 18 AWG are Type TFN or TFFN singles.
TPE	**Thermoplastic Elastomer**
XLPE	**Cross-Linked Polyethylene** Cross-Linked Polyethylene (XLPE) insulated singles are type XHHW-2 for conductors 14 AWG or larger. Conductor sizes 16 and 18 AWG are RFH-2.

Vertical Tray Flame Test Comparison

Test	UL-1581	FT4/IEEE 1202	IEEE 383	IEC 323-3	ICEA T-29-520
Flame Test Chamber	Vertical Tray	Vertical Tray	Vertical Tray	Vertical Tray	Vertical Tray
Burner Type	Ribbon gas burner	Ribbon gas burner	Ribbon gas burner	Ribbon gas burner	Ribbon gas burner
Theoretical Heat Input	70,000 BTU/hr	70,000 BTU/hr	70,000 BTU/hr	70,000 BTU/hr	210,000 BTU/hr
Burner Positioning	horizontal 3″ from samples 18″ from tray base	20° up from horizontal 2.95″ from cable surface 11.8" above floor	horizontal 3″ from samples 18″ above tray bottom	horizontal 2.95″ from cable surface 23.6″ above floor	horizontal 8-1/4″ from cable surface 12-1/4″ above tray base
Tray Dimensions	8′ length 12″ width 3″ side flanges	9.84′ length 11.81″ width 2.85″ side flanges	8′ length 12″ width 3″ side flanges	11.5′ length 19.7″ width none	8′ length 12″ width 3″ side flanges
Sample Spacing	1/2 cable diameter	1/2 cable diameter	1/2 cable diameter	lesser of 1/2 cable diameter and .78″	1/2 cable diameter
Duration of Flame Application	20 minutes	20 minutes	20 minutes	20 minutes	20 minutes
Mode of Failure	Cable blistering or charring has reached the top of the sample after the cable has self-extinguished.	Cable char has exceeded a length of 4.92′.	Cable blistering or charring has reached the top of the sample after the cable has self-extinguished.	Cable charring has reached a height of 98.4″ above the bottom of the burner.	Cable blistering or charring has reached the top of the sample after the cable has self-extinguished.

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