

Contact

Copper LAN Product Inquiry
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Premises Distribution Plenum Indoor/Outdoor Cables

12 x OS2 Premise Distribution Plenum Indoor/Outdoor Cable

Part Number: PDP012AB0707-I/O-C4(YEL)

Berk-Tek's plenum rated Indoor/Outdoor Tight-Buffer cables are designed specifically for LAN/WAN campus and building backbone cabling infrastructure. These thermoplastic jacketed cables are suitable for Indoor/Outdoor installations, in-conduit, below the frost line.

Description

This fiber optic cable is designed for installation in plenum, riser and horizontal environments and interbuilding backbone structures.

This design incorporates tight buffered optical fibers within a dry water blocked cable core. Suitable for operation across wide temperature variations typically addressed by outside plant cables. No Buffer Tube Fanout kits are required. Direct termination is enabled.

Construction

Each cable utilizes our DryGel water blocking system in the cable core. Cable design can accommodate from 2-144 tight buffered (900 µm) fibers. All dielectric.

Interlocking Armor (Armor-Tek) versions are available using aluminum or steel armor.

Outdoor Considerations

These water-blocked plenum-rated cables feature UV and fungus resistant jacketing.

For use in conduit, below the frost line.

Loose Tube cables are recommended if interbuilding conduit systems lie above the frost line and are likely to fill with water.

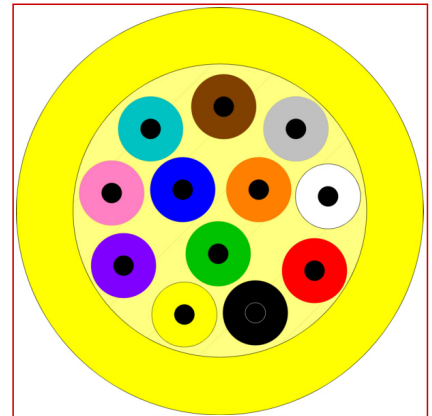
- Tight Buffer fiber cables are not suitable for aerial-lashed installations.

Applications

Berk-Tek's tight buffered cable is intended for all high speed data applications including:

- ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
- Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
- SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
- SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
- OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
- CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)
- PON (SMF ONLY): RFoG, APON, BPON, EPON, GPON, WDM-PON, NG-PON

Features



Standards

International EN 50173; ISO/IEC 11801

National ANSI/ICEA S-104-696; ANSI/ICEA S-83-596; NFPA 130; Telcordia GR-409

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- Flexible, small diameter, 900 µm tight buffered construction
- High tensile strength and small diameter design
- 2 to 144 count fiber construction plenum designs ideal for horizontal and backbone installation
- Single-mode, multimode, and hybrid designs available
- Also available in low smoke zero halogen design

Benefits

- Cost-saving design, easy to install and terminate
- Provides for greater pulling distances thus reducing installation time
- Assurance that cables will meet required specifications for communication networking applications
- Broad design selection allows for mix and match of fiber components to specific networking applications
- One cable design meeting all structured cabling network communications applications

Characteristics

Construction characteristics	
Fiber optic type	SM (G657.A1)
Type of cable	Tight Buffered (TB)
Jacket Material	Plenum
Sheath colour	Yellow
Dimensional characteristics	
Number of optical fibres	12
Cable diameter (Nominal)	0.21 in
Nominal outer diameter	5.3 mm
Nominal cable weight	18 lb/kft
Approximate weight	26 kg/km
Transmission characteristics	
Optical performance	AB (Single-mode, OS2)
Attenuation, max. 1310 nm (cabled)	0.7 dB/km
Attenuation, max. 1550 nm (cabled)	0.7 dB/km
Mechanical characteristics	
Maximum installation tension	100 lb
Maximum installation tension	445 N
Max. Load. Long Term (lbs)	30.0 lb
Max. Load. Long Term	133.0 N
Crush resistance per TIA/EIA FOTP-41	100 N/cm
Cable flexibility per TIA/EIA FOTP-104	100 cycles
Impacts per TIA/EIA FOTP-25	2 at 2.94 N-m
Usage characteristics	
Minimum Bending Radius - Install	3.2 in
Minimum Bend Radius - Install	8 cm
Minimum Bending Radius - LongTerm	2.1 in
Minimum Bending Radius - LongTerm	5.3 cm

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Usage characteristics

Recommended operating temperature range	-40 .. 75 °C
Ambient installation temperature, range	0 .. 75 °C
Recommended storage temperature range	-40 .. 85 °C
Field of application	Indoor, Outdoor

ICP-I/O, ICPK-I/O, PDP-I/O & PDPK-I/O Sheath Colors

Fiber Type	Core Size (um)	ISO-TIA Standard	Effective Modal BW @ 850 nm	Overfilled Launch BW @ 850 nm	Attenuation @ 850 nm	Attenuation @ 1300 nm	Attenuation @ 1550 nm	Sheath Color
AB	8.3	OS2	NS	NS	NS	0.7 dB/km	0.7 dB/km	Yellow or Black
CB	62.5	OM1	200 MHz-km	200 MHz-km	3.5 dB/km	1.0 dB/km	NS	Orange or Black
LB	50	OM2+	950 MHz-km	700 MHz-km	3.0 dB/km	1.0 dB/km	NS	Orange or Black
EB	50	OM3	2000 MHz-km	1500 MHz-km	3.0 dB/km	1.0 dB/km	NS	Aqua or Black
FB	50	OM4	4700 MHz-km	3500 MHz-km	3.0 dB/km	1.0 dB/km	NS	Aqua or Black
XB	50	OM4+	4900 MHz-km	3675 MHz-km	3.0 dB/km	1.0 dB/km	NS	Violet or Black

NS = Not Specified

Fiber Details - Zero Dispersion

Zero Dispersion Wavelength	1300 to 1324 nm
Maximum Value of Dispersion Slope	≤ 0.092 ps/nm ² *km
Dispersion measurements made per specification	TIA/EIA-455-169-B or ANSI/TIA-455-175-B

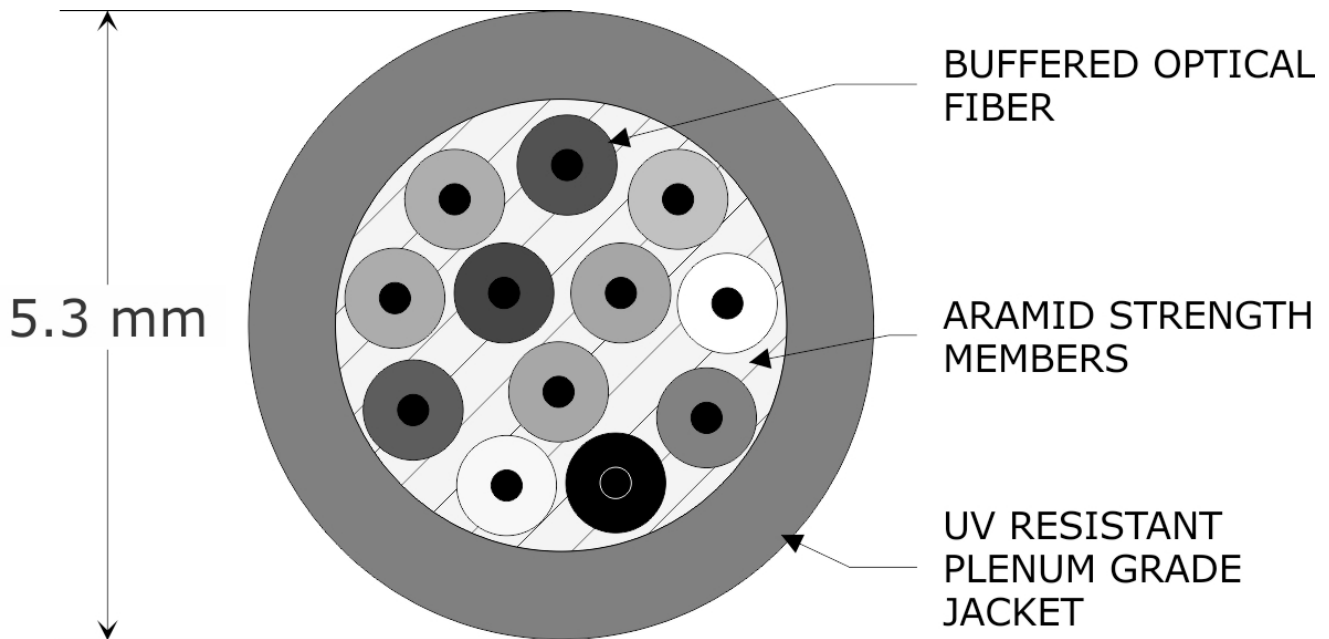
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Cross-section Diagram - PDP012-I/O



Manufacturing Release

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