# Fiber Optic Cabling
# Infrastructure Offering

**PANDUIT**®

infrastructure for a connected world

## High-Speed Fiber Cabling Systems

Offers a high bandwidth and mission-critical physical infrastructures in data center, enterprise, industrial and campus networks with comprehensive fiber optic systems that deliver high performance, reliability, and scalability. The deployment of high-speed cabling systems has been increasing rapidly as data centers enable their physical infrastructure with 10 and 40 Gb/s capacity to support server virtualization, I/O consolidation, and convergence of backbone applications.

## Structured Cabling Infrastructure

A properly designed and implemented cabling infrastructure is a fundamental asset of every business. Carefully planning a structured cabling solution facilitates the delivery of new services, lowers network maintenance costs, and increases productivity. New high-bandwidth applications enable organizations to better fulfill their need for productivity and innovation in a rapidly changing world.

## Innovative Data Center Infrastructure Solutions

A comprehensive, intelligent data center offering that supports best practice methodologies. Our data center solutions enable physical to logical architecture integration, and deliver robust, scalable physical infrastructures that address:

• Visibility and control for managing and automating real-time data processes and documentation
• Convergence of new technologies and high-speed data applications
• Operational efficiency through process improvement and IT initiatives, such as cooling conservation
  through energy efficient data cabinets
• Capacity management for greater real estate utilization
• Modular pods designed to support high-density applications and provide consistent, reliable deployments
  while lowering infrastructure risk and costs

These fiber solutions facilitate faster implementation and simple specification, streamlining the process of designing, specifying, installing, and managing the increasingly complex physical infrastructure necessary to optimize your data center. Panduit knows the data center space intimately. We help you discover tangible infrastructure and business process improvements that increase functionality, interoperability, and manageability of mission-critical operations across your entire organization.

## PanNet™ System Warranty

All channels are field tested by Panduit Certified Installers (PCI) using industry standard hand-held devices which provide verified network performance, and ensures your network operates at optimal performance.

## Cable Fire Ratings Reference Guide

Cable fire ratings need to be considered when specifying cabling infrastructure to ensure local building codes are met. The below rating guide provides the information needed to determine which rating is appropriate for different installation environments.

### Plenum Rated Cable, Non-Conductive (OFNP)

A Plenum Rating (OFNP) signifies cable that has passed stringent burn testing and is suitable for installation into air plenum spaces. OFNP cables have fire-resistance and low smoke production characteristics. They are typically made with PVC sheathing and can be installed in ducts, plenums, and other spaces used for building airflow. This is the highest fire rating for North America fiber cable, and no other cable types can be used as substitutes.

### Plenum Rated Cable, Conductive (OFCP)

A Plenum Rating (OFCP) differs from OFNP in that the cable contains metallic elements, typically armor, and therefore, conducts electricity. All other aspects of this rating are the same as OFNP.

### Riser Rated Cable, Non-Conductive (OFNR)

A Riser Rating (OFNR) is commonly required when cables are run between floors through open vertical shafts. OFNR cables are used in Riser areas which are building vertical shafts or runs from one floor to another floor. OFNR cables cannot be installed in plenum areas since they do not have the required smoke rating as plenum rated cables. OFNP plenum cables can be used as substitutes for OFNR Riser cables.

### Riser Rated Cable, Conductive (OFCR)

A Riser Rating (OFCR) differs from OFNR in that the cable contains metallic elements, such as a layer of armor, and therefore, conducts electricity. All other aspects of this rating are the same as OFNR.

### Low Smoke Zero Halogen (LSZH)

A Low Smoke Zero Halogen Rating (LSZH) is sometimes referred to as low toxicity cable. When burned, PVC-based cables produce a cloud of toxic smoke containing corrosive compounds. LSZH cables do not contain the halogen type compounds that form these toxic substances. LSZH ratings are expressed as OFN-LS or OFNR-LS if the cable also meets the requirements of OFNR rated cable.

### EuroClass and UKCA

EuroClass cable for the EMEA market is LSZH cable that has been tested to more stringent standards and labeling requirements as per the EU's Construction Products Regulation. EuroClass ratings range from B2ca, the highest applicable rating for communications cable, to Fca, which is non-rated or self-declared. Each level of EuroClass cable from B2ca down to Dca are further characterized by Smoke, Flaming Droplets, and Acidity ratings. Local regulations vary on which rating can be used in which application, so it is important to understand the local requirement. Further information on Panduit's EuroClass offering is available at the CPR landing page. Many of Panduit's EuroClass cables also comply with UKCA.

### Non-Flame Rated

Outside Plant (OSP) cables are intended for outdoor use only. Typically, these cables are constructed using varying densities of Polyethylene (PE) in the outer jacket. Because cables without flame ratings do not contain flame suppressants and emit noxious gasses when burned, building codes often restrict the distance installers are permitted to route inside buildings before termination to 50 feet or 15 meters.

## Opticore® Interconnect and PON Cables

- Indoor cable used in interconnect, horizontal installations, patch cords and routing in tight spaces
- Can be installed in cable trays and panels; supports applications including FTTD
- Bend-insensitive singlemode (ITU G.657.A1) with 1 and 2 fiber round cable for Passive Optical Networking (PON)

**2-Fiber Round**

Buffer — Optical fiber — Strength members — Outer jacket

**2-Fiber Zipcord**

Strength members — Optical fiber — Outer jacket — 900µm buffer
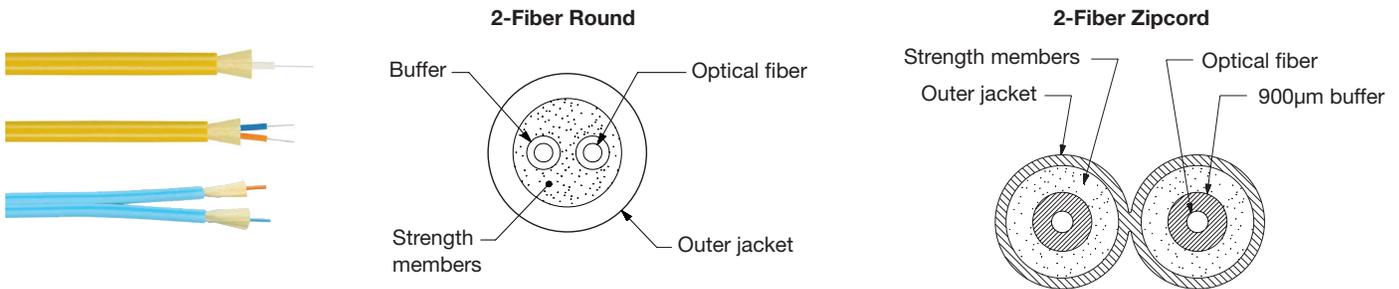
| | 1-Fiber, Riser | 2-Fiber Round, Riser | 2-Fiber Zipcord, Riser | 2-Fiber Zipcord, Plenum |
|---|---|---|---|---|
| **Multimode OM3** | – | – | FOIRX02Y | FOIPX02Y |
| **Multimode OM4** | – | – | FOIRZ02Y | FOIPZ02Y |
| **Singlemode G.652.D** | – | – | FSIR902Y | FSIP902Y |
| **Singlemode G.657.A1** | FSIRA01Y | FSDRA02Y | – | – |

## Opticore® Indoor Distribution Cable

- For indoor use in intra-building backbone and horizontal installations
- Optical fiber is clad in 900µm buffer coating for easy connectorization

Optical fiber — 900µm buffer — Outer jacket — Strength members

| | Flame rating | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
|---|---|---|---|---|---|---|---|---|
| **Multimode OM3** | LSZH | FODLX06 | FODLX12 | FODLX24 | – | – | – | – |
| | Plenum | FODPX06Y | FODPX12Y | FODPX24Y | FODPX48Y | – | – | – |
| | Riser | FODRX06Y | FODRX12Y | FODRX24Y | FODRX48Y | – | FODRX96Y | – |
| **Multimode OM4** | LSZH | FODLZ06 | FODLZ12 | FODLZ24 | – | – | – | – |
| | Plenum | FODPZ06Y | FODPZ12Y | FODPZ24Y | FODPZ48Y | – | – | – |
| | Riser | FODRZ06Y | FODRZ12Y | FODRZ24Y | FODRZ48Y | – | – | – |
| **Multimode OM5** | Plenum | FODPW06Y | FODPW12Y | FODPW24Y | – | – | – | – |
| **Singlemode** | LSZH | FSDL906 | FSDL912 | FSDL924 | – | – | – | – |
| | Plenum | FSDP906Y | FSDP912Y | FSDP924Y | FSDP948Y | FSDP972Y | FSDP996Y | FSDP91AY |
| | Riser | FSDR906Y | FSDR912Y | FSDR924Y | FSDR948Y | FSDR972Y | FSDR996Y | FSDR91AY |

## Opticore Indoor Interlocking Armored Cable

- Indoor applications include intra-building backbones and horizontal installations
- Interlocking aluminum armor eliminates the need for inner duct and provides a small crush resistant pathway
- Optical fiber is clad in 900µm buffer coating for easy connectorization



Cable outer jacket — Optical fiber — 900µm buffer — Overlaid jacket — Aluminum interlocking armor — Strength members
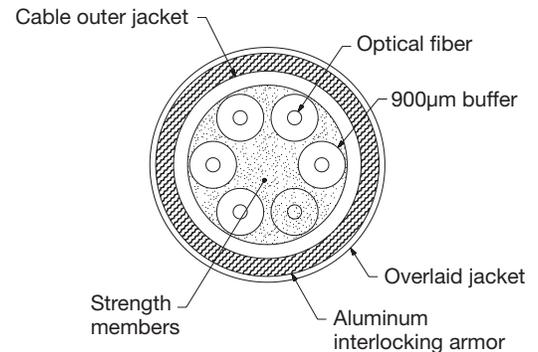
| | Flame rating | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
|---|---|---|---|---|---|---|---|---|
| Multimode OM3 | Plenum | FOPPX06Y | FOPPX12Y | FOPPX24Y | FOPPX48Y | — | — | — |
| | Riser | FOPRX06Y | FOPRX12Y | FOPRX24Y | FOPRX48Y | — | — | — |
| Multimode OM4 | Plenum | FOPPZ06Y | FOPPZ12Y | FOPPZ24Y | FOPPZ48Y | — | — | — |
| | Riser | FOPRZ06Y | FOPRZ12Y | FOPRZ24Y | FOPRZ48Y | — | — | — |
| Multimode OM5 | Plenum | FOPPW06Y | FOPPW12Y | FOPPW24Y | — | — | — | — |
| Singlemode | Plenum | FSPP906Y | FSPP912Y | FSPP924Y | FSPP948Y | FSPP972Y | FSPP996Y | FSPP91AY |
| | Riser | FSPR906Y | FSPR912Y | FSPR924Y | FSPR948Y | — | — | — |

## Opticore Indoor-Outdoor Cable with Tight Buffered Fibers

- Indoor-Outdoor 900µm tight-buffered cable provides UV resistance, dry water blocking, high density and easy installation
- All-dielectric cable provides an effective solution for inter-building, ducts and entrance facilities



Optical fiber — Buffer — Aramid strength members — Outer jacket
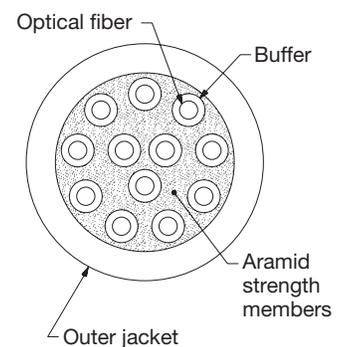
| | Flame rating | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
|---|---|---|---|---|---|---|---|---|
| Multimode OM1 | Plenum | FSKP606 | FSKP612 | — | — | — | — | — |
| | Riser | FSKR606 | FSKR612 | — | — | — | — | — |
| Multimode OM3 | Plenum | FOKPX06 | FOKPX12 | FOKPX24 | FOKPX48 | — | — | — |
| | Riser | FOKRX06 | FOKRX12 | FOKRX24 | FOKRX48 | — | — | — |
| Multimode OM4 | Plenum | FOKPZ06 | FOKPZ12 | FOKPZ24 | FOKPZ48 | — | — | — |
| | Riser | FOKRZ06 | FOKRZ12 | FOKRZ24 | FOKRZ48 | — | — | — |
| Singlemode | Plenum | FSKP906 | FSKP912 | FSKP924 | FSKP948 | FSKP972 | FSKP996 | — |
| | Riser | FSKR906 | FSKR912 | FSKR924 | FSKR948 | FSKR972 | FSKR996 | FSKR91A |

## Opticore Indoor-Outdoor Interlocking Armored Cable with Tight Buffered Fibers

- Interlocking aluminum armor eliminates the need for inner duct or conduit and provides a smaller crush resistant pathway
- Fibers are clad with 900μm tight buffered fibers for easy connectorization
- UV-resistant outer jacket and dry water-blocking technology support outdoor use
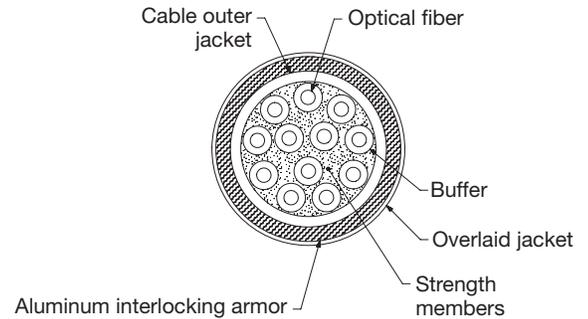


Cable outer jacket — Optical fiber — Buffer — Overlaid jacket — Strength members — Aluminum interlocking armor

| | Flame rating | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
|---|---|---|---|---|---|---|---|---|
| **Multimode OM1** | Plenum | FSLP606 | FSLP612 | — | — | — | — | — |
| | Riser | FSLR606 | FSLR612 | — | — | — | — | — |
| **Multimode OM3** | Plenum | FOLPX06 | FOLPX12 | FOLPX24 | — | — | — | — |
| | Riser | FOLRX06 | FOLRX12 | FOLRX24 | — | — | — | — |
| **Multimode OM4** | Plenum | FOLPZ06 | FOLPZ12 | FOLPZ24 | — | — | — | — |
| | Riser | FOLRZ06 | FOLRZ12 | FOLRZ24 | — | — | — | — |
| **Singlemode** | Plenum | FSLP906 | FSLP912 | FSLP924 | FSLP948 | FSLP972 | FSLP996 | — |
| | Riser | FSLR906 | FSLR912 | FSLR924 | FSLR948 | FSLR972 | FSLR996 | FSLR91A |

## Opticore Indoor-Outdoor All-Dielectric Cable

- Flame rated cable offers UV resistance, dry water-blocking, high density and easy installation
- All-dielectric, gel-free cable provides an effective solution for inter-building, ducts and entrance facilities
- Options include central loose tube and stranded loose tube



Water-blocking strength members — Dry-blocked buffer tube — Rip cord — 250μm optical fibers (up to 12) — Flame retardant outer jacket — Outer strength members
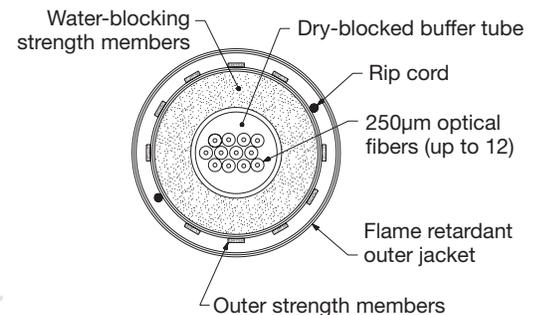
| | | Central Tube | | Stranded Tube | | | | |
|---|---|---|---|---|---|---|---|---|
| | Flame rating | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
| **Multimode OM1** | Plenum | FSCP606Y | FSCP612Y | — | — | — | — | — |
| | Riser | FSCR606Y | FSCR612Y | — | — | — | — | — |
| **Multimode OM3** | LSZH | FOCLX06 | FOCLX12 | FONLX24Y | FONLX48Y | — | — | — |
| | Plenum | FOCPX06Y | FOCPX12Y | FONPX24Y | FONPX48Y | — | — | — |
| | Riser | FOCRX06Y | FOCRX12Y | FONRX24Y | FONRX48Y | — | FONRX96Y | FONRX1AY |
| **Multimode OM4** | LSZH | FOCLZ06 | FOCLZ12 | FONLZ24Y | FONLZ48Y | — | — | — |
| | Plenum | FOCPZ06Y | FOCPZ12Y | FONPZ24Y | FONPZ48Y | — | — | — |
| | Riser | FOCRZ06Y | FOCRZ12Y | FONRZ24Y | FONRZ48Y | — | — | — |
| **Singlemode** | LSZH | FSCL906 | FSCL912 | FSNL924Y | FSNL948Y | — | — | — |
| | Plenum | FSCP906Y | FSCP912Y | FSNP924Y | FSNP948Y | FSNP972Y | FSNP996Y | FSNP91AY |
| | Riser | FSCR906Y | FSCR912Y | FSNR924Y | FSNR948Y | FSNR972Y | FSNR996Y | FSNR91AY |

## IndustrialNet™ Dielectric Double Jacketed DDJ Cable

- Rugged metal-free construction is crush resistant and does not require grounding & bonding
- Dry water blocked and dual flame rated as Riser (OFNR) and Low Smoke Zero Halogen (LSZH)
- Can be installed indoors using J-Hooks or outdoors as direct bury, aerial with lashing to messenger wire
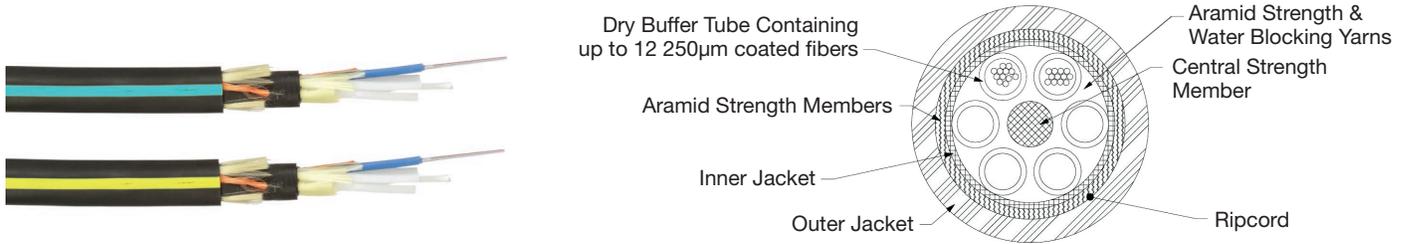


|  | Flame rating | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 96-Fiber |
|---|---|---|---|---|---|---|
| Multimode OM4 | LSZH-Riser | FOJDZ06 | FOJDZ12 | FOJDZ24 | — | — |
| Singlemode | LSZH-Riser | FSJD906 | FSJD912 | FSJD924 | FSJD948 | FSJD996 |

## Opticore Indoor-Outdoor Interlocking Armored Cable

- Interlocking aluminum armor eliminates the need for inner duct or conduit and provides a smaller crush resistant pathway
- UV resistant, dry water-blocked loose tube construction is gel-free and can be used for aerial applications (using messenger wire) and direct burial
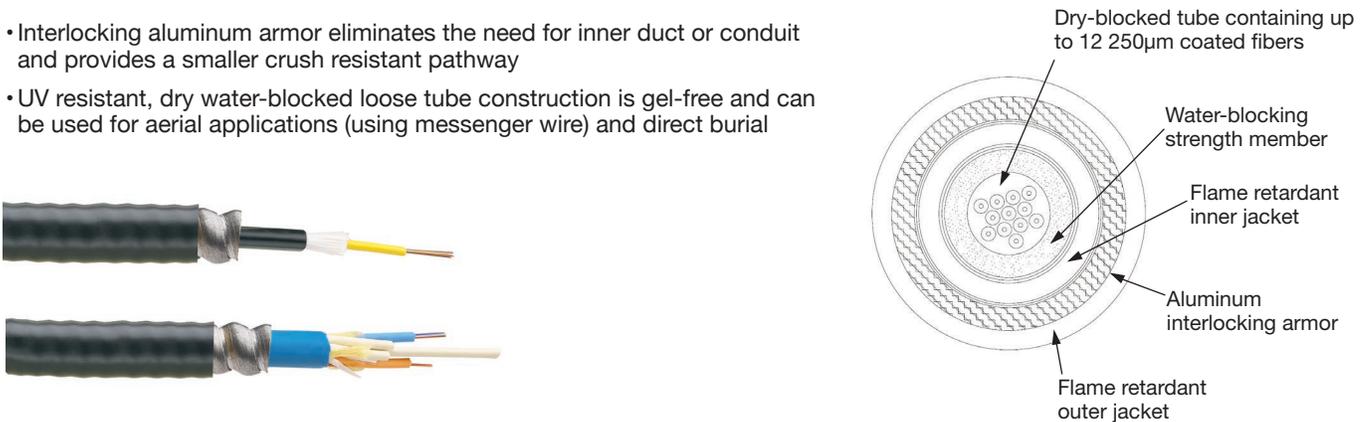


|  |  | Central Tube | | Stranded Tube | | | | |
|---|---|---|---|---|---|---|---|---|
|  | Flame rating | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
| Multimode OM1 | Plenum | FSGP606Y | FSGP612Y | FSMP624Y | — | — | — | — |
|  | Riser | FSGR606Y | FSGR612Y | FSMR624Y | — | — | — | — |
| Multimode OM3 | Plenum | FOGPX06Y | FOGPX12Y | FOMPX24Y | — | — | — | — |
|  | Riser | FOGRX06Y | FOGRX12Y | FOMRX24Y | — | — | — | — |
| Multimode OM4 | Plenum | FOGPZ06Y | FOGPZ12Y | FOMPZ24Y | — | — | — | — |
|  | Riser | FOGRZ06Y | FOGRZ12Y | FOMRZ24Y | — | — | — | — |
| Singlemode | Plenum | FSGP906Y | FSGP912Y | FSMP924Y | FSMP948Y | FSMP972Y | FSMP996Y | FSMP91AY |
|  | Riser | FSGR906Y | FSGR912Y | FSMR924Y | FSMR948Y | — | — | — |

## Opticore All-Dielectric Outside Plant Cable

• Gel-free with dry water blocking elements and UV resistant outer jacket
• For use in aerial (with messenger wire) and duct applications
• Non-metallic cable does not require grounding and bonding
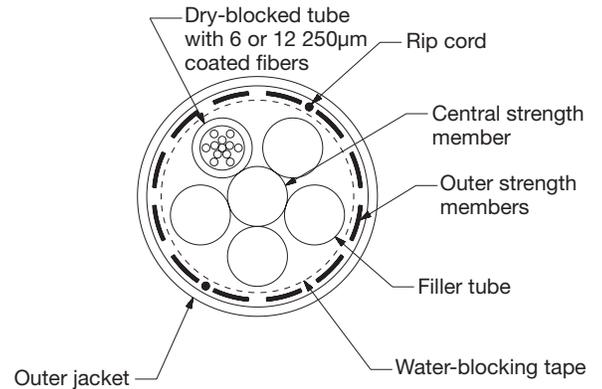


|  | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
|---|---|---|---|---|---|---|---|
| **Multimode OM3** | FOTNX06 | FOTNX12 | FOTNX24 | – | – | – | – |
| **Multimode OM4** | FOTNZ06 | FOTNZ12 | FOTNZ24 | – | – | – | – |
| **Singlemode** | FSTN906 | FSTN912 | FSTN924 | FSTN948 | FSTN972 | FSTN996 | FSTN91A |

## Opticore Armored Outside Plant Cable

• Corrugated steel tape armor provides crush resistance and rodent protection
• Gel-free with dry water blocking elements and UV resistant outer jacket
• Applications include ducts, trays and direct burial
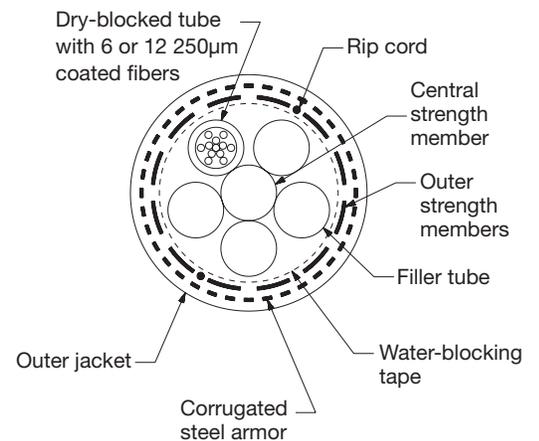


|  | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
|---|---|---|---|---|---|---|---|
| **Multimode OM1** | FSWN606 | FSWN612 | – | – | – | – | – |
| **Multimode OM3** | FOWNX06 | FOWNX12 | FOWNX24 | – | – | – | – |
| **Multimode OM4** | FOWNZ06 | FOWNZ12 | FOWNZ24 | – | – | – | – |
| **Singlemode** | FSWN906 | FSWN912 | FSWN924 | FSWN948 | FSWN972 | FSWN996 | FSWN91A |

## Opticore Hybrid Powered Fiber Cable

- Hybrid cable contains Singlemode (Bend-Insensitive) optical fibers and 12 AWG copper conductors for use in delivering data signals and power to remote devices (wireless access points and surveillance cameras)
- Rugged water blocked cable suitable for indoor and outdoor use
- Options include 2 Fibers (simplex breakout) with 2 conductors or 12 Fibers (loose tube) with 4 or 6 conductors
- Riser rated

**Breakout style**



- Aramid Strength Yarns & Dry Water Blocking Yarns
- 900µm Buffered optical fiber
- 2.0mm Subunit with Aramid & Dry Water Blocking Yarns
- 12 AWG solid copper conductor
- Thermoplastic Jacket
- Ripcord

**Loose tube style**



- Aramid Strength Yarns & Dry Water Blocking Yarns
- 250µm Coated optical fiber
- 3.0mm Loose tube with Aramid & Dry Water Blocking Yarns
- Ripcord
- 12 AWG solid copper conductor
- Thermoplastic Jacket

|  | 2-Fiber Breakout 2 Conductor | 12-Fiber Loose Tube 4 Conductor | 12-Fiber Loose Tube 6 Conductor |
|---|---|---|---|
| Singlemode G.657.A2/B2 | FSHRB02-02S12A | FSHRB12-04S12C | FSHRB12-06S12C |

## Opticore 12 to 144 Fiber Indoor Ribbon Fiber Cable

• For indoor data center pathways

• Terminate 12 fibers at a time with flat or flexible ribbons, compatible with Panduit MPO pigtails and connectors

**Flat ribbon cable**

Core tube — Ripcords (2)
Aramid Yarn
Strength members (2)
12 Fiber ribbon
Outer jacket

**Flexible ribbon cable**

Outer jacket
Aramid strength member
12 Fiber flexible ribbon groups
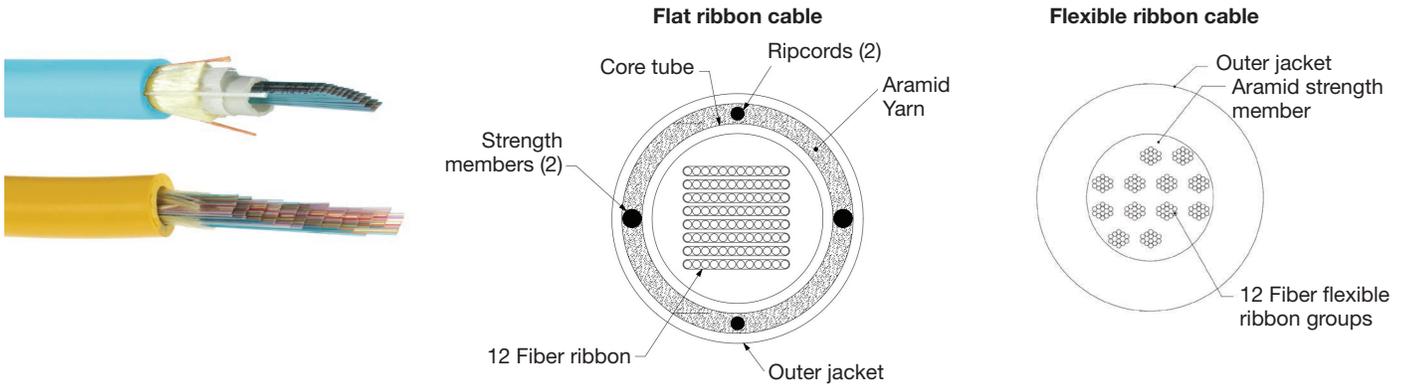
| | Flame rating | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
|---|---|---|---|---|---|---|---|
| **Multimode OM4** | Plenum | FFDPZF012F | FFDPZF024F | FFDPZF048F | FFDPZF072F | FFDPZF096F | — |
| **Singlemode G.657.A1** | Plenum | — | — | — | — | — | FFDPAX144F |
| **Singlemode G.657.A2/B2** | Plenum | FFDPBF012F | FFDPBF024F | FFDPBF048F | FFDPBF072F | FFDPBF096F | — |
| | Riser-LSZH-B2ca | — | — | — | — | — | FFDDBF144-18M |

6th character of part number is ribbon type: F = Flat ribbon, X = Flexible ribbon
Last character of part number is unit of measure: M = Meters, F = Feet

## Opticore 144 to 864 Fiber Indoor-Outdoor Ribbon Fiber Cable

• For building-to-building and within data center halls; install on ladder rack or in ducts

• Flexible 12-fiber ribbons enable small cable diameter and are compatible with Panduit MPO pigtails and connectors

Flame rated outer jacket
Flame retardant core tube
Ripcord
Dielectric strength members
Water blocking threads within ribbons
12 Fiber flexible ribbon groups
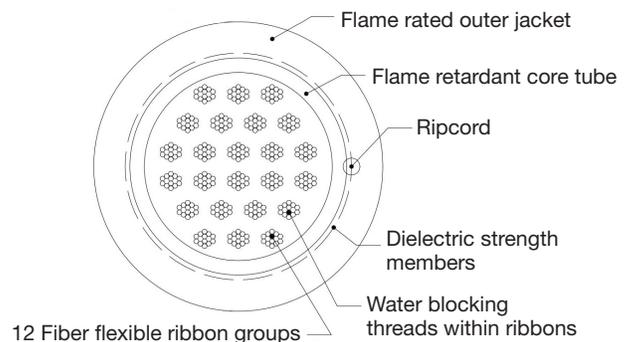
| | Flame rating | 144-Fiber | 288-Fiber | 432-Fiber | 576-Fiber | 864-Fiber |
|---|---|---|---|---|---|---|
| **Singlemode G.657.A2/B2** | Riser-LSZH-Cca | FFCDBX144-28M | FFCDBX288-28M | FFCDBX432-28M | FFCDBX576-29M | FFCDBX864-29M |
| | LSZH-Cca | — | FFCCBX288-24F | — | — | — |

6th character of part number is ribbon type: F = Flat ribbon, X = Flexible ribbon
Last character of part number is unit of measure: M = Meters, F = Feet

## Opticore™ Interconnect Cable

- Indoor cable used in interconnect, horizontal installations, patch cords and routing in tight spaces
- Can be installed in cable trays and panels; supports applications including FTTD



900µm Buffer — Optical fibre — Strength members — Outer jacket
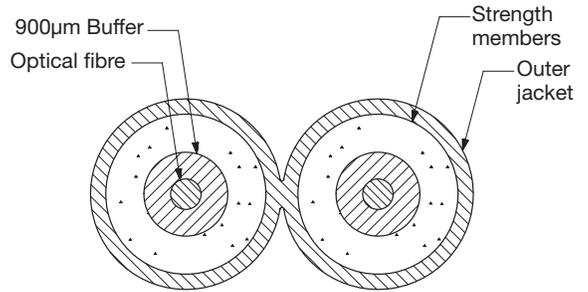
| | EuroClass | 2-Fibre Zipcord |
|---|---|---|
| **Multimode OM3** | Eca | FAICX02-40 |
| **Multimode OM4** | Eca | FAICZ02-40 |
| **Singlemode G.657.A1** | Eca | FAIC902-40 |

## Opticore™ Indoor Distribution Cable

- For indoor use in intra-building backbone and horizontal installations
- Optical fibre is clad in 900µm buffer coating for easy connectorization



Strength members — Optical fibre — 900µm Buffer — Outer jacket
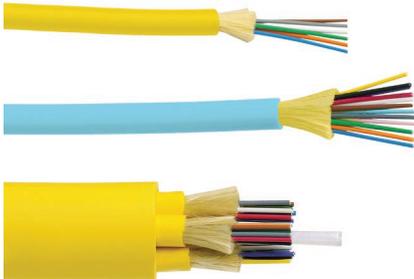
| | EuroClass | 4-Fibre | 6-Fibre | 8-Fibre | 12-Fibre | 24-Fibre | 48-Fibre | 72-Fibre | 96-Fibre |
|---|---|---|---|---|---|---|---|---|---|
| **Multimode OM3** | Cca | — | — | — | FADCX12-24 | FADCX24-24 | — | — | — |
| | Dca | FADCX04-37 | FADCX06-37 | FADCX08-37 | FADCX12-37 | FADCX24-37 | — | — | — |
| **Multimode OM4** | Cca | FADCZ04-24 | FADCZ06-24 | FADCZ08-24 | FADCZ12-24 | FADCZ24-24 | — | — | — |
| | Dca | FADCZ04-37 | FADCZ06-37 | FADCZ08-37 | FADCZ12-37 | FADCZ24-37 | — | — | — |
| | Eca | — | — | — | — | — | FAECZ48-40 | FAECZ72-40 | FAECZ96-40 |
| **Singlemode G.657.A1** | Cca | FADC904-24 | FADC906-24 | FADC908-24 | FADC912-24 | FADC924-24 | — | — | — |
| | Dca | FADC904-37 | FADC906-37 | FADC908-37 | FADC912-37 | FADC924-37 | — | — | — |
| | Eca | — | — | — | — | — | FAEC948-40 | FAEC972-40 | FAEC996-40 |

## Opticore Indoor-Outdoor Cable with Tight Buffered Fibres

- 900μm tight buffered cable provides UV and moisture resistance
- Cca version includes dry water blocking elements (longitudinally water blocked)
- For high density and easy installation
- All-dielectric cable provides an effective solution for inter-building, ducts and entrance facilities
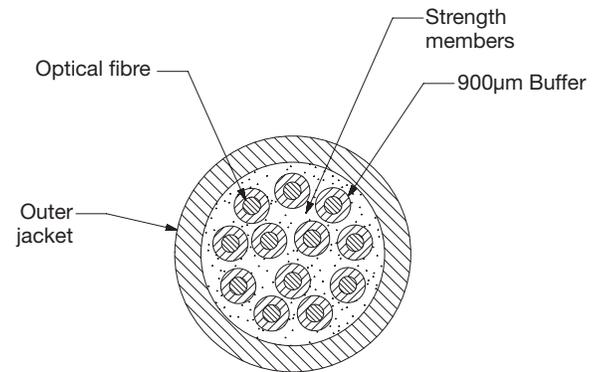
| | EuroClass | 2-Fibre | 4-Fibre | 12-Fibre | 24-Fibre |
|---|---|---|---|---|---|
| Multimode OM3 | Cca | — | — | FAKCX12-24 | FAKCX24-24 |
| | Eca | — | — | FAKCX12-40 | FAKCX24-40 |
| Multimode OM4 | Cca | — | — | FAKCZ12-24 | FAKCZ24-24 |
| | Eca | — | FAKCZ04-40 | FAKCZ12-40 | FAKCZ24-40 |
| Multimode OM5 | Cca | — | — | FAKCW12-24 | FAKCW24-24 |
| Singlemode G.657.A1 | Cca | FAKC902-24 | — | FAKC912-24 | FAKC924-24 |
| | Eca | FAKC902-40 | — | FAKC912-40 | FAKC924-40 |

## Opticore Indoor-Outdoor Cable with Tight Buffered Fibres, 4km reels

- Packaged as single reel with 4 kilometers; ideal for distributors to stock along with Panduit fibre optic connectivity solutions
- UV and moisture resistant with outer jacket that is aqua for multimode, yellow for singlemode
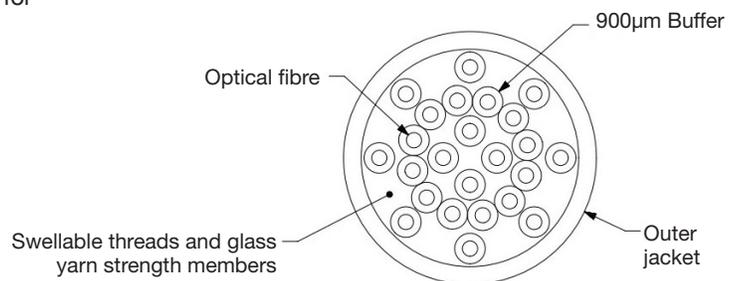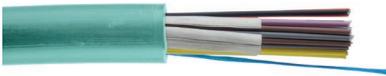
| | EuroClass | 12-Fibre | 24-Fibre |
|---|---|---|---|
| Multimode OM4 | Cca | FAACZ12-24-4K | FAACZ24-24-4K |
| Singlemode G.657.A1 | Cca | FAAC912-24-4K | FAAC924-24-4K |

## Opticore Indoor-Outdoor All-Dielectric Cable, Gel-Filled

• Flame rated cable offers UV resistance, water blocking, high density and easy installation
• All-dielectric cable provides an effective solution for inter-building, ducts and entrance facilities
• Options include central loose tube and stranded loose tube (both are gel-filled)

Water-blocking tape
Outer strength members
Central strength member
Rip cord
Filler tube
Stranded tube sub-unit, gel-filled, with 12 250µm coated fibres
Flame retardant outer jacket

**Central Tube**

| | EuroClass | 4-Fibre | 6-Fibre | 8-Fibre | 12-Fibre | 24-Fibre |
|---|---|---|---|---|---|---|
| **Multimode OM3** | Cca | — | — | — | FACCX12-24 | FACCX24-24 |
| | Eca | FACCX04-40 | FACCX06-40 | FACCX08-40 | FACCX12-40 | FACCX24-40 |
| **Multimode OM4** | B2ca | — | — | — | FACCZ12-14 | FACCZ24-14 |
| | Cca | FACCZ04-24 | FACCZ06-24 | FACCZ08-24 | FACCZ12-24 | FACCZ24-24 |
| | Eca | FACCZ04-40 | FACCZ06-40 | FACCZ08-40 | FACCZ12-40 | FACCZ24-40 |
| **Multimode OM5** | Cca | — | — | — | FACCW12-24 | FACCW24-24 |
| **Singlemode** | B2ca | — | — | — | FACC912-14 | FACC924-14 |
| | Cca | FACC904-24 | FACC906-24 | FACC908-24 | FACC912-24 | FACC924-24 |
| | Eca | FACC904-40 | FACC906-40 | FACC908-40 | FACC912-40 | FACC924-40 |

**Stranded Tube**

| | EuroClass | 48-Fibre | 72-Fibre | 96-Fibre | 144-Fibre |
|---|---|---|---|---|---|
| **Multimode OM4** | Cca | FANCZ48-24 | — | — | — |
| | Eca | FANCZ48-40 | — | — | — |
| **Singlemode G.657.A1** | Cca | FANC948-24 | FANC972-24 | FANC996-24 | FANC91A-24 |
| | Eca | FANC948-40 | FANC972-40 | FANC996-40 | FANC91A-40 |

## Opticore Indoor-Outdoor Armoured Cable, Gel-Filled

• Flame rated cable offers UV resistance, water blocking, high density and easy installation
• Corrugated steel tape armour is suitable for ducts, trays and direct burial
• Options include central loose tube and stranded loose tube (both are gel-filled)
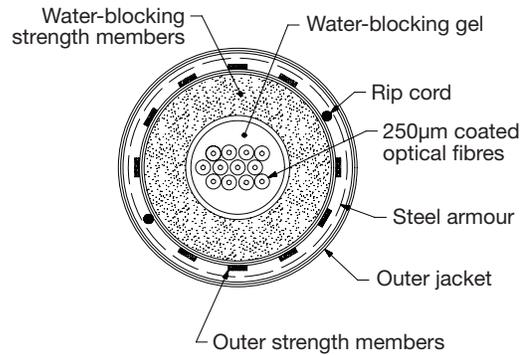


| | EuroClass | Central Tube | | Stranded Tube | | | |
|---|---|---|---|---|---|---|---|
| | | 12-Fibre | 24-Fibre | 48-Fibre | 72-Fibre | 96-Fibre | 144-Fibre |
| Multimode OM3 | Eca | FAGCX12-40 | FAGCX24-40 | — | — | — | — |
| Multimode OM4 | B2ca | FAGCZ12-14 | FAGCZ24-14 | FAMCZ48-14 | FAMCZ72-14 | FAMCZ96-14 | FAMCZ1A-14 |
| | Cca | — | — | FAMCZ48-24 | FAMCZ72-24 | FAMCZ96-24 | FAMCZ1A-24 |
| | Eca | FAGCZ12-40 | FAGCZ24-40 | — | — | — | — |
| Singlemode G.657.A1 | B2ca | FAGC912-14 | FAGC924-14 | FAMC948-14 | FAMC972-14 | FAMC996-14 | FAMC91A-14 |
| | Cca | — | — | FAMC948-24 | FAMC972-24 | FAMC996-24 | FAMC91A-24 |
| | Eca | FAGC912-40 | FAGC924-40 | FAMC948-40 | — | — | — |

## Opticore All-Dielectric Outside Plant Cable, Gel-Filled

- Gel-filled water blocked loose tubes and UV resistant outer jacket
- For use in aerial (with messenger wire) and duct applications
- Non-metallic cable does not require grounding and bonding



Gel-filled tube containing 250µm coated fibres
Rip cord
Central strength member
Filler tube
Outer jacket
Water-blocking tape
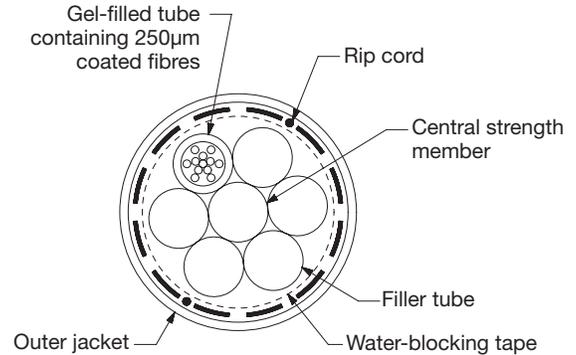
| | Central Tube | | Stranded Tube | | | |
|---|---|---|---|---|---|---|
| | 4-Fibre | 6-Fibre | 48-Fibre | 72-Fibre | 96-Fibre | 144-Fibre |
| Multimode OM4 | FQUNZ04 | FQUNZ06 | – | – | – | – |
| Singlemode G.657.A1 | FPUN904 | FPUN906 | FPTN948 | FPTN972 | FPTN996 | FPTN91A |

## Opticore Armoured Outside Plant Cable, Gel-Filled

- Corrugated steel tape armour provides crush resistance and rodent protection
- Gel-filled water blocked loose tubes and UV resistant outer jacket
- Applications include ducts, trays and direct burial



Flame retardant jacket
Gel-filled tube containing up to 24 250µm fibres
Corrugated steel armour
Water blocking strength member

Gel-filled tube containing 250µm coated fibres
Rip cord
Central strength member
Filler tube
Inner jacket
Outer jacket
Corrugated steel armour
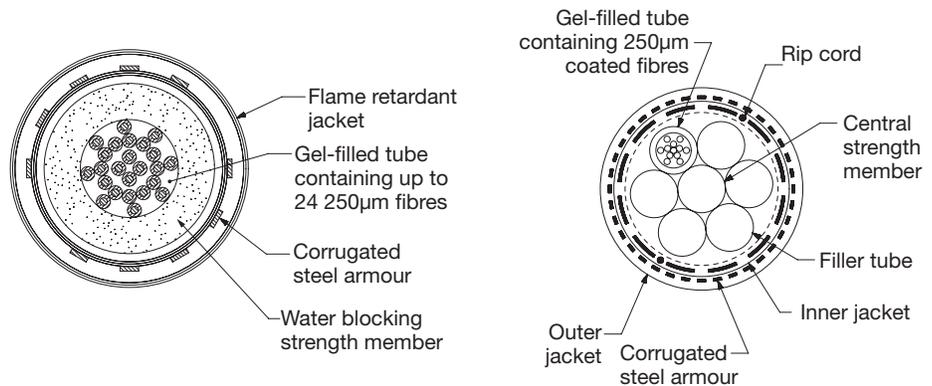
**Central Tube, Single Armour Single Jacket**

| | 4-Fibre | 6-Fibre | 8-Fibre | 12-Fibre | 24-Fibre |
|---|---|---|---|---|---|
| Multimode OM4 | – | FQSNZ06 | – | FQSNZ12 | FQSNZ24 |
| Singlemode G.657.A1 | FPSN904 | FPSN906 | FPSN908 | FPSN912 | FPSN924 |

**Stranded Tube, Single Armour Double Jacket**

| | 8-Fibre | 12-Fibre | 24-Fibre | 48-Fibre | 72-Fibre | 96-Fibre | 144-Fibre |
|---|---|---|---|---|---|---|---|
| Singlemode G.657.A1 | FPQN908B | FPQN912B | FPQN924B | FPQN948B | FPQN972B | FPQN996B | FPQN91AB |

## Opticore Interconnect Cable

• Indoor cable used in interconnect, horizontal installations, patch cords and routing in tight spaces
• Can be installed in cable trays and panels; supports applications including FTTD



Strength members — Optical fiber
Outer jacket — 900µm buffer

| | 2-Fiber Zipcord, Riser | 2-Fiber Zipcord, LSZH |
|---|---|---|
| **Multimode OM3** | FLIRX02Y | FLILX02Y |
| **Multimode OM4** | FLIRZ02Y | FLILZ02Y |
| **Singlemode** | FLIR902Y | FLIL902Y |
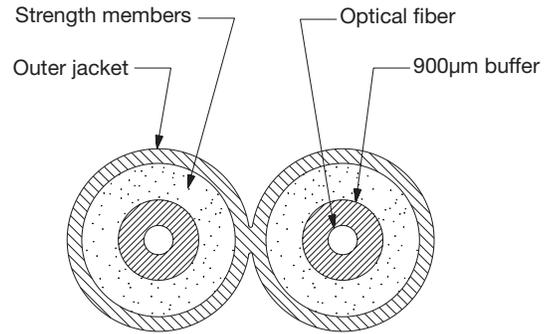
## Opticore® Indoor Distribution Cable

• For indoor use in intra-building backbone and horizontal installations
• Optical fiber is clad in 900µm buffer coating for easy connectorization



Strength members
900µm Buffer
Optical fibre
Outer jacket

| | Flame rating | 2-Fiber | 4-Fiber | 6-Fiber | 8-Fiber | 12-Fiber | 24-Fiber | 48-Fiber |
|---|---|---|---|---|---|---|---|---|
| **Multimode OM3** | LSZH | FLDLX02Y | FLDLX04Y | FLDLX06Y | FLDLX08Y | FLDLX12Y | FLDLX24Y | FLDLX48Y |
| | Riser | FLDRX02Y | FLDRX04Y | FLDRX06Y | FLDRX08Y | FLDRX12Y | FLDRX24Y | FLDRX48Y |
| **Multimode OM4** | LSZH | FLDLZ02Y | FLDLZ04Y | FLDLZ06Y | FLDLZ08Y | FLDLZ12Y | FLDLZ24Y | FLDLZ48Y |
| | Riser | FLDRZ02Y | FLDRZ04Y | FLDRZ06Y | FLDRZ08Y | FLDRZ12Y | FLDRZ24Y | FLDRZ48Y |
| **Singlemode** | LSZH | FLDL902Y | FLDL904Y | FLDL906Y | FLDL908Y | FLDL912Y | FLDL924Y | FLDL948Y |
| | Riser | FLDR902Y | FLDR904Y | FLDR906Y | FLDR908Y | FLDR912Y | FLDR924Y | FLDR948Y |

## Opticore Indoor-Outdoor Cable with Tight Buffered Fibers

- Indoor-Outdoor 900µm tight-buffered cable provides UV resistance, dry water blocking, high density and easy installation
- All-dielectric cable provides an effective solution for inter-building, ducts and entrance facilities



Strength members
Optical fiber
900µm Buffer
Outer jacket
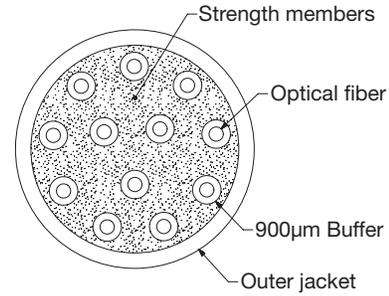
| | Flame rating | 4-Fiber | 6-Fiber | 8-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber |
|---|---|---|---|---|---|---|---|---|
| Multimode OM3 | LSZH | FLKLX04 | FLKLX06 | FLKLX08 | FLKLX12 | FLKLX24 | — | — |
| | Riser | FLKRX04 | FLKRX06 | FLKRX08 | FLKRX12 | FLKRX24 | — | — |
| Multimode OM4 | LSZH | FLKLZ04 | FLKLZ06 | FLKLZ08 | FLKLZ12 | FLKLZ24 | — | — |
| | Riser | FLKRZ04 | FLKRZ06 | FLKRZ08 | FLKRZ12 | FLKRZ24 | — | — |
| Singlemode | LSZH | FLKL904 | FLKL906 | FLKL908 | FLKL912 | FLKL924 | FLKL948 | FLKL972 |
| | Riser | FLKR904 | FLKR906 | FLKR908 | FLKR912 | FLKR924 | FLKR948 | FLKR972 |

## Opticore Indoor-Outdoor All-Dielectric Cable, Gel-Filled

- Flame rated cable offers UV resistance, water blocking, high density and easy installation
- All-dielectric cable provides an effective solution for inter-building, ducts and entrance facilities
- Options include central loose tube and stranded loose tube (both are gel-filled)



Water-blocking tape
Outer strength members
Central strength member
Rip cord
Filler tube
Flame retardant outer jacket
Stranded tube sub-unit, gel-filled, with 12 250µm coated fibers
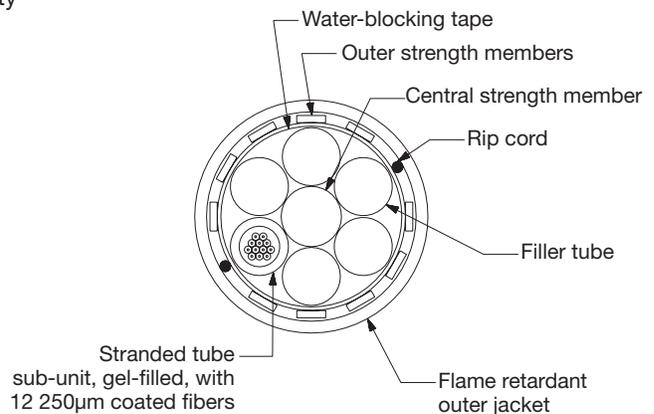
| | | Central Tube | | | Stranded Tube | |
|---|---|---|---|---|---|---|
| | Flame rating | 4-Fiber | 6-Fiber | 12-Fiber | 24-Fiber | 48-Fiber |
| Multimode OM4 | LSZH | FLCLZ04Y | FLCLZ06Y | FLCLZ12Y | FLNLZ24Y | FLNLZ48Y |
| | Riser | FLCRZ04Y | FLCRZ06Y | FLCRZ12Y | FLNRZ24Y | FLNRZ48Y |
| Singlemode | LSZH | FLCL904Y | FLCL906Y | FLCL912Y | FLNL924Y | FLNL948Y |
| | Riser | FLCR904Y | FLCR906Y | FLCR912Y | FLNR924Y | FLNR948Y |

## Opticore All-Dielectric Outside Plant Cable, Gel-Filled

- Gel-filled water blocked loose tubes and UV resistant outer jacket
- For use in aerial (with messenger wire) and duct applications
- Non-metallic cable does not require grounding and bonding



Tube containing up to 12 250μm coated fibers — Rip cord — Central strength member — Outer strength member — Filler tubes — Outer jacket
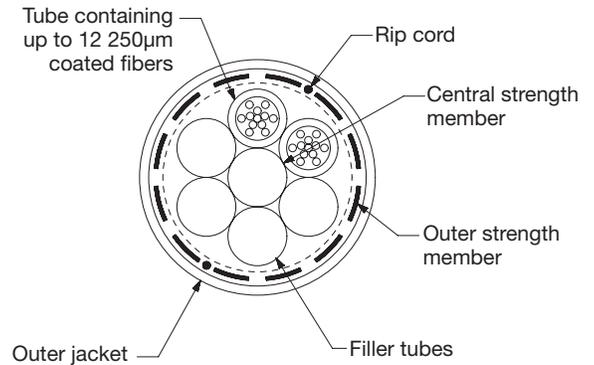
| | 4-Fiber | 6-Fiber | 8-Fiber | 12-Fiber | 24-Fiber |
|---|---|---|---|---|---|
| **Multimode OM3** | — | FLTNX06 | — | FLTNX12 | FLTNX24 |
| **Multimode OM4** | — | FLTNZ06 | — | FLTNZ12 | FLTNZ24 |
| **Singlemode** | FLTN904 | FLTN906 | FLTN908 | FLTN912 | FLTN924 |

## Opticore Armored Outside Plant Cable, Gel-Filled

- Corrugated steel tape armor provides crush resistance and rodent protection
- Gel-filled water blocked loose tubes and UV resistant outer jacket
- Applications include ducts, trays and direct burial



Stranded tube containing 12 250μm coated fibers, gel-filled — Rip cord — Central strength member — Filler tube — Water-blocking tape — Outer jacket — Corrugated steel armor
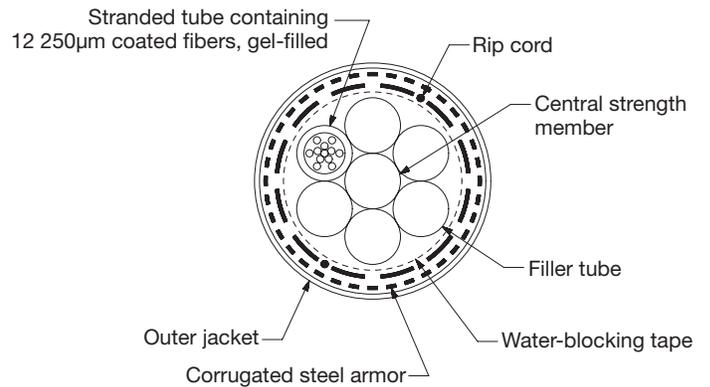
| | Central Tube | | | | | | Stranded Tube | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2-Fiber | 4-Fiber | 6-Fiber | 8-Fiber | 12-Fiber | 24-Fiber | 48-Fiber | 72-Fiber | 96-Fiber | 144-Fiber |
| **Multimode OM3** | — | — | FLSNX06 | — | FLSNX12 | FLSNX24 | — | — | — | — |
| **Multimode OM4** | — | — | FLSNZ06 | — | FLSNZ12 | FLSNZ24 | — | — | — | — |
| **Singlemode** | FLSN902 | FLSN904 | FLSN906 | FLSN908 | FLSN912 | FLSN924 | FLWN948 | FLWN972 | FLWN996 | FLWN91A |

## Armored Cable Grounding & Bonding Kits

• Provides a secure bond to the armor sheath on indoor and indoor/outdoor fiber optic cables at both cassette and enclosure ends

• Worm-gear design evenly distributes forces across the armor, is compatible with common armor for long term reliability

| Part number | Description |
|---|---|
| ACGK | Armored cable grounding kit with one grounding terminal for #6 AWG and one #10 mechanical clamp, 9/16" – 1 1/16" diameter range. |
| ACG24K | #6 AWG(16mm²) jumper for armored cable diameter up to 0.84" (21.3mm); 24" (609.6mm) length; factory terminated on one end with LCC6 two-hole copper compression lug and the other end with grounding terminal; provided with two each #12-24 and M6 thread-forming screws and a Black polypropylene terminal cover |
| ACG24K-500 | #6 AWG(16mm²) jumper for armored cable diameter 0.85" (21.3mm) to 1.03" (26.2mm); 24" (609.6mm) length; factory terminated on one end with LCC6 two-hole copper compression lug and the other end with grounding terminal; provided with two each #12-24 and M6 thread-forming screws and a Black polypropylene terminal cover. |
| ACG24KX-500 | #6 AWG(16mm²) jumper for armored cable diameter 0.94" (23.9mm) to 1.5" (38.1mm); 24" (609.6mm) length; factory terminated on one end with LCC6 two-hole copper compression lug and the other end with grounding terminal; provided with two each #12-24 and M6 thread-forming screws and a Black polypropylene terminal cover. |

## Cable Slack Spool

• Can be mounted to 4 post racks or used in vertical building risers

| Part number | Description |
|---|---|
| WMFS24 | Wall Mount Fiber Spool 24" – provides proper bend radius for excess cable storage. The steel ring has many different mounting options, including wall mount or various mounting methods to 4 post racks. The ring is 24 inches in diameter. Includes hook and loop for easy cable tie-off. Product is Black. |

## OptiCam® Pre-Polished Cam Fiber Optic Termination Kit

- For termination of all Panduit OptiCam Pre-Polished Connectors
- OptiCam 2 Termination Tool simplifies tooling and termination by providing calculated insertion loss at the point of termination

**FOCTT2-BKIT2**          **FOCTT2-KIT**          **FOCTT2-PKIT2**

## OptiCam® Pre-Polished and Fusion Splice Fiber Optic Connectors

- TIA/EIA-604 FOCIS compatible connectors
- Exceed TIA/EIA-568-D.3 requirements
- Connector housing and boot colors follow TIA/EIA-568-D.3 suggested color identification scheme
- Non-optical disconnect on OptiCam Connectors maintain data transmission under tensile loads for jacketed cable
- Quick installation provides field termination in less than half the time of field polish connectors
- Patented re-termination capability on OptiCam Connectors provide yield rates approaching 100%
- Factory pre-polished fiber endface eliminates time-consuming field polishing to reduce installation costs, labor, scrap and the number of tools required
- OptiCam Cam activated fiber and buffer clamp mechanisms provide superior fiber and buffer retention – less sensitivity to fiber tensile loading

# OptiCam® Pre-Polished Fiber Optic Connectors

## *LC OptiCam® Pre-Polished Fiber Optic Connectors*

• Quick installation – provides field termination in less than half the time of field polish connectors. Patented re-termination capability.
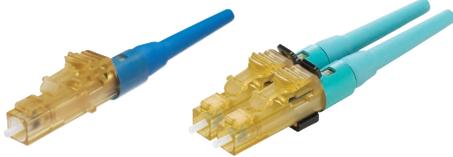
### s e l e c t i o n   i n f o r m a t i o n

| Part Number | Connector Type | Ferrule Material | Fiber | Ferrule Finish | Backbone Color | Boot Color | Average Insertion Loss** | Return Loss |
|---|---|---|---|---|---|---|---|---|
| FLCSMCXAQY | Simplex | Zirconia Ceramic | 10 GbE 50/125µm (laser optimized) OM3/OM4 | PC | Aqua | Aqua | 0.3dB | >26dB |
| FLCDMCXAQY | Duplex | | | | | | | |
| FLCSMC6EIY | Simplex | Zirconia Ceramic | 62.5/125µm OM1 | PC | Electric Ivory | Electric Ivory | 0.3dB | >20dB |
| FLCSSCBUY | Simplex | Zirconia Ceramic | 9/125µm OS1/OS2 | UPC | Blue | Blue | 0.3dB | >50dB |
| FLCDSCBUY | Duplex | | | | | | | |

**All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.
Add-C for 100 pack connectors.
Simplex connectors can be made into duplex using FLCCLIPBL-L.

## *SC OptiCam® Pre-Polished Fiber Optic Connectors*

### s e l e c t i o n   i n f o r m a t i o n

| Part Number | Connector Type | Ferrule Material | Fiber | Ferrule Finish | Housing Color | Backbone Color | Boot Color | Average Insertion Loss** | Return Loss |
|---|---|---|---|---|---|---|---|---|---|
| FSC2MCXAQ | Simplex | Zirconia Ceramic | 10 GbE 50/125µm (laser optimized) OM3/OM4 | PC | Black | Aqua | Aqua | 0.3dB | >26dB |
| FSC2DMCXAQ | Duplex | | | | | | | | |
| FSC2MC6EI | Simplex | Zirconia Ceramic | 62.5/125µm OM1 | PC | Electric Ivory | Electric Ivory | Electric Ivory | 0.3dB | >20dB |
| FSC2DMC6EI | Duplex | | | | | | | | |
| FSC2SCBU | Simplex | Zirconia Ceramic | 9/125µm OS1/OS2 | UPC | Blue | Blue | Blue | 0.3dB | >50dB |

**All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.
Add-C for 100 pack connectors.
Simplex connectors can be made into duplex using FSCCLIP-L.

## ST OptiCam® Pre-Polished Fiber Optic Connectors



| Part Number | Connector Type | Ferrule Material | Fiber | Ferrule Finish | Backbone Color | Boot Color | Average Insertion Loss** | Return Loss |
|---|---|---|---|---|---|---|---|---|
| FST2MCXAQ | Simplex | Zirconia Ceramic | 10 GbE 50/125µm (laser optimized) OM3/OM4 | PC | Natural | Aqua | 0.3dB | >26dB |
| FST2MC6EI | Simplex | Zirconia Ceramic | 62.5/125µm OM1 | | Natural | Electric Ivory | 0.3dB | >20dB |
| FST2SCBU | Simplex | Zirconia Ceramic | 9/125µm OS1/OS2 | UPC | Natural | Blue | 0.3dB | >50dB |

**All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

## Fusion Splice Fiber Optic Connectors



| Part Number | Connector Type | Polish | Color | Fiber | Insertion Loss* | Return Loss |
|---|---|---|---|---|---|---|
| FLCS2/9SOCU9BU | Simplex LC | UPC | Blue | 9/125µm OS1/OS2 | 0.15dB Average | >55dB |
| FLCS2/9SOCA9AG | Simplex LC | APC | Green | 9/125µm OS1/OS2 | 0.15dB Average | >65dB |
| FLCS2/9SOCPXAQ | Simplex LC | PC | Aqua | 50/125µm OM2, OM3, OM4 | 0.10dB Average | >30dB |
| FSCS2/9SOCU9BU | Simplex SC | UPC | Blue | 9/125µm OS1/OS2 | 0.15dB Average | >55dB |
| FSCS2/9SOCA9AG | Simplex SC | APC | Green | 9/125µm OS1/OS2 | 0.15dB Average | >65dB |
| FSCS2/9SOCPXAQ | Simplex SC | PC | Aqua | 50/125µm OM2, OM3, OM4 | 0.10dB Average | >30dB |

## Fiber Optic Termination Accessories



| Part Number | Description |
|---|---|
| FSPCVR | Precision fiber optic cleave tool with rotary blade for 7mm and 10mm cleaves.connector termination. |
| FO6CB | The fan-out kit for six fibers is used to build up 250µm fiber to the 900µm tight-buffered coating size for connector termination. |
| FO12CB | The fan-out kit for twelve fibers is used to build up 250µm fiber to 900µm tight-buffered coating size for connector termination. |
| F250BT-C | 250 micron fiber build-up tube kit, includes 100 build-up tubes and supplemental installation instructions to build up to 250µm fiber to 900µm. |
| FOLPC-1.25MM | 1.25mm Multimode fiber optic patch cord for OCTT2 (termination tool). |
| FOLPC-1.25SM | 1.25mm Singlemode fiber optic patch cord for OCTT2 (termination tool). |
| FOLPC-2.5MM | 2.5mm Multimode fiber optic patch cord for use with OCTT2 (termination tool). |
| FOLPC-2.5SM | 2.5mm Singlemode fiber optic patch cord for use with OCTT2 (termination tool). |
| OCTTR1.25SS | Replacement 1.25mm split sleeves for Opticam Termination Tool. 5 sleeves. |
| OCTTR2.5SS | Replacement 2.5mm split sleeves for Opticam Termination Tool. 5 sleeves. |
| FLCCLIPBL-L | LC Duplex Clip, Pack of 50, for OptiCam Connectors, Black. |

**PANDUIT**®