Fiber Optic Cabling Infrastructure Offering

PANDUIT®

infrastructure for a connected world

High-Speed Fiber Cabling Systems

Panduit provides high bandwidth and mission-critical physical infrastructures in data center, enterprise, 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 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

Panduit provides 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

Panduit's 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 Panduit 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 (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 can be installed in ducts, plenums, and other spaces used for building airflow. This is the highest fire rating fiber cable and no other cable types can be used as substitutes.

Plenum Rated Cable (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 (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 (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. The 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 a OFNR rated cable.

EuroClass

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.

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.

Opti-Core® Interconnect Cable

Used in interconnect, horizontal installations, routing in tight spaces such as panels, cable trays, and fiber-to-the-desk (FTTD) applications.

Strength members

Outer jacket

Optical fiber

900µm buffer
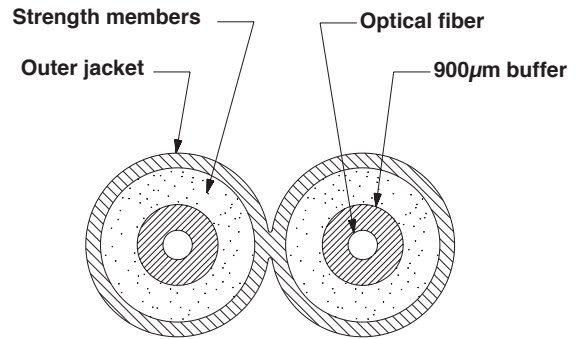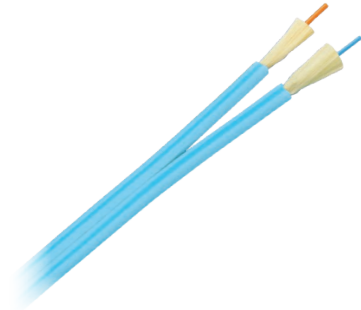
Character	1	2	3	4	5	6	7	8
Example	F	O	I	P	X	0	2	Y

1 and 2 – Fiber Product
FS = Fiber – OM1, OM2, OS2
FO = Fiber – OM3, OM4

3 – Cable Construction
I = Interconnect cable

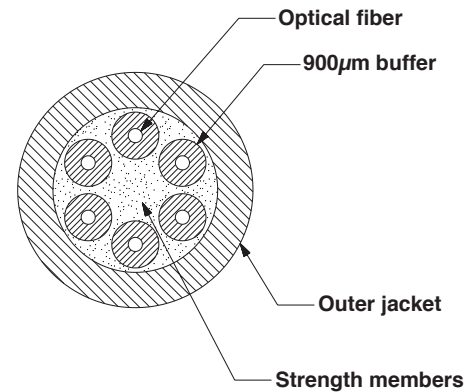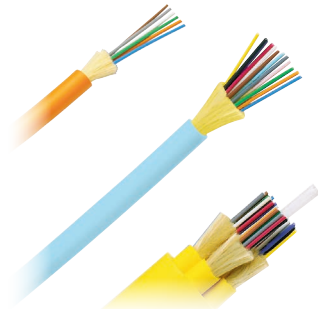**4 – Flame Rating**
P = Plenum
R = Riser

5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 6.25//125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
02 = 2-fiber

8 – RoHS
Y = RoHs compliant

Opti-Core® Indoor Distribution Cable

For indoor use in intra-building backbone and horizontal installations.

Optical fiber

900µm buffer

Outer jacket

Strength members

Character	1	2	3	4	5	6	7	8
Example	F	S	D	P	9	0	6	Y

1 and 2 – Fiber Product
FS = Fiber – OM1, OM2, OS2
FO = Fiber – OM3, OM4
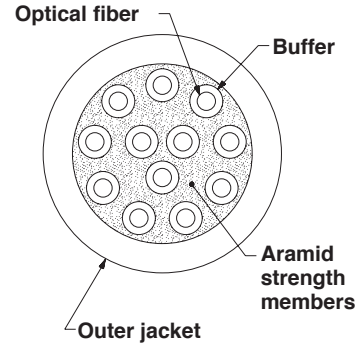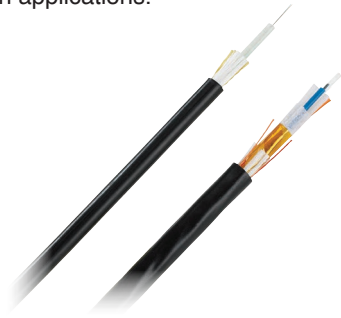
3 – Cable Construction
D = Distribution cable

4 – Flame/Smoke Rating
R = Riser (OFNR)
P = Plenum (OFNP)
L= Low Smoke Zero Halogen (LSZH) *only 6,12,24 Fibers

5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
06 = 6-fiber
12 = 12-fiber
24 = 24-fiber
36 = 36-fiber
48 = 48-fiber
72 = 72-fiber

8 – RoHS
Y = RoHS compliant

Opti-Core® Indoor/Outdoor All-Dielectric Cable with Tight Buffered Fibers

These cables provide an effective solution for inter-building and building transition applications.

Optical fiber
Buffer
Aramid strength members
Outer jacket

Character	1	2	3	4	5	6	7
Example	F	S	K	R	9	1	2

1 and 2 – Fiber Product
FS = Fiber – OM1, OM2, OS2
FO = Fiber – OM3, OM4

3 – Cable Construction
K = Indoor/outdoor tight buffered unarmored

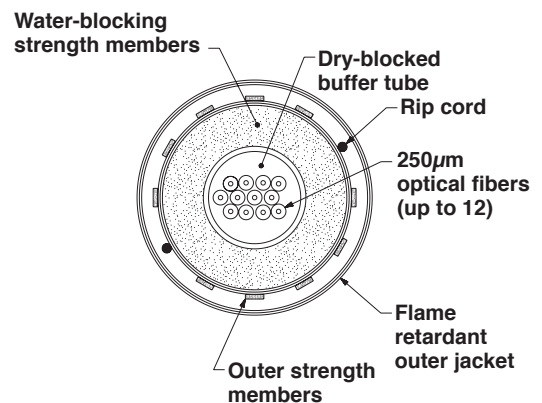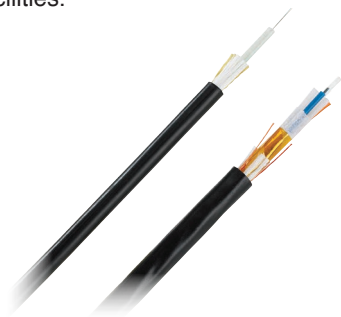**4 – Flame/Smoke Rating**
R = Riser
P = Plenum

5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 6.25//125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
02 = 2-fiber
04 = 4-fiber
06 = 6-fiber
08 = 8-fiber
12 = 12-fiber
24 = 24-fiber

36 = 36-fiber
48 = 48-fiber
72 = 72-fiber
96 = 96-fiber
1A = 144-fiber (Riser only)

Opti-Core® Indoor/Outdoor All-Dielectric Cable

Allows installation using loose tube cable methods within buildings and outdoor environments for transitional aerial, duct applications, and entrance facilities.

Water-blocking strength members
Dry-blocked buffer tube
Rip cord
250µm optical fibers (up to 12)
Flame retardant outer jacket
Outer strength members

Character	1	2	3	4	5	6	7	8
Example	F	S	C	P	9	0	6	Y

1 and 2 – Fiber Product
FS = Fiber – OM1, OM2, OS2
FO = Fiber – OM3, OM4

3 – Cable Construction
C = Indoor/outdoor central tube (up to 12 fibers)
N = Indoor/outdoor stranded tube (24 fibers and greater)

4 – Flame Rating
R = Riser
P = Plenum
L= Low Smoke Zero Halogen (LSZH) *only 6,12,24 Fibers

5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm

X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
06 = 6-fiber
12 = 12-fiber
24 = 24 fiber
36 = 36 fiber
48 = 48 fiber
72 =72 fiber

96 = 96 fiber
1A = 144 fiber
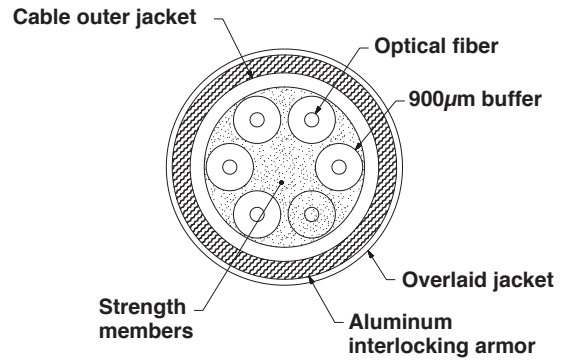
8 – RoHS
Y = RoHS compliant
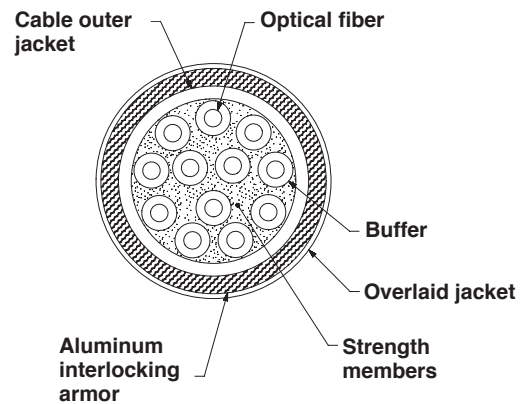
Opti-Core® Interlocking Armored Cable Offering

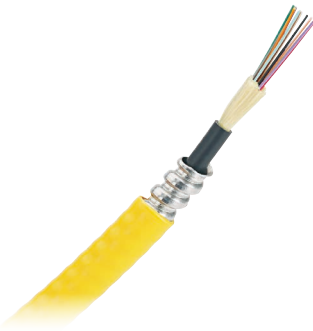## Opti-Core® Indoor Interlocking Armored Cable

Used in intrabuilding backbone, building backbone, horizontal installations and harsh environments.

Cable outer jacket

Optical fiber

900µm buffer

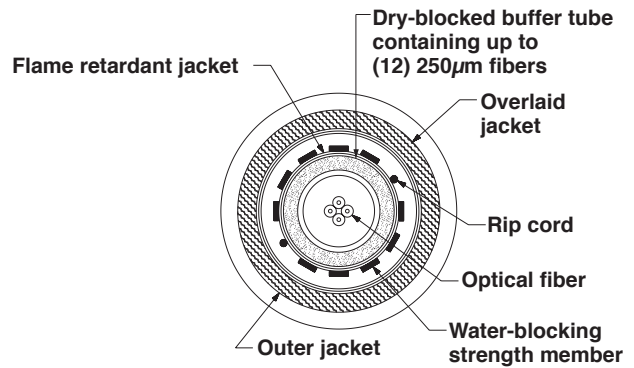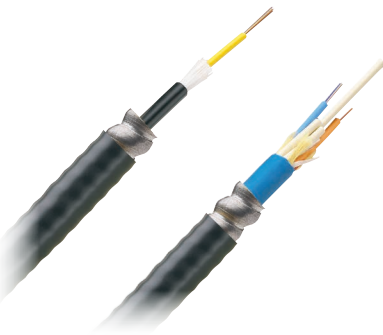Strength members

Aluminum interlocking armor

Overlaid jacket

Opti-Core® Indoor/Outdoor Interlocking Armored Cable with Tight Buffered Fibers

For use indoors and outdoors. Interlocking aluminum armor eliminates the need for inner duct or conduit.

Cable outer jacket

Optical fiber

Buffer

Overlaid jacket

Aluminum interlocking armor

Strength members

THIS

Opti-Core® Indoor/Outdoor Interlocking Armored Cable

For use indoor and outdoors. Central loose tube constructions. Interlocking aluminum armor eliminates the need for inner duct or conduit.

Dry-blocked buffer tube containing up to (12) 250µm fibers

Flame retardant jacket

Overlaid jacket

Rip cord

Optical fiber

Outer jacket

Water-blocking strength member

Character	1	2	3	4	5	6	7	8
Example	F	S	G	P	9	0	6	Y

1 and 2 – Fiber Product
FS = Fiber – OM1, OM2, OS2
FO = Fiber – OM3, OM4

3 – Cable Construction
G = Indoor/outdoor interlocking armored central tube (up to 12 fibers)
M = Indoor/outdoor interlocking armored stranded tube (24 fibers and greater)
L = Indoor/outdoor tight buffered
P = Indoor interlocking armored

4 – Flame Rating
R = Riser
P = Plenum

5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
02 = 2-fiber
04 = 4-fiber
06 = 6-fiber
08 = 8-fiber
12 = 12-fiber
24 = 24-fiber
36 = 36-fiber
48 = 48-fiber
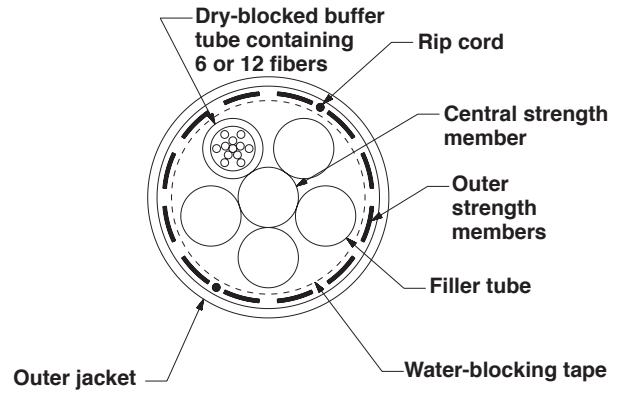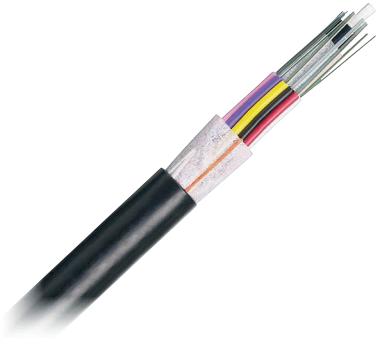72 = 72 fiber
96 = 96-fiber
1A = 144-fiber

8 – RoHS
Y = RoHS compliant

Opti-Core® Gel-Free All-Dielectric Outside Plant Cable

For use outdoors in aerial and duct applications.

Dry-blocked buffer tube containing 6 or 12 fibers
Rip cord
Central strength member
Outer strength members
Filler tube
Water-blocking tape
Outer jacket

Character	1	2	3	4	5	6	7
Example	F	O	T	N	X	0	6

1 and 2 – Fiber Product
FS = Fiber – OM1, OM2, OS2
FO = Fiber – OM3, OM4

3 – Cable Construction
T = Outside plant stranded cable (all fiber counts)

4 – Flame Rating
N = Non-rated

5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 6.25//125µm
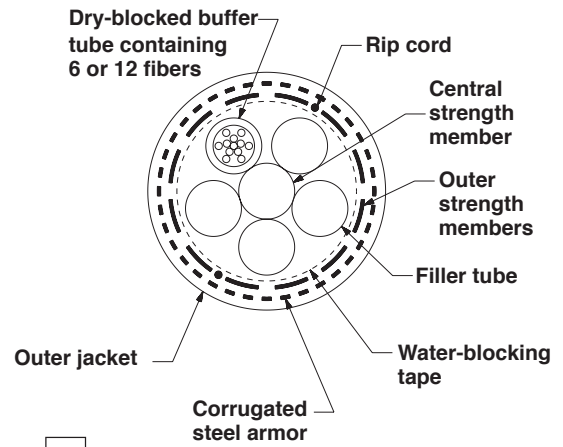5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
06 = 6-fiber
12 = 12-fiber
24 = 24-fiber
36 = 36-fiber
48 = 48-fiber
72 = 72-fiber
96 = 96-fiber
1A = 144-fiber

Opti-Core® Gel-Free Armored Outside Plant Cable

Corrugated steel armor provides superior crush resistance for extended durability in direct burial applications.

Dry-blocked buffer tube containing 6 or 12 fibers
Rip cord
Central strength member
Outer strength members
Filler tube
Outer jacket
Water-blocking tape
Corrugated steel armor

Character	1	2	3	4	5	6	7
Example	F	O	W	N	X	0	6

1 and 2 – Fiber Product
   FS = Fiber – OM1, OM2, OS2
   FO = Fiber – OM3, OM4

3 – Cable Construction
   W = Outside plant armored stranded cable (all fiber counts)

4 – Flame/Smoke Rating
   N = Non-rated

5 – Fiber Type
   9 = OS2 9/125µm
   6 = OM1 6.25/125µm
   5 = OM2 50/125µm
   X = OM3 10G 50/125µm
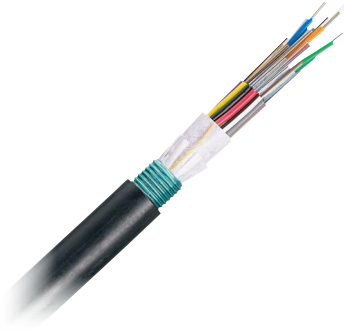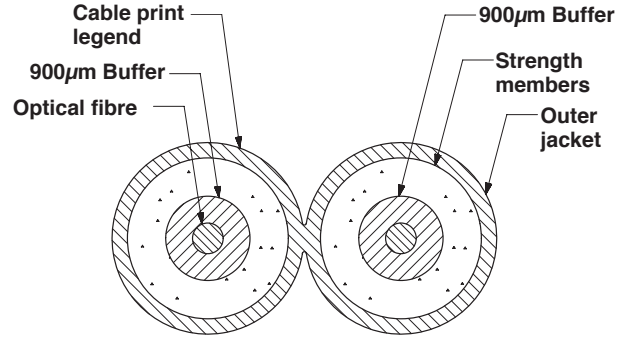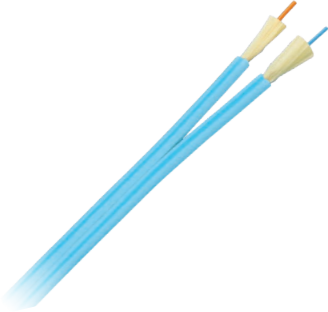   Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
   06 = 6-fiber
   12 = 12-fiber
   24 = 24-fiber
   36 = 36-fiber
   48 = 48-fiber
   72 = 72-fiber
   96 = 96-fiber
   1A = 144-fiber

Opti-Core® Interconnect Cable

Used in interconnect, horizontal installations, and for routing in tight spaces such as panels, cable trays, and fibre-to-the-desk (FTTD) applications.

Cable print legend

Optical fibre

900µm Buffer

900µm Buffer

Strength members

Outer jacket

Character	1	2	3	4	5	6	7	8	9	10
Example	F	A	I	C	X	0	2	-	4	0

1 and 2 – Fibre Product
FA = Fibre
3 – Cable Construction
I = Interconnect zip-cord cable
4 – Flame Rating
C = Euroclass rated

5 – Fibre Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 50/125µm
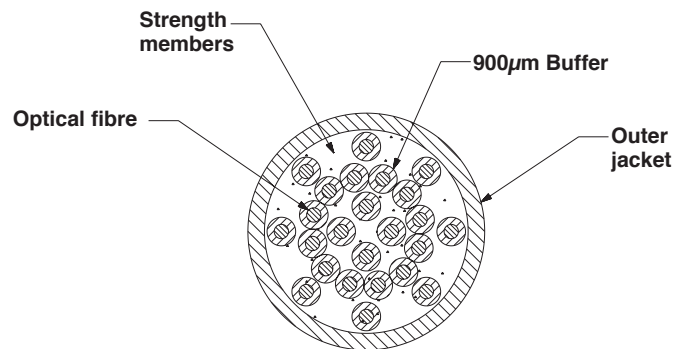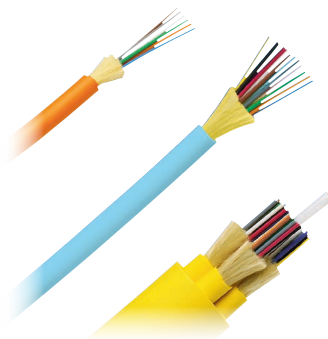Z = OM4 50/125µm

6 and 7 – Fibre Count
02 = 2-fibre
8 – Dash
9 and 10 – Euroclass Code
40-Eca

Opti-Core® Indoor Distribution Cable

For indoor use in intrabuilding backbone and horizontal installations.

Strength members

900µm Buffer

Optical fibre

Outer jacket

Character	1	2	3	4	5	6	7	8	9	10
Example	F	A	D	C	9	1	2	-	3	7

1 and 2 – Fibre Product
FA = Fibre
3 – Cable Construction
D = Distribution cable (up to 24 fibre)
E = Distribution cable (36 fibre and greater)

4 – Flame Rating
C = EuroClass rated
5 – Fibre Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 50/125µm
Z = OM4 50/125µm

6 and 7 – Fibre Count
02 = 2-fibre
04 = 4-fibre
06 = 6-fibre
08 = 8-fibre
12 = 12-fibre
24 = 24-fibre
36 = 36-fibre
48 = 48-fibre
72 = 72-fibre
96 = 96-fibre

8 – Dash
9 and 10 – EuroClass Code
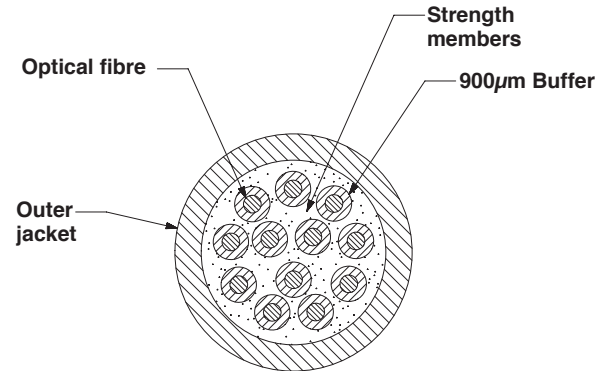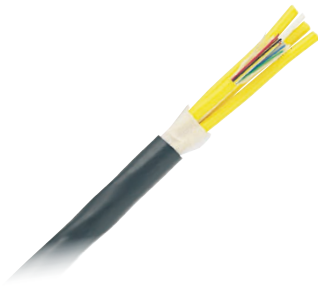12-B2ca-s2b-d1-a1 (only 36 fibre and greater)
14- B2ca-s1a-d1-a1
24- Cca-s1a-d1-a1
37-Dca-s2-d2-a1

Opti-Core® Indoor/Outdoor All-Dielectric Cable with Tight Buffered Fibres

For indoor and outdoor use.

Strength members

Optical fibre

900µm Buffer

Outer jacket

Character	1	2	3	4	5	6	7	8	9	10
Example	F	A	K	C	9	1	2	-	4	0

1 and 2 – Fibre Product
  FA = Fibre

3 – Cable Construction
  K = Indoor/outdoor tight
      tight buffered unarmored

4 – Flame Rating
  C – EuroClass rated

5 – Fibre Type
  9 = OS2 9/125µm
  6 = OM1 62.5/125µm
  5 = OM2 50/125µm
  X = OM3 50/125µm
  Z = OM4 50/125µm

6 and 7 – Fibre Count
  02 = 2-fibre
  04 = 4-fibre
  06 = 6-fibre
  08 = 8-fibre
  12 = 12-fibre
  24 = 24-fibre

8 – Dash

9 and 10 – EuroClass Code
  14 - B2ca-s1a-d1-a1
  24 - Cca-s1a-d1-a1
  40 - Eca

Opti-Core® Indoor/Outdoor All-Dielectric Cable

For use indoor or outdoors. Central and stranded loose tube constructions are all-dielectric.

Water-blocking tape
Outer strength members
Central strength member
Rip cord
1 to 5 Filler tubes
Flame retardant tape
Flame retardant outer jacket
4, 8, or 12 Fibre, gel-filled, buffer tube sub-unit

Character	1	2	3	4	5	6	7	8	9	10
Example	F	A	C	C	9	1	2	-	4	0

1 and 2 – Fibre Product
  FA = Fibre

3 – Cable Construction
  C = Indoor/outdoor
      central tube (up to
      24 fibres)
  N = Indoor/outdoor
      stranded tube (36
      fibres and greater)

4 – Flame Rating
  C = EuroClass rated

5 – Fibre Type
  9 = OS2 9/125µm
  6 = OM1 62.5/125µm
  5 = OM2 50/125µm
  X = OM3 50/125µm
  Z = OM4 50/125µm

6 and 7 – Fibre Count
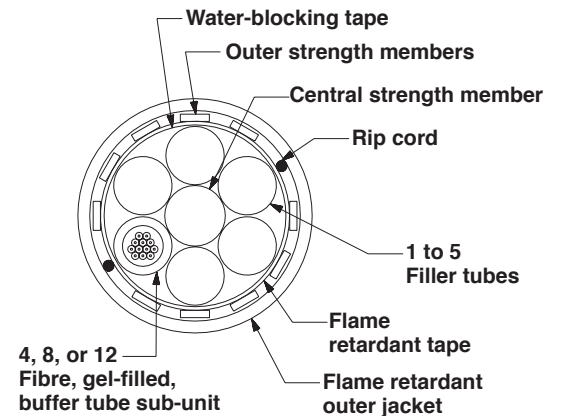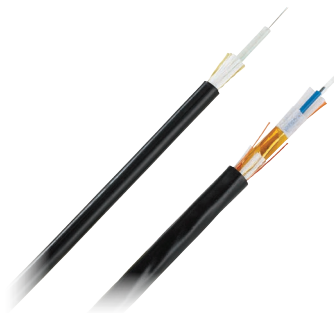 04= 4-Fiber
  06= 6-Fiber
  08= 8-Fiber
  12= 12-Fiber
  24= 24-Fiber
  36= 36-Fiber
  48= 48-Fiber
  72=72-Fiber
  96= 96-Fiber
  1A= 144 Fiber

8 – Dash

9 and 10 – EuroClass Code
  14 - B2ca-s1a-d1-a1
  24 - Cca-s1a-d1-a1
  40 - Eca

Opti-Core® Indoor/Outdoor All Dielectric Armored Cable

For use outdoors in aerial or duct applications. Stranded loose tube constructions are all-dielectric. No need to ground or bond.

Water-blocking strength members
Water-blocking gel
Rip cord
250µm buffer coated optical fibers (up to 12)
Steel armor
Outer jacket
Outer strength members

Character	1	2	3	4	5	6	7	8	9	10
Example	F	A	G	C	9	1	2	-	4	0

1 and 2 – Fibre Product
FA = Fibre

3 – Cable Construction
G = Indoor/outdoor Armored central tube (up to 24 fibres)
M = Indoor/outdoor Armored stranded tube (36 fibres and greater)

4 – Flame Rating
C = EuroClass rated

5 – Fibre Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 50/125µm
Z = OM4 50/125µm

6 and 7 – Fibre Count
04= 4-Fiber
06= 6-Fiber
08= 8-Fiber
12= 12-Fiber
24= 24-Fiber
36= 36-Fiber
48= 48-Fiber
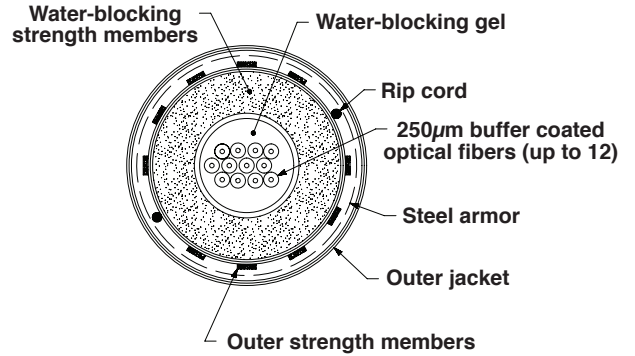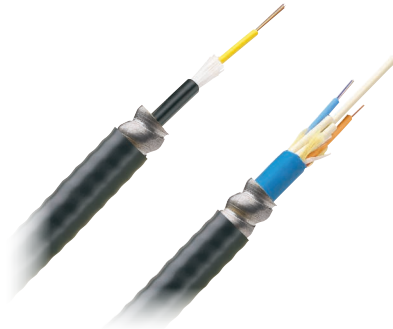
72=72-Fiber
96= 96-Fiber
1A= 144 Fiber

8 – Dash

9 and 10 – EuroClass Code
14 - B2ca-s1a-d1-a1
40 - Eca

Opti-Core® Gel-Filled All-Dielectric Outside Plant Cable
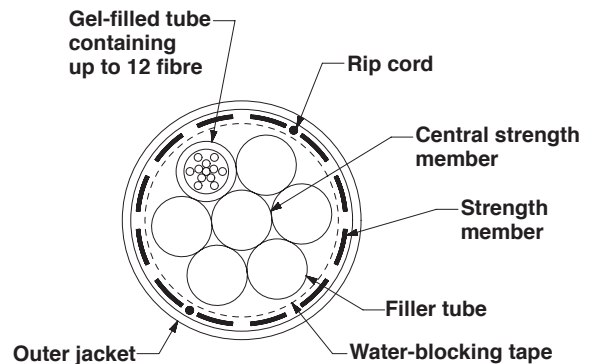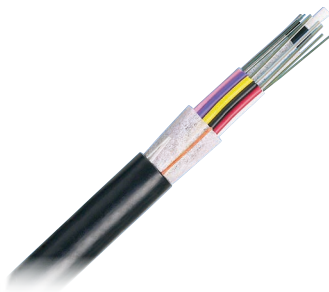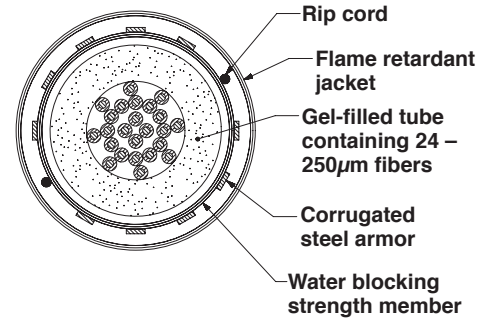
For use outdoors in aerial or duct applications. Stranded loose tube constructions are all-dielectric. No need to ground or bond.

Gel-filled tube containing up to 12 fibre
Rip cord
Central strength member
Strength member
Filler tube
Outer jacket
Water-blocking tape

Character	1	2	3	4	5	6	7
Example	F	P	T	N	9	1	2

1 and 2 – Fibre Product
FP = Fibre – OM1, OM2, OS2
FQ = Fibre – OM3, OM4

3 – Cable Construction
U = Indoor/outdoor central tube (up to 24 fibres)
T = Indoor/outdoor stranded tube (all fibre counts)

4 – Flame Rating
N = Non-rated

5 – Fibre Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fibre Count
06 = 6-fibre
08 = 8-fibre
12 = 12-fibre
24 = 24-fibre
36 = 36-fibre
48 = 48-fibre
72 = 72-fibre
96 = 96-fibre
1A = 144-fibre

Opti-Core® Gel-Filled Single Armor Single Jacket Outside Plant Cable

For use outdoors in direct burial applications. Central loose tube constructions are armored with corrugated steel tape for greater crush resistance.

Rip cord

Flame retardant jacket

Gel-filled tube containing 24 – 250µm fibers

Corrugated steel armor

Water blocking strength member
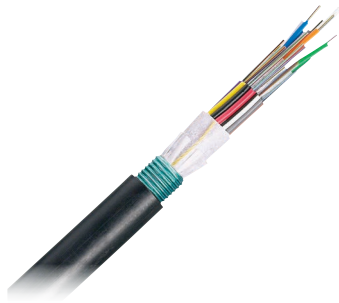
Character	1	2	3	4	5	6	7
Example	F	P	S	N	9	1	2

1 and 2 – Fibre Product
FP = Fibre – OM1, OM2, OS2
FQ = Fibre – OM3, OM4

3 – Cable Construction
S = Gel-filled single armor single jacket outside plant cable

4 – Flame Rating
N = Non-rated

5 – Fibre Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fibre Count
04 = 4-fibre
06 = 6-fibre
08 = 8-fibre
12 = 12-fibre
24 = 24-fibre

Opti-Core® Gel-Filled Single Armor Double Jacket Outside Plant Cable

For use outdoors in direct burial applications. Stranded loose tube constructions are armored with corrugated steel tape for greater crush resistance.

Gel-filled tube containing up to 12 fibres

Rip cord

Central strength member

Strength member

Filler tube

Inner jacket

Outer jacket

Corrugated steel armor

Character	1	2	3	4	5	6	7	8
Example	F	P	Q	N	9	9	2	B

1 and 2 – Fibre Product
FP = Fibre – OM1, OM2, OS2
FQ = Fibre – OM3, OM4

3 – Cable Construction
Q = Gel-filled single armor double jacket outside plant cable

4 – Flame Rating
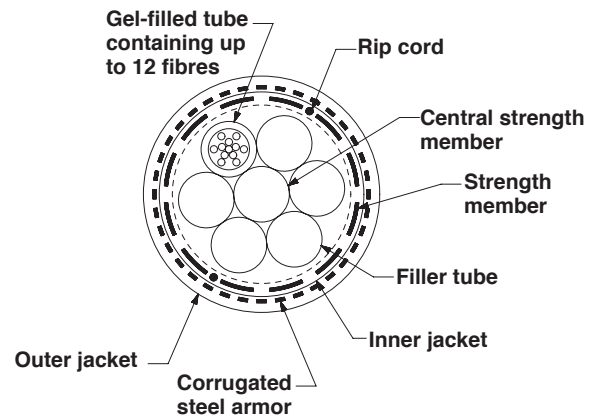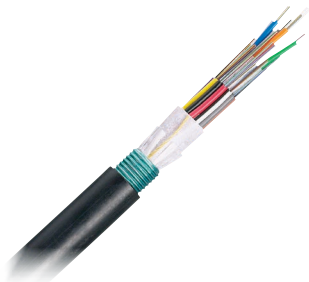N = Non rated

5 – Fibre Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fibre Count
02 = 2-fibre
04 = 4-fibre
06 = 6-fibre
08 = 8-fibre
12 = 12-fibre
24 = 24-fibre
36 = 36-fibre
48 = 48-fibre
72 = 72-fibre
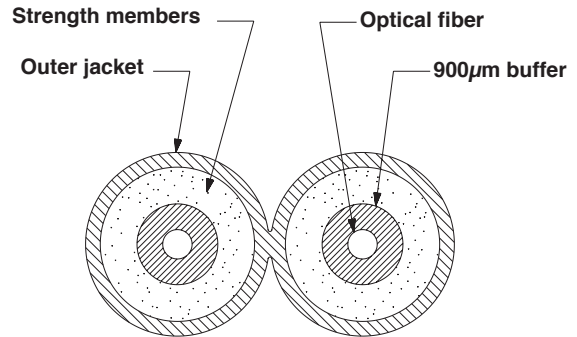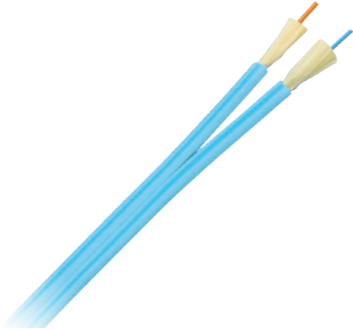96 = 96-fibre
1A = 144-fibre

8 – Fibre Cable
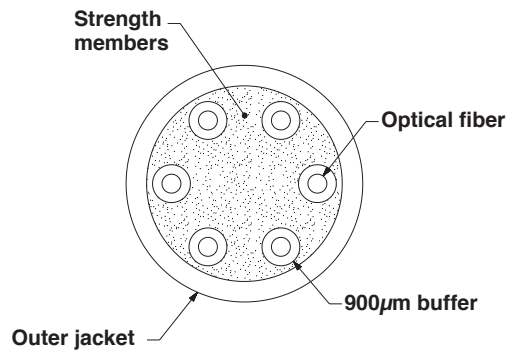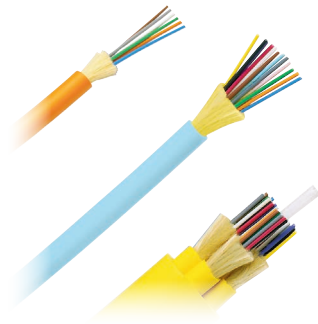B = single armor double jacket stranded tube

Opti-Core® Interconnect Cable

Used in interconnect, horizontal installations, routing in tight spaces such as panels, cable trays, and fiber-to-the-desk (FTTD) applications.

Strength members
Outer jacket
Optical fiber
900μm buffer

Character	1	2	3	4	5	6	7	8
Example	F	L	I	L	X	0	2	Y

1 and 2 – Fiber Product
FL = Fiber – OS2, OM1, OM2, OM3, OM4

3 – Cable construction
I = Interconnect zipcord

4 – Flame/Smoke Rating
L = Low smoke zero halogen (LSZH)
R = Riser

5 – Fiber Type
9 = OS2 9/125μm
6 = OM1 6.25/125μm
5 = OM2 50/125μm
X = OM3 10G 50/125μm
Z = OM4 10G 50/125μm

6 and 7 – Fiber Count
02 = 2-fiber

8 –RoHS
Y = RoHs compliant

Opti-Core® Indoor Distribution Cable

For indoor use in intrabuilding backbone and horizontal installations.

Strength members
Optical fiber
900μm buffer
Outer jacket

Character	1	2	3	4	5	6	7	8
Example	F	L	D	L	9	0	6	Y

1 and 2 – Fiber Product
FL = Fiber – OS2, OM1, OM2, OM3, OM4

3 – Cable Construction
D = Distribution cable

4 – Flame/Smoke Rating
L = Low smoke zero halogen (LSZH)
R = Riser

5 – Fiber Type
9 = OS2 9/125μm
6 = OM1 62.5/125μm
5 = OM2 50/125μm
X = OM3 10G 50/125μm
Z = OM4 10G 50/125μm

6 and 7 – Fiber Count
02 = 2-fiber
04 = 4-fiber
06 = 6-fiber
08 = 8-fiber
12 = 12-fiber
24 = 24-fiber
36 = 36-fiber
48 = 48-fiber

8 – RoHS
Y = RoHS compliant

Opti-Core® Indoor/Outdoor All-Dielectric Cable with Tight Buffered Fibers

For use indoor and outdoors.

Strength members

Optical fiber

900µm Buffer

Outer jacket

Character	1	2	3	4	5	6	7
Example	F	L	K	R	9	1	2

1 and 2 – Fiber Product
FL = Fiber – OM1, OM2, OS2, OM3, OM4

3 – Product Type
K = Indoor/outdoor tight buffered unarmored

4 – Flame/Smoke Rating
R = Riser (ONFR)
L = Low Smoke Zero halogen (LSZH)

5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
04 = 4-fiber
06 = 6-fiber
08 = 8-fiber
12 = 12-fiber
16 = 16-fiber
24 = 24-fiber
48 = 48-fiber
72 = 72-fiber

Opti-Core® Indoor/Outdoor All-Dielectric Cable

For use indoor or outdoors. Central loose tube and stranded loose tube constructions are all-dielectric.

Central loose tube

Water-blocking gel

250µm coated optical fiber

Rip cord

Outer jacket

Water-blocking glass yarn

Character	1	2	3	4	5	6	7	8
Example	F	L	C	L	9	0	2	Y

1 and 2 – Fiber Product
FL = Fiber – OM1, OM2, OS2, OM3, OM4

3 – Product Type
C = Indoor/outdoor central tube (up to 12 fibers)
N = Indoor/outdoor stranded tube (24 fibers and greater)

4 – Flame/Smoke Rating
R = Riser (OFNR)
L = Low smoke zero halogen (LSZH)
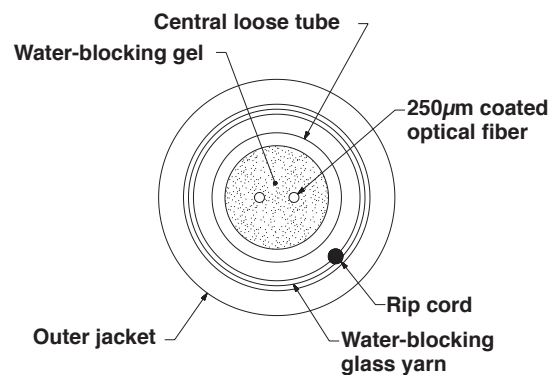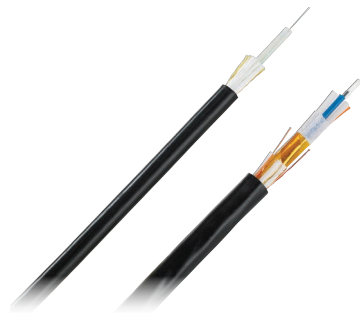
5 – Fiber Type
9 = OS2 9/125µm
6 = OM1 62.5/125µm
5 = OM2 50/125µm
X = OM3 10G 50/125µm
Z = OM4 10G 50/125µm

6 and 7 – Fiber Count
02 = 2-fiber
04 = 4-fiber
08 = 8-fiber
12 = 12-fiber
24 = 24-fiber
36 = 36-fiber
48 = 48-fiber

Opti-Core® Gel-Filled All-Dielectric Outside Plant Cable

For use outdoors in aerial or duct applications. Stranded
constructions are all-dielectric. Gel-filled. Non-rated PE outer jacket.

Tube containing up to 12 fibers
Rip cord
Central strength member
Outer strength member
Outer jacket
Filler tubes
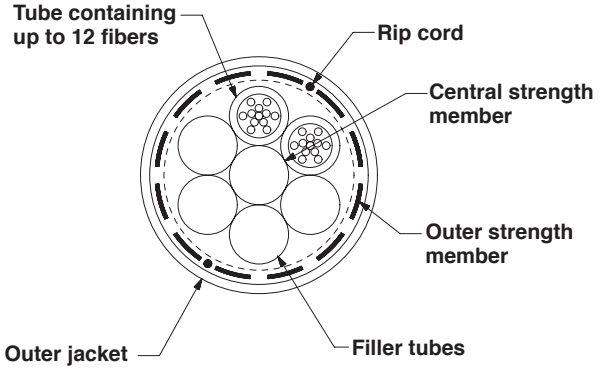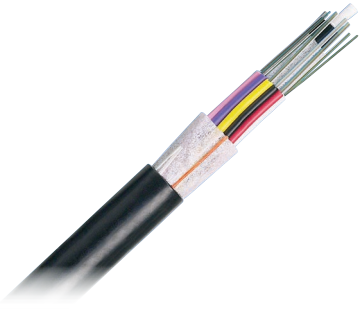
Character	1	2	3	4	5	6	7
Example	F	L	T	N	9	1	2

1 and 2 – Fiber
FL = Fiber – OS2, OM1, OM2, OM3, OM4

3 – Cable Construction
T = Outside plant stranded cable (all fiber counts)

4 – Flame/Smoke Rating
N = Non-rated

5 – Fiber Type
9 = OS2 9/125μm
6 = OM1 62.5/125μm
5 = OM2 50/125μm
X = OM3 10G 50/125μm
Z = OM4 10G 50/125μm

6 and 7 – Fiber Count
02 = 2-fiber
04 = 4-fiber
06 = 6-fiber
08 = 8-fiber
12 = 12-fiber
24 = 24-fiber
36 = 36-fiber

48 = 48-fiber
72 = 72-fiber
96 = 96-fiber
1A = 144-fiber

Opti-Core® Gel-Filled Armored Outside Plant Cable

For use outdoors in direct burial applications. Stranded loose tube constructions are armored with corrugated steel tape for greater crush resistance. Gel-filled. Non-rated PE outer jacket.

Gel-filled tube containing up to 12 fibers

Rip cord

Central strength member

Outer strength member

Filler tube

Optical fiber

Water-blocking tape

Corrugated steel armor

Character	1	2	3	4	5	6	7
Example	F	L	W	N	9	1	2

1 and 2 – Fiber Product
FL = Fiber – OS2, OM1, OM2, OM3, OM4

3 – Cable Construction
W = Outside plant armored stranded cable (all fiber counts)

4 – Flame/Smoke Rating
N = Non-rated

5 – Fiber Type
9 = OS2 9/125μm
6 = OM1 62.5/125μm
5 = OM2 50/125μm
X = OM3 10G 50/125μm
Z = OM4 10G 50/125μm

6 and 7 – Fiber Count
02 = 2-fiber
04 = 4-fiber
06 = 6-fiber
08 = 8-fiber
12 = 12-fiber
24 = 24-fiber
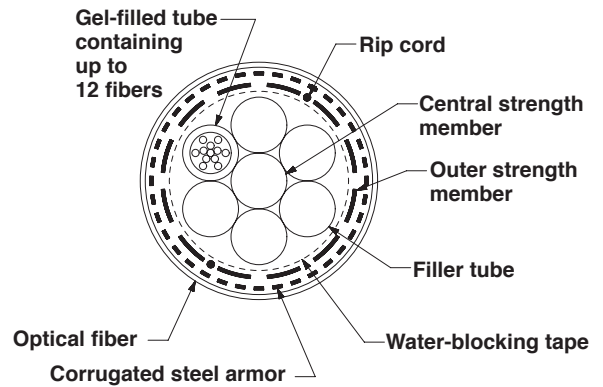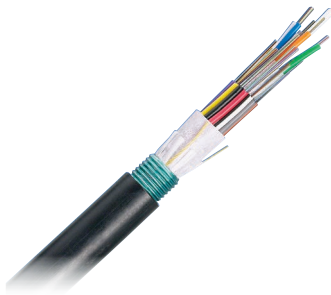36 = 36-fiber

48 = 48-fiber
72 = 72-fiber
96 = 96-fiber
1A = 144-fiber

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-BKIT   **FOCTT2-KIT**   **FOCTT2-PKIT**

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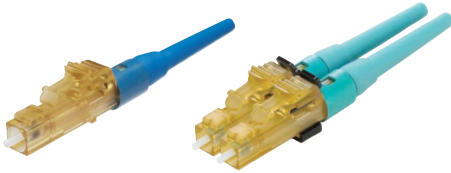
s e l e c t i o n   i n f o r m a t i o n

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							
FLCSMC5BLY	Simplex	Zirconia Ceramic	50/125µm OM2	PC	Black	Black	0.3dB	>20dB
FLCDMC5BLY	Duplex							
FLCSMC6EI	Simplex	Zirconia Ceramic	62.5/125µm OM1	PC	Electric Ivory	Black	0.3dB	>20dB
FLCDMC6EI	Duplex							
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								
FSC2MC5BL	Simplex	Zirconia Ceramic	50/125µm OM2	PC	Black	Black	Black	0.3dB	>20dB
FSC2DMC5BL	Duplex								
FSC2MC6EI	Simplex	Zirconia Ceramic	62.5/125µm OM1	PC	Electric Ivory	Electric Ivory	Black	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

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
FST2MCXAQ	Simplex	Zirconia Ceramic	10 GbE 50/125µm (laser optimized) OM3/OM4		Natural	Aqua	0.3dB	>26dB
FST2MC5BL	Simplex	Zirconia Ceramic	50/125µm OM2	PC	Natural	Black	0.3dB	>20dB
FST2MC6EI	Simplex	Zirconia Ceramic	62.5/125µm OM1		Natural	Black	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.
Add-C for 100 pack connectors.

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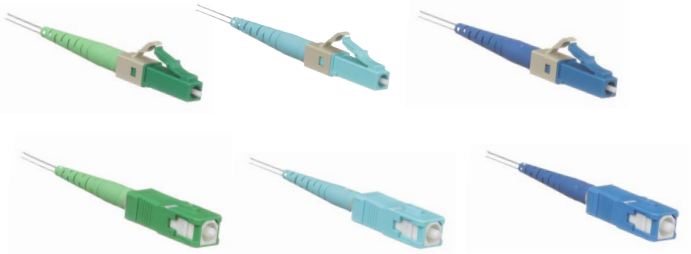
Part Number	Connector Type	Polish	Color	Fiber	Insertion Loss*	Return Loss
FLCS2/9SOCU9BU	Simplex LC	UPC	Blue	9/125um OS1/OS2	0.15dB Average	>55dB
FLCS2/9SOCA9AG	Simplex LC	APC	Green	9/125um OS1/OS2	0.15dB Average	>65dB
FLCS2/9SOCPXAQ	Simplex LC	PC	Aqua	50/125um OM2, OM3, OM4	0.10dB Average	>30dB
FSCS2/9SOCU9BU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

Fiber Optic Fiber Accessories

selection information

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 12 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.

TIA 598-C

The Telecommunications Industry Association's TIA-598-C Optical Fiber Cable Color Coding, is an American National Standard, that provides all necessary information for color-coding optical fiber cables in a uniform manner. It defines identification schemes for fibers, buffered fibers, fiber units, and groups of fiber units within outside plant and premises optical fiber cables. This standard allows for fiber units to be identified by means of a printed legend. The legend will contain a corresponding printed numerical position number and/or color for use in identification.

TIA-598-C Fiber Color Code Chart

1	Blue	13	Blue with black tracer
2	Orange	14	Orange with black tracer
3	Green	15	Green with black tracer
4	Brown	16	Brown with black tracer
5	Slate	17	Slate with black tracer
6	White	18	White with black tracer
7	Red	19	Red with black tracer
8	Black	20	Black with black tracer
9	Yellow	21	Yellow with black tracer
10	Violet	22	Violet with black tracer
11	Rose	23	Rose with black tracer
12	Aqua	24	Aqua with black tracer

Contact Customer Service for fiber cable minimum order quantities, lead times, and stocked availability.

Notes

PANDUIT®