

OptiCore™ Dielectric Conduited Fiber Cable

technical information

Opti-Core® Dielectric Conduited Fiber (DCF) Cable is an integral part of the Panduit end-to-end fiber optic solution, designed to support today's data needs while meeting tomorrow's ever-advancing network requirements. This fiber cable is used within buildings to provide high-density connectivity and ease of installation. Rugged conduit extruded over cable outer jacket eliminates the need for additional channel protection and provides a smaller crush resistant pathway for improved design flexibility and lower installed cost. All-dielectric construction eliminates the need for grounding and bonding, thereby reducing installation time and cost. All Opti-Core® Dielectric Conduited Fiber (DCF) are Riser rated (OFNR) and compliant with Low Smoke Zero Halogen (LSZH) specifications. Opti-Core® Dielectric Conduited Fiber (DCF) fiber types include OM1 and OM2 multimode, OS1/OS2 singlemode and are available in 2, 4, 8, and 12 fiber counts.



application

Designed for use in horizontal installations and backbones within buildings to provide high-density connectivity and ease of installation. Rugged, durable, with crush resistance six times greater than unarmored cable, the need to route through conduit is eliminated.

construction

Cable type:	Dielectric conduited fiber cable
Cable jacket ratings:	Riser, Low Smoke Zero Halogen
Fiber types:	Singlemode: OS1/OS2 9/125µm Multimode: OM1 62.5/125µm OM2 50/125µm
Fiber count:	2, 4, 8, 12
Conduit rating:	C(UL)/UL listed riser UL 2024
Conduit color:	Black

optical properties

Fiber attenuation:	Multimode: OM1 <= 3.0 dB/km @ 850nm OM1 <= 0.7 dB/km @ 1300nm OM2 <= 2.5 dB/km @ 850nm OM2 <= 0.8 dB/km @ 1300nm Singlemode: OS1/OS2 <= 0.34 dB/km @ 1310nm OS1/OS2 <= 0.31 dB/km @ 1383nm OS1/OS2 <= 0.22 dB/km @ 1550nm
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standards

Dual-Rated LSZH Inner Cable	
NEC article 770:	NEC compliance
UL 1666:	North American flame test
OFNR-LS (UL) OFN-LS (UL):	North American fire safety listing
RoHS 2002/95/EC:	Compliant
ICEA-S-83-596:	Compliant
NES-713:	Toxicity index of inner cable/conduit
MIL-PRF-85045F:	Compliant
IEC-60332-3C:	Test on electric and optical fibre cables under fire conditions – Part 3
IEC 60754-2:	Acid gas generation of inner jacket
IEC 61034-2:	Measurement of smoke density of cables burning under defined conditions – Part 2
GR-409:	Horizontal backbone cable
TIA/EIA-568-C.1:	Compliant
ICEA-S-596:	Compliant
TIA-598-B:	Compliant

physical properties

Conduit outside diameter (OD):	10.0mm +/- 0.5mm
Bend radius, minimum (installation):	20 x Conduit OD
Cable tensile strength (installation):	1320N
Cable compressive load:	600 N/cm
Cable flex:	500 cycles
Conduit inner diameter (OD):	6mm
Bend radius, minimum (installed):	10 x Conduit OD
Cable tensile strength (installed):	396N
Cable impact resistance, maximum:	5.88 N-m
12-fiber conduit and cable weight:	68.2448 kg/km

environmental properties

Operating temperature:	-20°C to +70°C
Installation temperature:	-10°C to +60°C
Storage and shipping temperature:	-40°C to +70°C

Conduit	
NEC article 770:	NEC compliance
UL 2024:	North American flame test
C(UL)/UL listed riser UL 2024:	North American fire safety listing
RoHS 2002/95/EC:	Compliant
ICEA-S-83-596:	Compliant
NES-713:	Toxicity index of inner cable/conduit
MIL-PRF-85045F:	Compliant
EN 50389, Euroclass C:	Limited contribution to fire. Non-combustibility test, gross calorific potential test, single burning item test, ignitability test, radiant panel test

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part number

Character	1	2	3	4	5	6	7
Example	F	S	P	D	5	1	2

1 and 2 – Fiber Product
FS = Fiber

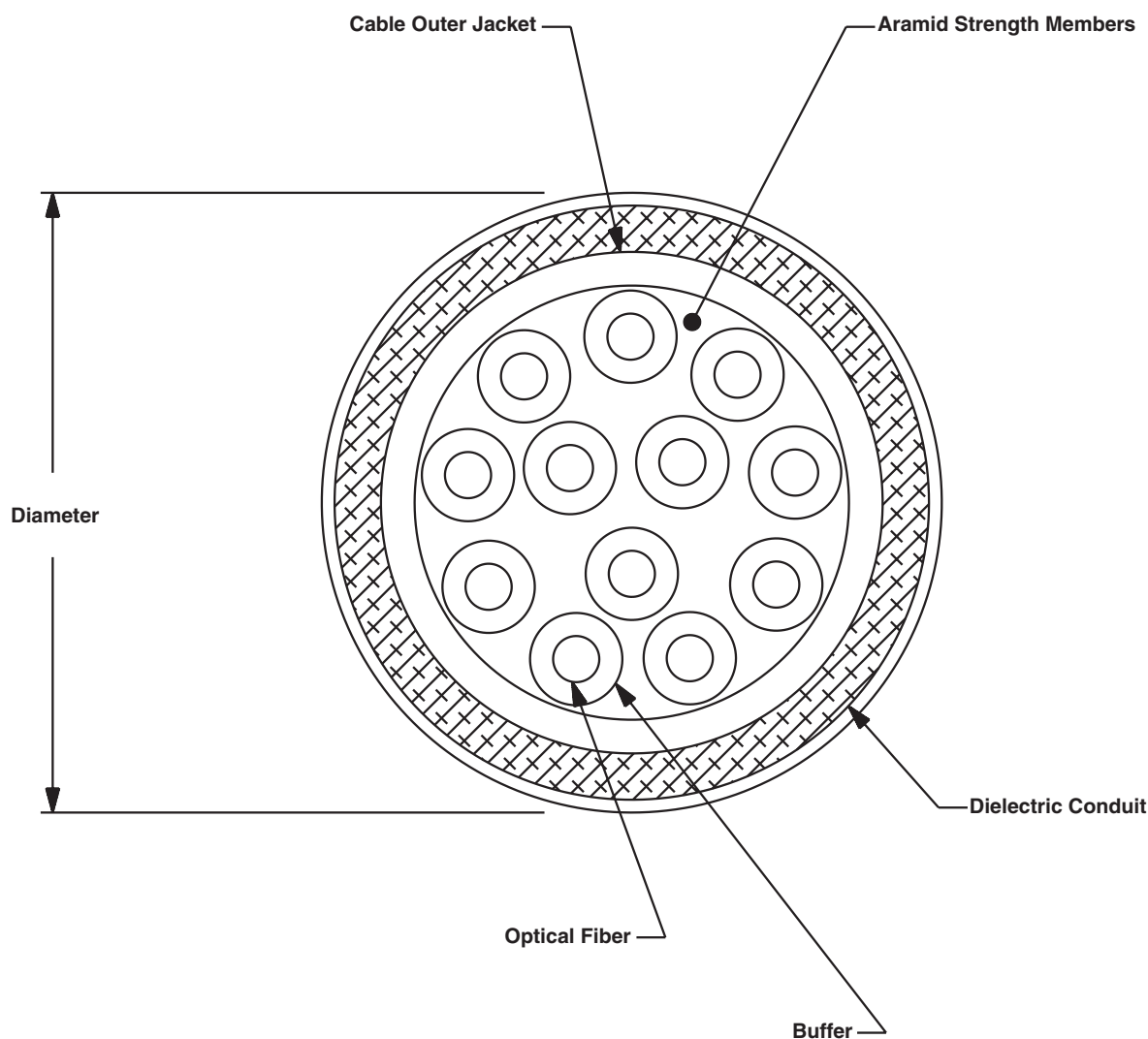
3 – Cable Construction
P = Dielectric conduited distribution (indoor)

4 – Flame/Smoke Rating
D = Riser, Low Smoke Zero Halogen

5 – Fiber Type
6 = OM1 62.5/125µm
5 = OM2 50/125µm
9 = OS1/OS2 9/125µm

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

Dielectric Conduited Fiber Cable



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For more information

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