# Opti-Core™ Fibre Optic Indoor/Outdoor Cable – EMEA
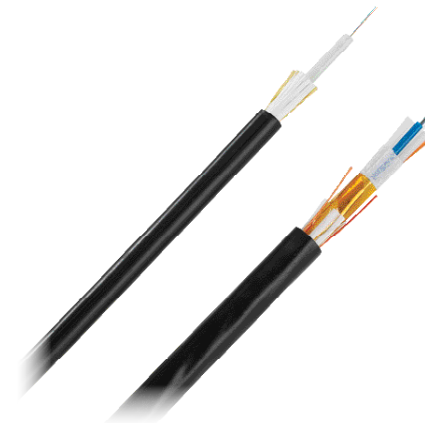
**PANDUIT™**

## technical information

Opti-Core™ Fibre Optic Indoor/Outdoor Cable is an integral part of the Panduit end-to-end fibre optic solution, designed to support today's data needs while meeting tomorrow's ever-advancing network requirements. This low smoke zero halogen (LSZH) rated cable provides water-blocking, high density, and easy installation in duct applications and entrance facilities. Opti-Core™ Fibre Optic Indoor/Outdoor Cable meets the IEC 60794-1 standards. Opti-Core™ 10 GbE Fibre Optic Indoor/Outdoor Cable features the highest quality OM3 and OM4 laser optimised fibre to support 10 Gb/s applications while maintaining compatibility with existing 50μm multimode systems. Standard multimode and singlemode indoor/outdoor cables are available in fibre counts up to 24 fibres as a "central tube" design and up to 144-fibres as a "stranded tube" design.



## application

For use indoors or outdoors. Suited for installation in ducts and on trays. May be used for direct burial with proper sand back-filling. Glass yarns provide a degree of rodent protection.

## standards

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|---|---|
| ISO 11801<br>EN 60794-2-20<br>IEC 60794-2-20<br>EN 50173 | EuroClass Eca |

## construction

| | |
|---|---|
| Central Tube Cable (up to 24 Fibres) | Central tube contains up to 24 250um coated fibres and is water-blocked with gel. Cable is all-dielectric and includes water-blocking strength members and ripcord. |
| Stranded Tube Cable (>24 Fibres) | Each sub-unit tube contains 12 250um coated fibres and is water-blocked with gel. Cable is all-dielectric and has central strength member and ripcords; also filler tubes for certain fiber counts. Sub-units are surrounded by water-blocking tape, flame-retardant tape and strength members. |
| Outer sheath | Outer sheath is black, low smoke, halogen free and UV stabilised. |

## fire ratings

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|---|
| IEC 60332-1-2<br>IEC 60794-2<br>IEC 61034 |

## mechanical properties

| | |
|---|---|
| **Tensile strength (Long Term)** | up to 24-fibre: 700 N<br>>24-fibre: 3500 N (fibre strain <0.25%) |
| **Tensile strength (Installation)** | up to 24-fibre: 1500 N<br>>24-fibre: 5000 N (fibre strain <0.5%) |
| **Compressive strength (crush)** | up to 24-fibre: 2000N/ 1000nm<br>>24-fibre: 3000 N/ 100nm |
| **Impact** | 20 J |
| **Torsion** | 5 cycles ±1 turn |
| **Kink** | No kink when looped to a diameter of 200mm (central tube) or 12X the cable diameter (stranded tube) |
| **Temperature range** | Installation: -15°C to +40°C<br>Operation: -30°C to +70°C (up to 24-fibre)<br>Operation: -40°C to +70°C (>24-fibre)<br>Storage: -40°C to +60°C |

## physical properties

| Fibre Count | Cable Diameter (mm) | Installation Bend Radius (mm) | Long Term Bend Radius (mm) | Cable Weight (kg/km) |
|---|---|---|---|---|
| 4 | 7.5 mm | 100 mm | 60 mm | 75 kg/km |
| 6 | 7.5 mm | 100 mm | 60 mm | 75 kg/km |
| 8 | 7.5 mm | 100 mm | 60 mm | 75 kg/km |
| 12 | 7.5 mm | 100 mm | 60 mm | 75 kg/km |
| 24 | 8 mm | 100 mm | 60 mm | 85 kg/km |
| 36 | 11 mm | 230 mm | 115 mm | 104 kg/km |
| 48 | 11 mm | 230 mm | 115 mm | 105 kg/km |
| 72 | 11 mm | 230 mm | 115 mm | 130 kg/km |
| 96 | 12 mm | 260 mm | 130 mm | 165 kg/km |
| 144 | 15 mm | 310 mm | 155 mm | 205 kg/km |

## fibre colour code

| | |
|---|---|
| 1 Red | 13 Red with mark every 70 mm |
| 2 Green | 14 Green with mark every 70 mm |
| 3 Blue | 15 Blue with mark every 70 mm |
| 4 Yellow | 16 Yellow with mark every 70 mm |
| 5 White | 17 White with mark every 70 mm |
| 6 Grey | 18 Grey with mark every 70 mm |
| 7 Brown | 19 Brown with mark every 70 mm |
| 8 Violet | 20 Violet with mark every 70 mm |
| 9 Aqua | 21 Aqua with mark every 70 mm |
| 10 Black | 22 White with mark every 35 mm |
| 11 Orange | 23 Orange with mark every 70 mm |
| 12 Pink | 24 Pink with mark every 70 mm |

## ordering information

*Example: FACC912-40, Fibre, Indoor/Outdoor Central Tube, EuroClass, OS2, 12-fibre-Eca

| 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 Cable, EuroClass

**3 – Cable Construction**
N = Indoor/Outdoor Stranded Tube (greater than 24 fibre)
C = Indoor/Outdoor Central Tube (up to 24 Fibre)

**4 – Flame Rating**
C = EuroClass rated

**5 – Fibre Type**
9 = OS2 9/125µm
X = OM3 10 GbE 50/125µm
Z = OM4 10 GbE 50/125µm

**6 and 7 – Fibre Count**
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 – Dash**

**9 and 10 - EuroClass Code**
40 - Eca

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**For more information**

**Visit us at www.panduit.com**

Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300