

Opti-Core™ Fibre Optic Indoor-Outdoor Cable 48- to 144-Fibres, EuroClass Cca for EMEA

specifications

The fibre cable shall contain 48- to 144-fibres and have an all-dielectric (non-metallic) loose tube construction. It shall be suitable for indoor applications, complying with IEC standards for low smoke/zero halogen (LSZH) and EuroClass (Cca) for fire protection. The cable shall also be UV resistant and water-blocked for use in outdoor environments. It shall have options for singlemode (OS2) or multimode (OM4) fibres to support 10 Gb/s network transmission and beyond.



standards and flame rating

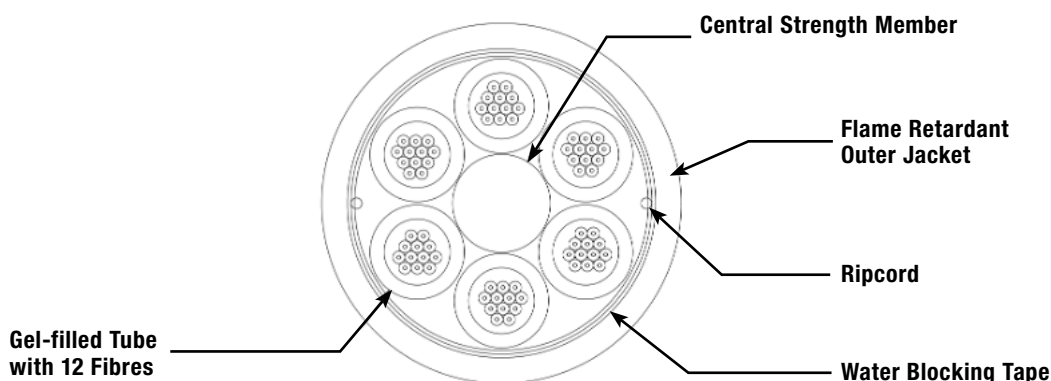
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| ✓ ISO 11801 (Generic Cabling) | ✓ IEC 60332-1-2 and IEC 60332-3-24 (Flame retardant) |
| ✓ EN 50173 (Generic Cabling) | ✓ IEC 60754 and IEC 61034 (Low Smoke Zero Halogen) |
| ✓ IEC 60794-1 and 2 (Optical Fibre Cables) | ✓ EN 50399 (EuroClass CPR Cca s1-d1-a1) |
| ✓ EN 50575 (Reaction to fire) | ✓ RoHS Compliant |

cable construction (all-dielectric)

Stranded Loose Tube	Each tube contains twelve 250µm coated fibres
Water Blocking	Each tube is water-blocked with gel; the core is water blocked with swellable tape and thread
Strength Members	Central strength member (FRP fiberglass reinforced plastic rod)
Outer Sheath/Jacket	1.5mm outer sheath is black, UV stabilised and complies with EN 50290-2-27 (halogen free, flame retardant); polyester ripcord for easy slitting of the sheath

Cross Section

(representative, not to scale)



key features and benefits

Gel-filled Tube and Water-blocking Tape	Blocks water from entering the cable and damaging the optical fibres
EuroClass CPR Cca	High flame-retardant performance
G.657.A1 Singlemode Fibres	Deliver high bit rate data transmission and are bend insensitive
OM4 Laser Optimized Fibres	Support 10 Gb/s applications and beyond, while maintaining compatibility with existing 50µm multimode systems

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applications

- Typically used for LAN, WAN and campus network backbones
- With its low smoke/zero halogen sheathing, this cable is ideal for mixed indoor and limited outdoor installation
- It is well suited for installation in ducts and on trays

physical and mechanical properties













Fibre Count	48	72	96	144
Number of Tubes (Fibre Tubes/Filler Tubes)	4/2	6/0	8/0	12/0
Outside Diameter (Nominal)	10.5mm	10.5mm	12.0mm	15.0mm
Bend Radius (Installation/Short Term)	210mm	210mm	240mm	300mm
Bend Radius (Operation/Long Term)	105mm	105mm	120mm	150mm
Weight	105 kg/km	115 kg/km	145 kg/km	240 kg/km
Tensile Strength (Installation/Short Term)	1800 N (fibre strain ≤0.6%)			
Tensile Strength (Operation/Long Term)	600 N (fibre strain ≤0.2%)			
Compressive Strength (Crush)	2000 N/100mm			
Temperature Range	Storage: -40°C to +70°C Installation: -40°C to +70°C Operation: -40°C to +70°C*			

* Max attenuation variation 0.1 dB/km at -40°C to +70°C. Max attenuation variation ≤0.05 dB at -30°C to +60°C.

optical properties: maximum attenuation

OS2 Singlemode (ITU-T G.657.A1)	0.4dB/km @ 1310nm, 0.3dB/km @ 1550nm
OM4 Multimode	3.5dB/km @ 850nm, 1.5dB/km @ 1300nm

fibre colour code

1	2	3	4	5	6	7	8	9	10	11	12
Red	Green	Blue	Yellow	White	Grey	Brown	Violet	Turquoise	Black	Orange	Pink
											

ordering information

Fibre	Part Number	Description
OS2	FANC948-24	9µm OS2 48 Fibre Indoor-Outdoor Stranded Tube, EuroClass Cca-s1-d1-a1, 250µm Fibres
	FANC972-24	9µm OS2 72 Fibre Indoor-Outdoor Stranded Tube, EuroClass Cca-s1-d1-a1, 250µm Fibres
	FANC996-24	9µm OS2 96 Fibre Indoor-Outdoor Stranded Tube, EuroClass Cca-s1-d1-a1, 250µm Fibres
	FANC91A-24	9µm OS2 144 Fibre Indoor-Outdoor Stranded Tube, EuroClass Cca-s1-d1-a1, 250µm Fibres
OM4	FANCZ48-24	50µm OM4 48 Fibre Indoor-Outdoor Stranded Tube, EuroClass Cca-s1-d1-a1, 250µm Fibres

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