

## technical information

Opti-Core Fibre Optic Indoor/Outdoor Cable shall be an integral part of any end-to-end fibre optic solution, designed to support the data needs of today while meeting the ever-advancing network requirements of tomorrow. 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 shall meet the IEC 60794-1 standards. Opti-Core™ 10 GbE Fibre Optic Indoor/Outdoor Cable shall feature 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 shall be available in fibre counts up to 24 fibres as a central tube design and up to 72-fibres as a stranded tube design.



## applications

Opti-Core Fibre Optic Indoor/Outdoor Cable is for use indoors or outdoors. It is suited for installation in ducts and on trays. It may be used for direct burial with proper sand back-filling. The glass yarns provide a degree of rodent protection.

## cable construction

|                                              |                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Central tube cable (up to 24 Fibres):</b> | Central tube contains up to 24 250µm coated fibres and is water-blocked with gel. Cable is all-dielectric and includes water-blocking strength members and ripcord.                                                                                                                             |
| <b>Stranded tube cable (&gt;24 Fibres):</b>  | Each sub-unit tube contains 12 250µm 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. |
| <b>Outer sheath:</b>                         | Outer sheath is black, low smoke, halogen free and UV stabilised.                                                                                                                                                                                                                               |

## physical and mechanical properties

|                                         |                                                                                                                                                |      |      |      |      |      |      |     |      |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|-----|------|
| <b>Fibre count:</b>                     | 4                                                                                                                                              | 6    | 8    | 12   | 24   | 48   | 72   | 96  | 144  |
| <b>Cable Diameter (mm):</b>             | 7.3                                                                                                                                            | 7.3  | 7.3  | 7.3  | 7.3  | 11.5 | 11.5 | 13  | 15.5 |
| <b>Installation Bend Radius (mm):</b>   | 146                                                                                                                                            | 146  | 146  | 146  | 146  | 230  | 230  | 260 | 310  |
| <b>Long Term Bend Radius (mm):</b>      | 73                                                                                                                                             | 73   | 73   | 73   | 73   | 115  | 115  | 130 | 155  |
| <b>Cable Weight (kg/km):</b>            | 51.7                                                                                                                                           | 51.7 | 51.7 | 51.7 | 51.7 | 105  | 130  | 165 | 205  |
| <b>Tensile strength (Long Term):</b>    | up to 24-fibre: 1000 N<br>>24-fibre: 3500 N (fibre strain <0.25%)                                                                              |      |      |      |      |      |      |     |      |
| <b>Tensile strength (Installation):</b> | up to 24-fibre: 3000 N<br>>24-fibre: 5000 N (fibre strain <0.5%)                                                                               |      |      |      |      |      |      |     |      |
| <b>Compressive strength (crush):</b>    | up to 24-fibre: 3,500 N/10cm<br>>24-fibre: 3000 N/100mm                                                                                        |      |      |      |      |      |      |     |      |
| <b>Impact:</b>                          | 20 J                                                                                                                                           |      |      |      |      |      |      |     |      |
| <b>Torsion:</b>                         | 5 cycles ±1 turn                                                                                                                               |      |      |      |      |      |      |     |      |
| <b>Kink:</b>                            | No kink when looped to a diameter of 200mm (central tube) or 12X the cable diameter (stranded tube)                                            |      |      |      |      |      |      |     |      |
| <b>Temperature range*:</b>              | Installation: -15°C to +40°C<br>Operation: -30°C to +60°C (up to 24-fibre)<br>Operation: -40°C to +70°C (>24-fibre)<br>Storage: -40°C to +60°C |      |      |      |      |      |      |     |      |

## standards and flame rating

|                       |                                           |
|-----------------------|-------------------------------------------|
| <b>ISO 11801</b>      | EuroClass Eca                             |
| <b>EN 60794-2-20</b>  |                                           |
| <b>IEC 60794-2-20</b> |                                           |
| <b>EN 50173</b>       |                                           |
| <b>Flame ratings:</b> | IEC 60332-1-2<br>IEC 60794-2<br>IEC 61034 |

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

## fibre colour code

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

## ordering information

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

|                  |   |   |   |   |   |   |   |   |   |    |
|------------------|---|---|---|---|---|---|---|---|---|----|
| <b>Character</b> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <b>Example</b>   | 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 – Fiber 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

48 = 48-fibre (OS2 Only)

72 = 72-fibre (OM4 and OS2 only)\*\*

96 = 96-fibre (OS2 Only)

1A = 144-fibre (OS2 Only)

### 8 – Dash

N = Blunt end

### 9 and 10 - EuroClass Code™

40 - Eca

EL-KAYAN  
TECHNOLOGY

Dimensions are in inches. [Dimensions in brackets are metric].

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FBDS15-WW-ENG  
5/2023