

# Fibre Optic Distribution Cable SM, OS2, Indoor/Outdoor Armoured Loose Tube, LSOH, B2ca-s1a,d1,a1

**molex**

Molex LSOH OS2 SM 9/125µm central loose tube fibre cable can be used for LAN and WAN applications. The cable is suitable for indoor applications in ducts and on trays and can be direct buried with sand back-filling in outdoor applications. The cable features corrugated steel tape armour for rodent protection and contains glass yarn strength members and a UV stabilised, LSOH EuroClass B2ca,s1a,d1,a1 sheath.

This single mode fibre provides improved performance across the entire 1260nm to 1625nm wavelength spectrum due to its low attenuation in 1383nm water-peak region



## Specifications

### REFERENCE INFORMATION

Commercial Standards:

#### Fibre:

IEC 60793-2-50 Category B.1.3  
ISO/IEC 11801:2002, cat. OS2 and OS1  
ISO/IEC 24702: 2006, cat. OS2 and OS1  
ITU Recommendation G.652.D and C, B, A  
IEEE 802.3 – 2012  
EN 50173-1:2007, cat. OS2 and OS1

#### Cable:

ISO 11801-1, EN 50173-1, IEC 60794-1

#### RoHS Compliant

EU Regulation 305/2011 (CPR)  
EN 50575:2014+A:2016  
EuroClass: B2ca,s1a,d1,a1  
DoP No: MLXCES-2018-F-059  
located on web  
<https://www.molexces.com/about-us/dop-certificates/>

### MECHANICAL

#### Cable Attenuation IEC 60793-1-40

Maximum value of cable attenuation at  
1310 nm – 1625 nm:  $\leq 3.0$  dB/km  
Maximum value of cable attenuation at  
1550 nm:  $\leq 0.25$  dB/km

#### Group index of refraction IEC 60793-1-22

Group index of refraction at 1310 nm: 1.467  
Group index of refraction at 1550 nm: 1.468  
Group index of refraction at 1625 nm: 1.468

### Mechanical Characteristics

Loose Tube gel filled  
Armouring: 0.15mm corrugated steel tape  
Strength member: Glass yarns  
Sheath: LSOH, UV stabilised  
Sheath Colour: Yellow RAL 1018

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## PHYSICAL PROPERTIES IEC 60794-1-21/22

| ATTRIBUTE                          | METHOD | LIMITS  |
|------------------------------------|--------|---|
| Nominal Outer Diameter             | N/A    | 2-24 Fibres: 8.5mm  |
| Nominal Weight                     | N/A    | 2-24 fibres: 100kg/km   |
| Max. installation tensile strength | E1     | 1500N   |
| Permanent tensile strength         | E1     | 750N  |
| Compressive strength               | E3     | 2000N/100mm   |
| Torsion                            | E7     | 5 cycles $\pm$ 1 turn   |
| Min. bend radius loaded            | E11    | R = 85mm  |
| Temperature Range                  | F1     | Storage: -40°C to +70°C,<br>Operation: -40°C to +70°C<br>Max attenuation variation at operational temperature range<br>= MM 0.5 dB/km /SM = 0.2 dB/km |

## Ordering Information

| Order No. | SAP No.   | Description  |
|-----------|-----------|--|
| CFR-00682 | 183150065 | Fibre Optic Cable OS2 9/125 $\mu$ m SM ARM LT LSOH, B2ca-s1a,d1,a1 4F  |
| CFR-00683 | 183150066 | Fibre Optic Cable OS2 9/125 $\mu$ m SM ARM LT LSOH, B2ca-s1a,d1,a1 6F  |
| CFR-00684 | 183150067 | Fibre Optic Cable OS2 9/125 $\mu$ m SM ARM LT LSOH, B2ca-s1a,d1,a1 8F  |
| CFR-00685 | 183150068 | Fibre Optic Cable OS2 9/125 $\mu$ m SM ARM LT LSOH, B2ca-s1a,d1,a1 12F |
| CFR-00686 | 183150069 | Fibre Optic Cable OS2 9/125 $\mu$ m SM ARM LT LSOH, B2ca-s1a,d1,a1 24F |

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