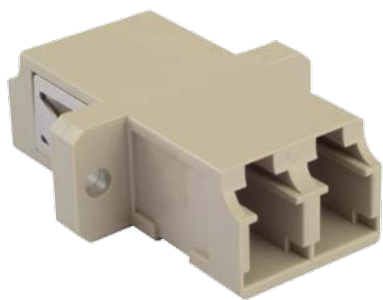




SXAD-LC-UPC-OM2-D

# PATCH CORDS, PIGTAILS, ADAPTERS

## Fibre Optic Adapters

|                       |                       |
|-----------------------|-----------------------|
| Insertion loss        | 0,1 dB <sup>1)</sup>  |
| Operating temperature | -40 to +70 °C         |
| Storage temperature   | -40 to +70 °C         |
| Life cycle            | min. 1 000 insertions |

1) Applies for ceramic inserts for LC, SC, ST, and E2000 adapters.

Solarix adapters are designed for easy mounting to various fibre optic patch panels and boxes. They feature high precision alignment sleeves for better reliability and reconnectability as well as ceramic inserts ensuring excellent and precise connections inside the adapter. The Solarix fibre optic adapters are colour coded according to their types (i.e. single mode or multimode). This colour resolution allows for quick and easy detection of the fibre used in the installation.

| Singlemode | Type | Colour | Design            |
|------------|------|--------|-------------------|
| LC         | APC  | green  | duplex            |
| LC         | UPC  | blue   | duplex/quadruplex |
| SC         | APC  | green  | simplex/duplex    |
| SC         | UPC  | blue   | simplex/duplex    |
| ST         | UPC  | -      | simplex           |
| E2000      | APC  | green  | simplex/duplex    |

| Multimode | Type | Colour      | Design         |
|-----------|------|-------------|----------------|
| LC OM2    | UPC  | grey        | duplex         |
| LC OM3    | UPC  | turquoise   | duplex         |
| LC OM4    | UPC  | violet      | duplex         |
| LC OM5    | UPC  | limet green | duplex         |
| SC OM2    | UPC  | grey        | simplex/duplex |
| SC OM3    | UPC  | turquoise   | simplex/duplex |
| SC OM4    | UPC  | violet      | simplex/duplex |
| SC OM5    | UPC  | limet green | simplex/duplex |
| ST OM     | UPC  | -           | simplex        |

| Part No.          | Description                 |
|-------------------|-----------------------------|
| SXAD-LC-UPC-OS-D  | LCupc SM Adapter OS Duplex  |
| SXAD-LC-APC-OS-D  | LCapc SM Adapter OS Duplex  |
| SXAD-LC-UPC-OM2-D | LCupc MM Adapter OM2 Duplex |
| SXAD-LC-UPC-OM3-D | LCupc MM Adapter OM3 Duplex |
| SXAD-LC-UPC-OM4-D | LCupc MM Adapter OM4 Duplex |
| SXAD-LC-UPC-OM5-D | LCupc MM Adapter OM5 Duplex |

# FIBRE OPTICS

## Optical Fibres Parameters

### Singlemode Fibres Basic Parameters

| Geometric Parameters                    | Unit       | ITU-T G.652.D        | ITU-T G.657.A1       | ITU-T G.657.A2       |
|-----------------------------------------|------------|----------------------|----------------------|----------------------|
| <b>Mode Field Diameter (MFD)</b>        |            |                      |                      |                      |
| @ 1 310 nm                              | µm         | 9,2 ± 0,4            | 9,0 ± 0,4            | 8,6 ± 0,4            |
| @ 1 550 nm                              | µm         | 10.4 ± 0,5           | 9,2 ± 0,4            | 9,6 ± 0,4            |
| Cladding diameter                       | µm         | 125 ± 1,0            | 125 ± 0,7            | 125 ± 0,7            |
| Coating diameter                        | µm         | 247 ± 7,0            | 245 ± 5,0            | 242 ± 5,0            |
| Core-Cladding Concentricity Error       | µm         | ≤ 0,6                | ≤ 0,5                | ≤ 0,5                |
| Cladding-Coating Concentricity Error    | µm         | ≤ 12                 | ≤ 10                 | ≤ 12                 |
| <b>Transmission Parameters</b>          |            |                      |                      |                      |
| <b>Attenuation</b>                      |            |                      |                      |                      |
| @ 1 310 nm                              | dB/km      | ≤ 0,35 <sup>1)</sup> | ≤ 0,38 <sup>1)</sup> | ≤ 0,35 <sup>1)</sup> |
| @ 1 550 nm                              | dB/km      | ≤ 0,21 <sup>1)</sup> | ≤ 0,22 <sup>1)</sup> | ≤ 0,20 <sup>1)</sup> |
| @ 1 625 nm                              | dB/km      | ≤ 0,24 <sup>1)</sup> | ≤ 0,25 <sup>1)</sup> | ≤ 0,23 <sup>1)</sup> |
| <b>Dispersion Coefficient</b>           |            |                      |                      |                      |
| @ 1 550 nm                              | ps/(nm*km) | ≤ 18                 | ≤ 18                 | ≤ 18                 |
| @ 1 625 nm                              | ps/(nm*km) | ≤ 22                 | ≤ 22                 | ≤ 23                 |
| PMD individual fibre                    | ps/√km     | 0,1                  | 0,1                  | 0,06                 |
| Cable Cutoff Wavelength λ <sub>cc</sub> | nm         | ≤ 1 260              | ≤ 1 260              | ≤ 1 260              |
| Fibre Cutoff Wavelength λ <sub>c</sub>  | nm         | 1 150 - 1 330        | 1 150 - 1 330        | 1 150 - 1 330        |

<sup>1)</sup> A typical value for fibres in loose tube cables.

### Multimode Fibres Basic Parameters

| Geometric Parameters                 | Unit   | ITU-T G.651.1 OM2   | ITU-T G.651.1 OM3   | ITU-T G.651.1 OM4   | ITU-T G.651.1 OM5   |
|--------------------------------------|--------|---------------------|---------------------|---------------------|---------------------|
| Core diameter                        | µm     | 50 ± 2,0            | 50 ± 2,0            | 50 ± 2,0            | 50 ± 2,0            |
| Cladding diameter                    | µm     | 125 ± 1,0           | 125 ± 1,0           | 125 ± 1,0           | 125 ± 1,0           |
| Core-Cladding Concentricity Error    | µm     | ≤ 1,0               | ≤ 1,0               | ≤ 1,0               | ≤ 1,0               |
| Cladding-Coating Concentricity Error | µm     | ≤ 6,0               | ≤ 6,0               | ≤ 10,0              | ≤ 10,0              |
| <b>Transmission Parameters</b>       |        |                     |                     |                     |                     |
| Numerical aperture                   | -      | 0,200 ± 0,015       | 0,200 ± 0,015       | 0,200 ± 0,015       | 0,200 ± 0,015       |
| <b>Attenuation</b>                   |        |                     |                     |                     |                     |
| @ 850 nm                             | dB/km  | ≤ 2,7 <sup>1)</sup> | ≤ 3,0 <sup>1)</sup> | ≤ 3,0 <sup>1)</sup> | ≤ 3,0 <sup>1)</sup> |
| @ 1 300 nm                           | dB/km  | ≤ 0,8 <sup>1)</sup> | ≤ 1,0 <sup>1)</sup> | ≤ 1,0 <sup>1)</sup> | ≤ 1,0 <sup>1)</sup> |
| <b>Bandwidth</b>                     |        |                     |                     |                     |                     |
| @ 850 nm                             | MHz*km | ≥ 500               | ≥ 1 500             | ≥ 3 500             | ≥ 3 500             |
| @ 953 nm                             | MHz*km | -                   | -                   | -                   | ≥ 1 850             |
| @ 1 300 nm                           | MHz*km | ≥ 500               | ≥ 500               | ≥ 500               | ≥ 500               |

<sup>1)</sup> A typical value for fibres in loose tube cables.