



# PATCH CORDS, PIGTAILS, ADAPTERS

## Fibre Optic Adapters

SXAD-SC-UPC-OM3-S

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. E2000 adapters are supplied by R & M.

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-SC-UPC-OS-S	SCupc SM Adapter OS Simplex
SXAD-SC-APC-OS-S	SCapc SM Adapter OS Simplex
SXAD-SC-UPC-OM2-S	SCupc MM Adapter OM2 Simplex
SXAD-SC-UPC-OM3-S	SCupc MM Adapter OM3 Simplex
SXAD-SC-UPC-OM4-S	SCupc MM Adapter OM4 Simplex
SXAD-SC-UPC-OM5-S	SCupc MM Adapter OM5 Simplex



# 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.