

# PATCH CORDS, PIGTAILS, ADAPTERS

## Fibre Optics Pigtaills

SXPI-E2000-APC-OS-1,5M



Operating temperature	<b>-40 to +70 °C</b>
Storage temperature	<b>-40 to +70 °C</b>
The diameter of the primary protection	<b>250 µm</b>
The diameter of the secondary protection	<b>900 µm</b>
Singlemode fiber type	<b>G.652.D, G.657.A1</b>
Multimode fiber type	<b>G.651.1</b>
Ferrule	<b>UPC, APC</b>
Life cycle	<b>min. 1 000 insertions</b>
Ferrule diameter of the LC connector	<b>1,25 mm</b>
Ferrule diameter of the SC / ST / E2000 connector	<b>2,5 mm</b>

Solarix fibre optics pigtaills are designed for terminating optical fibers within various fibre optics patch panels and boxes. Their ferrules are of the UPC (ultra physical contact) type for both single mode and multimode pigtaills or APC (angled physical contact) type for singlemode pigtaills. Singlemode pigtaills use the G.652.D or G.657.A1 type fibres, on the other hand, multimode pigtaills use the G.651.1 type. Solarix fibre optics pigtaills are available with different connectors, such as LC, SC, ST, and E2000. E2000 connectors are supplied by R & M. The standard length of Solarix pigtail is 1.5 m.

Parameter	Multimode UPC	Singlemode UPC	Singlemode APC
Max IL – insertion loss	< 0,3 dB	< 0,3 dB	< 0,3 dB
Max RL – return loss	> 35 dB	> 50 dB	> 60 dB

Part No.	Description
SXPI-E2000-APC-OS-1,5M	Pigtail 9/125 E2000APC SM OS 1,5m

# FIBRE OPTICS

## Optical Fibers Parameters

### Singlemode Fibers Basic Parameters

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

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

### Multimode Fibers Basic Parameters

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

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