



# FIBRE OPTIC CABLES

## Riser singlemode

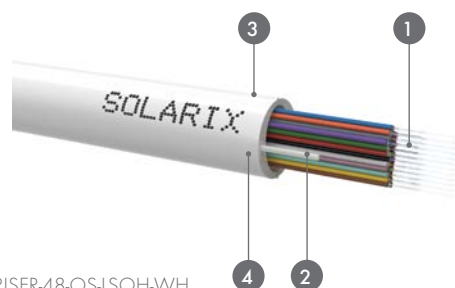
SXKO-RISER-48-OS-LSOH-WH



Outer jacket	LSOH
Cable secondary protection	reaction to fire E <sub>ca</sub>
Operating/Storage temperature	tight buffer
Installation temperature	-20 to +60 °C
Fibre type	-5 to +50 °C
Diameter of the primary protection	G.657.A1
Diameter of the secondary protection	250 µm
Short-term tensile resistance	900 µm
Short-term pressure resistance	300 N
Minimum bend radius (short term)	1 000 N/100 mm
Minimum bend radius (long-term)	12,5 x D cable
Cable diameter	25 x D cable
Cable weight	12f 8,5 mm, 24f 10,5 mm, 48f 13,5 mm
The number of fibres in the jacket	12f 71 kg/km, 24f 98 kg/km, 48f 154 kg/km
	12-48

Fibre optic riser cable Solarix SXKO-RISER-OS-LSOH reaction to fire E<sub>ca</sub>. The cable is ideal for vertical backbones inside the buildings with easy connectivity of individual users. The outer jacket of the cable is made of low smoke and halogen free compound. The fibres in the secondary coating are freely stored in the centre of the cable so they can be easily pull out in the place of the cut and are protected by two FRP strength members, one on each side of the cable. In case of 24f and 48f version the fibres are also marked with black line for correct identification. Our fibre cables contain no metal elements and therefore are fully dielectric. The fibre itself is a G.657.A1 type.

Part No.	Description
SXKO-RISER-12-OS-LSOH-WH	RISER cable Solarix 12f 9/125, LSOH E <sub>ca</sub> , white
SXKO-RISER-24-OS-LSOH-WH	RISER cable Solarix 24f 9/125, LSOH E <sub>ca</sub> , white
SXKO-RISER-48-OS-LSOH-WH	RISER cable Solarix 48f 9/125, LSOH E <sub>ca</sub> , white



- Cable construction
1. Fibres
  2. Strength member
  3. Cutting point
  4. Outer jacket

SXKO-RISER-48-OS-LSOH-WH



# 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.

# FIBRE OPTICS

## Color Coding for Fibres and Tubes

### Fibres Color Coding

Fibre	1	2	3	4	5	6	7	8	9	10	11	12
Colour	blue	orange	green	braun	grey	white	red	black	yellow	purple	pink	turquoise
Fibre	13	14	15	16	17	18	19	20	21	22	23	24
Colour <sup>1)</sup>	blue	orange	green	braun	grey	white	red	black	yellow	purple	pink	turquoise

<sup>1)</sup> Colour with a strip

### Tubes Color Coding for MLT Cables

Tube	1	2	3	4	5	6	7	8	9	10	11	12
Colour	blue	orange	green	braun	grey	white	red	black	yellow	purple	pink	turquoise

### Tubes Color Coding for MLT Cables

Tube	1	2	3	4
Colour	red	green	natural	natural