

SXKO-CLT-24-OS-LSOH

# FIBRE OPTIC CABLES

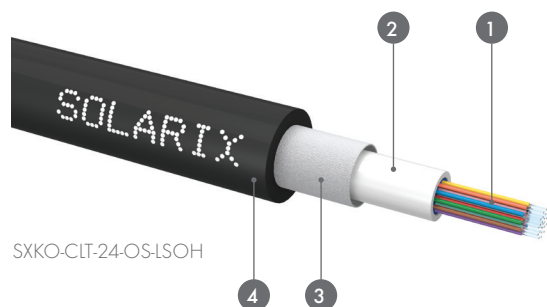
## Universal singlemode



Outer jacket	LSOH, UV stable reaction to fire E <sub>ca</sub>
Cable secondary protection	gel-filled tube
Cable type acc. to the number of tubes	CLT
Operating temperature	-20 to +60 °C
Installation temperature	-15 to +50 °C
Storage temperature	-40 to +70 °C
Fibre type	G.652.D OS2
Diameter of the primary protection	250 µm
Short-term tensile resistance	1 200 N
Short-term pressure resistance	1 000 N/10 cm
Minimum bend radius (short term)	20x D cable
Minimum bend radius (long-term)	10x D cable
Cable diameter	2-12: 5,7 mm, 14-24: 6,5 mm
Cable weight	2-12: 36 kg/km, 14-24: 45 kg/km
The number of fibres in the tube	2-24

Solarix universal fibre optic cables SXKO-CLT-OS-LSOH reaction to fire E<sub>ca</sub> are designed to be used for both indoor and outdoor environments. The outer jacket of the cables are made of low smoke, and halogen free compound, which is also complemented by UV stable material. The fibres are stored in a central gel-filled tube, thus they are protected against moisture. Our fibre optic cables contain no metal elements and therefore they are fully dielectric. The fibre itself is a G.652.D OS2 type.

Part No.	Description
SXKO-CLT-4-OS-LSOH	Universal cable CLT Solarix 4f 9/125, LSOH, black
SXKO-CLT-8-OS-LSOH	Universal cable CLT Solarix 8f 9/125, LSOH, black
SXKO-CLT-12-OS-LSOH	Universal cable CLT Solarix 12f 9/125, LSOH, black
SXKO-CLT-24-OS-LSOH	Universal cable CLT Solarix 24f 9/125, LSOH, black



SXKO-CLT-24-OS-LSOH

- Cable construction
1. Fibres
  2. Gel-filled tube
  3. Water-proof tape
  4. Outer jacket



# 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	8,9 ± 0,4	8,6 ± 0,4
@ 1 550 nm	µm	10,4 ± 0,5	10,1 ± 0,5	9,6 ± 0,4
Cladding diameter	µm	125 ± 0,7	125 ± 0,7	125 ± 0,7
Coating diameter	µm	242 ± 5,0 (uncolored)	242 ± 5,0 (uncolored)	242 ± 5,0
Core-Cladding Concentricity Error	µm	≤ 0,6	≤ 0,5	≤ 0,5
Cladding-Coating Concentricity Error	µm	≤ 12	≤ 12	≤ 12
<b>Transmission Parameters</b>				
<b>Attenuation</b>				
@ 1 310 nm	dB/km	0,32 - 0,36 <sup>1)</sup>	0,32 - 0,36 <sup>1)</sup>	0,32 - 0,36 <sup>1)</sup>
@ 1 550 nm	dB/km	0,19 - 0,24 <sup>1)</sup>	0,19 - 0,24 <sup>1)</sup>	0,19 - 0,24 <sup>1)</sup>
@ 1 625 nm	dB/km	0,22 - 0,26 <sup>1)</sup>	0,22 - 0,26 <sup>1)</sup>	0,22 - 0,26 <sup>1)</sup>
<b>Dispersion Coefficient</b>				
@ 1 550 nm	ps/(nm*km)	≤ 18	≤ 18	≤ 18
@ 1 625 nm	ps/(nm*km)	≤ 22	≤ 22	≤ 22
PMD individual fibre	ps/√km	0,1	0,1	0,1
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 ± 2,5	50 ± 2,5	50 ± 2,5	50 ± 2,5
Cladding diameter	µm	125 ± 1,0	125 ± 1,0	125 ± 1,0	125 ± 1,0
Core-Cladding Concentricity Error	µm	≤ 1,5	≤ 1,0	≤ 1,0	≤ 1,0
Cladding-Coating Concentricity Error	µm	≤ 10,0	≤ 10,0	≤ 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	2,2 - 3,5 <sup>1)</sup>	2,2 - 3,5 <sup>1)</sup>	2,2 - 3,5 <sup>1)</sup>	2,2 - 3,0 <sup>1)</sup>
@ 1 300 nm	dB/km	0,5 - 1,5 <sup>1)</sup>	0,5 - 1,5 <sup>1)</sup>	0,5 - 1,5 <sup>1)</sup>	0,5 - 1,5 <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