



FIBRE OPTIC CABLES

MINI singlemode

SXKO-MINI-8-OS-HDPE



Outer jacket	HDPE, reaction to fire F_{ca}
Cable secondary protection	gel-filled tube
Cable type acc. to the number of tubes	MLT
Operating temperature	-30 to +60 °C
Installation temperature	-10 to +50 °C
Storage temperature	-40 to +70 °C
Fibre type	G.657.A1
Diameter of the primary protection	250 µm
Short-term tensile resistance	75 N
Short-term pressure resistance	450 N/100 mm
Minimum bend radius (short term)	10x D cable
Minimum bend radius (long-term)	20x D cable
Cable diameter	2,8 mm
Cable weight	7,5 kg/km
The number of fibres in the tube	2–12

Solarix MINI air blow-in fibre optic cables SXKO-MINI-OS-HDPE reaction to fire F_{ca} are suitable for blowing into micro tubes thanks to the high viscosity HDPE jacket that allows the cable to slide easily along the inner side of the tube. The fibres themselves are stored in a central gel-filled tube to protect them from moisture. They are always placed with a maximum of 12 fibres per tube. The fibre optic cable has no metallic elements and is fully dielectric. It contains aramid yarns to increase mechanical resistance. The fibre itself is of the G.657A1 type and is fully compatible with G.652.D fibres.

Part No.	Description
SXKO-MINI-2-OS-HDPE	Air blowing cable MINI Solarix 2f 9/125 HDPE F _{ca} , black
SXKO-MINI-4-OS-HDPE	Air blowing cable MINI Solarix 4f 9/125 HDPE F _{ca} , black
SXKO-MINI-8-OS-HDPE	Air blowing cable MINI Solarix 8f 9/125 HDPE F _{ca} , black
SXKO-MINI-12-OS-HDPE	Air blowing cable MINI Solarix 12f 9/125 HDPE F _{ca} , black



Cable construction
 1. Fibres
 2. Gel-filled tube
 3. Aramid yarn
 4. Outer jacket

SXKO-MINI-12-OS-HDPE



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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
Mode Field Diameter (MFD)				
@ 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
Transmission Parameters				
Attenuation				
@ 1 310 nm	dB/km	≤ 0,35 ¹⁾	≤ 0,38 ¹⁾	≤ 0,35 ¹⁾
@ 1 550 nm	dB/km	≤ 0,21 ¹⁾	≤ 0,22 ¹⁾	≤ 0,20 ¹⁾
@ 1 625 nm	dB/km	≤ 0,24 ¹⁾	≤ 0,25 ¹⁾	≤ 0,23 ¹⁾
Dispersion Coefficient				
@ 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 _{cc}	nm	≤ 1 260	≤ 1 260	≤ 1 260
Fibre Cutoff Wavelength λ _c	nm	1 150 - 1 330	1 150 - 1 330	1 150 - 1 330

¹⁾ 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
Transmission Parameters					
Numerical aperture	-	0,200 ± 0,015	0,200 ± 0,015	0,200 ± 0,015	0,200 ± 0,015
Attenuation					
@ 850 nm	dB/km	≤ 2,7 ¹⁾	≤ 3,0 ¹⁾	≤ 3,0 ¹⁾	≤ 3,0 ¹⁾
@ 1 300 nm	dB/km	≤ 0,8 ¹⁾	≤ 1,0 ¹⁾	≤ 1,0 ¹⁾	≤ 1,0 ¹⁾
Bandwidth					
@ 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

¹⁾ 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 ¹⁾	blue	orange	green	braun	grey	white	red	black	yellow	purple	pink	turquoise

¹⁾ 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