



FIBRE OPTIC CABLES

DAC singlemode

SXKO-DAC-2-OS-PP



Outer jacket	PP
Cable secondary protection	reaction to fire F_{ca}
Operating/Storage temperature	gel-filled tube
Installation temperature	-30 to +60 °C
Fibre type	-20 to +50 °C
Diameter of the primary protection	G.657.A1
Short-term tensile resistance	250 μ m
Short-term pressure resistance	1 200 N
Minimum bend radius (short term)	3 000 N/100 mm
Minimum bend radius (long-term)	10 x D cable
Cable diameter	20 x D cable
Cable weight	5,8 mm
The number of fibres in the tube	26 kg/km
	2-12

Fibre optic DAC cable Solarix SXKO-DAC-OS-LSOH reaction to fire F_{ca} is designed for outdoor use and direct buried applications. The outer jacket of the cable is made of polypropylene (PP) and therefore has a very good chemical and mechanical resistance. The fibres themselves are stored in a central gel-filled tube, thus they are protected against moisture. The outer jacket is made in characteristic orange colour for direct burial in the ground. The cable contains two FRP members to increase mechanical resistance and can also be blown into microtubes for shorter distances. Our fibre cables contain no metal elements and therefore are fully dielectric. The fibre itself is a G.657.A1 type and is fully compatible with G.652.D fibres.

Part No.	Description
SXKO-DAC-2-OS-PP	Outdoor cable CLT Solarix 2f 9/125 PP DAC F_{ca} , orange
SXKO-DAC-4-OS-PP	Outdoor cable CLT Solarix 4f 9/125 PP DAC F_{ca} , orange
SXKO-DAC-8-OS-PP	Outdoor cable CLT Solarix 8f 9/125 PP DAC F_{ca} , orange
SXKO-DAC-12-OS-PP	Outdoor cable CLT Solarix 12f 9/125 PP DAC F_{ca} , orange



- Cable construction
1. Fibres
 2. Gel-filled tube
 3. Aramid yarn
 4. Strength member
 5. 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
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