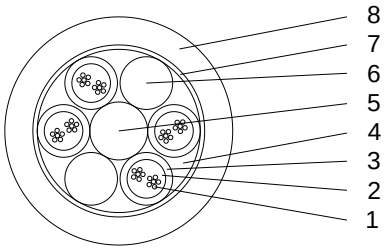
OUTDOOR-INDOOR CABLE FZOMSU-SD



1. Optical fibres	2. Jelly filling	3. Tube	4. Dry core
5. FRP rod	6. Filler	7. Wrapping	8. Sheath

Application	Universal non-metallic optical fibre cable for both indoor and outdoor applications (duct installation).	
Construction	Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.
	Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.
	Fillers	Plastic fillers when applicable.
	Central strength member	Glass fibre reinforced plastic (FRP). When applicable coated with PE to increase the diameter.
	Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
	Wrapping	The cable core is wrapped longitudinally with a water blocking tape.
	Rip cord	A non-metallic rip cord is applied under the sheath.
	Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is orange. Minimum sheath thickness is 1.2 mm. Nominal sheath thickness is 1,4 mm.
	Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking
Standard references	Cable properties	IEC 60794-3-11
	Test methods	IEC 60794-1-2x
	Flame retardant	IEC 60332-1-2
	Halogen free	IEC/EN 60754-2
	Reaction to fire	EN50575:2014+A1:2016 class Eca

CE

Maximum cabled fibre attenuation					
Wavelength	1310	1383	1550	1625	nm
Attenuation	0,36	0,36	0,22	0,24	dB/km

Nominal dimensions						
Fibres		Diameter [mm]		Weight [kg/km]	Minimum bending radius [mm]	
Count	Grouping	Loose tube	Cable	Cable	During installation	Installed
6	1×6	2,1	10,0	80	200	100
12	1×12	2,1	10,0	80	200	100
24	2×12	2,1	10,0	80	200	100
48	4×12	2,1	10,0	82	200	100
96	8×12	2,1	11,2	105	220	110
192	16×12	2,1	14,2	157	280	140
192	8×2×12	3,0	14,9	174	300	150

Cable core lay up 6F			
Fibres	Tubes	Fillers	Colour of the tubes
6	1	5	blue
Colour of the fillers			black or natural
Colour of the fibres			blue, white, yellow, green, grey, red
Colour coding standard			SFS 5648

Cable core lay up 12 – 192F			
Fibres	Tubes	Fillers	Colour of the tubes
12	1	5	blue
24	2	4	blue, white
48	4	2	blue, white, yellow, green
96	8	0	blue, white, yellow, green, grey, orange, brown, aqua
192	16	2	First layer: blue, white, yellow, green Second layer: grey, orange brown, turquoise, black, violet, pink, red, blue/black, white/black, yellow/black, green/black
Colour of the fillers			black or natural
Colour of the fibres			blue, white, yellow, green, grey, orange, brown, turquoise, black, violet, pink, red
Colour coding standard			FIN2012

Cable core lay-up 192F (8×2×12)						
Fibres	Tubes	Fillers	Colour of the tubes	Fibres / tube	Group yarns	Colour of the fibres
192	8	0	blue, white, yellow, green, grey, orange, brown, aqua	24	blue, white	blue, white, yellow, green, grey, orange, brown, aqua, black, violet, pink, red
Colour of the fillers is black or natural.						
Colour coding standard				FIN2012		

Cable characteristics		
Max. tension	-Fibre elongation ≤ 0.33%, no change (≥0,05 dB) in attenuation after the test.	12 – 48 F: 1800 N 96 F: 2800 N 192 F 16×12: 1800 N 192 F 8×2×12: 2800 N
Crush strength	-100 mm plate, during operation. No change (≥0,05 dB) in attenuation during the test.	1500 N
	-100 mm plate, during installation. No change (≥ 0.05 dB) in attenuation after test	3000 N
	-25 mm mandrel, during installation. No change (≥ 0.05 dB) in attenuation after test	500 N
Bending radius	-During installation	20 x Diameter
	-Final installation	10 x Diameter
Impact	-Energy	20 J, one impact
Torsion	-Number of turns	±1, (length 1000 mm)
Temperature range	-Operation, storage, transport	-45 to +60 °C
	-Installation	-15 to +60 °C
Water penetration		< 3 m, 24 h
Reaction to fire	- EN50575:2014+A1:2016	Eca