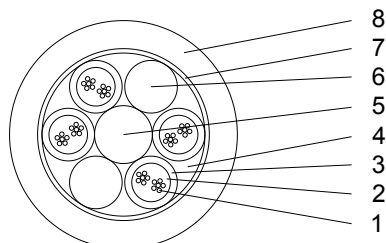


OUTDOOR MICRO DUCT CABLE FZOMU-SD MICRO



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

Application	Non-metallic optical fibre cable for microduct installation by blowing		
Construction	Optical fibres	Coloured single-mode fibres according to the ITU-T G652D, G.657.A1 or OM3. Ring-marking applied on fibres in 24F tube.	
	Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.	
	Fillers	Plastic fillers when applicable.	
	Central strength member	Glass fibre reinforced plastic (FRP).	
	Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member. 192 (16×12 version) and 288F cables are stranded in two layers.	
	Water blocking	Dry water blocking elements are applied to the cable core.	
	Rip cord	A non-metallic rip cord is applied under the sheath.	
	Outer sheath	UV resistant black polyethylene compound (HDPE). Nominal sheath thickness is 0,5 – 0,6 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 60794-5-10	
	Test methods	IEC 60794-1-2x	
	Halogen free	IEC 60754-2	

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

OM3 multimode fibre, cabled fibre attenuation and bandwidth			
Wavelength	850	1300	nm
Attenuation, max	2,4	0,7	dB/km
Bandwidth laser EMB, min	2000	500	MHz×km
Bandwidth OFL, min	1500	500	MHz×km

Nominal dimensions							
Fibres		Diameter [mm]			Weight [kg/km]	Minimum bending radius [mm]	
Count	Grouping	CSM (FRP)	Loose tube	Cable	Cable	During installation	Installed
24	2×12	1,6	1,5	5,6	24	120	80
48	4×12	1,6	1,5	5,6	25	120	80
72	6×12	1,6	1,5	5,6	25	120	80
96	8×12	2,3	1,5	6,4	36	130	120
144	12×12	4,2/2,3	1,5	8,1	54	170	120
192	8×24	3,2/2,1	2,0	8,1	51	160	120
192	16×12	1,6	1,5	8,5	54	170	80
288	24×12	3,0/2,1	1,5	9,9	76	200	120

Cable core lay up			
Fibres	Tubes	Fillers	Colour of the tubes
24	2	4	blue, orange
48	4	2	blue, orange, green, brown
96	8	0	blue, orange, green, brown, grey, white, red, black
72	6	0	blue, orange, green, brown, grey, white
144	12	0	blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise
192	8	0	blue, orange, green, brown, grey, white, red, black
192	16	2	inner layer: blue, orange, green, brown, grey, white outer layer: red, black, yellow, violet, pink, turquoise, blue/black, orange/black, green/black, brown/black
288	24	0	inner layer: blue, orange, green, brown, grey, white, red, black, yellow outer layer: violet, pink, turquoise, blue/black, orange/black, green/black, brown/black, grey/black, white/black, red/black, black/white, yellow/black, violet/black, pink/black, turquoise/black
Colour of the fillers			black or natural
Colour of the fibres 12F tube			blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise
Colour of the fibres 24F tube			Fibres 1–12: blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise Fibres 13–24, ring marking applied: blue/black, orange/black, green/black, brown/black, grey/black, white/black, red/black, clear/black, yellow/black, violet/black, pink/black, turquoise/black
Colour coding standard			ANSI/EIA/TIA 598-C

Cable characteristics			
Max. tension		12 – 72F	96 – 288F
	Operation, fibre elongation $\leq 0,05\%$.	250 N	250 N
	Installation, fibre elongation $\leq 0,33\%$.	750 N	1000 N
Crush strength	Operation: With 100 mm plate, no change ($\geq 0,05$ dB) in attenuation during test.	500 N	
	Installation: With 100 mm plate, no change ($\geq 0,05$ dB) in attenuation after the test.	1000 N	
Impact	- Impact head diameter 50 mm, radius 300 mm	1 J, one impact	
Bending radius	- During installation (dynamic)	20 x Diameter	
	- Final installation (static)	50 x CSM (FRP) diameter	
Torsion	- Number of turns	± 1 , (length 1000 mm)	
Temperature range	- Operation	-40 to +70 °C	
	- Installation	-15 to +60 °C	
	- Storage, transport	-40 to +70 °C	
Water penetration		< 3 m, 24 h	

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