Evolant® Solutions

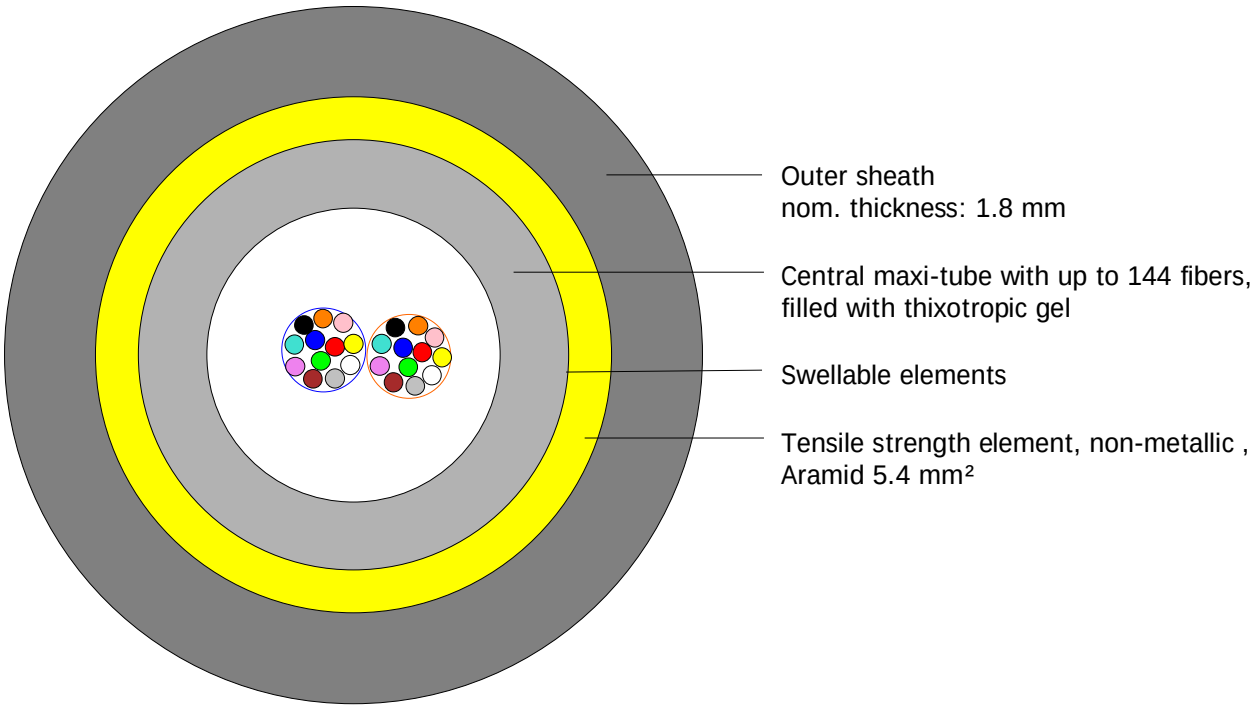
Data sheet

Aeriel - Cable

Non-metallic self-supporting aerial cable

with 2 up to 144 fibers monomode fibers

E9/125 SMF 28e™



Principle drawing for a A A-D(T)2Y 5.4 mm² 1x(2x12) E9/125 0.36F3.5 + 0.22H18

A-D(T)2Y 5.4 mm² 2 to 144 E9/125 0,36F3,5 + 0,22H18

Design and special properties

- All dielectric self-supporting aerial cable
- Non-metallic strength members (yarns) to realise high tensile loads
- Cable with a central maxi-tube design, fully filled
- Outer jacket of polyethylene (cable should not be used where tracking resistance is required)
- Single mode fibers fully compliant to standard ITU G.652 D (reduced OH- peak) showing low attenuation throughout the 1285 nm to 1625 nm wavelength range
- Color code of the fibers according to customer specification

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Coloring

Fibers: blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise

Fiber-bundles: for > 12 to 144 fibers up to 12 fiber bundles, each with 8 or 12 fibers
yarn coloring: blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise

Outer jacket: black

Cable printing: without

Characteristics of fibers E9/125 SMF 28e™ - low water peak fiber -

Optical and mechanical:

Mode field diameter at 1310 nm	[µm]	9.2 ± 0.4
Cladding diameter	[µm]	125.0 ± 0.7
Coating diameter	[µm]	245 ± 5
Attenuation at 1310 nm	[dB/km]	≤ 0.36
Attenuation at 1550 nm	[dB/km]	≤ 0.22
Attenuation at 1383 nm	[dB/km]	≤ 0.36
Dispersion in the range 1285 to 1330 nm	[ps/(nm∗km)]	≤ 3.5
Dispersion at 1550 nm	[ps/(nm∗km)]	≤ 18
Cable cutoff Wavelength (λ_{ccf})	[nm]	≤ 1260

The fibers are fully in compliance with ITU-T G. 652.D and annexes.
Other options are available on request.

Technical cable characteristics

Mechanical and environmental:

Crush resistance		[N/10 cm]	2000
Impact resistance (E = 5 Nm, r = 300 mm)		[impacts]	1
Temperature range	Laying and installation	[°C]	-5 to 50
	Operation		-30 to 70
	Transport and storage		-40 to 70

Number of fibers A-D(T)2Y …CT	Outside ø [mm]	Weight [kg/km]	Max. allowed tension (MAT) (*) [N]	Every day stress (EDS) (*) [N]	Bend radius for installation [mm]	Bend radius in operation [mm]
1x12	9.6	70	4200	1600	165	145
2x12	10.8	92	4800	1900	200	165
3x12	10.8	92	4800	1900	200	165
4x12	10.8	92	4800	1900	200	165
6x12	12,4	125	4000	1600	235	210
8x12	12,4	125	4000	1600	235	210
10x12	14,5	145	4200	1600	250	225
12x12	14,5	145	4200	1600	250	225

(*) Depending on local conditions, sag calculations are necessary

Delivery length up to 6 km

Other options are available on request.