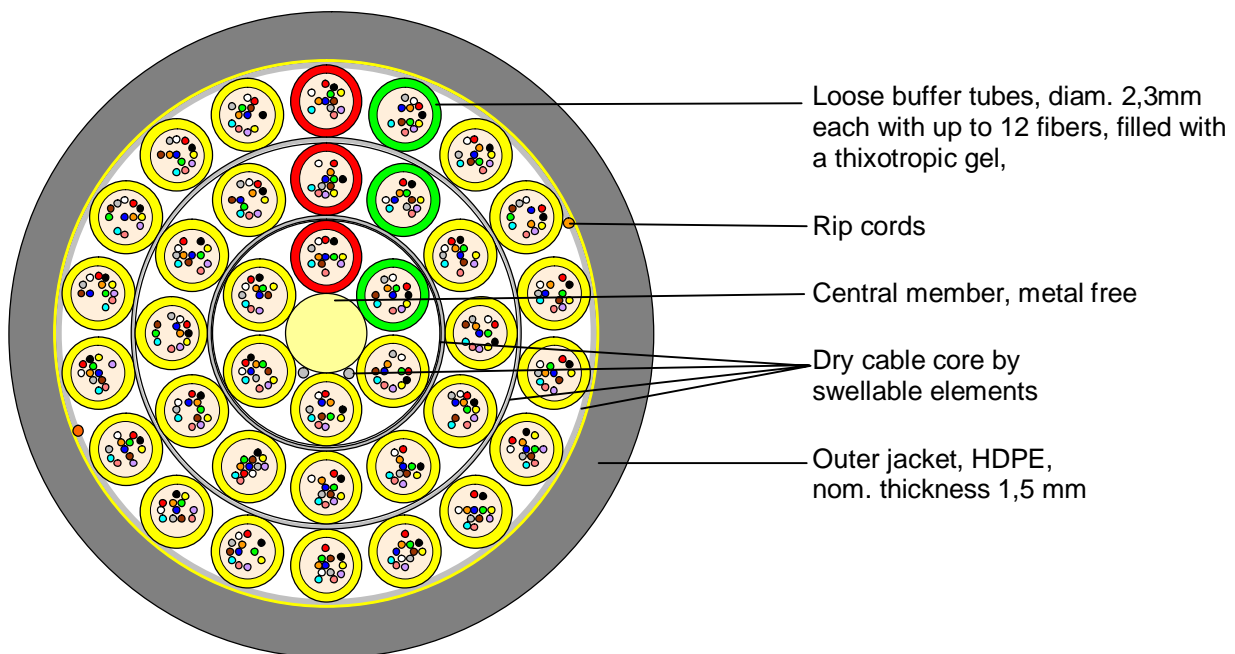


# Non-metallic fiber optic duct cables with 12 to 432 single-mode fibers E9/125 SMF 28e+™



**Principle drawing** Example: A-DQ(ZN)2Y 36x12 E9/125 0.36F3.5 + 0.22H18 LG

**A-DQ(ZN)2Y 12 to 432 E9/125 0.36F3.5 + 0.22H18 LG**

## Design and special properties

- Light, thin and robust cables
- Cables for pulling into duct systems, laying in concrete channels or on cable racks
- Optimized cable stiffness yields an excellent blowing performance
- Fully dielectric cable requires no grounding or potential equalization
- Dry cable core by swellable elements
- HDPE-jacket, UV-resistant
- Single-layer stranded construction up to 144 fibers
- Double-layer stranded construction for > 144 up to 288 fibers
- Triple-layer stranded construction for > 288 up to 432 fibers
- The used Corning<sup>®</sup> single-mode fibers SMF-28e<sup>®</sup> are fully compliant to standard ITU-T G.652.D (reduced OH- peak) showing low attenuation throughout the 1285 nm to 1625 nm wavelength range
- Customer standard for fiber and loose tube coloring
- Cable design according to Corning standard

## Data sheet

### Coloring

Fibers:	white, red, yellow, green, blue, grey, brown, black, violet, turquoise, orange, pink
Buffer tubes:	all layers: red, green, following yellow
Filling elements:	natural, if required to fill up the cable core
Outer jacket:	black
Cable printing:	acc. customer specification
Method:	hot foil printing

### Characteristics of single-mode fibers E9/125 SMF-28e+<sup>®</sup>

Optical and mechanical:

Mode-field diameter at 1310 nm	[μm]	9.2 ± 0.4
Cladding diameter	[μm]	125.0 ± 0.7
Coating diameter	[μm]	242 ± 5
Max. attenuation at 1310 nm	[dB/km]	≤ 0.36
Max. attenuation at 1550 nm	[dB/km]	≤ 0.22
Typical attenuation at 1310 nm	[dB/km]	≤ 0.34
Typical a attenuation at 1550 nm	[dB/km]	≤ 0.20
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 ( $\lambda_{cc}$ )	[nm]	≤ 1260
PMD Link Design Value	Ps/√km	≤ 0.06*

\*) Complies with IEC 60794-3:2001, Section 5.5, Method 1 (m=20, Q=0,01%)

The fibers are fully in compliance with ITU-T G.652.D and annexes

### Technical cable characteristics

Mechanical and environmental:

Max. tensile load during installation	[N]	2700
Crush (test methode acc. IEC 69794-1-2 E3)	[N/10 cm]	2000
Impact (test methode acc. IEC 69794-1-2 E4, 5 J, r=300 mm)	impacts	1 in 3 pos.
Temperature range	[°C]	-5 to 50
Laying and installation		-40 to 70
Operation		-40 to 70
Transport and storage		-40 to 70
Water penetration (0.1 bar / 24 h)	[m]	≤ 1

Cable type	No. of fibers	No. of tubes	No. of stranding elements	Outer Ø, approx. [mm]	Weight, approx. [kg/km]	Min. bending radius during install. [mm]
<b>A-DQ(ZN)2Y ...</b>						
1x12 to 6x12	12 - 72	1 - 6	6	10,5	80	180
8x12	96	8	8	11,9	103	205
12x12	144	12	12	14,9	163	240
(4x12)+(12x12)	192	16	18	15,1	160	250
(5x12)+(15x12)	240	20	24	17,2	213	295
(9x12)+(15x12)	288	24	24	17,2	213	295
(11x12)+(17x12)	336	28	28	19,9	275	358
(6x12)+(12x12)+(18x12)	432	36	36	19,9	275	358

### Delivery length

Delivery length up to 6 km