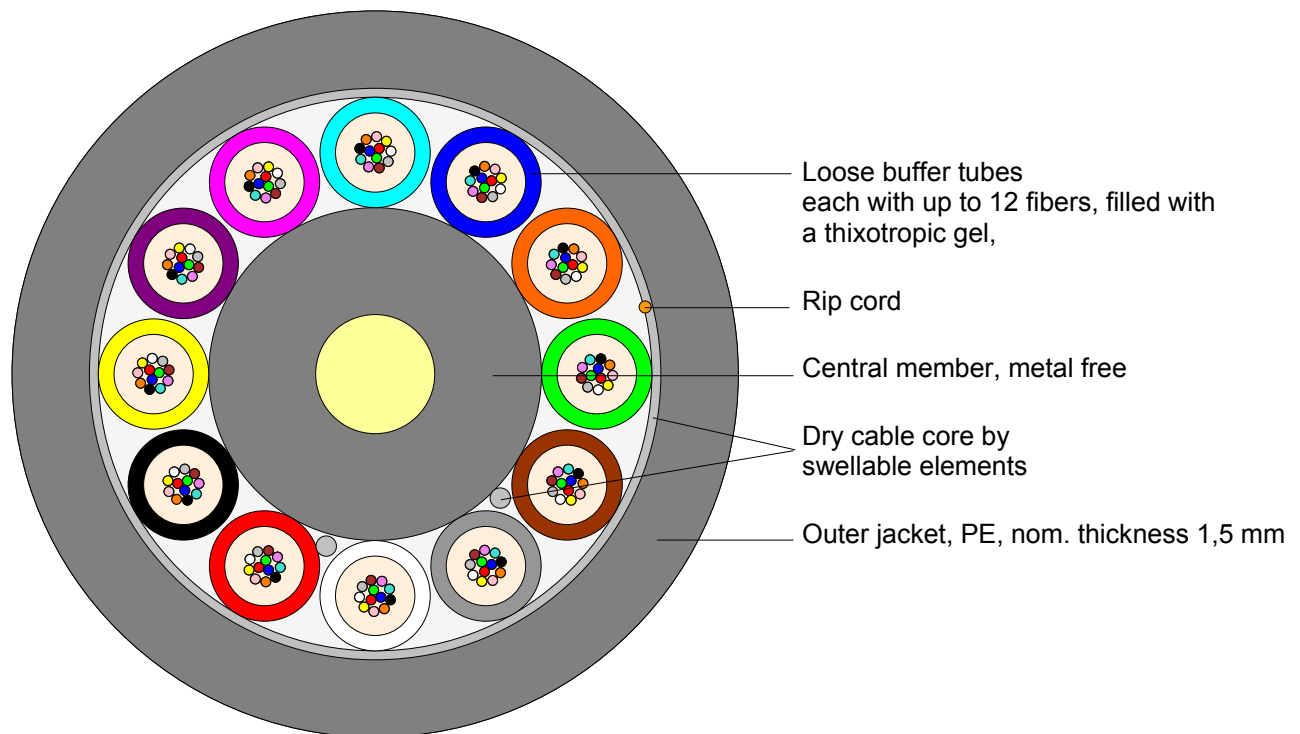


## Data sheet

# Non-metallic fiber optic duct cables

with 4 to 288 single-mode fibers E9/125 SMF 28e+™



**Principle drawing** Example: A-DQ(ZN)2Y 12x12 E9/125 0.36F3.5 + 0.22H18 LG

**A-DQ(ZN)2Y 4 to 288 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
- Single-layer stranded construction up to 144 fibers
- Double-layer stranded construction for > 144 up to 288 fibers
- The used Corning<sup>®</sup> single-mode fibers SMF-28e+™ 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
- Telcordia standard for fiber and loose tube coloring (Bellcore)
- Cable design according to Corning standard

## Data sheet

### Coloring

Fibers: blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise  
 Buffer tubes: up to 12 tubes: blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise  
 more than 12 tubes: continuous sequence of Telcordia standard  
 Filling elements: natural, if required to fill up the inner layer of the cable core  
 Outer jacket: black  
 Cable printing: meter handset sine CORNING year A-DQ(ZN)2Y **xx** X **yy** E9/125  
**xx** = number of tubes; **yy** = number of fibers  
 Method: hot foil printing, white

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

Optical and mechanical:

Mode-field diameter at 1310 nm	[ $\mu\text{m}$ ]	9.2 $\pm$ 0.4
Cladding diameter	[ $\mu\text{m}$ ]	125.0 $\pm$ 0.7
Coating diameter	[ $\mu\text{m}$ ]	242 $\pm$ 5
Max. attenuation at 1310 nm	[dB/km]	$\leq$ 0.36
Max. attenuation at 1550 nm	[dB/km]	$\leq$ 0.22
Attenuation at 1383 nm	[dB/km]	$\leq$ 0.36
Dispersion in the range 1285 to 1330 nm	[ps/(nm*km)]	$\leq$ 3.5
Dispersion at 1550 nm	[ps/(nm*km)]	$\leq$ 18
Cable cutoff wavelength ( $\lambda_{cc}$ )	[nm]	$\leq$ 1260
PMD Link Design Value	Ps/ $\sqrt{\text{km}}$	$\leq$ 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	Laying and installation Operation Transport and storage	[ $^{\circ}\text{C}$ ] -5 to 50 -30 to 70 -40 to 70
Water penetration (0.1 bar / 24 h)	[m]	$\leq$ 1

Cable type A-DQ(ZN)2Y ...	No. of fibers	No. of tubes	No. of stranding elements	Outer $\varnothing$ , approx. [mm]	Weight, approx. [kg/km]	Min. bending radius during install. [mm]
1x4 to 6x12	12 - 72	1 - 6	6	10,5	80	180
8x12	96	8	8	11,9	103	205
10x12	120	10	10	13,4	131	230
12x12	144	12	12	14,9	163	240
(4x12)+(12x12)	192	16	18	15,1	160	250
(6x12)+(12x12)	216	18	18	15,1	160	250
(5x12)+(15x12)	240	20	24	17,2	213	295
(9x12)+(15x12)	288	24	24	17,2	213	295

### Delivery length

Delivery length up to 6 km