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## DPO – In Pipes Loose Tube



- 1. Outer sheath
- 2. Water swellable yarns
- 3. Core filler
- 4. Loose tube
- 5. Hydrophobic gel
- 6. Optical fiber
- 7. Central strength element

\* It is possible to produce a cable with flame-retardant outer sheath, with low smoke and gas emission (ng(A)-HF)

### Application

Optical cable is designed for installation in cable ducts, in pipes (including the blowing installation method), in blocks, in trays, in tunnels, in headers, on bridges and skyways, inside buildings and for the suspension between supports and buildings on an external strength element, as well as by the winding method.

### Technical characteristics

Parameter	Value			
	Up to 48	Up to 72	Up to 96	Up to 144
Number of optical fibers	Up to 48	Up to 72	Up to 96	Up to 144
Tensile strength, kN	1,5			
Cable diameter, mm	9,6	9,9	10,8	11,6
Cable weight, kg/km	68,5	71,6	83,8	94,7
Bending radius, mm	144,0	148,5	162,0	174,0
Tensile strength, kN	2			
Cable diameter, mm	9,8	10	10,8	11,6
Cable weight, kg/km	71,5	73,2	83,8	94,7
Bending radius, mm	147	150	162	174
Tensile strength, kN	2,7			
Cable diameter, mm	9,9	10,2	10,9	11,6
Cable weight, kg/km	74,6	77,7	85,3	96,1
Bending radius, mm	148,5	153,0	163,5	174,0
Crushing force, kN/sm	0,3			
Operating temperature	-60°C...+70°C			
Installation temperature	-30°C...+50°C			
Transportation and storage temperature	-60°C...+70°C			
Minimum bending radius	Not less than 15 cable diameters			
Factory length, km	4			

### Technical characteristics of optical fiber

Type of optical fiber	Corning SMF 28 Ultra	Corning SMF28e+BB
ITU-T recommendations	G.657A1 G.652D	G.657A1 G.652D
Deviation from the concentricity of the core, microns, not more	0,5	
Diameter of fiber sheath, microns	125±0,7	
Deviation from the roundness of the sheath,%, not more	0,7	
The diameter of the protective covering, microns	242±5	
Maximum attenuation at wavelength 1310 nm	0,32	0,34
Maximum attenuation at wavelength 1550 nm	0,18	0,20

### Full name example

#### Optical cable DPO-P-48Y (6x8) 2,7kN

The cable consists of a loose tube core with a central strength element made of a dielectric rod with a spiral-twisted water-blocking yarns around which optical loose tubes with freely laid fibers are twisted. The free space is filled with a hydrophobic gel in the optical loose tubes. The core is fastened with winding threads with a water-blocking property. MDPE sheath are laid on the core. As additional power elements. As additional strength elements, fiber glass yarns can be laid on the core.

