

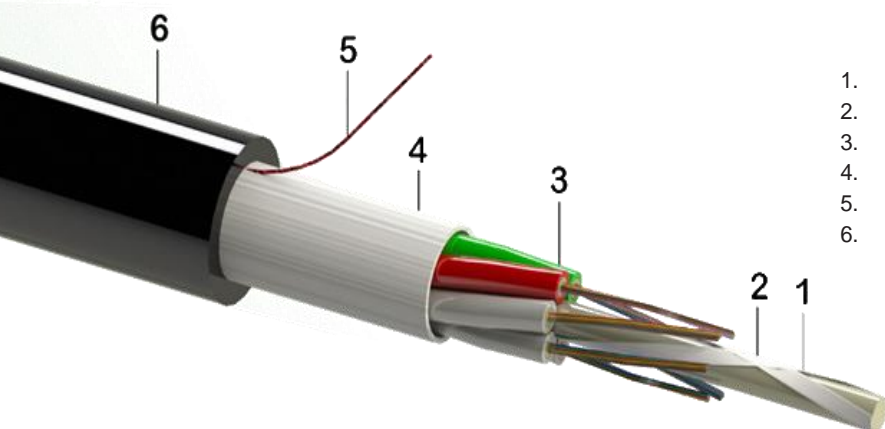
All-dielectric Duct Cables

Cable construction code

OT.x1,7H xx.yy.zz.c

DIN code

A-DQ(ZN)2Y nx1,7



1. FRP central strength member
2. Water swell-able yarn
3. Gel filled PBT loose tube with optical fibers
4. Water swell-able tape or e-glass yarn
5. Rip-cord
6. HDPE UV stable outer jacket

Cable general description

Multi-loose-tube non-metallic cable for outdoor duct installation.

Construction and dimensions	OT6x1,7H	OT8x1,7H	OT3x1,7H	OT9x1,7H
Max. fibre count (12 fibres/tube)	72	96	144	216
Loose-tubes count	6	8	12	18(6+12) - two layers
Loose tube nominal diameter (mm)	1,7	1,7	1,7	1,7
FRP/coat. CSM nominal thickness (mm)	1,7	2,8	2,5/5,0	1,7
Outer jacket nominal thickness (mm)	1,2	1,2	1,2	1,2
Cable nominal outer diameter (mm)	7,8	9,5	11,7	11,8
Cable informative weight (kg/km)	55	70	105	110
Standard put-up length (m)	2100/4100 ± 5%	2100/4100 ± 5%	2100/4100 ± 5%	2100/4100 ± 5%

Outer jacket

Material	UV stable HDPE
Jacket colour	Black
Sheath marking	Ink-Jet, white
Print legend	Trademark, construction name, cable type, batch-number, meter-marking Customer print legend available on request

Optical fibers

Colour coding (IEC 60304)	1.-12.: red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink
Loose-tube colour coding	1.red, 2.green (in each layer), rest of tubes white (fillers uncoloured or black)
Fiber type	Single- and multi-mode fibers (OS2, OM1, OM2, OM3, OM4)

Geometrical and transmission parameters are available at separate generic datasheet

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**Mechanical characteristics**

Test	Test method	Value				Acceptance criteria*	
		OT6x	OT8x	OT3x	OT9x		
Tensile performance	IEC 60794-1-21:E1	long term	800 N	800 N	800 N	800 N	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,05$ dB after test
		short term	2000 N	2000 N	2000 N	2000 N	
Crush	IEC 60794-1-21:E3A	1000 N/100mm (long term) 2000 N/100mm (short term)				$\Delta\alpha \leq 0,05$ dB prior release, no damage $\Delta\alpha \leq 0,05$ dB after release, no damage	
Impact	IEC 60794-1-21:E4	10 Nm, 3 impacts, d=20 mm, R=300 mm				$\Delta\alpha \leq 0,05$ dB after test, no damage	
Repeated bending	IEC 60794-1-21:E6	R=20 x cable diameter, 25 cycles				no damage	
Torsion	IEC 60794-1-21:E7	L=1 m, rotation angle $\pm 180^\circ$ , 10 cycles				no damage	
Bend	IEC 60794-1-21:E11A	d=20 x cable diameter, 4 turns, 3 cycles				$\Delta\alpha \leq 0,05$ dB after test, no damage	

**Environmental characteristic**

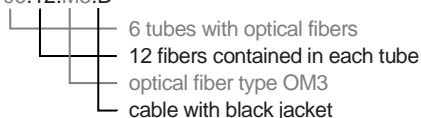
Test	Test method	Value	Acceptance criteria*
Temperature cycling	IEC 60794-1-22:F1	-40°C ÷ 70°C	$\Delta\alpha \leq 0,05$ dB
Temperature range of use		-5°C ÷ 50°C	installation
		-40°C ÷ 70°C	operation
		-40°C ÷ 70°C	storage, transport
Moisture resistance	IEC 60794-1-22:F5B	L=3 m, 1 m water height, 24 h	no water leakage

\* IEC 60794-3-10, IEC 60794-3-11

Cable expected lifetime / min. 30 years

**Order information**

Order code e.g.: OT6x1,7H 06.12.M3.B



Detailed explanation of the FOC constructions coding found in the file *FOC coding*.