

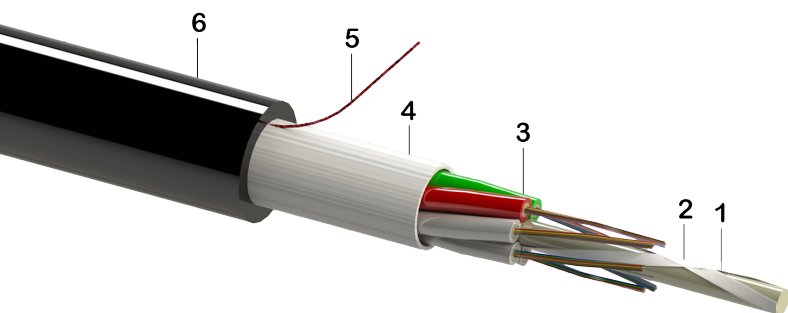
All-dielectric Duct Cables

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 swellable yarn
3. Gel filled PBT loose tube with optical fibers
4. Water swellable 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. fiber count (12 fibers/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	2,8 / 5,0	1,7
Outer jacket nominal thickness (mm)	1,2	1,2	1,2	1,2
Cable nominal outer diameter (mm)	7,5	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	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, OM2, OM3, OM4, OM5)

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	EN 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	EN 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	EN 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	EN 60794-1-21:E6	R=20 x cable diameter, 25 cycles				no damage	
Torsion	EN 60794-1-21:E7	L = 1 m, rotation angle $\pm 180^\circ$, 10 cycles				no damage	
Bend no tension	EN 60794-1-21:E11A	R=15 x cable diameter, 4 turns, 3 cycles				$\Delta\alpha \leq 0,05$ dB after test, no damage	

Environmental characteristics

Test	Test method	Value	Acceptance criteria*
Temperature cycling	EN 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	EN 60794-1-22:F5B	L = 3 m, 1 m water height, 24 h	no water leakage

* EN 60794-3-10, EN 60794-3-11

Cable expected lifetime / min. 30 years

Order information

Construction	Diameter	CPR	Fiber count	OM3	OM4	G652.D	G657.A1
OT6x1,7H	Ø 7.5		4 x 8f 32f	04.08.M3.B	04.08.M4.B	04.08.S2.B	04.08.S7.B
			4 x 12f 48f	04.12.M3.B	04.12.M4.B	04.12.S2.B	04.12.S7.B
			6 x 6f 36f	06.06.M3.B	06.06.M4.B	06.06.S2.B	06.06.S7.B
			6 x 8f 48f	06.08.M3.B	06.08.M4.B	06.08.S2.B	06.08.S7.B
			6 x 12f 72f	06.12.M3.B	06.12.M4.B	R851118	06.12.S7.B
OT8x1,7H	Ø 9.5		8 x 8f 64f	08.08.M3.B	08.08.M4.B	08.08.S2.B	08.08.S7.B
			8 x 12f 96f	08.12.M3.B	08.12.M4.B	08.12.S2.B	08.12.S7.B
OT3x1,7H	Ø 11.7		12 x 8f 96f	12.08.M3.B	12.08.M4.B	12.08.S2.B	12.08.S7.B
			12 x 12f 144f	12.12.M3.B	12.12.M4.B	R851119	12.12.S7.B
OT9x1,7H	Ø 11.8		18 x 6f 108f	18.06.M3.B	18.06.M4.B	18.06.S2.B	18.06.S7.B
			18 x 8f 144f	18.08.M3.B	18.08.M4.B	18.08.S2.B	18.08.S7.B
			18 x 12f 216f	18.12.M3.B	18.12.M4.B	18.12.S2.B	18.12.S7.B

Order code e.g.: OT6x1,7H 06.06.M3.B (see page 136/137)

Other fiber counts and/or fiber types (e.g. G657.A2) on special request