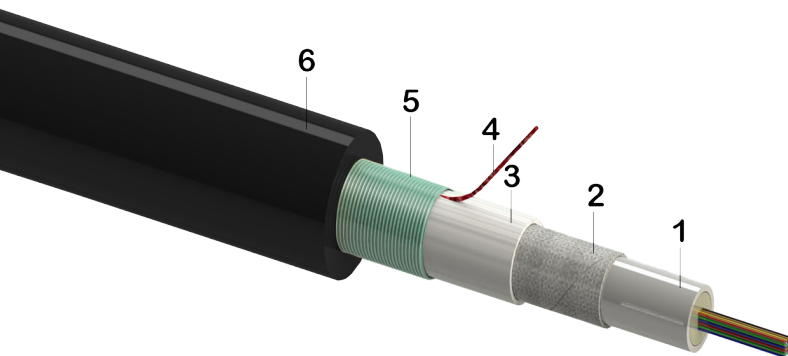


Cable construction code

QX1ECF xx.yy.zz.c

DIN code

J/A-DQ(ZN)(SR)H wbg fr



1. Gel filled PBT loose tube with optical fibers
2. Fire-resistant tape
3. Water-blocking e-glass yarn
4. Rip-cord
5. Corrugated steel tape armour
6. FRLSZH UV stable outer jacket

Cable general description

Max. 24 fiber uni-tube fire-resistant corrugated steel tape armoured cable for indoor or outdoor duct or direct buried installation. This cable construction offers good mechanical and full rodent protection.

Construction and dimensions

Loose tube nominal diameter	3,0 mm
Outer jacket nominal thickness	1,3 mm
Cable nominal outer diameter	8,0 mm
Cable informative weight	90 kg/km
Standard put-up length	2100/4100 m ± 5%

Outer jacket

Material	UV stable FRLSZH
Jacket colour	Black. Other colours available on request
Sheath marking	Ink-Jet, white or black depending on the jacket colour
Print legend	Construction name, cable type, batch-number, meter-marking, CE 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 13.-24.: red, green, blue, yellow, white, grey, brown, violet, turquoise, natural, orange, pink (ring-marked)
Fiber type	Single- and multi-mode fibers (OS2, OM2, OM3, OM4, OM5)

*Geometrical and transmission parameters are available at separate generic datasheet*

**Mechanical characteristics**

Test	Test method	Value	Acceptance criteria*
Tensile performance	EN 60794-1-21:E1	500 N (long term) 1500 N (short term)	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,05$ dB after test
Crush	EN 60794-1-21:E3A	2500 N/100mm (long term) 5000 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	20 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	-30°C ÷ 70°C -35°C ÷ 70°C	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,15$ dB, reversible
Temperature range of use		-5°C ÷ 50°C -30°C ÷ 70°C -35°C ÷ 70°C	installation operation 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

**Fire performance**

Fire resistance	EN 60331-25 (180 min at 750°C)	Pass
Flammability - cable bundle	EN 60332-3-22 (cat.A)	Pass
Smoke density	EN 61034-1, EN 61034-2	Pass
Halogen Free, Acid gases	EN 60754-2	Pass
Euro classification to CPR	EN 50575, EN 13501-6	Fca

Cable expected lifetime / min. 30 years

**Order information**

Construction	Diameter	CPR	Fiber count	OM3	OM4	OM5	G652.D	G657.A1
QX1ECF	Ø 8,0	Fca	4	01.04.M3.B	01.04.M4.B	01.04.M5.B	01.04.S2.B	01.04.S7.B
			6	01.06.M3.B	01.06.M4.B	01.06.M5.B	01.06.S2.B	01.06.S7.B
			8	01.08.M3.B	01.08.M4.B	01.08.M5.B	01.08.S2.B	01.08.S7.B
			12	01.12.M3.B	01.12.M4.B	01.12.M5.B	01.12.S2.B	01.12.S7.B
			16	01.16.M3.B	01.16.M4.B	01.16.M5.B	01.16.S2.B	01.16.S7.B
			20	01.20.M3.B	01.20.M4.B	01.20.M5.B	01.20.S2.B	01.20.S7.B
			24	01.24.M3.B	01.24.M4.B	01.24.M5.B	R849576	01.24.S7.B

Order code e.g.: QX1ECF 01.04.M3.B (see page 136/137)

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