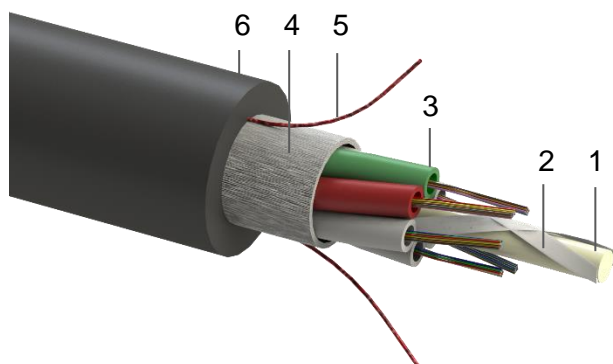


Cable construction code

UTd.x2,3GF FiRis xx.yy.zz.c

DIN code

J/A-BQ(BN)H wbg nx2,3



1. FRP central strength member
2. Water swell-able yarn
3. Gel-free loose tube with optical fibers
4. Water swell-able e-glass yarn
5. 2 opposite ripcords
6. FRLSZH UV stable outer jacket

Cable general description

Gel free and non-metallic multi-loose-tube cable with improved rodent protection for indoor or outdoor duct installation.

Construction and dimensions	UTd6x2,3GF FiRis	UTd8x2,3GF FiRis	UTd3x2,3GF FiRis
Max. fibre count (12 fibres/tube)	72	96	144
Loose-tubes count	6	8	12
Loose tube nominal diameter (mm)	2,3	2,3	2,3
FRP/coat. CSM nominal thickness (mm)	2,5	2,5/3,9	2,8/6,7
Outer jacket nominal thickness (mm)	1,4	1,4	1,4
Cable nominal outer diameter (mm)	10,6	12,5	15,3
Cable informative weight (kg/km)	120	155	240
Standard put-up length (m)	2100/4100 ± 5%	2100/4100 ± 5%	2100/4100 ± 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	Trademark, 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
Loose-tube colour coding	1.red, 2.green, rest of tubes white (fillers uncoloured or black)
Fiber type	Single- and multi-mode fibers (OS2, OM1, OM2, OM3, OM4, OM5)

Geometrical and transmission parameters are available at separate generic datasheet

Mechanical characteristics

Test	Test method	Value	Acceptance criteria*			
			UTd6x	UTd8x	UTd3x	
Tensile performance	IEC 60794-1-21:E1	long term	2200 N	2500 N	3000 N	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,05$ dB after test
		short term	4000 N	5000 N	6000 N	
Crush	IEC 60794-1-21:E3A	2000 N/100mm (long term) 4000 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=10 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

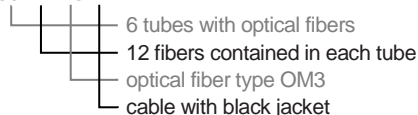
Cable expected lifetime / min. 30 years

Fire performance

Test	Test method	Result
Flammability - cable bundle	EN 60332-3-22 (cat.A)	Pass
Euro classification to CPR	EN 50575, EN 13501-6	UTd. x2,3GF FiRis: Cca-s2,d1,a1
		UTd6x2,3GF FiRis 04.12.: B2ca-s1a,d0,a1

Order information

Order code e.g.: UTd6x2,3GF FiRis 06.12.M3.B



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