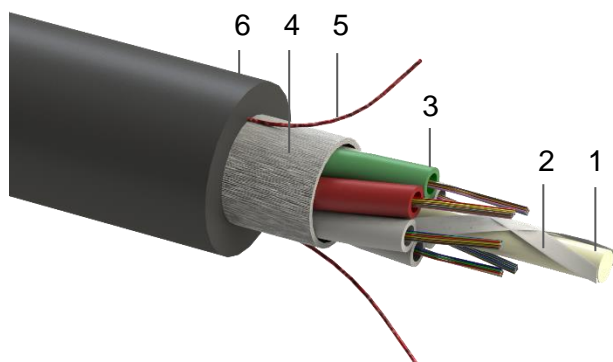


Cable construction code

UTd9x2,3GF 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

| | |
|-----------------------------------|-----------------------|
| Max. fibre count (12 fibres/tube) | 216 |
| Loose-tubes count | 18(6+12) - two layers |
| Loose tube nominal diameter | 2,3 mm |
| FRP/coat. CSM nominal thickness | 2,5 mm |
| Outer jacket nominal thickness | 1,4 mm |
| Cable nominal outer diameter | 15,3 mm |
| Cable informative weight | 220 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 | 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* |
|---------------------|---------------------|---|--|
| Tensile performance | IEC 60794-1-21:E1 | 3000 N (long term) 6000 N (short term) | $\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,05$ dB after test |
| 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 -40°C ÷ 70°C -40°C ÷ 70°C | installation operation 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

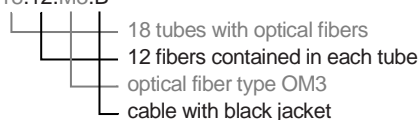
Cable expected lifetime / min. 30 years

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 | Eca |

Order information

Order code e.g.: UTd9x2,3GF 18.12.M3.B



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