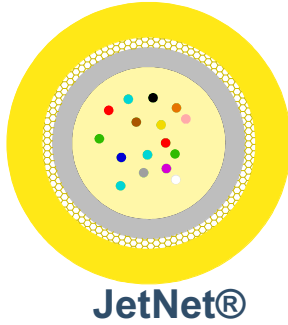


Unitube cable for use in microducts

Cable Design



- not to scale -

- **Fibres:** See datasheet CFS09003 for G.657.A1.
- **Loose Tube:** Thermoplastic material filled with a suitable water tightness compound.
- **Strength members:** are applied in the cable.
- **Outer sheath:** consists of a special high-density polyethylene compound.

This central loose tube dielectric optical cable is designed for outdoor installation in ducts and microducts by blowing techniques.

Technical data

No. of Fibres		24
No. of fibres per group		12
Loose Tube- Ø	mm	3.1
Sheath thickness	mm	0.4
Cable Diameter	mm	3.9
Cable Weight	kg / km	12.5
Tensile Performance	N	150

Main characteristics

Test	Standard	Specified value	Acceptance Criteria**
Tensile Performance	IEC 60794-1-2-E1	See table above.	$\Delta\alpha \leq 0.05$ dB, fibre strain $\leq 0.33\%$
Crush	IEC 60794-1-2-E3	500N, 100mm plate/plate 1min. 1000N, 100mm plate/plate 1min.	$\Delta\alpha \leq 0.05$ dB, during test,no damage $\Delta\alpha \leq 0.05$ dB, after test,no damage
Impact	IEC 60794-1-2-E4	2 Nm, R=300mm, 3 impacts	No damage
Torsion	IEC 60794-1-2-E7	$\pm 180^\circ$, L=1m, 10 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Kink	IEC 60794-1-2-E10	Min diameter=15x cable Ø	No damage
Repeated bending	IEC 60794-1-2-E6	R= 15x cable Ø,100 cycles, 20N	No damage
Cable bend	IEC 60794-1-2-E11	2-24 of: D=150mm; 36-96of : D=250mm; 5 turns,3 cycles,-10°C,	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature range	IEC 60794-1-2-F1	-30 to +60°C -40 to +70°C	$\Delta\alpha \leq 0.05$ dB $\Delta\alpha \leq 0.15$ dB
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water=1m	No water leakage after 24 hour

** values for single-mode fibres, all optical measurements performed at 1550 nm.

Min. bending radius	mm	Without Tension 15 x Cable-Ø	Under Maximum Tension 25 x Cable-Ø
Temperature range	°C	Installation -10 to +50	Transport. & Storage -40 to +70 Operation -40 to +60

Optical Characteristics

See the attached cabled optical fibre data sheet for G657A1.

Identification

Fibre Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Red	Blue	White	Green	Yellow	Grey	Brown	Black	Violet	Orange	Turquoise	Pink

Yarn Colours

No.	1	2
Colour	Red	Blue

Sheath Colour

The colour is yellow for single mode fibres.

Sheath Marking

The outer sheath is marked in 1 meter intervals as follows:

RALA DRAKA(DL) JN-SM-URE/GOGLDV [fibre count] x [fibre type] S12 Idno.[xxxxxx] [Year] [length marking]m

Logistic

Packing:

Plastic or Plywood Drums with protection.

Delivery Lengths:

Standard delivery length is 4km, with a tolerance of - 1% / + 3%

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