FIBER OPTIC CABLE · GYXTC-8Y

GYXTC-8Y

Self-Supporting Figure-8 Uni-Tube Aerial Fiber Optic Cable

G.652D / G.657A · 4–12 cores · short span aerial

PRODUCT DESCRIPTION

GYXTC-8Y puts the whole fibre count in one central loose tube and extrudes it together with a single 1.6 mm steel wire messenger. There is no stranded core and no armour, so the cable is light — around 47 kg/km — and can be installed on short pole spans by one crew with a drop clamp. It is the lowest cost way to reach the last few hundred metres where the span stays under about 100 m.

KEY FEATURES

- Uni-tube core — smallest and lightest figure-eight in the range
- 1.6 mm steel messenger integrated in the sheath: no separate support strand
- 47 kg/km keeps pole loading and transport cost low
- One tube to open at mid-span for splicing or branching
- Designed for spans up to about 100 m — see the installation note

Other fibre types, core counts and sheath compounds are available on request — see the ordering information on page 2.



Cross-section — schematic, not to scale

PE figure-8 sheath
Steel messenger
Central loose tube
250 µm fibre

GENERAL SPECIFICATIONS

CABLE TYPE	**GYXTC-8Y**
APPLICATION	**Short span aerial · Pole to pole · FTTH and CATV distribution**
STANDARDS	**YD/T 769 · IEC 60794-1**
TEMPERATURE	**-20 °C to +60 °C**
SHEATH OPTIONS	**PE · LSZH**

CABLE CONSTRUCTION

Central loose tube	PBT, gel-filled, 4–12 fibres in one tube
Water blocking	Thixotropic jelly in the tube, flooding compound in the core
Messenger	Single 1.6 mm steel wire, second lobe of the figure-eight
Outer sheath	UV-stabilised MDPE, black, figure-eight profile

Options: LSZH sheath · 2.0 mm messenger for longer spans · dry core · fibre counts above 12 built to order.

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STRUCTURE AND DIMENSIONS

Cable model	Fibre count	Messenger wire (mm)	Nominal weight (kg/km)
GYXTC-8Y-4Xn	4	1.6	47
GYXTC-8Y-6Xn	6	1.6	47
GYXTC-8Y-8Xn	8	1.6	47
GYXTC-8Y-12Xn	12	1.6	47

TENSILE LOAD L / S	CRUSH RESISTANCE L / S	BEND RADIUS S / D
400 / 1000	**1000 / 2000**	**10D / 20D**
N	N/100 mm	× cable OD

OPTICAL CHARACTERISTICS

Fibre type	Attenuation 1310 nm (dB/km) typ. / max	Attenuation 1550 nm (dB/km) typ. / max	Cut-off λcc (nm)	Remark
G.652D	0.36 / 0.50	0.22 / 0.40	≤ 1260	Low water peak, full band 1260–1625 nm
G.655	0.40 / 0.50	0.23 / 0.40	≤ 1450	Non-zero dispersion shifted, for DWDM backbone
G.657A1/A2	0.36 / 0.50	0.22 / 0.40	≤ 1260	Bend insensitive, min. bend radius 10 mm

Attenuation measured at +20 °C on cabled fibre, before splicing. Multimode fibre (OM1–OM4) available on request.

QUALITY ASSURANCE

- 100 % attenuation and length test on every fibre before packing
- Inspection certificate and test report issued with every drum
- Third-party inspection (SGS, TÜV, BV) can be arranged on request
- Pre-shipment sample and drum marking approved by the customer

TYPE TESTS

Test	Method	Acceptance
Tensile strength	IEC 60794-1-21 E1	Rated load applied, no fibre strain, Δα ≤ 0.05 dB
Crush	IEC 60794-1-21 E3	Rated load applied, Δα ≤ 0.05 dB after recovery
Impact	IEC 60794-1-21 E4	10 impacts, 4.5 J, R300 mm, Δα ≤ 0.05 dB
Temperature cycling	IEC 60794-1-22 F1	−40 °C to +70 °C, 2 cycles, Δα ≤ 0.05 dB/km
Water penetration	IEC 60794-1-22 F5B	1 m head, 24 h, no water at the far end

ORDERING INFORMATION

Order code: **GYXTC-8Y-[cores]Xn-[fibre type]-[sheath].** Example: GYXTC-8Y-12Xn-G652D-PE. State the fibre type, sheath compound, drum length and any sheath marking. Standard drum length 2 km or 4 km; other lengths on request.

Nominal values, subject to normal manufacturing tolerances.

Core counts and fibre types outside the table are built to order — weight, tensile and bending data confirmed on the order drawing.

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