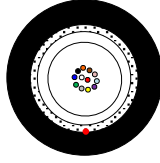


## 1. Application / Construction

Identification	GYFXHT6Y-4/12 G.657A1		
Application	Indoor/Outdoor installation cable		
Cross Section (not to scale)	4..12 fibers 		
Configuration	<ul style="list-style-type: none"> <li>- Central loose tube with 4..12 optical fibers, filled with thixotropic compound</li> <li>- Strength member: Glass yarns</li> <li>- Outer sheath: HDPE, 1 ripcord under cable sheath</li> </ul>		
Temperature Range	Storage and transport -30 to +70°C	Installation -15 to +50°C	Operation -30 to +70°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-2, EN 50267-2-2		
ZTT Specification	22-XJ09184-1-A		
Customer Reference	Common standard		

## 2. Dimensions

Number of fibers		4	12
Loose tubes x fibers		1x4	1x12
Outer diameter (±0.3)	mm	6.4	
Weight (± 20%)	kg	41	

Sizes and values without tolerances are reference values

## 3. Mechanical Properties

Max. tensile load	1200 N
Crush resistance / 10 cm	1000 N
Bending radius (installation)	10x cable Ø

See Point 6: Test Methods

## 4. Marking

Fiber Colors	1	2	3	4	5	6	7	8	9	10	11	12
	red	green	blue	yellow	white	grey	brown	violet	aqua	black	orange	pink

Tube color	1
	natural

Outer Sheath: black, ink jet, marking in 1 meter intervals as follows:

**ZTT OPTICAL CABLE <cable type> <batch ID> <meter marking >**

## 5. Optical Fiber

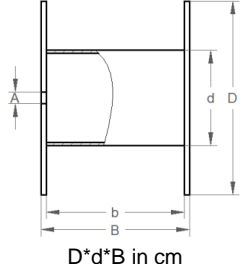
Standard	ITU-T G.657A1 UBIF <sup>®</sup> R10			
Optical	Fibre attenuation .. cabled	@ 1310 nm ≤0.38 dB/km	@ 1550 nm ≤0.22 dB/km	@ 1625 nm ≤0.25 dB/km
	Mode field diameter (MFD)	@1310 nm 8.8 ± 0.4 μm		@1550 nm 9.9 ± 0.5 μm
	Zero dispersion wavelength	1300~1324 nm		
	Zero dispersion slope	0.073~0.092 ps/nm <sup>2</sup> ·km		
	Cable cut-off wavelength	≤1260 nm		
	Macro bending loss .. 10 turns Ø30 mm .. 1 turn Ø20 mm	@1550 nm ≤0.25 dB ≤0.75 dB	@1625 nm ≤1.0 dB ≤1.5 dB	
	Effective group core refractive index	1.466 @1310nm	1.467 @1550nm	
Geometric	Cladding diameter	125 ± 0.7 μm		
	Coating diameter(colored)	250 ± 15 μm		
	Core/clad concentricity error	≤0.5 μm		
	Cladding non-circularity	≤0.7 %		
Mechanical	Proof stress	≥0.69 Gpa		

## 6. Test Methods

Test	Conditions	Acceptance criteria
Tensile strength IEC 60794-1-2 E1	Tensile strength: see Point 3 Sample length: ≥ 50 m, duration: 1 min	- Δα reversible - No damage
Crush resistance IEC 60794-1-2 E3	Crush: see Point 3 Test duration: 1 min, number of tests: 3	- Δα reversible - No damage
Impact IEC 60794-1-2 E4	Impact energy: 1 J R = 300 mm, number of places/tests: 3	- Δα reversible - No damage
Repeated bending IEC 60794-1-2 E6	Bending radius: 20x cable Ø 25 cycles	- Δα reversible - No damage
Torsion IEC 60794-1-2 E7	Sample length: 2 m ± 360°, 5 cycles	- Δα reversible - No damage
Bend IEC 60794-1-2 E11A	Bending radius: 10x cable Ø 4 bends, 3 cycles	- Δα reversible - No damage
Temperature cycling IEC 60794-1-2 F1	-30°C .. +70°C, 2 cycles 4 hours at each temperature step	- Change of attenuation ≤ 0.15 dB/km - No damage
Water penetration IEC 60794-1-2 F5	Sample length: 3 m, Test duration: 24 h Water column height: 1 m	- No water leakage

All optical measurements at 1550 nm

## 7. Logistics

Cable type	Standard Length (-1% +3%)	4000 m	 <p>D*d*B in cm</p>
GYFXHT6Y-4/12 G.657A1	Drum type Dimensions Weight	Wooden 90*50*75 212 kg	

Dimensions including protection. Indicative values, actually delivered drum sizes and weights may deviate. Cable ends sealed with caps