

1. Application / Construction

Identification	GYQFXTBP-2/4/6/8/12/16/24G.652D/G.657A1		
Application	For installation on poles or walls, can be installed in pipelines		
Cross Section (not to scale)	<p style="text-align: center;">2~24 fibers</p>		
Configuration	<ul style="list-style-type: none"> - Loose tube with up to 24 optical fibers, jelly filled - Strength member: FRP*2 and water blocking aramid yarn - Ripcord*2 - Outer sheath: HDPE, Black, UV proof 		
Temperature Range	Storage and transport -40 to +70°C	Installation -15 to +55°C	Operation -40 to +70°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-3		
ZTT Specification	XJ37156-1-A		
Customer Reference	DSH_AERO-DF03_PE_EN-1		

2. Dimensions

Fiber count		2	4	6	8	12	16	24	
Loose tube Ø	mm	1.8					2.6		
Outer diameter	mm	(4.6±0.5)*(8.3±0.5)					(5.0±0.5)*(8.7±0.5)		
Weight	kg	45					50		

Sizes and values without tolerances are nominal values

3. Mechanical Properties

Max. tensile load	Short term: 1800N Long term: 500N
Crush resistance / 10 cm	5000 N
Min. bending radius	Without tension 10x cable Ø

See Point 6: Test Methods

4. Marking

Fiber Colors	1	2	3	4	5	6	7	8	9	10	11	12
	blue	orange	green	brown	grey	white	red	black	yellow	violet	pink	aqua
	13	14	15	16	17	18	19	20	21	22	23	24
	blue	orange	green	brown	grey	white	red	nature	yellow	violet	pink	aqua

Tube color: red

Outer Sheath: black, ink jet, marking in 1 meter intervals as follows (for example):

ZTT OPTICAL CABLE < cable type > < drum No. > XXXXM

5. Optical Fiber

Standard	ITU-T G.652D		
Optical	Fibre attenuation .. cabled	@1310 nm ≤0.36 dB/km	@1550 nm ≤0.25 dB/km
	Mode Field Diameter	9.2±0.4µm@1310nm	
	Zero Dispersion Wavelength	1300~1324 nm	
	Zero-Dispersion slope	≤0.092ps/(nm ² · km)	
	Cable cut-off wavelength λ _{cc}	≤1260nm	
Geometric	Cladding Diameter	125±1.0µm	
	Cladding non circularity	≤1.0%	
	Core/clad concentricity error	≤0.6µm	
	Coating diameter	245±10µm	
Mechanical	Proof stress	≥0.69 GPa	

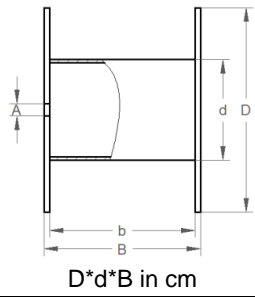
Fiber type	ITU-T G.657A1		
Optical	Fibre attenuation .. cabled	@ 1310 nm ≤0.35 dB/km	@ 1550 nm ≤0.25 dB/km
	Mode field diameter (MFD)	8.8 ± 0.4 µm@1310nm	
	Zero dispersion wavelength	1300~1324 nm	
	Zero dispersion slope	≤0.092 ps/nm ² · km	
	Cut-off wavelength	≤1260 nm	
Geometric	Outer diameter	250± 15µm	
	Cladding diameter	125 ± 0.7 µm	
	Core/clad concentricity error	≤ 0.5 µm	
	Cladding non-circularity	≤ 1.0 %	
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 Test duration: 1 min	- Fiber strain≤0.6% under 1800N - Fiber strain≤0.2% under 500N - 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
Repeated bending IEC 60794-1-2 E6	Bending radius: 20x cable Ø 10 cycles	- Δα reversible - No damage
Temperature cycling IEC 60794-1-2 F1	-40°C .. +70°C 8 hours at each temperature step, 2 cycles	- Δα≤0.05 dB/km after test - No damage
Water penetration IEC 60794-1-2 F5	Sample length: 3 m Water column height: 1 m, duration: 24 h	- No water leakage

All optical measurements at 1550 nm

7. Logistics

Cable type	Length (tolerance)	4000m (-3%, +3%)	
GYQFXTBP-2/4/6/8/12 G.652D/G.657A1	Drum Type Dimensions Weight	Wooden 95*50*75 236kg	
GYQFXTBP-16/24 G.652D/G.657A1		Wooden 105*60*75 266kg	

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

A	April 28, 2024	Wright	Tim	Erica	
Version	Date	Prepared	Reviewed	Approved	Remarks