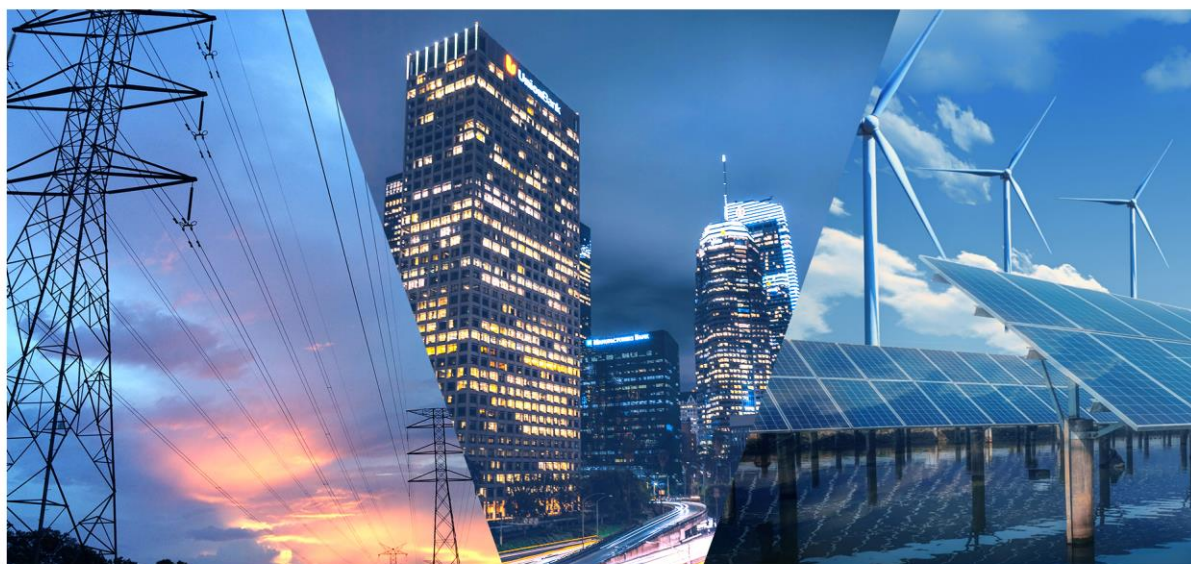



TECHNICAL SPECIFICATION

Duct installation Cable



A	Aug 11,2025	Samson	Tim	Erica
Version	Date	Prepared	Reviewed	Approved

1. Application / Construction

Identification	GYXTWH-6/12OM3/OM4		
Application	Duct and indoor installation cable		
Cross Section (not to scale)	6/12 fibers 		
Configuration	<ul style="list-style-type: none"> - Loose tubes with 6/12 optical fibers, filled with thixotropic compound - Steel tape - Outer sheath: LSZH, UV proof, black, 2 ripcords under outer sheath 		
Temperature Range	Storage and transport -40 to +70°C	Installation -10 to +50°C	Operation -40 to +70°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-4-20		
Customer Reference	Common standard		

2. Dimensions

Number of fibres		6	12
Material NO.		GL082353/ GL082355	GL082354/ GL082356
Loose tubes x fibres		1x6	1x12
Outer diameter (± 0.5)	mm	7.9	
Weight/km(± 15%)	kg	90	

Sizes and values without tolerances are nominal values, sheath thickness not consider ripcord portion

3. Mechanical Properties

Max. tensile load	1200N		
Crush resistance / 10 cm	500N/100mm		
Min. Bending radius	20x cable-Ø(installation), 10x cable-Ø(operation)		

See Point 6: Test Method

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	
Tube Colors	1												
	white												

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

ZTT	OPTICAL CABLE	<Cable type>	<batch ID>	<meter marking >
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5. Optical Fiber

Standard	OM3 Fiber in Cable		
Optical	Fibre attenuation .. Before cabled	@ 850 nm ≤2.5 dB/km	@ 1300 nm ≤0.7 dB/km
	Fibre attenuation .. cabled	@ 850 nm ≤3.5 dB/km	@ 1300 nm ≤1.5 dB/km
	Standard bandwidth	@ 850 nm ≥1500MHz.km	@ 1300 nm ≥500MHz.km
	Numerical Aperture (NA)	0.200 ± 0.015μm	
Geometric	Core Diameter	50±2.5μm	
	Cladding Diameter	125 ±2.0μm	
	Core / Clad Concentricity	≤ 1.5μm	
	Cladding Non-Circularity	≤2.0%	
Mechanical	Proof stress	≥ 8.4N (100Kpsi, ≥ 1.0 %)	

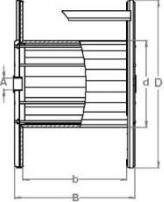
Standard	OM4 Fiber in Cable		
Optical	Fibre attenuation .. Before cabled	@ 850 nm ≤2.5 dB/km	@ 1300 nm ≤0.7 dB/km
	Fibre attenuation .. cabled	@ 850 nm ≤3.5 dB/km	@ 1300 nm ≤1.5 dB/km
	Standard bandwidth	@ 850 nm ≥3500MHz.km	@ 1300 nm ≥500MHz.km
	Numerical Aperture (NA)	0.200 ± 0.015μm	
Geometric	Core Diameter	50±2.5μm	
	Cladding Diameter	125 ±2.0μm	
	Core / Clad Concentricity	≤ 1.5μm	
	Cladding Non-Circularity	≤2.0%	
Mechanical	Proof stress	≥ 8.4N (100Kpsi, ≥ 1.0 %)	

6. Test Methods

Test	Conditions	Acceptance criteria
Tensile strength IEC 60794-1-2 E1	Tensile load: See point 3 Sample length: ≥ 50 m, 1 min	- $\Delta\alpha \leq 0.4$ dB/km after test - No damage
Crush resistance IEC 60794-1-2 E3	Crush: see Point 3 Test duration: 1 min, number of tests: 3	- $\Delta\alpha \leq 0.4$ dB/km after test - No damage
Impact IEC 60794-1-2 E4	Impact energy: 4.5 J; R = 300 mm Impact points: 3; Impact number: 1	- $\Delta\alpha \leq 0.4$ dB/km after test - No damage
Repeated bending IEC 60794-1-2 E6	Bending radius: 25D Cycles: 25 cycles; Load 150N	- $\Delta\alpha \leq 0.4$ dB/km after test - No damage
Torsion IEC 60794-1-2 E7	Sample length: 2 m; Angles: ± 180° Cycles: 5 cycles; Load 150N	- $\Delta\alpha \leq 0.4$ dB/km after test - No damage
Temperature cycling IEC 60794-1-2 F1	Steps: -40°C~+70°C Time per each step: 12 hours,Cycles: 2	- $\Delta\alpha \leq 0.40$ dB/km
Water penetration IEC 60794-1-2 F5	Sample length: 3 m Water column height: 1 m, Duration: 24 h	- No water leakage from the tube

All optical measurements at 1550 nm

7. Logistics

Cable type	Length $\pm 1\%$	4 km/reel	 <p data-bbox="1145 539 1332 562">$D \times d \times B$ in (± 5) cm</p>
GYXTWH-6/12OM3/OM4	Drum type Dimensions Weight ($\pm 15\%$)	Wooden 115*60*75 435kg	

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