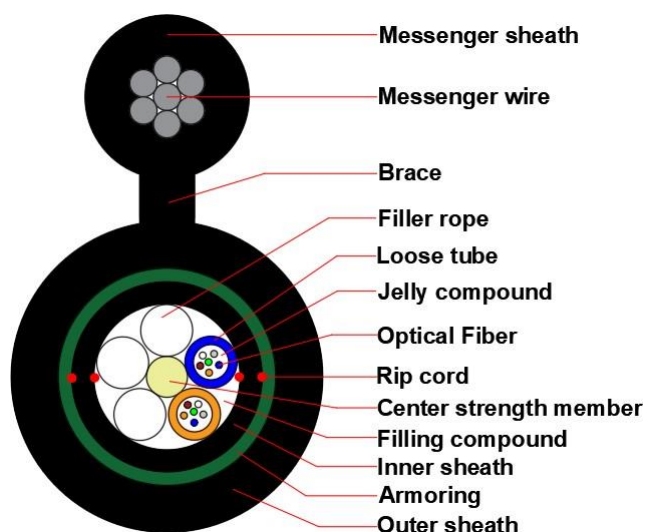


Outdoor Communication Cable (GYXTC8S)

Cable Design:**Technical data:**

No. of cable		6,12
Fiber Model		G.652D
Design (Strength Member +Tube & Filler)		1+5
Central Strength Member	Material	FRP
	Diameter (± 0.05) mm	1.5
Loose Tube	Material	PBT
	Diameter (± 0.06) mm	1.65
	Thickness (± 0.03) mm	0.25
	NO.	2
Filler Rope	Material	LDPE
	Color	White
	Diameter (± 0.06) mm	1.65
	NO.	3
Water Blocking layer Material)		Cable filling compound
Messenger Wire	Material	Galvanized steel strand wire
	Size (± 0.1) (mm)	R7 $\times$ 0.9
Inner Sheath	Material	MDPE
	Thickness (± 0.1) mm	0.7
Armoring	Material	Polymer Coated Steel Tape
	Thickness (± 0.03) mm	0.20
Messenger Sheath	Material	HDPE
	Thickness (± 0.1) mm	1.0



Outer Sheath	Material	HDPE
	Thickness (± 0.1) mm	1.5
Brace	Material	HDPE
	Size (± 0.5) mm	2.0*3.0
Cable Diameter ($\pm 0.2 \times \pm 0.5$) mm(W×H)		10.2*17.4
Cable Weight (± 15) kg		200
Allowable Tensile Strength	Short Term	3000N
	Long Term	1000N
Allowable Crush Resistance	Short Term	3000 (N/100mm)
	Long Term	1000 (N/100mm)
Min. bending radius	Without Tension	12.5×Cable-φ
	Under Maximum Tension	25.0×Cable-φ
Temperature range (°C)	Installation	-20~+60
	Transport & Storage	-40~+70
	Operation	-40~+70

Fiber & Loose tube colors:

NO.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	White
						

The properties of single mode optical fiber (ITU-T Rec. G.652.D):

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	☐ 0.35 dB/km ☐ 0.32 dB/km ☐ 0.21 dB/km ☐ 0.24 dB/km
Point discontinuity	☐ 0.05 dB
Cable cut-off wavelength	☐ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	☐ 0.092 ps/(nm ² .km)
Chromatic dispersion @ 1288 ~ 1339 nm @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	☐ 3.5 ps/(nm. km) ☐ 5.3 ps/(nm. km) ☐ 18 ps/(nm. km) ☐ 22 ps/(nm. km)
PMD _Q (Quadrature average*)	☐ 0.2 ps/km ^{1/2}
Mode field diameter @ 1310 nm	9.2±0.4 μm
Core / Clad concentricity error	☐ 0.5 μm



Cladding diameter	125.0 $\pm$ 0.7 μ m
Cladding non-circularity	$\leq$ 1.0%
Primary coating diameter	245 $\pm$ 10 μ m
Proof test level	100 kpsi (=0.69 Gpa), 1%

Main mechanical & environmental performance test:

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: 3000N Length of cable: about 50m	- Fiber strain $\leq$ 0.33% - Loss change $\leq$ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: 3000N/100mm - Load time: 1min	- Loss change $\leq$ 0.1dB@1550nm - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change $\leq$ 0.1dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	- Temperature step: +20°C $\rightarrow$ -40°C $\rightarrow$ +70°C $\rightarrow$ +20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change $\leq$ 0.1dB/km@1550 nm - No fiber break and no sheath damage.

Sheath marking:

The optical fiber cable shall have sequentially numbered length marking at intervals of approximately 1meter. The starting number of ordering length for any coil shall begin with zero meter. The accuracy of the measurement of length marking shall be held within the limits of $\pm 1\%$.

- Manufacturer's name
- Type of wire
- Year and month of manufacture
- Length marking each meter along the wire

Part Number	GYXTC8S-12B1.3	2024	=0001m=
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(a) (b) (c) (d)

Cable Name	Part Number
6 Core Messenger Cable	6F-GYXTC8S-SM-AT
12 Core Messenger Cable	12F-GYXTC8S-SM-AT

