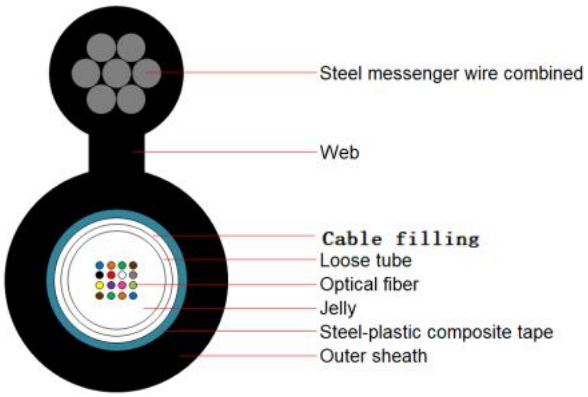
GYXTC8S

Outdoor self-supporting optical cable for communication in an "8"-shaped configuration, featuring a metal reinforcing messenger wire, central tube filling, and a steel-polyethylene bonded sheath.

Cable cross-section



Cable Specification

1 Introduction

Central loose tube construction, jelly compound filled, water blocking tape and steel tape then PE outer sheath with messenger wire combined.

2 Color code

The tube color is natural. Fiber color in the tube starts from No. 1 Blue.

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Purple	Pink	Aqua
No.	13	14	15	16	17	18
Color	Blue S100	Orange S100	Green S100	Brown S100	Gray S100	White S100
No.	19	20	21	22	23	24
Color	Red S100	Natural S100	Yellow S100	Purple S100	Pink S100	Aqua S100

Note: S100 means interval 100mm black circle.

3 Cable structure and parameter

SN	Item	Unit	Value	
1	No. of fibers	count	1~12	13~24
2	Tube diameter(nom.)	mm	2.8	3.6
3	Messenger wire(nom.)	mm	7*1.0	
4	Cable diameter(±5%)	mm	7.2	8.0
5	Cable height(±5%)	mm	14.2	15
6	Cable weight(±10%)	kg/km	108	120

7	Short term tension	N	2000
8	Short term crush	N/100mm	1000

Characteristic of Optical Cable

1 Min. bending radius for installation

Static: 10 x cable diameter

Dynamic: 20 x cable diameter

2 Application temperature range

Operation: - 40℃ ~ +60℃

Installation: -10℃ ~ +60℃

Storage/transportation: - 40℃ ~ +60℃

3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load: Short term tension - Length of cable: about 50m - Load time: 1min	- Fiber strain ≤ 0.6% - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.1dB@1550nm - No fiber break and no sheath damage.

Characteristic of Optical Fiber

G652D fiber information

Mode field diameter (1310nm):	9.2μm±0.4μm
Mode field diameter (1550nm):	10.4μm±0.8μm
Cut off wavelength of cabled fiber (λ_{cc}):	≤1260nm
Attenuation at 1310nm:	≤0.36dB/km
Attenuation at 1550nm:	≤0.22dB/km
Bending loss at 1550nm (100 turns, 30mm radius):	≤0.05dB
Dispersion in the range 1288 to 1339nm:	≤3.5ps/ (nm•km)
Dispersion at 1550nm:	≤18ps/ (nm•km)
Dispersion slope at zero dispersion wavelength:	≤0.092ps/ (nm^2•km)