

Optical Fiber Cable Technical Specification

Overview

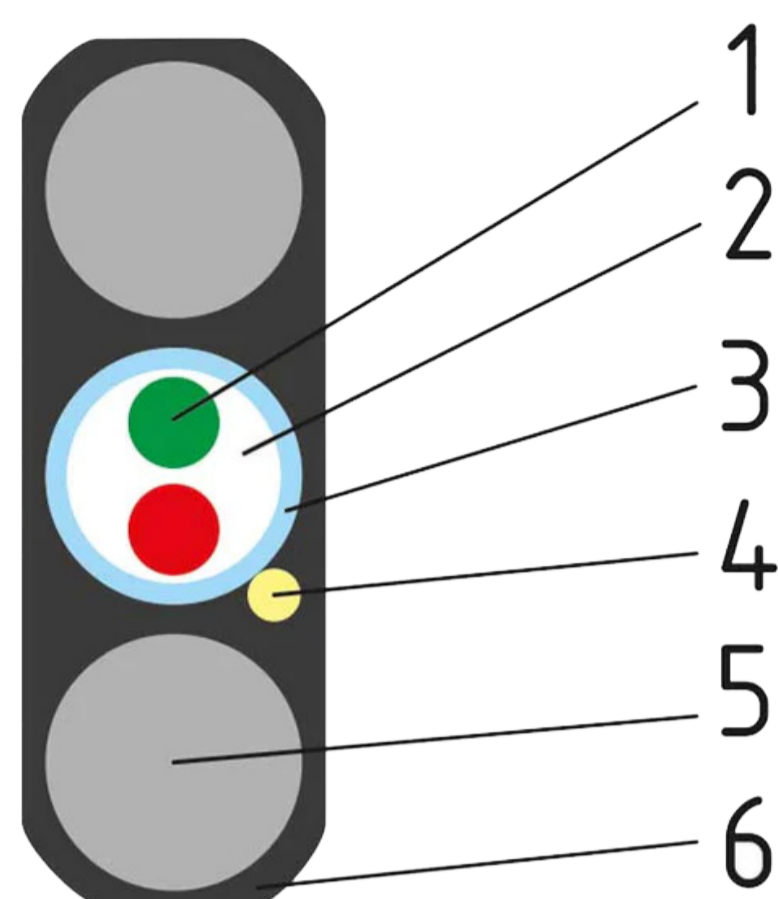
Flat cable All dielectric and self-supporting suitable for outside plant use in aerial installations.



Dimension and descriptions

Item	Contents	Value
		2 - 12
Loose tube	Number	1
	Color	Natural
	Outer diameter(mm)	2.5
	Water Blocking Material	Waterproof compounds
Strength member	Material	FRP
	Number	2
	Diameter (mm)	2.0
Water Blocking Material	Material	Water Blocking Yarn
	Number	1
Sheath	Material	HDPE
	Color	Black
	Thickness (mm)	Nominal: 0.8
Cable diameter(mm) Approx.		8.5×4.2
Cable weight(kg/km) Approx.		45
Tensile performance(N)		1500
Crush(N/100mm)		2000

Cross section of cable

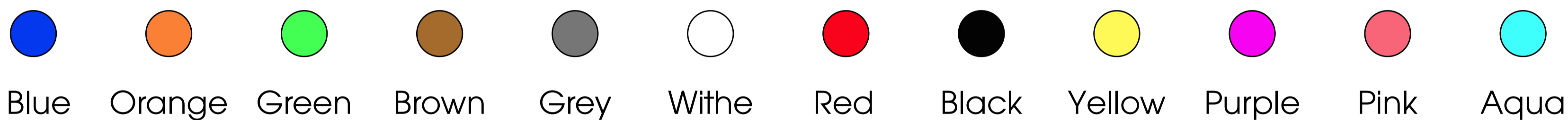


1. Optical fibers acc. ITU-T G.652 D / G.657A1.
2. Core filling – thixotropic gel.
3. Central loose tube – (PBT).
4. Ripcord (if applicable).
5. Strength member : two fiber reinforced plastics placed longitudinally.
6. Outer sheath – polyethylene (HDPE).

Referential image

Fiber and Loose Tube Identification

The color code of the optical fibers and the loose tubes responds to the EIA-TIA 598-A specification, as detailed:



Optical fiber

Parameter	Specification
MFD (1310nm)	8.7~9.6 um
Cladding diameter	125±1.0um
Fiber diameter	235~255um, with UV coating, and colored to : 250±15um
Core/cladding concentricity error	≤ 0.6um
Coating/cladding concentricity error	≤ 12.0um
Cladding non circularity	≤ 1.0%
Cut off wavelength	$\lambda_{cc} \leq 1260\text{nm}$
Attenuation coefficient	1310nm: 0.35dB/km max after cabling
	1550nm: 0.21dB/km max after cabling
Bending-loss performance of optical fiber @1310nm&1550nm	≤0.05dB (100 turns around a mandrel of 50mm diameter)
Polarization mode dispersion maximum individual fibre	≤0.2ps/√km
Polarization mode dispersion link value	≤0.1ps/√km
Zero-dispersion wavelength	1300~1324nm
Zero-dispersion slope	≤0.092ps/nm ² ·km

Application specifications

Item	Value
Max. pole distance	80m
Operation temperature	-40 °C ~ +70 °C
Storage temperature	-40 °C ~ +70 °C
Static bending radius	10 times the cable diameter
Dynamic bending radius	20 times the cable diameter

Mechanical, Physical and Environmental Test Characteristics @1550nm

Items	Test Method	Requirements
Tension	IEC 60794-1-2-E1 Load: According to 3.4 Sample length: Not less than 50m. Duration time: 1 min.	Additional attenuation: ≤ 0.1 dB after test No damage to outer jacket and inner elements
Crush	IEC 60794-1-2-E3 Load: According to 3.4 Duration of load: 1 min	Additional attenuation: ≤ 0.1 dB after test No damage to outer jacket and inner elements
Impact	IEC 60794-1-2-E4 Radius: 300 mm Impact energy: 5J Impact number: 1 Impact points: 3	Additional attenuation: ≤ 0.1 dB No damage to outer jacket and inner elements
Bend	IEC 60794-1-2-E11A Mandrel radius: $10 \cdot D$ Turns: 4 Cycles: 3	Additional attenuation: ≤ 0.1 dB No damage to outer jacket and inner elements
Repeated bending	IEC 60794-1-2-E6 Bending radius: $20 \cdot D$ Cycles: 25 Load: 150N	Additional attenuation: ≤ 0.1 dB No damage to outer jacket and inner elements
Torsion	IEC 60794-1-2-E7 Cycles: 10 Length under test: 1m Turns: 180° Load: 150N	Additional attenuation: ≤ 0.1 dB No damage to outer jacket and inner elements
Water Penetration	IEC 60794-1-2-F5B Time : 24 hours Sample length : 3m Water height : 1m	No water leakage.
Temperature cycling	IEC 60794-1-2-F1 Sample length: at least 1000m Temperature range: -40 ~ +70 Cycles: 2 Temperature cycling test dwell time: 12 hours	The change in attenuation coefficient shall be less than 0.1dB/km.
Other parameters	According to IEC 60794-1	

Packaging and drum

Cable Sheath Marking

Color: white

Contents: DRAKO, the year of manufacture, the type of cable, cable number, length marking

Interval: 1 m

Outer sheath marking legend can be changed according to user's requests.

Reel length

Standard reel length: 2/3/4 km/reel, other length is also available.

Cable drum

The cables are packed in Plywood or fumigated wooden drums

How to order

DOC		
Model Name	Description	P/N
Drop Optical Cable	Flat Drop Cable Re GYFXBJY 2B1.3	DOC001
	Flat Drop Cable Re GYFXBJY 4B1.3	DOC002
	Flat Drop Cable Re GYFXBJY 6B1.3	DOC003
	Flat Drop Cable Re GYFXBJY 8B1.3	DOC004
	Flat Drop Cable Re GYFXBJY 12B1.3	DOC005