

Fibre Optic Cable

Direct Bury Loose Tube

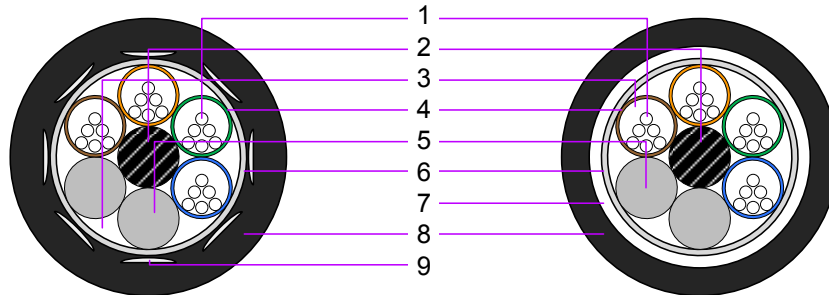
Product Code: DBLT

Feature

- Standard fibre count : 2 – 312 fibres
- Excellent mechanical and environmental performance
- Anti-termite treatment (optional)
- Excellent optical performance
- High tensile strength design
- Dry or jelly filled type

Application

- Local area network (LAN)
- Subscriber network system
- Long haul communication system



1 Optical Fibre

2 Central Strength Member

3 Moisture Barrier 1

4 Loose Tube

5 Filler

6 Wrapping Tape

7 Moisture Barrier 2

8 Sheath

9 Outer Strength Member

Single mode optical fibre (SMF), multi mode optical fibre (MMF), non – zero dispersion shifted optical fibre (NZ – DSF)

Galvanized steel wire or fibre reinforced plastic (FRP)

Water blocking jelly filling compound or water blocking yarn

Thermoplastic material (polybutylene terephthalate)

Polyethylene string

Non – hygroscopic plastic tape or water blocking tape (optional)

Laminated aluminium tape (optional)

Black polyethylene

Fibre reinforced plastic (FRP)

Cable Specification

No. of fibres per tube	No. of fibres	Dry type		Jelly filled type	
		Outer dia.(mm)	Cable wt.(kg/km)	Outer dia.(mm)	Cable wt.(kg/km)
6	2-36	10.5	90	10.9	122
	48-72	11.1	102	11.5	136
	74-96	12.5	130	12.8	142
12	98-120	13.9	158	14.2	174
	122-144	15.5	195	15.8	214
	288	18.2	253	18.5	341
	312	19.0	276	19.3	374

Mechanical & Environmental Characteristics

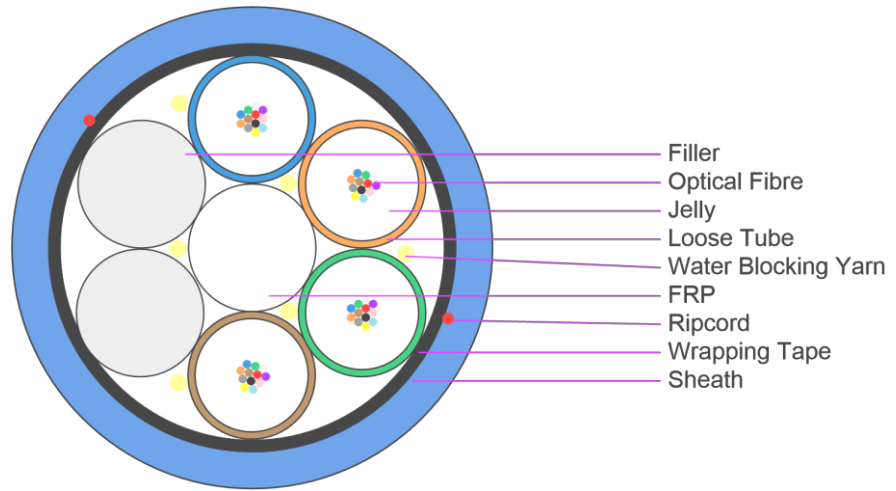
Characteristic	Unit	Specification	
		Dry type	Jelly filled type
Allowable Tensile Strength	kgf	135-450	180-550
Crush Resistance	kgf/cm	20	
Minimum bending dia.	mm	20 times of cable diameter	
		10 times of cable diameter	
Operating temperature range	°C	-40 - +70°C	
Delivery length	Km	1-6	

Fibre Optic Cable

48 Fibre Blue Direct Bury

Product Code: FOC48FDB

Loose Tube cable uses a design that has high tensile strength and flexibility in a compact cable size.



Cable Construction

Items	Description	
Mode field	1310nm	
Diameter	1550nm	
Mode Field concentricity Error	< 1µm	
Cladding Diameter	125 ± 1 µm	
Cladding non-circularity	< 1%	
Primary Coating Material	UV Curable Acrylate	
Diameter	245 ± 10µm	
Total Number of Fibres	48	
Number of loose tubes	4	
Number of Filler	2	
Number of Fibres per Tube	12	
Tube Material	PBT (Polybutylene Terephthalate)	
Filler Material	PE String	
Central Strength Member	FRP (Fibre Reinforced Plastic)	
Filling Material	Water Blocking Yarns	
Wrapping Material	Plastic Tape	
Outer Sheath Material	Blue Colour PE	
Cable	Diameter(Nom. mm)	9.7
	Weight (Nom .kg/kg)	73
Min. Bending Radius	No Load(Nom. mm)	97
	Full Load (Nom.mm)	194

Colour Coding Loose Tubes

No. of Tube	Colour
1	Blue
2	Orange
3	Green
4	Brown
5	Filler
6	Filler

Colour Coding Individual Fibres

No. of Fibre	Colour
1	Blue
2	Orange
3	Green
4	Brown
5	Slate
6	White
7	Red
8	Black
9	Yellow
10	Violet
11	Rose
12	Aqua

Optical Characteristics

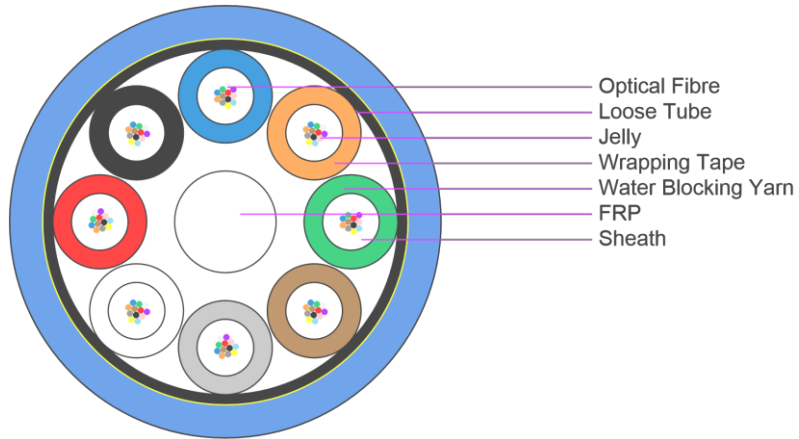
Items	Specification	
Attenuation	1310nm	≤ Ave 0.35 dB.km, Max 0.4 dB/km
	1550nm	≤ Ave 0.21 dB.km, Max 0.3 dB/km
Dispersion	1310nm	≤ 3.5 ps/(nm.km)
	1550nm	≤ 18 ps(nm.km) Zero
Dispersion Wavelength	1300nm ~ 1324nm	
Zero Dispersion Slope	≤ 0.092 ps/(nm ² .km)	
Cable cut off wavelength (λ _{ccf})	≤ 1260	
Fibre proof test level	≥ 100kpsi (1%) x 1sec	

Fibre Optic Cable

96 Fibre Direct Bury

Product Code: FOC96FDB

Loose Tube cable uses a design that has high tensile strength and flexibility in a compact cable size.



Cable Construction

Items	Description
Mode field Diameter	1310nm 1550nm
Mode Field concentricity Error	9.3µm ± 0.5µm 10.5µm ± 1.0µm
Cladding Diameter	< 1µm
Cladding non-circularity	125 ± 1 µm
Primary Coating Material	< 1%
Diameter	UV Curable Acrylate
Total Number of Fibres	145 ± 10µm
Number of loose tubes	96
Number of Filler	8
Number of Fibres per Tube	0
Tube Material	12
Filler Material	PBT (Polybutylene Terephthalate)
Central Strength Member	PE String
Filling Material	FRP (Fibre Reinforced Plastic)
Wrapping Material	Water Blocking Yarns
Outer Sheath Material	Plastic Tape
Diameter(Nom. mm)	Blue Colour PE
Weight (Nom .kg/kg)	10.6
Min. Bending Radius	90
No Load(Nom. mm)	106
Full Load (Nom.mm)	212

Colour Coding Individual Fibres

No. of Fibre	Colour
1	Blue
2	Orange
3	Green
4	Brown
5	Slate
6	White
7	Red
8	Black
9	Yellow
10	Violet
11	Rose
12	Aqua

Optical Characteristics

Items	Specification
Attenuation	1310nm
	1550nm
Dispersion	1310nm
	1550nm
Dispersion Wavelength	≤ Ave 0.35 dB.km, Max 0.4 dB/km
Zero Dispersion Slope	≤ Ave 0.21 dB.km, Max 0.3 dB/km
Cable cut off wavelength (λ _{ccf})	≤ 3.5 ps/(nm.km)
	≤ 18 ps/(nm.km) Zero
Mode Field Diameter	1300nm ~ 1324nm
Fibre proof test level	≤ 0.092 ps/(nm ² .km)
	≤ 1260
	9.2 ± 0.4 at 1310 nm
	10.5 ± 1.0 at 1550 nm
	≥ 100kpsi (1%) x 1sec