

## DUCT OPTICAL CABLE

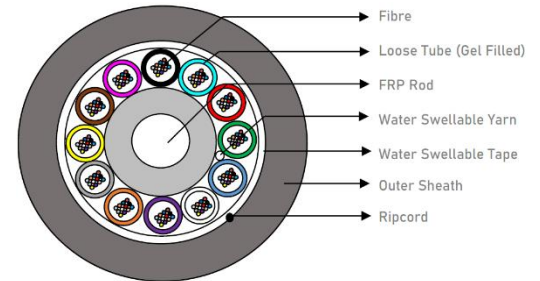
Part Number: DUCT-xFG657A1-101x

### Description

Duct Optical Fibre Cable

### Key Features

- Optical Fiber containing elements laid up around central strength member
- Water blocked loose tubes and Water blocked core interstices
- Glass Yarn as additional strength member (if required)
- Polyethylene sheath as outer protection



### Applications

- Duct network

### Standards

- IEC 60793-1
- IEC 60793-2
- IEC 60794-3-10
- ANSI/ICEA S-87-640
- Telcordia GR-20
- ITU-T
- RoHS
- REACH

## Product Specifications

### Cable Construction

Parameter	Structure/Layout/Material			
Fibre Count	12F/24F/36F/48F/72F	96F	144F	288F
Fibres per tube	12			
Loose Tube	1/2/3/4/6	8	12	24
Filler – HDPE Black	5/4/3/2/0	0		
Central Strength Member	FRP Rod		FRP Rod PE Upcoated	
Moisture Barrier	Water Swellable Yarn & Water Swellable Tape			
Peripheral Strength Member	Glass Yarn (if required)			

Outer Sheath	HDPE – Black – UV Stabilized			
RipCORDs	1			
Cable Diameter	8.0 ± 0.5 mm	9.0 ± 0.5 mm	11.5 ± 0.5 mm	13.5 ± 0.5 mm
Cable Weight	55 ± 10 kg/km	70 ± 10 kg/km	105 ± 10 kg/km	140 ± 15 kg/km

### Colour Coding

Fiber Colour EIA/TIA 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
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Loose Tube Colour EIA/TIA 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
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Loose tube Colour EIA/TIA 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
Tracer Mark	Bl	Or	Gr									

### Cable & Fibre Characteristics

Tensile Strength (max)	12-144F : 1500N 288F : 3000N		IEC-60794-1-21-E1
Crush Resistance	1000N		IEC-60794-1-21-E3
Impact Strength	10 N.m		IEC-60794-1-21-E4
Torsion	±180°		IEC-60794-1-21-E7
Minimum Bend Radius	Installation: 20 x D Operation: 10 x D		IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours		IEC-60794-1-22-F5
Environmental Performance	Installation	-30°C to +60°C	IEC-60794-1-22-F1
	Operation	-40°C to +70°C	
	Storage	-40°C to +70°C	

Fibre Type	G.657A1	
Attenuation	1310 nm	≤ 0.36 dB/km
	1550 nm	≤ 0.22 dB/km
Chromatic Dispersion	1285-1330 nm	≤ 3.5 ps/nm.km
	1550 nm	≤ 18 ps/nm.km
	1625 nm	≤ 22 ps/nm.km
PMD (Max. Individual)	≤ 0.15 ps/√km	

PMD (Link design value)	$\leq 0.06 \text{ ps}/\sqrt{\text{km}}$			
Cable cut off wavelength $\lambda_{cc}$	$\leq 1260 \text{ nm}$			
MFD	1310 nm		$9.1 \pm 0.3 \mu\text{m}$	
	1550 nm		$10.3 \pm 0.5 \mu\text{m}$	
Bending Induced Attenuation	1 Turn	$\varnothing 20$	1550 nm	$\leq 0.75 \text{ dB}$
			1625 nm	$\leq 1.5 \text{ dB}$
	10 Turn	$\varnothing 30$	1550 nm	$\leq 0.25 \text{ dB}$
			1625 nm	$\leq 1.0 \text{ dB}$
Core-Cladding Concentricity Error	$\leq 0.5 \mu\text{m}$			
Cladding Diameter	$125 \pm 0.7 \mu\text{m}$			
Cladding Non Circularity	$\leq 0.8 \%$			
Primary Coating Diameter (Uncoloured)	$242 \pm 5 \mu\text{m}$			

### Cable Length

Cable Length	$4.0 \text{ km} \pm 5\%$
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