



#### Cable Description

- 01. Central filler
- 02. Fibre optics
- 03. Loose tube (Jelly Filled)
- 04. Inner jacket
- 05. Reinforced fiberglass yarns
- 06. Ripcord
- 07. Outer jacket

#### Applications

Outdoor  
 Direct Buried  
 Permanent shallow immersion in fresh and salt water

#### Rodent protection

Rodent protected

#### Options

Strength Members: Aramid Yarns (PKP)  
 Special colour code (TIA 598)

#### CPR Classification (Euroclass)

Reaction to Fire: Fca  
 Declaration Code: DOP03100

#### Advantages

Excellent mechanical resistance / Totally dielectric / Resistant / Tough / High density of fibres / Excellent resistance to friction / Rodent protected.



All technical specifications are subject to change without prior notice. Consult OPTRAL for the latest edition.



TOTALLY DIELECTRIC



MOISTURE PROTECTED



WATERTIGHT



LOW FRICTION



ULTRAVIOLET RESISTANCE



RODENT PROTECTION



HALOGEN FREE

#### SPECIFICATIONS

<b>Fibre Count</b>	12	16	24	32	36	48	64	72	96	128	144
<b>Fibres per Tube</b>	12	8	12	8	12	12	8	12	12	8	12
<b>Total Tubes</b>	6	6	6	6	6	6	8	6	8	18	12
<b>Active Tube</b>	1	2	2	4	3	4	8	6	8	16	12
<b>Tube Ø (mm)</b>	1.70 ±0.1										
<b>Inner Jacket</b>	Polyethylene - Black										
<b>Strength Members</b>	Reinforced Fiberglass Yarns (WB)										
<b>Outer Jacket</b>	Polyethylene - Black										
<b>Weight (Kg/Km)</b>	92	92	93	93	93	94	120	98	123	167	171
<b>Outer Ø (mm<sup>±0.5</sup>)</b>	10.6	10.6	10.6	10.6	10.6	10.6	11.7	10.8	11.7	14.0	13.6
<b>Max. Tensile Load (N)</b>	1000 (Operating) / 1800 (Installation)						1500 (Operating) / 2700 (Installation)				
<b>Max. Crush (N/dm)</b>	2000 (IEC 60794-1-21 E3)										
<b>Temperature Range</b>	-40°C to +70°C (Operation) / -10°C to +50°C (Installation) - (IEC 60794-1-22 F1)										
<b>Water penetration</b>	Watertight (3m / 24h / 1m / Optical Core / IEC 60794-1-22 F5B)										
<b>Min. Bending Radius</b>	15 x Outer Ø (Operating) / 20 x Outer Ø (Installation) - (IEC 60794-1-21 E11)										

#### Standards

Mechanical and Environmental tests according to IEC 60794-1-21 and IEC 60794-1-22.

Fibres colour code: Red - Green - Blue - Yellow - Grey - Violet - Brown - Orange - White - Pink - Black - Turquoise.

Tubes colour code: Red - Green - Natural - ... - Natural. Passive tubes colour Black.

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# OPTRAL

## SPECIFICATIONS

<b>Fibre Count</b>	192	216	256	288	432	576
<b>Fibres per Tube</b>	12	12	16	24	24	24
<b>Total Tubes</b>	18	18	18	12	18	24
<b>Active Tube</b>	16	18	16	12	18	24
<b>Tube Ø (mm)</b>	1.7 ±0.1		2.1 ±0.1		2.8 ±0.1	
<b>Inner Jacket</b>	Polyethylene - Black					
<b>Strength Members</b>	Reinforced Fiberglass Yarns (WB)					
<b>Outer Jacket</b>	Polyethylene - Black					
<b>Weight (Kg/Km)</b>	161	163	213	329	313	408
<b>Outer Ø (mm<sup>±0.5</sup>)</b>	13.9	13.9	16.1	19.5	19.9	22.3
<b>Max. Tensile Load (N)</b>	1500 (Operating) / 2700 (Installation)					
<b>Max. Crush (N/dm)</b>	2000 (IEC 60794-1-21 E3)					
<b>Temperature Range</b>	-40°C to +70°C (Operation) / -10°C to +50°C (Installation) - (IEC 60794-1-22 F1)					
<b>Water penetration</b>	Watertight (3m / 24h / 1m / Optical Core / IEC 60794-1-22 F5B)					
<b>Min. Bending Radius</b>	15 x Outer Ø (Operating) / 20 x Outer Ø (Installation) - (IEC 60794-1-21 E11)					

### Standards

Mechanical and Environmental tests according to IEC 60794-1-21 and IEC 60794-1-22.

Fibres colour code: Red - Green - Blue - Yellow - Grey - Violet - Brown - Orange - White - Pink - Black - Turquoise. With black ring: Red - Green - Blue - Yellow - Grey - Violet - Brown - Orange - White - Pink - Black - Turquoise.

Tubes colour code: Red - Green - Natural... - Natural. Passive tubes colour Black.

Tubes colour code (576FO cable): **Inner layer (9 Tubes)** = Red - Green - Blue - Yellow - Grey - Violet - Brown - Orange - White. **Outer layer (15 tubes)** = Red - Green - Blue - Yellow - Grey - Violet - Brown - Orange - White - Pink - Black - Turquoise - Light Green - Red (with ring) - Green (with ring).

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