



Oil & Gas - Cable Solutions

Exploration & Production - Offshore

Fiber Optic Cables

S611T Tight Buffer construction

S611T Marine Fiber Optic Cables

Tight buffer construction - 2 to 48 fibers / single-mode or multimode / LSZH.

APPLICATION

The S611T series of Marine Shipboard unarmored fiber optic cables are designed especially for the harsh environments of commercial marine vessels, offshore oil platforms, rilling rigs, and other similar applications. S611T low smoke/ zero halogen, flame retardant cables offer versatility and ease of installation in a construction suited for marine applications. They are compliant with the latest IEC requirements. S611T cables meet the requirements of IEC 60793-1 and IEC 60792-2 specifications, are encapsulated in all dielectric,

tight buffered construction, individually reinforced with aramid yarns and jacketed (breakout style). The breakout components are cabled around a central member providing additional tensile strength to the entire construction. The thermoplastic low smoke/ zero halogen jacketing system offers excellent resistance to chemicals, fluids, fungus, and abrasion.

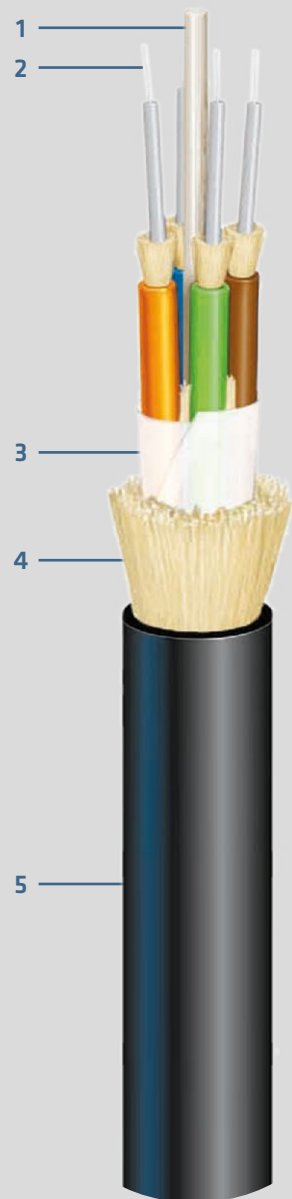
STANDARDS & APPROVALS

- IEC/EN 60794** Optical Fibre Cables (test procedures)
- IEC 60794-1-1** Optical Fibre Cables (test procedures)
- IEC 60794-1-2** Optical Fibre Cables (test procedures)
- IEC 60794-2** Optical Fibre Cables (test procedures)
- IEEE 45 and IEEE 1580** Marine Shipboard Cables
- IEC 60332-1** Flame Retardance
- IEC 60332-3-22 or 24 and IEEE 1202** Fire retardance
- IEC 60754-1 & 60754-2** - Halogen free properties
- IEC 61034-1 & 61034-2** Smoke emission properties
- NES 713** Toxicity Requirements
- IEEE 802.3z (Gigabit Ethernet)** Performance requirements

Det Norske Veritas (DNV)
 American Bureau of Shipping (ABS)
 Lloyd's Register of Shipping (LRS)

DESIGN & CONSTRUCTION

- 1 CENTRAL STRENGTH MEMBER**
Dielectric material (epoxy fiberglass rod)
- 2 FIBER**
Multimode or singlemode fibers with an easily strippable 900µm tight buffering colored per TIA/EIA 598
- 3 SUBUNIT STRENGTH MEMBER**
Aramid yarn
- 4 SUBUNIT JACKET**
2.0 mm ChromaTek-L™ Halex
low smoke zero halogen polyolefin
- 5 SHEATH**
ChromaTek-L™ Halex
low smoke zero halogen polyolefin





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PERFORMANCES/RATINGS

FIRE BEHAVIOUR



IEC 60332-1
IEC 60332-3-22 or 24
IEEE 1202

CHEMICAL RESISTANCE



VERY GOOD

IMPACTS



GOOD

SMOKE DENSITY, CORROSIVITY AND TOXICITY



LOW EMISSION

OPERATING TEMPERATURE



-20 °C to +80 °C

INSTALLATION TEMPERATURE



-10 °C to +60 °C

UV RESISTANCE



VERY GOOD

QUALITY & TESTING

Prysmian has a built-in multi-step quality assurance program, covering the production process from cable design and raw material purchases to final inspection and testing documentation.

The ISO 9001 quality system of Prysmian Group (together with ISO 14001 and OHSAS 18001) has been assessed, approved and is currently audited by SGS.

This product information sheet is provided for reference only. Please consult the factory or your representative to confirm all engineering information or refer to the related catalogues available in the local countries website.

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TECHNICAL DATA

DRAKA USA PART NUMBER	NUMBER OF FIBRES	INSTALLATION		OPERATING		CABLE OUTSIDE DIAMETER	APPROXIMATE CABLE WEIGHT
		Pull Strength Newtons (lbs)	Bend Radius cm (in)	Tension Newtons (lbs)	Bend Radius cm (in)		
S611T-02R-xyy	2	600 (135)	13.6 (5.3)	200 (45)	6.8 (2.7)	6.78 (0.267)	49 (33)
S611T-04-xyy	4	600 (135)	15.3 (6.0)	200 (45)	7.7 (3.0)	7.67 (0.302)	60 (40)
S611T-06-xyy	6	600 (135)	17.3 (6.8)	200 (45)	8.6 (3.4)	8.64 (0.340)	85 (57)
S611T-08-xyy	8	600 (135)	20.0 (7.8)	200 (45)	10.0 (3.9)	10.01 (0.394)	100 (67)
S611T-10-xyy	10	600 (135)	22.4 (8.8)	200 (45)	11.2 (4.4)	11.23 (0.442)	127 (85)
S611T-12-xyy	12	600 (135)	25.0 (9.8)	200 (45)	12.5 (4.9)	12.47 (0.491)	158 (106)
S611T-16-xyy	16	2700 (600)	25.2 (10.0)	600 (135)	12.6 (5.0)	12.62 (0.497)	161 (108)
S611T-18-xyy	18	2700 (600)	25.2 (10.0)	600 (135)	12.6 (5.0)	12.62 (0.497)	159 (107)
S611T-24-xyy	24	2700 (600)	29.3 (11.6)	600 (135)	14.7 (5.8)	14.66 (0.577)	204 (137)
S611T-36-xyy	36	2700 (600)	34.0 (13.4)	600 (135)	17.0 (6.7)	17.02 (0.670)	260 (175)
S611T-48-xyy	48	2700 (600)	42.7 (16.8)	600 (135)	21.4 (8.4)	21.36 (0.841)	350 (235)

FIBER PERFORMANCE

62.5µm MULTIMODE 50µm MULTIMODE 200µm MULTIMODE 8.3µm SINGLE-MODE

Fiber Designation	62X	50H	200S	010X
Applicable Specification	IEC 60793-10 Type A1b	ITU G.651.6 IEC 60793-10 Type A1a.1	ITU G.651.6 IEC 60793-10 Type A1a	
Fiber Type	Graded Index	Graded Index	Step Index	Matched Clad
Core Diameter	62.5µm ±2.5µm	50µm ±2.5µm	200µm ±5µm	8.3µm Nominal
Cladding Diameter	125µm ±1µm	125µm ±1µm	230µm ±10µm	125µm ±7µm
Coating Diameter	242µm ±7µm	242µm ±5µm	500µm ±30µm	242µm ±1µm
Buffer Diameter	900µm ±50µm	900µm ±50µm	900µm ±50µm	900µm ±50µm
Numerical Aperture	0.275 ±0.015	0.200 ±0.015	.037 Nominal (2m 5% intensity)	n/a
Mode Field Diameter	n/a	n/a	n/a	9.0µm ±0.4µm
Attenuation	≤ 3.5 dB/Km @ 850nm ≤ 1.5 dB/Km @ 1300nm	≤ 3.5 dB/Km @ 850nm ≤ 1.5 dB/Km @ 1300nm	≤ 12.0 dB/Km @ 820nm	≤ 0.70 dB/Km @ 1310nm ≤ 0.70 dB/Km @ 1550nm
Bandwidth	≥ 200 MHz/Km @ 850nm ≥ 500 MHz/Km @ 1300nm	≥ 500 MHz/Km @ 850nm ≥ 500 MHz/Km @ 1300nm	≥ 20 MHz/Km @ 820nm	n/a n/a
Dispersion	n/a n/a	n/a n/a	n/a n/a	≤ 3.0 ps/nm-Km @ 1285-1330nm ≤ 18 ps/nm-Km @ 1550nm
Proof Test	100,000 psi	100,000 psi	100,000 psi	100,000 psi

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