



S670T Armored and Sheathed Marine Fiber Optic Cables

Tight buffer construction

2 to 48 fibers / single-mode or multimode / LSZH / armored and sheathed



Applications

The Draka S670T series of Marine Shipboard armored fiber optic cables are designed especially for the harsh environments of commercial marine vessels, offshore oil platforms, drilling rigs, and other similar applications.

Draka S670T 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.

S670T 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 double jacketing system under and over the marine grade bronze braided armor offers excellent resistance to chemicals, fluids, fungus, and abrasion.

Features/Ratings

- Low smoke/zero halogen construction meets appropriate IEEE and IEC standards for fire, smoke, and toxicity
- Superior resistance to oil, abrasion, moisture, sunlight, crush and impact
- Gigabit ethernet 802.3Z compliant
- Armored and sheathed construction offers additional mechanical & environmental protection

Approvals

Meets IEC60794-1-1, 60794-1-2 and 60794-2

Meets IEEE 45 and IEEE 1580

Det Norske Veritas (DNV)

American Bureau of Shipping (ABS)

Lloyd's Register of Shipping (LRS)

Flame retardant per IEC 60332-3 CAT. A/F and IEEE 1202

Smoke density requirements of IEC 61034-1 and 61034-2

Acid gas generation requirements of IEC 60754-1 & 60754-2

Toxicity requirements of NES 713

Meets the performance requirements of IEEE 802.3z (Gigabit ethernet)

Construction

CENTRAL STRENGTH MEMBER: Dielectric material (epoxy fiberglass rod).

FIBER: Multimode or single-mode fibers with an easily-strippable 900µm tight buffering colored per TIA/EIA 598.

SUBUNIT STRENGTH MEMBER: Aramid yarn

SUBUNIT JACKET: 2.0 mm ChromaTek-L™ Halex low smoke zero halogen polyolefin.

JACKET: ChromaTek-L™ Halex low smoke zero halogen polyolefin.

ARMOR: Braided bronze in accordance with IEEE 1580 (2010)

SEATH: ChromaTek-L™ Halex low smoke zero halogen polyolefin.



S670T Armored and Sheathed Marine Fiber Optic Cables

Tight buffer construction

2 to 48 fibers / single-mode or multimode / LSZH / armored and sheathed

A brand of the

Prysmian
Group

Draka usa Part Number	Number of Fibers	INSTALLATION		OPERATING		Cable Outside Diameter	Approximate Cable Weight
		Pull Strength Newtons (lbs)	Bend Radius cm (in)	Tension Newtons (lbs)	Bend Radius cm (in)		
S670T-02R-xyy	2	600 (135)	22.4 (8.8)	200 (45)	11.2 (4.4)	11.23 (.442)	204 (137)
S670T-04-xyy	4	600 (135)	25.0 (9.8)	200 (45)	12.5 (4.9)	12.45 (.490)	210 (141)
S670T-06-xyy	6	600 (135)	25.6 (10.2)	200 (45)	12.8 (5.1)	12.83 (.505)	238 (160)
S670T-08-xyy	8	600 (135)	28.5 (11.2)	200 (45)	14.3 (5.6)	14.32 (.564)	287 (193)
S670T-10-xyy	10	600 (135)	31.4 (12.4)	200 (45)	15.7 (6.2)	15.65 (.616)	345 (232)
S670T-12-xyy	12	600 (135)	33.8 (13.4)	200 (45)	16.9 (6.7)	16.92 (.666)	400 (268)
S670T-16-xyy	16	2700 (600)	33.8 (13.4)	600 (135)	16.9 (6.7)	16.92 (.666)	393 (264)
S670T-18-xyy	18	2700 (600)	33.8 (13.4)	600 (135)	16.9 (6.7)	16.92 (.666)	391 (263)
S670T-24-xyy	24	2700 (600)	39.0 (15.4)	600 (135)	19.5 (7.7)	19.51 (.768)	472 (317)
S670T-36-xyy	36	2700 (600)	44.7 (17.6)	600 (135)	22.4 (8.8)	22.35 (.880)	595 (400)
S670T-48-xyy	48	2700 (600)	57.8 (22.8)	600 (135)	28.9 (11.4)	28.91 (1.138)	954 (641)

Replace the xyy with the Fiber Designation in the fiber performance table below. NOTE: Fibers are not suitable for F07 crimp and cleave connector. Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

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.651.1 & IEC 60793-10 Type A1a.1	ITU G.651 & IEC 60793-2 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 ±1µm
Coating Diameter	242µm ±7µm	242µm ±7µm	500µm ±30µm	242µm ±7µm
Buffer Diameter	900µm ±50µm	50µm ±2.5µm	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	9.1µm ±0.4µm
Attenuation	≤ 3.5 dB/Km @ 850nm ≤ 1.0 dB/Km @ 1300nm	≤ 3.5 dB/Km @ 850nm ≤ 1.0 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

CABLE PROPERTIES

Crush (IEC 60794-1-E3) 3000 N/ 10 cm
Impact (IEC 60794-1-E4) 20 impacts, 5J
Torsion (IEC 60794-1-E7) + 1 turn / 2 m, 100 cycles
Cable Bend (IEC 60794-1-E11) <0.1 dB/ + 6 turns

TEMPERATURE RANGE

Operation: -20°C to +80°C
Installation: -10°C to +60°C
Storage: -40°C to +80°C

FIRE, SMOKE, AND TOXICITY CLASSIFICATIONS

Flame retardant: IEC 60332-3, CAT.A CAT A/F and IEEE 1202
Smoke density: IEC 61034-1 and IEC 61034-2
Acid gas penetration: IEC 60754-1 and IEC 60754-2
Toxicity: NES 713

Draka Marine, Oil & Gas
+1 281-209-1070 / +1 888-354-CABL (2225)
website: na.prysmiangroup.com/oil-gas

Prysmian
Group