

## S670T ARMORED AND SHEATHED MARINE FIBER OPTIC CABLES



**Tight buffer construction  
2 to 48 fibers /  
singlemode or multimode /  
LSZH / Armored & Sheathed**

### Applications

The Drake S670T series of Marine and Offshore fiber optic cables is designed especially for the harsh environments of commercial marine vessels, oil platforms and other similar applications.

Draka S670T low smoke/zero halogen, flame retardant cables offer the versatility and ease of use of our other offshore cables 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 60793-2 specifications, are encapsulated in all dielectric, tight buffered construction, individual 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 good resistance to chemicals, fluids, fungus, and abrasion.

This product is readily available in a non-armored version.

### 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	ChromaTek-L™ Halex low smoke zero halogen polyolefin.
5. Jacket	ChromaTek-L™ Halex low smoke zero halogen polyolefin.
6. Armor	Braided bronze in accordance with IEEE 1580 (2001).
7. Sheath	ChromaTek-L™ Halex low smoke zero halogen polyolefin.

### Features

- Low smoke/zero halogen construction meets appropriate IEEE and IEC standards for fire, smoke, and toxicity
- Superior resistance to oil, abrasion, moisture, sunlight, mud, crush and impact
- Gigabit Ethernet 802.3Z compliant

### Ratings

Meets IEC 60794-1-1, 60794-1-2 and 60794-2.

Det Norske Veritas Type Approval Certificate E-7155.

American Bureau of Shipping Approval Certificate 04-HS440499B/2-PDA.

Lloyds Registry of Shipping Approval Certificate 00/00157E2.

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

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

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

Toxicity requirements of NES 713

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





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**tight buffer construction**

**2 to 48 fibers / singlemode or multimode / LSZH**

DRAKA USA Part Number	Number of Fibers	INSTALLATION		OPERATING		Cable O.D. mm (in)	Approximate Cable Weight Kg/km (Lbs/mft)
		Pull Strength Newtons (lbs)	Bend Radius cm (in)	Tension Newtons (lbs)	Bend Radius cm (in)		
S607T-02R-xy	2	600 (135)	12.8 (5.0)	200 (45)	6.4 (2.5)	6.4 (.252)	45 (30)
S607T-04-xy	4	600 (135)	14.6 (5.8)	200 (45)	7.3 (2.9)	7.3 (.287)	51 (35)
S607T-06-xy	6	600 (135)	17.0 (6.8)	200 (45)	8.5 (3.4)	8.5 (.335)	71 (48)
S607T-08-xy	8	600 (135)	19.4 (7.6)	200 (45)	9.7 (3.8)	9.7 (.381)	93 (63)
S607T-10-xy	10	600 (135)	22.0 (8.4)	200 (45)	11.0 (4.3)	11.0 (.431)	119 (80)
S607T-12-xy	12	600 (135)	24.4 (9.6)	200 (45)	12.2 (4.8)	12.2 (.481)	149 (100)
S607T-16-xy	16	2700 (600)	25.7 (10.2)	600 (135)	12.8 (5.1)	12.8 (.507)	150 (101)
S607T-18-xy	18	2700 (600)	25.7 (10.2)	600 (135)	12.8 (5.1)	12.8 (.507)	148 (100)
S607T-24-xy	24	2700 (600)	29.6 (11.6)	600 (135)	14.8 (5.8)	14.8 (.581)	356 (238)
S607T-36-xy	36	2700 (600)	34.0 (13.4)	600 (135)	17.0 (6.7)	17.0 (.670)	484 (325)
S607T-48-xy	48	2700 (600)	46.0 (18.1)	600 (135)	23.1 (9.1)	23.0 (.905)	600 (403)

Replace the xy 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	50 µm MULTIMODE	200µm MULTIMODE	8.3µm SINGLEMODE
Fiber Designation	62X	50H	200S	010X
Applicable Specification	IEC 60793-2 Type A1b	ITU G.651 & IEC 60793-2 Type A1a & IEC 60793-2 Type B1.1	ITU G.651 & IEC 60793-2 Type A1a	ITU G.652 Table C & D Requirements
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