

## Extreme Low Temp LSZH Double Jacket I/O Loose Tube (LA Series)

The LA-Series is specially designed for applications that demand reliable performance in harsh environment installations. The cable construction incorporates a variety of packaging technologies that allow the product to operate in extremely low temperatures, mechanically abusive installations and highly caustic and acidic environments. The key to the reliable, ultra-high performance is the specially designed cable core and the dual layer jacketing system.

The cable core is constructed using materials and engineered geometry that optimizes the isolation of the optical fibers from the stresses and strains imparted on the cable and commonly realized in extreme environments. The outer jacketing is designed to further protect the ruggedized core assembly with a multiplying system made up of a double-ply, low smoke zero halogen (LSZH) flame resistant jacketing system that integrates a strong layer of aramid yarn between the inner and outer sheaths.

### Applications

Network Connectivity for:

- Oil and Gas fields
- Low Temperature Environments
- Refineries
- Mining
- Mass Transit

### Temperature Range

	FIBER COUNT	
	12-72 FIBERS, 6-POSITION CORE	12-144 FIBERS, 8- AND 12-POSITION CORES
Operating	-55°C to +70°C	-60°C to +70°C
Storage	-60°C to +70°C	-60°C to +70°C
Installation	-30°C to +50°C	-30°C to +70°C

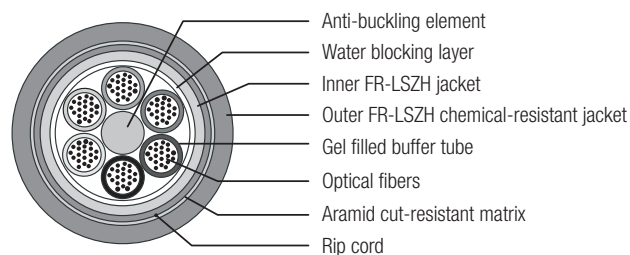
### Mechanical

PARAMETER	VALUE
Crush	440N/CM
Cold Impact	8.8 N*m
Tensile	
Installation	1,000 lbs (4,450N)
Operational	400 lbs (1,780N)

### Features

- Fiber Range 12-144
- NFPA 130
- OFNG-LS Listed, CSA-FT4
- IEEE Flame Test
- ICEA S-104-696
- CSA 22.2 No. 230 and 232
- Increase tensile load rating
- Chemical Resistance testing per ASTM D412
- 2X Crush Resistance compared to standard fiber optic cables
- 2X Cold Impact Resistance compared to standard fiber optic cables
- Self-supporting capability (contract factory for system design support)

### Cable Components



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### Fiber Specifications

FIBER TYPE	MAXIMUM ATTENUATION (DB/KM)				OVERFILL LAUNCH MIN. BANDWIDTH (MHZ•KM)		GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
	850 NM	1300 NM	1310 NM	1550 NM	850 NM	1300 NM	850 NM	1300 NM
(6) 62.5/125 GIGA-Link™ 300	3.5	1.2	N/A	N/A	200	600	300	550
(5) 50/125 GIGA-Link™ 600	2.9	0.9	N/A	N/A	500	500	600	600
(L) 50/125 Laser-Link™ 300	2.9	0.9	N/A	N/A	1500	500	900	550
(9) Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000
(Q) Non-zero Dispersion-shifted Single-mode	N/A	N/A	N/A	0.25	N/A	N/A	N/A	N/A
(K) AFL G.657.A1 Single-mode	N/A	N/A	0.35	0.25	N/A	N/A	N/A	5000

Gigabit Ethernet Minimum Link Distances are based on "bandwidth"/modal dispersion constraints. Actual link distances may be constrained by attenuation, depending on specific loss budget.

### Ordering Information

6-POSITION, -50°C OPTION	FIBER COUNT	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
		INCHES	MM	LBS/1,000 FT	KG/KM	INSTALLATION	OPERATION	INSTALLATION	OPERATION
LA012★C6111N1	12	0.606	15.4	154	229	1000 (4,450)	400 (1,780)	13 (31)	6 (16)
LA024★C6111N1	24	0.606	15.4	154	229	1000 (4,450)	400 (1,780)	13 (31)	6 (16)
LA048★C6111N1	48	0.606	15.4	153	227	1000 (4,450)	400 (1,780)	13 (31)	6 (16)
LA072★C6111N1	72	0.606	15.4	152	225	1000 (4,450)	400 (1,780)	13 (31)	6 (16)

8-POSITION AND 12-POSITION, -60°C OPTION	FIBER COUNT	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM TENSILE LOAD LBS (N)		MINIMUM BEND RADIUS INCHES (CM)	
		INCHES	MM	LBS/1,000 FT	KG/KM	INSTALLATION	OPERATION	INSTALLATION	OPERATION
LA012★C8111N1	12	0.673	17.1	184	273	1000 (4,450)	400 (1,780)	14 (35)	7 (18)
LA024★C8111N1	24	0.673	17.1	184	273	1000 (4,450)	400 (1,780)	14 (35)	7 (18)
LA048★C8111N1	48	0.673	17.1	184	273	1000 (4,450)	400 (1,780)	14 (35)	7 (18)
LA072★C8111N1	72	0.673	17.1	184	273	1000 (4,450)	400 (1,780)	14 (35)	7 (18)
LA096★C8111N1	96	0.673	17.1	184	273	1000 (4,450)	400 (1,780)	14 (35)	7 (18)
LA144★CC111NI	144	0.823	20.9	250	371	1000 (4,450)	400 (1,780)	17 (42)	9 (21)

★ Fiber Types – Replace asterisk (★) in AFL number with number in the Fiber Specifications table above.