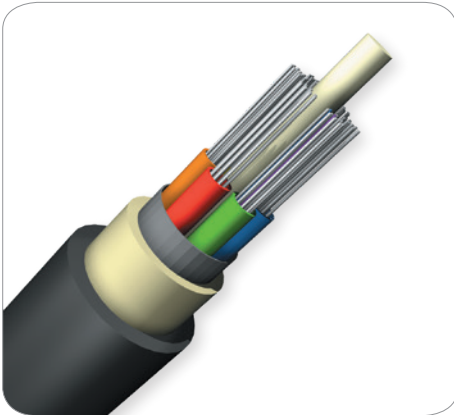




## Listed Gel-Free, LSZH, Loose Tube Cable (LL Series)

AFL's LL-Series Gel-Free fiber optic cables are designed for use in traditional network communication infrastructures deployed in environments requiring the performance of outside plant cabling with the safety of a listed low smoke zero halogen solution. Applications in confined spaces such as tunnels and mine shafts require low smoke zero halogen materials to enhance life safety and minimize damage to sensitive electronic equipment in the event of a fire.

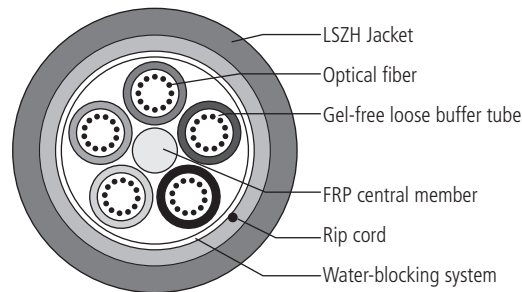
### Features

- 6 to 144 fibers
- Gel-free buffer tubes for ease of fiber prep
- Reverse-oscillated (SZ stranded) core to allow slack for mid-span fiber access
- UV-stabilized outer jacket

### Applications

- Industrial
- Electric utility
- Mining
- Mass transit

### Cable Components



### Optical Information

| 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     |
| (8) 62.5/125 GIGA-Link™ 1000 | 3.5                         | 1.2     | N/A     | N/A     | 350                                     | 600     | 500                                          | 1000    |
| (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    |

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.

continued  
→

## Listed Gel-Free, LSZH, Loose Tube Cable (LL Series)

### Mechanical Data

| AFL NO.        | FIBER COUNT | NO. OF TUBES<br>FIBERS/ TUBE | NOMINAL DIAMETER<br>INCHES (MM) | NOMINAL WEIGHT<br>LBS/1,000FT (KG/KM) | MAXIMUM TENSILE LOAD<br>LBS (N) |           | MINIMUM BEND RADIUS<br>INCHES (CM) |           |
|----------------|-------------|------------------------------|---------------------------------|---------------------------------------|---------------------------------|-----------|------------------------------------|-----------|
|                |             |                              |                                 |                                       | SHORT TERM                      | LONG TERM | SHORT TERM                         | LONG TERM |
| LL012★C5101N1D | 12          | 1/12 (4 fillers)             | 0.39 (9.8)                      | 49 (73)                               | 600 (2670)                      | 180 (800) | 7.8 (20)                           | 3.9 (10)  |
| LL024★C5101N1D | 24          | 2/12 (3 fillers)             | 0.39 (9.8)                      | 49 (72)                               | 600 (2670)                      | 180 (800) | 7.8 (20)                           | 3.9 (10)  |
| LL036★C5101N1D | 36          | 3/12 (2 fillers)             | 0.39 (9.8)                      | 48 (72)                               | 600 (2670)                      | 180 (800) | 7.8 (20)                           | 3.9 (10)  |
| LL048★C5101N1D | 48          | 4/12 (1 filler)              | 0.39 (9.8)                      | 48 (71)                               | 600 (2670)                      | 180 (800) | 7.8 (20)                           | 3.9 (10)  |
| LL060★C5101N1D | 60          | 5/12 (no fillers)            | 0.39 (9.8)                      | 48 (71)                               | 600 (2670)                      | 180 (800) | 7.8 (20)                           | 3.9 (10)  |
| LL072★C6101N1D | 72          | 6/12 (no fillers)            | 0.42 (10.6)                     | 55 (82)                               | 600 (2670)                      | 180 (800) | 8.4 (21)                           | 4.2 (11)  |
| LL096★C8101N1D | 96          | 8/12 (no fillers)            | 0.48 (12.3)                     | 75 (118)                              | 600 (2670)                      | 180 (800) | 9.6 (25)                           | 4.8 (12)  |
| LL144★CC101N1D | 144         | 12/12 (no fillers)           | 0.62 (15.8)                     | 119 (178)                             | 600 (2670)                      | 180 (800) | 12.4 (32)                          | 6.2 (16)  |

Note: Diameter and weight subject to change without notice

★ Fiber Types – Replace asterisk (★) in AFL number with number corresponding to desired fiber type below.

5 = 50/125 µm multimode GIGA-Link™ 600  
 6 = 62.5/125 µm multimode GIGA-Link™ 300  
 8 = 62.5/125 µm multimode GIGA-Link™ 1000

### Recommended Products for LSZH Loose Tube Cable

| DESCRIPTION                                                    | AFL NO.                                             |
|----------------------------------------------------------------|-----------------------------------------------------|
| Extreme Low Temp LSZH Double Jacket I/O Loose Tube (LA Series) | See <a href="#">specification sheet</a> for AFL No. |

### Qualifications

| GOVERNING BODY | STANDARD CODE  | COMPONENT |
|----------------|----------------|-----------|
| Telcordia      | GR-20-CORE     | Cable     |
| ICEA           | S-104-696      | Cable     |
| IEEE           | 1202           | Cable     |
| UL             | 1685 (OFNG-LS) | Cable     |
| CSA            | 22.2 (FT4)     | Cable     |
| NFPA           | 130 and 502    | Cable     |
| TIA            | 598-D          | Fiber     |

### Temperature Specifications

| TEMPERATURE RANGE |                |
|-------------------|----------------|
| OPERATION         | -40°C to +70°C |
| STORAGE           | -40°C to +70°C |
| INSTALLATION      | -30°C to +70°C |

**Contact AFL for more details.**