

## FEATURES AND SPECIFICATIONS

[查询"106059-3100"供应商](#)



## Optical Industrial Cable Assemblies and Adapters

**106059 LC Duplex**

**106059 SC Simplex**

**106059 MPO Multi-fiber**

*Easy optical connections are now possible in harsh industrial environments with Molex's optical industrial cable assemblies*

Designed with rugged and compact housings, Molex's optical industrial assemblies incorporate the high-performance of a fiber optic connection with the versatility of a rugged industrial connector. The assemblies guarantee an environmentally sealed optical connection in one step, with the combined push-pull insertion and bayonet-style mechanical latch. The bulkhead adapter mounts directly in a panel cut-out, serving as a sealed feed-through. The removable connector provides sealing between both the adapter mating-surface, as well as the cable exiting the connector.

Molex's optical industrial assemblies are compatible with many fiber types and cable constructions and are ideal for both indoor and outdoor applications. This assembly is particularly well-suited for long distances or remote connections using either single mode or multimode fiber.

Available in a simplex SC, Duplex LC, and multi-fiber MPO version, these assemblies offer a sealed fiber optic connection to fit many applications from bi-directional single fiber up to 12 fiber ribbon connections. Assemblies are available in pigtails (single-ended), jumpers (dual-ended) and breakout assemblies, to any Molex standard fiber optic connector. The assemblies can be manufactured in lengths from 1.0 meter to well over 1.0 kilometer.

The industrial duplex LC assembly has been ratified as a 'Standard Interface' in the ODVA (Open DeviceNet Vendors Association) as a next generation industrial interconnect.



(Left to right) Industrial MPO, Industrial SC, Industrial LC Cable Assemblies

### Features and Benefits

- Provides moisture and dust protection for use in harsh industrial environments
- Sealed panel feed-through design for easy installation into enclosures
- 100% optically tested to ensure quality performance assemblies
- Available in single mode and multimode styles to work with any common fiber type
- Housing is NEMA 6P and IP67 rated which ensures dust and moisture protection
- Push-pull insertion with bayonet-style mechanical latch provides easy installation and removal
- Broad temperature range (-40 to +85°C) is ideal for indoor or outdoor applications

## APPLICATIONS

### Markets and Applications

- Industrial
  - System controls
  - Monitoring
  - High Electro Magnetic Interference (EMI) and Radio Frequency Interference (RFI) areas
- Medical equipment
- Telecommunication/CATV
  - FTTx
  - Outdoor system connections
- Other markets
  - Rugged test equipment
  - Mobile broadcasting or audio visual equipment
  - Food processing



Ball Park — outdoor system connections



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**106059 LC Duplex**

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### Reference Information

Packaging: Cable Assemblies: Individual bag or spool  
Adapters: Individual bag

Mates With: Standard LC, SC, or MPO assemblies (respectively)

Designed In: Inches

### Physical

Housing: Polymer

Ferrule: Zirconia Ceramic

Operating Temperature:

-40 to +85° C

Cable Type: Indoor or outdoor

Fiber Type: Single mode or multimode

### Optical

Insertion Loss:

Single mode <0.35dB max. (0.13dB typical)

Multimode <0.50dB max. (0.10dB typical)

Return Loss:

Single mode 45 to 55dB

Wavelength:

Single mode 1310 or 1550nm

Multimode 850 or 1300nm



Indoor and Outdoor Industrial LC Assemblies with Industrial LC Adapters

## ORDERING INFORMATION

### Cable Assemblies

| Order No.   | Connector Type | Cable   | Fiber Count | Fiber Type  |
|-------------|----------------|---------|-------------|-------------|
| 106059-0100 | Industrial LC  | Indoor  | 2           | Multimode   |
| 106059-0110 |                |         |             | Single mode |
| 106059-1100 |                | Outdoor |             | Multimode   |
| 106059-1110 |                |         |             | Single mode |
| 106059-2020 | Industrial SC  | Outdoor | 1           | Multimode   |
| 106059-2025 |                |         |             | Single mode |
| 106059-6100 | 4              |         | Multimode   |             |
| 106059-6105 | 8              |         |             |             |
| 106059-6110 | 12             |         |             |             |
| 106059-6115 | 4              |         | Single Mode |             |
| 106059-6120 | 8              |         |             |             |
| 106059-6125 | 12             |         |             |             |

Note: 1. Optical industrial assemblies are supplied in a cable assembly form only

2. Above part numbers are for reference drawings only, all assemblies will be assigned custom part numbers

### Cable Assembly Accessory

| Order Number | Description          |
|--------------|----------------------|
| 106059-0020  | Dust Cap/Pulling cap |

### Adapters

| Order No.   | Alignment Sleeve | Type                                     | Mode                  |
|-------------|------------------|------------------------------------------|-----------------------|
| 106059-0200 | Phosphor Bronze  | Industrial LC to Duplex LC               | Multimode             |
| 106059-0210 | Zirconia         |                                          | Single mode           |
| 106059-3110 | Phosphor Bronze  | Industrial LC to Industrial LC (in-line) | Multimode             |
| 106059-3100 | Zirconia         |                                          | Single mode           |
| 106059-2030 | Phosphor Bronze  | Industrial SC to Simplex SC              | Multimode             |
| 106059-2031 | Zirconia         |                                          | Single mode           |
| 106059-4100 | Phosphor Bronze  | Industrial SC to Industrial SC (in-line) | Multimode             |
| 106059-4110 | Zirconia         |                                          | Single mode           |
| 106059-6200 | None             | Industrial MPO to MPO/MTP                | Single mode/Multimode |



Indoor industrial LC Assemblies with In-line Industrial LC Adapter



Outdoor Industrial SC Assembly with Industrial SC Adapter and SC Cable Assembly



Outdoor Industrial MPO Assembly with Industrial MPO Adapter and MPO Cable Assembly

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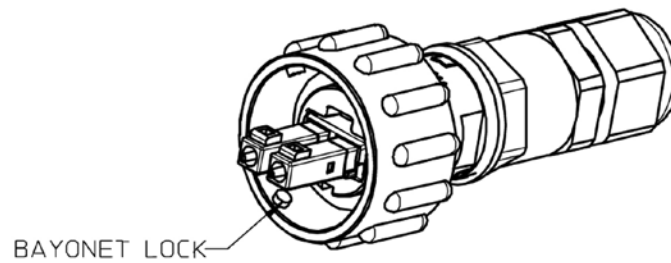
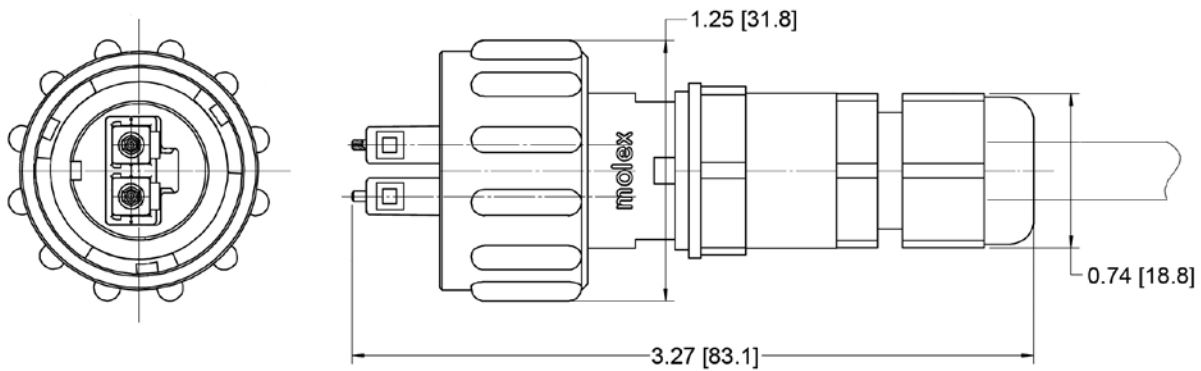
## Optical Industrial Cable Assemblies and Adapters

**106059** LC Duplex

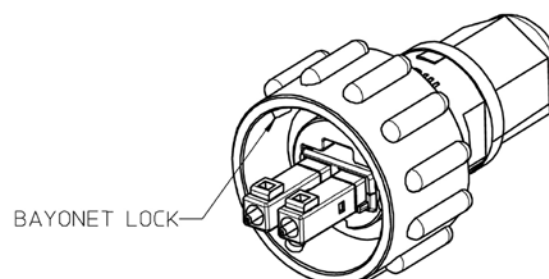
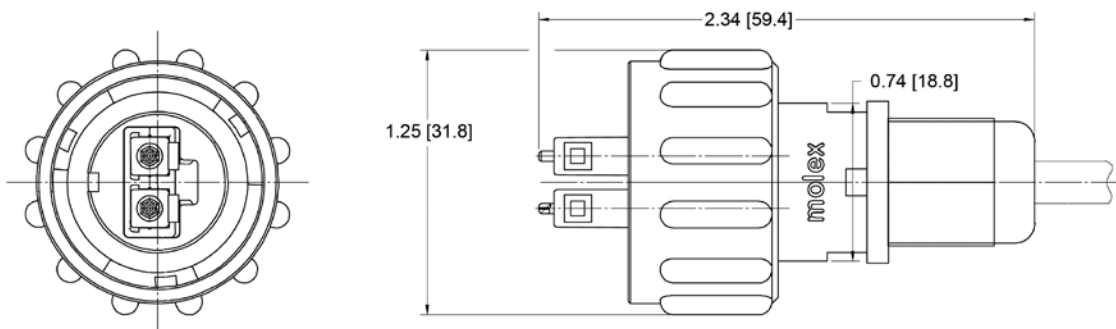
**106059** SC Simplex

**106059** MPO Multi-fiber

### Industrial LC with Outside Plant Cable



### Industrial LC with Indoor Cable



All dimensions are in INCHES  
(MILLIMETERS)

ORDERING INFORMATION

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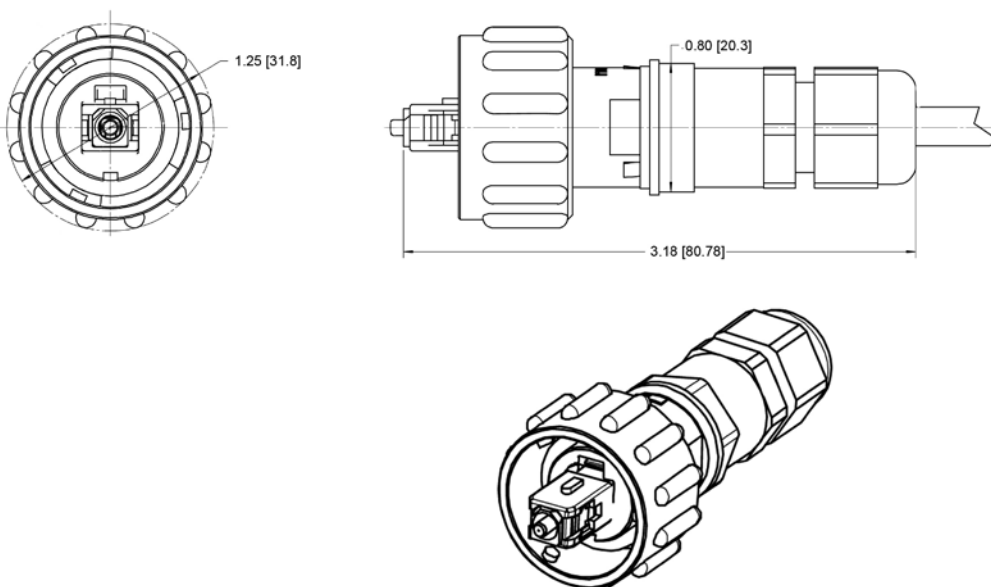
Optical Industrial  
Cable Assemblies  
and Adapters

**106059** LC Duplex

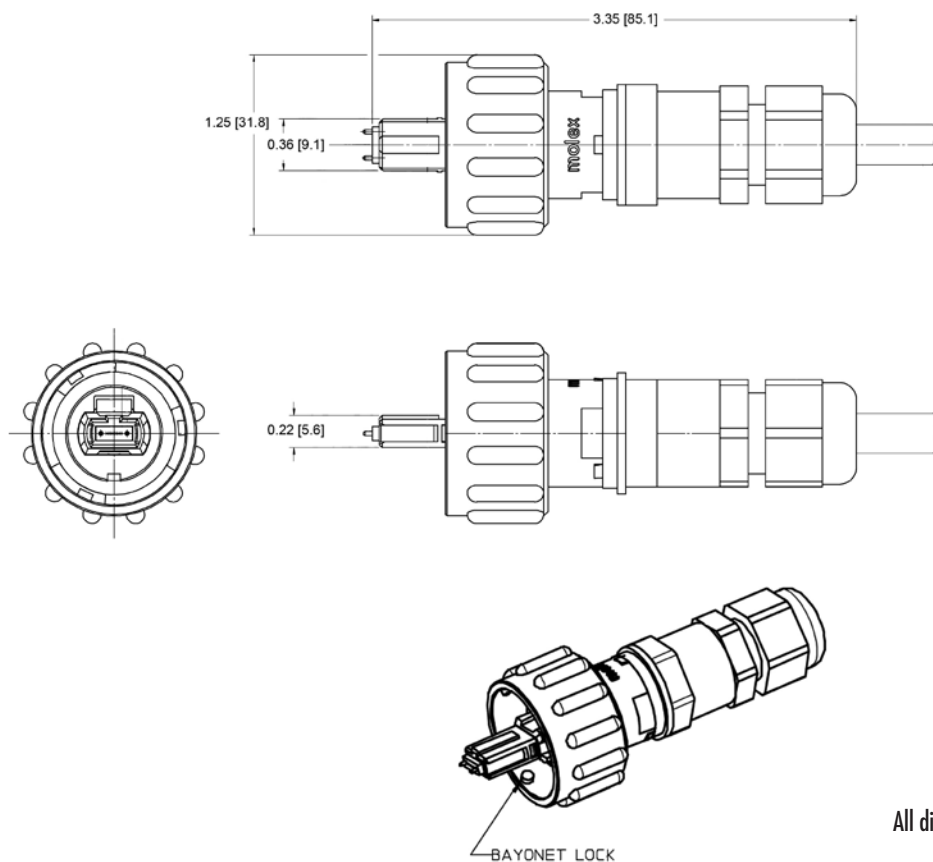
**106059** SC Simplex

**106059** MPO Multi-fiber

Industrial SC  
with Outdoor Plant Cable



Industrial MPO  
with Outdoor Cable



All dimensions are in INCHES  
(MILLIMETERS)

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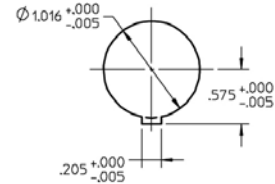
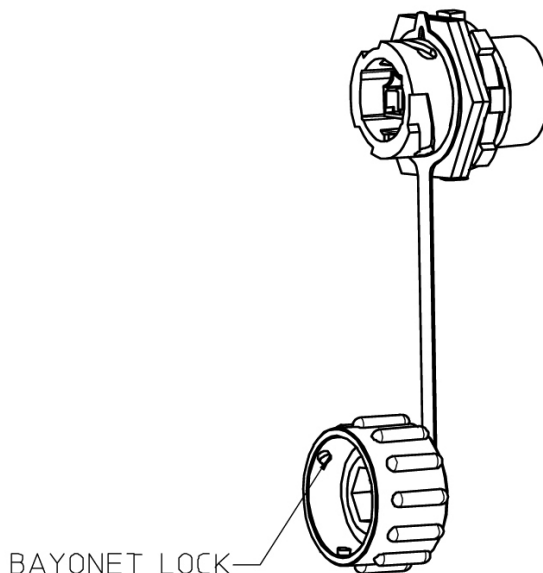
## Optical Industrial Cable Assemblies and Adapters

**106059** LC Duplex

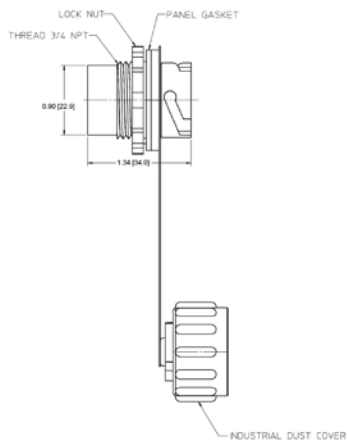
**106059** SC Simplex

**106059** MPO Multi-fiber

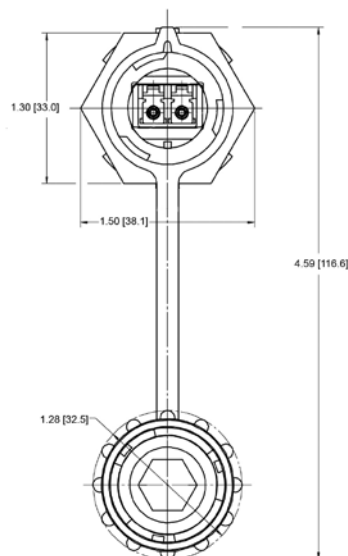
Industrial Adapter  
with Dust Cap



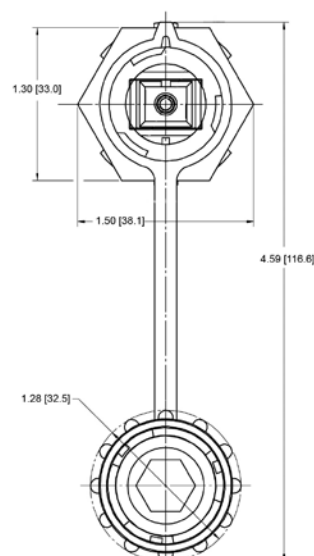
RECOMMENDED MOUNTING CUTOUT



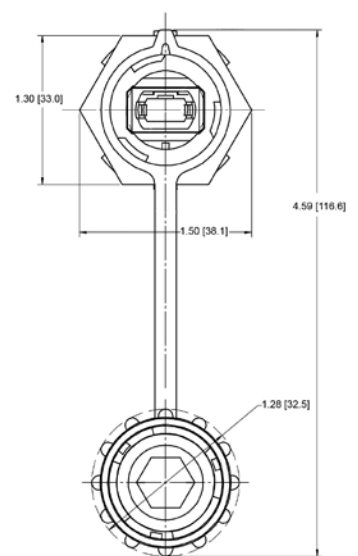
All Styles



LC  
(Duplex)



SC  
(Simplex)



MPO  
(8 or 12 fiber)

All dimensions are in INCHES  
(MILLIMETERS)



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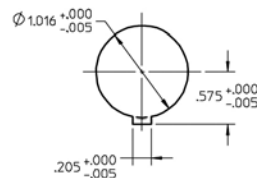
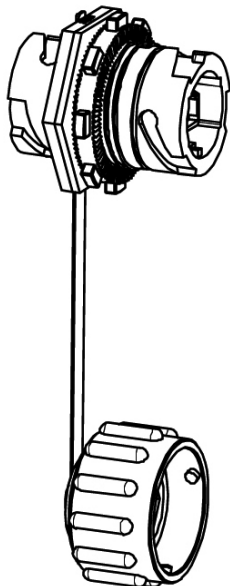
## Optical Industrial Cable Assemblies and Adapters

**106059 LC Duplex**

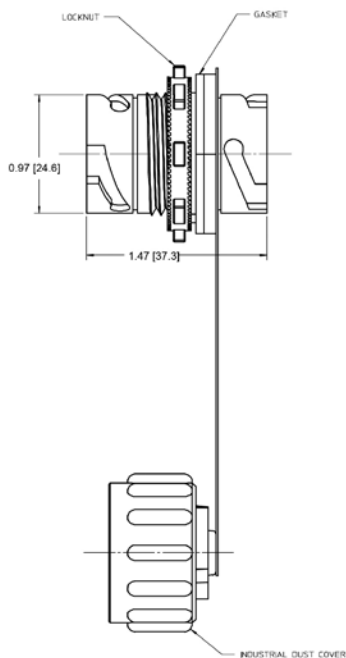
**106059 SC Simplex**

**106059 MPO Multi-fiber**

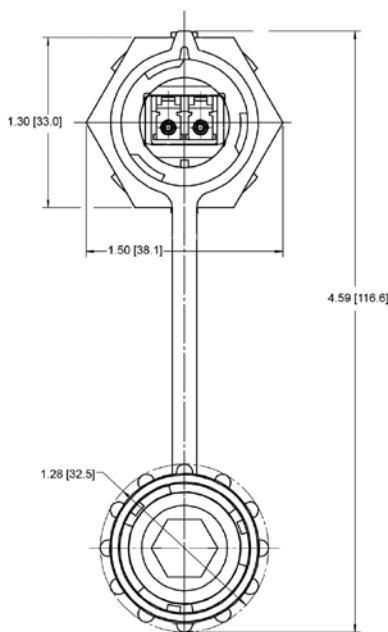
**Industrial In-Line  
Adapter  
with Dust Cap**



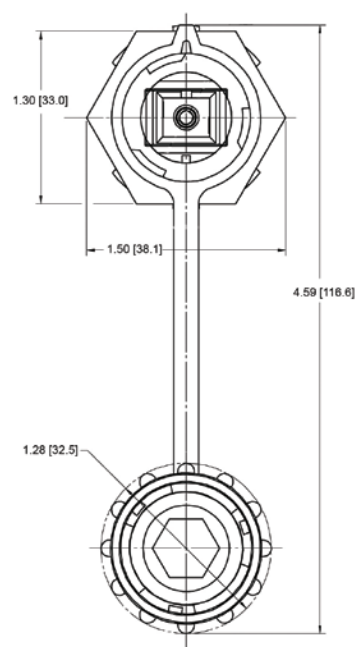
RECOMMENDED MOUNTING CUTOUT



All Styles



LC  
(Duplex)



SC  
(Simplex)

All dimensions are in INCHES  
(MILLIMETERS)

**Americas Headquarters**  
Lisle, Illinois 60532 U.S.A.  
1-800-78MOLEX  
amerinfo@molex.com

**Asia Pacific North Headquarters**  
Yamato, Kanagawa, Japan  
81-462-65-2324  
feninfo@molex.com

**Asia Pacific South Headquarters**  
Jurong, Singapore  
65-6-268-6868  
fesinfo@molex.com

**European Headquarters**  
Munich, Germany  
49-89-413092-0  
eurinfo@molex.com

**Corporate Headquarters**  
2222 Wellington Ct.  
Lisle, IL 60532 U.S.A.  
630-969-4550  
Fax: 630-969-1352

Visit our website at [www.molex.com/product/fiber/industrialcables.html](http://www.molex.com/product/fiber/industrialcables.html)