Optical Industrial Cable Assemblies and Adapters

86059 LC Duplex

Easy optical terminations are now possible in harsh industrial environments with Molex's optical industrial LC duplex cable assemblies

Designed with rugged and compact housings, Molex's optical industrial LC duplex 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 ideal for both indoor and outdoor applications. This assembly is particularly well-suited for long distances or remote connections, up to 300 meters distance, using multimode fiber and over 1 kilometer distance using single mode fiber.



Industrial LC duplex cable assemblies and bulkhead adapters

Features and Benefits

- Provides moisture and dust protection allowing use in harsh industrial environments
- Sealed panel feed-through design allows 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 ensuring 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
- LC connector designed to Telcordia GR-326-CORE (Telecom standard) to ensure reliable optical performance

SPECIFICATIONS

Reference Information

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

Mates With: Standard LC assemblies
Designed In: Inches

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

Physical

Housing: Polymer
Ferrule: Zirconia Ceramic
Operating Temperature: -40 to +85° C
Cable Type: Indoor or outdoor
Fiber Type: Single mode or multimode



Terminated industrial LC duplex assembly

APPLICATIONS

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- 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

ORDERING INFORMATION

Cable Assemblies

Order No.	Cable	Cable Diameter	Fiber Type
86059-0100	Indoor	<6mm	Multimode
86059-0110	Indoor	<6mm	Single mode
86059-1100	Outdoor	>6mm	Multimode
86059-1110	Outdoor	<6mm	Single mode

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

Adapters

Order No.	Alignment Sleeve	Mode
86059-0200	Phosphor Bronze	Multimode
86059-0210	Zirconia	Single mode

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