LC Connectors and Adapters
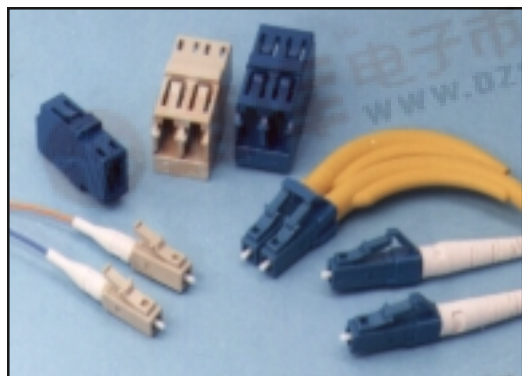
"86124 1010"

Features & Benefits

- Versatile RJ-45 latching connector system
- Zirconia 1.25mm ceramic ferrule
- Tunable
  - Optimizes insertion loss performance
- Simplex and duplex styles
- GR 326 and IEC 874 tested

Applications

- Telecommunication and data communication equipment
- Local Area Networks (LAN's)
- Wide Area Networks (WAN's)
- Device terminations
- Premise distribution

The LC connector was developed to meet the growing demand for smaller and easier-to-use fiber optic connectivity. With this connector, space requirements on equipment bays, in distribution panels, and on wall plates has been reduced by 50%, without sacrificing performance.

Common and proven technologies have been combined in the LC connector system to deliver a high performance and easy to implement fiber optic interface. The industry standard RJ-45 telephone plug interface provides the reliable and robust latching mechanism for this connector system while the time tested zirconia ceramic ferrule is used to terminate the fiber.

The Molex LC connectors are available in both simplex and duplex configurations. They are available in industry standard beige and blue colors, and will accommodate 900µm buffered fiber and 1.6mm and 2.4mm jacketed cable. With its 6 position tuning feature, the connector may be used to achieve unprecedented insertion loss performance by optimizing the alignment of the fiber cores. Additionally, a versatile duplex clip can be added after the connectors have been terminated, offering considerable application flexibility.

Duplex and simplex LC adapters also available in industry standard colors, compliment the connector offering. These adapters can be provided with either zirconia, ceramic or phosphor bronze sleeves.

Performance and Specifications

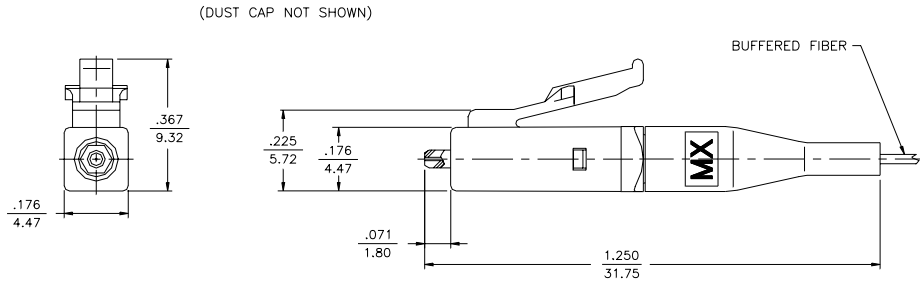| Connector	Multimode	Singlemode
Nominal Fiber OD	125µm	125µm
Insertion Loss (average standard deviation)	0.10, .07 dB	.13, .06 dB
Return Loss Minimum	20 dB	45 dB
Cable Retention (Minimum)	15 lbs. / 67N	15 lbs. / 67N
Mating Durability for 200 reconnects Insertion loss change	<0.2 dB	<0.2 dB
Temperature Stability (-40°C to +75°C) Insertion loss change	<0.3 dB	<0.3 dB
Tip Material	Ceramic	Ceramic

Mechanical Dimensions

LC Connector, 900µm Boot Style

(DUST CAP NOT SHOWN)

BUFFERED FIBER

.367 / 9.32

.176 / 4.47

.225 / 5.72

.176 / 4.47

.071 / 1.80

1.250 / 31.75

MX

LC Connector, 1.6mm Boot Style

(DUST CAP NOT SHOWN)

FIBER OPTIC CABLE

.411 / 10.44

.176 / 4.47

.220 / 5.59

.225 / 5.72

.176 / 4.47

.071 / 1.80

1.943 / 49.35

MX
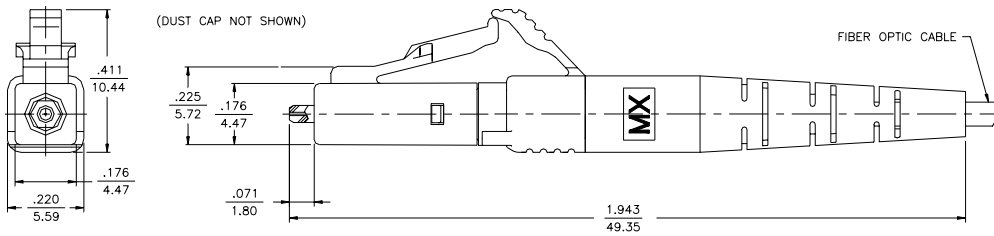
LC Connector, 90° Boot Style
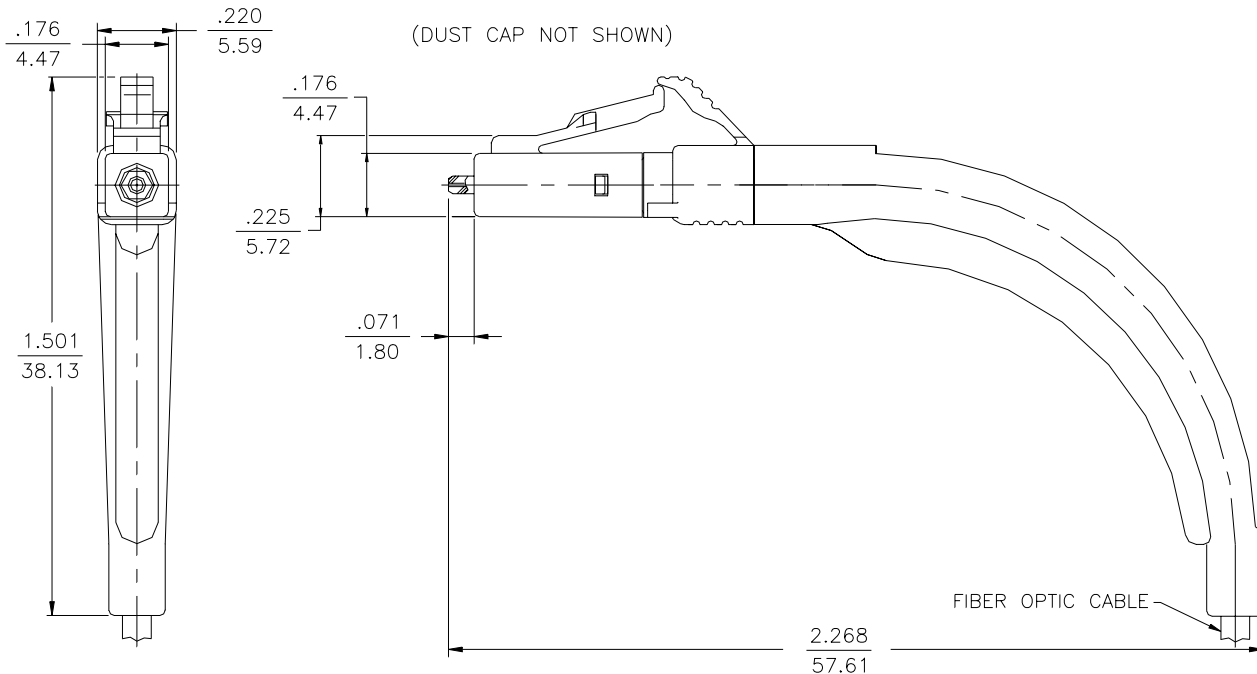
.176 / 4.47

.220 / 5.59

(DUST CAP NOT SHOWN)

.176 / 4.47

.225 / 5.72

.071 / 1.80

1.501 / 38.13

FIBER OPTIC CABLE

2.268 / 57.61

All dimensions in INCHES / mm

Mechanical Dimensions

LC Duplex Connector

(DUST CAPS NOT SHOWN)

.246 / 6.25

.437 / 11.10

2X .225 / 5.72   2X .176 / 4.47

.488 / 12.40

2X .071 / 1.80

1.943 / 49.35

FIBER OPTIC CABLE

LC Duplex Adapter

(DUST CAPS ARE NOT SHOWN)

.246 / 6.25

.515 / 13.08

.600 / 15.24

B   A

.515 / 13.08

.523 ± .003 * / 13.28   0.08

4X R .025 / 0.64 MAX.*

.523 ± .003 * / 13.28   0.08

1.150 / 29.21   PANEL

.579 / 14.71

.067 / 1.70 * MAX

.073 / 1.85

.575 / 14.61
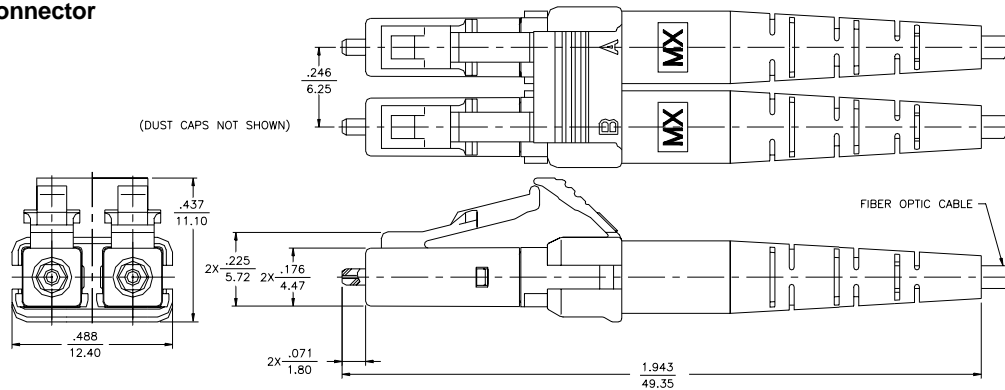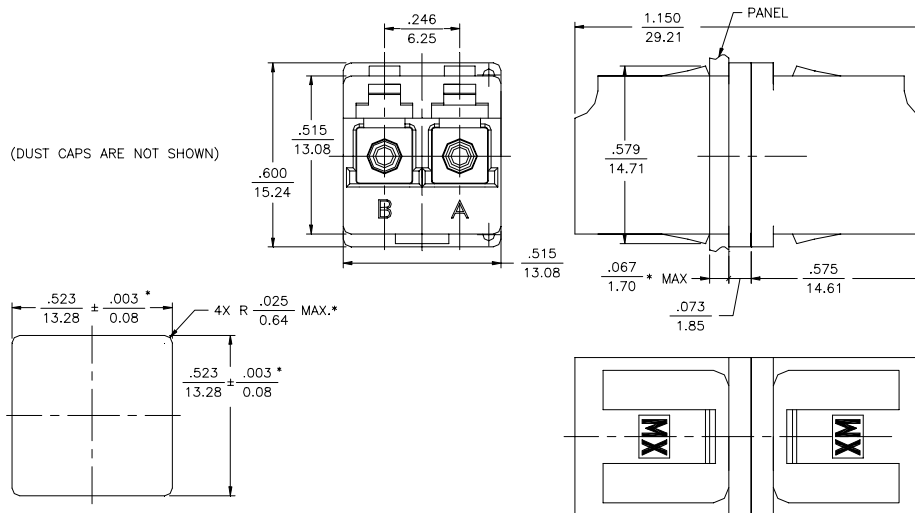
**LC Duplex Adapter with Retainer
(For SC Panel Cutout)**

.523 ± .003 * / 13.28   0.08

4X R .025 / 0.64 MAX.*

.379 ± .003 * / 9.63   0.08

RECOMMENDED PANEL CUTOUT

PANEL THICKNESS .070 / 1.78 MAX.

(DUST CAPS ARE NOT SHOWN)

1.010 / 25.65   PANEL

.579 / 14.71

.070 / 1.78 *MAX

.062 / 1.58

.073 / 1.85

.435 / 11.05
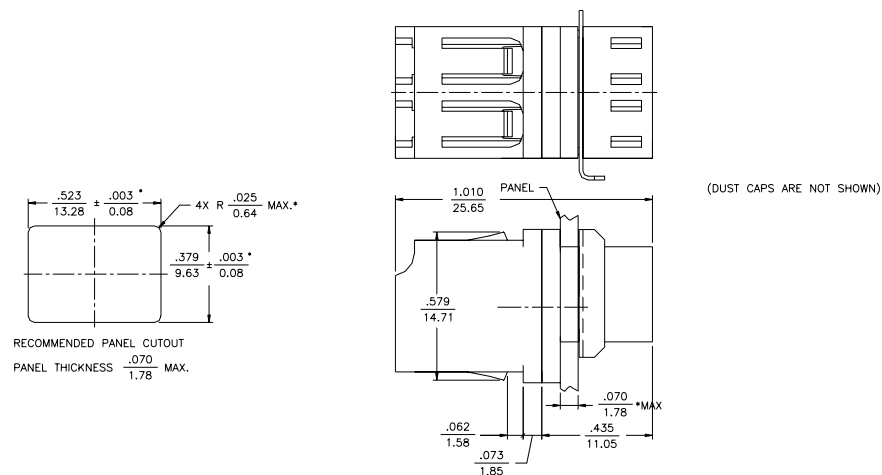
All dimensions in INCHES / mm

Mechanical Dimensions

LC Simplex Adapter
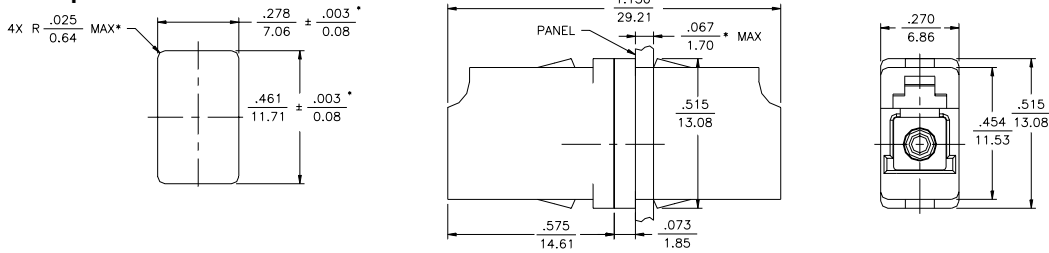
All dimensions in <u>INCHES</u>
mm

Standard Part Numbers

Order Number	Description	Hole Size	Cable Size
86024-3000	LC connector, MM, zirconia ferrule, beige housing, white boot	128µm	1.6mm
86024-3300	LC connector, MM, zirconia ferrule, beige housing, white boot	128µm	2.0mm
86024-3500	LC connector, MM, zirconia ferrule, beige housing, white boot	128µm	900µm buffered fiber
86024-3400	LC connector, MM, zirconia ferrule, beige housing, 90° white boot	128µm	1.6mm
86024-3600	LC connector, MM, zirconia ferrule, beige housing, 90° white boot	128µm	2.0mm
86024-5000	LC connector, SM, zirconia ferrule, blue housing, white boot	126µm	1.6mm
86024-5300	LC connector, SM, zirconia ferrule, blue housing, white boot	126µm	2.0mm
86024-5500	LC connector, SM, zirconia ferrule, blue housing, white boot	126µm	900µm buffered fiber
86024-5400	LC connector, SM, zirconia ferrule, blue housing, 90° white boot	126µm	1.6mm
86024-5600	LC connector, SM, zirconia ferrule, blue housing, 90° white boot	126µm	2.0mm
86025-3000	LC duplex connector, MM, zirconia ferrule, beige housing, white boot	128µm	1.6mm
86025-3300	LC duplex connector, MM, zirconia ferrule, beige housing, white boot	128µm	2.0mm
86025-3400	LC duplex connector, MM, zirconia ferrule, beige housing, 90° white boot	128µm	1.6mm
86025-3600	LC duplex connector, MM, zirconia ferrule, beige housing, 90° white boot	128µm	2.0mm
86025-5000	LC duplex connector, SM, zirconia ferrule, blue housing, white boot	126µm	1.6mm
86025-5300	LC duplex connector, SM, zirconia ferrule, blue housing, white boot	126µm	2.0mm
86025-5400	LC duplex connector, SM, zirconia ferrule, blue housing, 90° white boot	126µm	1.6mm
86025-5600	LC duplex connector, SM, zirconia ferrule, blue housing, 90° white boot	126µm	2.0mm
86124-0010	LC simplex adapter, phosphor bronze sleeve, beige housing		
86124-0000	LC simplex adapter, phosphor bronze sleeve, blue housing		
86124-1010	LC simplex adapter, zirconia sleeve, beige housing		
86124-1000	LC simplex adapter, zirconia sleeve, blue housing		
86125-0110	LC duplex adapter, phosphor bronze sleeve, beige housing		
86125-0100	LC duplex adapter, phosphor bronze sleeve, blue housing		
86125-1110	LC duplex adapter, zirconia sleeve, beige housing		
86125-1100	LC duplex adapter, zirconia sleeve, blue housing		
86125-0010	LC duplex low profile adapter, phosphor bronze sleeve, beige housing		
86125-0000	LC duplex low profile adapter, phosphor bronze sleeve, blue housing		
86125-1010	LC duplex low profile adapter, zirconia sleeve, beige housing		
86125-1000	LC duplex low profile adapter, zirconia sleeve, blue housing		
86125-0210	LC duplex low profile adapter, phosphor bronze sleeve, beige housing, retainer		
86125-0200	LC duplex low profile adapter, phosphor bronze sleeve, blue housing, retainer		
86125-1210	LC duplex low profile adapter, zirconia sleeve, beige housing, retainer		
86125-1200	LC duplex low profile adapter, zirconia sleeve, blue housing, retainer		
86126-1400	LC duplex adapter, zirconia sleeve, blue housing, small flange mount style, SC footprint		
86126-0410	LC duplex adapter, phosphor bronze sleeve, beige housing, small flange mount style, SC footprint		
86126-1450	LC duplex adapter, zirconia sleeve, green housing, small flange mount style, SC footprint		
86126-1300	LC duplex adapter, zirconia sleeve, blue housing, screw mount style, SC footprint		
86126-0310	LC duplex adapter, phosphor bronze sleeve, beige housing, screw mount style, SC footprint		
86126-1350	LC duplex adapter, zirconia sleeve, green housing, screw mount style, SC footprint		
86127-1400	LC duplex adapter, zirconia sleeve, blue housing, small flange mount style, single side shutters, SC footprint		
86127-0410	LC duplex adapter, phosphor bronze sleeve, beige housing, small flange mount style, single side shutters, SC footprint		
86127-1450	LC duplex adapter, zirconia sleeve, green housing, small flange mount style, single side shutters, SC footprint		
86127-1300	LC duplex adapter, zirconia sleeve, blue housing, screw mount style, single side shutters, SC footprint		
86127-0310	LC duplex adapter, phosphor bronze sleeve, beige housing, screw mount style, single side shutters, SC footprint		
86127-1350	LC duplex adapter, zirconia sleeve, green housing, screw mount style, single side shutters, SC footprint		
86128-1300	LC duplex adapter, zirconia sleeve, blue housing, screw mount style, double side shutters, SC footprint		
86128-0310	LC duplex adapter, phosphor bronze sleeve, beige housing, screw mount style, double side shutters, SC footprint		
86128-1350	LC duplex adapter, zirconia sleeve, green housing, screw mount style, double side shutters, SC footprint		
86128-1400	LC duplex adapter, zirconia sleeve, blue housing, small flange mount style, double side shutters, SC footprint		
86128-0410	LC duplex adapter, phosphor bronze sleeve, beige housing, small flange mount style, double side shutters, SC footprint		
86128-1450	LC duplex adapter, zirconia sleeve, green housing, small flange mount style, double side shutters, SC footprint		