# LC Fiber Optic Connectors

SPECIFICATIONS

LC small form factor (SFF) field polish connectors with rear pivot latch shall be TIA/EIA-604 FOCIS-10 compatible. LC simplex and duplex connectors shall be field terminable. The fibers shall terminate in 0.049 in. (1.25mm) ceramic ferrules with non-optical disconnect functionality and an average insertion loss of 0.1dB per mated pair for multimode and singlemode fiber.
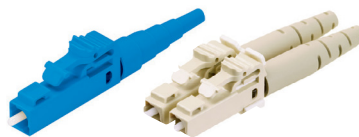
TECHNICAL INFORMATION

Standards requirements:	TIA/EIA-604 FOCIS-10 compatible; exceeds TIA/EIA-568-B.3 requirements
Fiber compatibility:	62.5/125µm OM1, 50/125µm OM2,10Gig™ 50/125µm laser optimized OM3/OM4 and 9/125µm OS1
Fiber cable type:	900µm tight-buffered fiber recommended 250µm coated fiber, by using F250BT-C 250 micron fiber build-up tube kit or FO6CB or FO12CB fan-out kit
Jacketed cable size:	0.062 in. - 0.078 in. (1.6mm – 2.0mm) jacketed cable
Ferrule type:	Zirconia ceramic
Insertion loss:	0.1dB average (multimode and singlemode)
Return loss:	>20dB (multimode), >40dB (singlemode)

KEY FEATURES AND BENEFITS

Rear pivot latch design, robust construction:	Longer beam reduces deflection during mating and unmating to reduce latch fatigue, leading to longer cycle life
Audible "click" upon successful mating:	Provides user with a definitive signal of successful connector mating
Field installable duplex clip with integrated polarity markers:	Allows fast, easy field polarity changes without tools; quick identification of polarity
Protective cap locks onto connector latch with audible "click":	Protective cap automatically locks onto connector latch, completely covering connector end; prevents ferrule end face damage by providing protection from contamination and impact
Anaerobic adhesive field installation:	Simplifies and reduces installation time by 50% compared to heat cured epoxy terminations; curing oven/time not required
Independent free-floating ferrules:	Ensures physical fiber contact for consistent low return loss, unlike unitary multi-fiber ferrule connectors

APPLICATIONS

LC F LC Fiber Optic Connectors provide a rugged solution for high-density telecommunication rooms, LANs, public networks and fiber-to-the-desk applications. LC simplex and duplex connectors are used for equipment cross-connects or interconnects in backbone, horizontal and work area applications for high-speed data transmissions. The high-density design and 0.049 in. (1.25mm) ferrules double the port density (compared to SC connectors) to reduce space requirements on racks, enclosures, panels and faceplates.

LC Simplex Fiber Optic Connectors for 900µm Buffered Fiber and 1.6mm – 2.0mm Jacketed Cable	
OM2, OM3, OM4 Multimode:	FLCSMBLY
OS2 Singlemode:	FLCSSBUY
Opticom® LC Fiber Adapter Panels	
16 duplex 10 GbE (zirc.):	FAP6WAQDLCZ
6 duplex SM (zirc.):	FAP6WBUDLCZ
12 simplex SM (zirc.):	FAP12WBULCZ
LC Termination Tooling	
110V termination kit:	FIELDKIT
Replacement kit:	FIELDKITRFB
LC Lock-in Duplex Clip	
LC lock-in duplex clip:	FLCCLIW-X

-X indicates bulk packages of 10 pieces to reduce single-use plastic

TAA Compliant

All listed part numbers are compliant with the U.S. Trade Agreements Act (TAA) for purchases shipped to customers in the United States.

LC Fiber Optic Connectors

PERFORMANCE INFORMATION

Test Parameter	Description	Result
Qualification test suite (TIA/EIA-568-B.3 requirements)	Complete testing protocol per TIA/EIA-568-B.3 using TIA/EIA FOTPs that include mechanical, environmental and optical test sequences	Compliant; exceeds TIA/EIA-568-B.3 requirements
Connector intermatability	Dimensional and material compliance to TIA/EIA standards	All connectors are FOCIS compatible with TIA/EIA-604-3

SELECTION INFORMATION

Part Number	Connector Type	Cable Type in. (mm)	Fiber	Ferrule	Housing Color	Boot Color	Average Insertion Loss**	Return Loss
FLCSMEIY	Simplex	900µm buffered fiber and 0.062 - 0.078 (1.6 - 2.0) jacketed cable	OM1 Multimode	Zirconia Ceramic	Electric Ivory	Electric Ivory	0.1dB	>20
FLCSM3.0EI	Simplex	0.118 (3.0) jacketed cable						
FLCDMEIY	Duplex	0.062 - 0.078 (1.6 - 2.0) jacketed cable						
FLCDM900EIY	Duplex	900µm buffered fiber						
FLCDM3.0EI	Duplex	0.118 (3.0) jacketed cable						
FLCSMBLY	Simplex	900µm buffered fiber and 0.062 - 0.078 (1.6 - 2.0) jacketed cable	OM2, OM3, OM4 Multimode	Zirconia Ceramic	Black	Aqua	0.1dB	>20
FLCSM3.0BL	Simplex	0.118 (3.0) jacketed cable						
FLCDMBLY	Duplex	0.062 - 0.078 (1.6 - 2.0) jacketed cable						
FLCDM900BLY	Duplex	900µm buffered fiber						
FLCDM3.0BL	Duplex	0.118 (3.0) jacketed cable						
FLCSSBUY	Simplex	900µm buffered fiber and 0.062 - 0.078 (1.6 - 2.0) jacketed cable	Singlemode	Zirconia Ceramic	Blue	Blue	0.1dB	>40
FLCSS3.0BU	Simplex	0.118 (3.0) jacketed cable						
FLCDSBUY	Duplex	0.062 - 0.078 (1.6 - 2.0) jacketed cable						
FLCDS900BUY	Duplex	900µm buffered fiber						
FLCDS3.0BU	Duplex	0.118 (3.0) jacketed cable						

*All connector insertion loss values calculated from tests taken with precision launch jumper assemblies per TIA/EIA-FOTP-171.

ENGINEERING DRAWING
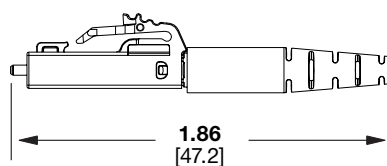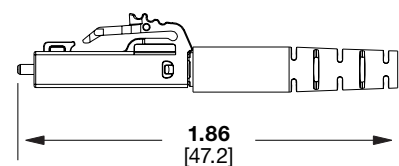
LC Simplex Connectors

For 900µm Buffered Fiber or 1.6mm – 2.0mm Jacketed Cable

For 3.0mm Jacketed Cable

1.60 [40.6]

1.86 [47.2]

1.86 [47.2]
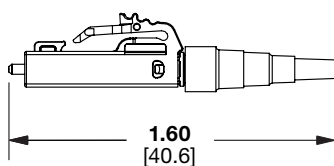
FLCSMEIY, FLCSSBUY

FLCSM3.0EI, FLCSS3.0BU

LC Fiber Optic Connectors

ENGINEERING DRAWING (CONTINUED)

LC Duplex Connectors

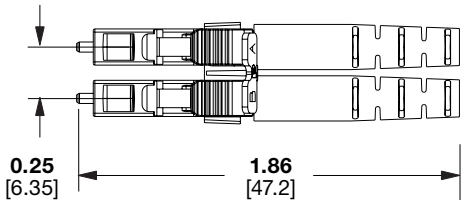| For 900μm Buffered Fiber	For 1.6mm – 2.0mm Jacketed Cable	For 3.0mm Jacketed Cable
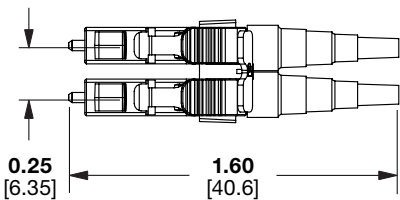
FLCDM900EIY, FLCDS900BUY

0.25 [6.35]   1.60 [40.6]
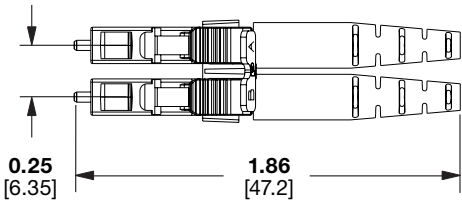
FLCDMEIY, FLCDSBUY

0.25 [6.35]   1.86 [47.2]

FLCDM3.0EI, FLCDS3.0BU

0.25 [6.35]   1.86 [47.2]

Dimensions are in inches. [Dimensions in brackets are metric].

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