

# FuseConnect™ LC Connector

## - Fusion Spliced Field Installable Connector



### 1. Introduction

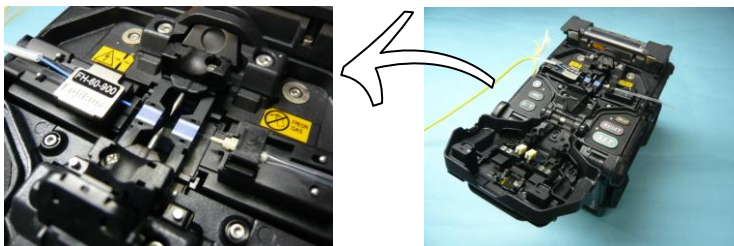
The FuseConnect™ LC connector is part of a series of field installable connectors that employs a fusion splicer to terminate the connector in the field. It is compatible with the standard LC connector, and demonstrates performance comparable to factory built jumpers.

Connector plug unit that is equipped with pre-polished connector can be easily set on fusion splicer for fusion splice connection purpose. Fusion splice addresses return loss concerns present in analog optical networks. This advanced process yields true APC performance of return loss in LC/APC configuration.

The unique and innovative design of FUSE connect eliminates the complicated crimping operation. The simplified field installation minimizes the potential for operator error.

**Compatible Fujikura’s fusion splicer models:**

- FSM-60S / FSM-60R      • FSM-18S / FSM-18R      • FSM-50R
- FSM-17S-FH/FSM-17R   • FSM-11S / FSM-11R



### Simple installation process



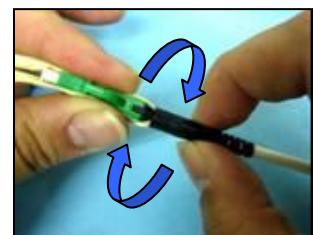
1. Set cable and connector plug on fusion splicer and splice.



2. Slide splice sleeve over splice point.



3. Transfer to heater and heat shrink splice sleeve.



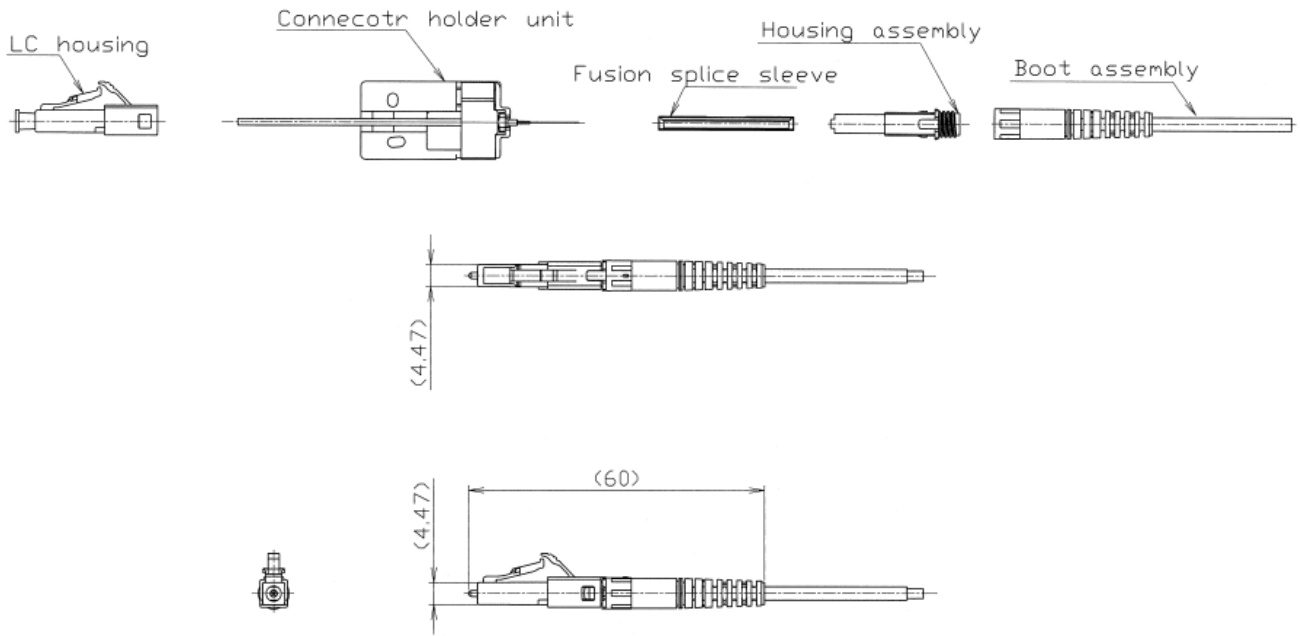
4. Assemble boot assembly and cut yarn.

### 2. Applications

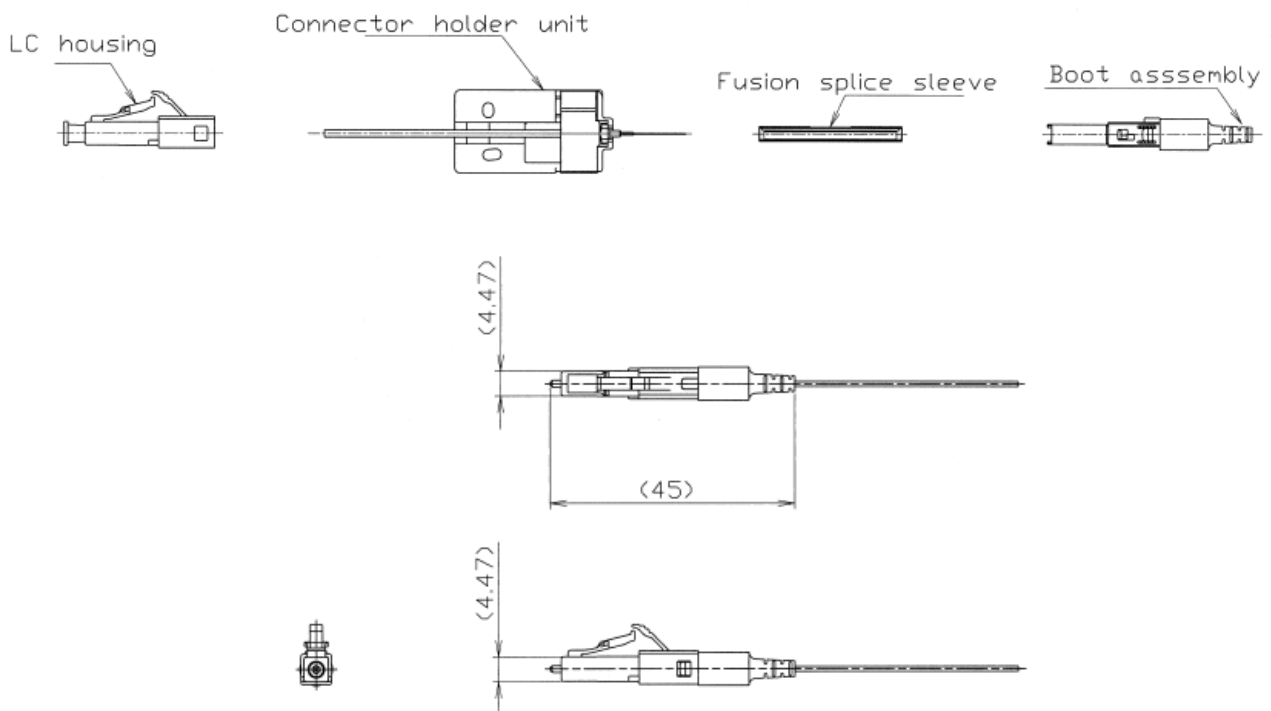
- Connectorization in:
  - RF-overlay FTTP networks
  - Cable TV backbone network
  - Outside plant
  - FTTHdesk
  - MDU FTTP Cabling
- Central office connector replacement
- Data center installation

### 3. Structure

#### 3.1. FuseConnect™ LC for $\phi 2\text{mm}$ and $\phi 3\text{mm}$ cables



#### 3.2. FuseConnect™ LC for $\phi 900\mu\text{m}$ fibers



#### 4. Specifications

Parameter	Value
Connector type	LC [IEC61754-20]
Cable type	900μm, 2mm, 3mm
Polish	APC, UPC, PC
Insertion loss	Single-mode: Average 0.15dB, Maximum 0.40dB Multimode: Average 0.10dB, Maximum 0.30dB
Return loss	Single-mode (APC): Minimum 60dB Single-mode (UPC): Minimum 50dB Multimode : Minimum 30dB
Operating temperature	-20°C to +75°C
Environmental/mechanical characteristics	IEC 61753-1 category C

#### 5. Performance Characteristics

Test items	Test conditions	Connector loss	Return loss
High temperature test	85 deg C, 96 hours	Max increase during and after test : 0.2dB	APC: Min 60dB UPC: Min 45dB
Low temperature test	-10 deg C, 96 hours		
Dump heat test	40 deg C, 95 %RH, 96hours		
Temperature cycle test	-10 to 60 deg C, 5 cycle		
Vibration test	0.75mm, 10 - 55 Hz, 15cycle 1 octave / min , 3 axes		
Flex test	2N, 100 cycle , ±90°		
Cable retention	900um      5N , 60s		
	2mm/3mm      50N , 120s		
Impact test	5 drops from 1.5m height		
Tensile strength of coupling mechanism	40N , 60s		
Mating durability	500 times		

#### 6. Tool information



Jacket Stripper



Yarn Cutter



φ 0.9Fiber Stripper



Jacket Splitter



Cable Clamp

## 7. Ordering information

① ②

FuseConnect-LC-SF-□□-□□

### ① Fiber type

- **APC** : Single-mode; APC polished
- **SM** : Single-mode; UPC polished
- **GI5** : Multimode 50μm; PC polished
- **GI6** : Multimode 62.5μm; PC polished
- **10G** : Multimode 50μm; PC polished

### ② Cable type

- **09** : φ900μm
- **20** : φ2mm
- **30** : φ3mm

## 8. Package Information:

10pcs / 1 package

## 9. References

IEC 61754-20  
IEC 61753-1 category C

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