

Part Number Series: **PL-FC**C**

Product Description

PLANET field-installable fiber optic connectors provide fast and reliable on-site termination for FTTH/FTTx, LAN and access-network applications. The series covers SC and LC connector formats with UPC or APC polish options for single-mode links, plus multimode versions for legacy and high-speed multimode systems.

- Factory pre-polished ferrule design for consistent field termination
- SC and LC simplex formats
- Single-mode UPC/APC and multimode UPC configurations
- Supports 250-900 μm fiber, 1.6 $\times$ 2.0 mm, 2.0 $\times$ 3.0 mm and $\varnothing$ 3.0 mm cable formats
- Low insertion loss and high return loss
- Fast field installation without epoxy curing
- Wide operating range from -40°C to +85°C

Applications

- FTTH / FTTx subscriber connections
- PON / ODN access networks
- Telecommunications & CATV
- LAN / campus / data networks
- Fiber test and maintenance

Fiber Compatibility

- OS2 single-mode; G.657.A1/A2 preferred for access networks
- OM1 / OM2 multimode systems
- OM3 / OM4 laser-optimized multimode
- 250 μm bare fiber and 900 μm buffered fiber



Optical & Mechanical Specifications

Parameter	Premium Specification
Connector format	SC simplex / LC simplex
Polish	UPC or APC (single-mode); UPC (multimode)
Insertion loss	≤ 0.25 dB
Return loss - SM UPC	> 50 dB
Return loss - SM APC	> 65 dB with proper angled-cleave installation
Applicable fiber / cable	$\varnothing$ 250-900 μm ; 1.6 $\times$ 2.0 mm; 2.0 $\times$ 3.0 mm; $\varnothing$ 3.0 mm
Operating temperature	-40°C to +85°C
Pull test	Optical change < 0.2 dB; 4 N for bare-fiber configuration / 40 N for 2 $\times$ 3 mm or $\varnothing$ 3.0 mm cable
Impact test	Optical change < 0.2 dB; 1.5 m drop, 10 repetitions
Durability	Optical change < 0.2 dB after 200 connect/disconnect cycles
Vibration	Optical change < 0.2 dB; 3 axes, 2 h/axis, 1.5 mm peak-to-peak, 10-55 Hz
Thermal cycling	Optical change < 0.2 dB; -40°C to +75°C, 21 cycles / 168 h
Humidity	Optical change < 0.2 dB; 90-95% RH at 75°C for 168 h

Ordering Information - LC Series

Part Number	Description
PL-FCLCUSM	LC/UPC Single-mode Simplex Connector
PL-FCLCASM	LC/APC Single-mode Simplex Connector
PL-FCLCUMM	LC/UPC Multi-mode Simplex Connector
PL-FCLCUM3	LC/UPC Multi-mode OM3 Simplex Connector
PL-FCLCUM4	LC/UPC Multi-mode OM4 Simplex Connector

Ordering Information - SC Series

Part Number	Description
PL-FCSCUSM	SC/UPC Single-mode Simplex Connector
PL-FCSCASM	SC/APC Single-mode Simplex Connector
PL-FCSCUMM	SC/UPC Multi-mode Simplex Connector
PL-FCSCUM3	SC/UPC Multi-mode OM3 Simplex Connector
PL-FCSCUM4	SC/UPC Multi-mode OM4 Simplex Connector

Standards & Compliance

- RoHS compliant.
- SC connector interface compatible with IEC 61754-4.
- LC connector interface compatible with IEC 61754-20.
- Suitable for optical cabling systems designed to ANSI/TIA-568.3-E and ISO/IEC 11801-1.

Installation Notes

- Use a high-quality precision cleaver; cleave angle directly affects APC return-loss performance.
- Clean ferrule and fiber endfaces before mating.
- Verify insertion loss after field installation and before service handover.
- Select connector polish, fiber category and cable size to match the installed link.

25-Year System Warranty: Subject to proper installation and certified PLANET components usage.

