



Features & Benefits

- Designed to NTT-FC* standards
- One-piece body design
 - Reduces termination time
 - Field installable - essentially preassembled
- Pre-polished ceramic ferrules
 - Minimum polishing needed
 - Maintains endface geometry, physical contact
- Low insertion loss:
 - < .34 dB TYP MM
 - < .17 dB TYP MM enhanced
 - < .15 dB TYP SM

Applications

- Telecommunication networks
- CATV networks
- Active device termination
- Instrumentation

FC fiber optic connectors are specifically designed for telecommunication applications. The Molex FC connector series is designed to NTT-FC standards and provides true non-optical disconnect performance. They are fully compatible with existing FC hardware.

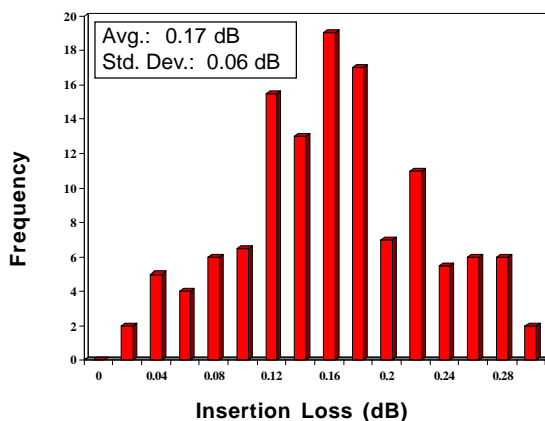
The pre-assembled, one-piece body design and the pre-polished ferrules provide quick and economical terminations both in factory and in-the-field settings. Also, with the pre-polished ferrule and the Molex termination method, a uniform endface geometry is ensured, resulting in consistent optical performance.

Connector mating is achieved by using bulkhead feed-through adapters. These adapters combine a metal housing and either a precision zirconia ceramic or a rugged phosphor bronze sleeve. Flange mount or "D" hole mount adapter styles are available.

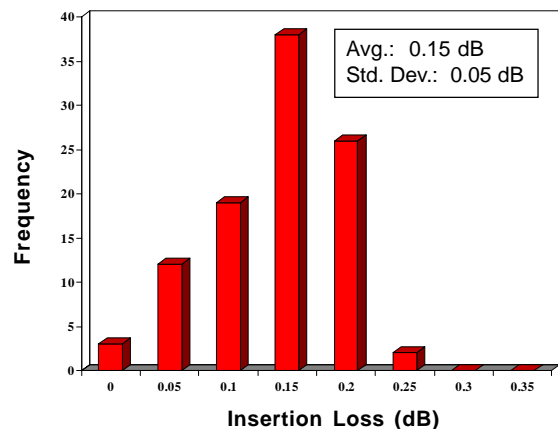
*NTT-FC is a trademark of NTT Advanced Technology Corporation

Optical Performance Distribution

**Insertion Loss Performance
(MM Enhanced ferrule, 62.5/125µm fiber)**



**Insertion Loss Performance
(SM ferrule, 9/125µm fiber)**

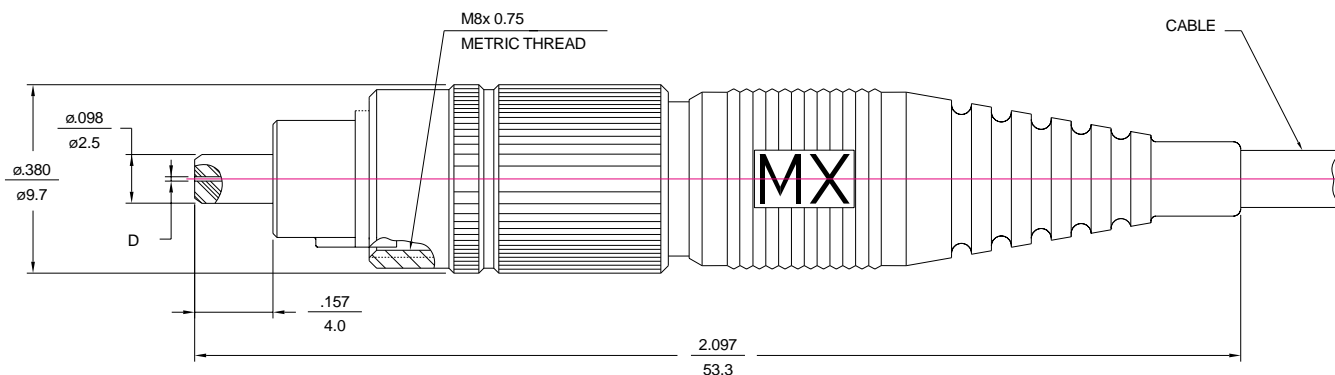


Performance and Specifications

| Characteristics | Units | Min. | Typ. | Max. | Comments |
|---------------------|-------|------|------|------|--|
| Durability | ~dB | - | - | .04 | EIA/TIA 455 - 21A, 200 cycles, clean every 25 cycles |
| Temperature Range: | | | | | |
| Storage | °C | -40 | - | +80 | May be further limited by cable specifications |
| Operating | °C | -40 | - | +80 | May be further limited by cable specifications |
| Thermal Aging | ~dB | - | - | .02 | EIA/TIA 455 - 4A, 85°C 14 days |
| Temperature Cycling | ~dB | - | - | .07 | EIA/TIA 455 - 3A, -40°C to +75°C, 42 cycles |
| Humidity Cycling | ~dB | - | - | .04 | EIA/TIA 455 - 5A, 95% RH 60°C 14 days |
| Vibration | ~dB | - | - | .01 | EIA/TIA 455 - 11A, 10 to 50 Hz, 2 hrs./axis |
| Flex Test | ~dB | - | - | .00 | Telcordia 326, 0.9kg, 100 cycles |
| Twist Test | ~dB | - | - | .01 | Telcordia 326, 1.35kg load |
| Proof Test | ~dB | - | - | .01 | Telcordia 326, 4.5kg at 90°, 6.8kg at 0° |
| Straight Pull Test | ~dB | - | - | .05 | Telcordia 326, 4.5kg load |
| Side Pull Test | ~dB | - | - | .37 | Telcordia 326, 2.3kg load |
| Stability | ~dB | - | - | .10 | Telcordia 326, .45kg at 90°, 60°, 30° & 0° |
| Impact | ~dB | - | - | .00 | EIA/TIA 455 - 2A, 1.5 M drop, 8 cycles |

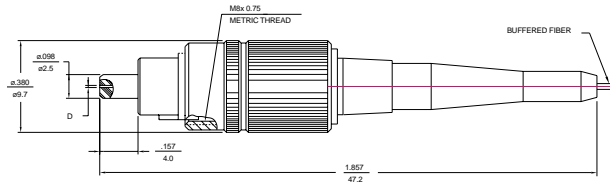
Mechanical Dimensions

FC Connector, 3.0mm Boot Style

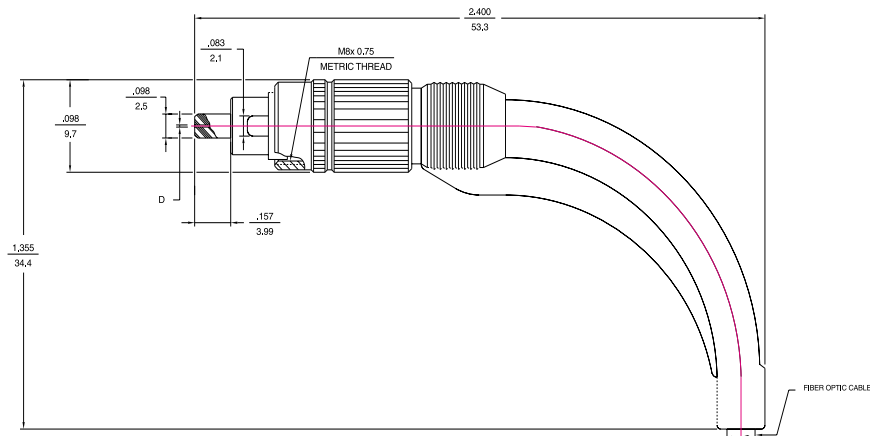


Mechanical Dimensions

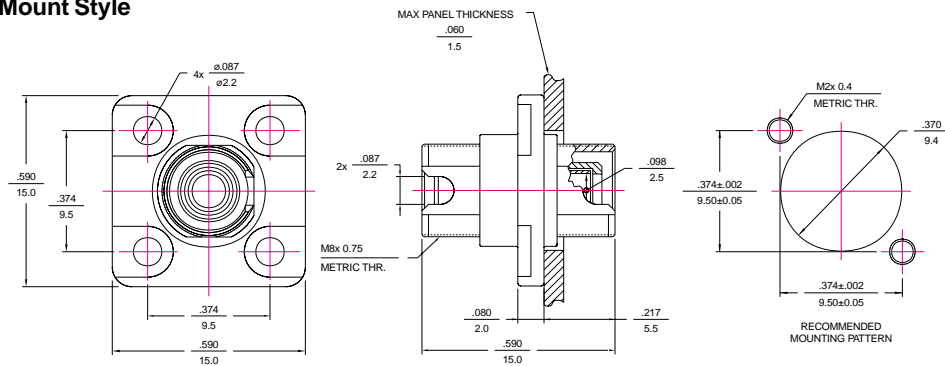
FC Connector, 900µm Boot Style



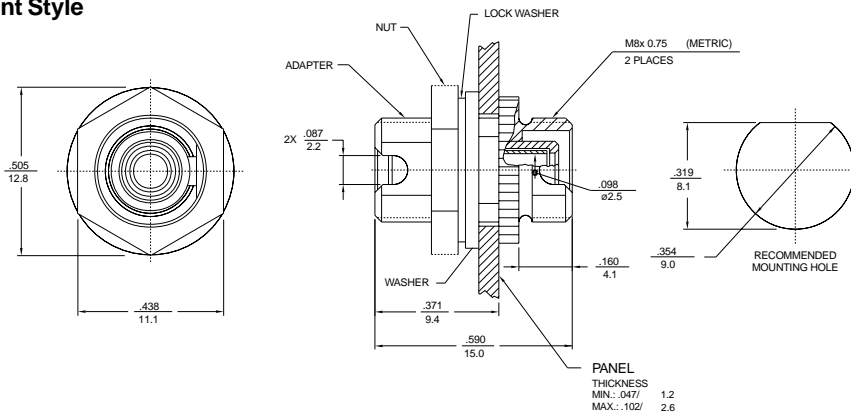
FC Connector, 90° Boot



FC Adapter, Square Mount Style



FC Adapter, "D" Hole Mount Style



All dimensions in **INCHES**
mm

PANEL
THICKNESS
MIN.: .047 1.2
MAX.: .102 2.6

Standard Part Numbers

| Order Number | Description | Hole size "D" | Cable size |
|--------------|---|---------------|----------------------|
| 86053-0000 | FC connector, MM, zirconia PC ⁺ ferrule | 127μm | 3.0mm |
| 86053-0300 | FC connector, MM, zirconia PC ⁺ ferrule | 127μm | 2.4mm |
| 86053-0500 | FC connector, MM, zirconia PC ⁺ ferrule, buffered fiber | 127μm | 900μm buffered fiber |
| 86053-3000 | FC connector, MM, zirconia PC ferrule, enhanced | 128μm | 3.0mm |
| 86053-3300 | FC connector, MM, zirconia PC ferrule, enhanced | 128μm | 2.4mm |
| 86053-3500 | FC connector, MM, zirconia PC ferrule, buffered fiber, enhanced | 128μm | 900μm buffered fiber |
| 86053-4000 | FC connector, SM, zirconia PC ferrule | 125μm | 3.0mm |
| 86053-4300 | FC connector, SM, zirconia PC ferrule | 125μm | 2.4mm |
| 86053-4500 | FC connector, SM, zirconia PC ferrule, buffered fiber | 125μm | 900μm buffered fiber |
| 86053-5000 | FC connector, SM, zirconia PC ferrule | 126μm | 3.0mm |
| 86053-5300 | FC connector, SM, zirconia PC ferrule | 126μm | 2.4mm |
| 86053-5500 | FC connector, SM, zirconia PC ferrule, buffered fiber | 126μm | 900μm buffered fiber |
| 86053-5400 | FC connector, SM, zirconia PC ferrule, 90° yellow boot | 126μm | 3.0mm |
| 86053-5600 | FC connector, SM, zirconia PC ferrule, 90° yellow boot | 126μm | 2.4mm |
| 86053-7000 | FC connector, SM, zirconia PC ferrule | 127μm | 3.0mm |
| 86053-7300 | FC connector, SM, zirconia PC ferrule | 127μm | 2.4mm |
| 86053-7500 | FC connector, SM, zirconia PC ferrule, buffered fiber | 127μm | 900μm buffered fiber |
| 86152-0100 | FC adapter, zirconia alignment sleeve, square mounting flange style | | |
| 86152-0200 | FC adapter, zirconia alignment sleeve, square mounting flange style, low cost | | |
| 86156-0100 | FC adapter, phosphor bronze alignment sleeve, square mounting flange style | | |
| 86152-1000 | FC adapter, zirconia alignment sleeve, "D" hole mount style | | |
| 86156-1000 | FC adapter, phosphor bronze alignment sleeve, "D" hole mount style | | |
| 86172-0000 | FC to ST adapter, zirconia alignment sleeve, "D" hole mount style | | |