



RECOGNIZED WORLD LEADER IN FIBER OPTIC TECHNOLOGY  
 QUALITY FIBER COMPONENTS, EQUIPMENT, & SUPPLIES

## Product Data Sheet

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### ST® Connectors and Adapters



#### Features & Benefits

- High performance single mode and multimode pre-polished ferrules
- ST compatible bayonet coupling
- Field installable
- Standard crimp and crimpless screw type Kevlar retention
- Variety of ferrule styles: PC, PC+ and Stainless Steel
- Low Insertion Loss:
  - < .34 dB typ. MM
  - < .17 dB typ. MM enhanced
  - < .35 dB typ. MM Stainlesssteel
  - < .15 dB typ. SM
- Variety of connector styles: long boot, short boot, 90 degree boot & 900µm buffered fiber

The ST® series of lightwave connectors are specially designed for distribution applications and are fully compatible with existing ST type hardware. Five connector styles are available in both the multimode and single-mode versions. The screw-on captivation mechanism, in the long boot style, provides excellent Kevlar retention without the expense and inconvenience of crimp tools. If the crimping method of Kevlar® retention is preferred, three options are available. A long boot style is designed to provide superior strain relief while the short boot style is designed for small bend radius applications where space is limited. For sensitive applications where controlled and managed bends are required, the 90° boot is the answer. A boot for 900µm buffered fiber is also available.

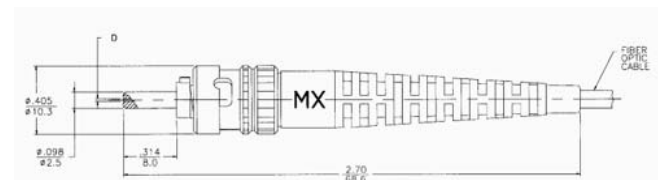
High quality, pre-polished and pre-radiused zirconia ceramic ferrules are combined with the latest engineering polymers and metals to produce the ST connectors. Pre-polished ferrules minimize the polishing times and provide a consistent ferrule endface geometry. When combined with the Molex termination kits and method, the Molex ST connectors produce superior results both in the factory and in the field.

A broad range of ST adapters are available to compliment the connectors. Metallic or polymer versions are available with either the extremely precise zirconia ceramic, the rugged phosphor bronze or the cost effective polymer alignment sleeves.

#### Optical Performance Distribution

Insertion Loss: MM Ferrule, 62.5/125um fiber  
 SM Ferrule, 9/125um fiber

#### ST® Connector Long Boot Style Polymer Body Note: All dimensions in INCHES / mm



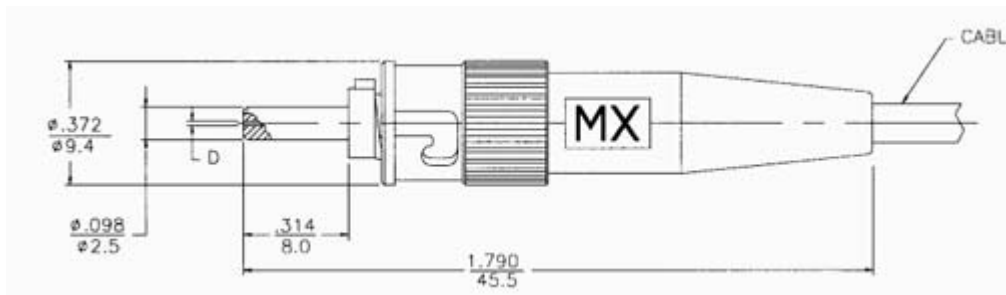
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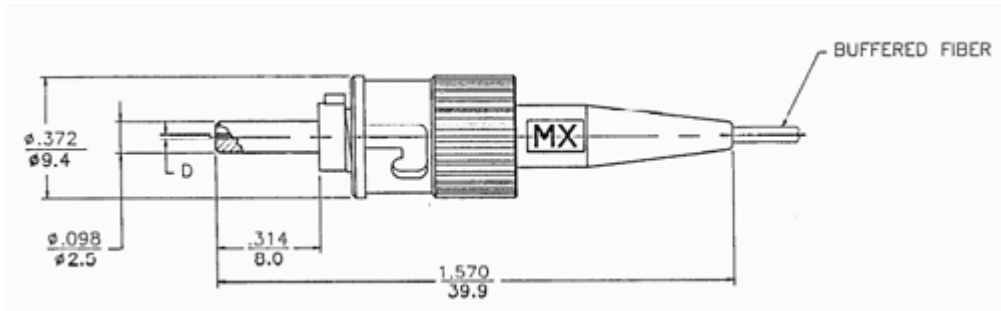
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### ST® Connector Short Boot Style Metal Body

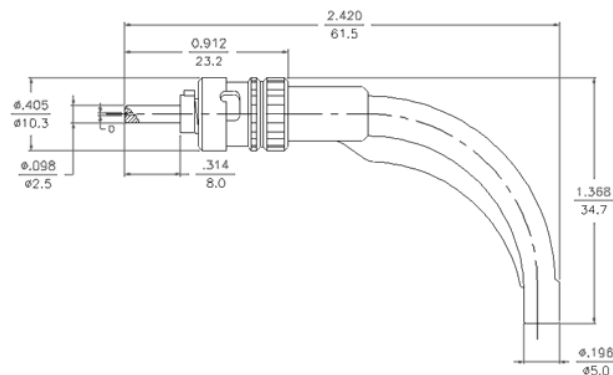
Note: All dimensions in INCHES / mm



### ST® Connector 900 $\mu\text{m}$ Boot Style Metal Body



### ST® Connector 900 $\mu\text{m}$ Boot Style Metal Body



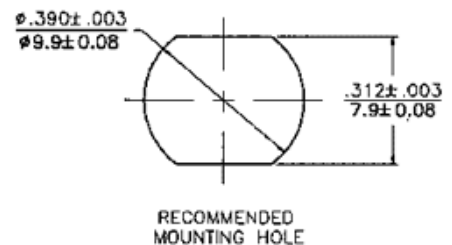
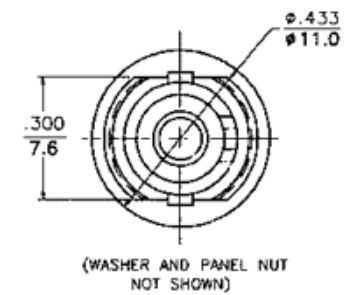
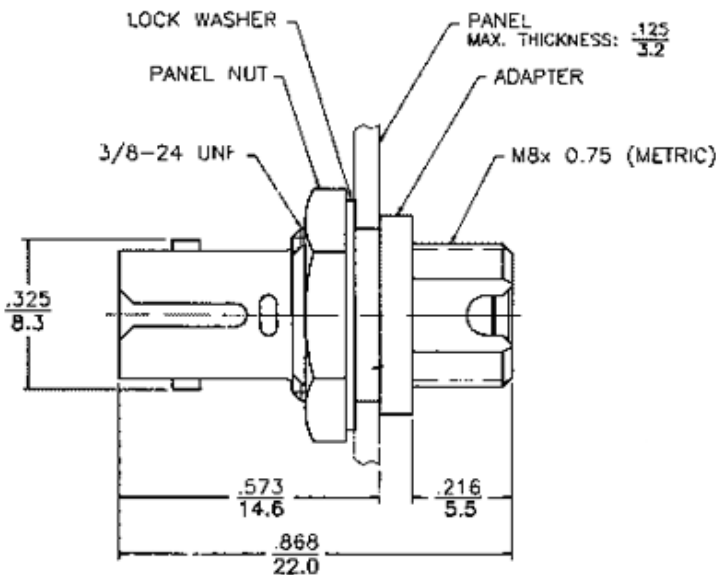
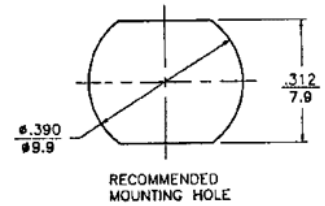
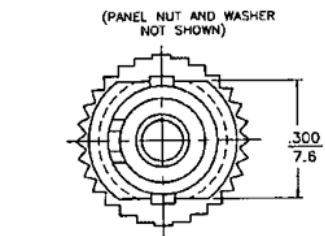
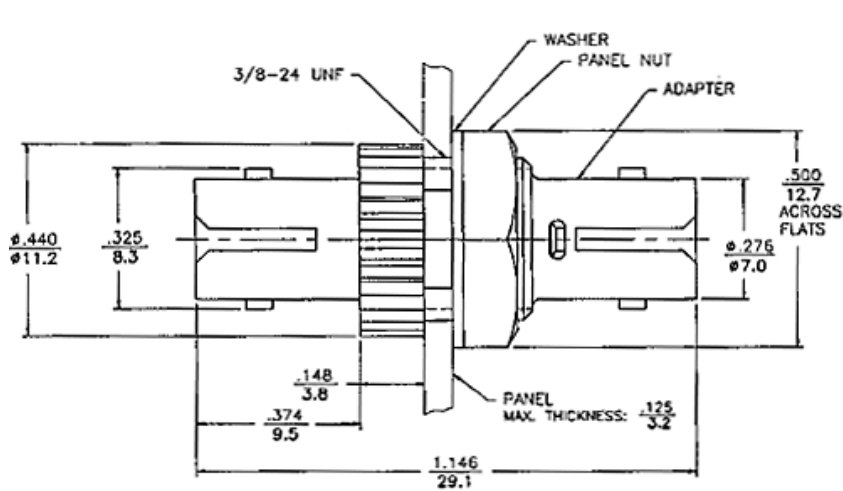
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### ST<sup>®</sup> Adapter, Recommended Mounting Hole

Note: All dimensions in INCHES / mm





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### Specifications

| Characteristics        | Units | Min. | Typ. | Max. | Comments  |
|------------------------|-------|------|------|------|---|
| Durability             | ~dB   | --   | --   | 0.1  | Per FOTP-21A, 1000 cycles cleaning every 100 cycles |
| Temperature: Storage   | °C    | -40  | --   | +80  | May be further limited by cable specifications      |
| Temperature: Operating | °C    | -40  | --   | +80  | May be further limited by cable specifications      |
| Thermal Shock          | ~dB   | --   | --   | 0.1  | -40°C to +60°C, 10 cycles                           |
| Temperature Cycling    | ~dB   | --   | --   | 0.1  | -40°C to +80°C, 40 cycles                           |
| Humidity Cycling       | ~dB   | --   | --   | 0.1  | Per FOTP-5, +60°C at 95% RH for 504 hours           |
| Cable Retention        | ~dB   | --   | --   | 0.2  | Per FOTP-6, 40 lb. load without adhesive            |

### Ordering Information

#### Cable Size 2.4mm or 3.0mm

| Order Number by Coupling Nut<br>Polymer | Order Number by Coupling Nut<br>Metal | Mode        | Ferrule              | Boot             | Hole Size "D" |
|---|---------------------------------------|-------------|----------------------|------------------|---------------|
| 86010-0000                              | 86012-0000                            | MM          | Zirconia PC+         | long boot        | 127 $\mu$ m   |
| 86010-0300                              | 86012-0300                            | MM          | Zirconia PC+         | long boot crimp  | 127 $\mu$ m   |
| 86010-0200                              | 86012-0200                            | MM          | Zirconia PC+         | short boot crimp | 127 $\mu$ m   |
| 86010-3000                              | 86012-3000                            | MM enhanced | Zirconia PC          | long boot        | 128 $\mu$ m   |
| 86010-3300                              | 86012-3300                            | MM enhanced | Zirconia PC          | long boot crimp  | 128 $\mu$ m   |
| 86010-3200                              | 86012-3200                            | MM enhanced | Zirconia PC          | short boot crimp | 128 $\mu$ m   |
| 86010-1000                              | 86012-1000                            | MM          | Zirconia PC          | long boot        | 144 $\mu$ m   |
| 86010-1300                              | 86012-1300                            | MM          | Zirconia PC          | long boot crimp  | 144 $\mu$ m   |
| 86010-1200                              | 86012-1200                            | MM          | Zirconia PC          | short boot crimp | 144 $\mu$ m   |
| 86010-8000                              | 86012-8000                            | MM          | Stainless Steel flat | long boot        | 127 $\mu$ m   |
| 86010-8300                              | 86012-8300                            | MM          | Stainless Steel flat | long boot crimp  | 127 $\mu$ m   |
| 86010-8200                              | 86012-8200                            | MM          | Stainless Steel flat | short boot crimp | 127 $\mu$ m   |
| 86010-5000                              | 86012-5000                            | SM          | Zirconia PC          | long boot        | 126 $\mu$ m   |
| 86010-5300                              | 86012-5300                            | SM          | Zirconia PC          | long boot crimp  | 126 $\mu$ m   |
| 86010-5200                              | 86012-5200                            | SM          | Zirconia PC          | short boot crimp | 126 $\mu$ m   |
| 86010-7000                              | 86012-7000                            | SM          | Zirconia PC          | long boot        | 127 $\mu$ m   |
| 86010-7300                              | 86012-7300                            | SM          | Zirconia PC          | long boot crimp  | 127 $\mu$ m   |
| 86010-7200                              | 86012-7200                            | SM          | Zirconia PC          | short boot crimp | 127 $\mu$ m   |



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### Ordering Information

#### ST Connectors: Cable size 3.0 mm

| Order Number by Coupling Nut<br>Polymer | Order Number by Coupling Nut<br>Metal | Mode        | Ferrule              | Boot         | Hole Size "D" |
|---|---------------------------------------|-------------|----------------------|--------------|---------------|
| 86010-0400                              | 86012-0400                            | MM          | Zirconia PC +        | 90° boot     | 127 $\mu$ m   |
| 86010-0440                              | 86012-0440                            | MM          | Zirconia PC +        | 90° boot red | 127 $\mu$ m   |
| 86010-3400                              | 86012-3400                            | MM enhanced | Zirconia PC          | 90° boot     | 128 $\mu$ m   |
| 86010-3440                              | 86012-3440                            | MM enhanced | Zirconia PC          | 90° boot red | 128 $\mu$ m   |
| 86010-1400                              | 86012-1400                            | MM          | Zirconia PC          | 90° boot     | 144 $\mu$ m   |
| 86010-1440                              | 86012-1440                            | MM          | Zirconia PC          | 90° boot red | 144 $\mu$ m   |
| 86010-8400                              | 86012-8400                            | MM          | Stainless Steel flat | 90° boot     | 127 $\mu$ m   |
| 86010-8440                              | 86012-8440                            | MM          | Stainless Steel flat | 90° boot red | 127 $\mu$ m   |
| 86010-5400                              | 86012-5400                            | SM          | Zirconia PC          | 90° boot     | 126 $\mu$ m   |
| 86010-5440                              | 86012-5440                            | SM          | Zirconia PC          | 90° boot red | 126 $\mu$ m   |
| 86010-7400                              | 86012-7400                            | SM          | Zirconia PC          | 90° boot     | 127 $\mu$ m   |
| 86010-7440                              | 86012-7440                            | SM          | Zirconia PC          | 90° boot red | 127 $\mu$ m   |

#### ST Connectors: Cable size 900 $\mu$ m buffered fiber

| Order Number by Coupling Nut<br>Polymer | Order Number by Coupling Nut<br>Metal | Mode        | Ferrule              | Boot           | Hole Size "D" |
|---|---------------------------------------|-------------|----------------------|----------------|---------------|
| 86010-0500                              | 86012-0500                            | MM          | Zirconia PC +        | buffered fiber | 127 $\mu$ m   |
| 86010-3500                              | 86012-3500                            | MM enhanced | Zirconia PC          | buffered fiber | 128 $\mu$ m   |
| 86010-1500                              | 86012-1500                            | MM          | Zirconia PC          | buffered fiber | 144 $\mu$ m   |
| 86010-9500                              | 86012-9500                            | MM          | Zirconia flat        | buffered fiber | 232 $\mu$ m   |
| 86010-8500                              | 86012-8500                            | MM          | Stainless Steel flat | buffered fiber | 127 $\mu$ m   |
| 86010-5500                              | 86012-5500                            | SM          | Zirconia PC          | buffered fiber | 126 $\mu$ m   |
| 86010-7500                              | 86012-7500                            | SM          | Zirconia PC          | buffered fiber | 127 $\mu$ m   |

#### ST\*\*\* Adapters

| Order Number | Adapter type | Alignment sleeve | Housing       |
|--------------|--------------|------------------|---------------|
| 86110-0000   | ST           | Zirconia         | black polymer |
| 86112-0000   | ST           | Phosphor bronze  | black polymer |
| 86113-0000   | ST           | Polymer          | black polymer |
| 86110-1000   | ST           | Zirconia         | metal         |
| 86112-1000   | ST           | Phosphor bronze  | metal         |
| 86113-1000   | ST           | Polymer          | metal         |
| 86172-0000   | ST to FC     | Zirconia         | metal         |

\*\*\* Standard boot color is black.

Note: Specifications subject to change.