SC Fiber Optic Connectors

**Specifications**

SC field polish connectors are TIA/EIA-604 FOCIS-3 compliant. SC simplex and duplex connectors are field terminable. The fibers shall terminate in 2.5mm ceramic ferrules with non-optical disconnect functionality and an average insertion loss of 0.1dB (multimode) and 0.15dB (singlemode) per mated pair.

**Technical Information**

**Standards requirements:**
TIA/EIA-604 FOCIS-3 compliant; 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/OS2

**Fiber cable type:**
900μm tight-buffered cable recommended

**Fiber cable size:**
3.0mm or 1.6mm – 2.0mm jacketed cable

**Ferrule type:**
Zirconia ceramic ferrule

**Insertion loss:**
0.1dB average (multimode), 0.15dB (singlemode)

**Return loss:**
>20dB (multimode), >40dB (singlemode)

**Key Features and Benefits**

- **Free floating housing:** Ensures complete latching even when inserted by the boot; valuable in high-density spacing applications
- **Pre-assembled inner housing:** Fewer parts simplifies assembly and reduces installer error for lower installed cost
- **Full length adhesive fill tube:** Prevents adhesive from entering internal cavity of connector to reduce installer error
- **Non-optical disconnect:** Maintains data transmission under tensile loads for jacketed cable for network reliability
- **Anaerobic adhesive field installation:** Simplifies and reduces installation time by 50% compared to heat cured epoxy terminations; curing oven/time not required
- **High temperature thermoplastic design:** Allows use of high glass transition temperature epoxies with cure temperatures up to 150°C (302°F)
- **Simplex available with 900μm and 3.0mm or 1.6 – 2.0mm boots:** One connector part number for both fiber types for easier ordering and stocking
- **Standard 2.5mm ceramic ferrules:** Provides the highest durability for repeated matings

**Applications**

Panduit SC Fiber Optic Connectors are used for equipment cross-connects or interconnects in backbone, horizontal, and work area applications. SC connectors are recommended by TIA/EIA-568-B.3 at the wall outlet and the telecommunications closet.

Multimode connectors provide a robust and easy to terminate solution for lower cost fiber-to-the-desk applications. Singlemode connectors provide added bandwidth capacity for data hungry applications.

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**SC Fiber Optic Connectors**

### Performance Information

<table>
<thead>
<tr>
<th>Test Parameter</th>
<th>Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification test suite</td>
<td>Complete testing protocol per TIA/EIA-568-B.3 using TIA/EIA FOTPs that include mechanical, environmental and optical test sequences</td>
<td>Compliant; exceeds TIA/EIA-568-B.3 requirements</td>
</tr>
<tr>
<td>Connector intermatability</td>
<td>Dimensional and material compliance to TIA/EIA standards</td>
<td>All connectors are FOCIS compliant with TIA/EIA-604-3</td>
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</tbody>
</table>

### Selection Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Connector Type</th>
<th>Cable Type</th>
<th>Fiber</th>
<th>Ferrule</th>
<th>Housing Color</th>
<th>Boot Color</th>
<th>Average Insertion Loss*</th>
<th>Return Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSCM5BL</td>
<td>Simplex</td>
<td>900μm buffered fiber and 3.0mm jacketed cable</td>
<td></td>
<td></td>
<td>Black</td>
<td>Black</td>
<td>0.1dB</td>
<td>&gt;20</td>
</tr>
<tr>
<td>FSCM2.05BL</td>
<td>Simplex</td>
<td>900µm buffered fiber and 1.6 – 2.0mm jacketed cable</td>
<td></td>
<td></td>
<td>Electric Ivory</td>
<td>Red</td>
<td>0.1dB</td>
<td>&gt;20</td>
</tr>
<tr>
<td>FSCDM5BL</td>
<td>Simplex</td>
<td>3.0mm jacketed cable</td>
<td></td>
<td>Zirconia Ceramic</td>
<td>Blue</td>
<td>Blue</td>
<td>0.15dB</td>
<td>&gt;40</td>
</tr>
<tr>
<td>FSCM2.0BL</td>
<td>Simplex</td>
<td>900µm buffered fiber and 1.6mm – 2.0mm jacketed cable</td>
<td></td>
<td>Zirconia Ceramic</td>
<td>Red</td>
<td>Black</td>
<td>0.15dB</td>
<td>&gt;40</td>
</tr>
<tr>
<td>FSCM2.0RD</td>
<td>Simplex</td>
<td>900µm buffered fiber and 1.6mm – 2.0mm jacketed cable</td>
<td></td>
<td>Zirconia Ceramic</td>
<td>Red</td>
<td>Black</td>
<td>0.15dB</td>
<td>&gt;40</td>
</tr>
<tr>
<td>FSCDM</td>
<td>Duplex</td>
<td>3.0mm jacketed cable</td>
<td></td>
<td></td>
<td>Electric Ivory</td>
<td>Red and Black</td>
<td>0.15dB</td>
<td>&gt;40</td>
</tr>
<tr>
<td>FSCSBU</td>
<td>Simplex</td>
<td>900µm buffered fiber and 3.0mm jacketed cable</td>
<td></td>
<td></td>
<td>Electric Ivory</td>
<td>Red and Black</td>
<td>0.15dB</td>
<td>&gt;40</td>
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<tr>
<td>FSCS2.0BU</td>
<td>Simplex</td>
<td>900µm buffered fiber and 1.6mm – 2.0mm jacketed cable</td>
<td></td>
<td></td>
<td>Electric Ivory</td>
<td>Red and Black</td>
<td>0.15dB</td>
<td>&gt;40</td>
</tr>
</tbody>
</table>

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

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**SC Simplex Connectors**

*For 900µm Fiber and 3.0mm Jacketed Cable*

- FSCM5BL: 1.93 [49.0]
- FSCM2.05BL: 2.20 [55.9]

**SC Duplex Connector**

*For 3.0mm Jacketed Cable*

- FSCDM: 2.20 [55.9]

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

For more information

Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com

or by phone: 800.777.3300

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