Base 12 Plug and Play Cable Assemblies
Europe - Euro Class Dca, Cca

MTP® / MTP PRO TO MTP / MTP PRO REELS AND EXTENDERS

Combining Siemon’s reduced-diameter RazorCore™ cable with 12-fiber MTP or MTP PRO connectors, Plug and Play Reels are designed to be quickly pulled and connected to Siemon Plug and Play Modules and MTP Adapter Plates. Custom configurable to precise application requirements, these reels efficiently put high-performance, high-density fiber connections exactly where you need them. Extenders offer Male MTP connectors on one end and female MTP with an MTP adapter on the other to allow field extension of MTP Reels.*

- **Custom Configurations**
  Available from 12 to 144 fiber counts in increments of 12 fibers

- **Multiple Fiber Types**
  Available in multimode (62.5/125, and laser optimized OM3 and OM4 50/125) and singlemode

- **Reduced Pathway Fill**
  Siemon’s RazorCore cable has significantly reduced cable O.D. resulting in less cable tray fill and pathway restrictions

- **Protective Packaging**
  Dual shelf reel keeps connectivity protected from harm during payout

- **40 Gb/s and 100 Gb/s Ready**
  Enables simple upgrade path to future 40 Gb/s and 100 Gb/s applications over multimode OM3 and OM4 50/125 laser optimized fiber

- **Armored Versions**
  Siemon’s Plug & Play cable assemblies are also available in interlocking armored cable types for rugged environment intrabuilding backbone and horizontal installations

- **Extreme Durability**
  Armored versions feature flexible, spiral wrapped aluminum interlocking armored offering over 7X the crush resistance of standard assemblies. May eliminate need for fiber ducting

- **Flame Standards, CPR Qualification**
  LSHF-FR (FRNC)
  - IEC 60332-2, IEC 60754-1, IEC 60754-2, IEC 61034
  - EN 50575, Class Eca, Dca, Cca s1a, d1, a1

- **Low Loss Versions**
  Siemon’s Plug and Play cable assemblies are also available in low loss version allowing for multiple mated parts in in 10/40/100G applications

- **MTP PRO Connector**
  The MTP Pro option enables quick and easy polarity and pin changes in the field using an innovative hand-held tool.

*Note: Extenders are not available in armored configurations
PRODUCT INFORMATION

Ordering Information: Non-Armored

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F(X)(XX)-PPP(X)(X)(XXX)(X)(X) . . . Fiber Plug &amp; Play cable assembly, 12 fibre MTP connectors</td>
<td></td>
</tr>
</tbody>
</table>

**Fiber Type**

- SL = OM3, XGLO 300 50/125 Multimode Aqua
- SV = OM4, XGLO 550 50/125 Multimode Aqua
- EV = OM4, XGLO 550 50/125 Multimode Erika Violet
- SM = OM5i/OM5, Singlemode Yellow

**Fiber Count***

- 12 = 12
- 24 = 24
- 36 = 36
- 48 = 48
- 72 = 72
- 96 = 96
- 144 = 144

**Fiber Type**

- OM4, XGLO 550 50/125 Multimode Aqua
- OM4, XGLO 550 50/125 Multimode Erika Violet
- OM3, XGLO 300 50/125 Multimode Aqua
- OS1/OS2, Singlemode Yellow

**Configuration**

- K = Standard Loss
- L = Low Loss

**Polarity Method**

- A = Method A
- B = Method B
- C = Method C

**Length Unit**

- F = Feet
- M = Meters

**Length**

- Length must be 3 digits

**Example:** 003 = 3m

**Connector "A" Gender**

- Male = M
- Female = F

**Connector "B" Gender**

- Male = M
- Female = F

**Jacket Rating**

- C = Class Cca
- B* = Low Loss Extender
- E* = Standard Loss Extender
- R = Standard Loss
- L = Low Loss

**Length**

- Length must be 3 digits

**Example:** 003 = 3m

**Examples:**

- 003 = 3m
- 010 = 10 ft.

Ordering Information: Armored

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- 96 = 96
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- 48 = 48
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- 24 = 24
- 12 = 12

**Fiber Type**

- OM4, XGLO 550 50/125 Multimode Aqua
- OM4, XGLO 550 50/125 Multimode Erika Violet
- OM3, XGLO 300 50/125 Multimode Aqua
- OS1/OS2, Singlemode Yellow

**Configuration**

- K = Standard Loss
- L = Low Loss

**Polarity Method**

- A = Method A
- B = Method B
- C = Method C

**Length Unit**

- F = Feet
- M = Meters

**Length**

- Length must be 3 digits

**Example:** 003 = 3m

**Examples:**

- 003 = 3m
- 010 = 10 ft.

**Connector "B" Gender**

- Male = M
- Female = F

**Connector "A" Gender**

- Male = M
- Female = F

**Jacket Rating**

- C = Class Cca
- B* = Low Loss Extender
- E* = Standard Loss Extender
- R = Standard Loss
- L = Low Loss

**Length**

- Length must be 3 digits

**Example:** 003 = 3m

**Examples:**

- 003 = 3m
- 010 = 10 ft.

MTP PRO Activation Tool and PIN Exchangers

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTMP-AT</td>
<td>Field Termination, MTP PRO, Activation Tool</td>
</tr>
<tr>
<td>FTMP-PE-SME</td>
<td>Field Termination, MTP PRO, Pin Exchanger with SM Elite Pins</td>
</tr>
<tr>
<td>FTMP-PE-MME</td>
<td>Field Termination, MTP PRO, Pin Exchanger with MM Elite Pins</td>
</tr>
<tr>
<td>FTMP-PE-SM</td>
<td>Field Termination, MTP PRO, Pin Exchanger with SM, with Out Pins</td>
</tr>
<tr>
<td>FTMP-PE-MM</td>
<td>Field Termination, MTP PRO, Pin Exchanger with MM, with Out Pins</td>
</tr>
</tbody>
</table>
**Ordering Length**

1 meter (3.3 ft)

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**Class Cca** is available in 12 through 24 strand (non-armored only)

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* Order length is measured connector tip to connector tip. Multi-leg versions offered with standard 1 meter (3.3 ft.) legs. Minimum order length is 1 meter (3 ft.) for 12 strand and 3 meters (9 ft.) for 24 strands or greater (See diagram)

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**Fiber Extenders ship with MTP Adapter for quick transition.**

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**Class Dca** is available in 12 through 144 strand

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*** Only trunk lengths greater than 5 meters (16FT) come with a pulling eye

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### Cable - Optical and Physical Specifications

<table>
<thead>
<tr>
<th>Cable Type</th>
<th>Multimode</th>
<th>Singlemode</th>
</tr>
</thead>
<tbody>
<tr>
<td>LightSystem 62.5/125 (850/1300nm)</td>
<td>XGLO 50/125 OM3 (850/1300nm)</td>
<td>XGLO 50/125 OM4 (850/1300nm)</td>
</tr>
<tr>
<td>Fiber Cable Attenuation MAX (db/km)</td>
<td>3.5/1.0</td>
<td>3.0/1.0</td>
</tr>
<tr>
<td>LED Bandwidth, MIN (MHz/km)</td>
<td>200/500</td>
<td>1500/500</td>
</tr>
<tr>
<td>Effective Modal Bandwidth, MIN (MHz/km)</td>
<td>N/A</td>
<td>2000</td>
</tr>
<tr>
<td>Cable Outer Jacket, Color (Per TIA-568-C)</td>
<td>Orange</td>
<td>Aqua</td>
</tr>
</tbody>
</table>

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**CABLE — Optical and Physical Specifications (Nominal)**

<table>
<thead>
<tr>
<th>Jacket Type</th>
<th>Fiber Strand Count</th>
<th>Cable Diameter mm (in.)</th>
<th>Min Bend Radius Operational mm (in.)</th>
<th>Min Bend Radius Installation mm (in.)</th>
<th>Max Pulling Eye Diameter mm (in.)</th>
<th>*Required Duct Diameter mm (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSOH Dca</td>
<td>12</td>
<td>3.0 (1.2)</td>
<td>3.0 (1.2)</td>
<td>45 (1.8)</td>
<td>44.5 (1.75)</td>
<td>69.9 (2.75)</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>3.8 (0.15)</td>
<td>38 (1.5)</td>
<td>57 (2.2)</td>
<td>44.5 (1.75)</td>
<td>69.9 (2.75)</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>6.5 (0.26)</td>
<td>65 (2.6)</td>
<td>98 (3.3)</td>
<td>63.5 (2.5)</td>
<td>88.9 (3.5)</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>6.5 (0.26)</td>
<td>65 (2.6)</td>
<td>98 (3.3)</td>
<td>63.5 (2.5)</td>
<td>88.9 (3.5)</td>
</tr>
<tr>
<td></td>
<td>72</td>
<td>7.0 (0.28)</td>
<td>70 (2.8)</td>
<td>105 (4.1)</td>
<td>63.5 (2.5)</td>
<td>88.9 (3.5)</td>
</tr>
<tr>
<td></td>
<td>96</td>
<td>12.5 (0.49)</td>
<td>125 (4.9)</td>
<td>188 (7.4)</td>
<td>88.9 (3.25)</td>
<td>114.3 (4.5)</td>
</tr>
<tr>
<td></td>
<td>144</td>
<td>14.9 (0.59)</td>
<td>149 (5.9)</td>
<td>224 (8.8)</td>
<td>88.9 (3.25)</td>
<td>114.3 (4.5)</td>
</tr>
<tr>
<td>LSOH Cca</td>
<td>12</td>
<td>3.0 (0.12)</td>
<td>30 (1.2)</td>
<td>60 (2.3)</td>
<td>44.5 (1.75)</td>
<td>69.9 (2.75)</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>3.6 (0.14)</td>
<td>30 (1.2)</td>
<td>72 (2.8)</td>
<td>44.5 (1.75)</td>
<td>69.9 (2.75)</td>
</tr>
</tbody>
</table>

*Pulling eye assembly shall be capable of passing through these minimum duct diameter requirements during product installation.
Pulling eye max pull force 18.1kg (40lbs) * XGLO® Singlemode fiber meets low water peak specifications per ITU-T G.652.C

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**www.siemon.com**
Armored Cable & Pulling Eye Assembly

<table>
<thead>
<tr>
<th>Fiber Strand Count</th>
<th>Cable Diameter mm (in)</th>
<th>Min Pulling Eye Bend Radius mm (in)</th>
<th>Max Pulling Eye Diameter mm (in)</th>
<th>Max Pull Force kg (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>11.8 (0.46)</td>
<td>380 (15)</td>
<td>3.81 (1.5)</td>
<td>45.25 (100)</td>
</tr>
<tr>
<td>24</td>
<td>11.8 (0.46)</td>
<td>380 (15)</td>
<td>3.81 (1.5)</td>
<td>45.25 (100)</td>
</tr>
<tr>
<td>36</td>
<td>15.7 (0.62)</td>
<td>380 (15)</td>
<td>3.81 (1.5)</td>
<td>45.25 (100)</td>
</tr>
<tr>
<td>48</td>
<td>15.7 (0.62)</td>
<td>915 (36)</td>
<td>44.5 (1.75)</td>
<td>45.25 (100)</td>
</tr>
<tr>
<td>72</td>
<td>16.25 (0.64)</td>
<td>915 (36)</td>
<td>44.5 (1.75)</td>
<td>45.25 (100)</td>
</tr>
</tbody>
</table>

Connectors - Optical Specifications

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Performance Class</th>
<th>Max Insertion Loss (db)</th>
<th>Min Return Loss (db)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10G 50/125µm Multimode OM3</td>
<td>XGLO 300</td>
<td>0.40</td>
<td>0.25</td>
</tr>
<tr>
<td>10G 50/125µm Multimode OM4</td>
<td>XGLO 550</td>
<td>0.40</td>
<td>0.25</td>
</tr>
<tr>
<td>Laser Optimized 50/125 Multimode OM3 Low Loss</td>
<td>XGLO 300</td>
<td>0.20</td>
<td>0.15</td>
</tr>
<tr>
<td>Laser Optimized 50/125 Multimode OM4 Low Loss</td>
<td>XGLO 550</td>
<td>0.20</td>
<td>0.15</td>
</tr>
<tr>
<td>Singlemode OS2</td>
<td>XGLO</td>
<td>0.60</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Connectors - Physical Specifications

<table>
<thead>
<tr>
<th>Connector Type</th>
<th>IEC Intermateability Compliance</th>
<th>TIA Intermateability Compliance</th>
<th>Housing Color</th>
<th>Boot Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTP</td>
<td>IEC 61754-7</td>
<td>TIA/EIA-604-5</td>
<td>Green</td>
<td>Black</td>
</tr>
</tbody>
</table>

Siemon Plug and Play Modules

Siemon LC to MTP® and SC to MTP Plug and Play modules provide a quick and efficient way to deploy up to 24 LC or 12 SC fibers in a single module. These factory terminated and tested ports are protected within the housing for reliable high performance and simply connected via 12-strand MTP ports. Modules are available in Multimode (62.5/125 and XGLO® laser optimized 50/125 OM3/OM4) and Singlemode cable.
MTP to MTP Adapter Plates

Siemon MTP Adapter Plates offer a user friendly "pass-through" option for MTP connectors. Fitting within Siemon's fiber enclosures and VersaPOD vertical patch panels, these plates secure MTP connectors, allowing efficient implementation of MTP to MTP reels and extenders as well as MTP to LC Trunks for direct equipment and patching connections.

High Density
Supports up to 96 fibers per adapter plate - providing up to 1152 fibers in 4U

Flexible Configurations
1, 2, 4, 6 and 8 port versions available, supporting both Singlemode and Multimode

40 Gb/s and 100 Gb/s Ready
Enables simple upgrade path to future 40 Gb/s and 100 Gb/s applications over Multimode 50/125 laser optimized fiber

Popular RIC Adapter Footprint
Fits within RIC, FCP and SWIC Siemon fiber enclosures and VersaPOD vertical patch panels

<table>
<thead>
<tr>
<th>Fibre Count</th>
<th>Key Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Blank (key up to key up)</td>
</tr>
<tr>
<td>24</td>
<td>Black adapters</td>
</tr>
<tr>
<td>48</td>
<td>Grey adapters</td>
</tr>
<tr>
<td>72</td>
<td>Grey adapters</td>
</tr>
<tr>
<td>96</td>
<td>Grey adapters</td>
</tr>
</tbody>
</table>

RIC-F-MP(XX)-01-(X) . . . . . . . . . . MTP adapter plate