Mod IV Receptacle Assemblies, Single-Row, Outrigger Design
.100 x .100 [2.54 x 2.54] Centerline, End To End Stackable

Dual Entry, End Stackable, Low Profile, .100 x .100 (2.54 x 2.54) Centerline, .200 [5.08] Tine Spacing

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Plating A — Duplex .000030 [0.00076] gold on contact area, .000150-0.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
Plating B — Duplex .000010 [0.000254] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
Plating C — .000150-.000300 [0.00381-0.00762] matte tin on solder leads, all over .000050 [0.00127] nickel

Notes:
1. Tyco Electronics recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
2. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension and add .062 [1.57] for recommended board thickness if used in bottom entry application.

All part numbers are RoHS compliant.
Mod IV Receptacle Assemblies, Double-Row, Outrigger Design, 
.100 x .100 [2.54 x 2.54] Centerline, End to End Stackable

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Phosphor bronze, plated as follows:
Plating A — Duplex .000030 [0.00076] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
Plating B — Duplex .000010 [0.000254] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
Plating C — .000150-.000300 [0.00381-0.00762] matte tin on solder leads, all over .000050 [0.00127] nickel

Related Product Data
Mateable Headers — Refer to the Mating Post Selection Guide — page 90
Performance Characteristics — page 174
Technical Documents — page 276
Product Specification 108-25022
Application Specification 114-25018
Additional receptacle assembly sizes are available; minimum order quantities may apply. Consult Tyco Electronics.

Keying Plug
Part No. 86286-1
(Plugs into receptacle contact)

Material — Natural color nylon

Notes:
1. Tyco Electronics recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
2. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension and .062 for recommended board thickness if used in bottom entry application.

Note: All part numbers are RoHS compliant.
Closed Dual Entry, Side and End Stackable Low Profile, .100 x .100 [2.54 x 2.54] Centerline, .150 [3.81] Tine Spacing

Material and Finish

Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Phosphor bronze, plated as follows:
Plating A — Duplex .000030 [0.00076] gold on contact area, .000015-0.000300 [0.000381-0.000762] matte tin on solder area all over .000050 [0.00127] nickel
Plating B — Duplex .000010 [0.000254] gold on contact area, .000015-0.000300 [0.000381-0.000762] matte tin on solder area all over .000050 [0.00127] nickel
Plating C — .000150-0.000300 [0.00381-0.00762] matte tin on solder leads, all over .000050 [0.00127] nickel

Related Product Data

Mateable Headers — Refer to the Mating Post Selection Guide — page 90
Performance Characteristics — page 174

Technical Documents — page 276
Product Specification 109-25022
Application Specification 114-25018

Catalog 1307819 Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Revised 8-08
www.tycoelectronics.com

Note: All part numbers are RoHS compliant.

Notes:
1. Tyco Electronics recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
2. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension, and .062 [1.57] for recommended board thickness if used in bottom entry application.
### Mod. IV Receptacle Assemblies, Double-Row, \(0.100 \times 0.100\) \([2.54 \times 2.54]\) Centerline (Continued)

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<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Contact Plating/Part Nos.</th>
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<td>2.500 [63.50]</td>
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<td>2.600 [66.04]</td>
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<td>2.700 [68.58]</td>
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<td>2.900 [73.66]</td>
<td>2.800 [71.12]</td>
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<td>60</td>
<td>3.000 [76.20]</td>
<td>2.900 [73.66]</td>
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<td>3.100 [78.74]</td>
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<td>64</td>
<td>3.200 [81.28]</td>
<td>3.100 [78.74]</td>
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<td>3.300 [83.82]</td>
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<td>78</td>
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<td>80</td>
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<td>3.900 [99.06]</td>
</tr>
</tbody>
</table>

**Note:** All part numbers are RoHS compliant.
Mod IV Surface Mount Vertical Receptacle Assemblies, 
.100 x .100 [2.54 x 2.54] Centerline

The AMPMODU 0.025 [0.64] square interconnection system is an industry standard that has provided level III and IV thru-hole interconnections to almost every industry and marketplace for years. As technology advances, so has the AMPMODU product line.

Surface mount vertical receptacle assemblies are available to meet your level II packaging needs as process technologies evolve from wave soldering to surface mount reflow (infrared and vapor-phase) processes. AMPMODU surface mount receptacle assemblies are offered in vertical dual entry configurations. These receptacles are available in single-row and double-row configurations with a contact centerline spacing of .100 x .100 [2.54 x 2.54].

AMPMODU surface mount vertical receptacle assemblies continue to provide the proven features and benefits of their thru-hole counterparts in the AMPMODU product family. Closed-entry style housing design provides a lead-in ramp for positive mating of contacts, virtually eliminating the possibility of stubbing. The dual-beam receptacle contact design, coupled with gold plating in the contact area, provides a reliable interface. Tin plating on the solder tails also enhances solderability.

The incorporation of compliant metallic hold downs on receptacle assemblies offers multiple benefits. The hold downs provide for proper lead-to-pad registration and provide retention to the PC board prior to and during processing. Used with a plated thru-hole, the hold downs are soldered during the reflow process and serve as a strain relief for the solder joints during mating/unmating.

The design of the hold downs results in an excellent ratio of insertion/extraction forces (into the PC board); 20 lb. [89 N] maximum insertion force per pair and 10 lb. [44.5 N] minimum extraction force per pair (unsoldered). No tools are required for insertion.

Product Facts
- Surface Mount Leads
- Contact Material: phosphor bronze
- High temperature, black thermoplastic housings, 94V-0 rated, capable of withstanding IR or vapor-phase reflow
- Gold/tin duplex plating for reliable mating interconnection and solder interface
- Metallic hold downs provide retention in the PC board prior to and during the reflow process ... and strain relief after soldering
- Hold downs provide for proper lead-to-pad registration
- Closed-entry receptacle housings provide lead-in ramp for positive mating
- Receptacle contacts employ dual cantilever beams for reliable connections
- Recognized under the Component Program of Underwriters Laboratories Inc. File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

AMPMODU Interconnection System
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<th>Voltage Rating: 250 VAC</th>
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<tr>
<td>Current Rating:</td>
<td>3.0 amperes (max.) for single contact;</td>
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<td>2.0 amperes (max.) per contact when connector is fully energized</td>
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<td>Operating Temperature Range (Receptacle Assemblies):</td>
<td>-65°C to +125°C</td>
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<tr>
<td>Operating Temperature Range (Headers):</td>
<td>-65°C to +105°C</td>
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<td>Dielectric Withstanding Voltage:</td>
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<td>Termination Resistance:</td>
<td>12 milliohms (max.)</td>
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<td>Insulation Resistance:</td>
<td>5000 megohms (min.)</td>
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<td>Mating Force (Receptacle Assemblies):</td>
<td>9.0 oz. [2.50N] (max.) per contact</td>
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<tr>
<td>Unmating Force (Receptacle Assemblies):</td>
<td>1.5 oz. [0.42N] (min.) per contact</td>
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<tr>
<td>Durability:</td>
<td>Tested to 200 cycles (min.) for .000030 [0.00076] gold plated contacts</td>
</tr>
</tbody>
</table>
Mod IV Receptacle Assemblies, Single-Row, Surface Mount, .100 [2.54] Centerline with Compliant Pin Hold Downs

Surface Mount, Single-Row, Dual Entry with Compliant Pin Hold Downs

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Phosphor bronze, plated as follows:

- Plating A — Duplex .000030 [0.00076] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
- Plating B — Duplex .000010 [0.000254] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
- Plating C — .000150-.000300 [0.00381-0.00762] matte tin on solder leads, all over .000050 [0.00127] nickel

Related Product Data
Mateable Headers — Refer to Mating Post Selection Guide — page 90
Performance Specifications — page 186

Notes:
1. Tyco Electronics recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
2. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension, and .062 [1.57] for recommended board thickness if used in bottom entry application
3. No center hold down.

Note: All part numbers are RoHS compliant.

Catalog 1307819
Revised 8-08
www.tycoelectronics.com

Dimensions are shown for USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926
South America: 55-11-2103-6000 C. America: 52-55-1106-0803
Hong Kong: 852-2735-1628 Japan: 81-44-844-8013
UK: 44-870-080-208

187
Mod IV Receptacle Assemblies, Single-Row, Surface Mount, .100 [2.54] x .100 [2.54] Centerline End To End Stackable without Compliant Pin Holddowns

Material and Finish

- **Housing**: Glass-filled thermoplastic, black, 94V-0 rated
- **Contacts A**: Duplex, .000030 [0.00076] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over, .000050 [0.00127] nickel
- **Contacts B**: Duplex, .000010 [0.000254] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over, .000050 [0.00127] nickel
- **Contacts C**: .000150-.000300 [0.00381-0.00762] matte tin on solder leads, all over. .000050 [0.00127] nickel

Related Product Data

- **Mateable Headers**: Refer to Mating Post Selection Guide — page 90
- **Performance Specifications**: — page 186

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<table>
<thead>
<tr>
<th>No. of Pos.</th>
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<th>Dimensions</th>
<th>Contact Plating/ Part Nos.</th>
<th>Plated A</th>
<th>Plated B</th>
<th>Plated C</th>
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**Notes:**

1. Tyco Electronics recommends mating gold or duplex plated headers with duplex plated receptacle assemblies.
2. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension, and .062 [1.57] for recommended board thickness if used in bottom entry application.

**Note:** All part numbers are RoHS compliant.
Mod IV Surface Mount Receptacle Assemblies, Double-Row, .100 x .100 [2.54 x 2.54] Centers

Surface Mount, Double Row, Dual Entry with Holddowns

Material and Finish

Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Phosphor bronze, plated as follows:

Plating A — Duplex .000030 [0.00076] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel

Plating B — Duplex .000010 [0.000254] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel

Plating C — .000150-.000300 [0.00381-0.00762] matte tin on solder leads, all over .000050 [0.00127] nickel

Related Product Data

Mateable Headers — Refer to Mating Post Selection Guide — page 90
Performance Specifications — page 186
Technical Documents — page 276

Product Specification
108-25022
Application Specification
114-25018

Additional receptacle assembly sizes are available; minimum order quantities may apply. Consult Tyco Electronics.

Keying Plug

Part No. 86286-1
(Plugs into receptacle contact)

Material — Natural color nylon

Note: All part numbers are RoHS compliant.
## Mod IV Surface Mount Receptacle Assemblies, Double-Row, .100 x .100 [2.54 x 2.54] Centers (Continued)

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<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
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<th>Packaged in Tape and Reel</th>
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<td>3.600 [91.44]</td>
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Notes:
1. No center holdown.
2. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension and .062 [1.57] for recommended board thickness in bottom entry applications.

**Note:** All part numbers are RoHS compliant.
Mod IV Surface Mount Receptacle Assemblies, Double-Row, .100 x .100 [2.54 x 2.54] Centerline

Surface Mount, Double Row, Dual Entry
End to End Stackable

Material and Finish

Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Phosphor bronze, plated as follows:
- **Plating A** — Duplex .000030 [0.00076] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
- **Plating B** — Duplex .000010 [0.000254] gold on contact area, .000150-.000300 [0.00381-0.00762] matte tin on solder area all over .000050 [0.00127] nickel
- **Plating C** — .000150-.000300 [0.00381-0.00762] tin-lead over .000050 [0.00127] nickel

Related Product Data

**Mateable Headers** — Refer to Mating Post Selection Guide — page 90

**Performance Specifications** — page 186

Technical Documents — page 276

**Product Specification**
108-25022

**Application Specification**
114-25018

Additional receptacle assembly sizes are available; minimum order quantities may apply. Consult Tyco Electronics.

Keying Plug

Part No. 86286-1
(Plugs into receptacle contact)

Material — Natural color nylon

---

**Note:** All part numbers are RoHS compliant.
Mod IV Surface Mount Receptacle Assemblies, Double-Row, .100 x .100 [2.54 x 2.54] Centerline (Continued)

<table>
<thead>
<tr>
<th>No. of</th>
<th>Dimensions</th>
<th>Packaged in Tubes</th>
<th>Packaged in Tape &amp; Reel</th>
</tr>
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<tr>
<td></td>
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<td>Contact Plating/ Part Nos.</td>
<td>Contact Plating/ Part Nos.</td>
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<tr>
<td></td>
<td></td>
<td>Plating A</td>
<td>Plating B</td>
</tr>
<tr>
<td>10</td>
<td>.500 [12.70]</td>
<td>5-147741-5</td>
<td>5-147740-5</td>
</tr>
<tr>
<td>14</td>
<td>.700 [17.78]</td>
<td>5-147741-7</td>
<td>5-147740-7</td>
</tr>
<tr>
<td>20</td>
<td>1.000 [25.40]</td>
<td>6-147741-0</td>
<td>6-147740-0</td>
</tr>
<tr>
<td>22</td>
<td>1.100 [27.94]</td>
<td>6-147741-1</td>
<td>6-147740-1</td>
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<tr>
<td>26</td>
<td>1.300 [33.02]</td>
<td>6-147741-3</td>
<td>6-147740-3</td>
</tr>
<tr>
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<td>1.500 [38.10]</td>
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<tr>
<td>34</td>
<td>1.700 [43.18]</td>
<td>6-147741-7</td>
<td>6-147740-7</td>
</tr>
<tr>
<td>36</td>
<td>1.800 [45.72]</td>
<td>6-147741-8</td>
<td>6-147740-8</td>
</tr>
<tr>
<td>40</td>
<td>2.000 [50.80]</td>
<td>7-147741-0</td>
<td>7-147740-0</td>
</tr>
<tr>
<td>46</td>
<td>2.300 [58.42]</td>
<td>7-147741-3</td>
<td>7-147740-3</td>
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<tr>
<td>50</td>
<td>2.500 [63.50]</td>
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<td>7-147740-5</td>
</tr>
<tr>
<td>62</td>
<td>3.100 [76.20]</td>
<td>8-147741-1</td>
<td>8-147740-1</td>
</tr>
<tr>
<td>66</td>
<td>3.300 [83.82]</td>
<td>8-147741-3</td>
<td>8-147740-3</td>
</tr>
<tr>
<td>70</td>
<td>3.500 [88.90]</td>
<td>8-147741-5</td>
<td>8-147740-5</td>
</tr>
<tr>
<td>80</td>
<td>4.000 [101.60]</td>
<td>9-147741-0</td>
<td>9-147740-0</td>
</tr>
</tbody>
</table>

Notes: 1. To obtain the minimum mating post length, add .020 [0.51] (not including the post lead in chamfer) to the maximum point-of-contact dimension and .062 [1.57] for recommended board thickness in bottom entry applications.
Two-Piece Printed Circuit Board Connectors

Product Facts

- Two-Piece reliability
- Two- and three-row systems available
- Short signal path for VLSI applications
- Receptacles employ dual cantilever beams and built-in anti-overstress to provide reliable connections
- Built-in guides provide alignment before contact engagement
- Closed entry receptacle housings provide lead-in ramp for positive mating of contacts
- Shrouded headers provide full pin protection
- Polarized headers
- Vertical headers available with ACTION PIN posts or .025 [0.64] square solder posts
- Repairable ACTION PIN posts
- Simple seating tooling for headers with ACTION PIN posts
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

Note: All part numbers are RoHS compliant.

For drawings, technical data or samples, contact your Tyco Electronics sales engineer or call the Tyco Electronics Product Information Center: 1-800-522-6752
Two-Piece Printed Circuit Board Connectors (Continued)

AMPMODU Two-Piece Printed Circuit Board connectors are designed to reliably and economically meet the packaging and interconnection requirements of today's sophisticated electronics.

The double row system is produced in 10 thru 200 positions in the vertical headers and horizontal receptacles, and 10 thru 160 positions in the right angle headers and vertical receptacles.

AMPMODU three-row connector system is produced in 30 through 300 positions (straight post headers and mating horizontal receptacles).

Both two- and three-row vertical headers are available with press-fit ACTION PIN posts or standard .025 [0.64] square solder posts. There is a simple seating tool for headers with ACTION PIN posts.

A board retention feature is offered in the two-row horizontal receptacles, two-row right angle headers and two- and three-row vertical headers. Built-in guides assure accurate header and receptacle alignment before contact engagement.

Closed entry receptacle housings provide a lead-in ramp for positive mating of contacts.

Performance Specifications

Current Rating — 3 amperes max. for single contact; 2 amperes max. per contact for fully energized connector

Voltage Rating — 250 VAC

Dielectric Rating — 750 VAC rms between contacts for one minute

Termination Resistance — 12 milliohms max. at 100 milliampere test current, and 50 millivolts open circuit voltage

Insulation Resistance — 1000 megohms after temperature/humidity cycling

Temperature Rating — Headers and Receptacles — -65°C to +125°C (black thermoplastic housings, 94V-0 rated)

Durability (Tested to) — 200 cycles for .000030 [0.00076] gold plating; 75 cycles for .000015 [0.00038] gold plating

Mating Force — 8 oz. [2.22N] maximum per contact

Unmating Force — .75 oz. [0.2N] minimum per contact during third mating cycle
Receptacle Assemblies, Board Mount, Double-Row, Closed Entry, .100 x .100 (2.54 x 2.54) Centerline

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Phosphor bronze, plated as follows:
Plating A — Duplex plated .000030 [0.00076] gold on contact area, .000050-.000100 [0.00127-0.00254] matte tin on solder area, with entire contact underplated .000050 [0.00127] nickel
Plating B — Duplex plated .000015 [0.00038] gold on contact area, .000050-.000100 [0.00127-0.00254] matte tin on solder area, with entire contact underplated .000050 [0.00127] nickel

Related Product Data
Mateable Headers — pages 198, 199
Performance Specifications — page 194
Technical Documents — page 276
Product Specification 108-25017
Application Specification 114-9009

Additional receptacle assembly sizes and solder tail lengths are available; minimum order quantities may apply. Consult Tyco Electronics.

Recommended PC Board Hole Layout (for .055 [1.40] min. thick PC board)

Tolerances not to accumulate within one connector pattern.

Notes:
2. Receptacle assemblies with low force contacts are available; consult Tyco Electronics.
3. .256 [6.46] minimum positive pin stop to prevent shorting between rows.

Note: All part numbers are RoHS compliant.
Receptacle Assemblies, Board Mount, Double-Row, Closed Entry, .100 x .100 [2.54 x 2.54] Centerline (Continued)

Vertical Mount (with Guide Pin Slots and Standoffs)

Material and Finish
- Housing: Glass-filled thermoplastic, black, 94V-0 rated
- Contacts: Phosphor bronze, duplex plated .000030 [0.00076] gold on contact area, .000050-.000100 [0.00127-0.00254] matte tin on solder area, with entire contact underplated .000050 [0.00127] nickel

Related Product Data
- Mateable Headers: pages 198, 199
- Performance Specifications: page 194

Technical Documents
- Product Specification: 108-25017
- Application Specification: 114-9009

Additional receptacle assembly sizes and solder tail lengths are available; minimum order quantities may apply. Consult Tyco Electronics.

Keying Plug
- Part No. 86286-1

Material: Natural color nylon

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Receptacle Assembly Part Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>1.758 [44.65]</td>
<td>1.400 [35.56]</td>
</tr>
<tr>
<td>50</td>
<td>2.758 [70.05]</td>
<td>2.400 [60.96]</td>
</tr>
<tr>
<td>60</td>
<td>3.258 [82.75]</td>
<td>2.900 [73.66]</td>
</tr>
<tr>
<td>70</td>
<td>3.758 [95.45]</td>
<td>3.400 [86.36]</td>
</tr>
<tr>
<td>80</td>
<td>4.258 [108.15]</td>
<td>3.900 [99.06]</td>
</tr>
<tr>
<td>90</td>
<td>4.758 [120.85]</td>
<td>4.400 [111.76]</td>
</tr>
<tr>
<td>100</td>
<td>5.258 [133.55]</td>
<td>4.900 [124.46]</td>
</tr>
<tr>
<td>120</td>
<td>6.258 [158.95]</td>
<td>5.900 [149.86]</td>
</tr>
</tbody>
</table>

Note: All part numbers are RoHS compliant.
Receptacle Assemblies, Board Mount, Triple-Row, Closed Entry, .100 x .100 [2.54 x 2.54] Centerline

Horizontal Mount (with Guide Pin Slots and Standoffs)

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Phosphor bronze, plated .000030 [0.00076] gold in mating area, .000050-.000100 [0.00127-0.00254] matte tin on solder area, with entire contact underplated .000050 [0.00127] nickel

Related Product Data
Mateable Headers — page 201
Performance Specifications — page 194

Technical Documents — page 276
Product Specification 108-25017
Application Specification 114-9009

Additional receptacle assembly sizes and solder tail lengths are available; minimum order quantities may apply. Consult Tyco Electronics.

Keying Plug

Part No. 86286-1
(Plugs into receptacle contact)

Material — Natural color nylon

Note: All part numbers are RoHS compliant.
Solder Posts and ACTION PIN Posts (with Pin Protection and Guide Pins)

Material and Finish

Housing — Glass-filled thermoplastic, black, 94V-0 rated

Posts — Phosphor bronze, plated as follows:

- **Plating A** — Duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] matte tin on termination end, with entire post underplated .000050 [0.00127] nickel

- **Plating B** — Duplex plated .000015 [0.00038] gold on contact area, .000100-.000200 [0.00254-0.00508] matte tin on termination end, with entire post underplated .000050 [0.00127] nickel

- **Plating C** — Selectively plated .000030 [0.00076] gold on contact area and .000015 [0.00038] gold on termination end, with gold flash over .000050 [0.00127] nickel on entire post

Related Product Data

Mateable Receptacles — pages 195, 196

Performance Specifications — page 194

Application Tooling — pages 150, 151

Technical Documents — page 276

Product Specification 108-25017

Application Specification 114-9009

Additional header sizes are available; minimum order quantities may apply. Consult Tyco Electronics.

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Header Part Nos. with .180 [4.57] Tail Length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Standard Solder Tails</td>
<td>Board Retention Tails</td>
</tr>
<tr>
<td></td>
<td>Plating A</td>
<td>Plating B</td>
</tr>
<tr>
<td>12</td>
<td>.980 [24.89]</td>
<td>.500 [12.70]</td>
</tr>
<tr>
<td>14</td>
<td>1.080 [27.43]</td>
<td>.600 [15.24]</td>
</tr>
<tr>
<td>16</td>
<td>1.180 [29.97]</td>
<td>.700 [17.78]</td>
</tr>
<tr>
<td>20</td>
<td>1.380 [35.05]</td>
<td>.900 [22.86]</td>
</tr>
<tr>
<td>24</td>
<td>1.580 [40.13]</td>
<td>1.100 [27.94]</td>
</tr>
<tr>
<td>30</td>
<td>1.680 [47.75]</td>
<td>1.400 [35.56]</td>
</tr>
<tr>
<td>36</td>
<td>2.180 [55.37]</td>
<td>1.700 [43.18]</td>
</tr>
<tr>
<td>40</td>
<td>2.380 [60.45]</td>
<td>1.900 [48.26]</td>
</tr>
<tr>
<td>50</td>
<td>2.680 [73.15]</td>
<td>2.400 [60.96]</td>
</tr>
<tr>
<td>60</td>
<td>3.380 [85.85]</td>
<td>2.900 [73.66]</td>
</tr>
<tr>
<td>70</td>
<td>3.880 [98.55]</td>
<td>3.400 [86.36]</td>
</tr>
<tr>
<td>72</td>
<td>3.980 [101.09]</td>
<td>3.500 [88.90]</td>
</tr>
<tr>
<td>80</td>
<td>4.380 [111.25]</td>
<td>3.900 [99.06]</td>
</tr>
<tr>
<td>86</td>
<td>4.680 [118.87]</td>
<td>4.200 [106.68]</td>
</tr>
<tr>
<td>90</td>
<td>4.880 [123.95]</td>
<td>4.400 [111.76]</td>
</tr>
<tr>
<td>96</td>
<td>5.180 [131.57]</td>
<td>4.700 [119.38]</td>
</tr>
<tr>
<td>100</td>
<td>5.380 [136.65]</td>
<td>4.900 [124.46]</td>
</tr>
<tr>
<td>110</td>
<td>5.580 [149.35]</td>
<td>5.400 [137.16]</td>
</tr>
<tr>
<td>120</td>
<td>6.380 [162.05]</td>
<td>5.900 [149.86]</td>
</tr>
<tr>
<td>130</td>
<td>6.680 [174.75]</td>
<td>6.400 [162.56]</td>
</tr>
</tbody>
</table>

Note: Headers with make first/break last posts can be made available, consult Tyco Electronics.

Note: All part numbers are RoHS compliant.

---

Tyco Electronics

AMPMODU Interconnection System

Headers, Straight Post, Double-Row, .100 x .100 [2.54 x 2.54] Centerline

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
## Headers, Straight Post, Double-Row, .100 x .100 [2.54 x 2.54] Centerline (Continued)

![Header Diagram](image)

### .025 [0.64] Square ACTION PIN Tails

### Standards:
- Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
- Dimensions are shown for reference purposes only.
- Specifications subject to change.
- All part numbers are RoHS compliant.

### Header Part Nos. with ACTION PIN Posts

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Header Part Nos. with ACTION PIN Posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>.980 [24.89]</td>
<td>.500 [12.70]</td>
</tr>
<tr>
<td>14</td>
<td>1.080 [27.43]</td>
<td>.600 [15.24]</td>
</tr>
<tr>
<td>20</td>
<td>1.380 [35.05]</td>
<td>.900 [22.86]</td>
</tr>
<tr>
<td>24</td>
<td>1.580 [40.13]</td>
<td>1.100 [27.94]</td>
</tr>
<tr>
<td>36</td>
<td>2.180 [55.73]</td>
<td>1.700 [43.18]</td>
</tr>
<tr>
<td>50</td>
<td>2.880 [73.66]</td>
<td>2.600 [66.04]</td>
</tr>
<tr>
<td>60</td>
<td>3.380 [85.85]</td>
<td>2.900 [73.66]</td>
</tr>
<tr>
<td>70</td>
<td>3.880 [98.55]</td>
<td>3.400 [86.36]</td>
</tr>
<tr>
<td>80</td>
<td>4.380 [111.76]</td>
<td>3.900 [99.06]</td>
</tr>
<tr>
<td>90</td>
<td>4.880 [123.65]</td>
<td>4.400 [111.76]</td>
</tr>
<tr>
<td>96</td>
<td>5.180 [131.72]</td>
<td>4.700 [119.38]</td>
</tr>
<tr>
<td>100</td>
<td>5.380 [136.50]</td>
<td>4.900 [124.46]</td>
</tr>
<tr>
<td>120</td>
<td>6.380 [162.05]</td>
<td>5.900 [149.86]</td>
</tr>
<tr>
<td>130</td>
<td>6.680 [174.75]</td>
<td>6.400 [162.56]</td>
</tr>
</tbody>
</table>

### Notes:
1. Other header sizes can be made available upon request.
2. Application tooling for installing headers with ACTION PIN posts is shown on pages 152 and 153.
3. Headers with .250 [6.35] tail length can be made available with make first/break last contacts, consult Tyco Electronics.
4. Plated through holes to be prepared per recommendations found on page 151.
Headers, Right-Angle Post, Double-Row, .100 x .100 [2.54 x 2.54] Centerline

Card Extender (with Pin Protection and Guide Pins)

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Posts — Phosphor bronze, plated as follows:
  Plating A — Duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] matte tin on termination end, with entire post underplated .000050 [0.00127] nickel
  Plating B — Duplex plated .000015 [0.00038] gold on contact area, .000100-.000200 [0.00254-0.00508] matte tin on termination end, with entire post underplated .000050 [0.00127] nickel

Related Product Data
Mateable Receptacles — pages 195, 196
Performance Specifications — page 194
Technical Documents — page 276
Product Specification
108-25017
Application Specification
114-9009

Additional header sizes are available; minimum order quantities may apply. Consult Tyco Electronics.

Note:
All part numbers are RoHS compliant.

Recommended PC Board Hole Layout (for .055 [1.40] min. thick PC board)
Tolerances not to accumulate within one connector pattern.
Headers, Straight Post, Triple-Row, .100 x .100 [2.54 x 2.54] Centerline

Solder Posts
(with Pin Protection and Guide Pins)

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Posts — Phosphor bronze, plated as follows:
Plating A — Duplex plated, .000030 [.00076] gold on contact area,
.00100-.00200 [.00254-0.00508] matte tin on termination end, with entire post underplated .000050 [.00127] nickel

Related Product Data
Mateable Receptacles — page 197
Performance Specifications — page 194

Technical Documents — page 276
Product Specification 108-25017
Application Specification 114-9009

Additional header assembly sizes are available; minimum order quantities may apply. Consult Tyco Electronics.

Recommended PC Board Hole Layout (for .055 [1.40] min. thick PC board)
Tolerances not to accumulate within one connector pattern.

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Header Part Nos. with .180 [4.57] Tail Length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>[70.61]</td>
<td>[58.42]</td>
</tr>
<tr>
<td>72</td>
<td>2.780</td>
<td>2.300</td>
</tr>
<tr>
<td>96</td>
<td>3.480</td>
<td>3.000</td>
</tr>
<tr>
<td>150</td>
<td>5.380</td>
<td>4.900</td>
</tr>
<tr>
<td>210</td>
<td>7.380</td>
<td>6.900</td>
</tr>
</tbody>
</table>

Note: All part numbers are RoHS compliant.
Tyco Electronics

AMPMODU Interconnection System

Headers, VRM (Voltage Regulator Module), .100 x .100 [2.54 x 2.54] Centerline

Solder Posts and ACTION PIN Posts (with Pin Protection, Guide Ribs, and Latching)

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Posts — Copper alloy, duplex plated .000030 [.00076] gold on contact area, .000100-.000200 [.00254-.00508] matte tin on termination end, with entire post underplated .000050 [.00127] nickel

Related Product Data
Mateable Receptacles — pages 195, 196
Performance Specifications — page 194
ACTION PIN Posts — page 150, 151
Application Tooling — pages 152

Technical Documents — page 276
Product Specification 108-25017
Application Specification 114-9009

Recommended PC Board Hole Layout

<table>
<thead>
<tr>
<th>No of Pos</th>
<th>Dimensions</th>
<th>Header Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>30</td>
<td>2.450 [62.23]</td>
<td>1.400 [35.56]</td>
</tr>
<tr>
<td></td>
<td>3.100 [78.74]</td>
<td>1.900 [48.26]</td>
</tr>
</tbody>
</table>

Note: All part numbers are RoHS compliant.

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Accessories: End Shrouds for Machine-Applied Posts

Single-Row, .100 [2.54] Centers
Part No. 102338-1

Material — Black thermoplastic, flame retardant

Typical Assembly

Technical Documents — page 276

Double-Row, .100 x .100 [2.54 x 2.54] Centers
Part No. 102114-1

Material — Black glass-filled polyester

Note: All part numbers are RoHS compliant.
Material
Black polyester

Technical Documents — page 276

The barrier insert can be used on double row headers (.100 x .100 [2.54 x 2.54] centers), including shrouded versions—3 and 4 sides, as well as unshrouded straight post headers. With one barrier insert several configurations can be obtained, providing headers with capabilities of accepting various combinations of polarized and non-polarized AMPMODU connectors.

For unshrouded headers, the barrier insert is used to establish polarization and to compartmentalize the header. For shrouded headers, the barrier insert is used to compartmentalize the header, while maintaining polarization. The barrier insert itself is notched to facilitate cutting off the ends with a simple tool such as tin snips or scissors to achieve the desired configuration.

Barrier Insert Cutoffs

<table>
<thead>
<tr>
<th>Fig.</th>
<th>Cutoff Description</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Partial Cutoff</td>
<td>(Left and Right Sides)</td>
</tr>
<tr>
<td>2</td>
<td>Partial Cutoff</td>
<td>(Left Side)</td>
</tr>
<tr>
<td>3</td>
<td>Complete Cutoff</td>
<td>(Left Side)</td>
</tr>
<tr>
<td>4</td>
<td>Complete Cutoff</td>
<td>(Left and Right Sides)</td>
</tr>
</tbody>
</table>

Typical Barrier Insert Applications

For Unshrouded Double-Row, Straight Post Headers, .100 x .100 [2.54 x 2.54] Centers

Note: All configurations of barrier inserts compartmentalize headers and maintain polarization, except bar (Fig. 4) configuration, which is used primarily for compartmentalizing headers.

For Shrouded Double-Row, 3 and 4 Sided Headers, .100 x .100 [2.54 x 2.54] Centers

Note: Right-angle (Figs. 2 and 3) and “T” (Fig. 1) configurations of barrier insert establish polarization; bar (Fig. 4) configuration of barrier insert compartmentalizes header.

Note: All part numbers are RoHS compliant.
### Accessories: Snap-In Polarizer for Low Profile Headers

**Material**
Black thermoplastic, flame retardant

**Part Numbers**
- 499991-2 (Packaged 50 per bag)
- 499991-3 (Packaged 1000 per bag)

**Related Product Data**
Low Profile Headers used with — pages 135-140

---

The snap-in polarizer provides military polarization for low profile headers. Installation of the polarizer is as follows:

1. **Slide the polarizer** over the polarizing slot of the housing until the latch engages the hole. Snap off the tab at the break line next to the housing. Using the remaining polarizer, repeat the process for the other housing location.

2. **Orient the polarizer** so that the polarizer latch is on the same side as the inner wall (post side) of the header housing.

---

**Note:** For Post Shunts, contact Tyco Electronics.

**Note:** All part numbers are RoHS compliant.
Locking Clip Contacts and Housings

Product Facts
- Self-retaining contacts provide permanent connection with quick connect and disconnect
- Fast, easy installation with no additional locking hardware required
- Mates with .025 (0.64) square posts in a variety of configurations
- Single- and double-row configurations in up to 20 positions on .100 [2.54] centers
- Modular design permits end-to-end stacking (double-row only) for circuit grouping
- Choice of tin or select gold plating
- Housings made of 94V-0 rated glass-filled polyester
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

Performance Characteristics
Contact Current Rating — 3 amperes
Termination Resistance —
12 milliohms (max.) — Gold plated contacts
16 milliohms (max.) — Tin plated contacts

Contact Current Rating
- 3 amperes

Termination Resistance
- 12 milliohms (max.) — Gold plated contacts
- 16 milliohms (max.) — Tin plated contacts

Durability

Performance Characteristics

Contact Current Rating
- 3 amperes

Termination Resistance
- 12 milliohms (max.) — Gold plated contacts
- 16 milliohms (max.) — Tin plated contacts

Durability

Contact current rating is 3 amperes.
Termination resistance is 12 milliohms (max.) for gold plated contacts and 16 milliohms (max.) for tin plated contacts.
Durability specifications can be found in Product Specifications 108-36028 and 108-36028-1.

Typical Application

*If post is longer than maximum specified, post tip may butt against wire ends.
Dimension defines .025 x .025 [0.64 x 0.64] portion of post.
Locking Clip Contacts

Wire Crimp Contacts with Insulation Support

Material and Finish
Contact Spring — Stainless steel
Plating A — Selectively plated
0.00030 [0.00076] gold on contact area,
with gold flash over 0.00015 [0.00038] nickel on entire contact
Plating B — Selectively plated
0.00015 [0.00038] gold on contact area,
with gold flash over 0.00015 [0.00038] nickel on entire contact
Plating C — 0.00015 [0.00038] bright tin over
0.00005 [0.000127] nickel on entire contact

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*For use with AMP-O-LECTRIC Model “K” machines. Call the Technical Support Center (1-800-522-6752) for part nos. of applicators for use with the AMP-O-LECTRIC Model “G” machines (shown on page 270), as well as other bench machines and fully automatic AMPOMATOR lead making machines. Notes: 1. These contacts must be crimped in accordance with Tyco Electronics Specification No. 114-25006 in order to function properly in a connector housing. 2. Extraction Tool No. 91084-1 is used for removing individual contacts from connector housings and for detaching contacts from mating posts.

Related Product Data
Housings Used With — pages 208, 209
Application Tooling — page 272

Technical Documents — pages 277, 278
Product Specification
108-36028, 108-36028-1
Application Specification
114-25006

Wire Harnessing
If necessary, wires can be grouped with cable ties and secured to a panel with fixed clamps. However, locking clip contacts must be free to float within the connector housings to allow proper extraction. Therefore, harnessing hardware or the use of multiple terminations per contact must not restrict the free-floating action of contacts in the housing.

For more information request Insulation and Bundling Products Catalog 124132.

Note: All part numbers are RoHS compliant.
Single-Row

Material
Glass-filled polyester, 94V-0 rated

Related Product Data
Contacts — page 207
Mateable Headers and Posts — Refer to the Mating Post Selection Guide — page 90

Technical Documents — pages 277, 278
Application Specification 114-25006

.Wire-Applied Housings for Locking Clip Contacts, Single-Row, .100 [2.54] Centerline

No. of Pos. | A  | B  | C  | Housing Part No. |
--- | --- | --- | --- | --- |
14 | 1.416 [35.97] | 1.300 [33.02] | .058 [1.47] | 3-87175-0 |

Note: All part numbers are RoHS compliant.
### Wire-Applied Housings for Locking Clip Contacts, Double-Row, .100 x .100 [2.54 x 2.54] Centerline

#### Double-Row

**Material**
Glass-filled polyester, 94V-0 rated

**Related Product Data**
- **Contacts** — page 207
- **Mateable Headers and Posts** — Refer to the Mating Post Selection Guide — page 90

**Technical Documents** — pages 277, 278
- **Application Specification** 114-25006

**Keying Plug**

Part No. 87179-1
(Plugs directly into housings for .025 [0.64] square post contacts)

**Material** — Yellow, nylon

#### Note:
Housing illustrated above is the “Both Ends Closed” version.

**Material** — Yellow, nylon

#### Note:
All part numbers are RoHS compliant.

### Housing Configuration

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<th>Dimensions</th>
<th>Housing Part No.</th>
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<td>.316 [8.03]</td>
<td>.200 [5.08]</td>
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Right End Open

|                       | 4           | .216 [5.49]| .100 [2.54]     | 87132-1         |

Left End Open

|                       | 4           | .216 [5.49]| .100 [2.54]     | 87131-1         |
Mod IV Wire-Applied Contacts and Housings

Product Facts
- Terminates 32-20 AWG [0.03-0.6mm²] discrete wire
- Contacts have insulation support
- Choice of three contact mating pressures
- Available in a variety of gold and tin platings
- Receptacles mate with .025 [0.64] square or round posts
- Dual cantilever contact beam with built-in anti-overstress feature for reliable matings
- Housings accept a variety of receptacle and pin contacts
- Housing sizes range up to 100 positions
- Housing configurations include single- and double-rows on .100 [2.54] centerlines
- Housing options include detent latching, polarization and bonded strain relief/pull tabs
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

Performance Characteristics
Contact Current Rating — 3 amperes
Termination Resistance — 12 milliohms (max.) — Beryllium copper contacts
20 milliohms (max.) — Copper-tin-phosphor bronze contacts
Durability — Ref. Product Specification 108-25020

Note: All part numbers are RoHS compliant.
Mod IV Pin and Receptacle Contacts

Crimp Snap-In (No-strip) Receptacles and Crimp Snap-In Pins with Insulation Support (Standard Pressure)

![Diagram of Mod IV Contacts](image)

Material and Finish

Beryllium copper, phosphor bronze, or copper-tin-phosphor bronze (see charts), plated as follows:

- **Plating A** — Selectively plated .00030 [0.00076] gold on contact area, with gold flash over .000050 [0.00127] nickel on entire contact
- **Plating B** — Selectively plated .00015 [0.00038] gold on contact area, with gold flash over .000050 [0.00127] nickel on entire contact
- **Plating C** — .000100-.000200 [0.00254-0.00508] tin over .000030 [0.00076] nickel on entire contact

Related Product Data

- **Housings Used With** — pages 214-220
- **Performance Characteristics** — page 210
- **Application Tooling** — page 270-272

Technical Documents —

- **Product Specification**
- **Application Specification**
  114-25003, 114-25016

Additional header sizes are available; minimum order quantities may apply. Consult Tyco Electronics.

Note: All part numbers are RoHS compliant.

Crimp Snap-In (No-strip) Receptacles

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Crimp Snap-In Pins with Insulation Support

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<td>5-102107-3</td>
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*For use with AMP-O-LECTRIC Model "K" machines. Call the Technical Support Center (1-800-522-6752) for part nos. of applicators for use with the AMP-O-LECTRIC Model "G" machines (shown on page 270), as well as other bench machines and fully automatic AMPOMATOR lead making machines.

†PRO-CRIMPER II hand tool frame with die set assembly. Die Set Part No. 58641-2
Mod IV Receptacle Contacts

Crimp Snap-In Receptacles with Insulation Support (Standard, Intermediate and High Pressure)

Material and Finish
Beryllium copper, phosphor bronze or copper-tin-phosphor bronze (see charts, on following page), plated as follows:

**Plating A** — Duplex plated .000030 [.000076] gold on contact area, .000100-.000200 [.00254-0.00508] tin on crimp area, with entire contact underplated .000050 [.00127] nickel

**Plating B** — Duplex plated .000015 [.000038] gold on contact area, .000100-.000200 [.00254-0.00508] tin on crimp area, with entire contact underplated .000050 [.00127] nickel

**Plating D** — Selectively plated .000050 [.00127] gold on contact area, with gold flash over .000050 [.00127] nickel on entire contact

**Plating E** — Selectively plated .000030 [.000076] gold on contact area, with gold flash over .000050 [.00127] nickel on entire contact

**Plating F** — Selectively plated .000015 [.000038] gold on contact area, with gold flash over .000050 [.00127] nickel on entire contact

**Plating G** — .000100-.000200 [.00254-0.00508] tin over .000030 [.00076] nickel on entire contact

Related Product Data

**Housings Used With** — pages 214-220

**Performance Characteristics** — page 210

**Application Tooling** — pages 270-272

**Technical Documents** — pages 277, 278

**Product Specification**

**Application Specification**
114-25003, 114-25016

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<td>1.5 oz. Min.</td>
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<td><strong>Intermediate Pressure</strong></td>
<td>16 oz. Max.</td>
<td>2 oz. Min.</td>
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<td><strong>High Pressure</strong></td>
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<td>3 oz. Min.</td>
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## Standard Pressure (Mod IV)

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### Intermediate Pressure (Mod IV.v)

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### High Pressure (Mod V)**

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*For use with AMP-O-LECTRIC Model "K" machines. Call the Technical Support Center (1-800-522-6752) for part nos. of applicators for use with the AMP-O-LECTRIC Model "G" machines (shown on page 270), as well as other bench machines and fully automatic AMPOMATOM lead making machines.

**Contact material is phosphor bronze.

†PRO-CRIMPER II hand tool frame with die set assembly.

Die Set Part No. 58641-2

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**Note:** All part numbers are RoHS compliant.

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Catalog 1307819
Revised 8-08

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Non-Polarized

Material
Black thermoplastic, flame retardant

Related Product Data
Contacts — pages 211-213
Mateable Headers and Posts — pages 93-95, 101-103

Technical Documents — pages 277, 278
Application Specification 114-25003, 114-25016

Mod IV Wire-Applied Housings, Single-Row, .100 [2.54] Centerline

Keying Plugs

Part No. 68286-1
(Plugs into standard or intermediate pressure receptacle contact)

Material — Natural color nylon

Part No. 87077-2
(Plugs directly into housing)

Notes:
1. Strain reliefs are available and may be purchased separately. Consult Tyco Electronics.
2. Contact Extraction/Lance Reset Tool No. 843996-3.

Material
— Natural color nylon
— pages 211-213

No. of Pos. | Dimensions | Part No. |
---|---|---|
2 | .205 [5.21] | 87499-9-4 |
3 | .305 [7.75] | 87499-9-6 |
4 | .405 [10.29] | 87499-9-8 |
5 | .505 [12.83] | 87499-9-0 |
7 | .705 [17.91] | 87499-9-4 |
8 | .805 [20.45] | 87499-9-6 |
9 | .905 [22.99] | 87499-9-0 |
10 | 1.005 [25.4] | 87499-9-2 |
11 | 1.105 [28.01] | 87499-9-4 |
12 | 1.205 [30.61] | 87499-9-6 |
13 | 1.305 [33.65] | 87499-9-0 |
14 | 1.405 [35.56] | 87499-9-2 |
15 | 1.505 [38.1] | 87499-9-4 |
16 | 1.605 [40.64] | 87499-9-6 |
17 | 1.700 [43.18] | 87499-9-0 |
18 | 1.805 [45.72] | 87499-9-2 |
19 | 1.900 [48.26] | 87499-9-4 |
20 | 2.005 [50.8] | 87499-9-6 |
21 | 2.100 [53.34] | 87499-9-0 |
22 | 2.205 [56.09] | 87499-9-2 |
23 | 2.300 [58.65] | 87499-9-4 |
24 | 2.400 [61.02] | 87499-9-6 |
25 | 2.500 [63.5] | 87499-9-0 |
26 | 2.605 [66.04] | 87499-9-2 |
27 | 2.700 [68.58] | 87499-9-4 |
28 | 2.800 [71.12] | 87499-9-6 |
29 | 2.900 [73.66] | 87499-9-0 |
30 | 3.005 [76.22] | 87499-9-2 |
31 | 3.100 [78.74] | 87499-9-4 |
32 | 3.200 [81.28] | 87499-9-6 |
33 | 3.300 [83.82] | 87499-9-0 |
34 | 3.400 [86.36] | 87499-9-2 |
35 | 3.500 [88.9] | 87499-9-4 |
36 | 3.600 [91.44] | 87499-9-6 |

* Cavity identification, part number and date code stamped on housing where size permits.
** No marking on housing.

Notes:
1. Strain reliefs are available and may be purchased separately. Consult Tyco Electronics.
2. Contact Extraction/Lance Reset Tool No. 843996-3.

Note: All part numbers are RoHS compliant.
Mod IV Wire-Applied Housings, Single-Row, .100 [2.54] Centerline (Continued)

Material
Black thermoplastic, flame retardant

Related Product Data
Contacts — pages 211-213
Mateable Headers and Posts — pages 115, 116
Flexible Film Connectors, Single-Row Pin Assemblies — Catalog 82007

Technical Documents — pages 277, 278
Product Specification
Application Specification
114-25003, 114-25016

Keying Plugs

Part No. 86286-1
(Plugs into standard or intermediate pressure receptacle contact)

Material — Natural color nylon

Part No. 87077-2
(Plugs directly into housing)

No. of Pos. | Dimensions | Part Nos. Unstamped*
--- | --- | ---
3 | .300 [7.62] | 102241-1
4 | .400 [10.16] | 102241-2
5 | .500 [12.70] | 102241-3
6 | .600 [15.24] | 102241-4
7 | .700 [17.78] | 102241-5
8 | .800 [20.32] | 102241-6
9 | .900 [22.86] | 102241-7
10 | 1.000 [25.40] | 102241-8
11 | 1.100 [27.94] | 102241-9
12 | 1.200 [30.48] | 1-102241-0
13 | 1.300 [33.02] | 1-102241-1
14 | 1.400 [35.56] | 1-102241-2
15 | 1.500 [38.10] | 1-102241-3
16 | 1.600 [40.64] | 1-102241-4
17 | 1.700 [43.18] | 1-102241-5
18 | 1.800 [45.72] | 1-102241-6
19 | 1.900 [48.26] | 1-102241-7
20 | 2.000 [50.80] | 1-102241-8
21 | 2.100 [53.34] | 1-102241-9
22 | 2.200 [55.88] | 2-102241-0
23 | 2.300 [58.42] | 2-102241-1
24 | 2.400 [60.96] | 2-102241-2
25 | 2.500 [63.50] | 2-102241-3
26 | 2.600 [66.04] | 2-102241-4
27 | 2.700 [68.58] | 2-102241-5
28 | 2.800 [71.12] | 2-102241-6
29 | 2.900 [73.66] | 2-102241-7
30 | 3.000 [76.20] | 2-102241-8
31 | 3.100 [78.74] | 2-102241-9
32 | 3.200 [81.28] | 3-102241-0
33 | 3.300 [83.82] | 3-102241-1
34 | 3.400 [86.36] | 3-102241-2
35 | 3.500 [88.90] | 3-102241-3
36 | 3.600 [91.44] | 3-102241-4

*No marking on housing.

Note: Contact Extraction/Lance Reset Tool No. 843996-3.

Note: All part numbers are RoHS compliant.
Mod IV Wire-Applied Housings, Double-Row, 
.100 x .100 [2.54 x 2.54] Centerline

Non-Polarized

Material
Black thermoplastic, flame retardant

Related Product Data
Contacts — pages 211-213
Mateable Headers and Posts — pages 96-99, 104, 105, 117-120

Technical Documents —
pages 277, 278
Product Specification
Application Specification
114-25003, 114-25016

Keying Plugs

Part No. 86286-1
(Plugs into standard or intermediate pressure receptacle contact)

Material — Natural color nylon

Part No. 87077-1
(for .645 high housings)
Part No. 87077-2
(for .600 high housings)
(Plugs directly into housing)

No. of Pos. | Dimensions | Part Nos.
--- | --- | ---
| A | B |
| C = .600 [15.24] | Stamped* | Unstamped** |
| C = .645 [16.38] | Unstamped** |
2 | .100 [2.54] | — | 5-87456-3 | — |
4 | .200 [5.08] | .100 [2.54] | 5-87456-0 | 4-87456-9 | 2-86177-5 |
6 | .300 [7.62] | .200 [5.08] | 87456-2 | 87456-1 | 1-86177-8 |
8 | .400 [10.16] | .300 [7.62] | 87456-4 | 87456-3 | 2-86177-0 |
14 | .700 [17.78] | .600 [15.24] | 1-87456-0 | 87456-9 | 1-86177-4 |
20 | 1.000 [25.40] | .900 [22.86] | 1-87456-6 | 1-87456-5 | 86177-1 |
22 | 1.100 [27.94] | 1.000 [25.40] | 1-87456-7 | 86177-2 |
24 | 1.200 [30.48] | 1.100 [27.94] | 2-87456-0 | 1-87456-9 | 86177-3 |
26 | 1.300 [33.02] | 1.200 [30.48] | 2-87456-2 | 2-87456-1 | 86177-4 |
28 | 1.400 [35.56] | 1.300 [33.02] | 2-87456-4 | 2-87456-3 | 86177-5 |
30 | 1.500 [38.10] | 1.400 [35.56] | 2-87456-6 | 2-87456-5 | 86177-6 |
32 | 1.600 [40.64] | 1.500 [38.10] | 2-87456-8 | 2-87456-7 | 86177-7 |
34 | 1.700 [43.18] | 1.600 [40.64] | 3-87456-0 | 2-87456-9 | 86177-8 |
36 | 1.800 [45.72] | 1.700 [43.18] | 3-87456-2 | 3-87456-1 | 86177-9 |
38 | 1.900 [48.26] | 1.800 [45.72] | — | 3-87456-3 | 1-86177-0 |
40 | 2.000 [50.80] | 1.900 [48.26] | 3-87456-6 | 3-87456-5 | 1-86177-1 |
42 | 2.100 [53.34] | 2.000 [50.80] | 4-87456-4 | 4-87456-3 | — |
44 | 2.200 [55.88] | 2.100 [53.34] | 3-87456-8 | 3-87456-7 | 1-86177-7 |
48 | 2.400 [60.96] | 2.300 [58.42] | 6-87456-0 | 5-87456-9 | 2-86177-3 |
50 | 2.500 [63.50] | 2.400 [60.96] | 4-87456-0 | 3-87456-9 | 2-86177-1 |
52 | 2.600 [66.04] | 2.500 [63.50] | 4-87456-2 | 4-87456-1 | 1-86177-9 |
54 | 2.700 [68.58] | 2.600 [66.04] | — | 4-87456-5 | — |
56 | 2.800 [71.12] | 2.700 [68.58] | — | 6-87456-1 | — |
58 | 2.900 [73.66] | 2.800 [71.12] | — | 6-87456-3 | — |
60 | 3.000 [76.20] | 2.900 [73.66] | 5-87456-2 | 5-87456-1 | — |
64 | 3.200 [81.28] | 3.100 [78.74] | 6-87456-6 | 6-87456-5 | — |
66 | 3.300 [83.82] | 3.200 [81.28] | 5-87456-4 | 5-87456-7 | — |
70 | 3.500 [88.90] | 3.400 [86.36] | 5-87456-5 | 2-86177-4 |
72 | 3.600 [91.44] | 3.500 [88.90] | 4-87456-8 | 4-87456-7 | — |

* Cavity identification, part number and date code stamped on housing where size permits.
** No marking on housing.

Notes:
1. Strain reliefs are available and may be purchased separately. Consult Tyco Electronics.
2. Contact Extraction/Lance Reset Tool No. 843996-3.

Note: All part numbers are RoHS compliant.
Mod IV Wire-Applied Housings, Double-Row, .100 x .100 (2.54 x 2.54) Centerline (Continued)

Polarized

Material
Black thermoplastic, flame retardant

Related Product Data
Contacts — pages 211-213
Mateable Headers and Posts— pages 117-131

Technical Documents — pages 277, 278

Product Specification

Application Specification
114-25008, 114-25018

Keying Plugs

Part No. 86286-1
(Plugs into standard or intermediate pressure receptacle contact)

Material — Natural color nylon

Part No. 87077-2
(Plugs directly into housing)

Dimensions

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* Cavity identification, part number and date code stamped on housing where size permits.

** No marking on housing or strain relief.

Notes: 1. Strain reliefs are available and may be purchased separately. Consult Tyco Electronics.
2. Contact Extraction/Lance Reset Tool No. 843996-3.

Note: All part numbers are RoHS compliant.
Mod IV Wire-Applied Housings, Double-Row, .100 x .100 [2.54 x 2.54] Centerline (Continued)

Polarized (with Detent Latching, with and without Strain Relief/Pull Tab)

Material
Black thermoplastic, flame retardant

Related Product Data
Contacts — pages 211-213
Mateable Headers and Posts — pages 117-125, 127-133

Technical Documents — pages 277, 278
Product Specification
Application Specification
114-25003, 114-25016

Keying Plugs

Part No. 86286-1
(Plugs into standard or intermediate pressure receptacle contact)

Material — Natural color nylon

Part No. 87077-2
(Plugs directly into housing)

Housing with Strain Relief/Pull Tab
Strain Relief Part No. 87921-1
(10 thru 18 positions)

Housing with Strain Relief/Pull Tab
Strain Relief Part No. 87710-1
(20 positions and larger)

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</table>

*Cavity identification, part number and date code stamped on housing and/or strain relief where size permits. **No marking on housing or strain relief.

Notes:
1. The Strain Relief/Pull Tab can be bonded to any thermoplastic connector housing.
2. Strain reliefs may be purchased separately.
3. Contact Extraction/Lance Reset Tool No. 843996-3.

Note: All part numbers are RoHS compliant.
# Mod IV Wire-Applied Housings, Double-Row, .100 x .100 [2.54 x 2.54] Centerline (Continued)

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<td>3.500</td>
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<tr>
<td>72</td>
<td>2</td>
<td>3.800</td>
<td>1.800</td>
</tr>
</tbody>
</table>

* Cavity identification, part number and date code stamped on housing and/or strain relief where size permits.
** No marking on housing or strain relief.

**Notes:**
1. The Strain Relief/Pull Tab can be bonded to any thermoplastic connector housing.
2. Strain reliefs may be purchased separately.
3. Contact Extraction/Lance Reset Tool No. 843996-3.
Mod IV Wire-Applied Housings, Double-Row, 
.100 x .100 [2.54 x 2.54] Centerline (Continued)

Center Polarized

Material
Black thermoplastic, flame retardant

Related Product Data
Contacts — pages 211-213
Mateable Headers and Posts — pages 135-140
AMP-LATCH Low Profile Headers, Shrouded — pages 108-200, 108-2502
Technical Documents — pages 277, 278
Product Specification
Application Specification
114-25003, 114-25016

No. of Dimensions Part Nos. Pos. A B C (Stamped*)
24  1.380 [35.05] .625 [15.88] 1.100 [27.94] 102387-5
30  1.680 [42.67] .775 [19.73] 1.400 [35.56] 102387-7
34  1.880 [47.76] .875 [22.23] 1.600 [40.64] 102387-8
44  2.380 [60.45] 1.125 [28.58] 2.100 [53.34] 1-102387-3
50  2.680 [68.07] 1.275 [32.39] 2.400 [60.96] 102387-0
60  3.180 [80.77] 1.525 [38.74] 2.900 [73.66] 1-102387-1
64  3.380 [85.85] 1.625 [41.28] 3.100 [78.74] 1-102387-2

Material — Natural color nylon

Part No. 86286-1
(Plugs into standard or intermediate pressure receptacle contact)

Keying Plugs

Part No. 87077-2
(Plugs directly into housing)

Note: Contact Extraction/Lance Reset Tool No. 843996-3.

*Cavity identification and Tyco Electronics stamped on housing.
†Non-functional slot is used for gating purposes during injection molding process. This gating feature is not inherent in all production molds. Therefore, the depicted slot will only be present on housings produced on mold tooling requiring this gating feature.

Note: All part numbers are RoHS compliant.
Short Point, Crimp Snap-In Wire-Applied Contacts and Housings

Product Facts

- Short point of contact mates with .169 [4.29] to .259 [6.58] long post
- Double-row housings are end-to-end and side-to-side stackable
- Terminates 32-20 AWG [0.03-0.6 mm²] discrete wire
- Contacts have insulation support to accept a maximum insulation diameter of .060 [1.52]
- Available with .000015 [0.00038] or .000030 [0.00076] gold duplex, or tin plating
- Mates with .025 [0.64] square posts
- Dual cantilever contact beams for reliable matings
- Locking retention latch provides approximately 3 lb [13.34 N] of retention force
- Unique locking latch design helps prevent latch from protruding through latch window
- Contacts snap into AMPMODU MTE single-row housings
- Double-row housing configurations include .100 [2.54] centerline, plain and polarized
- Housing sizes range from 4 to 52 positions
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189
- Produced under a Quality Management System certified to ISO 9001
  (A copy of the certificate is available upon request)

AMPMODU Short Point receptacle contacts are designed to mate with .025 [0.64] square posts. They will mate with posts as short as .169 [4.29].

Short Point double-row housings are end-to-end and side-to-side stackable on .100 [2.54] centers. Contacts also can be used in single-row AMPMODU MTE housings to provide a complete wire-crimp system, or to serve as replacement contacts.

Performance Characteristics

- Contact Current Rating — 3 amperes
- Termination Resistance — 12 milliohms (max.)
- Durability — Ref. Product Specification 108-1472

Note: All part numbers are RoHS compliant.
Short Point Crimp Snap-In Receptacle Contacts

**Material and Finish**

Copper alloy C7025, plated as follows:

- **Plating A** — Duplex plated .000030 [0.00076] min. gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] min. nickel.
- **Plating B** — Duplex plated .000015 [0.00038] min. gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] min. nickel.
- **Plating C** — .000100 [0.00254] min. tin over .000050 [0.00127] min. nickel on entire contact.

**Related Product Data**

**Performance Characteristics** — page 221

**Housings used in** — Short Point — pages 223, 224

**AMPMODU MTE Unloaded**

**Housings** — pages 228-233

**Application Tooling** — page 270-272

**Technical Documents** — pages 276-278

**Product Specification**

108-1472

**Application Specification**

114-25038

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**Table:**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>32-28</td>
<td>0.03-0.08</td>
<td>Plating A</td>
<td>1-104481-1 1-104481-3</td>
<td>567296-2</td>
<td>466980-1</td>
<td>91518-1</td>
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<td>Plating B</td>
<td>1-104481-0 1-104481-2</td>
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<tr>
<td></td>
<td></td>
<td>Plating C</td>
<td>5-104481-2 5-104481-6</td>
<td></td>
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<tr>
<td>26-22</td>
<td>0.13-0.3</td>
<td>Plating A</td>
<td>1-104480-3 1-104480-6</td>
<td>567297-2</td>
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<td>Plating B</td>
<td>1-104480-2 1-104480-5</td>
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<tr>
<td></td>
<td></td>
<td>Plating C</td>
<td>1-104480-7 1-104480-4</td>
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<td>24-20</td>
<td>0.2-0.5</td>
<td>Plating A</td>
<td>1-104479-0 1-104479-3</td>
<td>567298-2</td>
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<td></td>
<td></td>
<td>Plating B</td>
<td>104479-9 1-104479-2</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plating C</td>
<td>104479-8 1-104479-1</td>
<td></td>
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</tr>
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*For use with Model "K" machines. Call the Tooling/Technical Assistance Center (1-800-722-1111) for part nos. of applicators for use with the Model "G" machines (shown on page 288), as well as other bench machines and fully automatic AMPOMATOR lead making machines.

**Note:** All part numbers are RoHS compliant.
Short Point Wire-Applied Housings, Double-Row, Non-Polarized, 
.100 x .100 [2.54 x 2.54] Centerline

Material
Black thermoplastic, flame retardant, 
94V-0 rated

Related Product Data
Performance Characteristics — page 221
Contacts — page 222
Mateable Headers — pages 104, 105

Technical Documents — pages 276-278
Product Specification
109-1472
Application Specification
114-25038

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Housing Part No.</th>
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<tbody>
<tr>
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<td>A</td>
<td>B</td>
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<tr>
<td>4</td>
<td>.198 [5.03]</td>
<td>.100 [2.54]</td>
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<td>.498 [12.65]</td>
<td>.400 [10.16]</td>
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<td>16</td>
<td>.798 [20.27]</td>
<td>.700 [17.78]</td>
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<tr>
<td>18</td>
<td>.898 [22.81]</td>
<td>.800 [20.32]</td>
</tr>
<tr>
<td>22</td>
<td>1.098 [27.89]</td>
<td>1.000 [25.40]</td>
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<tr>
<td>30</td>
<td>1.498 [38.05]</td>
<td>1.400 [35.56]</td>
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<tr>
<td>32</td>
<td>1.598 [40.59]</td>
<td>1.500 [38.10]</td>
</tr>
<tr>
<td>34</td>
<td>1.698 [43.13]</td>
<td>1.600 [40.64]</td>
</tr>
<tr>
<td>36</td>
<td>1.798 [45.67]</td>
<td>1.700 [43.18]</td>
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<tr>
<td>38</td>
<td>1.898 [48.21]</td>
<td>1.800 [45.72]</td>
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<td>40</td>
<td>1.998 [50.75]</td>
<td>1.900 [48.26]</td>
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<td>44</td>
<td>2.198 [55.33]</td>
<td>2.100 [53.34]</td>
</tr>
<tr>
<td>50</td>
<td>2.598 [65.59]</td>
<td>2.500 [63.50]</td>
</tr>
</tbody>
</table>

Note: All part numbers are RoHS compliant.
Short Point Wire-Applied Housings, Double-Row, Polarized, .100 x .100 [2.54 x 2.54] Centerline

Material
Black thermoplastic, flame retardant, 94V-0 rated

Related Product Data
Performance Characteristics — page 221
Contacts — page 222
Mateable Headers — pages 104, 105, 135-138

Technical Documents — pages 276-278
Product Specification 108-1472
Application Specification 114-25038

<table>
<thead>
<tr>
<th>No. of Housing</th>
<th>Part No.</th>
<th>Dimensions</th>
<th>No. of Plc.</th>
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<td>A</td>
<td>B</td>
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<tr>
<td>8</td>
<td>104483-1</td>
<td>.398 [10.11]</td>
<td>.300 [7.62]</td>
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<tr>
<td>14</td>
<td>104483-4</td>
<td>.698 [17.73]</td>
<td>.600 [15.24]</td>
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<tr>
<td>30</td>
<td>104483-8</td>
<td>1.498 [38.55]</td>
<td>1.400 [35.56]</td>
</tr>
<tr>
<td>38</td>
<td>104483-9</td>
<td>1.898 [48.21]</td>
<td>1.800 [45.72]</td>
</tr>
<tr>
<td>50</td>
<td>104483-10</td>
<td>2.498 [63.45]</td>
<td>2.400 [60.96]</td>
</tr>
<tr>
<td>52</td>
<td>104483-11</td>
<td>2.598 [65.99]</td>
<td>2.500 [63.50]</td>
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<tr>
<td>54</td>
<td>104483-12</td>
<td>2.698 [68.53]</td>
<td>2.600 [66.04]</td>
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<tr>
<td>64</td>
<td>104483-13</td>
<td>3.198 [81.23]</td>
<td>3.100 [78.74]</td>
</tr>
</tbody>
</table>

Note: Other sizes can be made available on request.
MTE Interconnection System

Product Facts
- Receptacle assemblies mate with .025 [0.64] sq. posts; mating post length is .200 [5.08] min., .250 [6.35] max.
- Proven AMPMODU receptacle contact design; dual cantilever beams, built-in anti-overstress, completely enclosed “box” design, standard or high-pressure
- Insulation displacement technology
- Two contact sizes for terminating 30-22 AWG (0.05-0.3 mm²) wire range: .054 [1.37] max. insulation diameter with an insulation wall thickness of .015 [0.38] max.
- Choice of gold duplex or tin plated contacts
- Interchangeable crimp snap-in pin and receptacle contacts available
- Housing sizes 2 through 25 positions, single-row .100 [2.54] centers
- Plain housings are end-to-end and/or back-to-back stackable for open pin field applications
- Optional header with “swaged tail” feature helps prevent movement prior to flow soldering
- Integral latch provides positive retention between header and receptacle housing
- Coupling shrouds permit ganging of smaller connectors with guide ribs to form larger single- or double-row latching connectors
- Mass terminating tooling provides lowest applied cost for most production needs
- SMT and SMT compatible, high-temp headers available
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR7189

The AMPMODU MTE Interconnection System offers both wire-to-board and wire-to-wire connectors using .025 [0.64] sq. post technology.

The AMPMODU MTE Interconnection System consists of single-row housings with contacts preloaded on .100 [2.54] centers. Housings are furnished with contacts partially inserted, leaving the termination areas exposed. Final contact insertion can be accomplished automatically with Tyco Electronics application equipment, and manually when terminated with the Tyco Electronics pistol grip hand tool.

The heart of the system is the insulation displacement contact design, featured in both pin and receptacle contacts. The receptacle contact, available in either standard or high-pressure, features dual cantilever beams in an enclosed “box.” The post stop helps prevent a mating post from disturbing the wire termination and also limits the mating depth of a long post to protect a wrap-type termination at the base of the post. The forward contact stop helps prevent contact overinsertion prior to termination. All contacts are furnished on carrier strips which are interlocked for stability and positive location during termination.

Single-row housings are available in sizes 2 through 25 positions. Included are three styles of receptacle housings—plain, polarized/ latching and ribbed and two styles of pin housings, shrouded with polarizing/ latching feature and ribbed.

Performance Specifications

Electrical Characteristics
- Contact Current Rating — 3 amperes for single contact in free air (Amperage could vary due to ambient temperature, wire size and duty cycles.)
- Contact Termination Resistance — 15 megohms (max.)
- Dielectric Withstanding Voltage — At Sea Level–600 VAC, rms
- Insulation Resistance — 5,000 megohms (min.)

Environmental Characteristics
- Operating Temperature — -65°C to +105°C
- Vibration — 15 G’s (gold), 10 G’s (tin)
- Physical Shock — 50 G’s
- Industrial Mixed Flow Gasing — Class 1 (20 days) (gold)

Product Specification
- 108-25034

Application Specification
- 114-25026
MTE Interconnection System (Continued)

Wire-to-Board

Receptacle Assemblies with Guide Ribs
(See pages 232 & 233)

Double-Row Coupling Shroud (See page 241)

AMPMODU Shrouded Headers, Double-Row, Straight or Right Angle Post (See pages 119-121, 124, 125, 127, 128, 131-133 & 149)

AMPMODU Interconnection System

Receptacle Assemblies Polarized/Latching
(See pages 230 & 231)

High-Temp Headers, Polarized/Latching, Straight and Right Angle Post, with or without Holddown
(See pages 249 & 250)

Receptacle Assemblies, Polarized/Latching (See pages 250 & 231)

Headers, Polarized/Latching, Right Angle Post, with or without Holddown
(See pages 244 & 245)

Receptacle Assemblies Plain
(See pages 228 and 229)

High Pressure Receptacle Assemblies, Plain (See page 234)

Receptacle Contact, Insulation Displacement
(Used in all Receptacle Assemblies)

AMPMODU Breakaway Headers, Single- or Double-Row, Straight or Right-Angle Post, with or without Board Retention Feature
(See pages 102-105)

Receptacle Assemblies, Plain (See pages 228 & 229)

Single-Row Coupling Shroud (See page 240)

1 Mating AMPMODU Double-Row Shrouded Header Assemblies must have .318 [8.08] mating post length and .150 [3.81] dimension from centerline of last post to inside of end shroud wall.

2 Surface Mount Right-Angle and Vertical Headers are also available (see pages 251 and 252)
MTE Interconnection System (Continued)

Wire-to-Wire

Note: For wire-to-wire applications shown above, all pin and receptacle assembly combinations are intermateable.
Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 are recommended when using the Tyco Electronics Manual Pistol Grip Tool.

Material and Finish

Housing — Black thermoplastic, 94V-0 rated
Contacts — Phosphor Bronze, plated as follows:
- **Plating A** — Duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
- **Plating B** — Duplex plated .000015 [0.00038] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
- **Plating C** — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire contact

Note: Insulation displacement contacts accept an insulation diameter of .030 [0.76] min. to .054 [1.37] max. with an insulation wall thickness of .015 [0.38] max. Mating post length for preloaded housings is .200 [5.08] min., .250 [6.35] max.

Related Product Data

Mateable AMPMODU Products
- Breakaway Headers — pages 102-110 (with .230 mating length)
- Reeled Breakaway Headers — pages 106, 107 (with .230 mating length)

Machine Applied Bandolier Posts — page 163


Interchangeable Crimp Contacts (Short Point) — page 253

Application Tooling — page 273

Performance Specifications — page 225

Technical Documents — pages 277, 278

Product Specification 108-25034

Application Specification 114-25026

These receptacle assemblies with plain housings can be stacked end-to-end and/or side-to-side for single or double-row connections to an open pin field with a .100 [2.54] centerline grid.
### MTE Receptacle Assemblies—Strip Form Plain, Single-Row, .100 [2.54] Centerline (Continued)

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions A</th>
<th>Dimensions B</th>
<th>Housing Quantities Per Strip Segment</th>
<th>Strip Form Receptacle Assembly 30-26 AWG [0.05-0.15mm²] Wire</th>
<th>Strip Form Receptacle Assembly 26-22 AWG [0.12-0.3mm²] Wire</th>
<th>Unloaded Housings</th>
</tr>
</thead>
</table>
MTE Receptacle Assemblies—Polarized/Latching, Single-Row, .100 [2.54] Centerline

Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 are recommended when using the Tyco Electronics Manual Pistol Grip Tool.

Material and Finish

Housing — Black thermoplastic, 94V-0 rated
Contacts — Phosphor Bronze, plated as follows:

Plating A — Duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
Plating B — Duplex plated .000015 [0.00038] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
Plating C — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire contact

Note: Insulation displacement contacts accept an insulation diameter of .030 [0.76] min. to .054 [1.37] max. with an insulation wall thickness of .015 [0.38] max. Mating post length for preloaded housings is .200 [5.08] min., 250 [6.35] max.

Related Product Data

Mateable AMPMODU Products
Pin Assemblies (Polarized/Latching) — pages 236, 237
Pin Assemblies with Guide Ribs (installed in Panel Mount Pin Shroud) — pages 238, 239, 242
Headers (Polarized/Latching) — pages 244-252
Interchangeable Crimp Contacts (Short Point) — page 253
Application Tooling — page 273
Performance Specifications — page 225

Technical Documents — pages 277, 278
Product Specification
108-25034
Application Specification
114-25026

230
# MTE Receptacle Assemblies—Strip Form Polarized/Latching, Single-Row, .100 [2.54] Centerline (Continued)

<table>
<thead>
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<th>No. of Pos.</th>
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<table>
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<th>Dimensions B</th>
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<table>
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<tr>
<th>Housing Quantities Per Strip Segment</th>
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<tbody>
<tr>
<td>30-26 AWG [0.05-0.15mm²] Wire</td>
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<tr>
<td>26-22 AWG [0.12-0.3mm²] Wire</td>
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</table>

<table>
<thead>
<tr>
<th>Strip Form Receptacle Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plating A</td>
</tr>
<tr>
<td>Plating B</td>
</tr>
<tr>
<td>Plating C</td>
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<tbody>
<tr>
<td>Plating A</td>
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<tr>
<td>Plating B</td>
</tr>
<tr>
<td>Plating C</td>
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<table>
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<th>Unloaded</th>
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<td>housings</td>
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<table>
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<tr>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Receptacle assemblies are furnished with strip contacts partially inserted into housing—contacts latched into “preload” windows. Contacts are fully inserted into housings automatically when terminated with Tyco Electronics application machines, or manually when terminated with Tyco Electronics pistol grip hand tool.</td>
</tr>
<tr>
<td>2. Use Extraction/Lance Reset Tool No. 843477-1 to remove receptacle contacts.</td>
</tr>
<tr>
<td>3. Keying plugs are available, see page 253.</td>
</tr>
</tbody>
</table>

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# MTE Receptacle Assemblies—Individual Form Polarized/Latching, Single-Row, .100 [2.54] Centerline

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions A</th>
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<tbody>
<tr>
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<th>Housing Quantities</th>
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<tr>
<td>30-26 AWG [0.05-0.15mm²] Wire</td>
</tr>
<tr>
<td>26-22 AWG [0.12-0.3mm²] Wire</td>
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<th>Strip Form Receptacle Assembly</th>
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<tbody>
<tr>
<td>Plating A</td>
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<tr>
<td>Plating B</td>
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<td>Plating C</td>
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<thead>
<tr>
<th>Strip Form Receptacle Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plating A</td>
</tr>
<tr>
<td>Plating B</td>
</tr>
<tr>
<td>Plating C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td>housings</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Receptacle assemblies are furnished with strip contacts partially inserted into housing—contacts latched into “preload” windows. Contacts are fully inserted into housings automatically when terminated with Tyco Electronics application machines, or manually when terminated with Tyco Electronics pistol grip hand tool.</td>
</tr>
<tr>
<td>2. Use Extraction/Lance Reset Tool No. 843477-1 to remove receptacle contacts.</td>
</tr>
<tr>
<td>3. Keying plugs are available, see page 253.</td>
</tr>
</tbody>
</table>

---

**Note:** All part numbers are RoHS compliant.
MTE Receptacle Assemblies—Guide Ribs, Single-Row, .100 [2.54] Centerline

Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 are recommended when using the Tyco Electronics Manual Pistol Grip Tool.

Material and Finish
Housing — Black thermoplastic, 94V-0 rated
Contacts — Phosphor Bronze, plated as follows:

- **Plating A** — Duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
- **Plating B** — Duplex plated .000015 [0.00038] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
- **Plating C** — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire contact

Note: Insulation displacement contacts accept an insulation diameter of .030 [0.76] min. to .054 [1.37] max. with an insulation wall thickness of .015 [0.38] max. Mating post length for preloaded housings is .200 [5.08] min., .250 [6.35] max.

Related Product Data
Coupling Shrouds used with —
- Single-Row — page 240
- Double-Row — page 241
Mateable AMPMODU Products (with Receptacle Assemblies Installed in Single-Row Coupling Shrouds)
- Pin Assemblies (Polarized/Latching) — pages 236, 237
- Pin Assemblies with Guide Ribs (installed in Panel Mount Pin Shroud) — pages 238, 239, 242
- Headers (Polarized/Latching) — pages 244-252
Mateable AMPMODU Products (with Receptacle Assemblies Installed in Double-Row Coupling Shrouds)
- Headers, Shrouded, Double-Row (.318 [8.08] mating post length, .150 [3.81] end dimension) — pages 119-121, 124, 125, 128, 129, 131-133

Interchangeable Crimp Contacts —
- (Short Point) — page 253
Application Tooling — page 273
Performance Specifications — page 225
Technical Documents — pages 277, 278
Product Specification
108-25034
Application Specification
114-25026
### MTE Receptacle Assemblies—Strip Form with Guide Ribs, Single-Row, .100 [2.54] Centerline (Continued)

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions A</th>
<th>Housing Quantities per Strip Segment</th>
<th>Strip Form Receptacle Assembly 30-26 AWG [0.05-0.15mm²] Wire</th>
<th>Strip Form Receptacle Assembly 26-22 AWG [0.12-0.3mm²] Wire</th>
<th>Unloaded</th>
<th>Housings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2,000 [60.80]</td>
<td>.198 [5.03]</td>
<td>5-103973-1</td>
<td>5-103972-1</td>
<td>5-103971-1</td>
<td>1-103648-1</td>
</tr>
<tr>
<td>3</td>
<td>2,400 [60.96]</td>
<td>.298 [7.57]</td>
<td>8-103973-2</td>
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<td>5-103971-2</td>
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<tr>
<td>4</td>
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<td>.398 [10.11]</td>
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<td>5-103971-3</td>
<td>1-103648-3</td>
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<td>5-103972-4</td>
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<td>.598 [15.19]</td>
<td>4-103973-5</td>
<td>5-103972-5</td>
<td>5-103971-5</td>
<td>1-103648-5</td>
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<tr>
<td>7</td>
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<td>.698 [17.73]</td>
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<td>5-103972-6</td>
<td>5-103971-6</td>
<td>1-103648-6</td>
</tr>
<tr>
<td>8</td>
<td>1,600 [40.64]</td>
<td>.798 [20.27]</td>
<td>2-103973-7</td>
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<td>5-103971-7</td>
<td>1-103648-7</td>
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<tr>
<td>9</td>
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<td>.898 [22.81]</td>
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<td>1-103648-8</td>
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<td>.998 [23.35]</td>
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<td>1.198 [30.43]</td>
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<td>6-103972-1</td>
<td>6-103971-1</td>
<td>1-103648-1</td>
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### MTE Receptacle Assemblies—Individual Form with Guide Ribs, Single-Row, .100 [2.54] Centerline

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions B</th>
<th>Individual Receptacle Assembly 30-26 AWG [0.05-0.15mm²] Wire</th>
<th>Individual Receptacle Assembly 26-22 AWG [0.12-0.3mm²] Wire</th>
<th>Unloaded</th>
<th>Housings</th>
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</thead>
<tbody>
<tr>
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<tr>
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<td>7-103965-0</td>
<td>1-103648-0</td>
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<tr>
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<td>1-103648-1</td>
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<tr>
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<td>7-103969-2</td>
<td>7-103965-2</td>
<td>1-103648-2</td>
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<tr>
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<tr>
<td>25</td>
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<td>7-103969-4</td>
<td>7-103965-4</td>
<td>1-103648-4</td>
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</tbody>
</table>

Notes:
1. Receptacle assemblies are furnished with strip contacts partially inserted into housing—contacts latched into "preload" windows. Contacts are fully inserted into housings automatically when terminated with Tyco Electronics application machines, or manually when terminated with Tyco Electronics pistol grip hand tool.
2. Use Extraction/Lance Reset Tool No. 83477-1 to remove receptacle contacts.
3. Keying plugs are available, see page 253.

Note: All part numbers are RoHS compliant.
MTE High Pressure Receptacle Assemblies—Plain, Single-Row, .100 [2.54] Centerline

Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 are recommended when using the Tyco Electronics Manual Pistol Grip Tool.

Material and Finish
Housing — Black thermoplastic, 94V-0 rated
Contacts — Phosphor Bronze, duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel

Note: Insulation displacement contacts accept an insulation diameter of .030 [0.76] min. to .054 [1.37] max. with an insulation wall thickness of .015 [0.38] max. Mating post length for preloaded housings is .200 [5.08] min., .250 [6.35] max.

Related Product Data
Mateable AMPMODU Products
Breakaway Headers — pages 102-110, (with .230 mating length)
Reeled Breakaway Headers — pages 108, 109 (with .230 mating length)

Machine Applied Bandolier Posts — page 163
Application Tooling — page 273
Performance Specifications — page 225

Technical Documents — pages 277, 278
Product Specification 108-25034
Application Specification 114-25026

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Housings Quantities Per Strip Segment</th>
<th>Strip Form Receptacle Assembly 30-26 AWG [.05-.15m²] Wire</th>
<th>Strip Form Receptacle Assembly 26-22 AWG [.12-.30m²] Wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1.980 [50.29]</td>
<td>.198 [5.03]</td>
<td>5-104438-1</td>
<td>5-104439-1</td>
</tr>
<tr>
<td>3</td>
<td>1.490 [37.85]</td>
<td>.298 [7.57]</td>
<td>5-104438-2</td>
<td>5-104439-2</td>
</tr>
<tr>
<td>4</td>
<td>1.990 [50.55]</td>
<td>.399 [10.11]</td>
<td>5-104438-3</td>
<td>5-104439-3</td>
</tr>
<tr>
<td>5</td>
<td>1.990 [50.55]</td>
<td>.498 [12.65]</td>
<td>5-104438-4</td>
<td>5-104439-4</td>
</tr>
<tr>
<td>6</td>
<td>2.390 [60.71]</td>
<td>.598 [15.19]</td>
<td>5-104438-5</td>
<td>5-104439-5</td>
</tr>
<tr>
<td>7</td>
<td>1.400 [35.56]</td>
<td>.698 [17.73]</td>
<td>5-104438-6</td>
<td>5-104439-6</td>
</tr>
<tr>
<td>8</td>
<td>1.600 [40.64]</td>
<td>.798 [20.27]</td>
<td>5-104438-7</td>
<td>5-104439-7</td>
</tr>
<tr>
<td>9</td>
<td>1.800 [45.72]</td>
<td>.898 [22.81]</td>
<td>5-104438-8</td>
<td>5-104439-8</td>
</tr>
<tr>
<td>10</td>
<td>2.000 [50.80]</td>
<td>.998 [23.35]</td>
<td>5-104438-9</td>
<td>5-104439-9</td>
</tr>
<tr>
<td>11</td>
<td>2.200 [55.88]</td>
<td>1.098 [27.89]</td>
<td>5-104438-10</td>
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<tr>
<td>12</td>
<td>2.400 [60.96]</td>
<td>1.198 [30.43]</td>
<td>6-104438-1</td>
<td>6-104439-1</td>
</tr>
</tbody>
</table>

Notes: 1. Receptacle assemblies are furnished with strip contacts partially inserted into housing—contacts latched into “preload” windows. Contacts are fully inserted into housings automatically when terminated with Tyco Electronics application machines, or manually when terminated with Tyco Electronics pistol grip hand tool.
2. High pressure receptacle contacts can be made available in other housing styles and position sizes. Contact your Tyco Electronics sales representative.

Note: All part numbers are RoHS compliant.
MTE High Pressure Receptacle Assemblies – Guide Ribs

Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 are recommended when using the Tyco Electronics Manual Pistol Grip Tool.

Material and Finish
Housing — Thermoplastic, black, 94V-0 rated
Contacts — Phosphor Bronze, duplex plated .00030 [0.00076] gold on contact area, .000050 [0.00127] min. tin on crimp area, with entire contact underplated .000050 [0.00127] nickel.

Related Product Data
Coupling Shrouds used with — Single-Row — page 240
Double-Row — page 241
Mateable AMPMODU Products (with Receptacle Assemblies Installed in Single-Row Coupling Shrouds) —
Pin Assemblies (Polarized/Latching) — pages 236, 237
Pin Assemblies with Guide Ribs (installed in Panel Mount Pin Shroud) — pages 238, 239, 242
Headers (Polarized/Latching) — pages 244-252
Mateable AMPMODU Products (with Receptacle Assemblies Installed in Double-Row Coupling Shrouds) —
Headers, Shrouded, Double-Row (.318 [8.08] mating post length, .150 [3.81] end dimension) — pages 119-121, 124, 125, 128, 129, 131-133
Application Tooling — page 273
Performance Specifications — page 225

Technical Documents — pages 277, 278
Product Specification 109-25034
Application Specification 114-25026

Note: All part numbers are RoHS compliant.

Dimensions:
- Receptacle Contacts (See Note 1)
  - Position No. 1 Indicator (Farside)
    - .100 [2.54] Typ

- Receptacle Contacts
  - (See Note 1)
  - .120 [3.05] (13.21)
  - .600 [15.24]

- No of Pos. Dimensions
  - A  B
  - 2  1.980 [50.29] .198 [5.03] 10 5-147396-1 5-147030-1
  - 3  1.940 [49.25] .298 [7.57] 5 5-147396-2 5-147030-2
  - 5  1.860 [47.24] .498 [12.64] 4 5-147396-4 5-147030-4
  - 6  2.930 [74.37] .598 [15.24] 4 5-147396-5 5-147030-5
  - 7  1.400 [35.56] .698 [17.71] 2 5-147396-6 5-147030-6
  - 8  1.600 [40.64] .798 [20.27] 2 5-147396-7 5-147030-7
  - 9  1.800 [45.72] .898 [22.81] 2 5-147396-8 5-147030-8
  - 10 2.000 [50.80] .998 [25.35] 2 5-147396-9 5-147030-9
  - 11 2.200 [55.88] 1.098 [27.89] 2 6-147396-0 6-147030-0
  - 12 2.400 [60.96] 1.198 [30.34] 2 6-147396-1 6-147030-1

Note: All part numbers are RoHS compliant.
Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 may be recommended when using the Tyco Electronics Manual Pistol Grip Tool.

Material and Finish

**Housing** — Black thermoplastic, 94V-0 rated

**Contacts** — Phosphor Bronze, plated as follows:

- **Plating A** — Duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel

- **Plating B** — Duplex plated .000015 [0.00038] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel

- **Plating C** — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire contact

**Note:** Insulation displacement contacts accept an insulation diameter of .030 [0.76] min. to .054 [1.37] max. with an insulation wall thickness of .015 [0.38] max.

Related Product Data

**Mateable AMPMODU Products** —

- **Receptacle Assemblies** —
  - (Polarized/Latching) —
  - pages 230, 231

  - pages 232, 233, 235, 240

- **Interchangeable Crimp Contacts** —
  - page 254

- **Application Tooling** —
  - page 273

- **Performance Specifications** —
  - page 225

Technical Documents —

- **Product Specification**
  - 108-25034

- **Application Specification**
  - 114-25026
### MTE Pin Assemblies, Shrouded—Strip Form Polarized/Latching, Single-Row, .100 [2.54] Centerline (Continued)

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Housing Quantities Per Strip Segment</th>
<th>Strip Form Pin Assembly 30-26 AWG [0.05-0.15mm²] Wire</th>
<th>Strip Form Pin Assembly 26-22 AWG [0.12-0.3mm²] Wire</th>
<th>Unloaded Housings</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>Plating A</td>
<td>Plating B</td>
<td>Plating C</td>
</tr>
<tr>
<td>No. of Dimensions</td>
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<td>26-22 AWG</td>
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<td></td>
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<tr>
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<td>.395 [10.03]</td>
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<tr>
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</tbody>
</table>

Notes: 1. Pin assemblies are furnished with strip contacts partially inserted into housing—contacts latched into “preload” windows. Contacts are fully inserted into housings automatically when terminated with Tyco Electronics application machines, or manually when terminated with Tyco Electronics pistol grip hand tool.
2. Use Extraction/Lance Reset Tool No. 843477-1 to remove pin contacts.

Note: All part numbers are RoHS compliant.
MTE Pin Assemblies—Guide Ribs, Single-Row, .100 [2.54] Centerline

Preassembled housings in strip form are available in positions 2 thru 12. For ease of handling, positions 2 thru 5 are recommended when using the Tyco Electronics Manual Pistol Grip Tool.

Material and Finish

Housing — Black thermoplastic, 94V-0 rated

Contacts — Phosphor Bronze, plated as follows:

Plating A — Duplex plated .000030 [0.00076] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating B — Duplex plated .000015 [0.00038] gold on contact area, .000050 [0.00127] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel

Plating C — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire contact

Note: Insulation displacement contacts accept an insulation diameter of .030 [0.76] min. to .054 [1.37] max. with an insulation wall thickness of .015 [0.38] max.

Related Product Data

Mateable AMPMODU MTE Products (with Pin Assembly Installed in Panel Mount Pin Shroud) — pages 242, 243

Receptacle Assemblies (Polarized/Latching) — pages 230, 231


Interchangeable Crimp Contacts — page 254

Application Tooling — page 273

Performance Specifications — page 225

Technical Documents — pages 277, 278

Product Specification 108-25034

Application Specification 114-25026
### MTE Pin Assemblies—Strip Form with Guide Ribs, Single-Row, .100 [2.54] Centerline (Continued)

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<tr>
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<th>Dimensions B [mm]</th>
<th>Housing Quantities Per Strip Segment</th>
<th>Strip Form Pin Assembly 30-26 AWG [0.05-0.15mm²] Wire</th>
<th>Strip Form Pin Assembly 26-22 AWG [0.12-0.3mm²] Wire</th>
<th>Unloaded Housings</th>
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### MTE Pin Assemblies—Individual Form with Guide Ribs, Single-Row, .100 [2.54] Centerline

<table>
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<tr>
<th>No. of Pos.</th>
<th>Dimensions B</th>
<th>Individual Pin Assembly 30-26 AWG [0.05-0.15mm²] Wire</th>
<th>Individual Pin Assembly 26-22 AWG [0.12-0.3mm²] Wire</th>
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</tr>
</tbody>
</table>

**Notes:**
1. Pin assemblies are furnished with strip contacts partially inserted into housing—contacts latched into “preload” windows. Contacts are fully inserted into housings automatically when terminated with Tyco Electronics application machines, or manually when terminated with Tyco Electronics pistol grip hand tool.
2. Use Extraction/Lance Reset Tool No. 843477-1 to remove pin contacts.

**Note:** All part numbers are RoHS compliant.
**Single-Row**

**Material**
Black thermoplastic, 94V-0 rated

**Technical Documents**  
—  
**Product Specification**  
108-25034  
**Application Specification**  
114-25026

---

### Coupling Shrouds for MTE Receptacle Assemblies with Guide Ribs

#### Single-Row

**Material**
Black thermoplastic, 94V-0 rated

**Technical Documents**  
—  
**Product Specification**  
108-25034  
**Application Specification**  
114-25026

---

**Overview**

- **Material:** Black thermoplastic, 94V-0 rated
- **Technical Documents:**
  - Product Specification 108-25034
  - Application Specification 114-25026

---

**Dimensions**

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimension A</th>
<th>Single-Row Coupling Shroud</th>
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<tr>
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<td>.785 [19.94]</td>
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<tr>
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<tr>
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<td>.985 [25.02]</td>
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<tr>
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<td>1.085 [27.56]</td>
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<td>11</td>
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</table>

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**Typical Application**

- **Pin Assembly, Shrouded Polarized/Latching**  
  (Refer to pages 236 & 237)
- **Receptacle Assemblies with Guide Ribs**  
  (Refer to pages 232, 233, 235)
- **Headers, Polarized/Latching**  
  Straight and Right Angle Post, with or without Holdown  
  (See pages 244-252)

---

**Note:** All part numbers are RoHS compliant.
Coupling Shrouds for MTE Receptacle Assemblies with Guide Ribs (Continued)

**Double-Row**

**Material**
Black thermoplastic, 94V-0 rated

**Technical Documents**
- pages 277, 278
- Product Specification
  - 108-25034
- Application Specification
  - 114-25026

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimension A</th>
<th>Double-Row Coupling Shroud</th>
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<td>.785 [19.94]</td>
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</tbody>
</table>

*Mating AMPMODU Double-Row Shrouded Headers must have .318 [8.08] mating post length and .150 [3.81] dimension from centerline of last post to inside of end shroud wall.

Typical Application of Double-Row Coupling Shroud and Mating AMPMODU Products

**Note:** All part numbers are RoHS compliant.
Panel Mount Pin Shrouds for MTE Pin Assemblies with Guide Ribs, Single-Row

Material
Black thermoplastic, 94V-0 rated

Technical Documents
- Technical Documents — pages 277, 278
- Product Specification 108-25034
- Application Specification 114-25026

Note: All part numbers are RoHS compliant.
Panel Mount Pin Shrouds for MTE Pin Assemblies with Guide Ribs, Single-Row (Continued)

Material
Black thermoplastic, 94V-0 rated

Technical Documents — pages 277, 278
Product Specification
108-25034
Application Specification
114-25026

Typical Application of Panel Mount Pin Shroud and Mating AMPMODU Products
MTE Headers, Shrouded Polarized/Latching, Single-Row .100 [2.54] Centerline

.025 [0.64] Square Straight Post (With or Without Swaged Tail)

Material and Finish

Housing — Black thermoplastic; 94V-0 rated

Posts — Brass, plated as follows:

Plating A — Duplex plated .00030 [0.00076] gold on contact area, .000100 [0.00254] min. tin on solder area, with entire post underplated .000050 [0.00127] nickel

Plating B — Duplex plated .00015 [0.00038] gold on contact area, .000100 [0.00254] min. tin on solder area, with entire post underplated .000050 [0.00127] nickel

Plating C — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire post

Related Product Data

Mateable AMPMODU MTE Products — pages 230, 231

Receptacle Assemblies (Polarized/Latching) — pages 232, 233, 235, 240

Recommended PC Board Hole Layout

*±.003 [±0.08]; tolerances not to accumulate within one connector pattern.

Note: Swaged retention tails are provided in a minimum of two locations per header.
## MTE Headers, Shrouded Polarized/Latching, Single-Row .100 [2.54] Centerline (Continued)

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<tr>
<th>Pos.</th>
<th>Dimensions A</th>
<th>Dimensions B</th>
<th>Dimensions C</th>
<th>Polarized/Latching Header With Swage Plating A</th>
<th>Polarized/Latching Header With Swage Plating B</th>
<th>Polarized/Latching Header With Swage Plating C</th>
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<td>.220 [5.59]</td>
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<td>6-104909-8</td>
<td>6-103669-8</td>
</tr>
<tr>
<td>21</td>
<td>2.200 [55.88]</td>
<td>2.120 [53.85]</td>
<td>2.000 [50.80]</td>
<td>7-103908-0</td>
<td>7-104909-0</td>
<td>7-103669-0</td>
</tr>
<tr>
<td>22</td>
<td>2.300 [58.42]</td>
<td>2.220 [56.39]</td>
<td>2.100 [53.34]</td>
<td>7-103908-1</td>
<td>7-104909-1</td>
<td>7-103669-1</td>
</tr>
<tr>
<td>23</td>
<td>2.400 [60.96]</td>
<td>2.320 [58.93]</td>
<td>2.200 [55.88]</td>
<td>7-103908-2</td>
<td>7-104909-2</td>
<td>7-103669-2</td>
</tr>
<tr>
<td>24</td>
<td>2.500 [63.50]</td>
<td>2.420 [61.47]</td>
<td>2.300 [58.42]</td>
<td>7-103908-3</td>
<td>7-104909-3</td>
<td>7-103669-3</td>
</tr>
<tr>
<td>25</td>
<td>2.600 [66.04]</td>
<td>2.520 [64.01]</td>
<td>2.400 [60.96]</td>
<td>7-103908-4</td>
<td>7-104909-4</td>
<td>7-103669-4</td>
</tr>
</tbody>
</table>

**Notes:**
1. Selectively loaded headers are available, consult Tyco Electronics.
2. Use Keying Tool No. 91417-1 to remove post for keying.

**Note:** All part numbers are RoHS compliant.
MTE Headers, Shrouded Latching, Single-Row .100 [2.54] Centerline

### Material and Finish

**Housing** — Black thermoplastic, 94V-0 rated

**Posts** — Brass, plated as follows:

- **Plating A** — Duplex plated .000030 [0.00076], gold on contact area, .000100 [0.00254] min. tin on solder area, with entire post underplated .000050 [0.00127] nickel

- **Plating B** — Duplex plated .000015 [0.00038], gold on contact area, .000100 [0.00254] min. tin on solder area, with entire post underplated .000050 [0.00127] nickel

- **Plating C** — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire post

**Recommended PC Board Hole Layout**

- (PC board thickness (for Holddown Feature) is .062±.008 [1.57±0.20])
- *±.003 [±0.08]: tolerance not to accumulate within one connector pattern.

**Related Product Data**

- **Mateable AMPMODU MTE Products** — Receptacle Assemblies (Latching) — pages 230, 231

- **Technical Documents** — pages 277, 278

- **Product Specification** — 108-25034

- **Application Specification** — 114-25026
### MTE Headers, Shrouded Latching, Single-Row .100 [2.54] Centerline (Continued)

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Latching Header With Hold Down</th>
<th>Latching Header Without Hold Down</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B (in) [mm]</td>
<td>C (in) [mm]</td>
</tr>
<tr>
<td>2</td>
<td>.300</td>
<td>.220 [5.99]</td>
<td>.100 [2.54]</td>
</tr>
<tr>
<td>4</td>
<td>.500</td>
<td>.420 [10.67]</td>
<td>3.00 [7.62]</td>
</tr>
<tr>
<td>5</td>
<td>.600</td>
<td>.520 [13.21]</td>
<td>.400 [10.16]</td>
</tr>
<tr>
<td>7</td>
<td>.800</td>
<td>.720 [18.29]</td>
<td>.600 [15.24]</td>
</tr>
<tr>
<td>9</td>
<td>1.000</td>
<td>.920 [23.73]</td>
<td>.800 [20.23]</td>
</tr>
<tr>
<td>11</td>
<td>1.200</td>
<td>1.120 [28.45]</td>
<td>1.000 [25.40]</td>
</tr>
<tr>
<td>12</td>
<td>1.300</td>
<td>1.220 [30.99]</td>
<td>1.100 [27.94]</td>
</tr>
<tr>
<td>14</td>
<td>1.500</td>
<td>1.420 [36.07]</td>
<td>1.300 [33.02]</td>
</tr>
<tr>
<td>15</td>
<td>1.600</td>
<td>1.520 [38.10]</td>
<td>1.400 [35.56]</td>
</tr>
<tr>
<td>17</td>
<td>1.800</td>
<td>1.720 [43.69]</td>
<td>1.600 [40.64]</td>
</tr>
<tr>
<td>18</td>
<td>1.900</td>
<td>1.820 [46.23]</td>
<td>1.700 [43.18]</td>
</tr>
<tr>
<td>19</td>
<td>2.000</td>
<td>1.920 [48.77]</td>
<td>1.800 [45.72]</td>
</tr>
<tr>
<td>21</td>
<td>2.200</td>
<td>2.120 [53.65]</td>
<td>2.000 [50.80]</td>
</tr>
<tr>
<td>22</td>
<td>2.300</td>
<td>2.220 [56.99]</td>
<td>2.100 [53.34]</td>
</tr>
<tr>
<td>23</td>
<td>2.400</td>
<td>2.320 [59.69]</td>
<td>2.200 [55.88]</td>
</tr>
<tr>
<td>24</td>
<td>2.500</td>
<td>2.420 [61.97]</td>
<td>2.300 [58.42]</td>
</tr>
<tr>
<td>25</td>
<td>2.600</td>
<td>2.520 [64.01]</td>
<td>2.400 [60.96]</td>
</tr>
</tbody>
</table>

**Notes:**
1. Selectively loaded headers are available, consult Tyco Electronics.
2. Use Keying Tool No. 91417-1 to remove post for keying.

---

**Note:** All part numbers are RoHS compliant.
MTE Headers, Shrouded Latching, Single-Row .100 [2.54] Centerline

Material and Finish
Housing — Black thermoplastic, 94V-0 rated
Posts — Brass, plated .00100 [0.00254] tin over .000050 [0.00127] nickel on entire post

Related Product Data
Mateable AMPMODU MTE Products —
Receptacle Assemblies (Polarized/Latching) — pages 230, 231

Technical Documents —
Product Specification 108-25034
Application Specification 114-25026

Recommended PC Board Hole Layout
*±.003 [±0.08]; tolerances not to accumulate within one connector pattern.
Note: Swaged retention tails are provided in a minimum of two locations per header.

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>2</td>
<td>0.300 [7.62]</td>
</tr>
<tr>
<td>3</td>
<td>0.400 [10.16]</td>
</tr>
<tr>
<td>4</td>
<td>0.500 [12.70]</td>
</tr>
<tr>
<td>5</td>
<td>0.600 [15.24]</td>
</tr>
<tr>
<td>6</td>
<td>0.700 [17.78]</td>
</tr>
<tr>
<td>7</td>
<td>0.800 [20.32]</td>
</tr>
<tr>
<td>8</td>
<td>0.900 [22.86]</td>
</tr>
<tr>
<td>9</td>
<td>1.000 [25.40]</td>
</tr>
<tr>
<td>10</td>
<td>1.100 [27.94]</td>
</tr>
</tbody>
</table>

Note: All part numbers are RoHS compliant.
MTE Headers, Through-hole, Surface Mount Compatible, Shrouded Polarized/Latching, Single-Row .100 [2.54] Centerline

.025 [0.64] Square Straight Post (With Swaged Tails and PC Board Orientation)

Material and Finish

Housing — Black thermoplastic, 94V-0 rated

Posts — Brass, duplex plated .000015 [0.00038] gold on contact area, .000100 [0.00254] min tin on solder tail, with entire post underplated .000050 [0.00127] nickel

Related Product Data

Mateable AMPMODU MTE Products —


Receptacle Assemblies (Polarized Latching) — pages 230, 231

Technical Documents — pages 277, 278

Product Specification 108-25034

Application Specification 114-25026

Note: All part numbers are RoHS compliant.

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Polarized/Latching Header, High-Temp</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>.300 [.76]</td>
<td>.220 [5.59]</td>
</tr>
<tr>
<td>9</td>
<td>1.000 [2.54]</td>
<td>.920 [23.37]</td>
</tr>
<tr>
<td>11</td>
<td>1.200 [3.05]</td>
<td>1.120 [28.45]</td>
</tr>
</tbody>
</table>

*±.003 [±0.08] tolerance not to accumulate within one connector pattern

Catalog 1307819
Revised 8-08

www.tycoelectronics.com

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

Japan: 81-44-844-8013
UK: 44-8706-080-208

South America: 55-11-2103-6000
Hong Kong: 852-2735-1628

Note: All part numbers are RoHS compliant.
**MTE Headers, Polarized/Latching, Through-Hole, Surface Mount Compatible, Single-Row, .100 [2.54] Centerline**

- **.025 [0.64] Square Right-Angle Post (With Holddown)**

**Material and Finish**
- **Housing** — Black thermoplastic, 94V-0 rated
- **Posts** — Brass, duplex plated .000015 [0.00038] gold on contact area, .00100 [0.00254] min. tin on solder tail, with entire post underplated .000050 [0.00127] nickel

**Related Product Data**
- **Mateable AMPMODU MTE Products** — pages 230, 231
- **Receptacle Assemblies (Polarized/Latching)** — pages 232, 233

**Technical Documents** — pages 277, 278
- **Product Specification**
- **Application Specification**

---

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Right-Angle Header with Hold Down</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>9</td>
<td>1.000 [25.40]</td>
<td>.920 [23.37]</td>
</tr>
<tr>
<td>12</td>
<td>1.300 [33.02]</td>
<td>1.220 [30.99]</td>
</tr>
</tbody>
</table>

*Note: All part numbers are RoHS compliant.*
MTE Headers, Right-Angle, Polarized/Latching, Surface Mount

Material and Finish

Housing — Black thermoplastic, 94V-0 rated

Posts — Brass, plated as follows:


Recommended PC Board Layout

(Refer to MTE Application Spec. 114-25026 for Stencil Aperture Layout Using .006 [0.152] or .008 [0.203] Stencil Thickness)

Related Product Data

Mateable AMPMODU MTE Products —
Receptacle Assemblies (Polarized/Latching) — pages 230, 231

Technical Documents — pages 277, 278

Product Specification 109-25034
Application Specification 114-25026

Note: All part numbers are RoHS compliant.
MTE Headers, Vertical, Polarized/Latching, Surface Mount

Material and Finish
Housing — Black thermoplastic, 94V-0 rated
Posts — Brass, plated as follows:
Plating C — .000100 [.00254] tin over .000050 [.00127] nickel on entire post

Recommended PC Board Layout
(Refer to MTE Application Spec. 114-25026 for Stencil Aperture Layout using .006 [.152] or .008 [.203] stencil thickness

Related Product Data
Mateable AMPMODU MTE Products —
Receptacle Assemblies (Polarized/Latching) — pages 230, 231
Receptacle Assemblies with Guide
Ribs (installed in Single-Row Coupling Shroud) — pages 232, 233, 235, 240

Technical Documents — pages 277, 278
Product Specification 109-23034
Application Specification 114-25026

Recommended PC Board Layout

Note: All part numbers are RoHS compliant.

Catalog 1307819
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803

South America: 55-11-2103-6000

Tyco Electronics

AMEMDOU Interconnection System

5 MTE Headers
Material and Finish
Copper alloy C7025, plated as follows:

Plating A — Duplex plated .00030 [0.00076] min. gold on contact area,
          .000050 [0.000127] min. tin in crimp area, with entire contact underplated
          .000050 [0.000127] min. nickel

Plating B — Duplex plated .000015 [0.000038] min. gold on contact area,
          .000050 [0.000127] min. tin in crimp area, with entire contact underplated
          .000050 [0.000127] min. nickel

Plating C — .000100 [0.00254] min. tin over .000050 [0.000127] min. nickel
          on entire contact

Related Product Data
Performance Characteristics — page 221
Housings used in —
  Short Point—pages 223, 224
AMPMODU MTE Unloaded Housings — pages 228-233
Application Tooling— pages 270-272

Interchangeable Contacts, Wire Crimp (Snap-In)

Short Point Receptacles

Keying Plug
Part No. 104072-1
Ten plugs are supplied per strip. Order quantity reflects the number of strips required.

Extraction/Lance Reset Tool No. 843477-1

Technical Documents —
  pages 277, 278
Product Specification
  108-1472, 108-1472-1
Application Specification
  114-25038

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>AWG</td>
<td>[mm²]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32-28</td>
<td>0.03-0.08</td>
<td>.025-.060 0.64-1.52</td>
<td>Plating A 1-104481-1 1-104481-3</td>
<td>567296-2</td>
<td>466980-1</td>
<td>91518-1</td>
</tr>
<tr>
<td>26-22</td>
<td>0.13-0.3</td>
<td>.025-.060 0.64-1.52</td>
<td>Plating A 1-104480-3 1-104480-6</td>
<td>567297-2</td>
<td>466981-1</td>
<td>91518-1</td>
</tr>
<tr>
<td>24-20</td>
<td>0.2-0.5</td>
<td>.025-.060 0.64-1.52</td>
<td>Plating A 1-104479-0 1-104479-3</td>
<td>567298-2</td>
<td>466982-1</td>
<td>91551-1</td>
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</tbody>
</table>

*For use with Model “K” machines. Call the Technical Support Center (1-800-522-6752) for part nos. of applicators for use with the Model “G” machines (shown on page 270), as well as other bench machines and fully automatic AMPOMATOR lead making machines.

Note: These wire crimp contacts can be intermixed with insulation displacement crimp contacts.

Note: All part numbers are RoHS compliant.
Material and Finish
Phosphor bronze, plated as follows:

**Plating A** — Duplex plated .000030 [0.00076] gold on contact area, .000030 [0.00076] min. tin in crimp area, with entire contact underplated .000050 [0.00127] nickel

**Plating B** — Duplex plated .000015 [0.00038] gold on contact area, .000030 [0.00076] min. tin on solder area, with entire contact underplated .000050 [0.00127] nickel

**Plating C** — .000100 [0.00254] tin over .000050 [0.00127] nickel on entire contact

---

**Extraction/Lance Reset Tool No. 843477-1**

**Related Product Data**

**Performance Characteristics** — page 221

**AMPMODU MTE Unloaded Housings** — pages 228-233

**Application Tooling** — pages 270-272

**Technical Documents** — pages 277, 278

**Product Specification**

108-25034

**Application Specification**

114-25026

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>AWG/mm²</td>
<td></td>
<td></td>
<td><strong>Strip Form</strong></td>
<td><strong>Loose Piece</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32-28</td>
<td>0.03-0.08</td>
<td>.025-.054 [0.64-1.37]</td>
<td>Plating A 5-104506-6 5-104506-7</td>
<td>— — 567239-2 466983-1 91531-1</td>
<td>58342-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plating B 5-104506-4 5-104506-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plating C 5-104506-2 5-104506-3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>26-22</td>
<td>0.14-0.32</td>
<td>.036-.054 [0.91-1.37]</td>
<td>Plating A 5-104505-6 5-104505-7</td>
<td>567239-2 466983-1 91531-1</td>
<td>58342-2</td>
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<td></td>
<td></td>
<td></td>
<td>Plating B 5-104505-4 5-104505-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plating C 5-104505-2 5-104505-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For use with AMP-O-LECTRIC Model “K” machines. Call Technical Support Center (1-800-522-6752) for part nos. of applicators for use with the AMP-O-LECTRIC Model “G” machines (shown on page 270), as well as other bench machines and fully automatic AMPOMATOR lead making machines.

**Note:** These wire crimp contacts can be intermixed with insulation displacement crimp contacts.

---

**Note:** All part numbers are RoHS compliant.

---

**Catalog 1307819**

**Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.**

**Dimensions are shown for reference purposes only. Specifications subject to change.**

**USA:** 1-800-522-6752

**Canada:** 1-905-470-4425

**Mexico:** 01-800-733-8926

**C. America:** 52-55-1106-0803

**South America:** 55-11-2103-6000

**Hong Kong:** 852-2735-1628

**Japan:** 81-44-844-8013

**UK:** 44-8706-080-208
MT and Shielded MT Interconnection System

Product Facts

- Full line of mass termination tooling offers lowest installed cost for most production needs.
- Dual cantilever beams with anti-overstress features provide redundant contact of mating post and limit beam deflection, preventing permanent deformation.
- Redundant insulation displacement slots provide for maximum reliability.
- Integral wire strain relief on contact can prevent wire motion from being transmitted to wire termination areas.
- Built-in contact post stop can protect terminated wire from being disturbed by over-insertion of mating post, prevents wire from entering contact area and positively limits mating connector depth.
- Insulation displacement contacts and crimp, snap-in contacts are interchangeable.
- Complete serviceability with replacement contacts.
- Cover styles include low profile (polarized, non-polarized, latching and ejection) and standard profile (hermaphroditic and ejection).
- Connector housings may be stacked end-to-end within one pair of covers. All varieties of covers in this catalog are suitable for multiple housing stacking applications similar to the example illustrated in the photograph to the right.
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476.
- Certified by Canadian Standards Association, File No. LR 7189.

The AMPMODU MT and Shielded MT Interconnection System offers labor and cost savings through mass termination technology, while maintaining the time-proven reliability of the AMPMODU product family. The MT system is comprised of preloaded, double-row receptacle assemblies with snap-on covers and a variety of shielding hardware and accessories. The system is supported by a full line of mass termination tooling to meet virtually most production needs.

The insulation displacement contact, the heart of the MT system, features a mating interface that is the same as the conventional AMPMODU crimp, snap-in contact, featuring dual cantilever beams, built-in overstress protection and a completely enclosed “box” design. To reduce EMI/ESD (electromagnetic interference/electrostatic discharge) at the input-output interface, add-on metal shields can be used to convert standard MT connectors to shielded MT connectors.

Performance Characteristics

Contact Current Rating — 3 amperes for single contact in free air. (Amperage could vary due to ambient temperature, wire size and duty cycles.)

Operating Temperature — -65°C to +105°C

Termination Resistance — 12 milliohms max.

Max. Mating Force —
High pressure — 5 oz. [1.39 N]
Standard pressure — 1.5 oz. [0.417 N]

Contact Retention in Housing —
5 lb. [22.24 N] per contact min.

Note: All part numbers are RoHS compliant.

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-1106-0803
South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208a

www.tycoelectronics.com
MT Receptacle Assemblies, Double-Row

.100 x .100 [2.54 x 2.54] Centerline

Housings Pre-loaded with Standard Pressure Contacts

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Copper alloy, duplex plated .000030 [0.00076] gold in mating area, .000050 [0.00127] tin on solder tail, with entire contact underplated .000050 [0.00127] nickel

Related Product Data
Mateable Connectors — pages 117, 122, 126, 130, 264
Cable Insulation Wall Thickness — .015 [0.39] max.
Cable Insulation Diameter — .050 [1.27] max.
Mating Post Length — .222-.273 [5.64-6.94] max.
Performance Characteristics — page 255
Replacement Contacts — page 265
Connector Covers — pages 258, 259
Application Tooling — pages 273-275

Technical Documents
Application Specification 114-25032
Instruction Sheet 408-6532

Part Nos. (Stamped)

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions (A)</th>
<th>Dimensions (B)</th>
<th>Part Nos. (Stamped)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>30-25 AWG</td>
</tr>
<tr>
<td></td>
<td>[0.05-0.15 mm²]</td>
<td>[0.12-0.3 mm²]</td>
<td>[0.3-0.6 mm²]</td>
</tr>
<tr>
<td>6</td>
<td>.300 [7.62]</td>
<td>.200 [5.08]</td>
<td>5-102393-1</td>
</tr>
<tr>
<td>10</td>
<td>.500 [12.70]</td>
<td>.400 [10.16]</td>
<td>5-102393-3</td>
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<tr>
<td>12</td>
<td>.600 [15.24]</td>
<td>.500 [12.70]</td>
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Note: Contact Extraction/Lance Reset Tool No. 843477-3, see page 265.

Keying Plugs

Part No. 86286-1
(Plugs into receptacle contact)
Material — Natural color nylon

Part No. 87077-2
(Plugs directly into housing)

Note: All part numbers are RoHS compliant.
MT Receptacle Assemblies, Double-Row
.100 x .100 [2.54 x 2.54] Centerline (Continued)

Housings Pre-loaded with High Pressure Contacts

Material and Finish
Housing — Glass-filled thermoplastic, black, 94V-0 rated
Contacts — Copper alloy, duplex plated .000030 [0.00076] gold in mating area, .000050 [0.00127] tin on solder tails, with entire contact underplated .000050 [0.00127] nickel

Related Product Data
Mateable Connectors — pages 117, 122, 126, 130, 264
Cable Insulation Wall Thickness — .015 [0.39] max.
Cable Insulation Diameter — .050 [1.27] max.
Mating Post Length — 200-273 [5.08-6.94] max.
Performance Characteristics — page 255
Replacement Contacts — page 265
Connector Covers — pages 258, 259
Application Tooling — pages 273-275

Technical Documents — pages 277, 278
Application Specification 114-25032
Instruction Sheet 408-6532

Keying Plugs
Part No. 86286-1
(Plugs into receptacle contact)
Material — Natural color nylon

Part No. 87077-2
(Plugs directly into housing)

Note: All part numbers are RoHS compliant.
Low Profile Covers for Double-Row MT Receptacle Assemblies

Front Covers

A - Polarizing Cover
(Mates with AMPMODU 4-sided shrouded headers. Refer to pages 117, 122, 126, 130.)

B - Latching Cover
(Mates with AMPMODU 4-sided shrouded headers with extraction slot. Refer to pages 117, 122, 126, 130.)

C - Ejection Cover
(Mates with AMP-LATCH universal ejection style pin headers equipped with latching ears, Part No. 102185-2 (with push tabs) or Part No. 102312-2 (without push tabs), see Tyco Electronics Catalog 82012.)

D - Non-Polarizing Cover
(Designed for use with shielded connectors, pages 261 & 262; or for non-polarizing applications.)

Back Covers

E - For Shielding and Non-Shielding Applications
(For use with any low profile cover.)

F - For Shielding Applications
(For use with Non-Polarizing Cover only.)

Note: See page 259 for Low Profile Cover Part Nos.

Note: All part numbers are RoHS compliant.
### Standard Profile Covers for Double-Row MT Receptacle Assemblies

**Material**
Black thermoplastic, flame retardant

**Related Product Data**
For use on Double-Row MT Receptacle Assemblies — pages 256, 257

**Technical Documents**
- pages 277, 278
- Application Specification 114-25032
- Instruction Sheet 408-6532

**G - Hermaphroditic Cover**
(Two hermaphroditic covers can be used or one hermaphroditic cover can be used with an H Ejection Cover.)

**H - Ejection Cover**
(Mates with AMP-LATCH universal ejection style pin headers equipped with latching ears, Part No. 102185-2 (with push tabs) or Part No. 102312-2 (without push tabs), see Tyco Electronics Catalog 82012.

---

#### Low Profile Covers

<table>
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<tr>
<th>No. of Pos.</th>
<th>Dimension</th>
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<th>Standard Profile Covers</th>
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**Note:** All part numbers are RoHS compliant.
Shielding Hardware and Accessories for MT Interconnection System

Product Facts

- Add-on shielding accessories for existing AMPMODU Standard MT and PC board mounted headers
- Compact design
- Tin plated copper alloy material
- Redundant cantilever beams provide for good peripheral contact, eliminating the need for a separate RF gasket
- Polarized mating
- 360° cable braid termination with cable jacket support
- Cable shielding hardware permits molded cable terminations after assembly
- Must be used with braided shielded cables
- Solder tabs on right-angle header shields are self-retaining in a PC board

The shielded AMPMODU MT system features add-on metal shielding kits for double-row standard MT receptacle assemblies and double-row right-angle headers.

Cable shielding hardware consists of a ferrule and two stamped and formed shell halves. The inner shell half has a series of integral cantilever beams to provide good peripheral contact with the mating outer shell half. This feature also eliminates the need for a separate RF gasket. Detents in the cantilever beam provide a positive lock when the two halves are mated. During assembly the inner and outer shell halves are snapped together over a terminated standard MT connector.

Shields for right-angle headers have integral cantilever beams which provide good contact with the mating shielded MT receptacle assembly, without the use of a separate RF gasket.
Shielding Hardware and Accessories for Double-Row MT Receptacle Assemblies

Two-Piece Shields—Straight Exit

Material and Finish
Shell Halves — Copper alloy, .020 (0.51) thick; pretinned .000030 (0.00076) min.

Related Product Data
Double-Row MT Receptacle Assemblies — pages 256, 257
Non-Polarizing Covers (Part No. Series 102541 with back cover 102536 or 102823) — pages 258, 259
Shield Ferrules — page 263

Technical Documents — pages 277, 278
Product Specification
Application Specification
114-25032
Instruction Sheet
408-6532

Note: Match shield size to number of connector positions.

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Outer Shell</th>
<th>Inner Shell</th>
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Note: All part numbers are RoHS compliant.
Shielding Hardware and Accessories for Double-Row MT Receptacle Assemblies (Continued)

Two-Piece Shields—Right-Angle Exit

Material and Finish
Shell Halves — Copper alloy, .020\(\text{[0.51]\text{m}}}\) thick; pretinned .000030\(\text{[0.00076]\text{m}}}\) min.

Related Product Data
Double-Row MT Receptacle Assemblies — pages 256, 257
Non-Polarizing Covers (Part No. Series 102541 with back cover 102536 or 102823) — pages 258, 259
Shield Ferrules — page 263

Technical Documents — pages 277, 278
Product Specification
Application Specification
114-25032
Instruction Sheet
408-6532

### Related Product Data

<table>
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<th>No. of Pos.</th>
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<td>.983(\text{[24.97]\text{m}}})</td>
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<td>1.118(\text{[28.40]\text{m}}})</td>
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**Notes:**
1. Match shield size to number of connector positions.
2. Hole is provided in 26 through 60-position cable shields for application of optional cable tie pull ring after assembly.

**Note:** All part numbers are RoHS compliant.
Ferrules for Shielding Kits

Material and Finish
Soft copper, tin plated

Related Product Data
Used with Shielding Kits — pages 261, 262

Technical Documents — pages 277, 278

Product Specification
Application Specification
114-25032
Instruction Sheet
408-6532

Shielding Hardware and Accessories for Double-Row MT Receptacle Assemblies (Continued)

Note:
All part numbers are RoHS compliant.

Table: Ferrules for Shielding Kits

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<tr>
<th>No. of Pos.</th>
<th>Straight-Exit Shields</th>
<th>Right-Angle Exit Shields</th>
<th>Cable Dia. Range</th>
<th>Ferrule Part Number</th>
<th>Applicator Die* Assemly Part No.</th>
<th>Hand Tool Die Sets</th>
<th>Insulation</th>
<th>Braid</th>
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<td>0.310-0.360 [7.63-9.14]</td>
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*For use with Model "K" machines. Call the Tyco Electronics Technical Support Center (1-800-522-6752) for part nos. of applicators for use with the AMP-O-LECTRIC Model "G" machines (also shown on page 270), as well as other bench machines and fully automatic AMPOMATOR lead making machines.

Notes:
1. Ferrules are used with shielding kits shown on pages 261 & 262, and are purchased separately.
2. Individual anvils and crimpers also may be purchased separately.
3. Ferrule Part Number 1-102903-8 also requires Spacer Part Number 527116-9.

Note: All part numbers are RoHS compliant.
Shielded MT Headers for use with Shielded MT Receptacle Assemblies

**AMPMODU Right-Angle Headers PC Board Mounted**

**Material and Finish**
- **Housing** — Black thermoplastic, flame retardant
- **Posts** — Copper alloy, plated .000030 [0.00076] gold over .000050 [0.00127] nickel on entire post
- **Shield** — Copper alloy, .020 [0.51] thick; pretinned .000030 [0.00076] min.

**Related Product Data**
- **Mating Connectors** — Double-Row MT Receptacle Assemblies with Shielding Hardware — pages 256-263
- **Technical Documents**
  - Application Specification: 114-25032
  - Instruction Sheet: 408-6532

**Technical Drawings**

**Recommended PC Board Hole Layout** for 6, 8 and 10 Positions

**Recommended PC Board Hole Layout** for 16 thru 50 Positions

---

<table>
<thead>
<tr>
<th>No. of Positions</th>
<th>Dimensions A</th>
<th>Dimensions B</th>
<th>Dimensions C</th>
<th>Header Part Nos.</th>
<th>Shield Part Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>2.400 [60.96]</td>
<td>2.630 [66.60]</td>
<td>2.710 [68.83]</td>
<td>102792-4</td>
<td>102791-8</td>
</tr>
</tbody>
</table>

**Note:** All part numbers are RoHS compliant.
## Insulation Displacement Contacts

### Material and Finish
Copper alloy, duplex plated .000030 (0.00076) gold in mating area, .000100-.000200 (0.00254-0.00508) tin in crimp area, with entire contact underplated .000050 (0.00127) nickel.

### Related Product Data

| Performance Characteristics — page 255 |
| Application Tooling — pages 273-275 |
| Technical Documents — pages 277, 278 |

**Product Specification**

**Application Specification**
114-25032

**Instruction Sheet**
408-6532

### MT Receptacle Contacts

MT receptacle contacts incorporate the following features:
- Cantilever Beams
- Wide Misalignment Tolerance
- Anti-Overstress

The MT receptacle contact cross-section is primarily rectangular, with rounded corners. Two integral cantilever beams contact the mating square male posts. Deflection of these spring members is limited by anti-overstress and excessive permanent deformation is prevented. This feature allows a wide range for tolerance of misalignment of mating contacts.

### Extraction/Lance Reset Tool
No. 843477-3

The configuration of the receptacle completely encloses the spring members helping to prevent damage during handling and assembly, and makes the system compatible with automatic application techniques.

### Wire Size Range

<table>
<thead>
<tr>
<th>AWG</th>
<th>Standard Pressure Receptacle</th>
<th>High Pressure Receptacle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contact Ident.</td>
<td>Part No.</td>
</tr>
<tr>
<td>30-26</td>
<td>0.05-0.15</td>
<td>1</td>
</tr>
<tr>
<td>26-22</td>
<td>0.12-0.3</td>
<td>2</td>
</tr>
<tr>
<td>22-20</td>
<td>0.3-0.6</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** All part numbers are RoHS compliant.

---

Catalog 1307819
Revised 8-08
www.tycoelectronics.com

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 55-11-2103-6000
South America: 55-11-2103-6000
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-8706-080-208

265
Mini-Tandem Spring Receptacle Housings and Contacts

Product Facts

- Individual contacts mate with .025 [0.64] sq. posts, .125 [3.18] long
- Crimp snap-in contacts accept 32-22 AWG [0.03-0.32 mm²] wire
- Retention latch provides for positive installation
- No insertion tool required
- High durability design provides long life
- Available with .000015 [0.00038] or .000030 [0.00076] thick gold inlay in contact areas, or bright tin plated
- Closed-entry housings
- Mini-contact box size: .060 [1.52] sq.
- Mini-Tandem Spring Housings can be stacked on .100 [2.54] centers in either direction
- Mini-Tandem Spring Housings are Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

Specifications

- Contact Current Rating — 3 amperes
- Termination Resistance —
  - 12 milliohms (max.) — gold plated contacts
  - 18 milliohms (max.) — tin plated contacts
- Durability — Ref. Product Specification 108-25031

Mini-Tandem Spring Receptacle Contacts are designed to mate with .025 [0.64] posts. When used individually, they will mate with posts as short as .125 [3.18] and when used in a housing, they will mate with .140 [3.55] long posts. These versatile contacts may be used for interconnecting posted pc panels, I/O wiring and cross-connecting pin arrays.

The receptacle contact's box configuration provides for long contact life with controlled contact mating forces which minimize wear. An external retention spring facilitates quick assembly and provides firm seating in a contact housing.

Mini-Tandem Spring Receptacle Contacts are used in single- or double-row housings with .100 [2.54] centerline spacing. Single-row housings can be converted into double-row connectors on .100 x .200 [2.54 x 5.08] centers with the use of stacking clips.

Mini-Tandem Spring Housings can be stacked side-by-side or end-to-end on .100 [2.54] centers.
Mini-Tandem Spring Housings, Single-Row

Material — Black glass-filled polyester, 94V-0 rated

Technical Documents —
pages 277, 278
Product Specification
108-25031
Application Specification
114-25021

<table>
<thead>
<tr>
<th>No. of Pos.</th>
<th>Dimensions</th>
<th>Housing Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>2</td>
<td>.200 [5.08]</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>.800 [20.32]</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>1.200 [30.48]</td>
<td>11</td>
</tr>
<tr>
<td>16</td>
<td>1.600 [40.64]</td>
<td>15</td>
</tr>
<tr>
<td>18</td>
<td>1.800 [45.72]</td>
<td>17</td>
</tr>
<tr>
<td>20</td>
<td>2.000 [50.80]</td>
<td>19</td>
</tr>
<tr>
<td>22</td>
<td>2.200 [55.88]</td>
<td>21</td>
</tr>
</tbody>
</table>

Note: Mini-Tandem Spring contacts for use in these housings are shown on page 269.

Material — Natural color nylon, 94V-2 rated

Keying Plug
Part No. 531226-1
(Plugs directly into housing)

Note: All part numbers are RoHS compliant.
Mini-Tandem Spring Housings, Double-Row

Material — Black glass-filled polyester, 94V-0 rated

Technical Documents —
Product Specification
108-25031
Application Specification
114-25021

Minimum mating post length is .140 [3.55].

Material — Natural color nylon, 94V-2 rated

Note: Mini-Tandem Spring contacts for use in these housings are shown on page 269.

Note: All part numbers are RoHS compliant.

*Consult Tyco Electronics for specific UL recognition.

Keying Plug
Part No. 531226-1
(Plugs directly into housing)

No. of Pos. | Dimensions | Housing Part No.
--- | --- | ---
6 | .300 [7.62] | 530902-1
6 | .400 [10.16] | 530902-6
6 | .600 [15.24] | 2-530902-0
6 | .800 [20.32] | 3-530902-0

Note: Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents. Specifications subject to change.
Mini-Tandem Spring Contacts

Material and Finish
Phosphor bronze, plated as follows:

- **Plating A** — Duplex plated .000030 [0.00076] gold inlay on contact area, matte tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
- **Plating B** — Duplex plated .000015 [0.00038] gold inlay on contact area, matte tin in crimp area, with entire contact underplated .000050 [0.00127] nickel
- **Plating C** — Duplex plated .000050 [0.00127] over matte tin in contact area, over .000030 [0.00076] nickel on entire contact
- **Plating D** — .000100 [0.00254] min. matte tin over .000030 [0.00076] nickel on entire contact

Technical Documents —
- Product Specification 108-25031
- Application Specification 114-25021

### Low Pressure Contacts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AWG mm²</strong></td>
<td><strong>Range</strong></td>
<td><strong>Plating A</strong></td>
<td><strong>Strip Form</strong></td>
<td><strong>Loose Piece</strong></td>
<td><strong>Machine</strong></td>
</tr>
<tr>
<td>26-22</td>
<td>0.14-0.32</td>
<td>.036-.054</td>
<td>5531216-3</td>
<td>5531216-4</td>
<td>466819-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Plating B</strong></td>
<td>5531216-1</td>
<td>5531216-2</td>
<td></td>
</tr>
</tbody>
</table>

### Standard Pressure Contacts

<table>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AWG mm²</strong></td>
<td><strong>Range</strong></td>
<td><strong>Plating B</strong></td>
<td><strong>Strip Form</strong></td>
<td><strong>Loose Piece</strong></td>
<td><strong>Machine</strong></td>
</tr>
<tr>
<td>32-28</td>
<td>0.03-0.08</td>
<td>.025-.054</td>
<td>530901-2</td>
<td>530901-3</td>
<td>466723-1</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>530901-7</td>
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<td>530901-4</td>
<td>530901-5</td>
<td></td>
</tr>
<tr>
<td>26-22</td>
<td>0.14-0.32</td>
<td>.036-.054</td>
<td>5530553-4</td>
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<td>5530553-6</td>
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<td>466819-2</td>
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</table>

### High Pressure Contacts

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AWG mm²</strong></td>
<td><strong>Range</strong></td>
<td><strong>Plating B</strong></td>
<td><strong>Strip Form</strong></td>
<td><strong>Loose Piece</strong></td>
<td><strong>Machine</strong></td>
</tr>
<tr>
<td>32-28</td>
<td>0.03-0.08</td>
<td>.025-.054</td>
<td>5531225-6</td>
<td>—</td>
<td>466723-1</td>
</tr>
<tr>
<td>26-22</td>
<td>0.14-0.32</td>
<td>.036-.054</td>
<td>5531224-6</td>
<td>—</td>
<td>466819-2</td>
</tr>
</tbody>
</table>

*For use with AMP-O-LECTRIC Model “K” machines. Call the Tooling/Technical Assistance Center (1-800-522-6752) for part nos. of applicators for use with the AMP-O-LECTRIC Model “G” machines (shown on page 270), as well as other bench machines and fully automatic AMPOMATOR lead making machines.

**Notes:**
1. Mini-Tandem Spring Receptacle Contacts are for use only in the housings shown on pages 267 & 268. They cannot be used in AMPMODU Mod IV Housings.
2. Use Hand Tool No. 91540-1 for crimping loose-piece receptacles to all wire sizes listed above.
3. Application tooling is described on pages 270 & 275.

**Note:** All part numbers are RoHS compliant.
Tooling shown on this page is designed to terminate wire crimp contacts used in various AMPMODU wire-to-board connectors. Refer to page 88 to determine the applicable connectors.

**AMP-O-LECTRIC Model “G” Terminating Machine (Shown with Optional Crimp Force Monitor)**

A totally new design of our most popular machine for bench-top operation. It features a quiet and reliable direct motor drive, electronic controls for easy setup and operation, and improved guarding and lighting for operator convenience and safety. All versions include either manual or automatic precision adjustment for crimp height.

For further details, request Tyco Electronics Catalog 65828.

**AMP-O-MATIC Stripper/Crimper Machine**

This machine automatically strips as well as terminates individual wires. Similar to the AMP-O-LECTRIC Model “G” machine, applicators are quickly interchangeable, and it includes precision adjustment for crimp height. All adjustments can be made from the front of the machine, without special tools.

For further details, request Tyco Electronics Catalog 65004.

**EDGE, Electronic Applicator Counter**

The new versatile EDGE applicator counter tracks wearable tool usage for the most effective maintenance planning. The completely electronic counter with clear LCD display, indicates cycles since installation. By performing maintenance at measured intervals with pre-set limits, operators avoid breakdowns and rejects caused by tool wear or mid-adjustment. For more information, request catalog 1773385.
Application Tooling for Wire Crimp Contacts (Continued)

AMP 3K/40 and AMP 5K/40 Terminators

As a value oriented terminator, the AMP 3K/40 and AMP 5K/40 are designed for customers that require the increased output and quality of a semiautomatic machine at a competitive price. By incorporating the most commonly requested features as standard and offering a long list of optional equipment, these terminators offer flexibility to meet the specific needs of various applications at the lowest possible cost.

Optional Stripping Module for the AMP 3K/40, AMP 5K/40 and the AMP-O-LECTRIC Model G

The combination of the Stripping Module with the AMP-O-LECTRIC Model G Terminator or the AMP 3K/40, 5K/40 provides an economical, proficient method of stripping wire and crimping terminals on the same machine. Wires are stripped moments before crimping, meaning there is virtually no chance of damaging wire conductors during handling or storage. Once the wire is fed into the start sensor, the Stripping Module does the rest, improving placement accuracy. For more information, request catalog 1309085.
Tooling shown on this page is designed to terminate wire crimp contacts used in various AMPMODU wire-to-board connectors. Refer to page 88 to determine the applicable connectors.

Crimp Force Monitor (CFM)

Your quality program calls for more than a good crimping system. It demands proof - the proof you get with the SLE Crimp Force Monitor. It has high-resolution piezo-quartz sensor technology for a more precise identification of typical crimping faults. The monitor features Zone & Peak Force Analysis, 128x128 Dot Matrix, Force Trigger and Encoder Proximity Trigger, and Absolute Force Measurement for real-time monitoring of every crimp. The CFM can be used with bench or fully-automated machines. Special applicators are not required.

Sure, you can sample and test crimp height with a micrometer. In fact, that's how you standardize your process. But for ongoing quality control, testing every crimp, SLE is the choice. It's known worldwide, and meets our standards for a high performance terminating system. That's how you can be sure.

High quality crimping - with verification - means higher production and productivity.

Commercial grade hand tool for crimping various products. Features ratchet control to provide complete crimp cycle. Accepts both pinned- and shouldered-style die sets. Locators are provided with pinned-style die sets for proper contact and wire positioning, and to help minimize contact rotation and bending during crimping. Approximate weight 1.3 lb [0.60 kg].

The AMPOMATOR System III Leadmaker is an automatic machine for the production of terminated wire leads. The machine combines state of the art technology to process single and double wire application utilizing the wire processing industry’s best and most friendly subsystems and accessories available to meet the latest market requirements for wire lead production.

The new machine incorporates a servo-driven, software-controlled AMP-O-ELECTRIC ST III terminator and the next generation System III Applicator.

See catalog 1654956-5 for more information.

Tyco Electronics hand tools are ideal for small production and prototype applications. They feature ratchet control to help eliminate partial crimps, straight-line die closure, terminal locator and support, and insulation crimp adjustment. Tyco Electronics hand tools also can be adapted for use with pneumatic tooling assemblies, providing air operated crimping capabilities.

For further details on Tyco Electronics straight action hand tools, request Tyco Electronics Catalog 65780. For more details on Tyco Electronics pneumatic tooling assemblies, call the Tyco Electronics Technical Support Center, 1-800-522-6752.
Application Tooling for Insulation Displacement Crimp (IDC) Contacts and Connectors

Pistol Grip Manual and Air Powered Tools
The manual pistol grip tool features an interchangeable modular terminating head which also can be used in the pneumatic version, the Bench Mount Pneumatic Power Assembly and the IDC Electric Power Unit. The head terminates one unstripped wire per cycle and indexes the connector to the next terminating position. The head rotates to permit optimum access to the wiring area. The Bench Mount Pneumatic Power Assembly is air actuated with either a foot or knee switch. This capability frees the operator’s hands for optimum positioning.

Modular Heads:
- 58062-1 (for MT connectors)
- 58336-1 (for MTE connectors)
- 58395-1 (for Level V IDC connectors)
- 58540-1 (for MTE connectors, discrete wire or flat ribbon cable)

Tooling shown on this page is designed to terminate IDC contacts for various AMPMODU wire-to-board connectors. Refer to page 88 to determine the applicable connectors.

IDC Electric Power Unit
This electrically powered semiautomatic bench machine is designed for applying AMPMODU MTE and MT connectors to discrete wires. It is portable and compact and uses existing pistol grip modular heads. The heads are easily interchanged to run different products. *The IDC Electric Power Unit’s cycle rate is approximately 7,200 cycles per hour, with exact production rates depending upon operator dexterity.

Modular Heads:
- 58062-1 (for MT connectors)
- 58336-1 (for MTE connectors)

*A tube-fed track assembly, Part No. 856675-1, also can be used with MTE Connectors.

Note: All part numbers are RoHS compliant.
Application Tooling for Insulation Displacement Crimp (IDC) Contacts and Connectors (Continued)

Tube-Fed Ribbon Cable Machine

Design for bench applications, this machine is pneumatically operated and controlled by a foot pedal. It terminates connectors onto end-notched ribbon cable.

*The connectors are supplied in strip form and in plastic tubes. The machine consists of three basic subassemblies: a feed track, a terminating station and a seating station. The feed track is a constant force, spring-driven unit which conveys connectors through the product tube to the terminating station. The air-operated terminating station positions and terminates contacts onto the notched cable. The seating station is manually operated and seats connector housings onto the terminated contacts.

*At a rate of 13-25 positions at a time.

2700 lb. Power Unit With Cable Notching Die

Equipped with a cable notching die an adapter kit, this fully pneumatic bench machine provides the 2700 lb [12 010N] force required for end-notching ribbon cable. It features a grooved cable support plate, a pressure plate and a cable stop to facilitate cable alignment and positioning during the notching process.

Notching Dies:
854449-1 (for 24-22 AWG [0.2-0.6 mm²] Wire
854449-2 (for 28-26 AWG [0.08-0.15 mm²] Wire

Note: All part numbers are RoHS compliant.
Tooling shown on this page is designed to terminate IDC contacts for various AMPMODU wire-to-board connectors. Refer to page 88 to determine the applicable connectors.

AMPMODU Interconnection System

Application Tooling for Insulation Displacement Crimp (IDC)
Contacts and Connectors (Continued)

CHAMPOMATOR Model 2.5 Terminating Machine No. 354786-(*)

This compact bench machine terminates wires manually sorted from multiconductor cables. Termination sequence may include full termination of all contacts, or selective termination. Designed for easy programming, the machine is microprocessor controlled and programmed by a membrane switch keyboard. It also has an internal storage capability for retaining up to 350 cable assemblies. Connectors can be terminated with either straight or right-angle wire dress.

*For applicable dash nos., call the Technical Support Center: 1-800-522-6752.
For further details, request Tyco Electronics Catalog 82247

CHAMPOMATOR Model 3A Terminating Machine No. 761420-(*)

This floor model machine automatically sorts wires from multiconductor jacketed cable and terminates them in a user-determined sequence; either full termination of all contacts, or selective termination. Designed for easy programming, the machine is microprocessor controlled and programmed by a touchscreen. It also has an internal storage capability for retaining up to 50 cable assemblies. Connectors can be terminated with either straight or right-angle wire dress. All cable assemblies are tested for continuity and shorts.

*For applicable dash nos., call the Technical Support Center: 1-800-522-6752.
For further details, request Tyco Electronics Catalog 82247

Note: All part numbers are RoHS compliant.
Technical Documents for Board-to-Board Products

### Product Specifications

Product Specifications describe technical performance characteristics and verification tests. They are intended for the Design, Component and Quality Engineers.

**PC/104 and PC/104-Plus Connectors — Pages 5-12:**
- 108-1956 PC/104 and PC/104-Plus Connector Systems

**Receptacle Assemblies and Unshrouded Breakaway Headers, Surface-Mount — Pages 109, 110, 185-192:**
- 108-25017 AMPMODU Interconnection System, Two-Piece
- 108-25022 AMPMODU Mod. IV Interconnection System, Vertical Assemblies
- 108-25026 AMPMODU Mod. II Interconnection System, Standard Pressure Receptacle Assembly and Header

**Two-Piece Printed Circuit Board Connectors — Pages 193-202:**
- 108-16 ACTION PIN Contacts
- 108-25017 AMPMODU Interconnection System, Two-Piece
- 108-25027 AMPMODU Mod. II Interconnection System, Short-Point Receptacle Assembly and Header

**Receptacle Assemblies, Horizontal and Vertical Board Mount — Pages 168-192:**
- 108-25022 AMPMODU Mod. IV Interconnection System, Vertical Assemblies
- 108-25026 AMPMODU Mod. II Interconnection System, Standard Pressure Receptacle Assembly and Header
- 108-25027 AMPMODU Mod. II Interconnection System, Short-Point Receptacle Assembly and Header

**.025 [0.64] Square Posts, Headers, Accessories and Tooling — Pages 92-105, 114-140, 145-153, 163:**
- 108-16 ACTION PIN Contacts
- 108-25026 AMPMODU Mod. II Interconnection System, Standard Pressure Receptacle Assembly and Header

### Application Specifications

Application Specifications describe requirements for using the product in its intended application, and/or crimping information. They are intended for the Packaging and Design Engineers and the Setup person.

**PC/104 and PC/104-Plus Connectors — Pages 5-12:**
- 114-13021 PC/104 and PC/104-Plus Connectors

**Two-Piece Printed Circuit Board Connectors — Pages 193-202:**
- 114-9009 AMPMODU Header, Two-Piece, Double Row, Application of

**Receptacle Assemblies, Horizontal and Vertical Board Mount — Pages 168-192:**
- 114-25018 AMPMODU Mod. II and IV Receptacle Assembly, PC Board Mounted, Vertical, Application of

**.025 [0.64] Square Posts, Headers, Accessories and Tooling — Pages 92-105, 114-140, 145-153, 163:**
- 114-25028 ACTION PIN Contacts with Tyco Electronics Headers, Application

### Instruction Sheets

Instruction Sheets provide instructions for assembling or applying the product. They are intended for the Manufacturing Assembler or Operator.

**PC/104 and PC/104-Plus Connectors — Pages 5-12:**
- 408-8502 Future Board Assembly 1424685 for PC/104 and PC/104-Plus Connectors
- 408-8503 Seating Tool Assembly 1424686 for PC/104 and PC/104-Plus Connectors
- 408-8504 Pneumatic Seating Tool Assembly 1424930-1 for PC/104 and PC/104-Plus Connectors
- 408-8505 Manual Seating Tool Assembly 1424931-1 for PC/104 and PC/104-Plus Connectors

**Two-Piece Printed Circuit Board Connectors — Pages 193-202:**
- 408-2636 ACTION PIN Contact Rear Insertion/Extraction Tool 265871-7
- 408-9054 Seating Tools

**Receptacle Assemblies, Horizontal and Vertical Board Mount — Pages 168-192:**
- 408-7411 Suggestions for Wave Soldering Vertical AMPMODU Receptacles

**.025 [0.64] Square Posts, Headers, Accessories and Tooling — Pages 92-105, 114-140, 145-153, 163:**
- 408-2636 ACTION PIN Contact Rear Insertion/Extraction Tool 265871-7
- 408-6944 Tyco Electronics Uninsulated Bandolier Post Insertion Tool 91419-1
- 408-7878 AMPMODU Header Barrier Inserts
- 408-9054 ACTION PIN Contact Headers Seating Tool, 91170 Series
- 408-9707 Tool Kit 314818-1 for Breakaway Headers

**Handbook Guide to Application of ACTION PIN Contact Connectors**

Note: All part numbers are RoHS compliant.
Various technical documents are available for your use.

**Technical Documents for Wire-to-Board Products**

**Product Specifications** describe technical performance characteristics and verification tests. They are intended for the Design, Component and Quality Engineers.

**Locking Clip Contacts and Housings — Pages 206-209:**
- 108-36028 Connector, Locking Clip, .025 [0.64] Square, Gold
- 108-36028-1 Connector, Locking Clip, .025 [0.64] Square, Tin

**Mod. IV Wire-Applied Contacts and Housings — Pages 210-220:**
- 108-25007 AMPMODU Mod. V Interconnection System, Wire-Applied (High Pressure)
- 108-25019 AMPMODU Mod. IV Male Connectors
- 108-25020 AMPMODU Mod. IV Interconnection System, (Standard Pressure)
- 108-25021 AMPMODU Mod. IV.V Interconnection System, (Intermediate Pressure)

**Short-Point Wire-Applied Contacts and Housings — Pages 221-224:**
- 108-1472 Short-Point Contacts and Housings

**AMPMODU MTE Interconnection System — Pages 225-252:**
- 108-25034 AMPMODU MTE Connectors

**AMPMODU MT and Shielded MT Interconnection System — Pages 255-265:**
- 108-25015 AMPMODU MT Standard Pressure Connectors
- 108-25018 AMPMODU MT High Pressure Connectors
- 108-25030 AMPMODU MT Shielding Accessories

**AMPMODU Level V, IDC Connectors —**
- 108-25028 Interconnection System, Insulation Displacement Connector, IDC Level

**Mini-Tandem Spring Receptacle Contacts — Pages 266-269:**
- 108-25031 Tandem Spring Receptacle Contact

**Application Specifications** describe requirements for using the product in its intended application, and/or crimping information. They are intended for the Packaging and Design Engineers and the Setup person.

**Locking Clip Contacts and Housings — Pages 206-209:**
- 114-25006 Contact, Locking Clp., .025 [0.64] Square, Application of

**Mod. IV Wire-Applied Contacts and Housings — Pages 210-220:**
- 114-25003 AMPMODU Mod. IV (Standard Pressure), AMPMODU Mod. IV.V (Intermediate Pressure) and AMPMODU Mod. V (High Pressure) Receptacle Contacts, Application of
- 114-25016 AMPMODU Mod. IV Crimp Pin Contact

**Short-Point Wire-Applied Contacts and Housings — Pages 221-224:**
- 114-25038 Short-Point Contacts and Housings

**AMPMODU MTE Interconnection System — Pages 225-252:**
- 114-25026 AMPMODU MTE Interconnection System

**AMPMODU MT and Shielded MT Interconnection System — Pages 255-265:**
- 114-25032 AMPMODU MT Interconnection System and Shielding Accessories, Application of

**AMPMODU Level V, IDC Connectors —**
- 114-25020 Interconnection System, IDC Level V, Application of

**Mini-Tandem Spring Receptacle Contacts — Pages 266-269:**
- 114-25021 Tandem Spring Receptacle Contact, Application of

**Note:** All part numbers are RoHS compliant.
Technical Documents for Wire-to-Board Products (Continued)

Instruction Sheets provide instructions for assembling or applying the product. They are intended for the Manufacturing Assembler or Operator.

Locking Clip Contacts and Housings — Pages 206-209:
- 408-7604 Tyco Electronics Extraction Tool 91084-1
- 408-7606 Tyco Electronics Locking Clip Contacts and Connectors
- 408-7627 Tyco Electronics Hand Crimp Tool 90295-1, 28-30 AWG Wire
- 408-8547 Tyco Electronics Hand Crimp Tool 91533-1, 22-26 AWG Wire
- 408-9388 Tyco Electronics Hand Crimp Tool 90431-1, 20 AWG Wire

Mod. IV Wire-Applied Contacts and Housings — Pages 210-220:
- 408-4379 Tyco Electronics PRO-CRIMPER II Hand Tool
- 408-7935 AMPMODU Receptacle Connectors with Strain Relief/Pull Tabs
- 408-8547 Tyco Electronics Hand Tool 91516-1, 91517-1 and 91541-1
- 408-9451 Tyco Electronics Extraction Tool 843473-1 for AMPMODU Wire-Applied Housings 86308
- 408-9453 Tyco Electronics Extraction Tools 843996 and 843477 for Removing AMPMODU Crimp Snap-In Receptacle Contacts from Wire-Applied Housings

AMPMODU MTE Interconnection System — Pages 225-252:
- 409-5746 Tyco Electronics Electric Power Unit 931800-1
- 409-5832 MTE Ribbon Cable Terminator 856002-1
- 408-6789 Tyco Electronics Pneumatic Pistol Handle 58075-1
- 408-6790 Tyco Electronics Manual Pistol Handle 58074-1
- 408-6919 AMPMODU MTE Connectors
- 408-8547 Tyco Electronics Hand Crimp Tool 91518-1 and 91551-1
- 408-9230 Tyco Electronics Keying Tool 91417-1
- 408-9359 MTE Modular Terminating Head 58336-1
- 408-9393 Tyco Electronics Pneumatic Bench Assy. 58338-1
- 408-9407 Tyco Electronics Hand Crimp Tool 91531-1 and 58342-2
- 408-9453 Tyco Electronics Extraction Tools 843996 and 843477 for Removing AMPMODU Crimp Snap-In Receptacle Contacts from Wire-Applied Housings
- 408-9515 Ribbon Cable Notcher 854449-[]

AMPMODU MT and Shielded MT Interconnection System — Pages 255-265:
- 408-6532 AMPMODU MT Connectors

AMPMODU Level V, IDC Connectors —
- 408-6843 Tyco Electronics Extraction Tool 91409-1

Standard Tandem Spring and Mini-Tandem Spring Receptacle Contacts — Pages 266-269:
- 408-7909 Tyco Electronics Hand Crimping Tool 91540-1

Note: All part numbers are RoHS compliant.