**General Description**

The VIGILANT IP Network STP Cable Termination Bracket (FP1044) provides a method of terminating two shielded twisted pair (STP) Cat 5e/Cat 6 field cables (typically solid core) into AMP TWIST 6S SL connectors. These provide a single-action, insulation displacement connection to all 8 wires (4 pairs) and an RJ45 socket into which an Ethernet patch cord may be plugged.

Refer to the PIB User’s Manual (LT0519) for detail for inter-connection of a Panel-Link IP Network.

**Field Wiring Gauge & AMP-TWIST-6S SL Termination**

The connectors have a clamp that connects the shield of the STP cable to the metal body, which, in turn, connects to the metal of the bracket. If desired, the shield can be left covered by the sheath so that it remains isolated from the body and thus the shield is not earthed. See LT0519 for more details.

Accepted Cable Jacket: 5mm – 9mm outer diameter (will accept UTP or STP)

Accepted Wire Gauge: 24-22AWG solid core (0.50-0.65mm diameter) 26-24AWG stranded

The AMP-TWIST connector comes with a pamphlet that describes the termination process. A colour document (ID 411-93014) is available on the TE Connectivity web site. The connector uses insulation displacement, with positions to lay the wires, and has the wire-press and guillotine built in.

The recommended tool is effectively a clamp that squeezes both halves together, pushing the wires into place, causing them to be mated, and the wire tails cut off. If you are using a different tool, e.g., a small hand vice, ensure that both halves are pressed fully home, but not forced beyond that.

The particular connection format, T568A or T568B, should be chosen to correspond to what is used in the particular building/area, and should match the patch leads used.

The positioning of wires by colour is shown on the side of the connector for each format, with the particular colour, e.g. blue, shown as a solid colour in the rectangle below the wire exit point, and the corresponding white (or striped white), shown in the adjacent rectangle as half colour, half white.

The important thing is that each wire terminates to the same pin number at each end of the cable, and that the wire pairs are maintained.

**Bracket Installation Process**

1. Install the field wiring of type and gauge as per above. Maintain a minimum bend radius of 40mm, and secure the cable.
2. Terminate the cables in the AMP-TWIST-6S SL connectors supplied, as per the instructions above.
3. Mount the mounting bracket to an appropriate place on the gearplate or cabinet wall. It can be directly mounted in an MX Loop Card bracket position. Other positions may require mounting holes to be drilled. Ensure that it is earthed (attach with screws, nuts and star washers, e.g., blue, shown as a solid colour in the rectangle below the wire exit point, and the corresponding white (or striped white), shown in the adjacent rectangle as half colour, half white.
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4. Clip the connectors into the holes in the mounting bracket, fitting the lip over the lower edge. Depress the spring clip, then push it home.
5. Fix the cable near the bracket so that cable strain is not applied to the connector.
6. Use standard UTP patch cables to connect the RJ45 sockets on the bracket to the appropriate ports on the Moxa switch.

**Kit contents**

The FP1044 kit includes the following items (in addition to these instructions):

<table>
<thead>
<tr>
<th>Qty</th>
<th>Part No.</th>
<th>Description</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CN0651</td>
<td>CAT6-RJ45 SKT AMP-TWIST 6S SL</td>
<td>Terminates cables.</td>
</tr>
<tr>
<td>1</td>
<td>FA2016</td>
<td>HEX BARREL NUT M3 BRASS</td>
<td>Mount bracket to RAC cabinet wall.</td>
</tr>
<tr>
<td>3</td>
<td>NT0009</td>
<td>NUT HEX MACHINE M4 ZP</td>
<td>The bracket.</td>
</tr>
<tr>
<td>3</td>
<td>SC0176</td>
<td>SCREW PH M4 X 10 WITH WASHERS</td>
<td>2 mount brkt to gearplate,1 earth stud, if req’d.</td>
</tr>
<tr>
<td>2</td>
<td>WA0005</td>
<td>WASHER FLAT M3 ZP 7MM OD</td>
<td>Mount bracket to gear plate</td>
</tr>
<tr>
<td>2</td>
<td>WA0006</td>
<td>WASHER FLAT M4 ZP 9MM OD</td>
<td>Inner wall mounting with barrel nuts.</td>
</tr>
<tr>
<td>2</td>
<td>WA0010</td>
<td>WASHER SHAKEPROOF M3</td>
<td>Mount bracket to gear plate (on gear plate rear)</td>
</tr>
<tr>
<td>3</td>
<td>WA0011</td>
<td>WASHER SHAKEPROOF M4</td>
<td>2 mount brkt to gearplate, 1 earth stud if req’d.</td>
</tr>
</tbody>
</table>
Some Mounting Examples

Fig 1 – *MX1* Gear Plate Mounting

Fig 2 – *MX1* Slimline Inner Wall Mounting
(similar mounting in F3200 and MX4428 cabinets)

Fig 3 – Responder Box Mounting

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