

CAPPED IDC 26-28 AWG: 9175-700

General Information



The market and applications for simple and reliable discrete Wire-to-Board connectors continue to evolve. KYOCERA AVX first introduced the 9175 series of surface mountable Insulation Displacement Connectors (IDC) in 2006. Developed for harsh industrial and automotive applications, these connectors have been used in hundreds of applications from today's "Smart Meter" all the way down to a simple sensor termination to a PCB. Size and performance has been one of the key factors for selecting this connector in terminating 26-28AWG wires to a PCB.

The next generation of IDC connector moves beyond all of the technical and performance attributes to address the "User Friendliness" of the product. By changing the insulator from acting as a connector body and make it more like a contact carrier, the insulator becomes the wire location and insertion aid without any special tools. The wire is just inserted into the cap (no stripping required) and then pressed down to provide a secure "Gas Tight" termination. This configuration simplifies and cost reduces the entire wire termination process for connecting discrete wires to a PCB.

APPLICATIONS

- Connecting discrete wire components to a PCB
- Bringing power and signals onto a PCB
- Daisy chaining PCB's together to create a continuous string
- Reference Product Specification 201-01-140

FEATURES AND BENEFITS

- IDC contact provides a gas-tight connection to the PCB for long term reliability
- Plastic cap retains the contacts in position prior to automatic placement, then acts as the assembly tool to terminate the wires; no special tooling.
- Tested to automotive levels on shock, vibration and temperature cycling for reliability
- Identical contact and footprint pattern to the existing 9175 for full backward compatibility and functionality
- The IDC contact reduces the total applied cost versus solder or crimp processes
- Connectors are available in two configurations for maximum flexibility; End and Through Wire

ELECTRICAL

- Current Rating: 1 Amps / Contact
- Voltage Rating: 150 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Nylon UL94VO
- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel

HOW TO ORDER

| 00 | 9175 | 00X | | | | | | | | | |
|-----------|-------------|---|------|------------|---------|-----|---|---------------|-----|---|---------------|
| Prefix | Series | Number of Ways | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>Code</th> <th>No of Ways</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>002</td> <td>2</td> <td>Pages 11 & 13</td> </tr> <tr> <td>003</td> <td>3</td> <td>Pages 12 & 14</td> </tr> </tbody> </table> | Code | No of Ways | Details | 002 | 2 | Pages 11 & 13 | 003 | 3 | Pages 12 & 14 |
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| 002 | 2 | Pages 11 & 13 | | | | | | | | | |
| 003 | 3 | Pages 12 & 14 | | | | | | | | | |

| 70X | | | | | | | | | |
|--|----------------------------|--------------------------|-----------------|-----|----------------------------|--------------------------|-----|----------------------------|--------------------------|
| Wire Gauge Size Cap Pre-Assembled | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Code</th> <th>Accepted Wire Gauge</th> <th>Wire Insulation</th> </tr> </thead> <tbody> <tr> <td>701</td> <td>28 Gauge Solid or Stranded</td> <td>Min Ø 0.70 Max Ø 1.00</td> </tr> <tr> <td>702</td> <td>26 Gauge Solid or Stranded</td> <td>Min Ø 0.80 Max Ø 1.20</td> </tr> </tbody> </table> | Code | Accepted Wire Gauge | Wire Insulation | 701 | 28 Gauge Solid or Stranded | Min Ø 0.70 Max Ø 1.00 | 702 | 26 Gauge Solid or Stranded | Min Ø 0.80 Max Ø 1.20 |
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| |
|---|
| X |
| Insulator Color |
| 9 = UL White 8 = UL Black Special Order |

| X | | | | | | | | | | | | |
|---|--------------|---|-------------|--------|---|--------------|---|------------|---|-----------|---|-------------|
| Cap Options | | | | | | | | | | | | |
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| |
|-----------------------|
| 6 |
| Plating Option |
| 6 = Pure Tin all over |

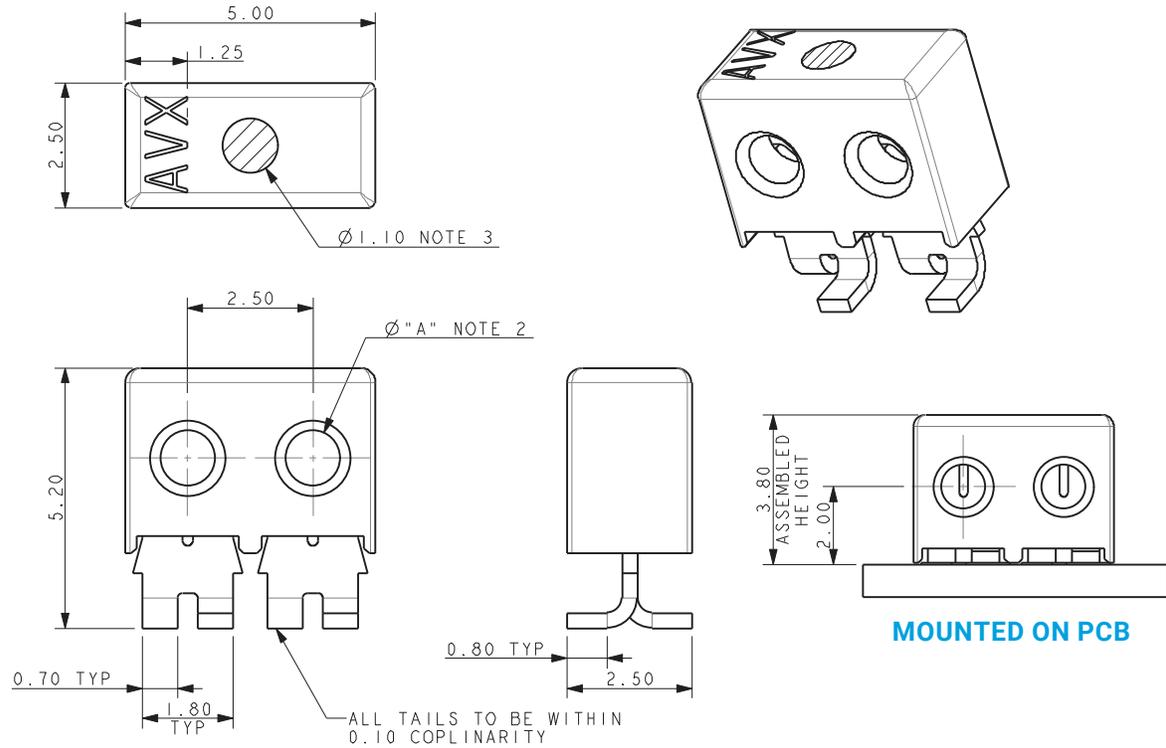
Certification: UL File #E90723



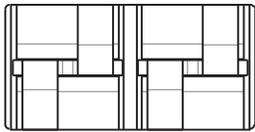
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2 Position - Through Wire

26-28 AWG 2 WAY IDC CONNECTOR THROUGH WIRE CAPPED IDC



MOUNTED ON PCB

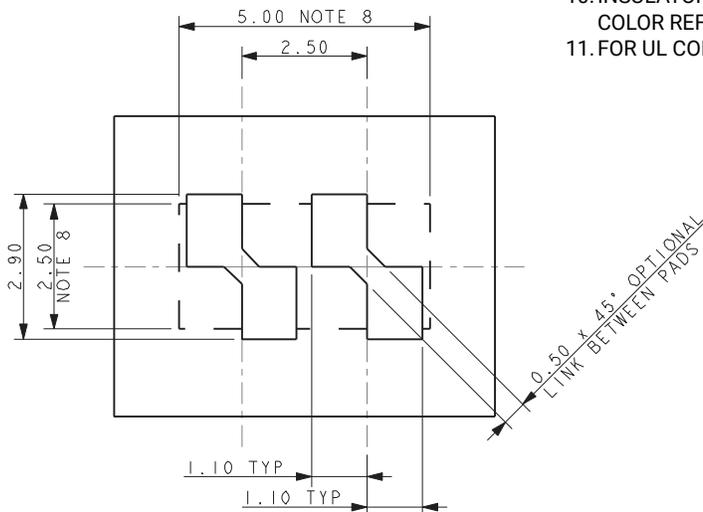


| Code | Wire Gauge | Diameter A |
|------|------------|------------|
| 701 | 28AWG | 1.10 |
| 702 | 26AWG | 1.30 |

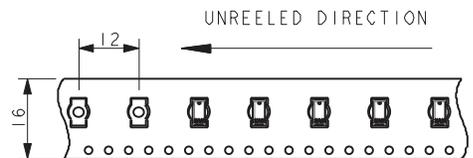
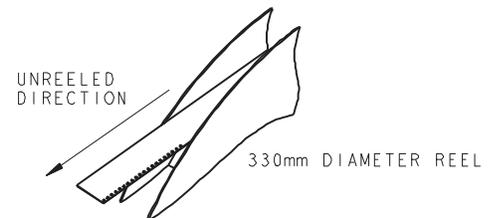
NOTES:

- 2 WAY CONNECTOR FOR IDC WIRE TO BOARD CONNECTION. PRE-ASSEMBLED THROUGH WIRE CAP.
- CONTACT/CAP TO MATCH 26AWG AND 28AWG WIRES. SOLID OR STRANDED CONDUCTOR. MAXIMUM INSULATOR 1.00 MM DIAMETER.
- FLAT FACE ON TOP OF CAP TO AID PICK AND PLACE ASSEMBLY.
- FOR FULL PRODUCT SPECIFICATION ON STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-139. UL COMPONENTS REFER TO ELCO SPEC 201-01-139UL.
- ASSEMBLY PROCEDURE, REFER TO APPLICATION NOTES 201-01-140.
- GENERAL TOLERANCE ± 0.20 UNLESS STATED.
- PACKED IN TAPE AND REEL, QUANTITY PER REEL 1000.
- CONNECTOR OUTLINE.
- CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
- INSULATOR MATERIAL: HIGH TEMPERATURE NYLON, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 10.
- FOR UL CODES UL REFERENCE E90723 (US AND CANADA).

PACKING DETAILS



SUGGEST PCB LAYOUT

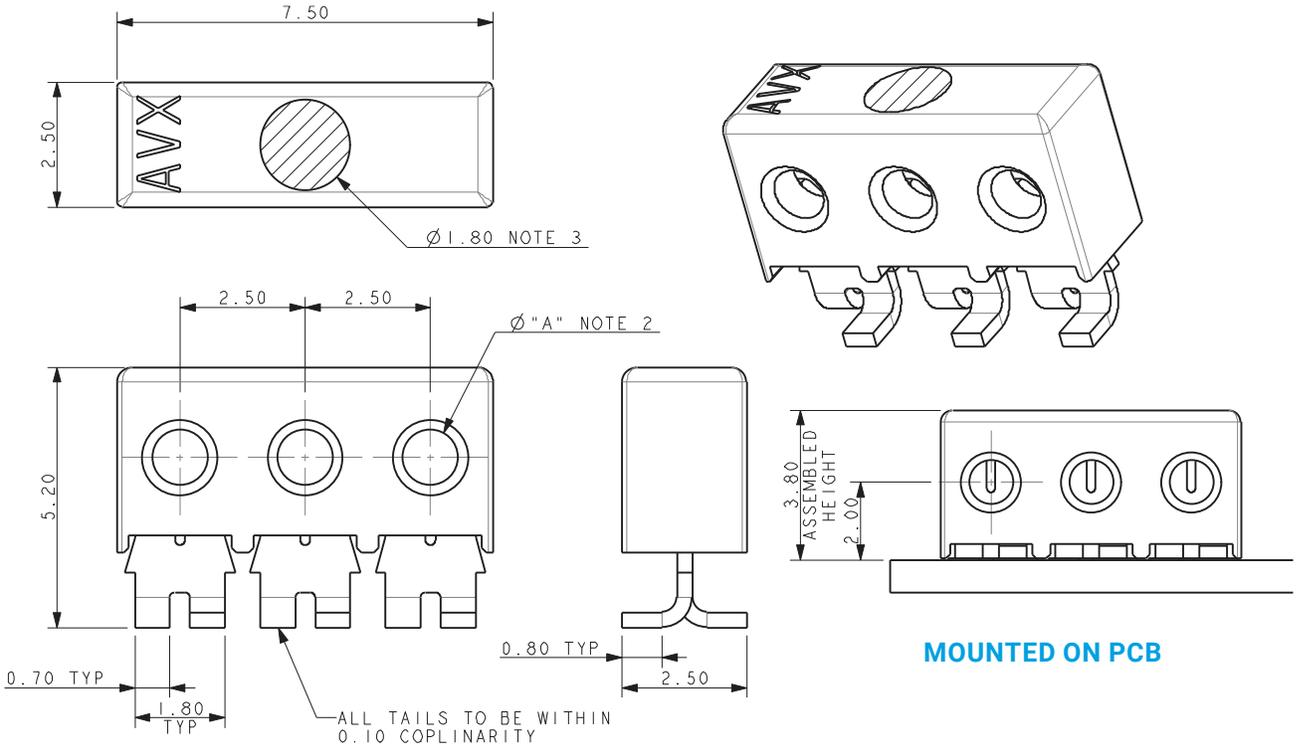


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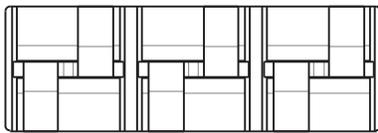
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3 Position - Through Wire

26-28 AWG 3 WAY IDC CONNECTOR THROUGH WIRE CAPPED IDC



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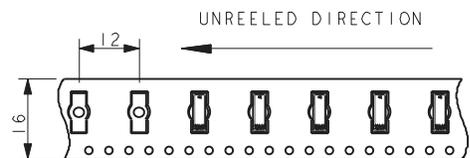
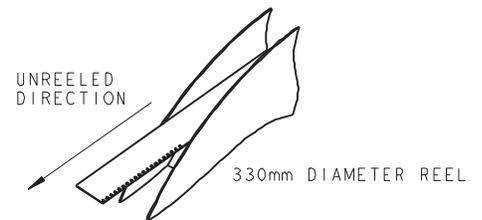


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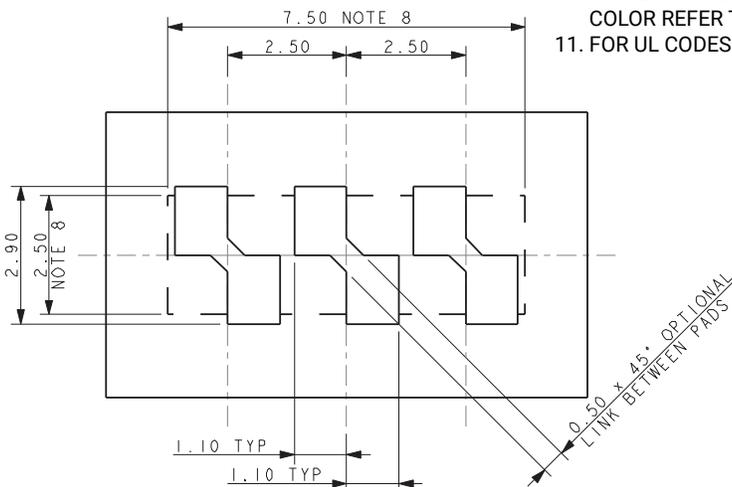
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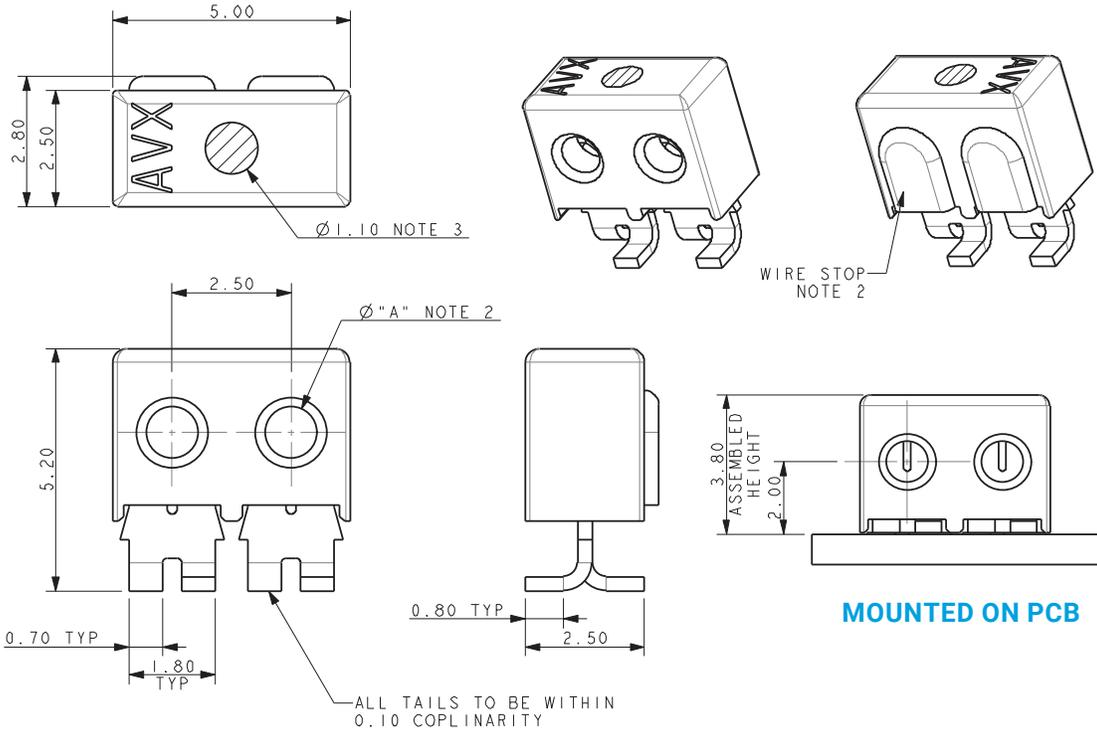


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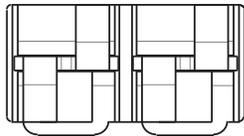
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2 Position - Wire Stop

26-28 AWG 2 WAY IDC CONNECTOR WIRE STOP CAPPED IDC



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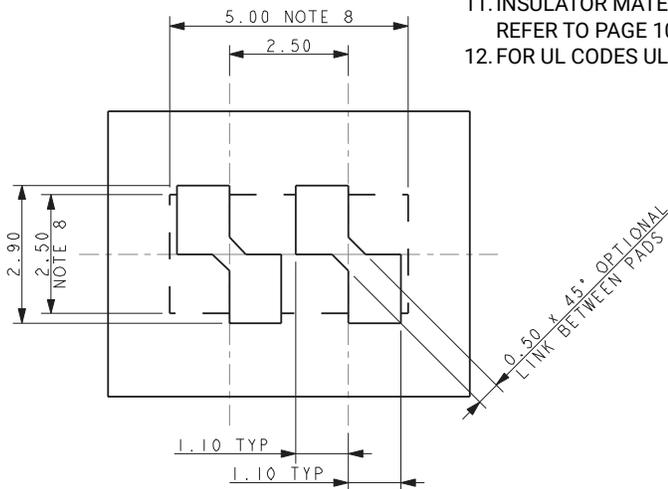


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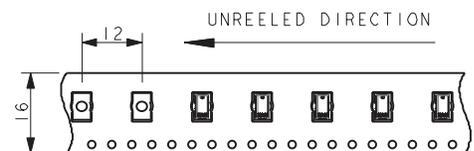
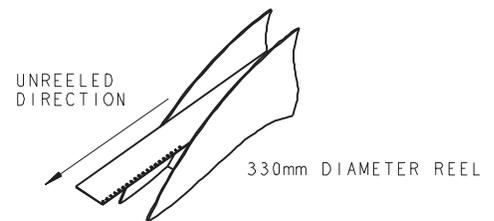
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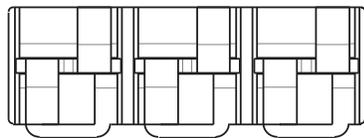
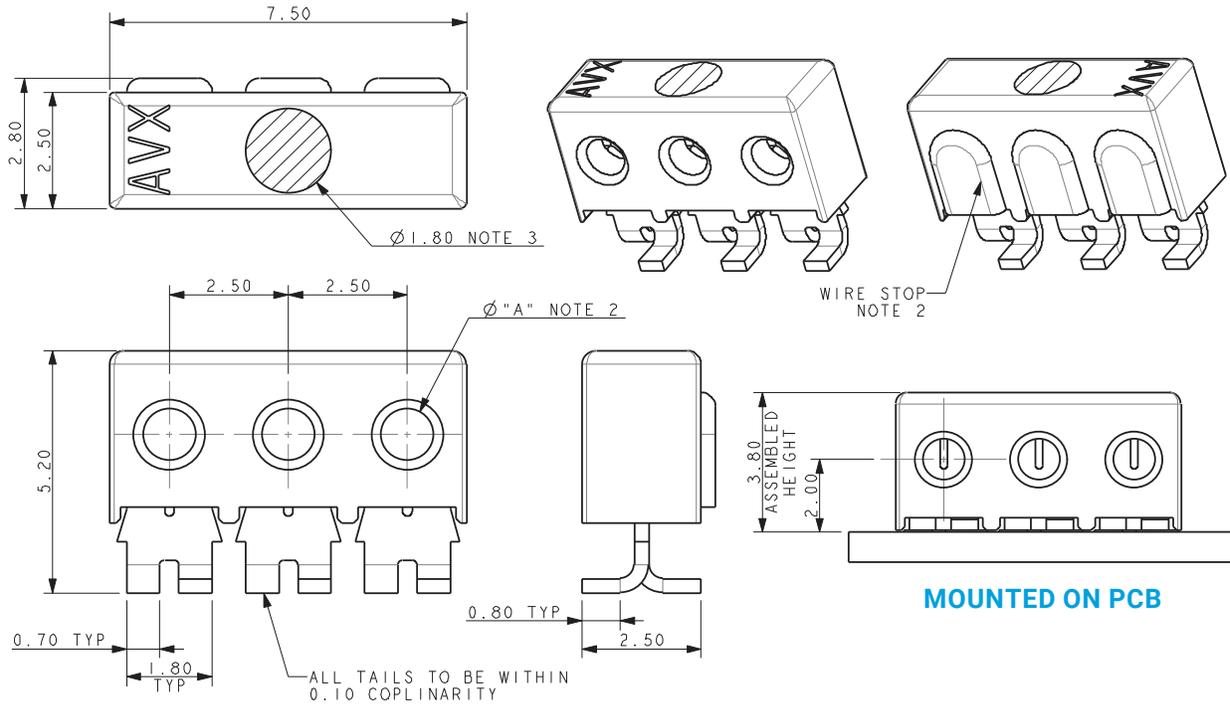


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3 Position - Wire Stop

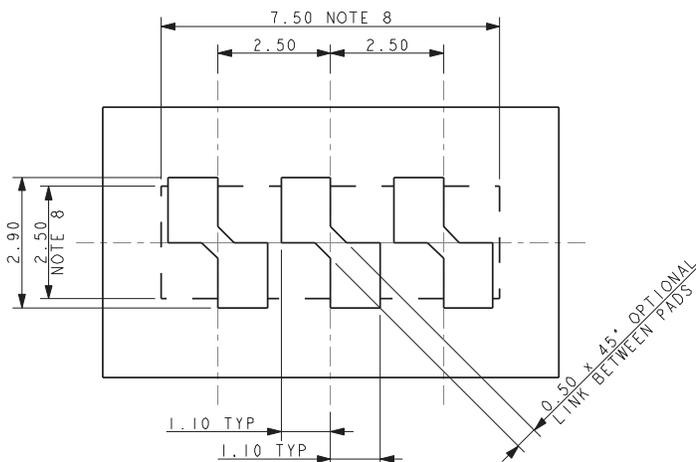
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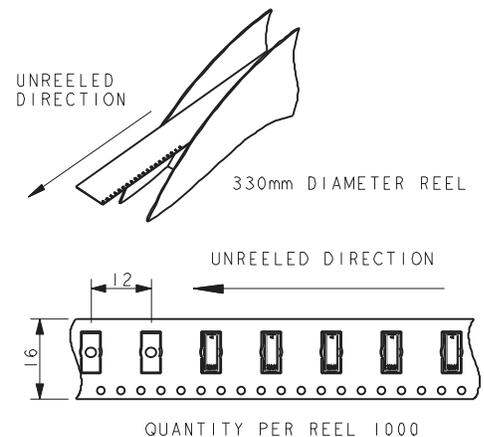
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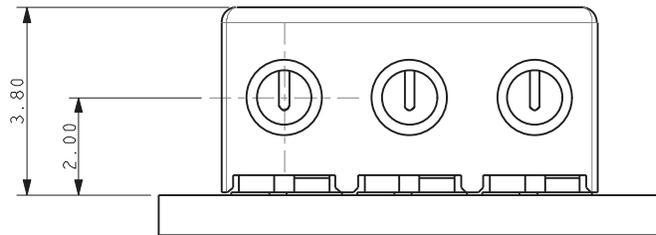
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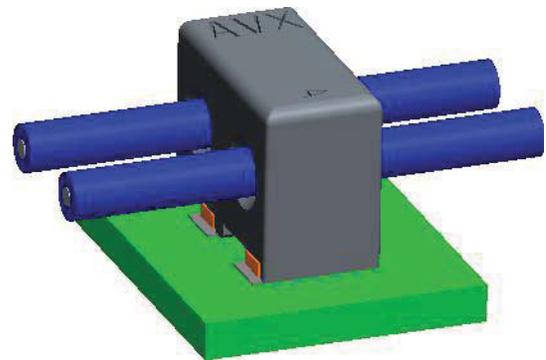
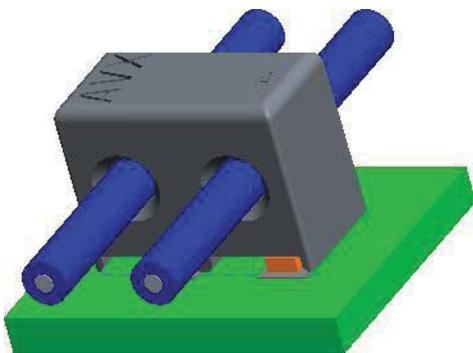
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Assembly - Through Wire and Wire Stop

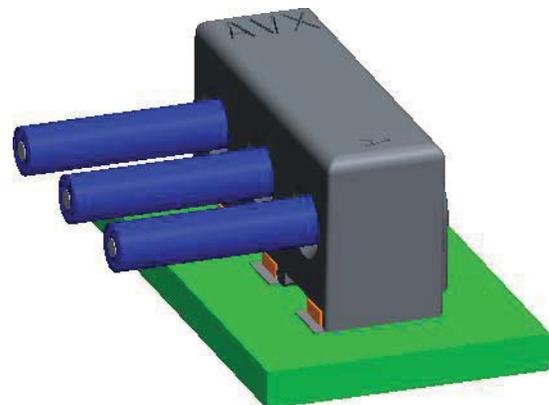
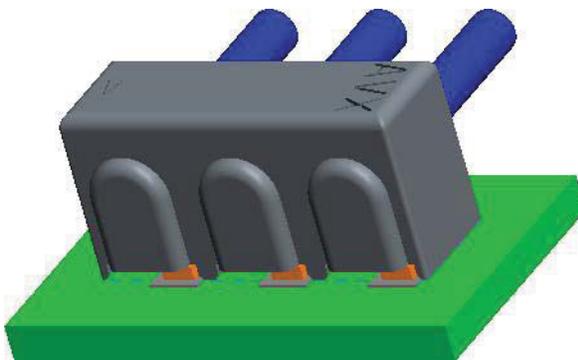
26-28 AWG ASSEMBLED CAPPED IDC CONNECTORS



MOUNTED ON PCB



TYPICAL THROUGH WIRE ASSEMBLY



TYPICAL WIRE STOP ASSEMBLY