The 917X series of surface mount Insulation Displacement Connectors (IDC) were developed to meet the harsh automotive and industrial market applications for connecting individual wires directly to a PCB ranging from 14 AWG to 28 AWG. This industry proven contact system has been tested to automotive levels of shock, vibration, and temperature cycling to prove their reliability and robustness. The simplicity of inserting a wire into the connector with a small tool allows a wide range of devices to be connected to the PCB without soldering. In SSL applications specifically, these connectors are used to bring power and signal onto the PCB or are used to daisy chain multiple boards together in a long string. While the IDC contact provides a gas-tight connection to conductor of the wire, the housing has been designed to grab the insulation of the wire to provide a positive strain relief even in the harshest conditions. In case of repair, the wires can be removed and replace up to three times.

The 9175 series accepts 26 AWG to 28 AWG wires with an insulation diameter ranging from 0.7mm to 1.0mm. These single contact connectors support a 1 amp current rating and have a split SMT tail design to provide maximum stability on the PCB. Available in a 2p and 3p configuration, these connectors can be end stackable for higher pin counts.

### Applications
- Connecting discrete wire components directly to the PCB
- Bringing power and signals onto a PCB
- Daisy chaining PCB’s together to create a continuous string of boards
- Application Notes: refer to 201-01-124

### Features and Benefits
- IDC contact provides a gas-tight connection to the PCB for long term reliability
- Connector housing captures the wire insulation for positive strain relief
- Tested to automotive levels on shock, vibration and temperature cycling for reliability
- Low and high volume assembly tools to match production volumes
- Reduced total applied cost versus solder or crimp processes
- High temperature insulator capable to 260 degrees C reflow soldering processes

### Electrical
- Current Rating: 1 Amp / Contact
- Voltage Rating: 150 VAC

### Environmental
- Operating Temperature: -40ºC to +125ºC

### Mechanical
- Insulator Material: Nylon 46: UL94V0
- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel
- Durability: 3 Cycles

### How to Order

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Series</th>
<th>Number of Ways</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>9175</td>
<td>00X</td>
</tr>
</tbody>
</table>

### Connector/Tooling Part Number Matrix

<table>
<thead>
<tr>
<th>Series 9175 IDC</th>
<th>Hand Insertion Tooling*</th>
<th>Accessory Caps</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWG</td>
<td>Wire Insulation</td>
<td>Positions</td>
</tr>
<tr>
<td>26</td>
<td>Ø 0.7 - 1.0</td>
<td>2p</td>
</tr>
<tr>
<td>26</td>
<td>Ø 0.7 - 1.0</td>
<td>2p</td>
</tr>
<tr>
<td>26</td>
<td>Ø 0.7 - 1.0</td>
<td>3p</td>
</tr>
<tr>
<td>26</td>
<td>Ø 0.7 - 1.0</td>
<td>3p</td>
</tr>
<tr>
<td>28</td>
<td>Ø 0.7 - 1.0</td>
<td>2p</td>
</tr>
<tr>
<td>28</td>
<td>Ø 0.7 - 1.0</td>
<td>3p</td>
</tr>
<tr>
<td>28</td>
<td>Ø 0.7 - 1.0</td>
<td>3p</td>
</tr>
</tbody>
</table>

* Hand Insertion Tooling - Universal Hand Tool 06700073001000; Consult Application Notes 201-01-124

Certification: UL File #E90723
26-28 AWG 2 WAY IDC CONNECTOR

NOTES:
1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
2. CONTACT MATERIAL: PHOSPHOR BRONZE.
   INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46.
   COLOR REFER TO PAGE 3.
3. CONNECTOR DESIGNED TO ACCEPT 26 AND 28 GAUGE SOLID OR STRANDED WIRE.
4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
5. FOR FULL PRODUCT SPECIFICATION ON STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-100, UL COMPONENTS REFER TO ELCO SPEC 201-01-100UL.
6. APPLICATION NOTES 201-01-124.
7. FOR UL PRODUCT CODES UL REFERENCE 390723 (US AND CANADA).
8. CONNECTOR OUTLINE.
9. ALL DIMENSIONS ±0.20 UNLESS TOLERANCE SPECIFIED.

SMT PCB LAYOUT
PURE TIN PADS

PACKING DETAILS

<table>
<thead>
<tr>
<th>Code</th>
<th>Wire Gauge</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>28AWG</td>
<td>0.20</td>
</tr>
<tr>
<td>002</td>
<td>26AWG</td>
<td>0.28</td>
</tr>
</tbody>
</table>

REEL QTY: 2000
LEADER: 500MM
TRAILER: 500MM
26-28 AWG 3 WAY IDC CONNECTOR

NOTES:
1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
2. CONTACT MATERIAL: PHOSPHOR BRONZE.
   INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46.
   COLOR REFER TO PAGE 3.
3. CONNECTOR DESIGNED TO ACCEPT 26 AND 28 GAUGE SOLID OR
   STRANDED WIRE.
4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
5. FOR FULL PRODUCT SPECIFICATION ON STANDARD CONNECTORS
   REFER TO ELCO SPEC 201-01-100, UL COMPONENTS REFER TO ELCO
   SPEC 201-01-100UL.
6. APPLICATION NOTES 201-01-124.
7. FOR UL PRODUCT CODES UL REFERENCE 390723 (US AND CANADA).
8. CONNECTOR OUTLINE.
9. ALL DIMENSIONS ±0.20 UNLESS TOLERANCE SPECIFIED.

PACKING DETAILS

| REEL QTY | 2000 |
| LEADER | 500MM |
| TRAILER | 500MM |
NOTES:
1. CAP FOR IDC WIRE TO BOARD CONNECTION, 2 AND 3 WAY, THROUGH WIRE.
2. THROUGH WIRE CAP CAN BE USED AT ANY POSITION ALONG A WIRE.
3. FOR USE WITH STANDARD 9175 IDC CONNECTORS.
4. CAP MATERIAL: GLASS FILLED NYLON 46, FOR COLORS SEE PAGE 3.
5. CAPS DESIGNED TO ACCOMMODATE WIRES WITH INSULATION UP TO 1.00MM DIAMETERS.
6. GENERAL TOLERANCE ±0.20.
7. PACKED IN BAGS, 1000 PIECES PER BAG.
8. ALL DIMENSIONS ±0.20 UNLESS TOLERANCE SPECIFIED.
NOTES:
1. CAP FOR IDC WIRE TO BOARD CONNECTION, 2 AND 3 WAY, WIRE STOP.
2. WIRE STOP CAP FOR USE AT WIRE ENDS, STOP FACE PROTECTS THE WIRE ENDS.
3. FOR USE WITH STANDARD 9175 IDC CONNECTORS
4. CAP MATERIAL: GLASS FILLED NYLON 46, FOR COLORS SEE PAGE 3.
5. CAPS DESIGNED TO ACCOMMODATE WIRES WITH INSULATION UP TO 1.00MM DIAMETERS.
6. GENERAL TOLERANCE ±0.20.
7. PACKED IN BAGS, 1000 PIECES PER BAG.
8. ALL DIMENSIONS ±0.20 UNLESS TOLERANCE SPECIFIED.
HAND INSERTION TOOLING
SINGLE WIRE INSERTION TOOL FOR 26/28 GAUGE WIRE

UNIVERSAL HANDLE

<table>
<thead>
<tr>
<th>Details</th>
<th>Tool Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.35 AF HEX</td>
<td>06-7000-7730-01-000</td>
</tr>
</tbody>
</table>

METAL MAX TOOL INSULATION

- **Max Insulation Dia**: Ø 1.00
- **Tool Part Number**: 06-9175-7017-01-000

PLASTIC MAX TOOL INSULATION

- **Max Insulation Dia**: Ø 1.00
- **Tool Part Number**: 06-9175-7016-01-000

UNIVERSAL HANDLE

- **Part Number**: 6.35 A/F HEX 06-7000-7730-01-000

C清EARANCE AREA ON PCB FOR HAND TOOLING

2 WAY

- AREA TO BE KEPT CLEAR FOR TOOLING

3 WAY

- AREA TO BE KEPT CLEAR FOR TOOLING
**Standard 26-28 AWG: WTB**

00-9175

**INSERTION TOOLING**
**REQUIRES HAND PRESS WITH FLAT ROCK PLATES**

**2 WAY TOOL**
TOOL NUMBER 06-9175-7017-01-002
SKETCH SHOWS PCB RESTRICTED AREAS FOR ASSEMBLY TOOLING

**3 WAY TOOL**
TOOL NUMBER 06-9175-7017-01-003
SKETCH SHOWS PCB RESTRICTED AREAS FOR ASSEMBLY TOOLING

**NOTES:**
1. DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
2. MAXIMUM COMPONENT HEIGHT 0.80MM IN THIS AREA.
3. MAXIMUM COMPONENT HEIGHT 4.00MM IN THIS AREA.
4. THE SAME RESTRICTIONS APPLY TO ALL WIRE INSULATION DIAMETERS.

**ASSEMBLED CONNECTOR**

**STANDARD CONNECTOR**

**CONNECTOR WITH CAP**

**NOTES:**
1. ASSEMBLED HEIGHTS INCLUDE A 0.10MM ALLOWANCE FOR PAD AND SOLDER THICKNESS, NO ALLOWANCE HAS BEEN MADE FOR ANY SOLDER RESIST OR OTHER FEATURES.
2. WHEN THE WIRE IS ASSEMBLED THE INSULATION SHOULD BE TRAPPED BY THESE EDGES.