

SSL - Discrete Wire IDC



Series 9175



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: 125 VAC

ENVIRONMENTAL

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

MECHANICAL

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

HOW TO ORDER

00
Prefix

9175
Series

00X
Number of Ways

Code	No of Ways	Details
002	2	Page 39
003	3	Page 40

001
Wire Gauge Size

Code	Accepted Wire Gauge	Wire Insulation
001	28 Gauge Solid or Stranded 26 Gauge Solid or Stranded	Min Ø 0.70 Max Ø 1.00

X
Insulator Color

Code	Color	Application
0	Black	Industrial
1	White	Lighting

06
Plating Option
06 = Pure Tin all over

Certification: UL File #E320991

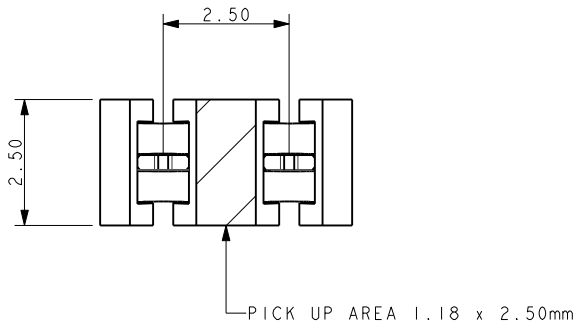


SSL - Discrete Wire IDC

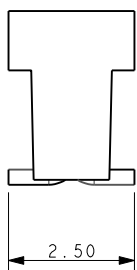
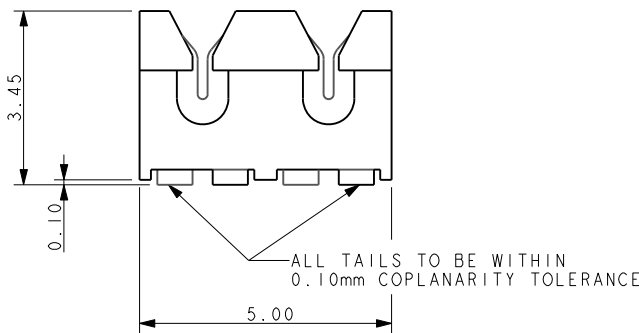
Series 9175



26-28 AWG 2 WAY IDC CONNECTOR

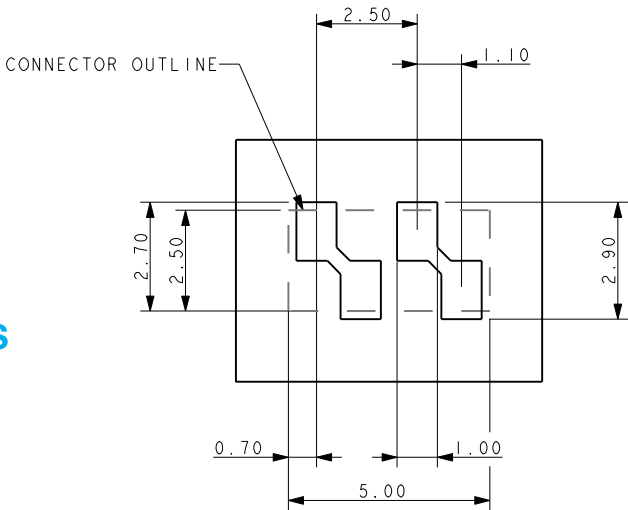


- NOTES:
1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
 2. CONTACT MATERIAL: PHOSPHORE BRONZE.
INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46.
COLOR REFER TO PAGE 38.
 3. CONNECTOR DESIGNED TO ACCEPT 26 AND 28 GAUGE SOLID OR STRANDED WIRE.
 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
 5. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-100.



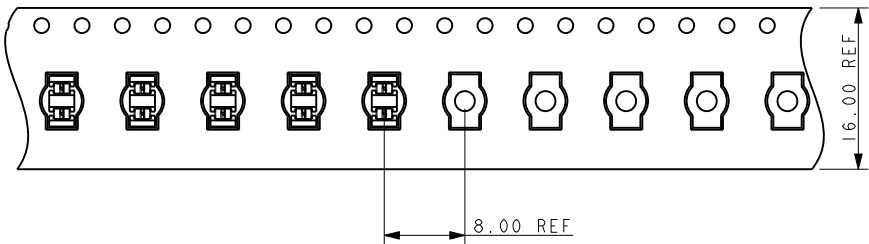
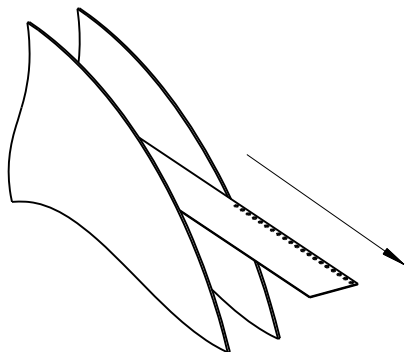
SMT PCB LAYOUT

PURE TIN PADS



PACKING DETAILS

REEL QTY	2000
LEADER	500MM
TRAILER	500MM
REEL / BOX	7
PACK QTY	14000

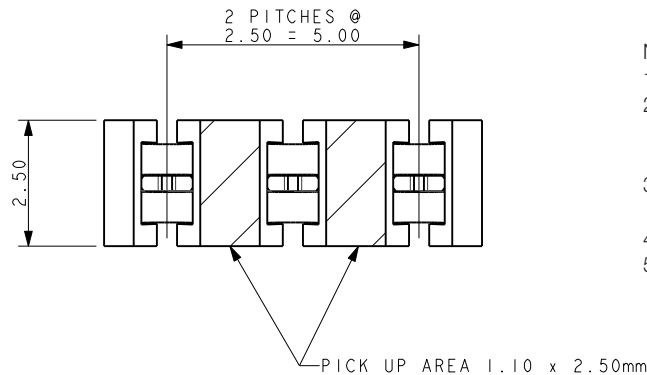


SSL - Discrete Wire IDC

Series 9175

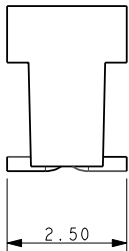
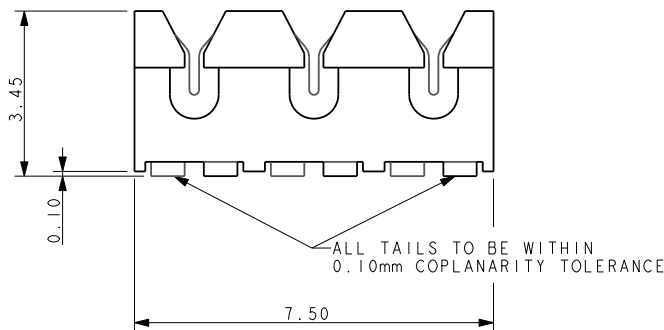


26-28 AWG 3 WAY IDC CONNECTOR



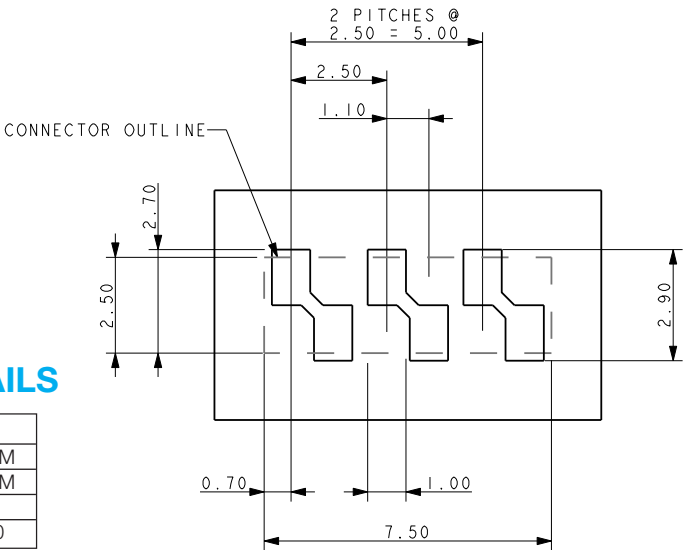
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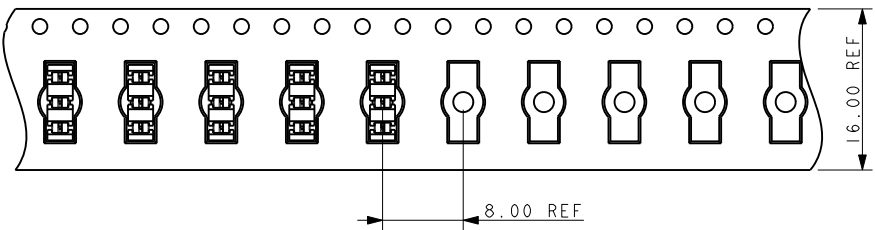
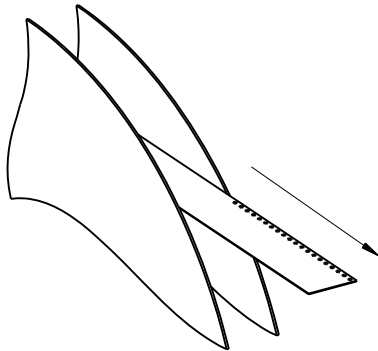
SMT PCB LAYOUT

PURE TIN PADS



PACKING DETAILS

REEL QTY	2000
LEADER	500MM
TRAILER	500MM
REEL / BOX	7
PACK QTY	14000

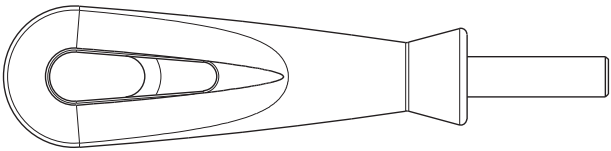


SSL - Discrete Wire IDC



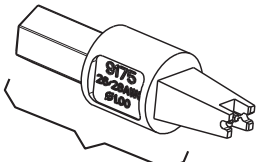
Series 9175

HAND INSERTION TOOLING SINGLE WIRE INSERTION TOOL FOR 26/28 GAUGE WIRE



UNIVERSAL HANDLE

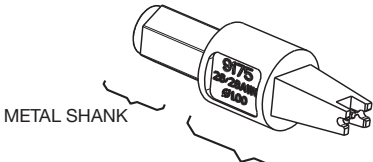
Details	Tool Part Number
6.35 A/F HEX BIT HOLDER	06 7000 7730 01 000



ALL METAL

HIGH PRODUCTION Metal

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

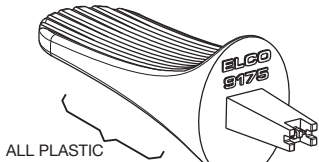


METAL SHANK

PLASTIC

MED PRODUCTION Metal/Plastic

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



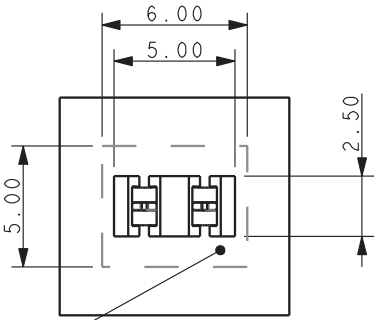
ALL PLASTIC

LOW PRODUCTION Plastic

Max Insulation Dia	Tool Part Number
Ø 1.00	06 9175 7004 01 000

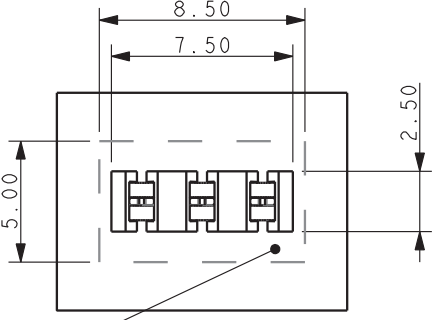
CLEARANCE AREA ON PCB FOR HAND TOOLING

2 WAY



AREA TO BE KEPT CLEAR FOR TOOLING

3 WAY



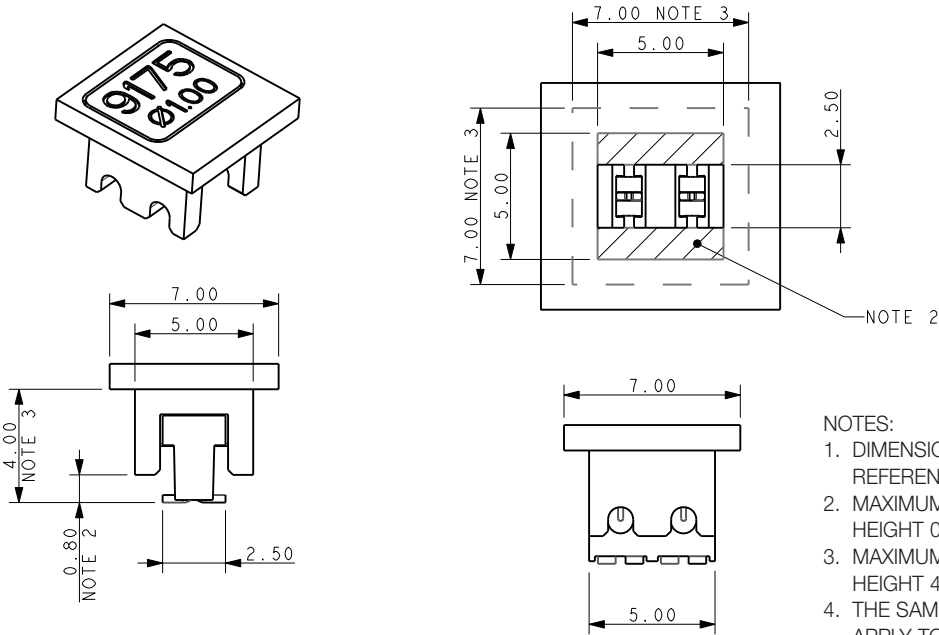
AREA TO BE KEPT CLEAR FOR TOOLING

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

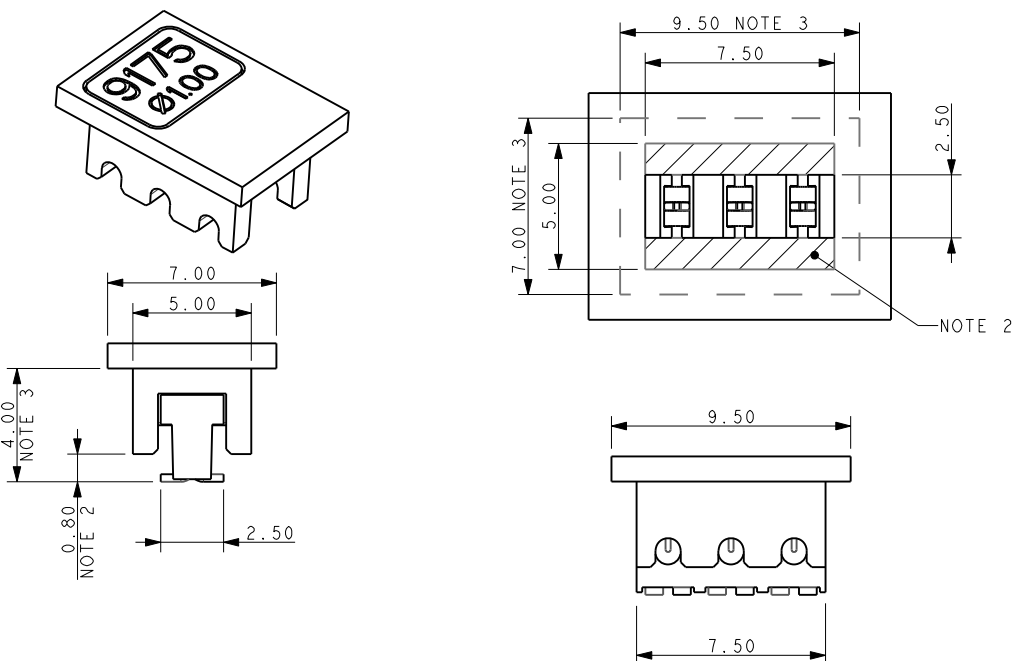


- NOTES:
1. DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
 2. MAXIMUM COMPONENT HEIGHT 0.80MM IN THIS AREA.
 3. MAXIMUM COMPONENT HEIGHT 4.00MM IN THIS AREA.
 4. THE SAME RESTRICTIONS APPLY TO ALL WIRE INSULATION DIAMETERS.

3 WAY TOOL

TOOL NUMBER 06-9175-7017-01-003

SKETCH SHOWS PCB RESTRICTED AREAS FOR ASSEMBLY TOOLING



Mouser Electronics

Authorized Distributor

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[069175701701002](#) [069175701701003](#) [009175002701106](#) [009175003701106](#) [609175002010199](#) [609175003010199](#)
[609175003010100](#) [609175003010000](#) [609175002010000](#) [609175002010100](#)