AVX Wire-to-Board Connectors



Version 10.10



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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

001

MECHANICAL

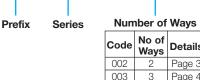
• Insulator Material: Nylon 46: UL94V0

• Contact Material: Phosphor Bronze

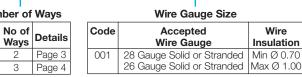
 Plating: Tin over Nickel Durability: 3 Cycles

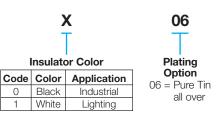
HOW TO ORDER 9175

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00X





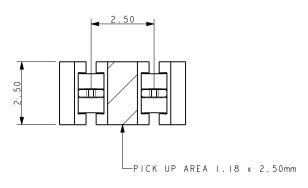
Certification: UL File #E320991



Series 9175

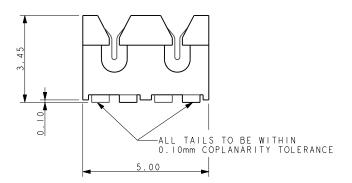


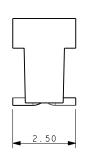
26-28 AWG 2 WAY IDC CONNECTOR



NOTES:

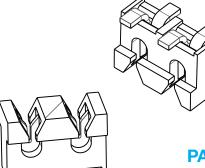
- 1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
- 2. CONTACT MATERIAL: PHOSPHORE BRONZE. INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46. COLOR REFER TO PAGE 2.
- 3. CONNECTOR DESIGNED TO ACCEPT 26 AND 28 GAUGE SOLID OR STRANDED WIRE.
- 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 5. FOR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

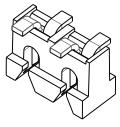




SMT PCB LAYOUT

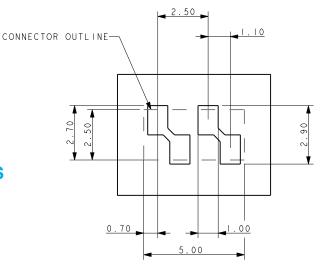
PURE TIN PADS

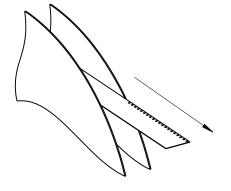


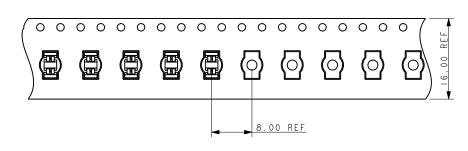




REEL QTY	2000
LEADER	500MM
TRAILER	500MM
REEL / BOX	7
DACK OTV	14000





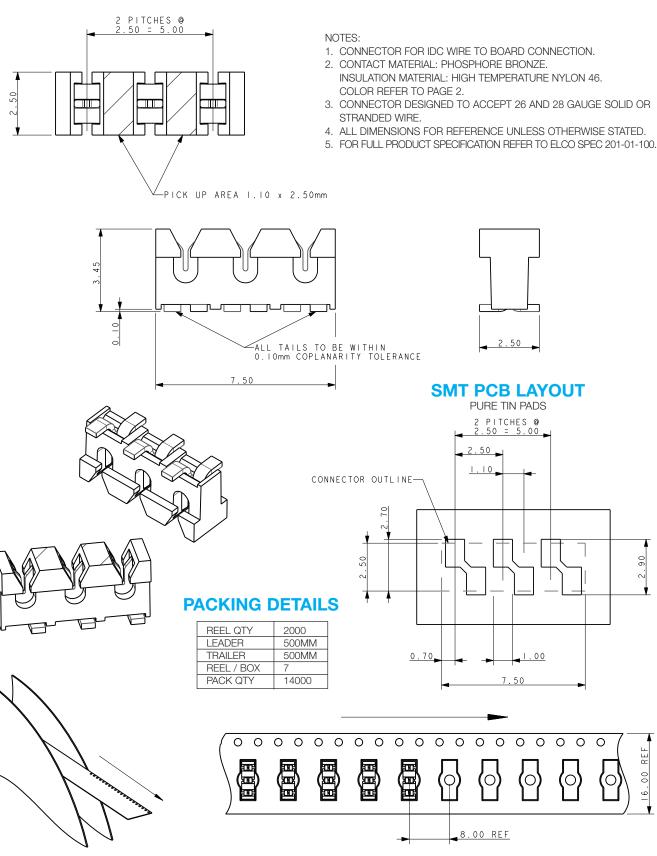








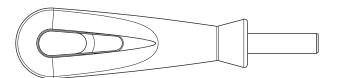
26-28 AWG 3 WAY IDC CONNECTOR







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	



HIGH PRODUCTION Metal

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



MED PRODUCTION Metal/Plastic

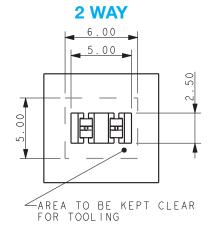
Max Insulation Dia	Tool Part Number
Ø 1.00	06 9175 7016 01 000

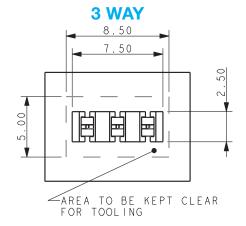


LOW PRODUCTION Plastic

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

CLEARANCE AREA ON PCB FOR HAND TOOLING





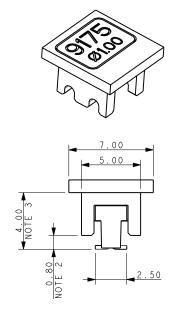


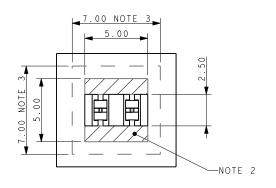


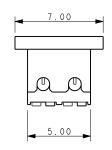
INSERTION TOOLING REQUIRES HAND PRESS WITH FLAT ROCK PLATES

2 WAY TOOL

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





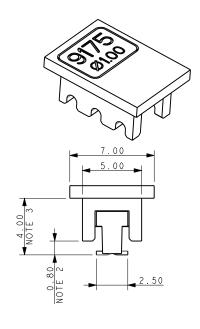


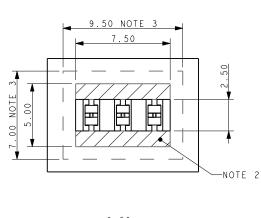
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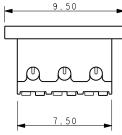
- 1. DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
- 2. MAXIMUM COMPONENT HEIGHT 0.80MM IN THIS AREA.
- 3. MAXIMUM COMPONENT HEIGHT 4.00MM IN THIS AREA.
- 4. THE SAME RESTRICTIONS APPLY TO ALL WIRE INSULATION DIAMETERS.

3 WAY TOOL

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









Series 9176





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 9176 series accepts 18 AWG to 24 AWG wires with an insulation diameter ranging from 1.1mm to 2.1mm. These dual contact connectors support a 10 amp current rating with two large SMT solder tails per wire to provide maximum stability on the PCB. Available in 1p-3p configuration, these connectors can be end stackable for higher pin counts. The 9176 series also comes with optional locking strain relief caps that act as the termination tool for severe vibration applications.

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
- Optional thru and end caps lock in place to provide maximum strain relief
- High temperature insulator capable to 260°C reflow soldering processes

ELECTRICAL

• Current Rating: 10 Amp / Contact

Voltage Rating: 250 VAC

ENVIRONMENTAL

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

MECHANICAL

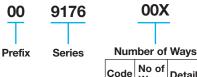
• Insulator Material: Nylon 46: UL94V0

Contact Material: Phosphor Bronze

• Plating: Tin over Nickel

• Durability: 3 Cycles

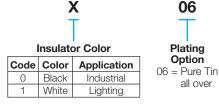
HOW TO ORDER



Code	No of Ways	Details	
001	1	Page 8	
002	2	Page 9	
003	3	Page 10	



Code	Accepted	Wire	Cap Code
	Wire Gauge	Insulation	Pages 11-12
001	18 Gauge Stranded	Ø 1.6-2.1	021
011	20 Gauge Stranded	Ø 1.6-2.1	021
022	22 Gauge Stranded	Ø 1.1-1.6	016
032	24 Gauge Stranded	Ø 1.1-1.6	016



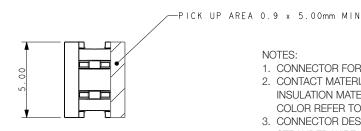
Certification: UL File #E320991



Series 9176

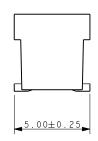


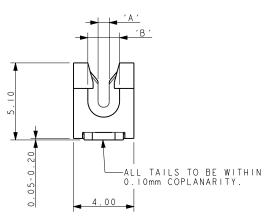
18-24 AWG 1 WAY IDC CONNECTOR



NOTES:

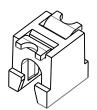
- 1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
- 2. CONTACT MATERIAL: PHOSPHORE BRONZE. INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46. COLOR REFER TO PAGE 7.
- 3. CONNECTOR DESIGNED TO ACCEPT BETWEEN 24 AND 18 GAUGE STRANDED WIRE.
- 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 5. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106 AND APPLICATION NOTES 201-01-124.
- 6. FOR PCB SPACE RESTRICTED BY WIRE ASSEMBLY TOOLING REFER TO PAGE 11.
- 7. FOR HAND WIRE ASSEMBLY TOOLING REFER TO PAGE 13.





Code	Accepted Wire Gauge	Α	Wire Insulation	В
001	18 Gauge Stranded	0.72	Ø 1.6-2.1	2.1
011	20 Gauge Stranded	0.60	Ø 1.6-2.1	2.1
022	22 Gauge Stranded	0.47	Ø 1.1-1.6	1.6
032	24 Gauge Stranded	0.37	Ø 1.1-1.6	1.6



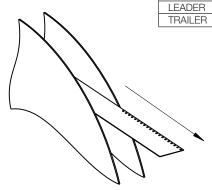


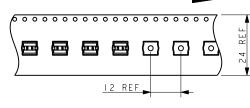
SMT PCB LAYOUT





CONNECTOR OUTLINE-



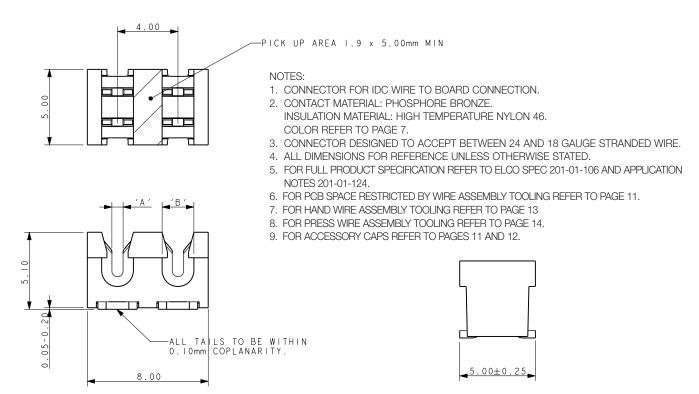


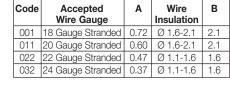


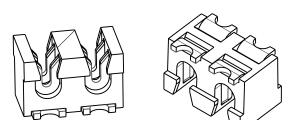
Series 9176



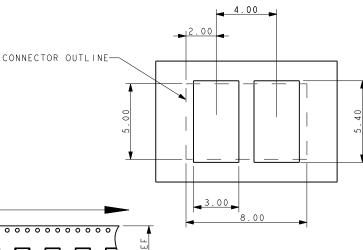
18-24 AWG 2 WAY IDC CONNECTOR







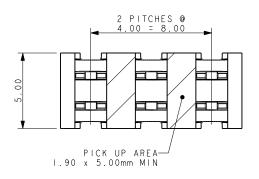
SMT PCB LAYOUT PURE TIN PADS



Series 9176

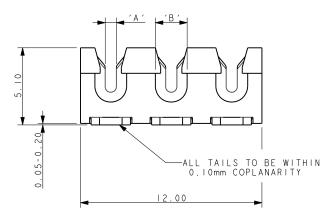


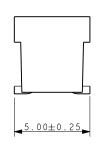
18-24 AWG 3 WAY IDC CONNECTOR



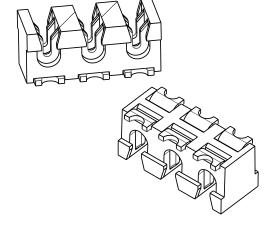
NOTES:

- 1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
- CONTACT MATERIAL: PHOSPHORE BRONZE. INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46. COLOR REFER TO PAGE 7.
- 3. CONNECTOR DESIGNED TO ACCEPT BETWEEN 24 AND 18 GAUGE STRANDED WIRE.
- 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106 AND APPLICATION NOTES 201-01-124.
- 6. FOR PCB SPACE RESTRICTED BY WIRE ASSEMBLY TOOLING REFER TO PAGE 11.
- 7. FOR HAND WIRE ASSEMBLY TOOLING REFER TO PAGE 13
- 8. FOR PRESS WIRE ASSEMBLY TOOLING REFER TO PAGE 14.
- 9. FOR ACCESSORY CAPS REFER TO PAGES 11 AND 12.



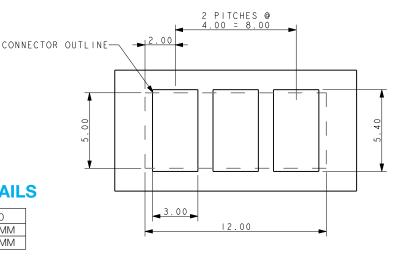


Code	Accepted Wire Gauge	Α	Wire Insulation	В
001	18 Gauge Stranded	0.72	Ø 1.6-2.1	2.1
011	20 Gauge Stranded	0.60	Ø 1.6-2.1	2.1
022	22 Gauge Stranded	0.47	Ø 1.1-1.6	1.6
032	24 Gauge Stranded	0.37	Ø 1.1-1.6	1.6



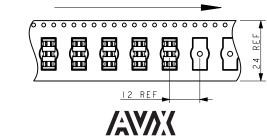
SMT PCB LAYOUT

PURE TIN PADS



PACKING DETAILS

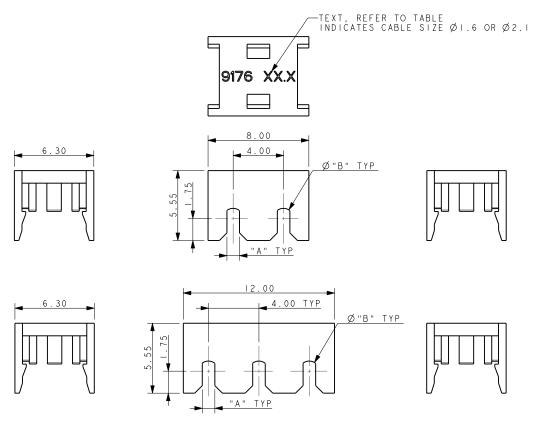
REEL QTY	1000
LEADER	480MM
TRAILER	120MM

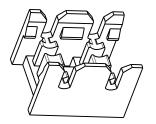




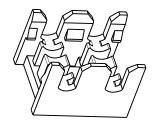


60-9176-00X-0XX-X00 ACCESSORY CAP – THROUGH WIRE

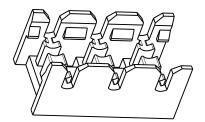




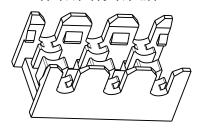
60-9176-002-016-X00



60-9176-002-021-X00



60-9176-003-016-X00



60-9176-003-021-X00

NOTES:

- 1. CAP FOR IDC WIRE TO BOARD CONNECTION, 2 AND 3 WAY, THROUGH WIRE.
- 2. FOR USE WITH STANDARD 9176 IDC CONNECTORS, SEE PAGE 7 FOR THE CORRECT PART CODE TO MATCH WIRE.
- 3. CAP MATERIAL: GLASS FILLED NYLON 46, FOR COLORS SEE TABLE BELOW.
- 4. DIMENSIONS A, B AND TEXT, SEE TABLE BELOW.
- 5. CAPS DESIGNED TO ACCOMMODATE WIRE INSULATION DIAMETERS 1.1MM TO 1.6MM AND 1.6MM TO 2.1MM.
- 6. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
- 7. PACKED IN BAGS, 1000 PIECES PER BAG.

Code	Slot A (AWG)	Diameter B	Text
016	1.60 (22-24)	1.00	9176 Ø1.6
021	2.10 (18-20)	1.50	9176 Ø2.1

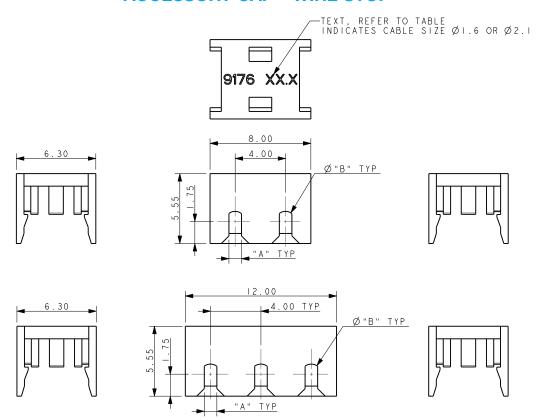
Color	X00
Black	000
White	100

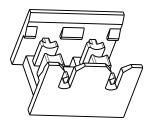




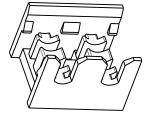


60-9176-00X-0XX-X99 ACCESSORY CAP – WIRE STOP

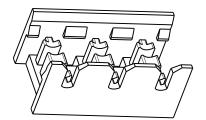




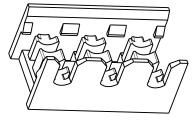
60-9176-002-016-X99



60-9176-002-021-X99



60-9176-003-016-X99



60-9176-003-021-X99

NOTES:

- 1. CAP FOR IDC WIRE TO BOARD CONNECTION, 2 AND 3 WAY, WITH WIRE STOP.
- 2. FOR USE WITH STANDARD 9176 IDC CONNECTORS, SEE PAGE 7 FOR THE CORRECT PART CODE TO MATCH WIRE.
- 3. CAP MATERIAL: GLASS FILLED NYLON 46, FOR COLORS SEE TABLE BELOW.
- 4. DIMENSIONS A, B AND TEXT, SEE TABLE BELOW.
- 5. CAPS DESIGNED TO ACCOMMODATE WIRE INSULATION DIAMETERS 1.1MM TO 1.6MM AND 1.6MM TO 2.1MM.
- 6. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
- 7. PACKED IN BAGS, 1000 PIECES PER BAG.

Code	Slot A (AWG)	Diameter B	Text
016	1.60 (22-24)	1.00	9176 Ø1.6
021	2.10 (18-20)	1.50	9176 Ø2.1

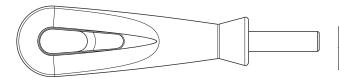
Color	X99
Black	099
White	199





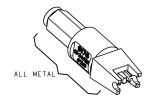


HAND INSERTION TOOLING FOR SINGLE 18/24 GAUGE WIRE



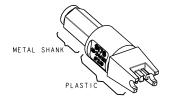
UNIVERSAL HANDLE

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



HIGH PRODUCTION Metal

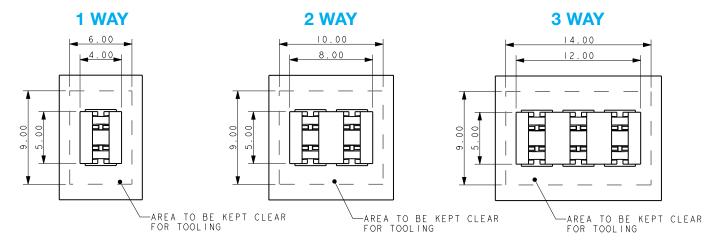
Max Insulation Dia (AWG)	Tool Part Number	
2.10 (18-20)	06 9176 7017 01 000	
1 60 (22-24)	06 9176 7017 02 000	



MED PRODUCTION Metal/Plastic

Max Insulation Dia (AWG)	Tool Part Number	
2.10 (18-20)	06 9176 7016 01 000	
1.60 (22-24)	06 9176 7016 02 000	

CLEARANCE AREA ON PCB FOR HAND TOOLING

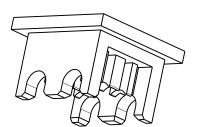


Series 9176

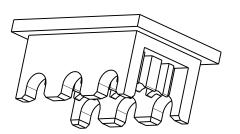


INSERTION TOOLING REQUIRES HAND PRESS WITH FLAT ROCK PLATES

2 WAY



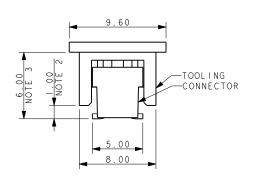
3 WAY

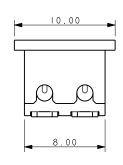


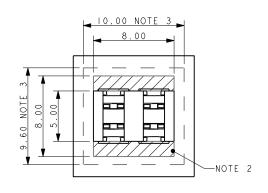
HIGH PRODUCTION Metal

No. of Ways	Max Insulation Dia (AWG)	Tool Part Number
2	2.10 (18-20)	06 9176 7017 01 002
2	1.60 (22-24)	06 9176 7017 02 002
3	2.10 (18-20)	06 9176 7017 01 003
0	1.60 (22-24)	06 9176 7017 02 003

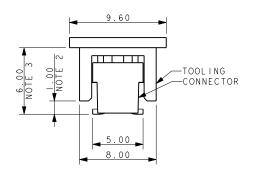
2 WAY

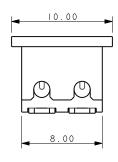


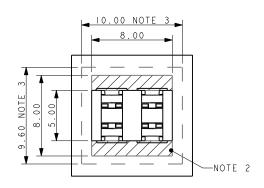




3 WAY







NOTES:

- 1. DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
- 2. MAXIMUM COMPONENT HEIGHT 1.00MM IN THIS AREA.
- 3. MAXIMUM COMPONENT HEIGHT 6.00MM IN THIS AREA.
- 4. THE SAME RESTRICTIONS APPLY TO ALL WIRE INSULATION DIAMETERS
- 5. 2 AND 3 WAY TOOLS ONLY, FOR USE UNDER HAND PRESS WITH FLAT PLATES.
- 6. FOR HAND TOOLING REFER TO PAGE 13.



Series 9176-400



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. This new single contact was developed as a standalone component to enhance the application uses with the IDC technology. The simplicity of inserting a wire into an SMT contact with a small tool or optional retention / termination cap allows a wide range of devices to be connected to the PCB without soldering. In SSL applications specifically, these contacts 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 optional cap provides 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 single 9176-400 series contact and cap accepts 22 AWG to 24 AWG wires with an insulation diameter ranging from 1.0mm to 1.5mm. These dual beam contacts support a 6 amp current rating with a large SMT solder base to provide maximum stability on the PCB. The optional locking strain relief cap acts as the termination tool for severe vibration applications.

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 is supplied in T&R pockets for standard SMT placement
- IDC contact provides a gas-tight connection to the PCB for long term reliability
- Optional termination cap provides additional strain relief for severe environments
- · Tested to automotive levels on shock, vibration and temperature cycling for reliability
- Reduced total applied cost versus solder or crimp processes
- Individual contacts can be located anywhere on the PCB based on specific application

ELECTRICAL

- Current Rating: 6 Amps/Contact
- Voltage Rating: Dependent on component proximity

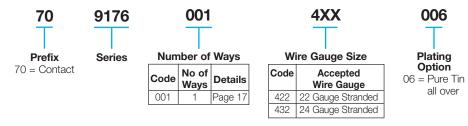
ENVIRONMENTAL

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

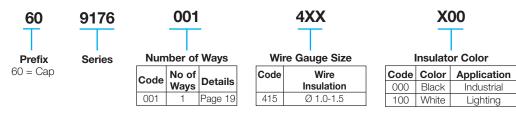
MECHANICAL

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

HOW TO ORDER - CONTACT OPTIONS



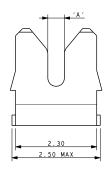
HOW TO ORDER - CAP OPTIONS

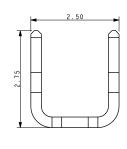


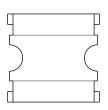


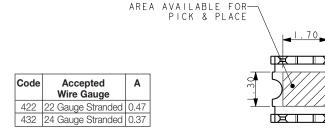
Series 9176-400

CONTACT DETAILS



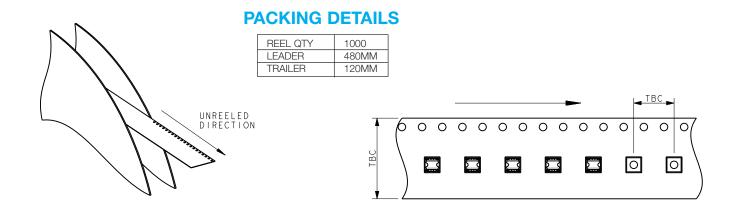






NOTES:

- 1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
- 2. CONTACT MATERIAL: PHOSPHORE BRONZE.
- 3. CONTACT PLATING: PURE TIN.
- 4. CONNECTOR DESIGNED TO ACCEPT BETWEEN 22 AND 24 GAUGE STRANDED WIRE. SEE TABLE.
- 5. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 6. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106 AND APPLICATION NOTES 201-01-124.
- 7. SMT PCB LAYOUT, REFER TO PAGE 17.
- 8. PACKING IN TAPE AND REEL, QUANTITY 2000 PER REEL.
- 9. WHEN REQUIRED, MATCHING CAP DETAILS ON DRAWING 60-9176-001-4XX-X06S.
- 10. ASSEMBLY TOOLING ON PAGE 18 FOR WIRE INTO CONTACT.



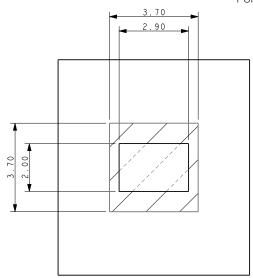


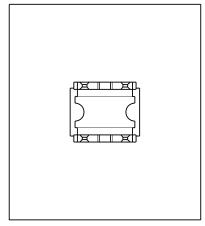
Series 9176-400

22-24 AWG IDC WIRE TO BOARD CONNECTOR SINGLE CONTACT

SMT PCB LAYOUT

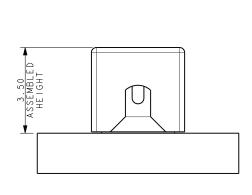
PURE TIN PADS

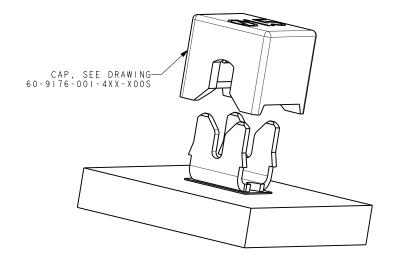




ORIENTATION OF CONTACT ON PAD

ASSEMBLED/INSTALLED PRODUCTS





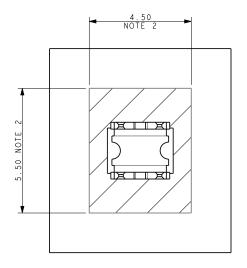
NOTES:

- 1. CONNECTOR CAN BE USED WITH CONTACT ONLY OR WITH OPTIONAL CAP.
- 2. OUTLINE OF CAP WHEN USED.
- 3. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106 AND APPLICATION NOTES 201-01-124.
- 4. DIMENSIONS SHOWN ARE REFERENCED DIMENSIONS.
- 5. ASSEMBLY TOOLING FOR WIRE INTO CAONTACT SEE PAGE 18.



Series 9176-400

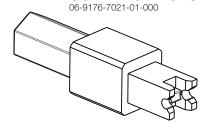
ASSEMBLY TOOLING – CAP NOT USED WIRE ONTO CONTACT



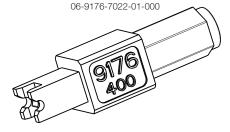
NOTES:

- 1. ASSEMBLY TOOLING FOR CONTACT ONLY, NO CAP USED.
- MINIMUM AREA OF PCB TO BE KEPT CLEAR OF COMPONENTS, TACKS PERMISSIBLE.
- 3. REFER TO APPLICATION NOTE 201-01-124 FOR FURTHER INFORMATION.
- 4. INSERT CORRECT TOOL INTO HANDLE, MAGNETIC RETENTION .

METAL TOOL - HIGH VOLUME

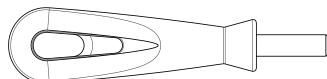


PLASTIC TOOL - LOW/MEDIUM VOLUME



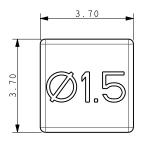
UNIVERSAL HANDLE

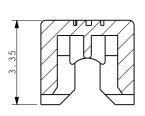
06 7000 7730 01 000

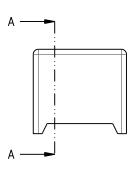


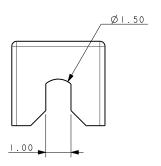
Series 9176-400

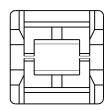
CAP DETAILS











NOTES

- 1. CAP FOR IDC WIRE TO BOARD CONNECTION.
- 2. CAP MATERIAL: GLASS FILLED NYLON 46, COLOR SEE PAGE 15.
- 3. CAPS DESIGNED TO ACCOMMODATE WIRE INSULATION DIAMETERS 1.0MM TO 1.5MM.
- 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 5. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106, APPLICATION NOTES 201-01-124.
- 6. PACKING IN BAGS, QUANTITY 2000 PER BAG.
- 7. FOR INSTALATION DETAILS REFER TO DRAWING 70-9176-001-4XX-006S.

Series 9176-500



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. This new single contact was developed as a standalone component to enhance the application uses with the IDC technology. The simplicity of inserting a wire into an SMT contact with a small tool or optional retention / termination cap allows a wide range of devices to be connected to the PCB without soldering. In SSL applications specifically, these contacts 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 optional cap provides 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 single 9176 series contact and cap accepts 18 AWG to 24 AWG wires with an insulation diameter ranging from 1.1mm to 2.1mm. These dual beam contacts support a 10 amp current rating with a large SMT solder base to provide maximum stability on the PCB. The optional locking strain relief cap acts as the termination tool for severe vibration applications.

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 is supplied in T&R pockets for standard SMT placement
- IDC contact provides a gas-tight connection to the PCB for long term reliability
- Optional termination cap provides additional strain relief for severe environments
- Tested to automotive levels on shock, vibration and temperature cycling for reliability
- Reduced total applied cost versus solder or crimp processes
- Individual contacts can be located anywhere on the PCB based on specific application

ELECTRICAL

- Current Rating: 10 Amps/Contact
- Voltage Rating: Dependent on component proximity

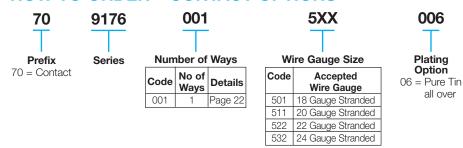
ENVIRONMENTAL

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

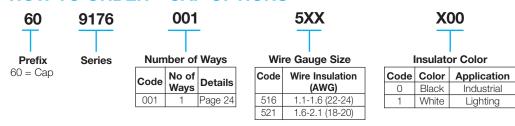
MECHANICAL

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

HOW TO ORDER - CONTACT OPTIONS



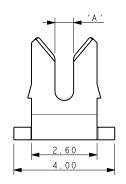
HOW TO ORDER - CAP OPTIONS

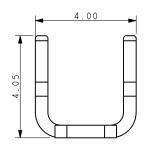


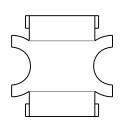


Series 9176-500

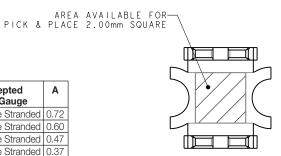
CONTACT DETAILS





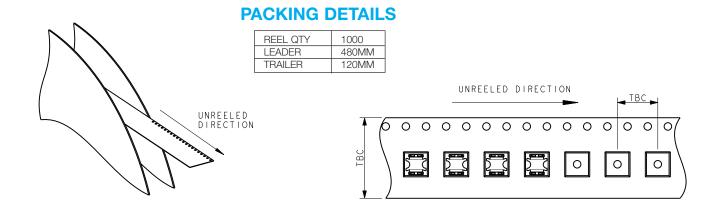


Code	Accepted Wire Gauge	Α
501	18 Gauge Stranded	0.72
511	20 Gauge Stranded	0.60
522	22 Gauge Stranded	0.47
532	24 Gauge Stranded	0.37



NOTES:

- 1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
- 2. CONTACT MATERIAL: PHOSPHORE BRONZE.
- 3. CONTACT PLATING: PURE TIN.
- 4. CONNECTOR DESIGNED TO ACCEPT BETWEEN 18 AND 24 GAUGE STRANDED WIRE. SEE TABLE.
- 5. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 6. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106 AND APPLICATION NOTES 201-01-124.
- 7. SMT PCB LAYOUT, REFER TO PAGE 22.
- 8. PACKING IN TAPE AND REEL, QUANTITY 1000 PER REEL.
- 9. WHEN REQUIRED, MATCHING CAP DETAILS ON DRAWING 60-9176-001-5XX-X00S.
- 10. ASSEMBLY TOOLING ON PAGE 23 (WITH CAP AND WITHOUT CAP).



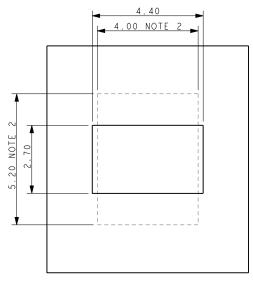


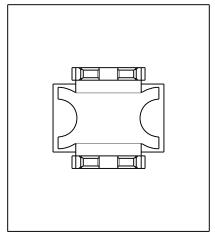
Series 9176-500

18-24 AWG IDC WIRE TO BOARD CONNECTOR SINGLE CONTACT

SMT PCB LAYOUT

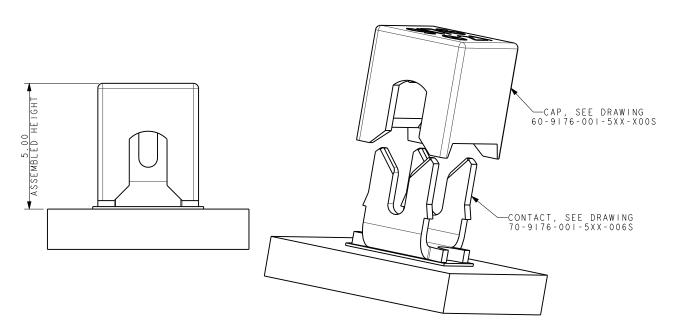
PURE TIN PADS





ORIENTATION OF CONTACT ON PAD

ASSEMBLED/INSTALLED PRODUCTS



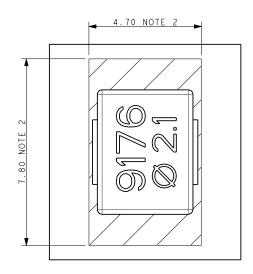
NOTES

- 1. CONNECTOR CAN BE USED WITH CONTACT ONLY OR WITH OPTIONAL CAP.
- 2. OUTLINE OF CAP WHEN USED.
- 3. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106 AND 201-01-124.
- 4. DIMENSIONS SHOWN ARE REFERENCED DIMENSIONS.
- 5. ASSEMBLY TOOLING ON PAGE 23 (WITH CAP AND WITHOUT CAP).

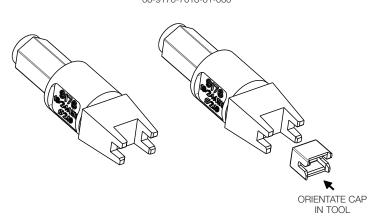


Series 9176-500

ASSEMBLY TOOLING - CAP USED



CAP APPLICATION TOOL 06-9176-7018-01-000



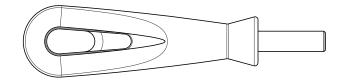
- 2. AREA OF PCB TO BE KEPT CLEAR OF COMPONENTS, TACKS PERMISSIBLE.
- 3. WIRE AND CAP INSERTED IN ONE OPERATION.

1. ASSEMBLY TOOLING FOR CAP.

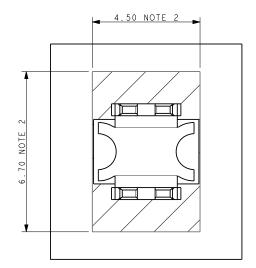
- 4. REFER TO APPLICATION NOTE 201-01-124 FOR FURTHER INFORMATION.
- 5. REFER BELOW WHEN CONTACT USED WITHOUT CAP.

UNIVERSAL HANDLE

06 7000 7730 01 000



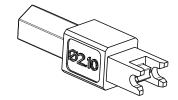
ASSEMBLY TOOLING - CAP NOT USED WIRE ONTO CONTACT



NOTES:

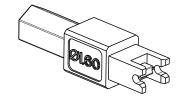
- 1. ASSEMBLY TOOLING FOR CONTACT ONLY, NO CAP USED.
- 2. MINIMUM AREA OF PCB TO BE KEPT CLEAR OF COMPONENTS, TRACK PERMISSIBLE.
- 3. REFER TO TABLE FOR CORRECT TOOL/WIRE COMBINATION.
- 4. REFER TO APPLICATION NOTE 201-01-124 FOR FURTHER INFORMATION.

2.1 WIRE (18-20 AWG) 06-9176-7019-01-000 06-9176-7020-01-000

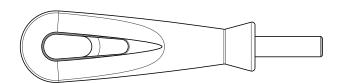


1.6 WIRE (22-24 AWG) 06-9176-7019-02-000

06-9176-7020-02-000



UNIVERSAL HANDLE

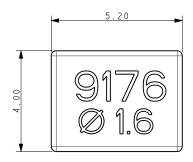


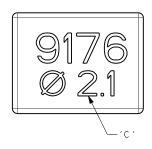
Wire Guage	Wire	Metal Tool	Plastic Tool	Handle
	Insulation ø	High Volume	Small to Medium Volume	
22-24 AWG	1.10 to 1.60	06-9176-7019-02-000	06-9176-7020-02-000	06-7000-7730-01-000
18-20 AWG	1.60 to 2.10	06-9176-7019-01-000	06-9176-7020-01-000	06-9176-7730-01-000

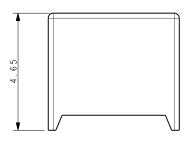


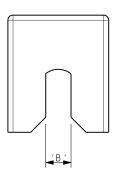
Series 9176-500

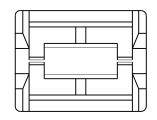
CAP DETAILS











Code	Insulator Diameter (AWG)	В	Text C
516	1.1 to 1.6 (22-24)	1.00	Ø 1.6
521	1.6 to 2.1 (18-20)	1.50	Ø 2.1

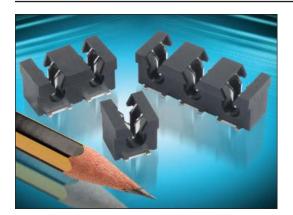
NOTES:

- 1. CAP FOR IDC WIRE TO BOARD CONNECTION.
- 2. CAP MATERIAL: GLASS FILLED NYLON 46, COLOR SEE PAGE 20.
- 3. CAPS DESIGNED TO ACCOMMODATE WIRE INSULATION DIAMETERS 1.1MM TO 2.1MM.
- 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 5. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106, APPLICATION NOTES 201-01-124.
- 6. PACKING IN BAGS, QUANTITY 1000 PER BAG.
- 7. FOR INSTALATION DETAILS REFER TO DRAWING 70-9176-001-XX-006S.



Series 9177





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 9177 series accepts 14 AWG to 20 AWG wires with an insulation diameter ranging from 2.75mm to 4.25mm. These dual contact connectors support a 15 amp current rating with two large SMT solder tails per wire to provide maximum stability on the PCB. Available in 1p-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°C reflow soldering processes

ELECTRICAL

· Current Rating: 15 Amp / Contact

Voltage Rating: 600 VAC

ENVIRONMENTAL

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

MECHANICAL

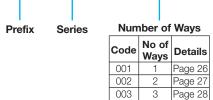
• Insulator Material: Nylon 46: UL94V0

• Contact Material: Phosphor Bronze

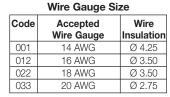
• Plating: Tin over Nickel • Durability: 3 Cycles

HOW TO ORDER 9177

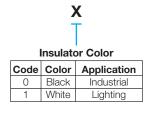
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00X



00X





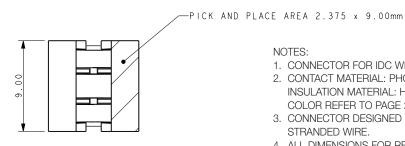
Certification: UL File #E320991



Series 9177

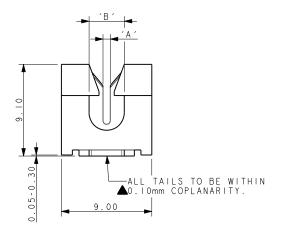


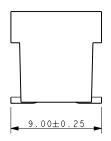
14-20 AWG 1 WAY IDC CONNECTOR



NOTES:

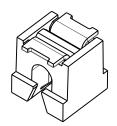
- 1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
- 2. CONTACT MATERIAL: PHOSPHORE BRONZE. INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46. COLOR REFER TO PAGE 25.
- 3. CONNECTOR DESIGNED TO ACCEPT BETWEEN 14 AND 20 GAUGE STRANDED WIRE.
- 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 5. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-109.
- 6. FOR PCB SPACE RESTRICTED BY ASSEMBLY TOOLING REFER TO PAGE 29.





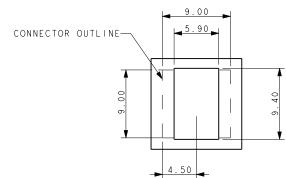
Code	Accepted Wire Gauge	Α	Wire Insulation	В
001	14 Gauge Stranded	1.10	Ø 4.25 max	4.25
012	16 Gauge Stranded	0.82	Ø 3.50 max	3.50
022	18 Gauge Stranded	0.72	Ø 3.50 max	3.50
033	20 Gauge Stranded	0.60	Ø 2.75 max	2.75





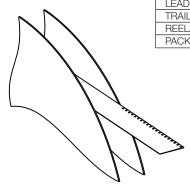
SMT PCB LAYOUT

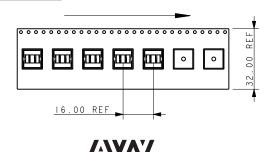
PURE TIN PADS



PACKING DETAILS

REEL QTY	400
LEADER	500MM
TRAILER	400MM
REEL/BOX	4
PACK QTY	1600

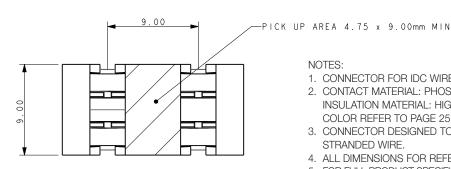




Series 9177

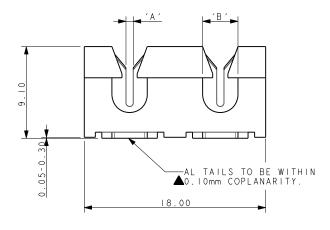


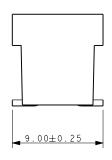
14-20 AWG 2 WAY IDC CONNECTOR



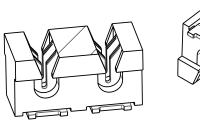
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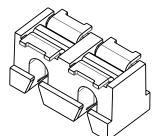
- 1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
- 2. CONTACT MATERIAL: PHOSPHORE BRONZE. INSULATION MATERIAL: HIGH TEMPERATURE NYLON 46. COLOR REFER TO PAGE 25.
- 3. CONNECTOR DESIGNED TO ACCEPT BETWEEN 14 AND 20 GAUGE STRANDED WIRE.
- 4. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
- 5. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-109.
- 6. FOR PCB SPACE RESTRICTED BY ASSEMBLY TOOLING REFER TO PAGE 29.





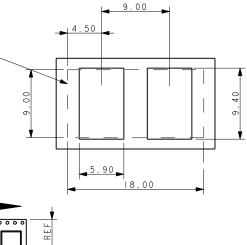
Code	Accepted Wire Gauge	Α	Wire Insulation	В
001	14 Gauge Stranded	1.10	Ø 4.25 max	4.25
012	16 Gauge Stranded	0.82	Ø 3.50 max	3.50
022	18 Gauge Stranded	0.72	Ø 3.50 max	3.50
033	20 Gauge Stranded	0.60	Ø 2.75 max	2.75





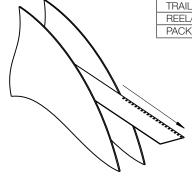
SMT PCB LAYOUT

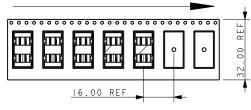
PURE TIN PADS



PACKING DETAILS

REEL QTY	400
LEADER	500MM
TRAILER	400MM
REEL/BOX	4
PACK QTY	1600





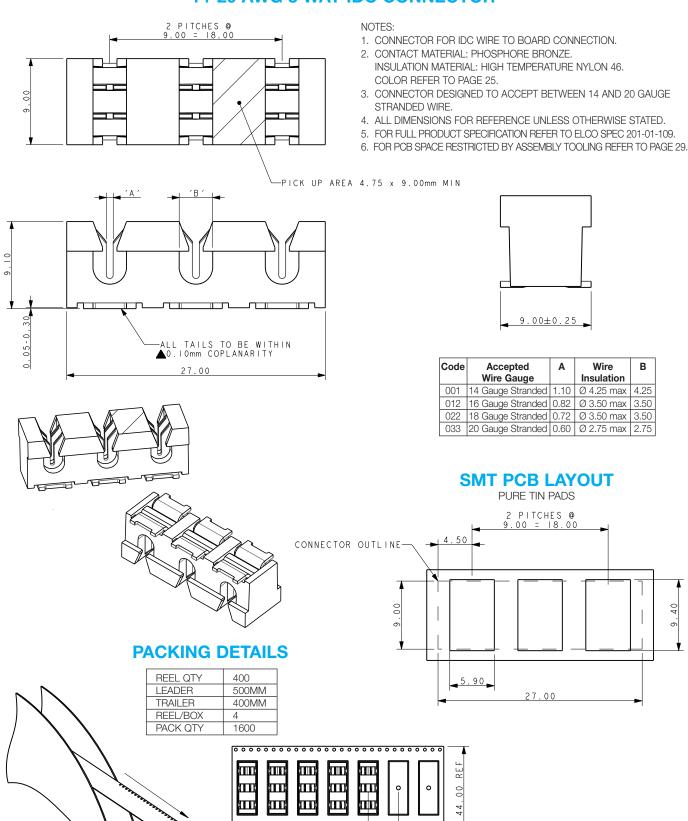
CONNECTOR OUTLINE-







14-20 AWG 3 WAY IDC CONNECTOR



16.00 REF

28

Series 9177

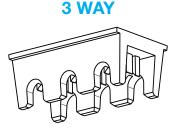


INSERTION TOOLING - REQUIRES HAND PRESS WITH FLAT ROCK PLATES

1 WAY







HIGH PRODUCTION Metal

No. of Ways	Max Insulation Dia (AWG)	Tool Part Number	
1	4.25 (14)	06 9177 7017 01 001	
	3.50 (16-18)	06 9177 7017 03 001	
	2.75 (20)	06 9177 7017 03 001	
	4.25 (14)	06 9177 7017 01 002	
2	3.50 (16-18)	06 9177 7017 02 002	
	2.75 (20)	06 9177 7017 03 002	
	4.25 (14)	06 9177 7017 01 003	
3	3.50 (16-18)	06 9177 7017 02 003	
	2.75 (20)	06 9177 7017 03 003	

MED PRODUCTION Plastic

No. of Ways	Max Insulation Dia (AWG)	Tool Part Number	
1	4.25 (14)	06 9177 7016 01 001	
	3.50 (16-18)	06 9177 7016 02 001	
	2.75 (20)	06 9177 7016 03 001	
	4.25 (14)	06 9177 7016 01 002	
2	3.50 (16-18)	06 9177 7016 02 002	
	2.75 (20)	06 9177 7016 03 002	
	4.25 (14)	06 9177 7016 01 003	
3	3.50 (16-18)	06 9177 7016 02 003	
	2.75 (20)	06 9177 7016 03 003	

The assembly tooling restricts the available space/component heights on the PCB.

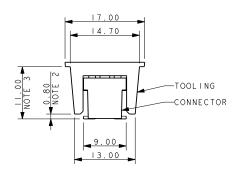
For details see below.

NOTES:

- 1. ALL DIMENSIONS FOR REFERENCE DIMENSIONS.
- 2. MAXIMUM COMPONENT HEIGHT 0.80MM IN THIS AREA.
- 3. MAXIMUM COMPONENT HEIGHT 11.00 MM IN THIS AREA.
- 4. THE SAME RESTRICTIONS APPLY TO ALL WIRE INSULATION DIAMETERS.

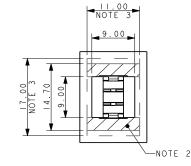
INSERTION TOOLING - PCB RESTRICTED AREAS FOR ASSEMBLY TOOLING

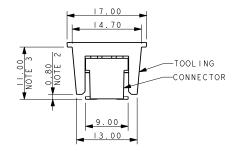
1 WAY

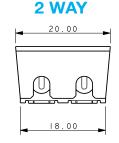


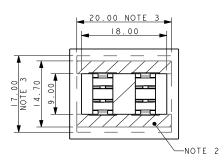


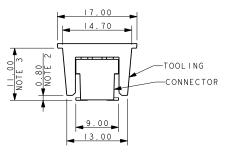
9.00

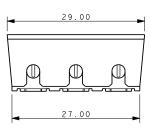




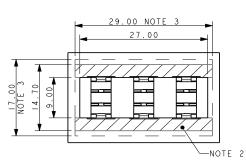








3 WAY





Series 9276



The new 9276 series connector provides a quick and reliable wire-toboard termination in a sleek 2.5mm pitch SMT package for a broad range of industrial and commercial markets. With almost every product on the market today having to deal with a small number of discrete wires to connect components to a board, the 9276 series connectors meets this challenge by simply stripping the wire and inserting them into the connector. This makes the connector very termination friendly within the factory as well as in the field by electrical installers. Developed for harsh industrial and Solid State Lighting (SSL) applications, the connector was designed with a high spring force Beryllium Copper upper spring contact to accept a wide range (18-24 AWG solid or stranded) of wire to meet multiple applications with a single connector. By incorporating a dualcontact design we were able to maximize current rating (6 Amps) and minimize PCB space. For example, the 4p connector has a footprint of 90 sq-mm while competing products are 160 sq-mm. The dual-contact design also provides two solder points for each wire eliminating the need for external anchor tabs. AVX provides a small insertion / extraction tool which will allow the wires to easily be replaced up to 5 times.

APPLICATIONS

- Connecting discrete wire components directly to the
- Bringing power and signals onto a PCB
- Daisy chaining PCB's together to create a continuous string of boards
- Application notes; refer to 201-01-127

FEATURES AND BENEFITS

- Simple strip, insert and removal design
- SMT RoHS termination to the PCB with minimal footprint
- Accepts 18-24AWG Solid and Stranded wires
- Expanded size offering to maximize application potential; 1, 2, 3, 4, 6 & 8 positions
- High spring force top contact provides a lance type retention to capture and retain the wire
- · Available in standard white and optional black color

ELECTRICAL

• Current Rating: 6 Amps / Contact

Voltage Rating: 250v AC

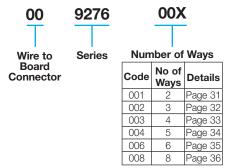
ENVIRONMENTAL

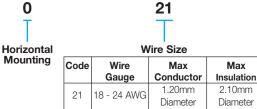
• Operating Temperature: -40°C to +125°C

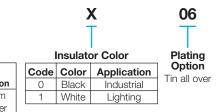
MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94V0
- Contact Material: Beryllium Copper / Phosphor Bronze
- Plating: Tin over Nickel
- Replacibility: 5 Cycles

HOW TO ORDER





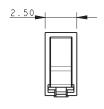


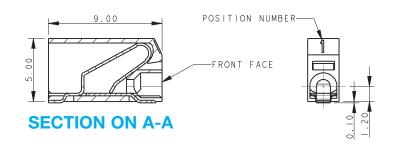


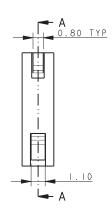


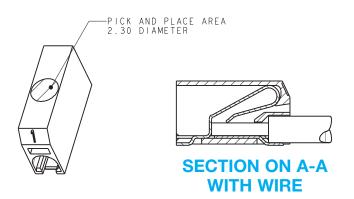


1 WAY WIRE TO BOARD CONNECTOR





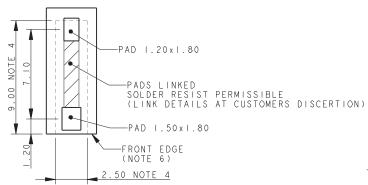


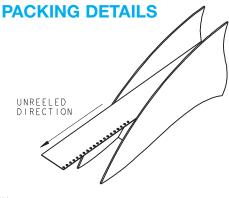


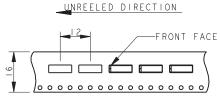
NOTES:

- 1. 9276 ONE WAY CONNECTOR, REFER TO ELCO SPECIFICATION 201-01-125 AND APPLICATION NOTES 201-01-127 FOR FURTHER DETAILS
- 2. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0, COLOR REFER TO PAGE 30.
- 3. CONTACT MATERIAL: COPPER ALLOY, 0.20MM THICK, TIN PLATED.
- 4. OUTLINE OF CONNECTOR.
- 5. WIRE ASSEMBLY / EXTRACTION, REFER TO PAGE 37.
- 6. FRONT FACE OF CONNECTOR CAN BE IN LINE WITH EDGE OF PCB.
- 7. PACKING TAPE AND REEL, QUANTITY 1000 PER REEL.

1 WAY PCB BOARD LAYOUT





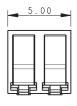


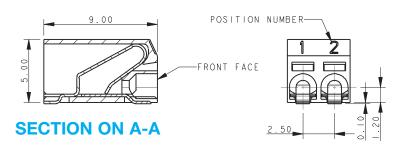


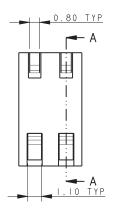


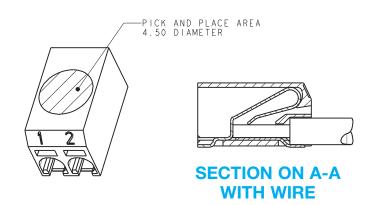


2 WAY WIRE TO BOARD CONNECTOR





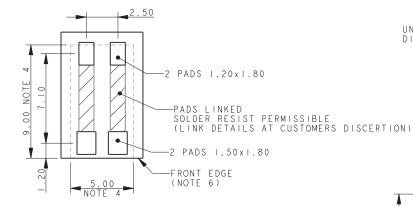


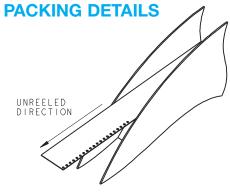


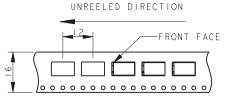
NOTES:

- 1. 9276 TWO WAY CONNECTOR, REFER TO ELCO SPECIFICATION 201-01-125 AND APPLICATION NOTES 201-01-127 FOR FURTHER DETAILS
- 2. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0, COLOR REFER TO PAGE 30.
- 3. CONTACT MATERIAL: COPPER ALLOY, 0.20MM THICK, TIN PLATED.
- 4. OUTLINE OF CONNECTOR.
- 5. WIRE ASSEMBLY / EXTRACTION, REFER TO PAGE 37.
- 6. FRONT FACE OF CONNECTOR CAN BE IN LINE WITH EDGE OF PCB.
- 7. PACKING TAPE AND REEL, QUANTITY 1000 PER REEL.

2 WAY PCB BOARD LAYOUT





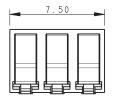


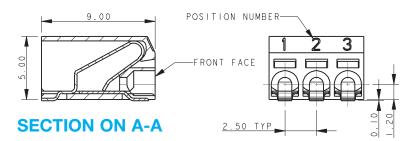


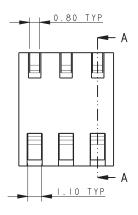


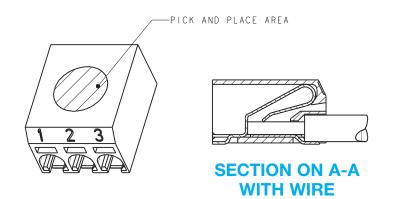


3 WAY WIRE TO BOARD CONNECTOR







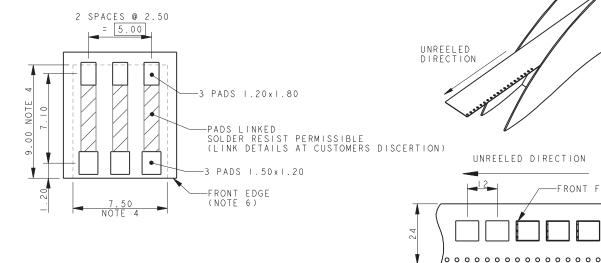


PACKING DETAILS

NOTES:

- 1. 9276 THREE WAY CONNECTOR, REFER TO ELCO SPECIFICATION 201-01-125 AND APPLICATION NOTES 201-01-127 FOR FURTHER DETAILS
- 2. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0, COLOR REFER TO PAGE 30.
- 3. CONTACT MATERIAL: COPPER ALLOY, 0.20MM THICK, TIN PLATED.
- 4. OUTLINE OF CONNECTOR.
- 5. WIRE ASSEMBLY / EXTRACTION, REFER TO PAGE 37.
- 6. FRONT FACE OF CONNECTOR CAN BE IN LINE WITH EDGE OF PCB.
- 7. PACKING TAPE AND REEL, QUANTITY 1000 PER REEL.

3 WAY PCB BOARD LAYOUT



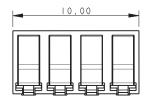


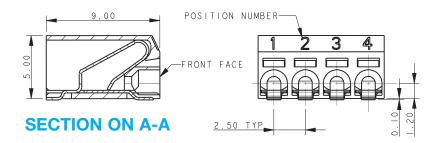
FRONT FACE

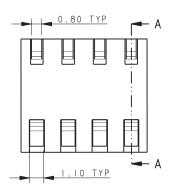


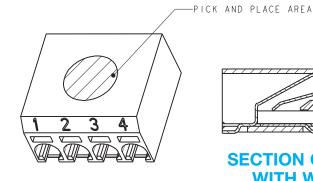


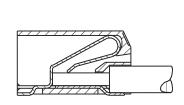
4 WAY WIRE TO BOARD CONNECTOR









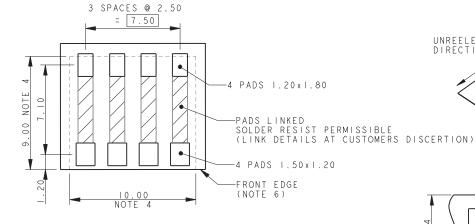


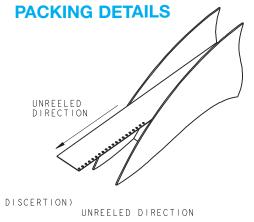
SECTION ON A-A WITH WIRE

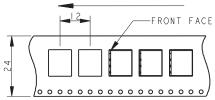
NOTES:

- 1. 9276 FOUR WAY CONNECTOR, REFER TO ELCO SPECIFICATION 201-01-125 AND APPLICATION NOTES 201-01-127 FOR FURTHER DETAILS
- 2. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0, COLOR REFER TO PAGE 30.
- 3. CONTACT MATERIAL: COPPER ALLOY, 0.20MM THICK, TIN PLATED.
- 4. OUTLINE OF CONNECTOR.
- 5. WIRE ASSEMBLY / EXTRACTION, REFER TO PAGE 37.
- 6. FRONT FACE OF CONNECTOR CAN BE IN LINE WITH EDGE OF PCB.
- 7. PACKING TAPE AND REEL, QUANTITY 1000 PER REEL.

4 WAY PCB BOARD LAYOUT







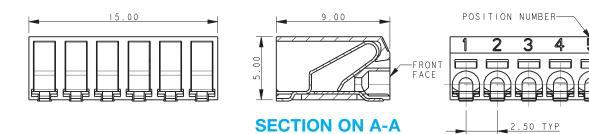


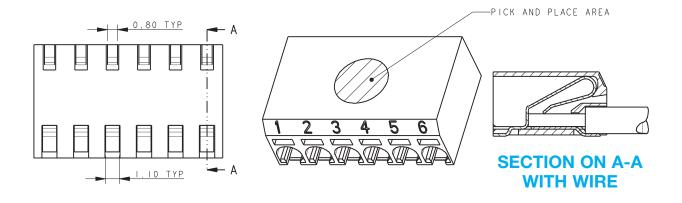




6

6 WAY WIRE TO BOARD CONNECTOR

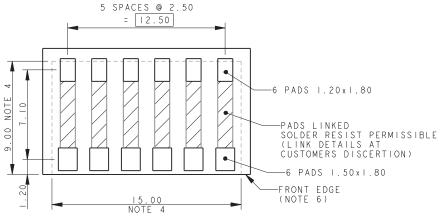


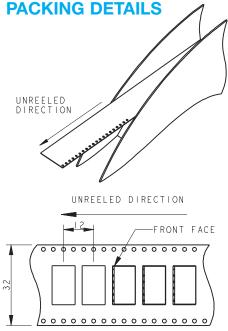


NOTES:

- 1. 9276 SIX WAY CONNECTOR, REFER TO ELCO SPECIFICATION 201-01-125 AND APPLICATION NOTES 201-01-127 FOR FURTHER DETAILS
- 2. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0, COLOR REFER TO PAGE 30.
- 3. CONTACT MATERIAL: COPPER ALLOY, 0.20MM THICK, TIN PLATED.
- 4. OUTLINE OF CONNECTOR.
- 5. WIRE ASSEMBLY / EXTRACTION, REFER TO PAGE 37.
- 6. FRONT FACE OF CONNECTOR CAN BE IN LINE WITH EDGE OF PCB.
- 7. PACKING TAPE AND REEL, QUANTITY 1000 PER REEL.

6 WAY PCB BOARD LAYOUT





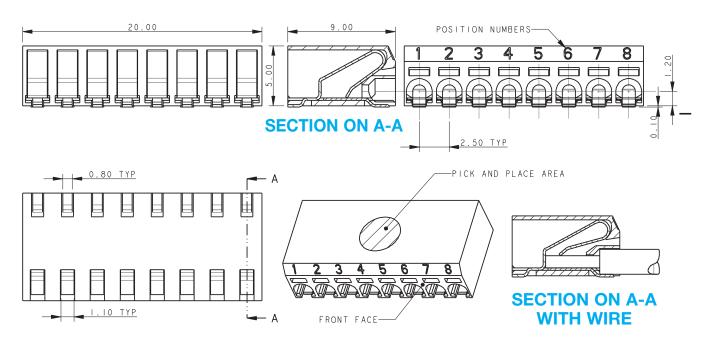


Discrete Wire-to-Board; Poke-Home



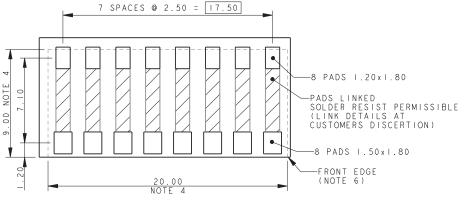


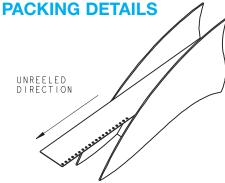
8 WAY WIRE TO BOARD CONNECTOR

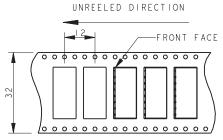


- 1. 9276 EIGHT WAY CONNECTOR, REFER TO ELCO SPECIFICATION 201-01-125 AND APPLICATION NOTES 201-01-127 FOR FURTHER DETAILS
- 2. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0, COLOR REFER TO PAGE 30.
- 3. CONTACT MATERIAL: COPPER ALLOY, 0.20MM THICK, TIN PLATED.
- 4. OUTLINE OF CONNECTOR.
- 5. WIRE ASSEMBLY / EXTRACTION, REFER TO PAGE 37.
- 6. FRONT FACE OF CONNECTOR CAN BE IN LINE WITH EDGE OF PCB.
- 7. PACKING TAPE AND REEL, QUANTITY 1000 PER REEL.

8 WAY PCB BOARD LAYOUT







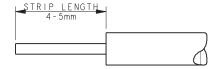


Discrete Wire-to-Board; Poke-Home

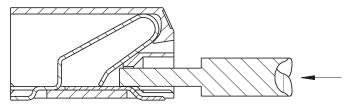




WIRE ASSEMBLY FOR FURTHER DETAILS REFER TO APPLICATION NOTES 201-01-127



TRIM INSULATION. DO NOT CRUSH CENTER OF WIRE. STRANDED WIRES TWISTED TOGETHER BEFORE INSETION. CHECK ALL STANDS OF WIRE ARE CORRECTLY ALIGNED ATER THE INSULATION IS REMOVED.

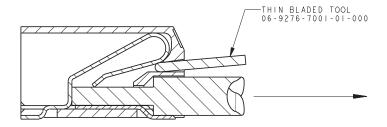






CONTINUED TO PUSH WIRE UNTIL STOP IS REACHED.

WIRE EXTRACTION



PUSH BLADE (NOT SHARP) INTO SLOT ABOVE WIRE. WHEN WIRE IS FREE, PULL TO EXTRACT.



RoHS



GENERAL DESCRIPTION

The 9157 series was specifically designed for portable equipment.

AVX now offers this two-part system as a standard product. The fixed SMT socket is designed to be housed within the confined dimensional constraints of the portable device.

The plug/cover connector has sprung contacts and is designed for termination to accessory equipment. The connector is designed to house fifteen signal contacts on a 1mm pitch rated at 1.5A. There is the option to include a switching RF coax.

A cradle SMT plug connector for docking applications is also available as standard and has the option of including a SMT RF coax.

Whatever your requirements, the 9157 series can also be customized to suit your application.

APPLICATIONS

Suitable applications include:

- Mobile Phones
- PDA
- Medical
- Docking/Charging for any portable device

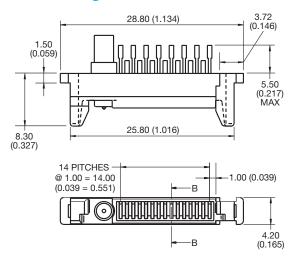
KEY FEATURES AND BENEFITS

- Patented 20° angled face on the socket gives self-cleaning face when mated with plug.
- Metal Latching area integral to socket which saves PCB real estate.
- Integral to socket is a mechanical 50Ω switching coax for SMT termination.
- Single sprung plug contact design gives ten thousand mating cycles and cleaning/wiping action.
- Customer has option to terminate own RF coax using AVX custom tooling: 06-9157-7116-01-000.
- SMT plug has unique location pyramids that give positive alignment to portable device, and assist blind mating.
- RoHS Compliant.

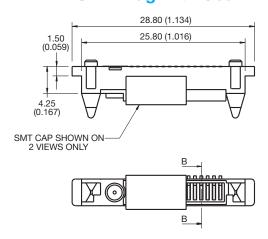


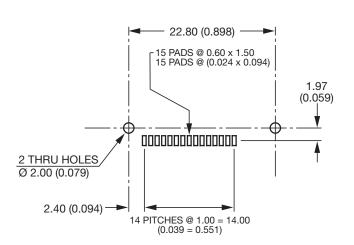


Plug Wire with Coax



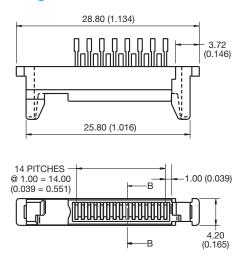
SMT Plug with Coax



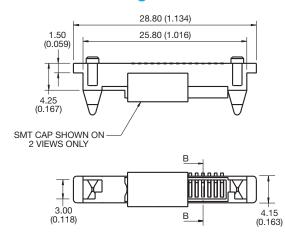


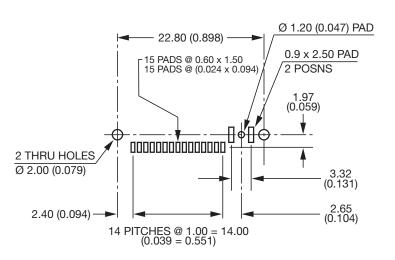
SUGGESTED PCB LAYOUT

Plug Wire without Coax



SMT Plug without Coax



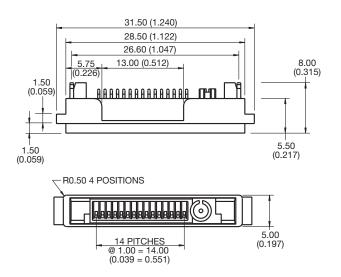


SUGGESTED PCB LAYOUT

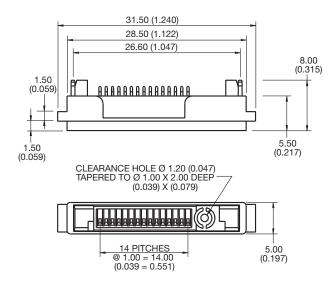




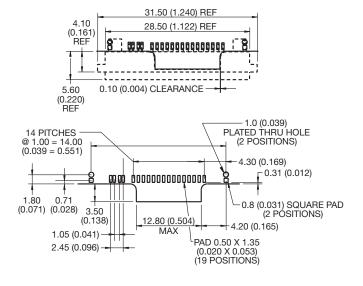
SMT Socket with Coax

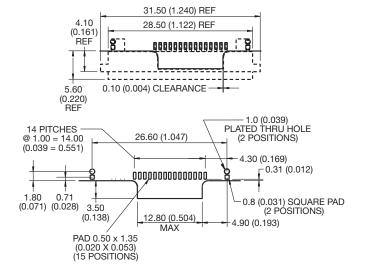


SMT Socket without Coax



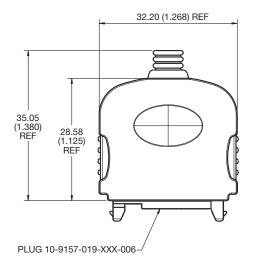
SMT PAD LAYOUT

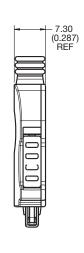






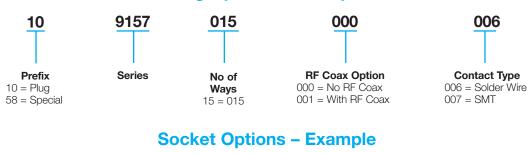
Cover Kit

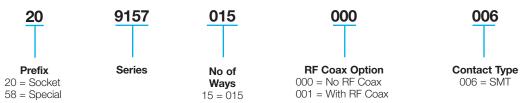




HOW TO ORDER

Plug Options - Example





Cover Options – Example * Parts supplied in kit form



Patent: 2276285 5540599

Note: Application tooling to terminate coax cable 06-9157-7116-01-000.



9157 MOBO® 19 Way I/O Connector





GENERAL DESCRIPTION

Based on our standard 15 way 9157 I/O family, AVX has now released a family 19 way devices. This range includes a SMT 90 degree plug, a wire socket version that is used with the standard 9157 cover and a SMT socket for charging applications.

Options with the 90 degree SMT socket include the sealing of the connector contacts and the connector to the housing up to IP67. There is also an option to have an EMLB (early mate, late break) on pins 1 and 19.

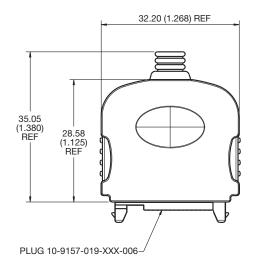
To achieve the seal to the device housing, it may be necessary to customize the device housing design.

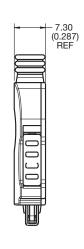
On the SMT 90 degree version, we also have the capability of an integrated DC jack, enabling both the DC jack and the 19 way cover to be plugged in at the same time.

AVAILABLE DEVICES:

10 9157 019 000 006 10 9157 019 000 007 20 9157 019 000 006 30 9157 97 XX 00 000 Plug wire version SMT charging version 90 degree SMT socket Cover options see page 41

Cover Kit

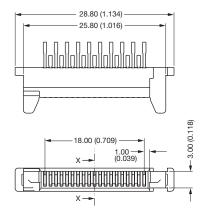




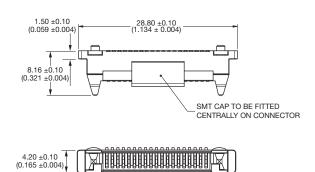
9157 MOBO® 19 Way I/O Connector



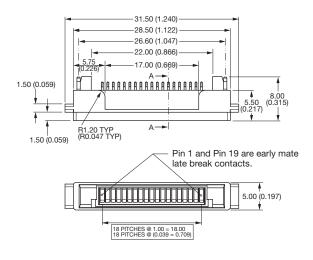
Plug Wire



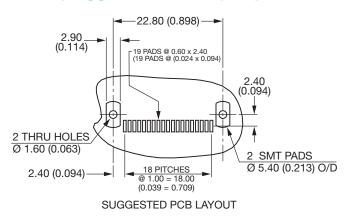
SMT Plug



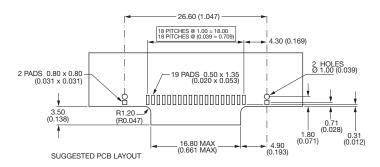
SMT Socket



SMT Plug (Suggested PCB Layout)



SMT Socket (Suggested PCB Layout)





9257 Reduced Size I/O Connector





GENERAL DESCRIPTION

An I/O interconnect system designed for portable equipment.

AVX offers this plug and socket reduced size system as a standard product. The fixed SMT socket is designed to be mounted on a PCB and housed within a portable device. The plug is designed for cable termination with options of single and double sided contacts and customizing the overmold cover or parts can be supplied as connector only for sub contract termination. The socket connector houses 16 contacts in two rows on 1.25mm pitch with a rating of 1 amp per contact. Both connectors are RoHS compliant.

APPLICATIONS

Suitable applications include:

- Cellular Phones
- Handheld Devices
- Industrial Modules
- Medical Electronics

KEY FEATURES AND BENEFITS

- No latching is required due to the click design of the contacts.
- Optional customization of the overmold cover.
- Options of single row (8 way) or dual row (16 way) plug connector.
- Compact size to optimize PCB real estate.
- Metal outer cover provides integrated PCB location and solder tab.
- Positive alignment and orientation of the plug and socket.
- 5K mating cycles and 1 amp rated.

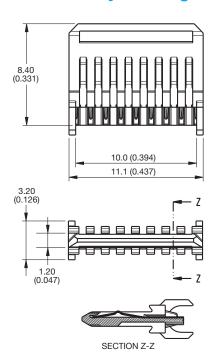


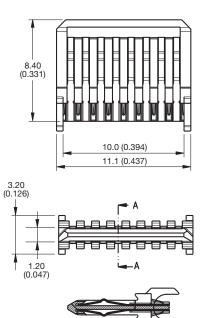
9257 Reduced Size I/O Connector



Single Sided 8 Way I/O Plug Connector

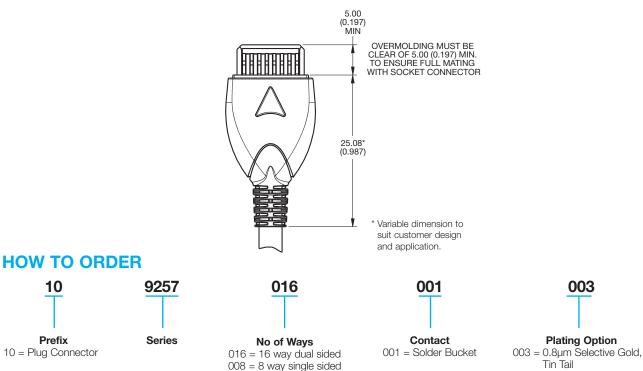
Dual Sided 16 Way I/O Plug Connector





SECTION A-A

Suggested Overmolding for Plug Connector



Notes:

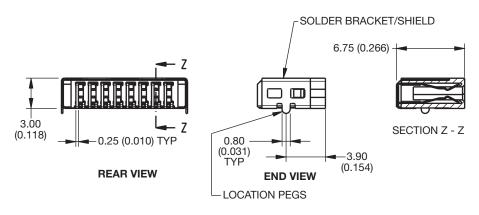
- 1. All dimensions are for reference only unless toleranced.
- 2. For full product specification refer to AVX spec 201-01-089.
- 3. Parts packed in tube with 50 parts per tube.

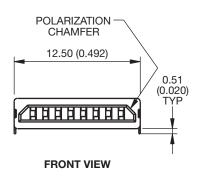


9257 Reduced Size I/O Connector

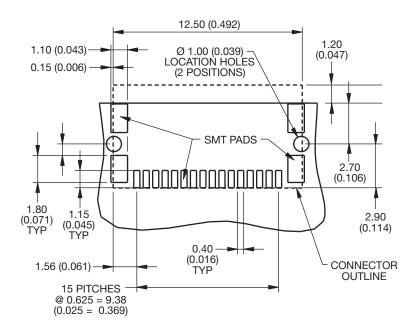


16 Position I/O Socket





PCB Layout



HOW TO ORDER



Packing Details	
Reel Qty.	1100
Pack Qty.	5500

Notes:

- 1. 16 Way I/O Socket.
- 2. For full product specification refer to AVX spec 201-01-089.
- 3. General tolerance ± 0.20 (0.008) unless otherwise stated.
- 4. SMT feet within 0.13 (0.005) coplanarity.









GENERAL DESCRIPTION

AVX offers the 12 way mini I/O connector as a standard product. The fixed SMT socket is designed to be mounted on a PCB and housed within a portable device. The plug is designed for cable termination with options of single and double sided contacts. Parts can be supplied as connectors only for sub contract termination, or with a custom overmold cover. The socket connector houses 12 contacts in a single row on 0.50mm pitch.

APPLICATIONS

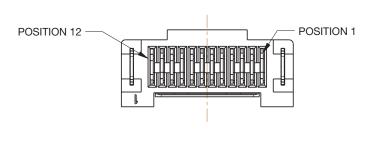
- Medical Electronics
- Cellular Phones
- Industrial Modules
- Hand Held Devices

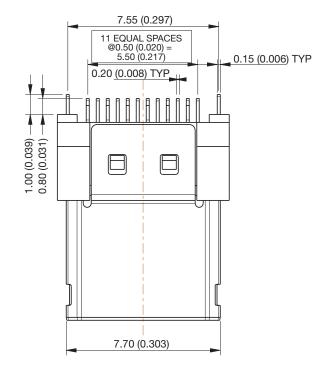
KEY FEATURES AND BENEFITS

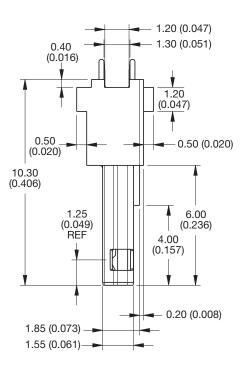
- No latching required due to the click design of the contacts.
- Optional customization of the overmold cover.
- Compact size to optimize PCB real estate.
- Metal outer cover provides integrated PCB location and solder tab.
- Positive alignment and orientation of the plug and socket.

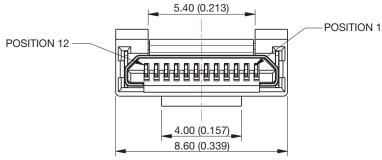


9257 STANDARD 12 WAY MINI I/O PLUG









HOW TO ORDER



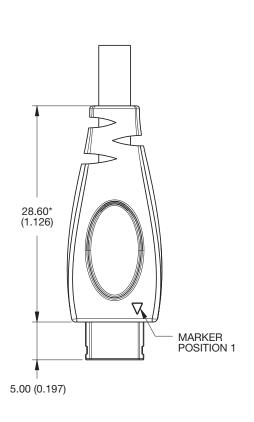


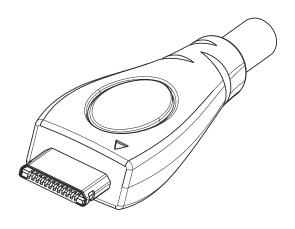






SUGGESTED OVERMOLDING FOR PLUG CONNECTOR







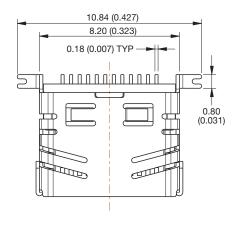


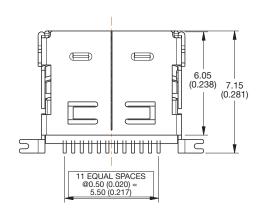
DIMENSION MARKED WITH A * ARE VARIABLE DIMENSION TO SUIT CUSTOMER DESIGN AND APPLICATION

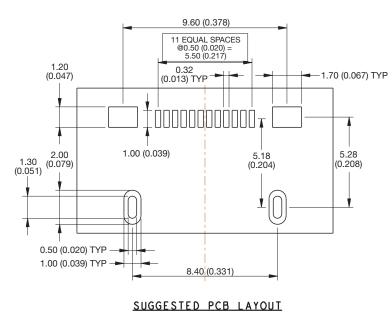


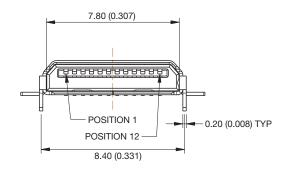


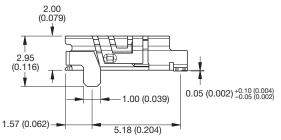
9257 STANDARD 12 WAY MINI I/O SOCKET



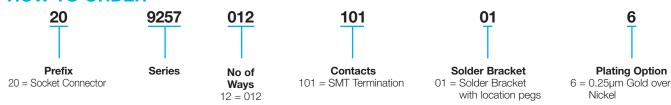








HOW TO ORDER





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AVX Myrtle Beach, SC Tel: 843-448-9411

AVX Northwest, WATel: 360-699-8746

AVX Midwest, IN Tel: 317-861-9184

AVX Mid/Pacific, CA Tel: 408-988-4900

AVX Northeast, MA Tel: 617-479-0345

AVX Southwest, CA Tel: 949-859-9509

> AVX Canada Tel: 905-238-3151

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Contact:

