

# SSL - Discrete Wire IDC Contact & Cap **AVX**

## 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: Dependant 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

70

Prefix

70 = Contact

9176

Series

001

Number of Ways

| Code | No of Ways | Details |
|------|------------|---------|
| 001  | 1          | Page 53 |

4XX

Wire Gauge Size

| Code | Accepted Wire Gauge |
|------|---------------------|
| 422  | 22 Gauge Stranded   |
| 432  | 24 Gauge Stranded   |

006

Plating Option

06 = Pure Tin all over

### HOW TO ORDER – CAP OPTIONS

60

Prefix

60 = Cap

9176

Series

001

Number of Ways

| Code | No of Ways | Details |
|------|------------|---------|
| 001  | 1          | Page 55 |

4XX

Wire Gauge Size

| Code | Wire Insulation |
|------|-----------------|
| 415  | Ø 1.0-1.5       |

X00

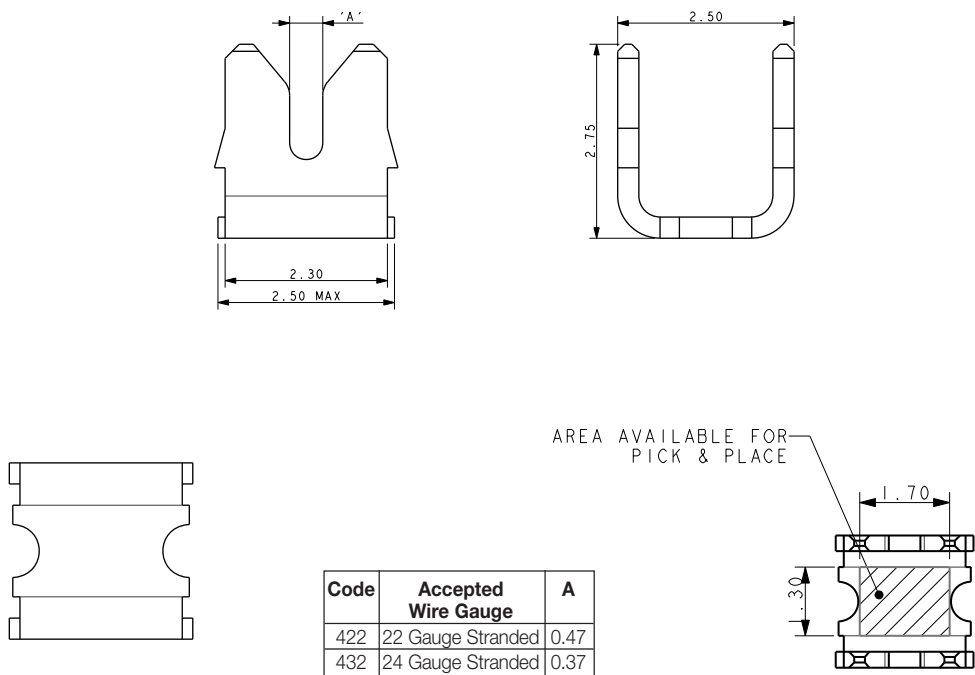
Insulator Color

| Code | Color | Application |
|------|-------|-------------|
| 000  | Black | Industrial  |
| 100  | White | Lighting    |

# SSL - Discrete Wire IDC Contact & Cap

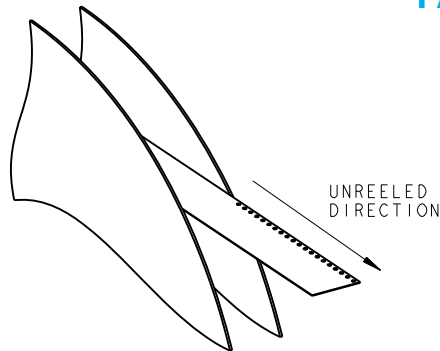
Series 9176-400

## CONTACT DETAILS

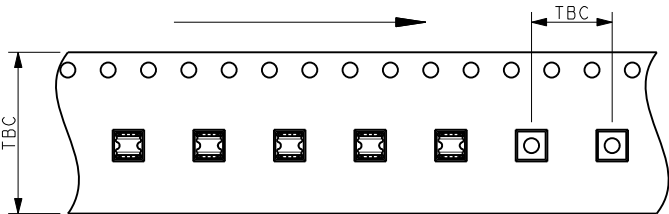


- NOTES:
1. CONNECTOR FOR IDC WIRE TO BOARD CONNECTION.
  2. CONTACT MATERIAL: PHOSPHORE BRONZE.
  3. CONTACT PLATING: PURE TIN.
  4. CONNECTOR DESIGNED TO ACCEPT BETWEEN 22 AND 24 GAUGE STRANDED WIRE. SEE TABLE.
  5. ALL DIMENSIONS FOR REFERENCE UNLESS OTHERWISE STATED.
  6. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-106 AND APPLICATION NOTES 201-01-124.
  7. SMT PCB LAYOUT, REFER TO PAGE 53.
  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 54 FOR WIRE INTO CONTACT.

## PACKING DETAILS



|          |       |
|----------|-------|
| REEL QTY | 1000  |
| LEADER   | 480MM |
| TRAILER  | 120MM |



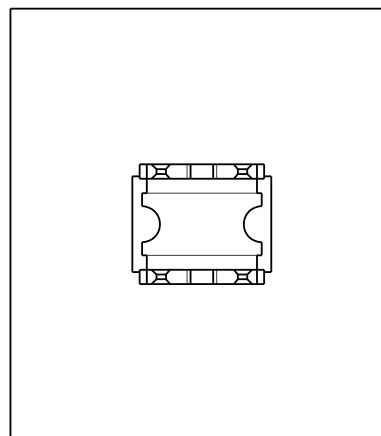
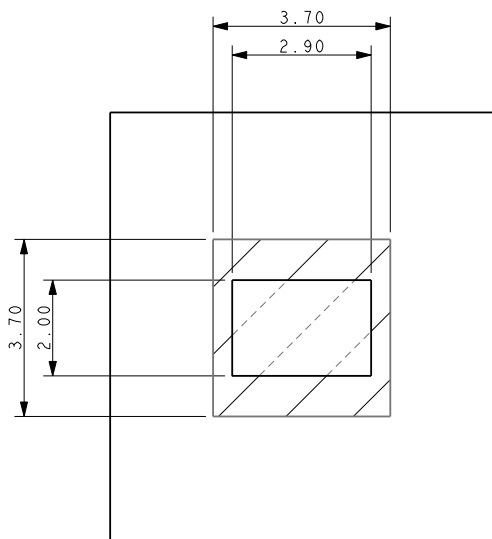
# SSL - Discrete Wire IDC Contact & Cap **AVXX**

Series 9176-400

## 22-24 AWG IDC WIRE TO BOARD CONNECTOR SINGLE CONTACT

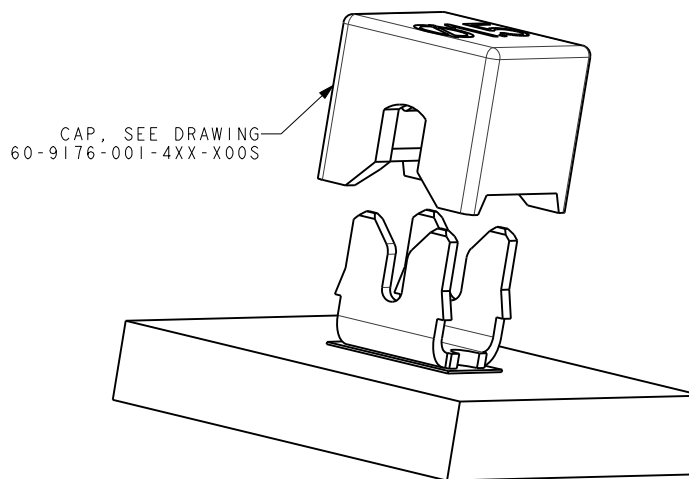
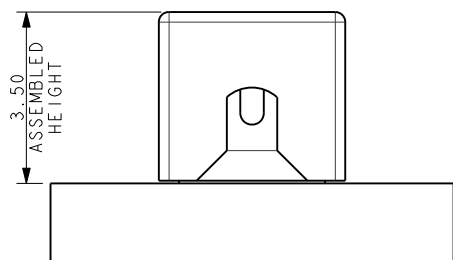
### SMT PCB LAYOUT

PURE TIN PADS



ORIENTATION OF CONTACT ON PAD

### ASSEMBLED/INSTALLED PRODUCTS



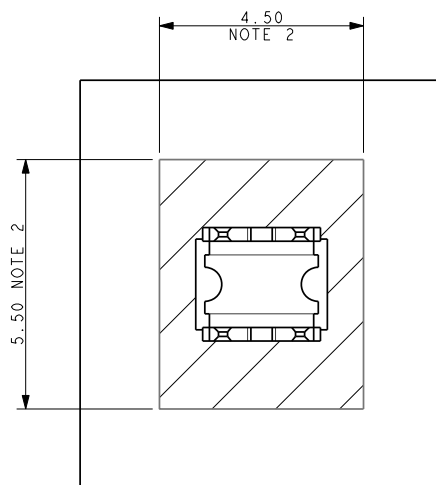
#### NOTES:

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 CONTACT SEE PAGE 54.

# SSL - Discrete Wire IDC Contact & Cap **AVX**

Series 9176-400

## ASSEMBLY TOOLING – CAP NOT USED WIRE ONTO CONTACT

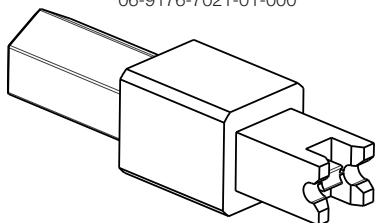


### NOTES:

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

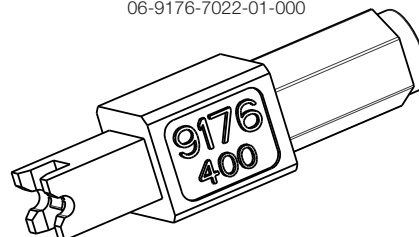
### METAL TOOL – HIGH VOLUME

06-9176-7021-01-000



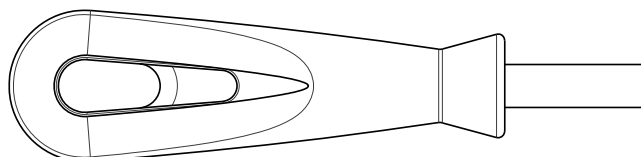
### PLASTIC TOOL – LOW/MEDIUM VOLUME

06-9176-7022-01-000



### UNIVERSAL HANDLE

06 7000 7730 01 000

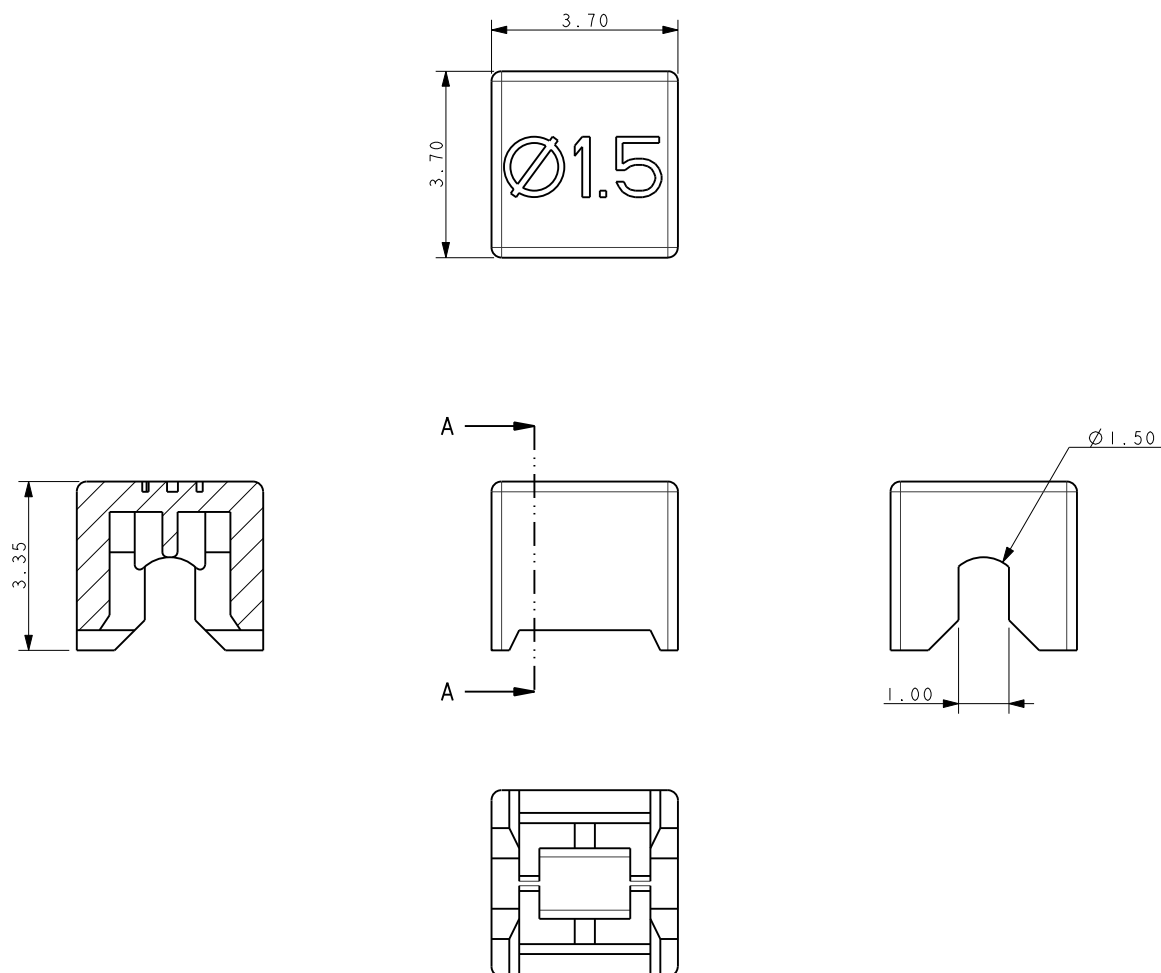


# SSL - Discrete Wire IDC Contact & Cap



Series 9176-400

## CAP DETAILS



### NOTES:

1. CAP FOR IDC WIRE TO BOARD CONNECTION.
2. CAP MATERIAL: GLASS FILLED NYLON 46, COLOR SEE PAGE 51.
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 INSTALLATION DETAILS REFER TO DRAWING 70-9176-001-4XX-006S.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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