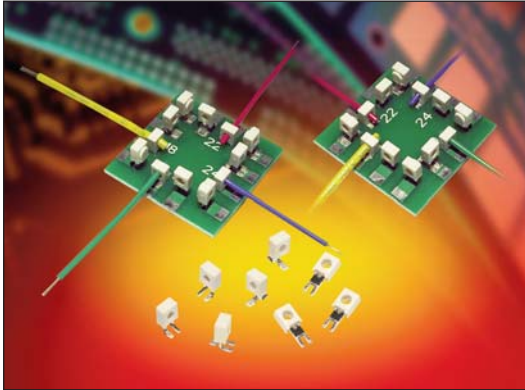


# Single Tine PTH 18-24 AWG: WTB

9176-600



The market and applications for simple and reliable discrete Wire-to-Board (WTB) connectors continue to evolve. Developed for harsh industrial and automotive applications, Insulation Displacement Connectors (IDC) have been used in hundreds of applications connecting wires to PCB's from transportation wiring to every day LED lighting and smart meter/sensor connections. Size, performance and simplicity have been the key factors for selecting this connector when long term reliability is critical.

This single contact version of the proven 9176 family of connectors is the first in Plated Through Hole (PTH) termination. While supporting all of the features and benefits from the SMT offering, this connector provides a new option for a small, cost effective and high performance WTB solution.

## APPLICATIONS

- Machine Controls: motors, drives, solenoids, sensors, fans and pumps
- Commercial Buildings: controls, security, fire and sensors
- Smart Grid: meters, breakers and panels
- SSL/LED: bulbs, fixtures, signage and streetlights
- Application notes: reference 201-01-142

## FEATURES AND BENEFITS

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

## ELECTRICAL

- Current Rating: See matrix below
- Voltage Rating: 600 VAC

## ENVIRONMENTAL

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

## MECHANICAL

- Contact Material: Phosphor Bronze
- Contact Plating: Tin over Nickel
- Durability: 3 Cycles

## HOW TO ORDER

**00**   **9176**   **001**  
Prefix   Series   Number of Ways  
001 = 1

**60X**  
Contact Style

**9**  
Color Option  
White Standard

**X**  
Cap Options

**6**  
Plating Option  
Tin Plated

| Code | Description                           | Accepted Wire Gauge       | Wire Gauges |
|------|---------------------------------------|---------------------------|-------------|
| 600  | Capped IDC Connector<br>PTH PCB Mount | 18 AWG Stranded           | ø1.6-2.1    |
| 601  |                                       | 20 AWG Solid and Stranded | ø1.6-2.1    |
| 602  |                                       | 22 AWG Solid and Stranded | ø1.1-1.6    |
| 603  |                                       | 24 AWG Solid and Stranded | ø1.1-1.6    |

| Code | Cap Option   | Description  | Details    |
|------|--------------|--|------------|
| 0    | Through Wire | Allows wire to be terminated at any point            | See page 2 |
| 9    | Wire Stop    | Terminates end of wire<br>End protected by stop face | See page 3 |

## CURRENT RATING

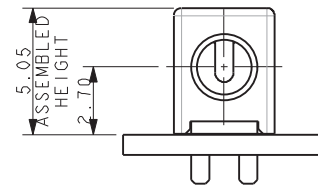
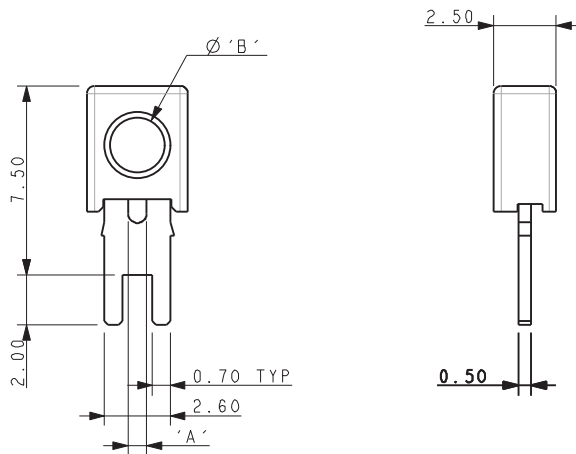
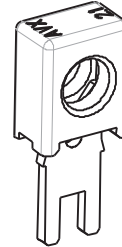
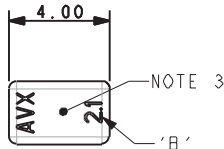
| 18AWG | 20AWG | 22AWG | 24AWG |
|-------|-------|-------|-------|
| 9A    | 8A    | 6A    | 5A    |



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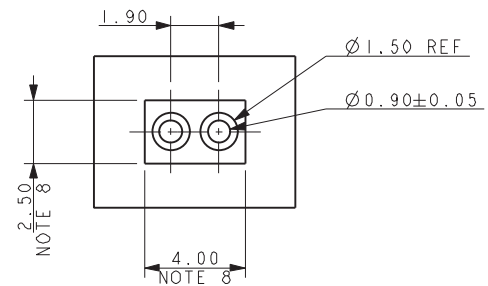
## 18-24 AWG 1 WAY PTH CONNECTOR THROUGH WIRE CAPPED



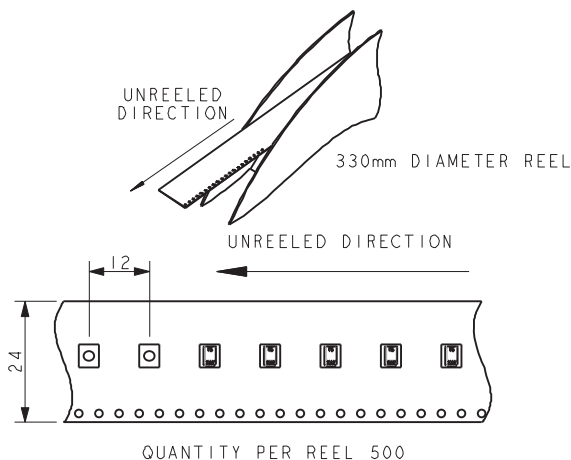
| Code | Accepted Wire Gauge      | A    | Wire Insulation | B   |
|------|--------------------------|------|-----------------|-----|
| 600  | 18 AWG Stranded          | 0.74 | Ø 1.6-2.1       | 2.1 |
| 601  | 20 AWG Solid or Stranded | 0.60 | Ø 1.6-2.1       | 2.1 |
| 602  | 22 AWG Solid or Stranded | 0.47 | Ø 1.1-1.6       | 1.6 |
| 603  | 24 AWG Solid or Stranded | 0.37 | Ø 1.1-1.6       | 1.6 |



## SUGGESTED PCB LAYOUT



## PACKING DETAILS



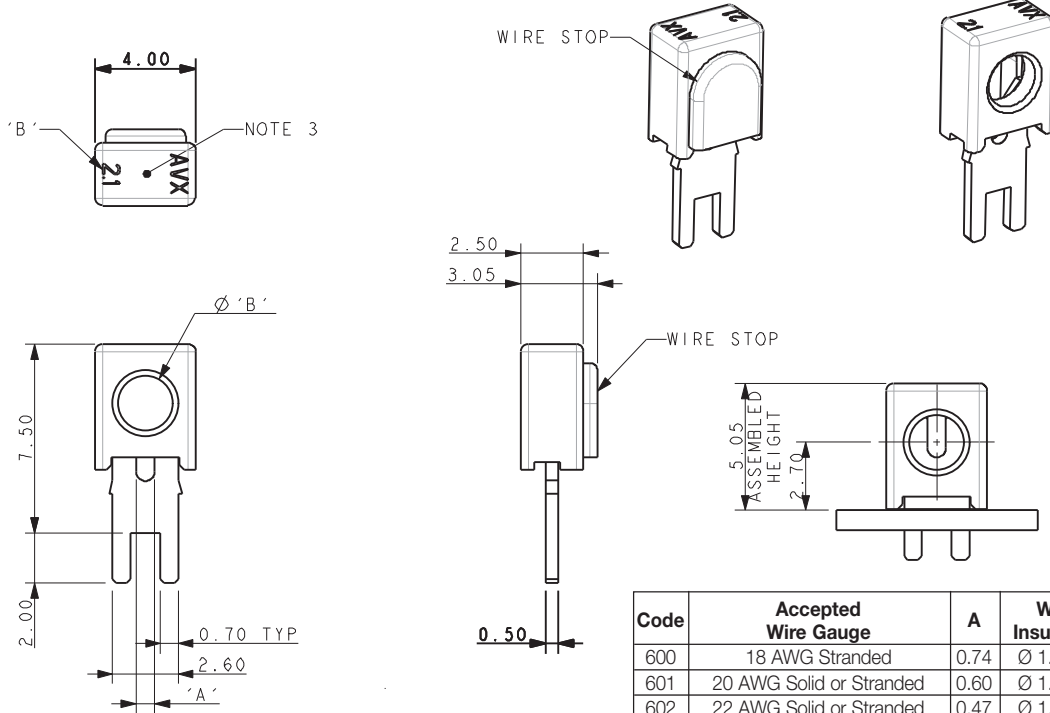
### NOTES:

- 1 WAY CONNECTOR FOR PTH WIRE TO BOARD CONNECTION, PRE-ASSEMBLED THROUGH WIRE CAP, CODE SEE PAGE 1.
- CONTACT/CAP TO MATCH 20AWG-24AWG SOLID AND STRANDED WIRES, 18AWG WILL ONLY ACCEPT STRANDED WIRES, SEE TABLE.
- FLAT FACE ON TOP OF CAP TO AID PICK AND PLACE ASSEMBLY, MAXIMUM DIAMETER 1.8MM.
- FOR FULL PRODUCT SPECIFICATION ON STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-163.
- ASSEMBLY PROCEDURE, REFER TO APPLICATION NOTES 201-01-142.
- GENERAL TOLERANCE  $\pm 0.20$  UNLESS STATED.
- PACKED IN TAPE AND REEL, QUANTITY PER REEL 500.
- CONNECTOR OUTLINE.
- CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
- INSULATION MATERIAL: HIGH TEMPERATURE NYLON, GLASS FILLED, UL94 V-O. COLOR REFER TO PAGE 1.

# Single Tine PTH 18-24 AWG: WTB

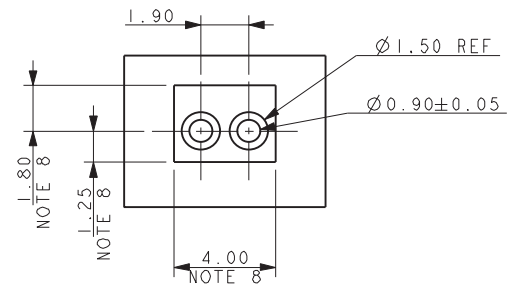
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## 18-24 AWG 1 WAY PTH CONNECTOR WIRE STOP CAPPED

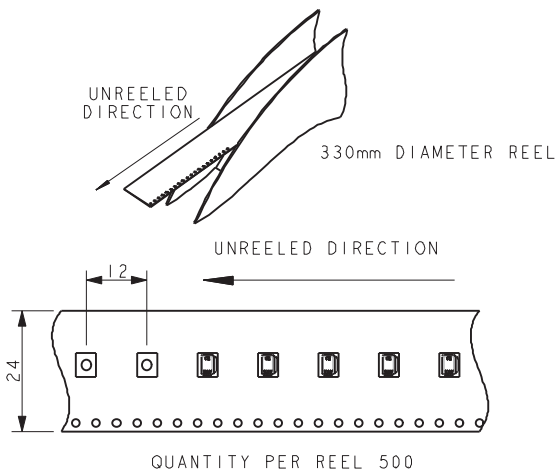


| Code | Accepted Wire Gauge      | A    | Wire Insulation | B   |
|------|--------------------------|------|-----------------|-----|
| 600  | 18 AWG Stranded          | 0.74 | Ø 1.6-2.1       | 2.1 |
| 601  | 20 AWG Solid or Stranded | 0.60 | Ø 1.6-2.1       | 2.1 |
| 602  | 22 AWG Solid or Stranded | 0.47 | Ø 1.1-1.6       | 1.6 |
| 603  | 24 AWG Solid or Stranded | 0.37 | Ø 1.1-1.6       | 1.6 |

## SUGGESTED PCB LAYOUT



## PACKING DETAILS



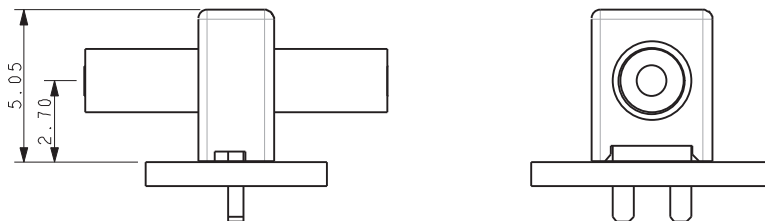
### NOTES:

1. 1 WAY CONNECTOR FOR PTH WIRE TO BOARD CONNECTION, PRE-ASSEMBLED WIRE STOP CAP, CODE SEE PAGE 1.
2. CONTACT/CAP TO MATCH 20AWG-24AWG SOLID AND STRANDED WIRES, 18AWG WILL ONLY ACCEPT STRANDED WIRES, SEE TABLE.
3. FLAT FACE ON TOP OF CAP TO AID PICK AND PLACE ASSEMBLY, MAXIMUM DIAMETER 1.8MM.
4. FOR FULL PRODUCT SPECIFICATION ON STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-163.
5. ASSEMBLY PROCEDURE, REFER TO APPLICATION NOTES 201-01-142.
6. GENERAL TOLERANCE  $\pm 0.20$  UNLESS STATED.
7. PACKED IN TAPE AND REEL, QUANTITY PER REEL 500.
8. CONNECTOR OUTLINE.
9. CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
10. INSULATION MATERIAL: HIGH TEMPERATURE NYLON, GLASS FILLED, UL94 V-O. COLOR REFER TO PAGE 1.
11. WIRE STOP CAP PROTECTS END OF WIRE.

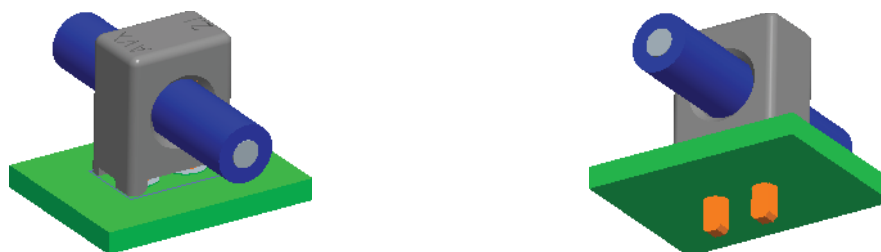
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## 18-24 AWG ASSEMBLED CAPPE PTH CONNECTORS



**NOMINAL ASSEMBLED HEIGHTS**



**TYPICAL THROUGH WIRE ASSEMBLIES**



**TYPICAL WIRE STOP ASSEMBLIES**

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:

- Конкуренспособные 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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