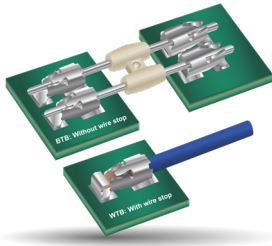


# POKE-HOME: SINGLE HORIZONTAL CONTACT

## 12-28 AWG: 70-9296

### General Information



The widespread market adaptation of the AVX STRIPT™ contact systems continue to drive new product developments. The 70-9296 series of dual beam, boxed contacts provide a simple, yet reliable wire-to-board alternative to full sized 1pc and 2pc connector solutions. Contacts are SMT onto the PCB, then either solid or stranded wires can be stripped to length and inserted into the contact. Contacts are designed with dual beam high force contacts to maximize wire retention. Integral wire guides and stop assures proper positioning of the wire.

In this round of product expansion, the 2.5mm has been added to offer a new size when trying to maximize AWG and keep the smallest profile contact available is size critical applications. Additionally, this contact has been designed without a wire stop to facilitate solid pin insertion capabilities for board-to-board and module-to-module applications (see BTB Jumper data sheet for 109296001xxx906).

### APPLICATIONS

- Industrial/Ruggedized Wire-to-Board applications
- Replace hard soldering of wire to a PCB
- Reference Product Specification 201-01-143
- Reference Application Notes 201-01-150
- Linear Board-to-Board capabilities with 109296001xxx906 jumpers

### FEATURES AND BENEFITS

- Dual Beam box contact provides maximum mechanical stability and wire retention
- Tape and reel packaged for automated SMT placement
- Staged current rating based on AWG, maximum is 10A (12AWG)
- 2.5mm w/o wire stop allows for variable PCB mating tolerances in linear BTB applications

### ELECTRICAL

- Voltage Rating: 300V  
Based on placement distance
- Current Rating: See Matrix Below

### ENVIRONMENTAL

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

### MECHANICAL

- Contact Material: Phosphor Bronze
- Contact Plating: Pure Tin
- Durability 5 Cycles

### HOW TO ORDER

**70**  
Prefix  
70 = Contact

**9296**  
Series

**001**  
Number of Ways  
001 = 1

**0XX**  
Wire Gauge Size

**0X6**  
Plating & Other Options

| Code | Contact Size  | Wire Gauge                     | Max Insulation             | UL Approved E90723 |
|------|---------------|--------------------------------|----------------------------|--------------------|
| 017  | 1.7mm Contact | 22-26 AWG<br>Solid or Stranded | 1.3mm Ø<br>(See page 85)   | Yes                |
| 002  | 2mm Contact   | 22-28 AWG<br>Solid or Stranded | 1.5mm Ø<br>(See page 85)   | Yes                |
| 025  | 2.5mm Contact | 18-26 AWG<br>Solid or Stranded | Max 2mm Ø<br>(See page 85) | Yes                |
| 003  | 3mm Contact   | 18-26 AWG<br>Solid or Stranded | 2.5mm Ø                    | Yes                |
| 004  | 4mm Contact   | 12-20 AWG<br>Solid or Stranded | 3.4mm Ø                    | Yes                |

| Code | Wire Stop Variations | Plating           |
|------|----------------------|-------------------|
| 006  | With wire stop       | Pure tin all over |
| 016* | Without wire stop    |                   |

\*2mm, 2.5mm, and 3mm contact only



### CURRENT RATING

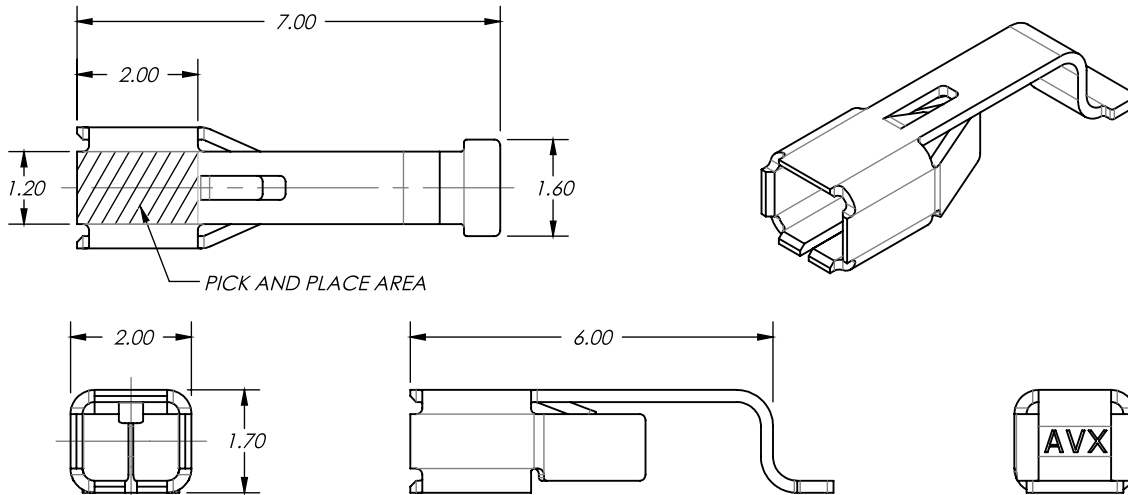
| Size  | Part Number     | 12AWG | 14AWG | 16AWG | 18AWG | 20AWG | 22AWG | 24AWG | 26AWG | 28AWG |
|-------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4mm   | 709296001004006 | 20A   | 16A   | 14A   | 12A   | 10A   |       |       |       |       |
| 3mm   | 7092960010030x6 |       |       |       | 15A   | 14A   | 10A   | 9A    | 7A    |       |
| 2.5mm | 7092960010250x6 |       |       |       | 14A   | 12A   | 11A   | 9A    | 7A    |       |
| 2mm   | 709296001002006 |       |       |       |       |       | 11A   | 9A    | 7A    | 6A    |
| 1.7mm | 709296001017006 |       |       |       |       |       | 11A   | 9A    | 7A    | 6A    |

# POKE-HOME: SINGLE HORIZONTAL CONTACT

## 12-28 AWG: 70-9296

1.7mm

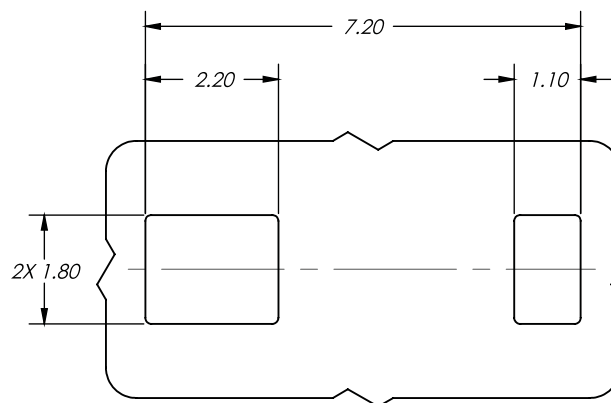
### 70-9296-001-017-006 1.7MM POKE HOME CONTACT



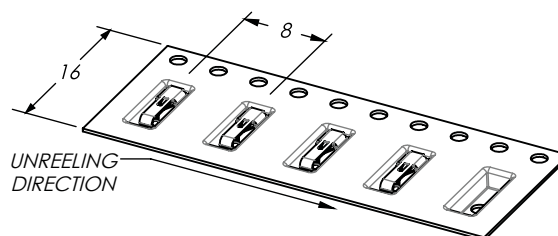
#### NOTES:

1. FOR FURTHER INFORMATION REFER TO ELCO SPECIFICATION 201-01-143 AND APPLICATION NOTES 201-01-150.
2. MATERIAL: TIN PLATED PHOSPHOR BRONZE.
3. PACKING IN TAPE AND REEL, 4000 PIECES PER REEL.
4. FOR WIRE TRIM DETAILS REFER TO PAGE 91.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE  $\pm 0.10$ .

### SUGGESTED PCB LAYOUT



### PACKING DETAILS



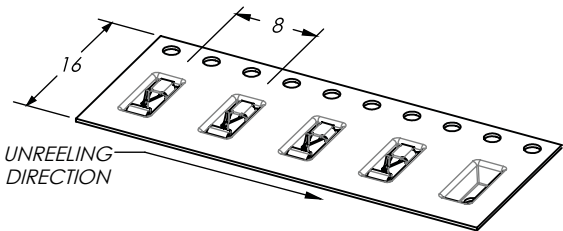
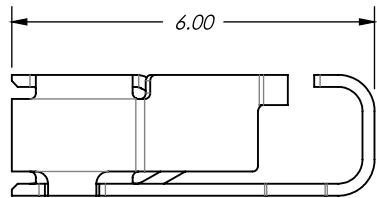
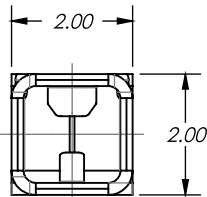
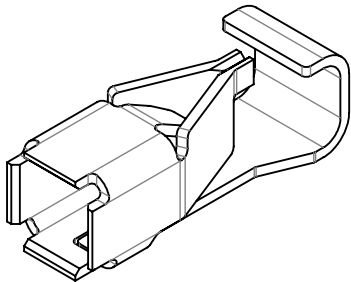
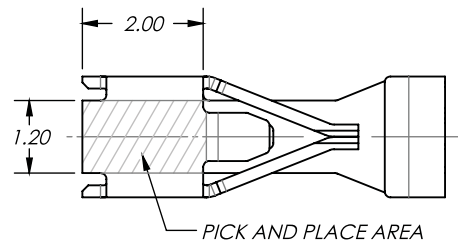
TAPE AND REEL PACKAGING  
QUANTITY PER REEL: 4,000

POKE-HOME: SINGLE HORIZONTAL CONTACT  
12-28 AWG: 70-9296

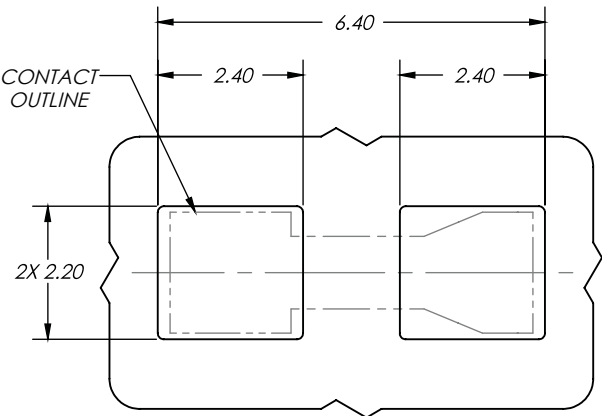
2mm



70-9296-001-002-006  
2MM POKE HOME CONTACT



TAPE AND REEL PACKAGING  
QUANTITY PER REEL: 3,500

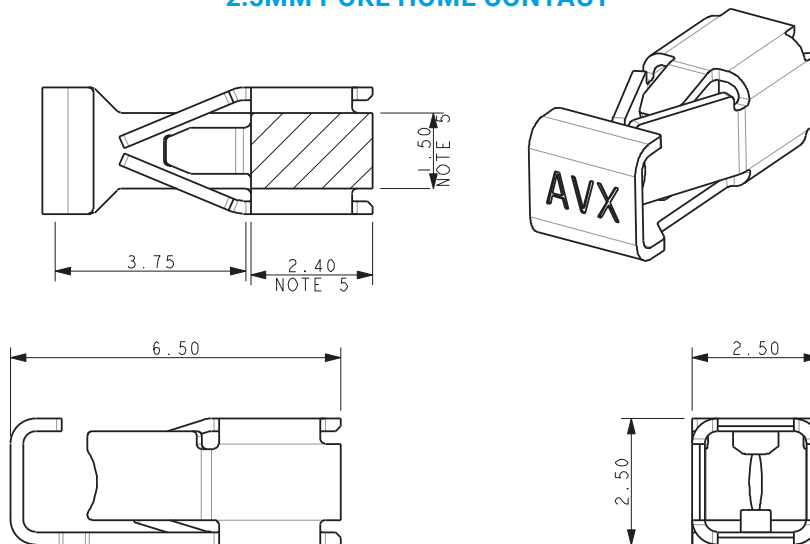


# POKE-HOME: SINGLE HORIZONTAL CONTACT

12-28 AWG: 70-9296

2.5mm

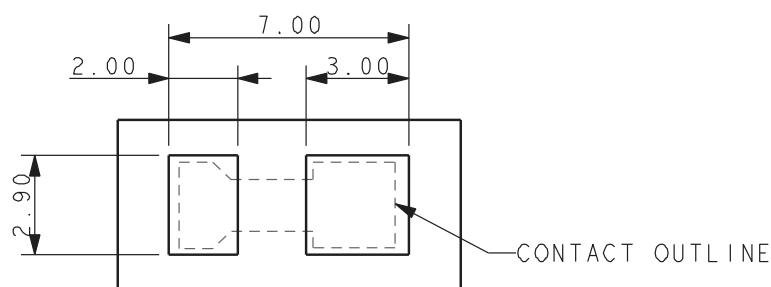
## 70-9296-001-025-006 2.5MM POKE HOME CONTACT



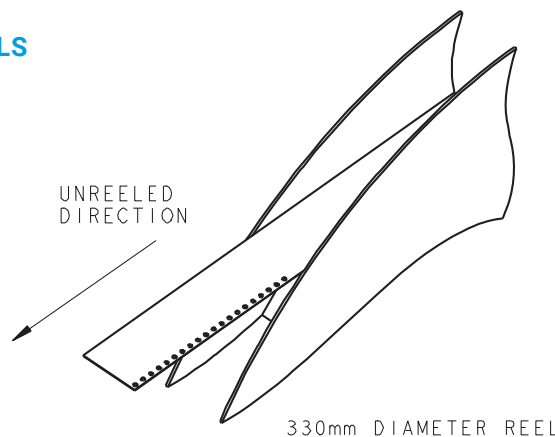
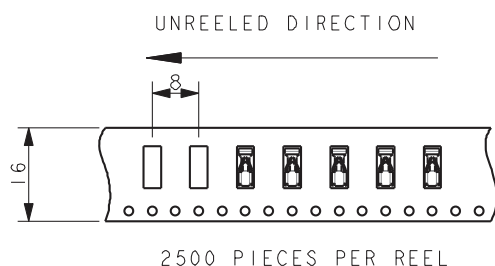
### NOTES:

1. FOR FURTHER INFORMATION REFER TO ELCO SPECIFICATION 201-01-143 AND APPLICATION NOTES 201-01-150.
2. MATERIAL: TIN PLATED PHOSPHOR BRONZE.
3. PACKING IN TAPE AND REEL, 2500 PIECES PER REEL.
4. FOR WIRE TRIM DETAILS REFER TO PAGE 91.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE  $\pm 0.10$ .

## SUGGESTED PCB LAYOUT



## PACKING DETAILS



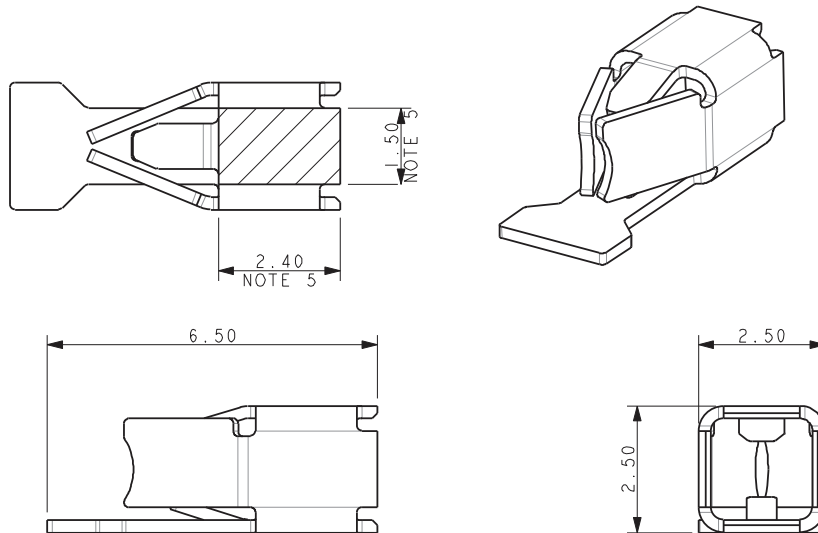
# POKE-HOME: SINGLE HORIZONTAL CONTACT

12-28 AWG: 70-9296

2.5mm – No Stop

70-9296-001-025-016

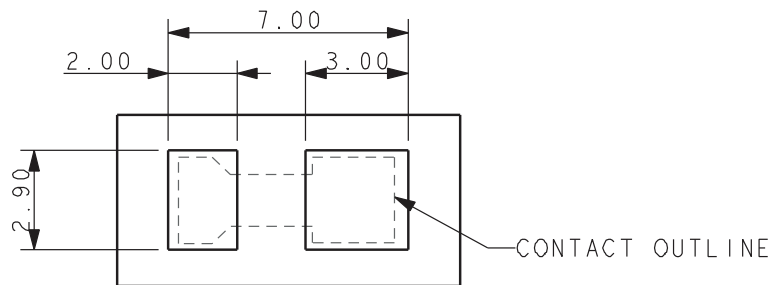
2.5MM POKE HOME CONTACT – NO STOP



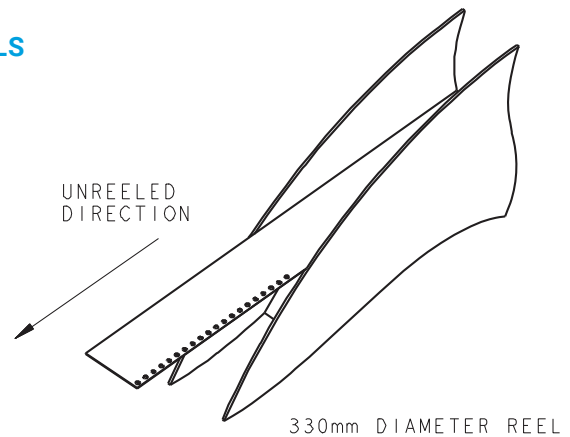
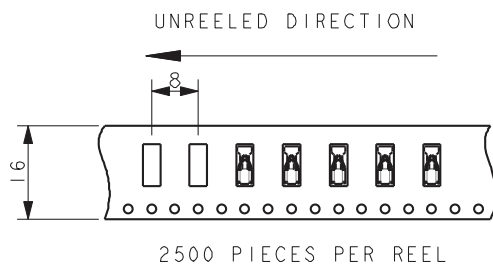
## NOTES:

1. FOR FURTHER INFORMATION REFER TO ELCO SPECIFICATION 201-01-143 AND APPLICATION NOTES 201-01-150.
2. MATERIAL: TIN PLATED PHOSPHOR BRONZE.
3. PACKING IN TAPE AND REEL, 2500 PIECES PER REEL.
4. FOR WIRE TRIM DETAILS REFER TO PAGE 91.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE  $\pm 0.10$ .

## SUGGESTED PCB LAYOUT



## PACKING DETAILS

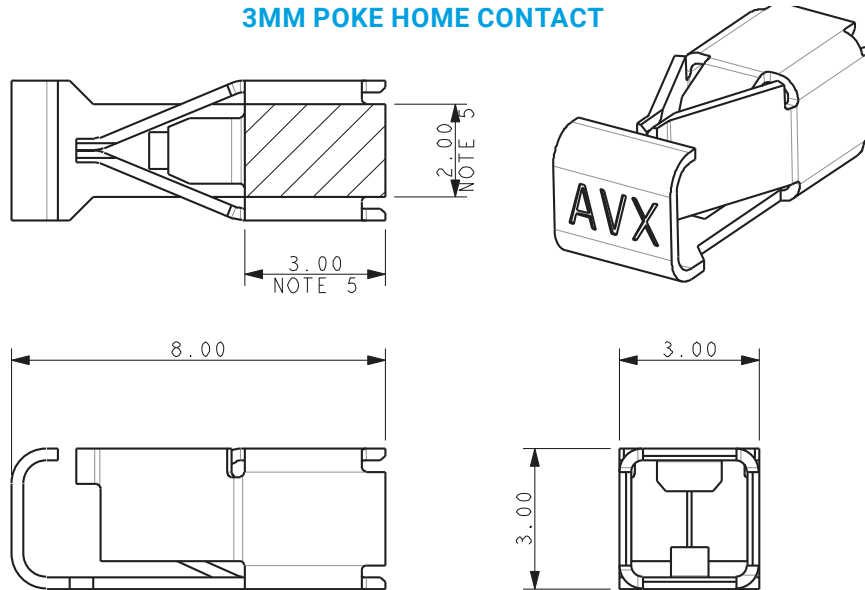


# POKE-HOME: SINGLE HORIZONTAL CONTACT

## 12-28 AWG: 70-9296

3mm

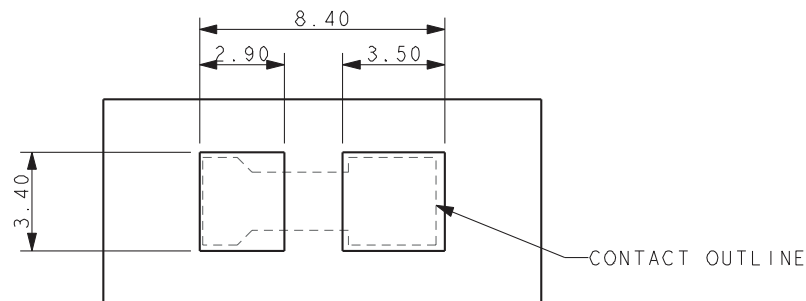
### 70-9296-001-003-006 3MM POKE HOME CONTACT



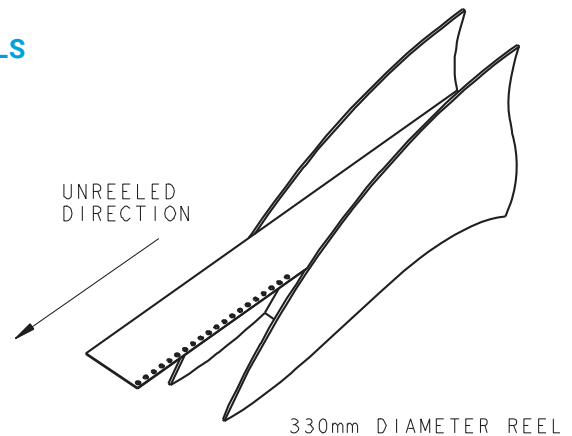
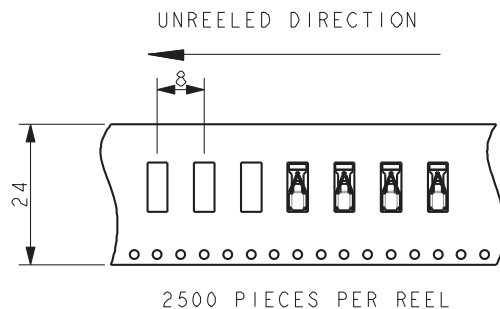
#### NOTES:

1. FOR FURTHER INFORMATION REFER TO ELCO SPECIFICATION 201-01-143 AND APPLICATION NOTES 201-01-150.
2. MATERIAL: TIN PLATED PHOSPHOR BRONZE.
3. PACKING IN TAPE AND REEL, 2500 PIECES PER REEL.
4. FOR WIRE TRIM DETAILS REFER TO PAGE 91.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE  $\pm 0.10$ .

### SUGGESTED PCB LAYOUT



### PACKING DETAILS

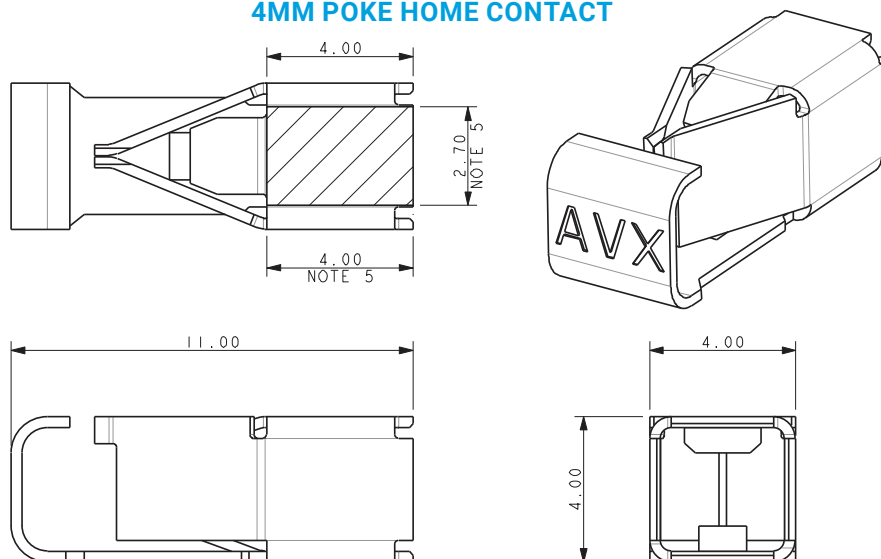


# POKE-HOME: SINGLE HORIZONTAL CONTACT

12-28 AWG: 70-9296

4mm

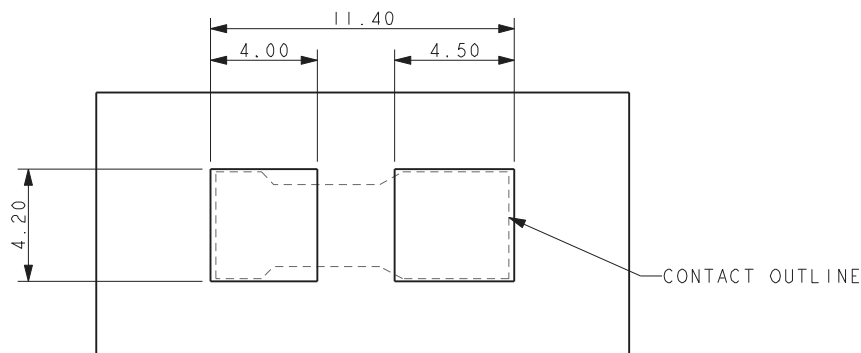
## 70-9296-001-004-006 4MM POKE HOME CONTACT



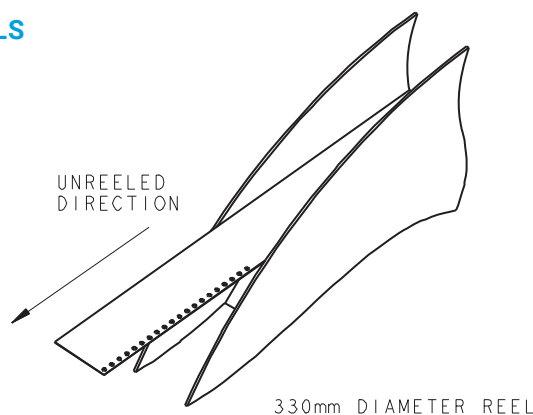
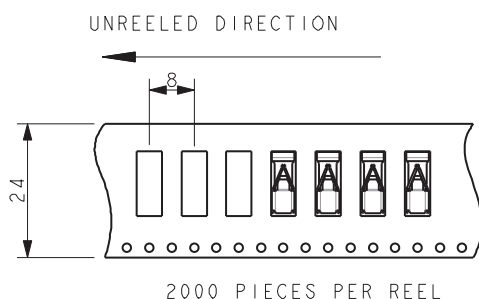
### NOTES:

1. FOR FURTHER INFORMATION REFER TO ELCO SPECIFICATION 201-01-143 AND APPLICATION NOTES 201-01-150.
2. MATERIAL: TIN PLATED PHOSPHOR BRONZE.
3. PACKING IN TAPE AND REEL, 2000 PIECES PER REEL.
4. FOR WIRE TRIM DETAILS REFER TO PAGE 91.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE  $\pm 0.10$ .

## SUGGESTED PCB LAYOUT



## PACKING DETAILS



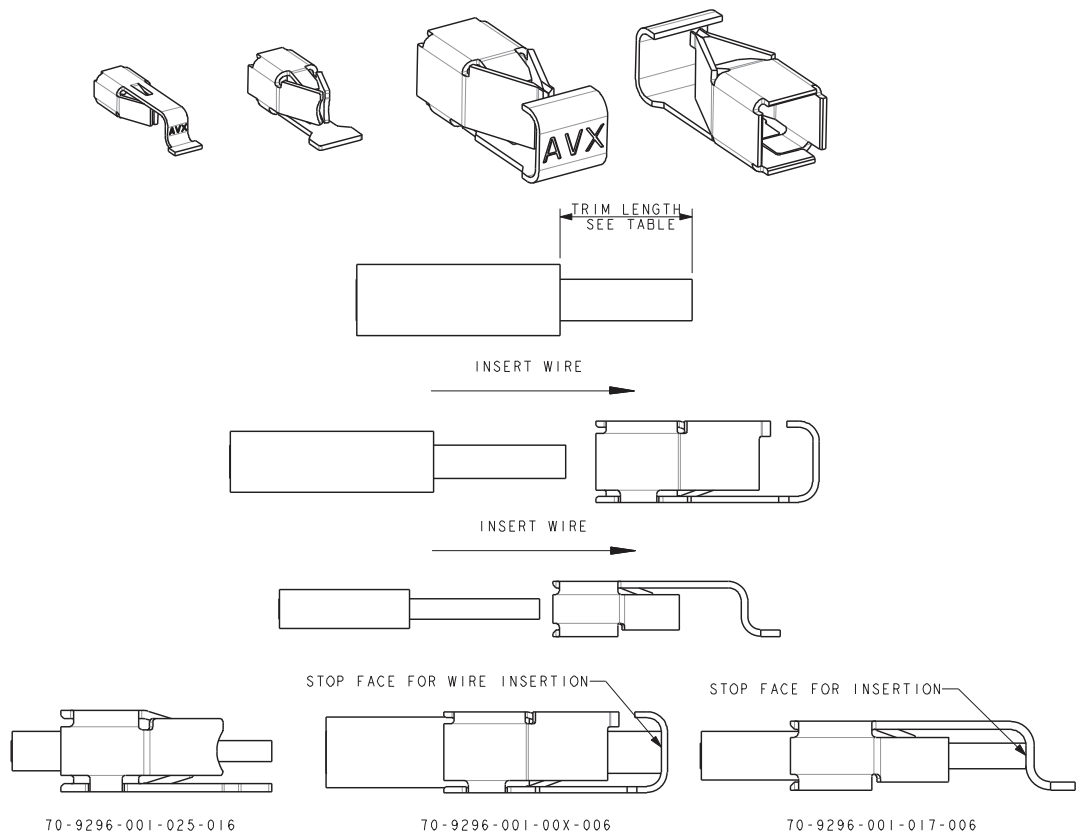
POKE-HOME: SINGLE HORIZONTAL CONTACT  
12-28 AWG: 70-9296

Connector Assembly / Contact Opening Tool



CONNECTOR ASSEMBLY

FOR FULL DETAILS REFER TO APPLICATION NOTES 201-01-150

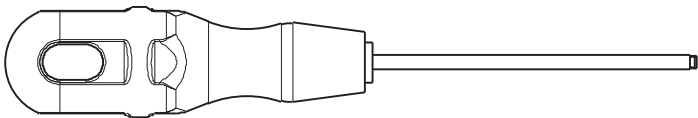


| CONTACT             | WIRE SIZE              | INSULATOR DIAMETER | TRIM LENGTH                        |
|---------------------|------------------------|--------------------|------------------------------------|
| 70-9296-001-004-006 | 12AWG and 14AWG        | Max 3.4mm          | 6.5 ± 0.5mm                        |
| 70-9296-001-004-006 | 16AWG, 18AWG and 20AWG | Max 2.5mm          | 5.5 ± 0.5mm                        |
| 70-9296-001-003-006 | 18AWG to 26AWG         | Max 2.5mm          | 4.5 ± 0.5mm                        |
| 70-9296-001-025-006 | 20AWG to 26AWG         | Max 2.0mm          | 3.5 ± 0.5mm                        |
| 70-9296-001-025-006 | 20AWG to 26AWG         | 2.0mm to 2.50mm    | 6.0 ± 0.5mm*                       |
| 70-9296-001-025-016 | 20AWG to 26AWG         | Max 2.0mm          | 3.0mm Minimum – No Stop on Contact |
| 70-9296-001-025-016 | 20AWG to 26AWG         | Max 2.0mm          | 5.5mm Minimum – No Stop on Contact |
| 70-9296-001-002-006 | 22AWG to 28AWG         | Max 1.5mm          | 3.5 ± 0.5mm                        |
| 70-9296-001-002-006 | 22AWG to 28AWG         | 1.5mm to 2.0mm     | 5.5 ± 0.5mm*                       |
| 70-9296-001-017-006 | 22AWG to 26AWG         | Max 1.3mm          | 4.0 ± 0.5mm                        |
| 70-9296-001-017-006 | 22AWG to 26AWG         | 1.3mm to 1.7mm     | 6.0 ± 0.5mm*                       |

\* Wire insulation butts on end of contact

CONTACT OPENING TOOL

06-9296-7001-01-000



TOOL TO OPEN THE CONTACT TO INSERT/WITHDRAW WIRE.  
REFER TO APPLICATION NOTES 201-01-150.