

# Poke-Home: Single Horizontal Contact

## 12-28 AWG: WTB



70-9296



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 20A (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**      **9296**      **001**  
 |            |            |  
**Prefix**    **Series**    **Number of Ways**  
 70 = Contact                      001 = 1

**OXX**  
 |  
**Contact Size**

Code	Contact Size	Wire Gauge	Max Insulation	UL Approved E90723
017	1.7mm Contact	22-26 AWG Solid or Stranded	1.3mm Ø (See page 85)	Yes
002	2mm Contact	22-28 AWG Solid or Stranded	1.5mm Ø (See page 85)	Yes
025	2.5mm Contact	20-26 AWG Solid or Stranded	Max 2mm Ø (See page 85)	No
003	3mm Contact	18-26 AWG Solid or Stranded	2.5mm Ø	Yes
004	4mm Contact	12-20 AWG Solid or Stranded	3.4mm Ø	Yes

**OX6**  
 |  
**Plating & Other Options**  
 006 = Wire Stop Included  
 Pure Tin All Over  
 016 = No Wire Stop  
 (2.5mm only)  
 Pure Tin All Over



### CURRENT RATING

Size	Part Number	12AWG	14AWG	16AWG	18AWG	20AWG	22AWG	24AWG	26AWG	28AWG
4mm	709296001004006	20A	16A	14A	12A	10A				
3mm	709296001003006				12A	10A	8A	7A	5A	
2.5mm	7092960010250x6					12A	10A	8A	6A	
2mm	709296001002006						8A	7A	5A	4A
1.7mm	709296001017006						8A	7A	5A	

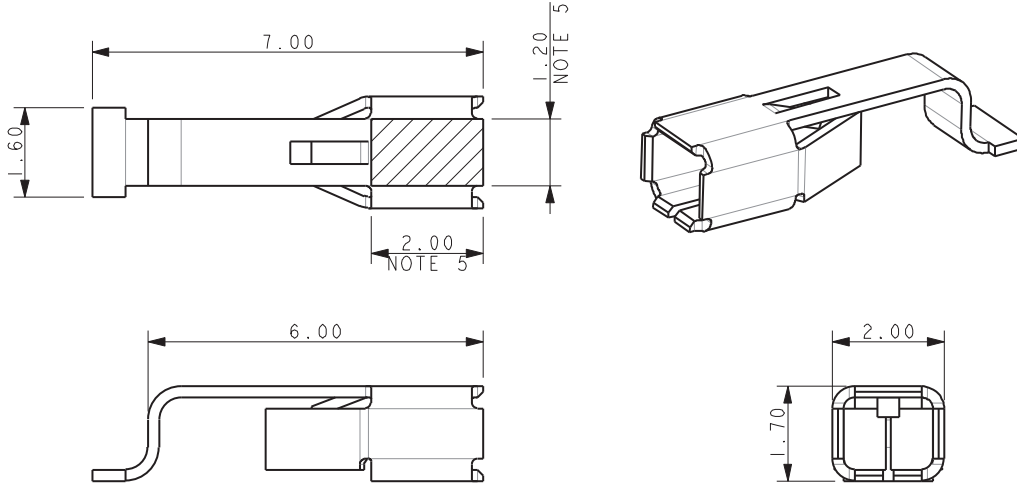
# Poke-Home: Single Horizontal Contact

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### 70-9296-001-017-006

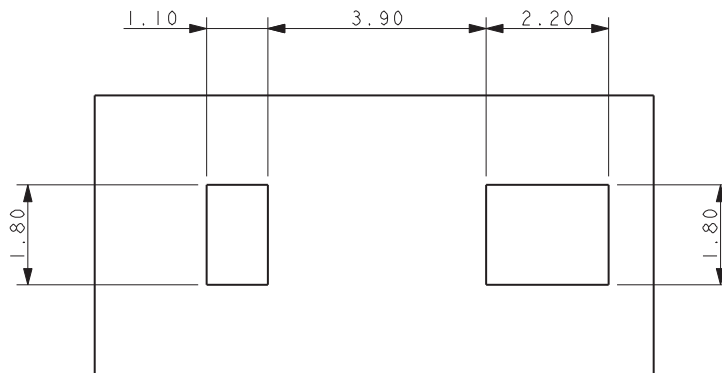
### 1.7MM POKE HOME CONTACT



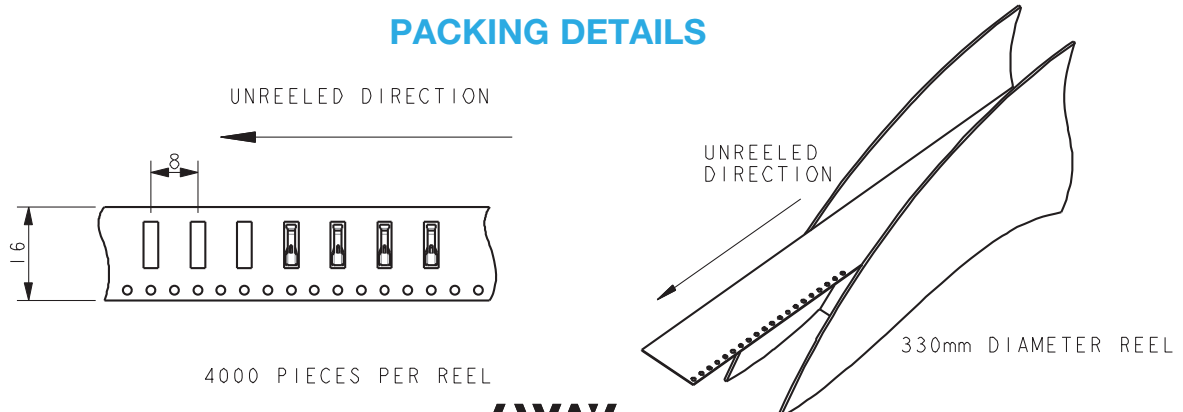
**NOTES:**

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

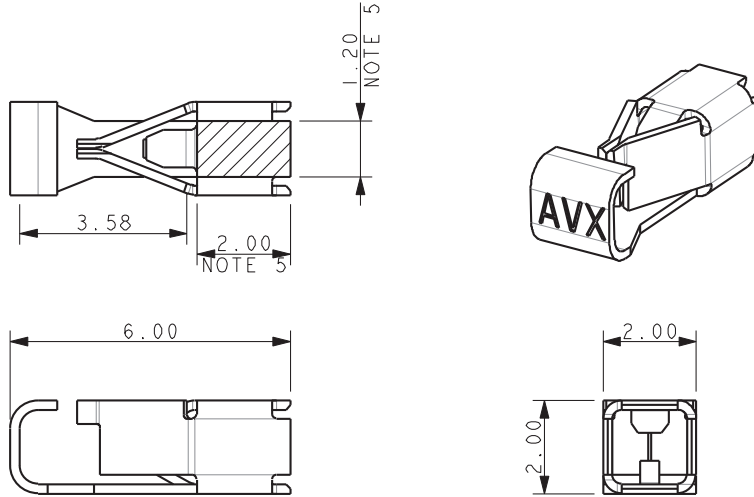


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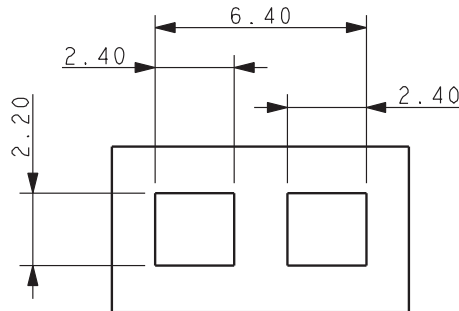
### 70-9296-001-002-006 2MM POKE HOME CONTACT



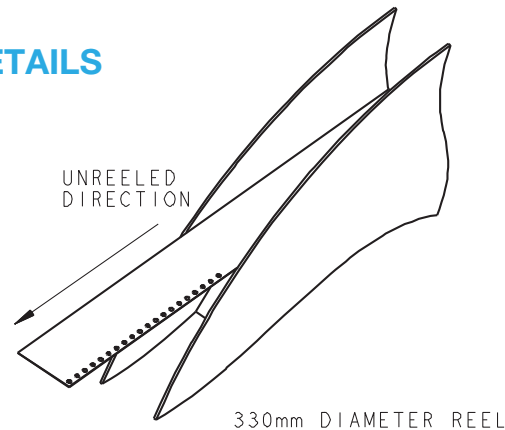
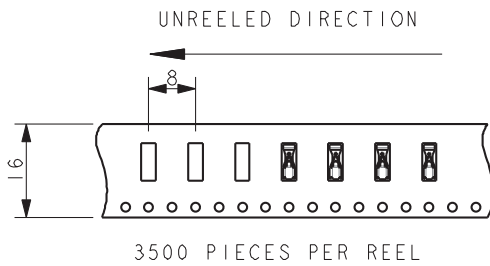
**NOTES:**

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, 3500 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

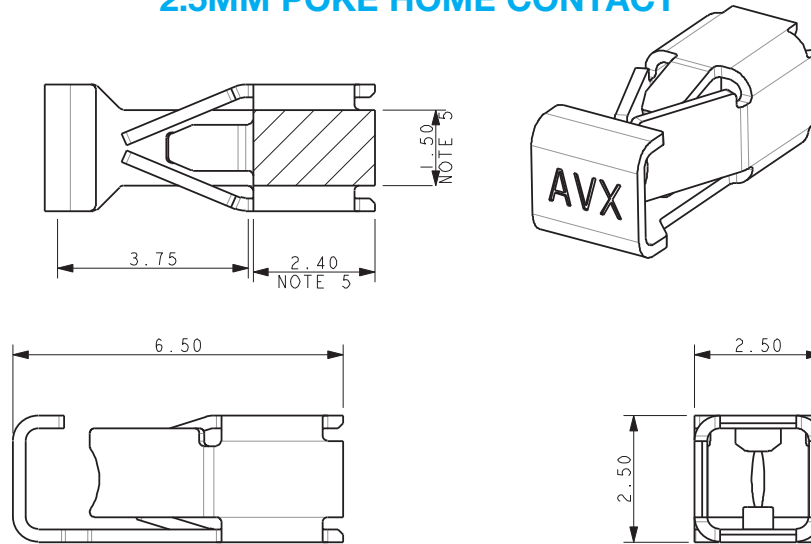


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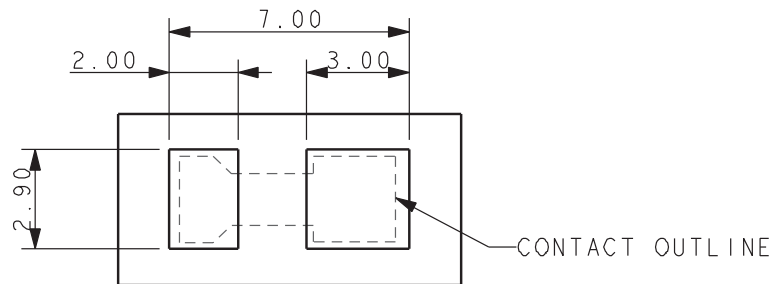
### 70-9296-001-025-006 2.5MM POKE HOME CONTACT



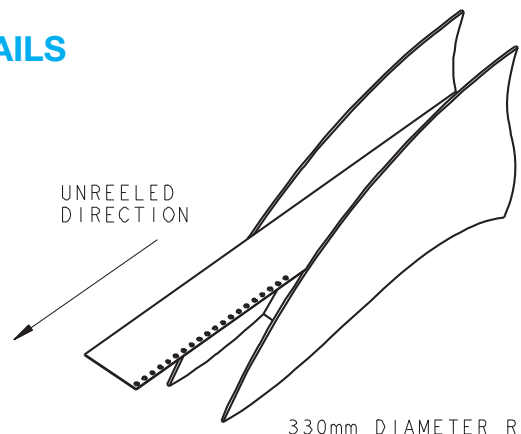
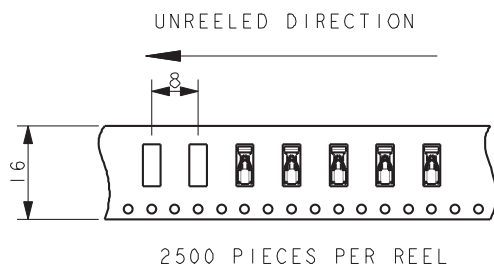
**NOTES:**

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. THIS COMPONENT IS NOT CURRENTLY UL CERTIFIED.
7. GENERAL TOLERANCE  $\pm 0.10$ .

### SUGGESTED PCB LAYOUT



### PACKING DETAILS

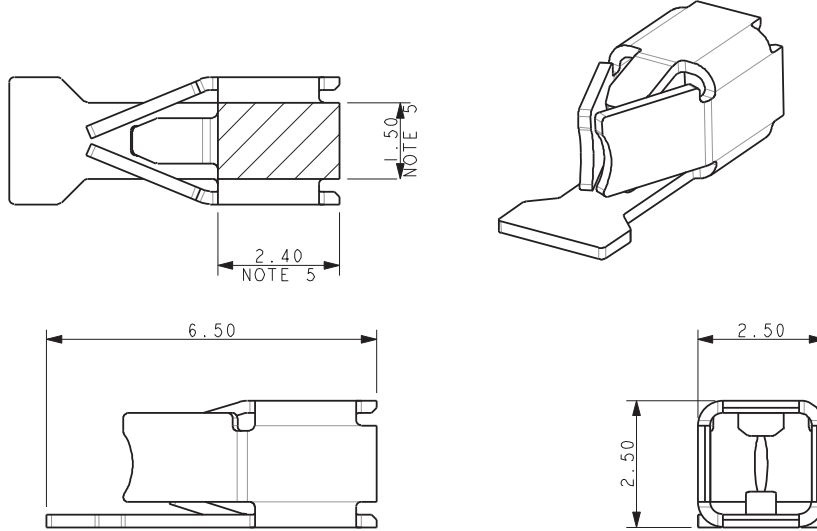


330mm DIAMETER REEL

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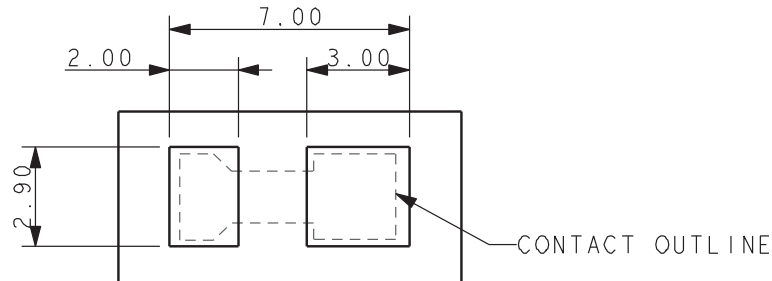
## 70-9296-001-025-016 2.5MM POKE HOME CONTACT – NO STOP



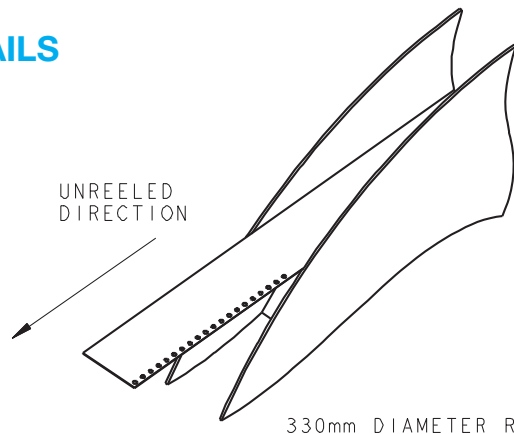
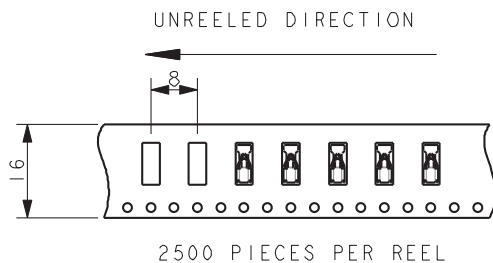
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### SUGGESTED PCB LAYOUT



### PACKING DETAILS

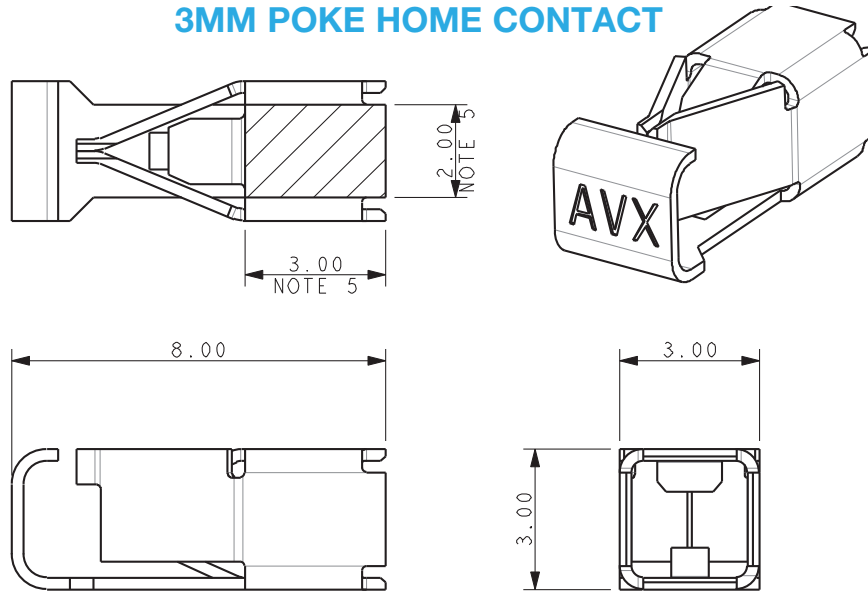


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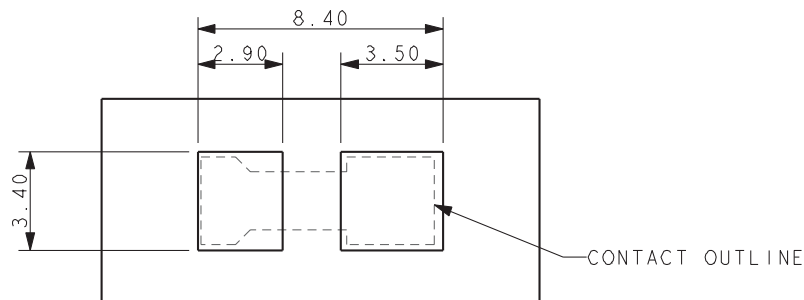
### 70-9296-001-003-006 3MM POKE HOME CONTACT



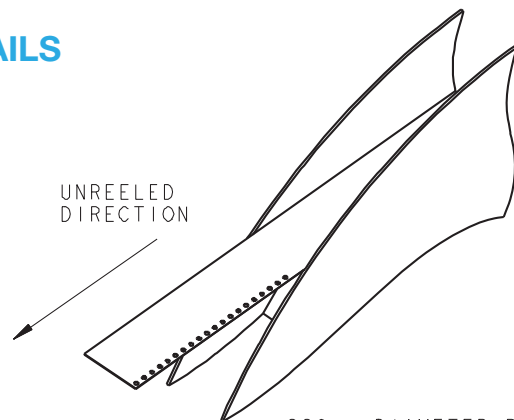
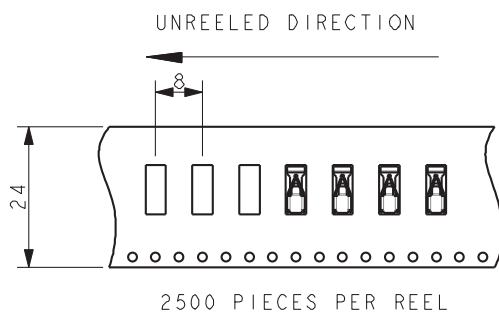
**NOTES:**

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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



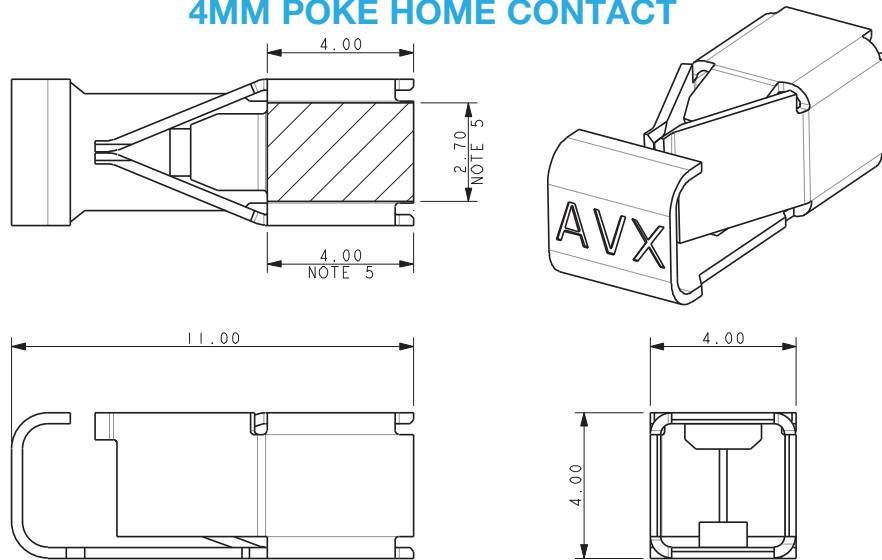
330mm DIAMETER REEL

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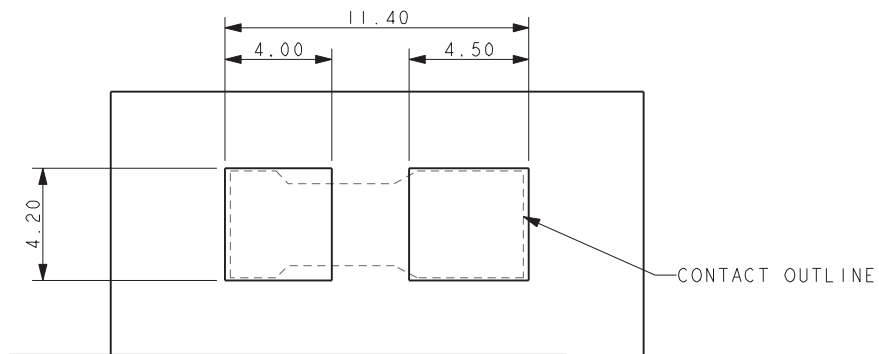
### 70-9296-001-004-006 4MM POKE HOME CONTACT



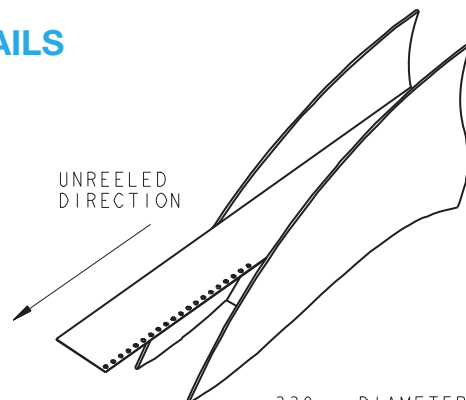
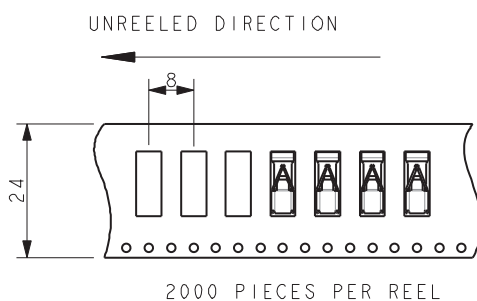
**NOTES:**

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



330mm DIAMETER REEL

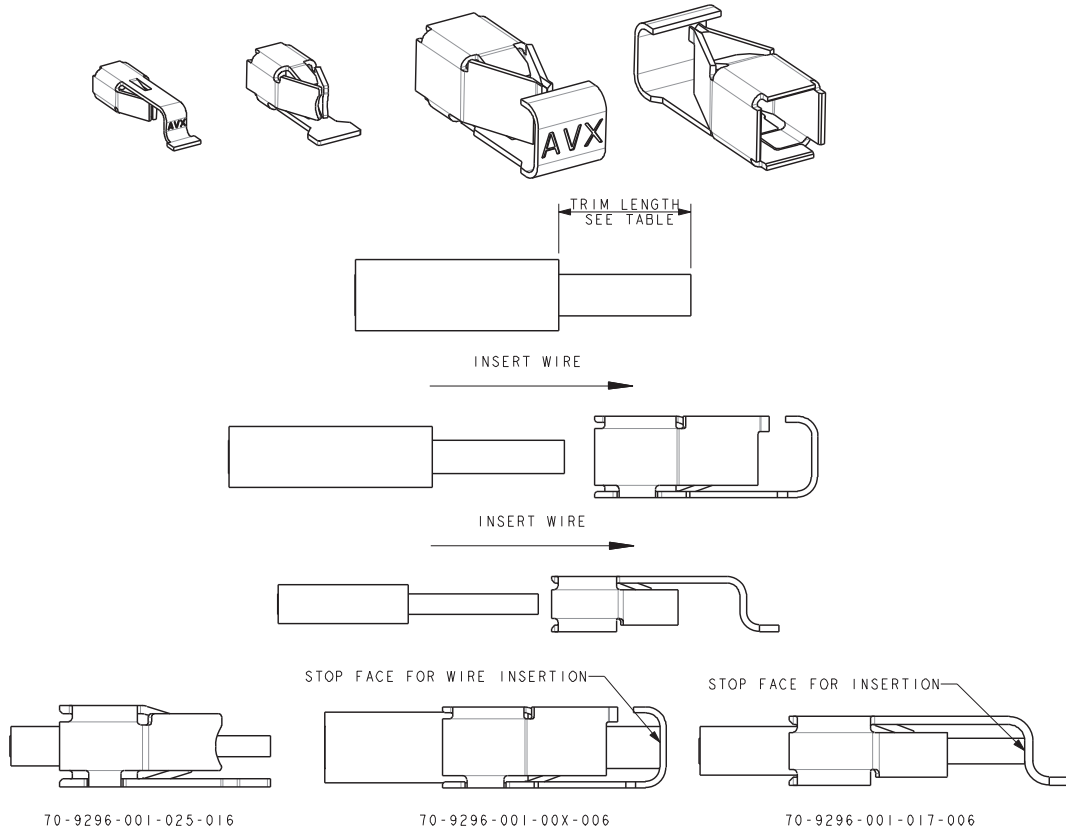
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### CONNECTOR ASSEMBLY

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

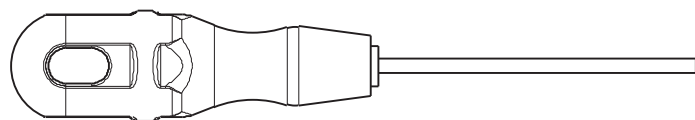


CONTACT	WIRE SIZE	INSULATOR DIAMETER	TRIM LENGTH
70-9296-001-004-006	12AWG and 14AWG	Max 3.4mm	6.5 ± 0.5mm
70-9296-001-004-006	16AWG, 18AWG and 20AWG	Max 2.5mm	5.5 ± 0.5mm
70-9296-001-003-006	18AWG to 26AWG	Max 2.5mm	4.5 ± 0.5mm
70-9296-001-025-006	20AWG to 26AWG	Max 2.0mm	3.5 ± 0.5mm
70-9296-001-025-006	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.