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: -40ºC to +125ºC

MECHANICAL

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

HOW TO ORDER

70 **9296** **001**   **0XX**   **0X6**

Prefix
70 = Contact

Series

Number of Ways
001= 1

Contact Size

Code	Contact Size	Wire Gauge	Max Insulation	UL Approved E90723	Wire Stop
017	1.7mm Contact	22-26 AWG Solid or Stranded	1.3mm Ø (See page 85)	Yes	With
002	2mm Contact	22-28 AWG Solid or Stranded	1.5mm Ø (See page 85)	Yes	With or Without
025	2.5mm Contact	20-26 AWG Solid or Standed	Max 2mm Ø (See page 85)	Yes	With or Without
003	3mm Contact	18-26 AWG Solid or Stranded	2.5mm Ø	Yes	With
004	4mm Contact	12-20 AWG Solid or Stranded	3.4mm Ø	Yes	With

Plating & Other Options
006 = Wire Stop Included Pure Tin All Over
016 = No Wire Stop (2mm and 2.5mm only) Pure Tin All Over

RoHS COMPLIANT

CURRENT RATING

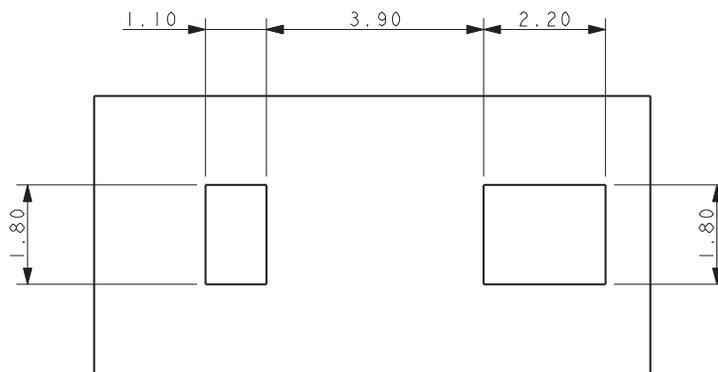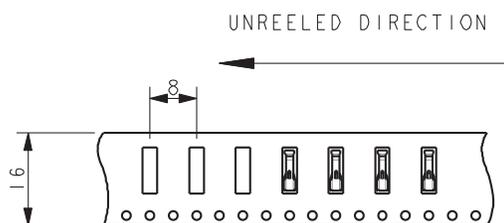| Size	Part Number	12AWG	14AWG	16AWG	18AWG	20AWG	22AWG	24AWG	26AWG	28AWG
4mm	709296001004006	20A	16A	14A	12A	10A				
3mm	709296001003006				12A	10A	8A	7A	5A	
2.5mm	7092960010250x6					12A	10A	8A	6A	
2mm	709296001002006						8A	7A	5A	4A
1.7mm	709296001017006						8A	7A	5A	

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 92.
5. AREA AVAILABLE FOR PICK AND PLACE.
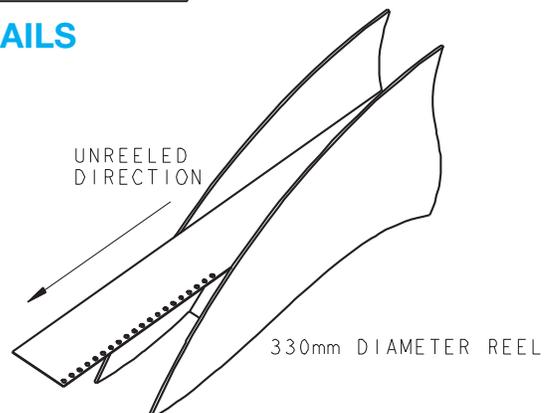6. UL REFERENCE 90723.
7. GENERAL TOLERANCE ±0.10.

SUGGESTED PCB LAYOUT

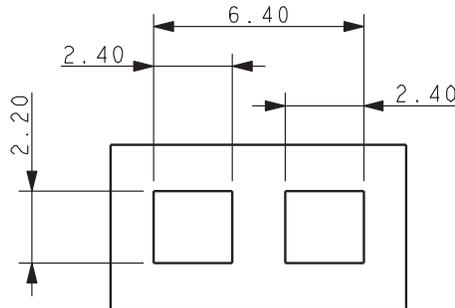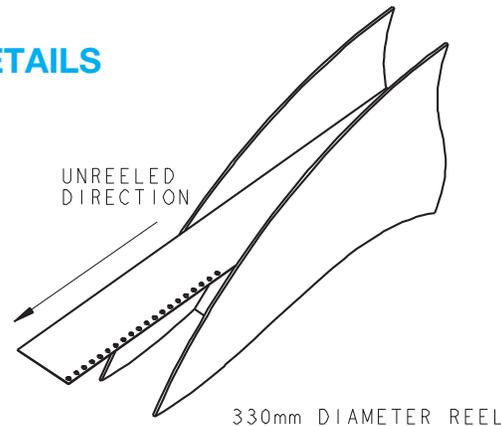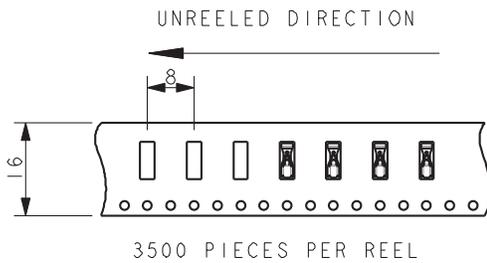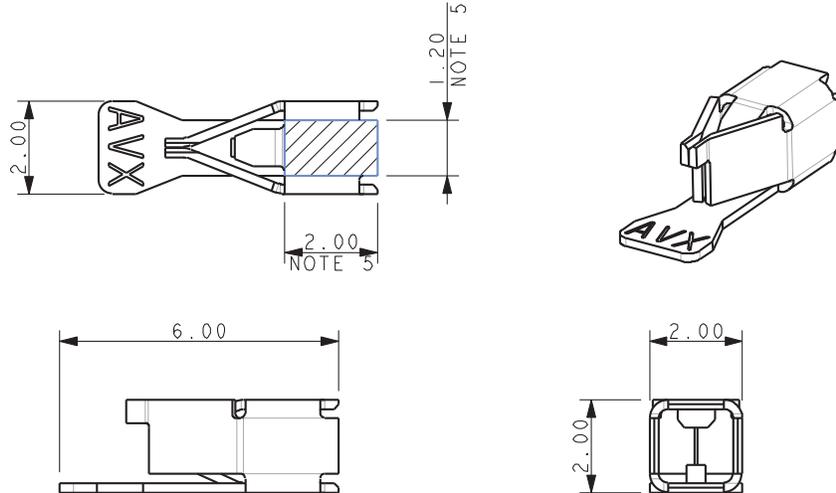## PACKING DETAILS

UNREELED DIRECTION

4000 PIECES PER REEL

UNREELED DIRECTION

330mm DIAMETER REEL

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

1.20
NOTE 5

3.58

2.00
NOTE 5

6.00

2.00

2.00

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 92.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE ±0.10.

SUGGESTED PCB LAYOUT

6.40

2.40

2.40

2.20

PACKING DETAILS

UNREELED DIRECTION

8

16

3500 PIECES PER REEL

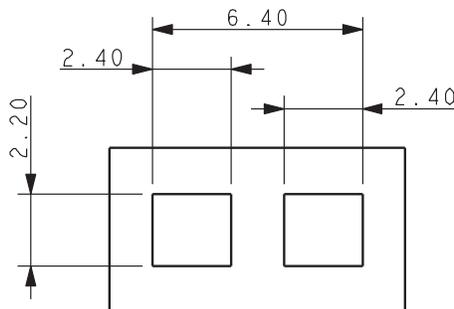UNREELED DIRECTION

330mm DIAMETER REEL
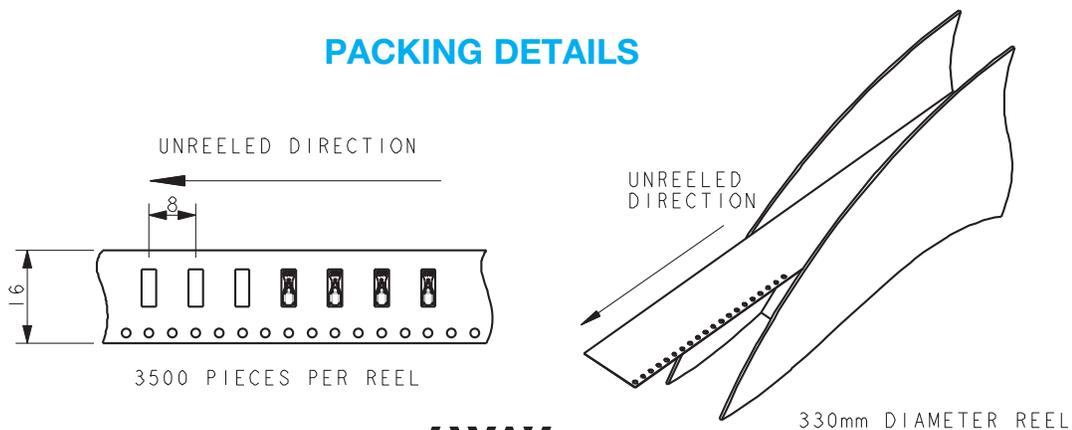
70-9296-001-002-016
2MM POKE HOME CONTACT – NO STOP

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, 3500 PIECES PER REEL.
4. FOR WIRE TRIM DETAILS REFER TO PAGE 92.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE ±0.10.

SUGGESTED PCB LAYOUT

PACKING DETAILS

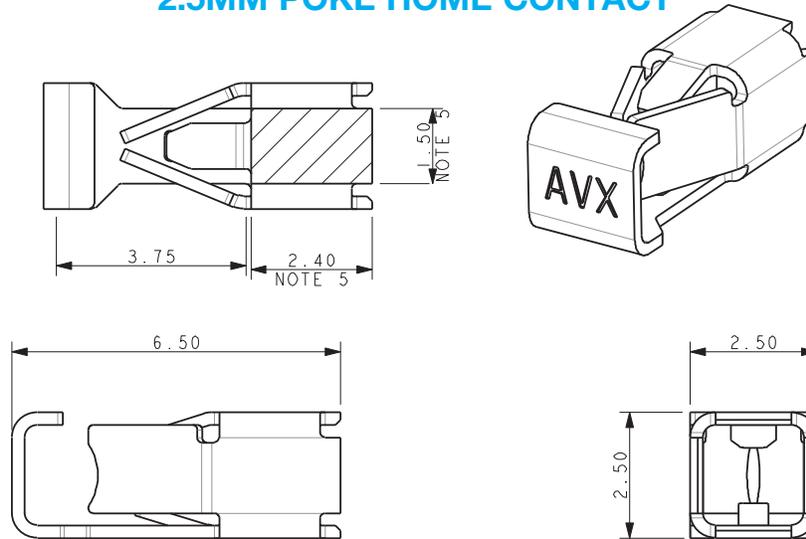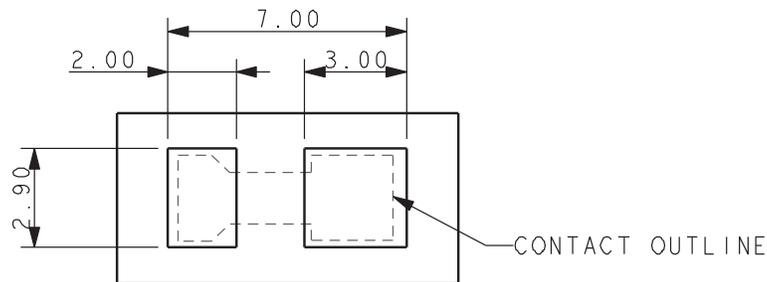UNREELED DIRECTION

3500 PIECES PER REEL

UNREELED DIRECTION

330mm DIAMETER REEL

70-9296-001-025-006
2.5MM POKE HOME CONTACT
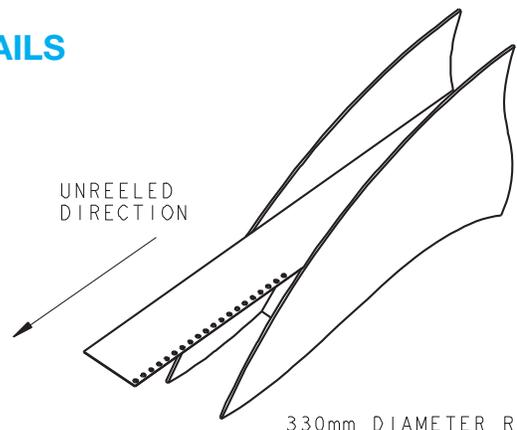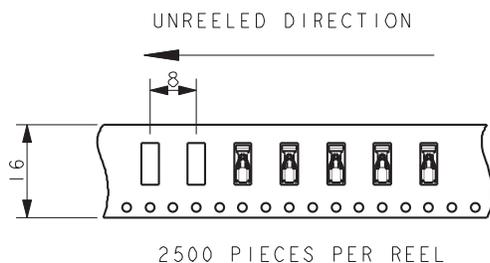
1.50
NOTE 5

3.75   2.40
NOTE 5

6.50

2.50

2.50

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 92.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. THIS COMPONENT IS NOT CURRENTLY UL CERTIFIED.
7. GENERAL TOLERANCE ±0.10.

SUGGESTED PCB LAYOUT

7.00

2.00   3.00

2.90

CONTACT OUTLINE

PACKING DETAILS

UNREELED DIRECTION

8

16

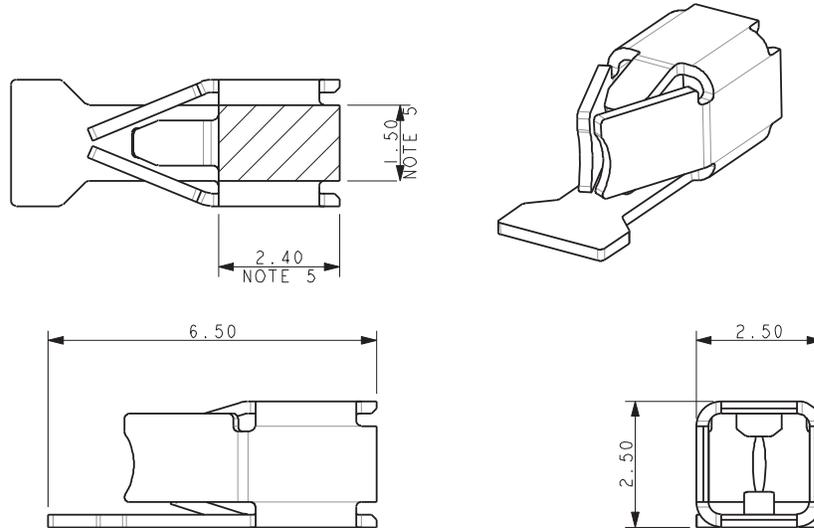2500 PIECES PER REEL

UNREELED
DIRECTION

330mm DIAMETER REEL

101818

Poke-Home: Single Horizontal Contact
12-28 AWG: WTB

70-9296

70-9296-001-025-016
2.5MM POKE HOME CONTACT – NO STOP
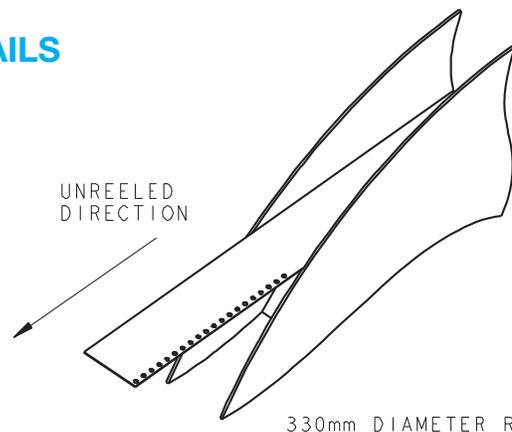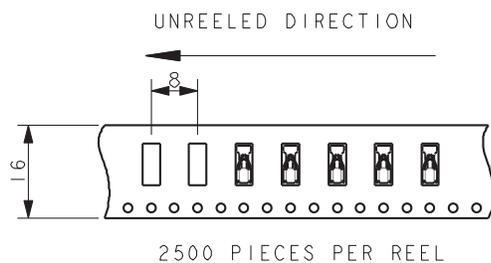
1.50
NOTE 5

2.40
NOTE 5

6.50

2.50

2.50

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 92.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. THIS COMPONENT IS NOT CURRENTLY UL CERTIFIED.
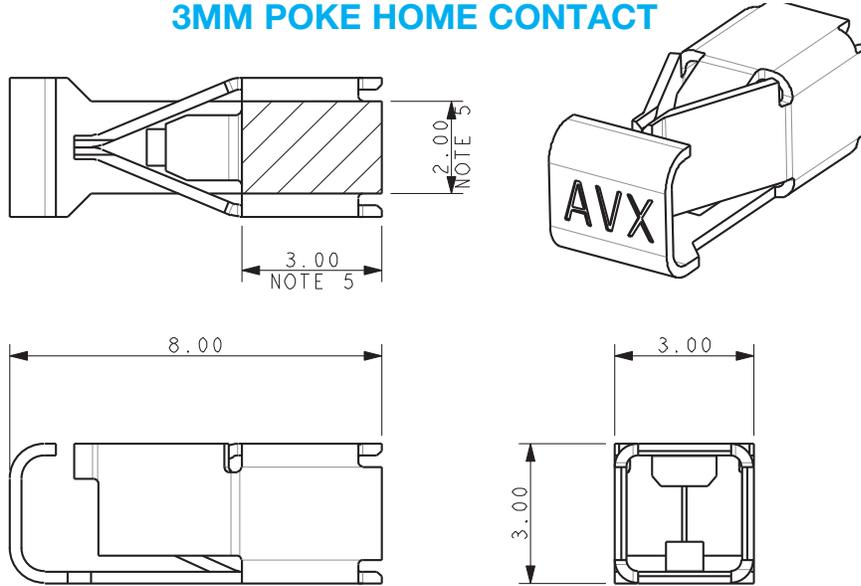7. GENERAL TOLERANCE ±0.10.

SUGGESTED PCB LAYOUT

7.00
2.00
3.00
2.90
CONTACT OUTLINE

PACKING DETAILS

UNREELED DIRECTION
8
16
2500 PIECES PER REEL

UNREELED DIRECTION
330mm DIAMETER REEL

INTERCONNECT

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

2.00 NOTE 5

3.00 NOTE 5

8.00

3.00

3.00

3.00

AVX

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 92.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE ±0.10.

SUGGESTED PCB LAYOUT

8.40

2.90   3.50

3.40

CONTACT OUTLINE

PACKING DETAILS

UNREELED DIRECTION

8

24

2500 PIECES PER REEL
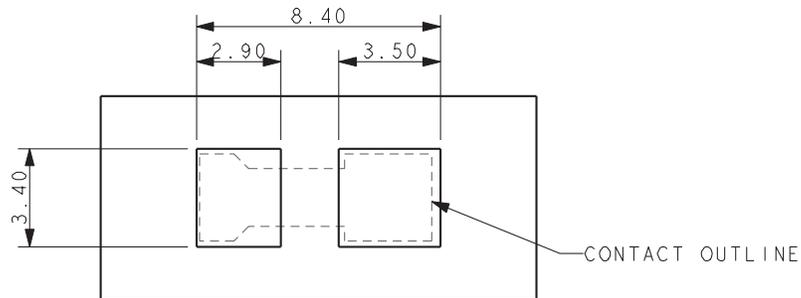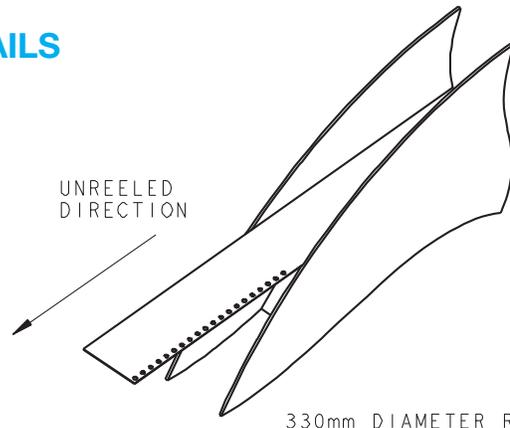
UNREELED DIRECTION

330mm DIAMETER REEL
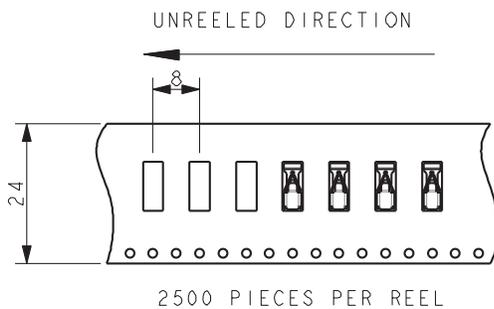
101818

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 92.
5. AREA AVAILABLE FOR PICK AND PLACE.
6. UL REFERENCE 90723.
7. GENERAL TOLERANCE ±0.10.
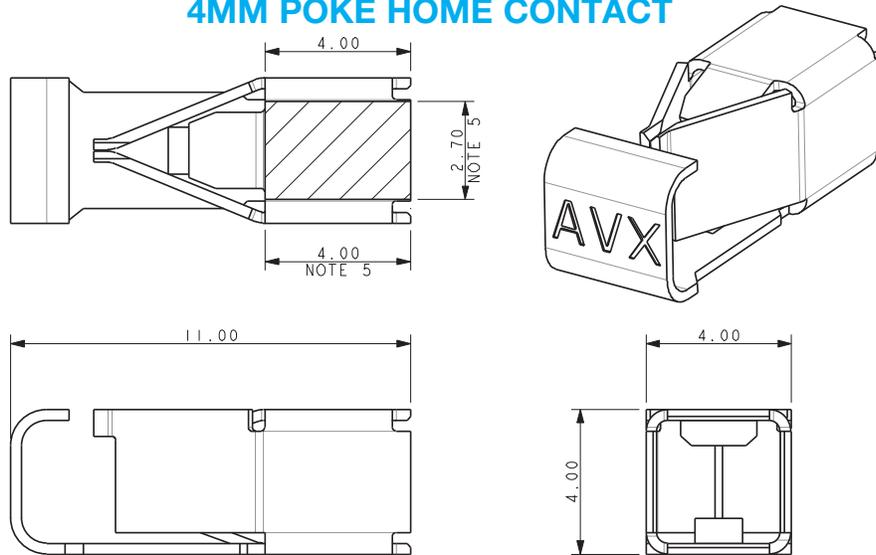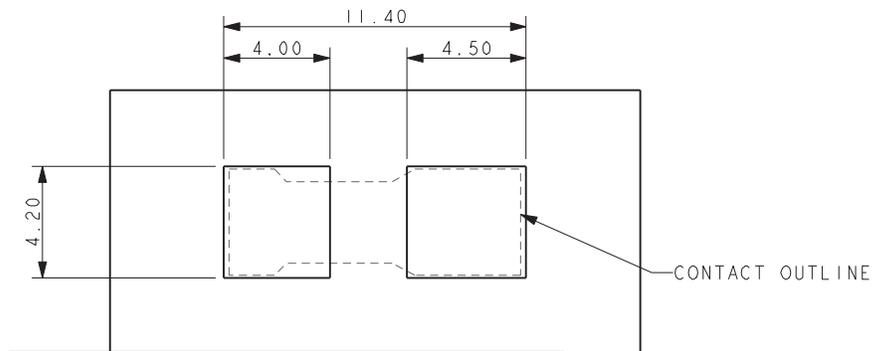
SUGGESTED PCB LAYOUT

PACKING DETAILS

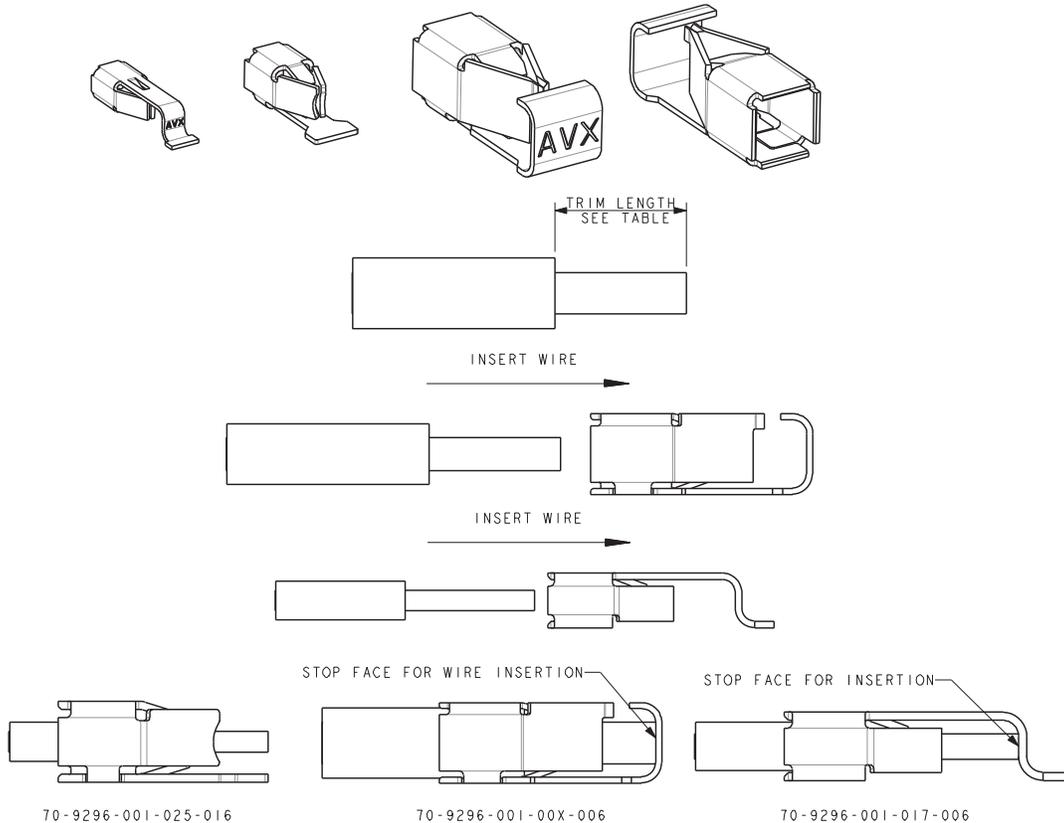2000 PIECES PER REEL

330mm DIAMETER REEL

Poke-Home: Single Horizontal Contact 12-28 AWG: WTB

70-9296

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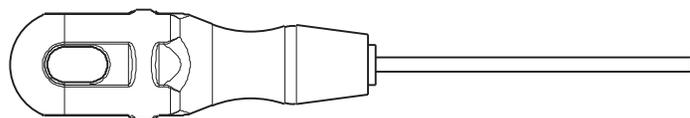
FOR FULL DETAILS REFER TO APPLICATION NOTES 201-01-150

TRIM LENGTH
SEE TABLE

INSERT WIRE

INSERT WIRE

STOP FACE FOR WIRE INSERTION

STOP FACE FOR INSERTION

70-9296-001-025-016   70-9296-001-00X-006   70-9296-001-017-006

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.

101818