General Information





The widespread market adaptation of the KYOCERA 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

ELECTRICAL

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

ENVIRONMENTAL

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

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

Code 006

MECHANICAL

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

HOW TO ORDER

70 9296 Prefix Series 70 = Contact

Number of Ways 001 = 1

001

Wire Gauge Size					
Code	Contact Size	Wire Gauge	Max Insulation	UL Approved E90723	
017	1.7mm Contact	22-26 AWG	1.3mm Ø	Yes	
017 I.7IIIII Contact		Solid or Stranded	(See page 85)	Tes	
002	2mm Contact	22-28 AWG	1.5mm Ø	Yes	
002	ZIIIIII COIItaCt	Solid or Stranded	(See page 85)		
025	2.5mm Contact	18-26 AWG	Max 2mm Ø	Yes	
025 Z.Sinin Contact		Solid or Standed	(See page 85)	res	
003	3mm Contact	18-26 AWG	2.5mm Ø	Yes	
003		Solid or Stranded	2.511110	Tes	
004	4mm Contact	12-20 AWG	3.4mm Ø	Yes	
004		Solid or Stranded	5.4mm		

0XX

0X6

Plating & Other Options Wire Stop Variations Plating

Pure tin all

With wire stop 016* Without wire stop over

*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

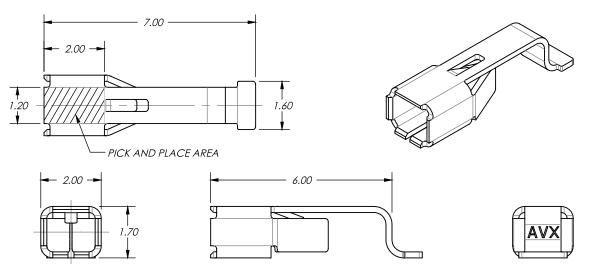
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1.7mm

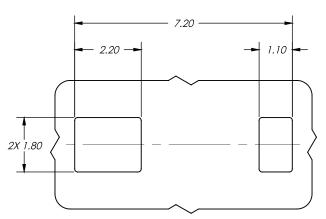
70-9296-001-017-006 1.7MM POKE HOME CONTACT



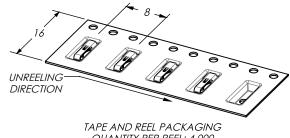
NOTES:

- 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 ±0.10.

SUGGESTED PCB LAYOUT



PACKING DETAILS



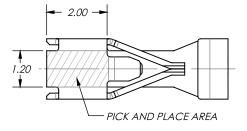
QUANTITY PER REEL: 4,000

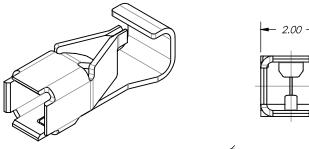
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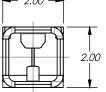
2mm

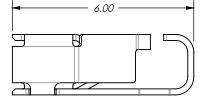
70-9296-001-002-006 2MM POKE HOME CONTACT





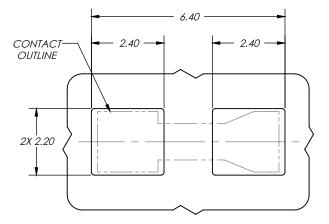








TAPE AND REEL PACKAGING QUANTITY PER REEL: 3,500



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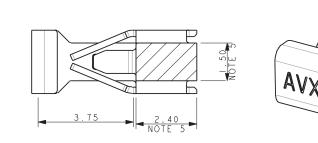
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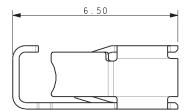
90

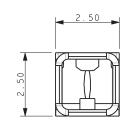


2.5mm

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



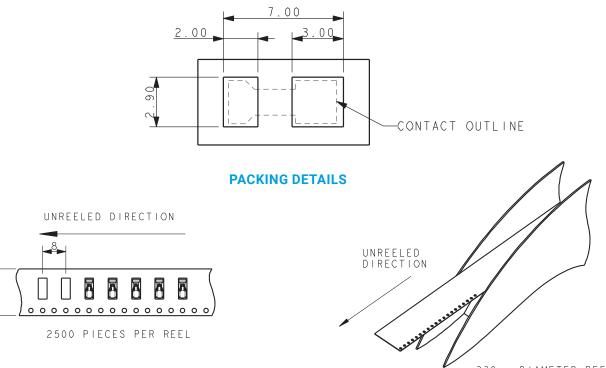




NOTES:

- 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 ±0.10.

SUGGESTED PCB LAYOUT



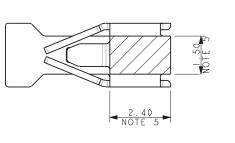
330mm DIAMETER REEL

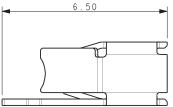
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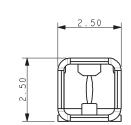


2.5mm – No Stop





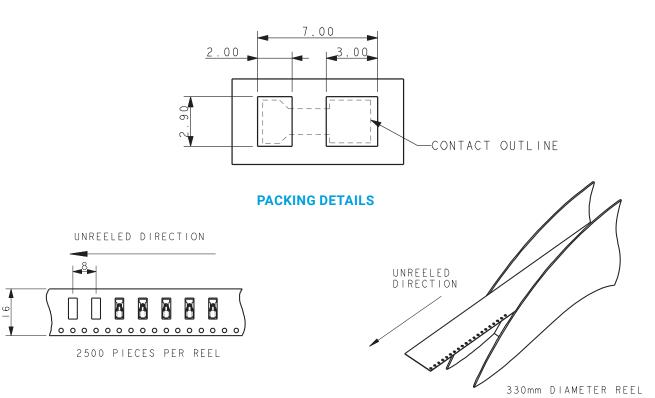




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- 6. UL REFERENCE 90723.
- 7. GENERAL TOLERANCE ±0.10.

SUGGESTED PCB LAYOUT

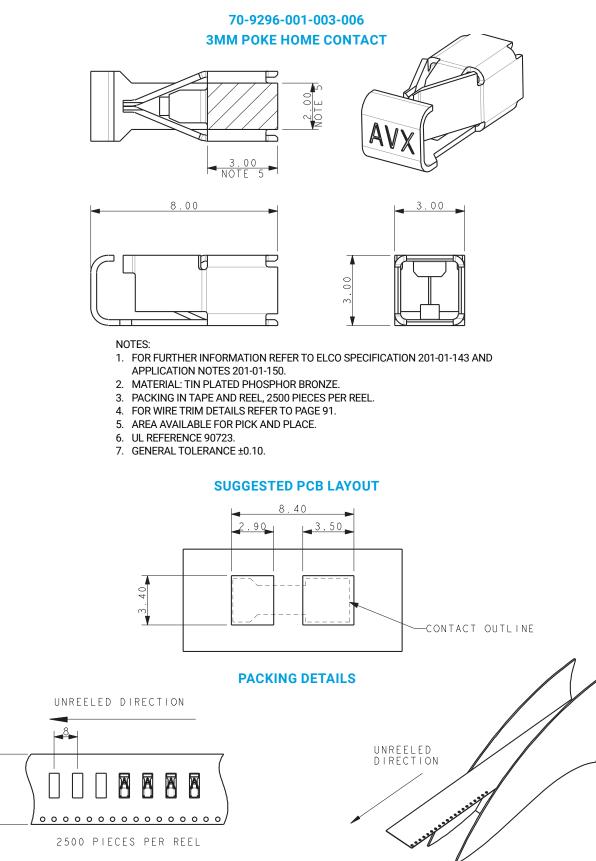


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3mm



330mm DIAMETER REEL

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4mm

70-9296-001-004-006 **4MM POKE HOME CONTACT** 4.00 -2.70 NOTE 5 h 4.00 NOTE 5 11.00 4.00 U $\overline{}$ 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 ±0.10. SUGGESTED PCB LAYOUT 40 4.00 4.50 20



UNREELED DIRECTION

PACKING DETAILS

UNREELED DIRECTION

2000 PIECES PER REEL

330mm DIAMETER REEL

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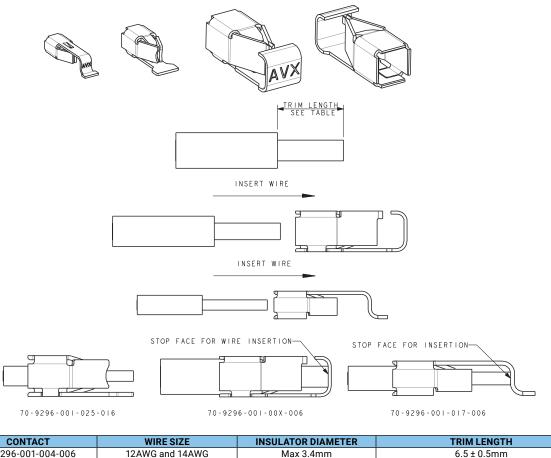
94



Connector Assembly / Contact Opening Tool

CONNECTOR ASSEMBLY

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

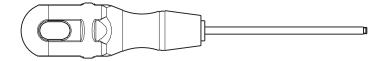


WIRE SIZE	INSULATOR DIAMETER	TRIM LENGTH
12AWG and 14AWG	Max 3.4mm	6.5 ± 0.5mm
16AWG, 18AWG and 20AWG	Max 2.5mm	5.5 ± 0.5mm
18AWG to 26AWG	Max 2.5mm	4.5 ± 0.5mm
20AWG to 26AWG	Max 2.0mm	3.5 ± 0.5mm
20AWG to 26AWG	2.0mm to 2.50mm	6.0 ± 0.5mm*
20AWG to 26AWG	Max 2.0mm	3.0mm Minimum – No Stop on Contact
20AWG to 26AWG	Max 2.0mm	5.5mm Minimum – No Stop on Contact
22AWG to 28AWG	Max 1.5mm	3.5 ± 0.5mm
22AWG to 28AWG	1.5mm to 2.0mm	5.5 ± 0.5mm*
22AWG to 26AWG	Max 1.3mm	4.0 ± 0.5mm
22AWG to 26AWG	1.3mm to 1.7mm	6.0 ± 0.5mm*
	12AWG and 14AWG 16AWG, 18AWG and 20AWG 18AWG to 26AWG 20AWG to 26AWG 20AWG to 26AWG 20AWG to 26AWG 20AWG to 26AWG 22AWG to 28AWG 22AWG to 28AWG 22AWG to 28AWG 22AWG to 28AWG	12AWG and 14AWGMax 3.4mm16AWG, 18AWG and 20AWGMax 2.5mm18AWG to 26AWGMax 2.5mm20AWG to 26AWGMax 2.0mm20AWG to 26AWG2.0mm to 2.50mm20AWG to 26AWGMax 2.0mm20AWG to 26AWGMax 2.0mm20AWG to 28AWGMax 2.0mm22AWG to 28AWGMax 1.5mm22AWG to 28AWG1.5mm to 2.0mm22AWG to 28AWG1.5mm to 2.0mm

* 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.

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