

Horizontal Plug: BTB

10-9159



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. These single sided SMT connectors are perfect for both FR4 and metal boards where you need to butt the boards up together to minimize separation. Availability of both white and black insulation colors make them perfect for lighting as well as industrial applications. With sizes from 2p-6p, these high reliability connectors boast gold plated beryllium copper receptacle contacts for harsh environments.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: refer to 201-01-123

FEATURES AND BENEFITS

- Single sided SMT: supports FR4 and metal PCB's
- 5 Amp current rating: exceeds general market needs
- 5.5mm mated width: minimizes PCB space to decrease LED pitch
- Gold plated BeCu spring contacts: reliability for harsh environments
- Optional retaining clip: provides positive connector mating during vibration
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

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

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

10

Plug

9159

Series

00X

Number of Ways

Code	No of Ways	Details
002	2	Page 2
003	3	Page 3
004	4	Page 4
005	5	Page 5
006	6	Page 6

Optional Retaining Clip

Page 7

1

2 Part PCB Strip Connector

01

Connector Pitch

01 = 3mm

9

Color/Approval

Code	Color	Approval
9	White	UL Approved

16

Plating Option

Code	Contact	Bracket
16	Gold in Contact Area Tin on Solder Tail	Tin all over



RoHS COMPLIANT

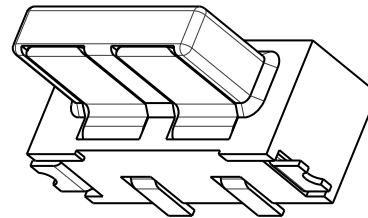
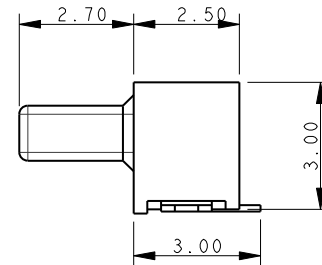
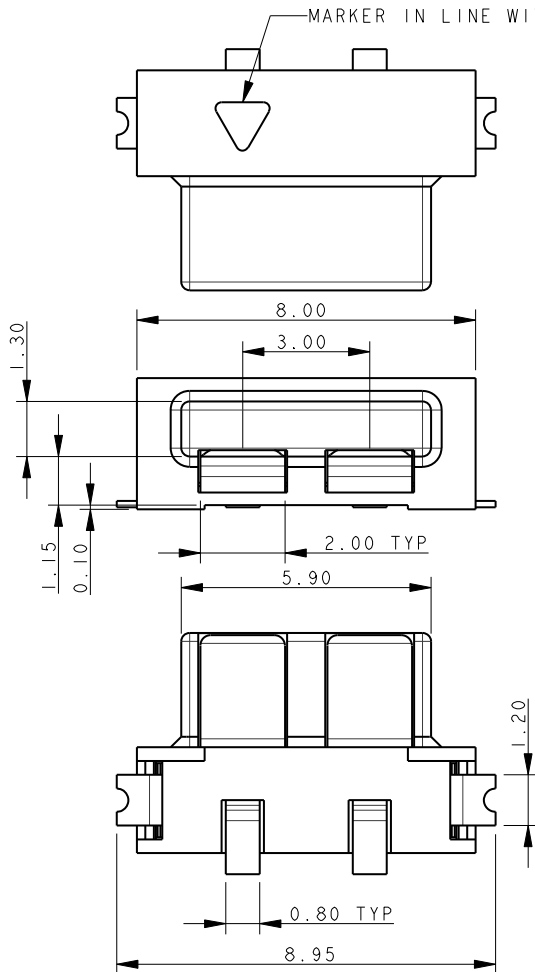


Certification: UL File #E90723

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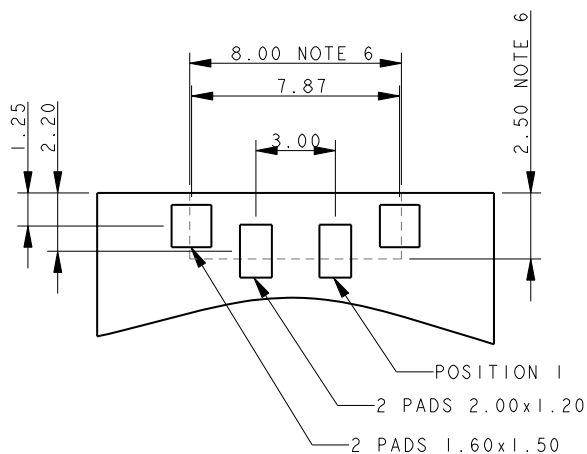
PLUG 2 WAY 2 PART PCB STRIP CONNECTOR



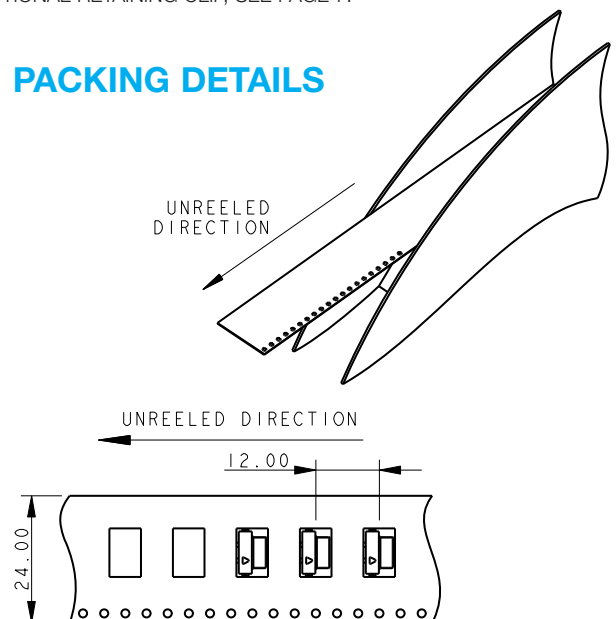
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 7.

2 WAY PCB BOARD LAYOUT



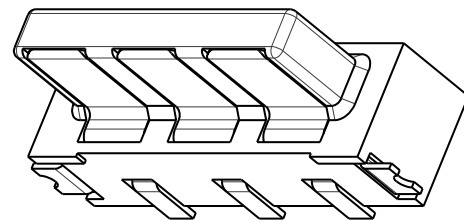
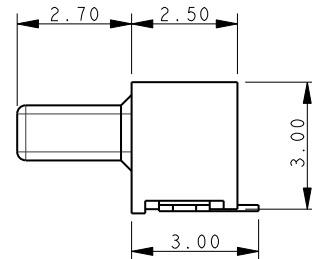
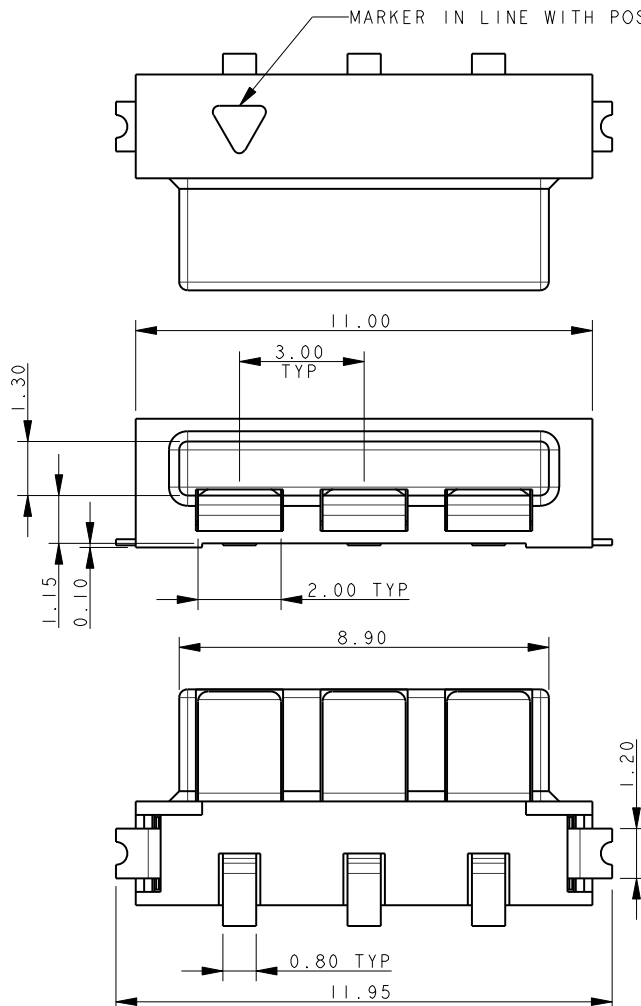
PACKING DETAILS



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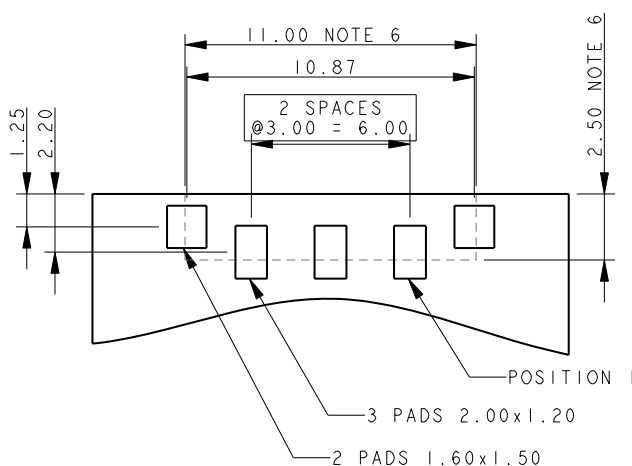
PLUG 3 WAY 2 PART PCB STRIP CONNECTOR



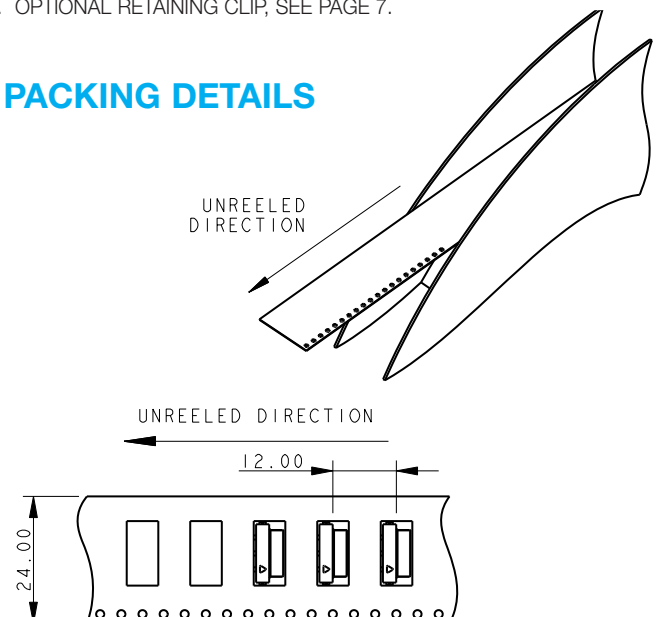
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3 WAY PCB BOARD LAYOUT



PACKING DETAILS



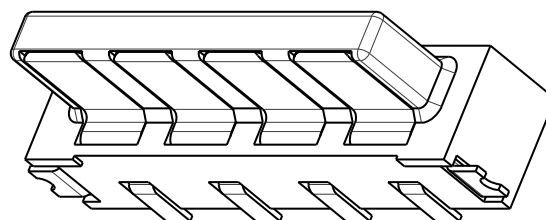
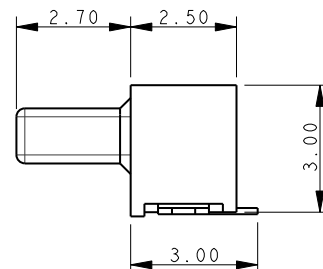
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Technical drawing of a 4-pin connector showing three views: top, side, and front views.

Top View: Shows a rectangular component with a width of 14.00. A marker is indicated in line with position 1. The distance between the centers of the pins is 3.00 TYP.

Side View: Shows the profile of the connector. The total height is 1.30. The distance between the centers of the pins is 11.90. The distance between the centers of the pins is 2.00 TYP. The distance between the centers of the pins is 0.10. The distance between the centers of the pins is 1.15.

Front View: Shows the connector from the front. The total width is 14.95. The distance between the centers of the pins is 0.80 TYP. The distance between the centers of the pins is 1.20.



14.00 NOTE 6

13.87

3 SPACES
@ 3.00 = 9.00

1.25

2.20

2.50 NOTE 6

POSITION

4 PADS 2.00x1.20

2 PADS 1.60x1.50

UNREELED DIRECTION

UNREELED DIRECTION

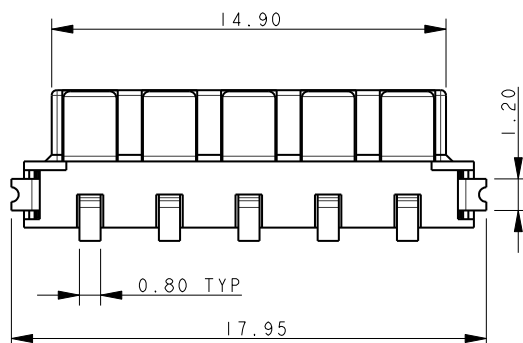
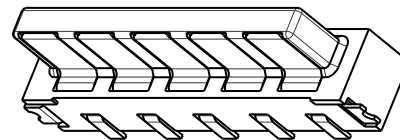
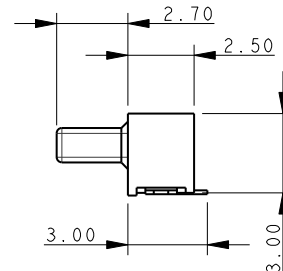
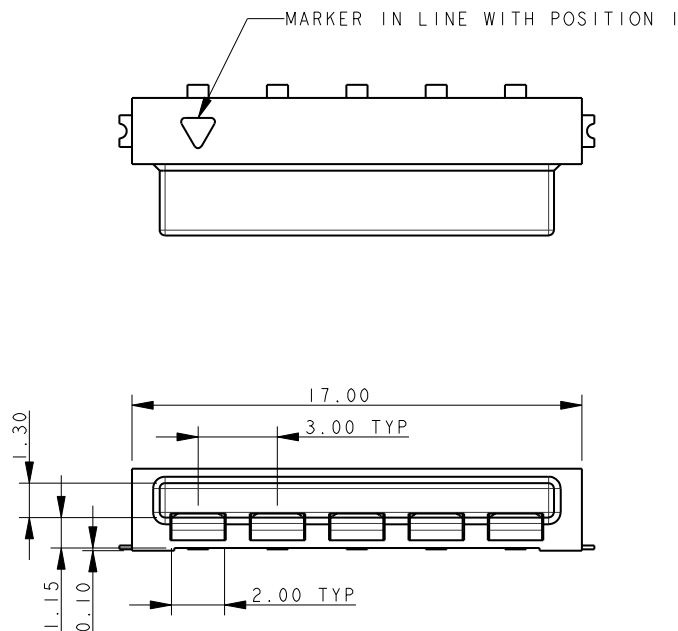
12.00

Technical drawing showing the unreeled direction of the retaining clip and the dimensions of the retaining clip. The drawing includes a perspective view of the clip and a side view showing the dimensions of the clip, including a length of 12.00 and a width of 1.00.

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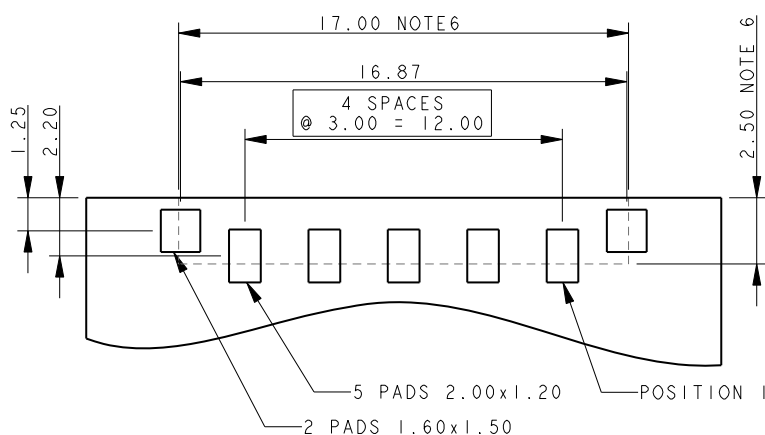
PLUG 5 WAY 2 PART PCB STRIP CONNECTOR



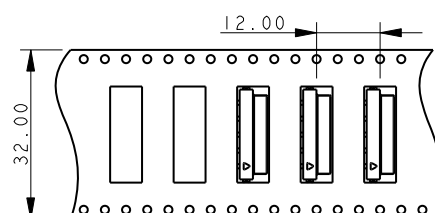
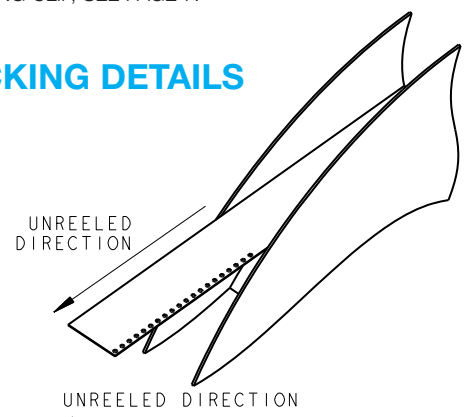
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5 WAY PCB BOARD LAYOUT



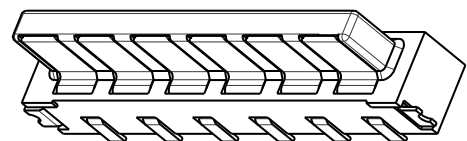
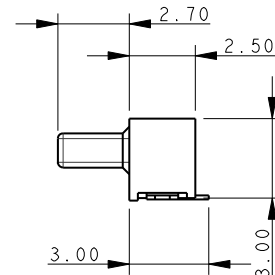
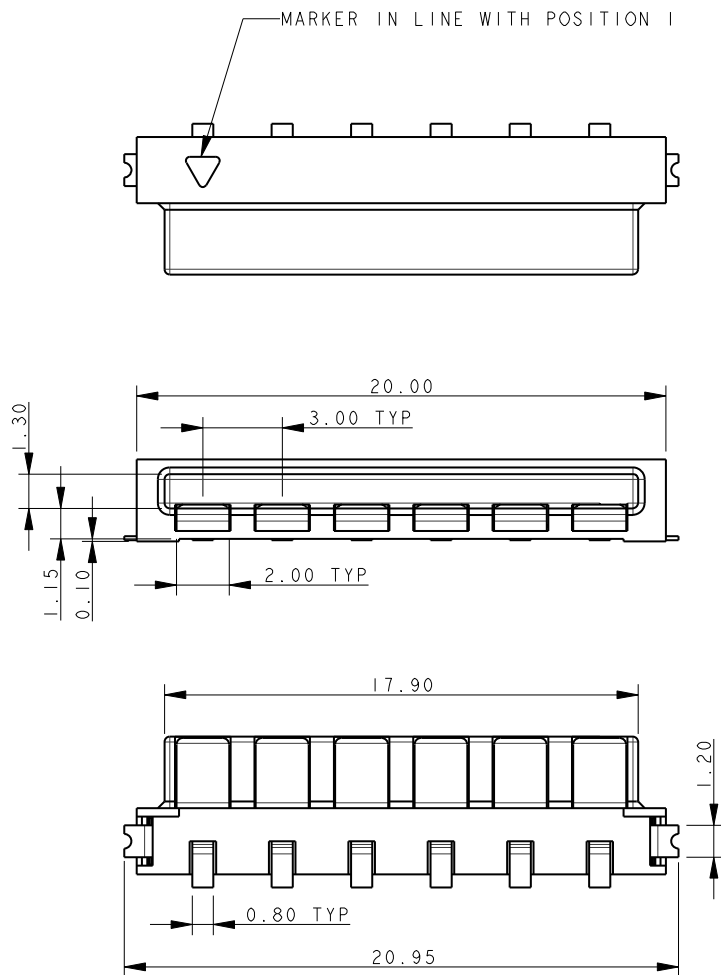
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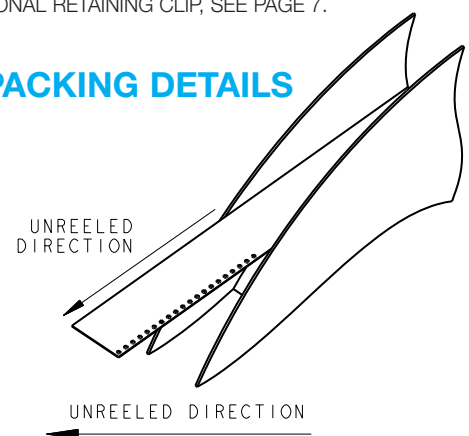
PLUG 6 WAY 2 PART PCB STRIP CONNECTOR



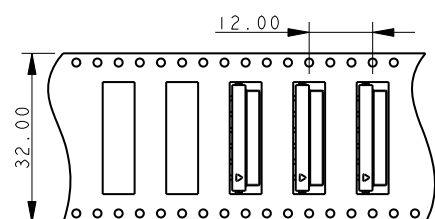
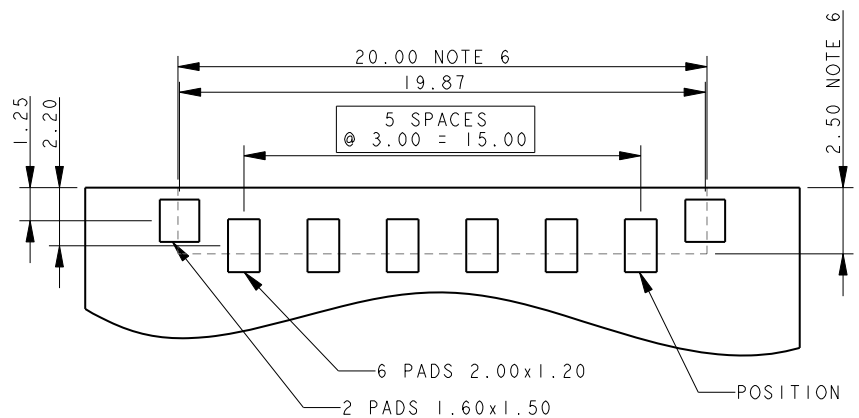
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PACKING DETAILS



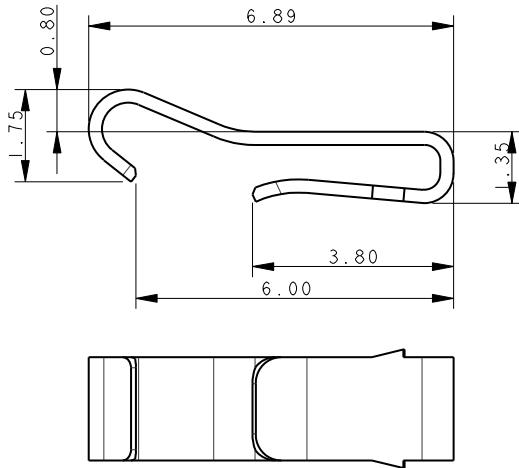
6 WAY PCB BOARD LAYOUT



Horizontal Plug: BTB

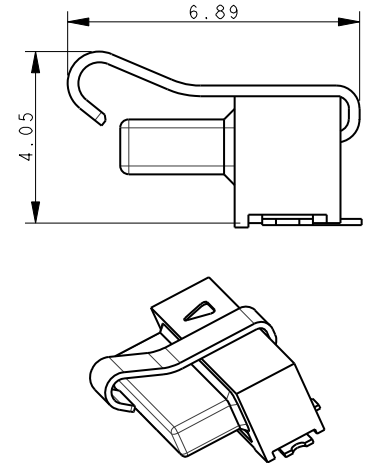
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80-9159-4200-00-000 ACCESSORY RETAINING CLIP



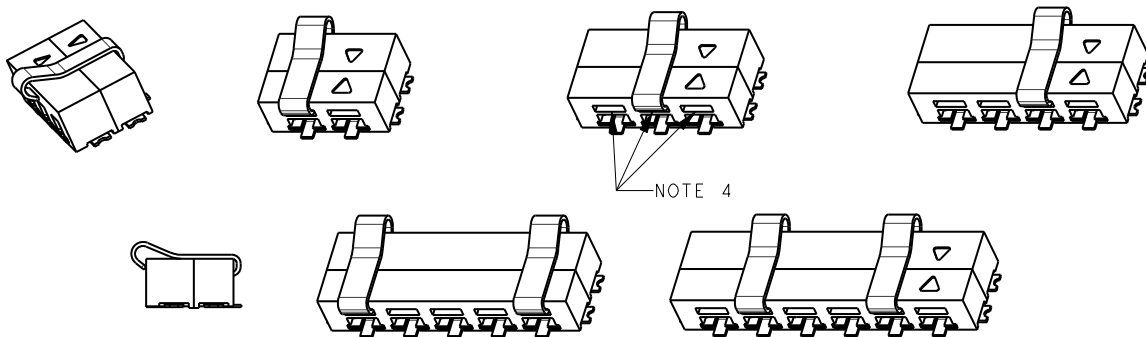
PLUG ASSEMBLY FOR REFERENCE ONLY

CLIP INSERTED INTO
10-9159-00X-101-X06



MATED ASSEMBLY – FOR REFERENCE ONLY

10-9159-00X-101-X06 MATED WITH 20-9159-00X-X06



Description	# of Positions	Part Number	UL File #
Horizontal Plug w/pre-installed locking clip	2	58 9159 002 000 015	E90723
Horizontal Plug w/pre-installed locking clip	3	58 9159 003 000 015	E90723
Horizontal Plug w/pre-installed locking clip	4	58 9159 004 000 015	E90723
Horizontal Plug w/pre-installed locking clips	5	58 9159 005 000 015	E90723
Horizontal Plug w/pre-installed locking clips	6	58 9159 006 000 015	E90723

NOTES:

1. CLIP TO RETAIN MATED PAIR PLUG AND SOCKET.
2. MATERIAL: STAINLESS STEEL.
4. TAIL INSERTED INTO SLOT OF 9159 2 PART PLUG (10-9159-00X-101-006). LEADING EDGE CLIPS OVER SOCKET.
5. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
6. RECOMMENDED 1 CLIP IN 2, 3 AND 4 WAY. 2 CLIPS IN 5 AND 6 WAY. POSITIONS AT CUSTOMER DISCRETION.