

# Vertical Plug: 13-9159-BTB

## General Description



KYOCERA AVX developed the 9159 Series of SMT connectors for co-planar PCB mating for the challenging Solid State Lighting (SSL) market. These connectors needed to be small, low in height, carry up to 5 Amps/contact and then function up to 125C for extended periods. This application has been very unique to the SSL market where PCB's are stacked end-to-end to create linear strip lighting in everything from office to transportation applications where products are exposed to harsh mechanical and environmental environments.

This vertical plug connector opens up the spectrum to include all commercial, industrial and transportation applications requiring perpendicular PCB mating and latching Wire-to-Board cabled sockets with an already proven connector system. With sizes from 2p-6p, these gold plated contacts mate with high spring force beryllium copper receptacle connectors.

### APPLICATIONS

- Allows assembly of PCB's at right angles
- Accepts 24-9159 IDC wired/cabled socket
- Reference application notes 201-01-123
- Reference Product Specification 201-01-119

### FEATURES AND BENEFITS

- Single sided SMT RoHS solder attachment
- Centrally located pick & place cap for easy placement
- Gold plated BeCu contact system for high reliability in harsh environments
- 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: UL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

### HOW TO ORDER

**13**  
Prefix  
Plug -  
Vertical  
Mount

**9159**  
Series

**00X**  
Number of Ways

Code	No of Ways	Details
002	2	Page 19
003	3	Page 20
004	4	Page 21
005	5	Page 22
006	6	Page 23

**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
16	Gold in Contact Area Tin on Solder Tail
	<b>Bracket</b>
	Tin All Over

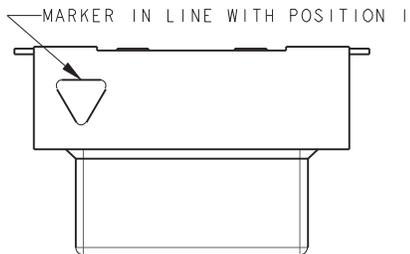
Certification: UL File #E90723



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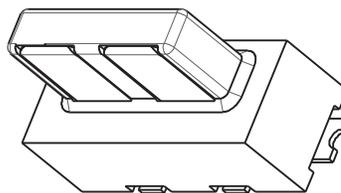
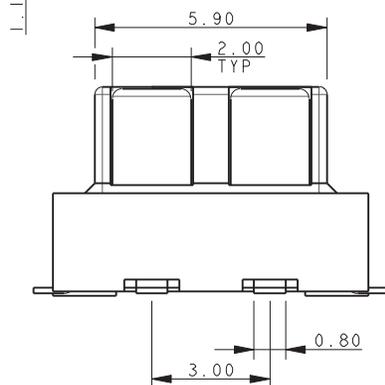
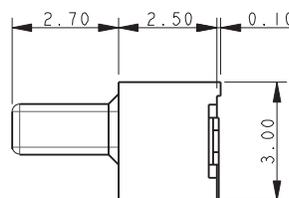
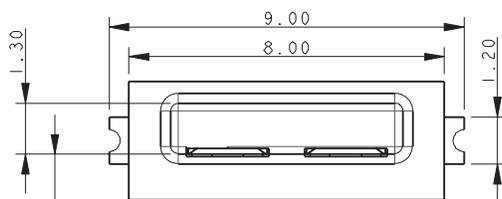
## 2 Position

### PLUG – VERTICAL MOUNT 2 WAY 2 PART PCB STRIP CONNECTOR

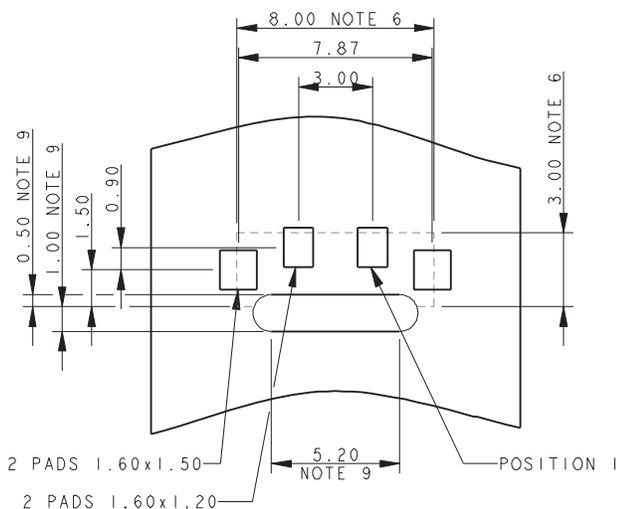


#### NOTES:

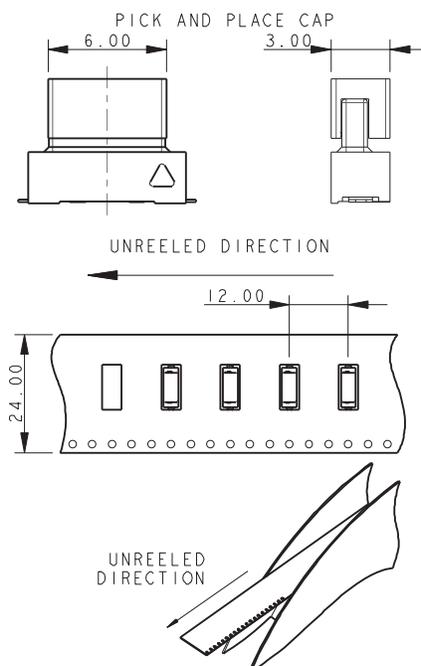
1. FOR FULL PRODUCT SPECIFICATION STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-119, UL COMPONENTS REFER TO ELCO SPEC 201-01-119UL. FOR APPLICATION NOTES REFER TO 201-01-123.
2. GENERAL TOLERANCE  $\pm 0.20$  UNLESS TOLERANCED.
3. INSULATOR MATERIAL: NYLON 46, UL94 V-0, COLOR REFER TO PAGE 18.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL, TIN PLATE ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
8. PICK AND PLACE CAP TO BE REMOVED AFTER USE.
9. OPTIONAL SLOT: ONLY REQUIRED WHEN SOCKET HAS A LATCH, RADIUS ON ENDS OPTIONAL.



### 2 WAY PCB BOARD LAYOUT



### PACKING DETAILS

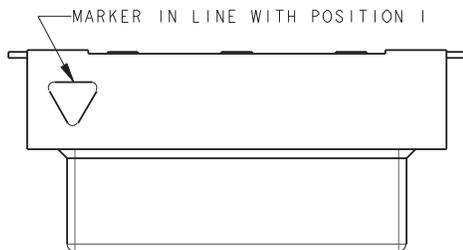


# Vertical Plug: 13-9159-BTB

## 3 Position

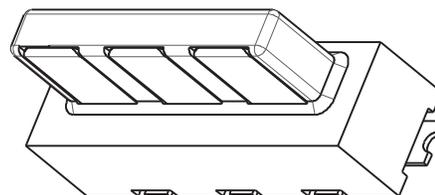
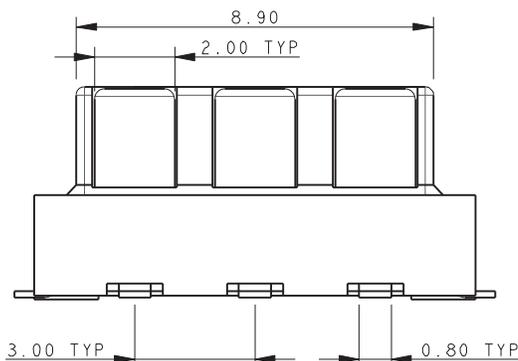
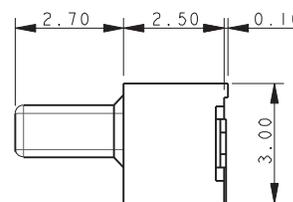
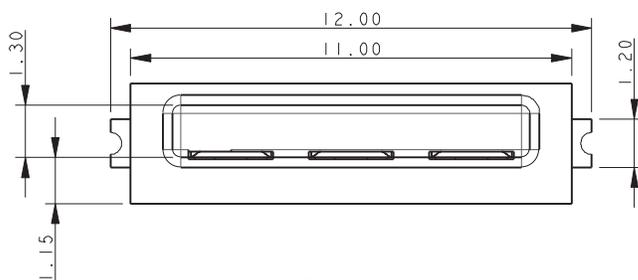


### PLUG – VERTICAL MOUNT 3 WAY 2 PART PCB STRIP CONNECTOR

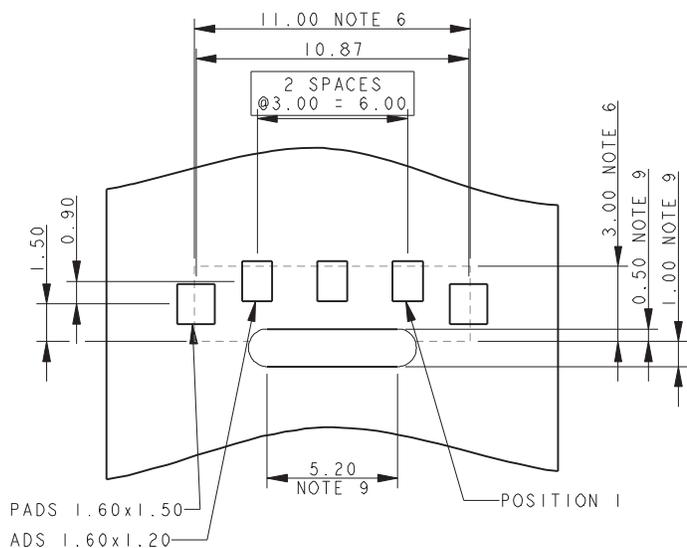


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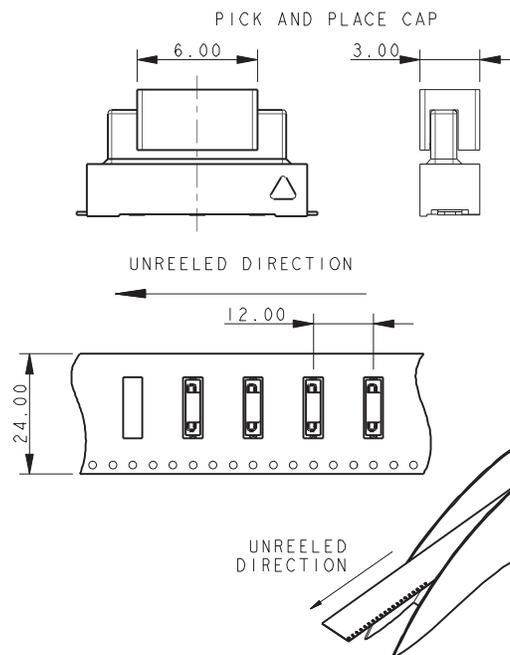
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### 3 WAY PCB BOARD LAYOUT



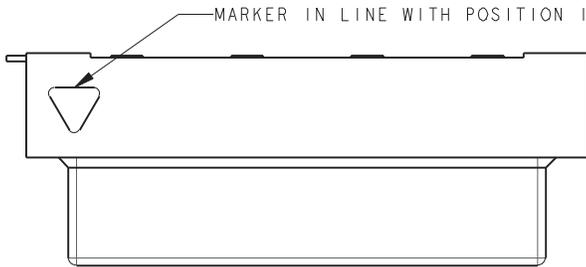
### PACKING DETAILS



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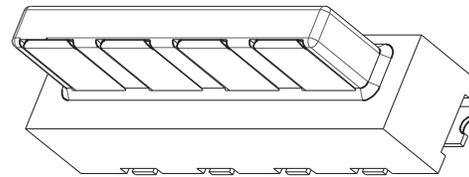
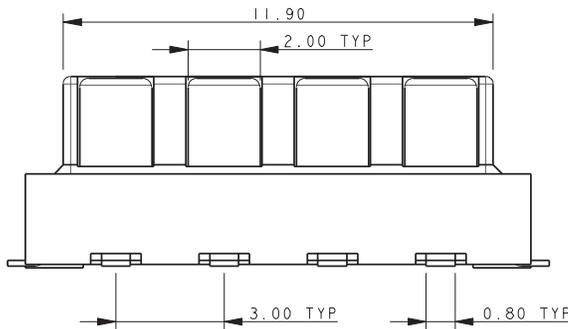
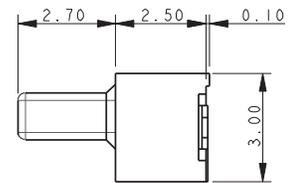
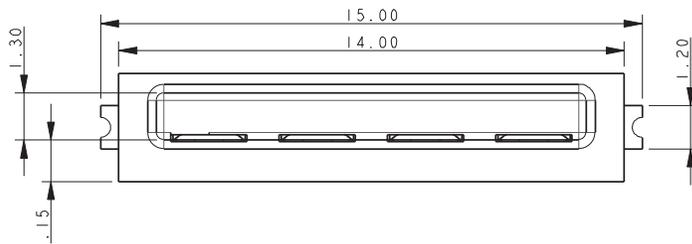
## 4 Position

### PLUG – VERTICAL MOUNT 4 WAY 2 PART PCB STRIP CONNECTOR

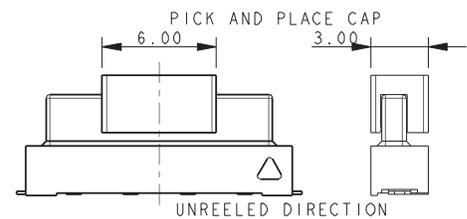


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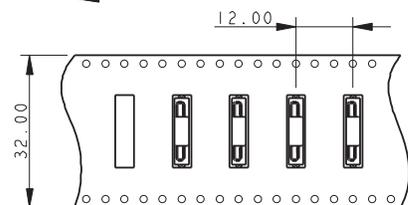
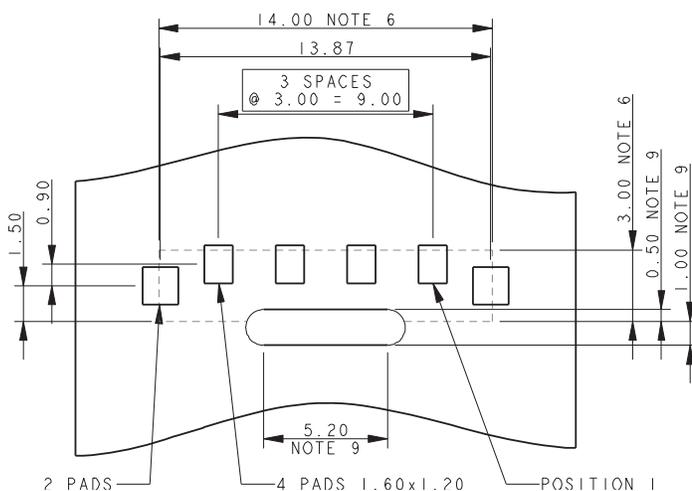
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#### PACKING DETAILS



#### 4 WAY PCB BOARD LAYOUT

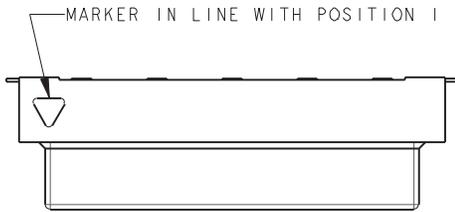


UNREELED DIRECTION

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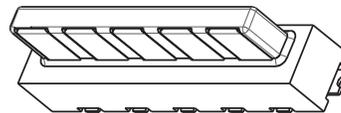
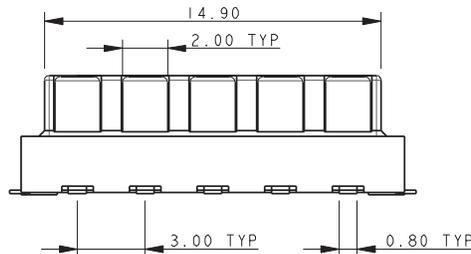
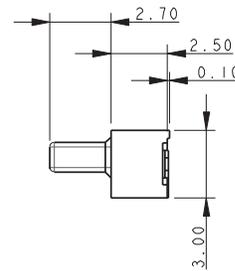
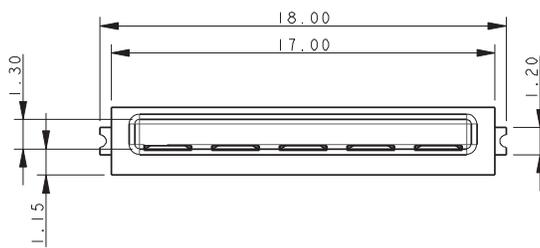
## 5 Position

### PLUG – VERTICAL MOUNT 5 WAY 2 PART PCB STRIP CONNECTOR

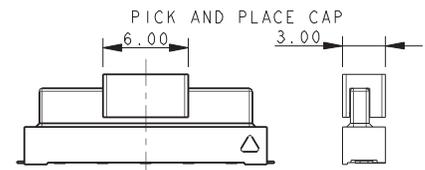


#### NOTES:

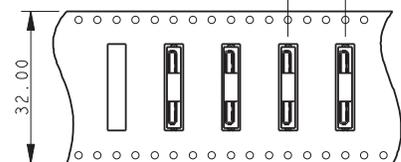
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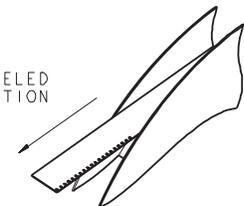
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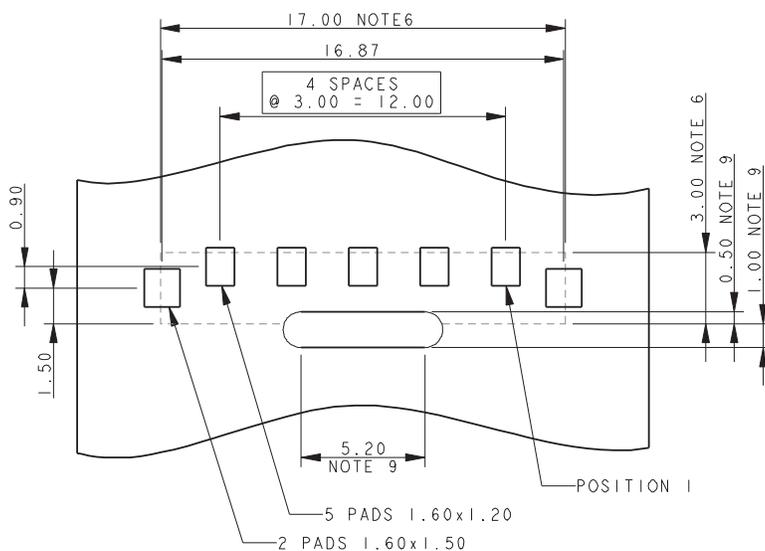
UNREELED DIRECTION



UNREELED DIRECTION



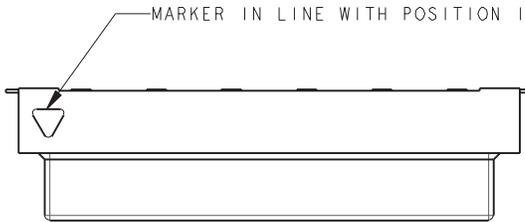
#### 5 WAY PCB BOARD LAYOUT



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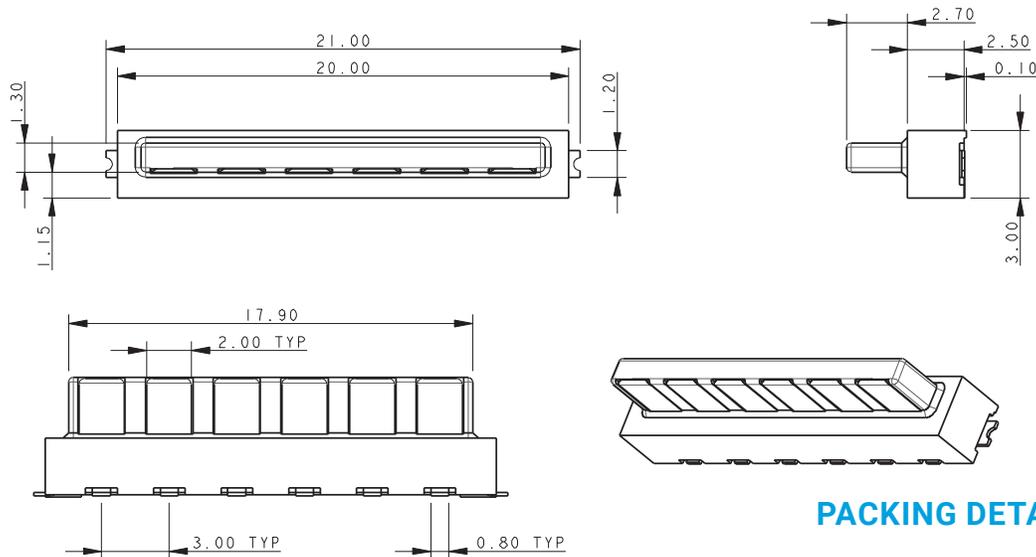
## 6 Position

### PLUG – VERTICAL MOUNT 6 WAY 2 PART PCB STRIP CONNECTOR

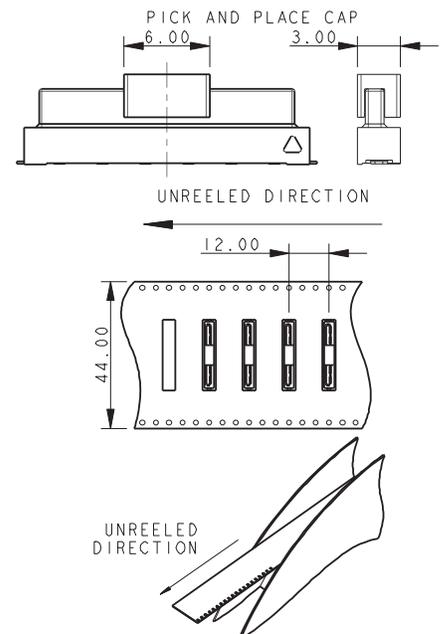


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#### PACKING DETAILS



#### 6 WAY PCB BOARD LAYOUT

