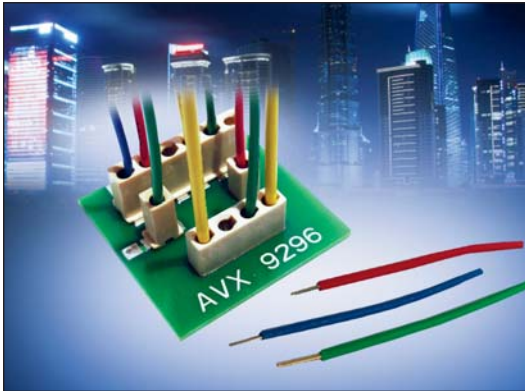


# Poke Home: Vertical Through Board WTB

## Series 9296



AVX continues to develop innovative connectors for the industrial electronics market that provide significant benefits over existing, outdated connector solutions. Listening to the design engineering community, there are ongoing applications where they cannot find an off-the-shelf solution that will satisfy a high percentage of the projects configuration, performance and cost goals.

The newest addition to AVX's broadening line of Wire-to-Board (WTB) connectors offers a cost effective, single Poke-Home connector solution that will meet the cost and performance targets in demanding, yet user friendly applications. At the heart of the connector is the industry proven dual line, 3mm high spring force box contact that has been on the market as a stand-alone horizontal contact only solution.

The new SMT vertical through board connector allows for 18AWG to 26AWG wires to be simply stripped and inserted into the connector body at 180 degree orientation to the bottom side of the PCB with an above board height of 0.80mm. This single connector will replace existing 2-Piece WTB solutions where a header is soldered onto the PCB and a secondary crimp-to-wire receptacle assembly is plugged in. Available in 1-6 positions, each connector will accept the entire wire gauge range for either solid or stranded wires at varying current ratings supported by each wire size. Once inserted, wires can easily be removed or replaced by twisting/unscrewing or by using a small blade extraction tool.

### APPLICATIONS

- Industrial/Ruggedized Wire-to-Board applications
- Replace hard soldering of wire to a PCB
- Replace costly 2-Piece header and receptacle products
- Reference Product Specification 201-01-151
- Reference Application Notes 201-01-152

### FEATURES AND BENEFITS

- Dual Beam box contact provides maximum mechanical stability and wire retention
- Tape and reel packaged for automated SMT placement
- Will accept either solid or stranded wire, 18-26AWG, plated or un-plated wires
- Simple strip and insert for wire loading, with easy twist and pull for wire removal

### ELECTRICAL

- Voltage Rating: 300 VAC
- Current Rating: See matrix below

### ENVIRONMENTAL

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

### MECHANICAL

- Contact Material: Copper Alloy
- Contact Plating: Tin over Nickel
- Durability: 5 Cycles

### HOW TO ORDER

| <b>00</b> | <b>9296</b> | <b>00X</b>     |
|-----------|-------------|----------------|
| Prefix    | Series      | Number of Ways |
| Code      | No of Ways  | Details        |
| 001       | 1           | Page 2         |
| 002       | 2           | Page 3         |
| 003       | 3           | Page 4         |
| 004       | 4           | Page 5         |
| 005       | 5           | Page 6         |
| 006       | 6           | Page 7         |

503

Wire Gauge Size

| Code | Accepted Wire Gauge         | Wire Insulation                        |
|------|-----------------------------|----------------------------------------|
| 503  | Poke Home Through Board SMT | 18AWG to 26AWG<br>Max Insulation 2.2mm |

|                      |                 |
|----------------------|-----------------|
| <b>X</b>             | <b>X6</b>       |
| Insulator Color      | Plating Option  |
| 9 = White - Standard | 06 = Tin Plated |



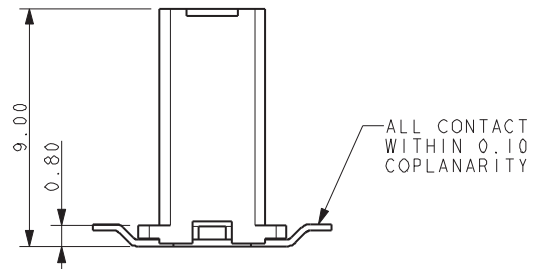
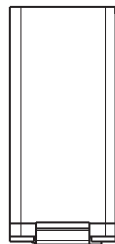
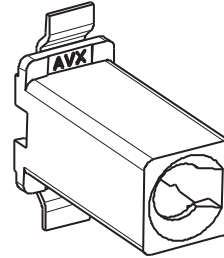
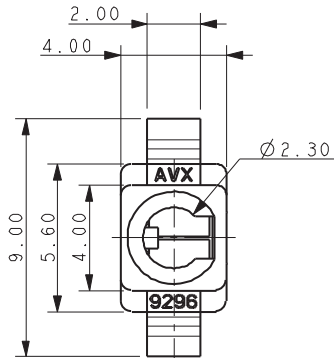
### CURRENT RATING

| 18AWG | 20AWG | 22AWG | 24AWG | 26AWG |
|-------|-------|-------|-------|-------|
| 7A    | 6A    | 5A    | 4A    | 3A    |

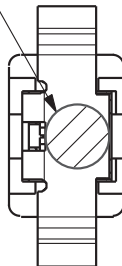
# Poke Home: Vertical Through Board WTB **AVX**

Series 9296

## 9296 THROUGH BOARD MOUNT POKE HOME CONNECTOR 1 WAY



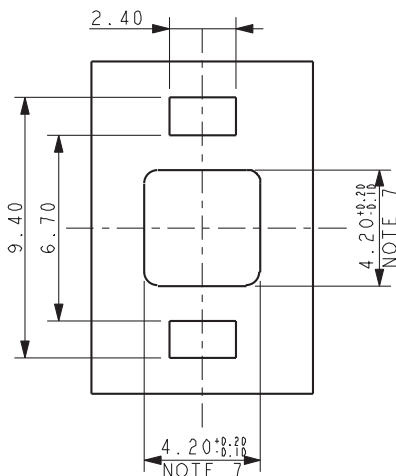
PICK AND PLACE  
2.1mm DIAMETER



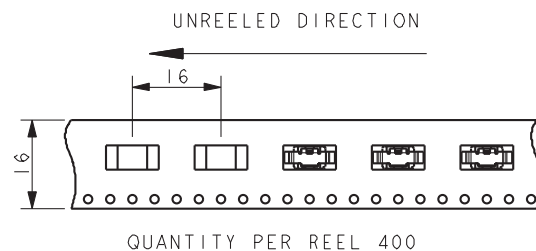
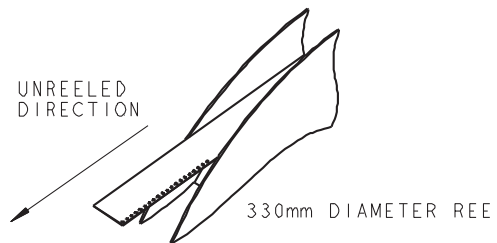
### NOTES:

1. THROUGH BOARD SMT MOUNT 1 WAY POKE HOME CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-151 AND APPLICATION NOTES 201-01-152.
2. SUITABLE FOR WIRES 18AWG TO 26AWG. MAXIMUM INSULATION 2.20MM DIAMETER.
3. INSULATOR: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 1.
4. CONTACT: TIN PLATE COPPER ALLOY.
5. PACKING IN TAPE AND REEL. QTY PER REEL 400, 330MM REEL.
6. GENERAL TOLERANCE  $\pm 0.20$ .
7. CLEARANCE HOLE FOR CONNECTOR.

### SUGGESTED PCB LAYOUT



### PACKING DETAILS

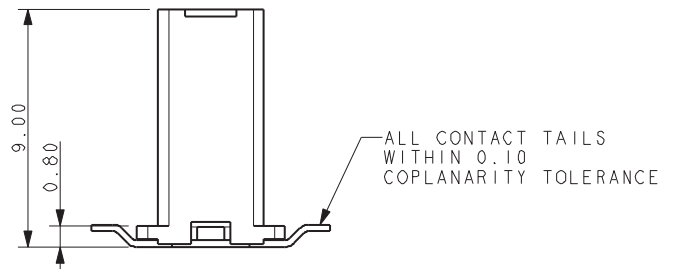
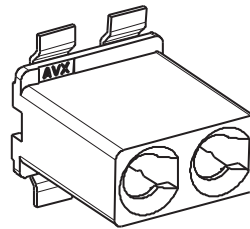
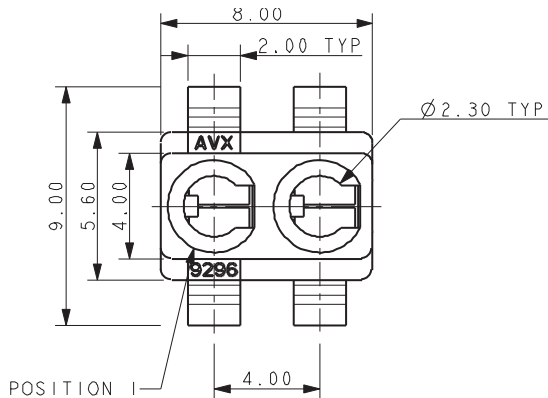


QUANTITY PER REEL 400

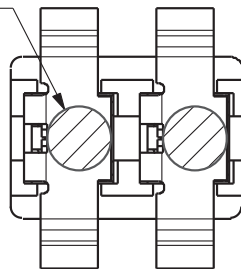
# Poke Home: Vertical Through Board WTB **AVX**

Series 9296

## 9296 TOP MOUNT POKE HOME CONNECTOR 2 WAY



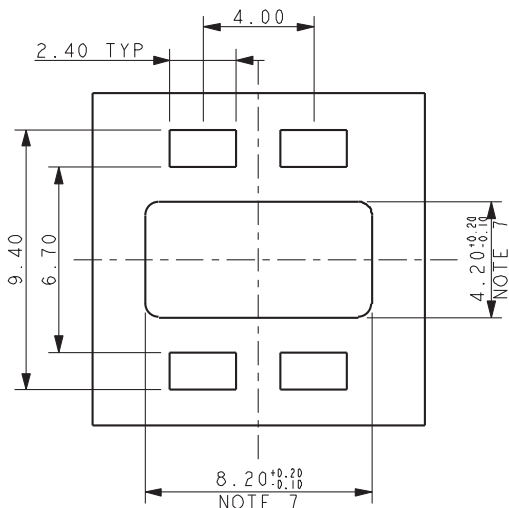
PICK AND PLACE  
2.1mm DIAMETER



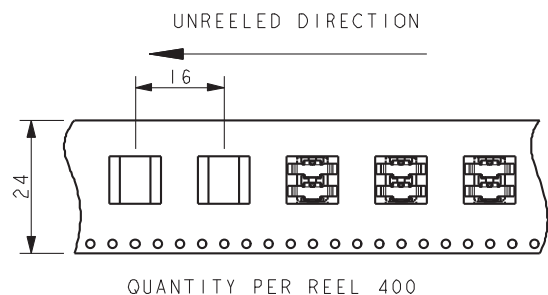
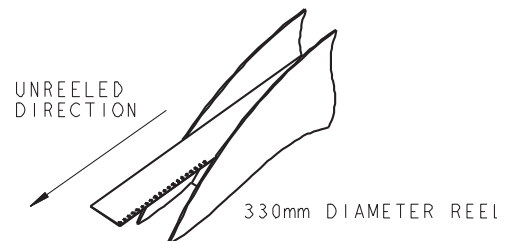
### NOTES:

1. THROUGH BOARD SMT MOUNT 2 WAY POKE HOME CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-151 AND APPLICATION NOTES 201-01-152.
2. SUITABLE FOR WIRES 18AWG TO 26AWG. MAXIMUM INSULATION 2.20MM DIAMETER.
3. INSULATOR: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 1.
4. CONTACT: TIN PLATE COPPER ALLOY.
5. PACKING IN TAPE AND REEL. QTY PER REEL 400, 330MM REEL.
6. GENERAL TOLERANCE  $\pm 0.20$ .
7. CLEARANCE HOLE FOR CONNECTOR.

### SUGGESTED PCB LAYOUT



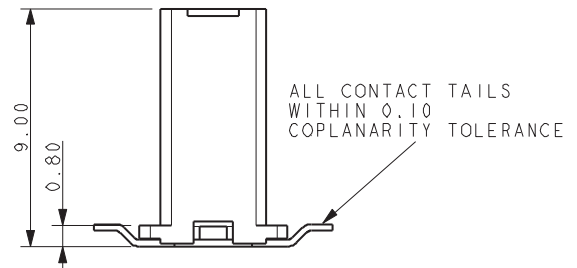
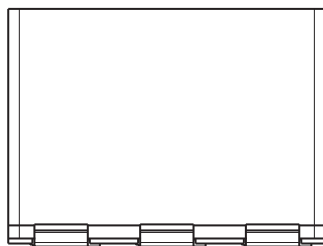
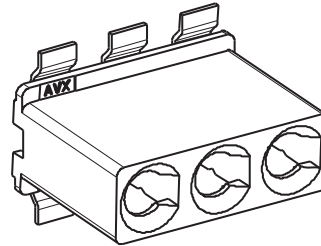
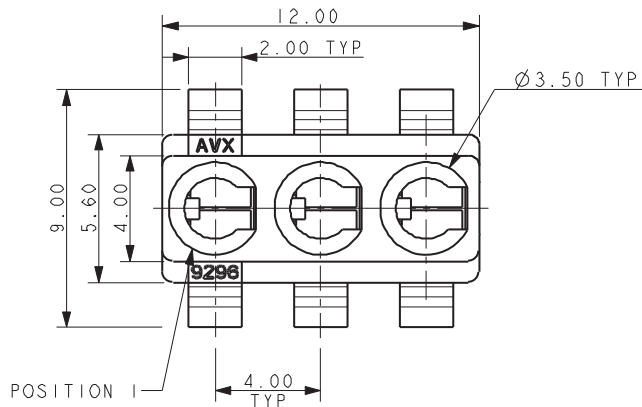
### PACKING DETAILS



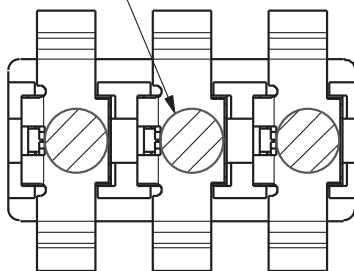
# Poke Home: Vertical Through Board WTB **AVX**

Series 9296

## 9296 THROUGH BOARD MOUNT POKE HOME CONNECTOR 3 WAY



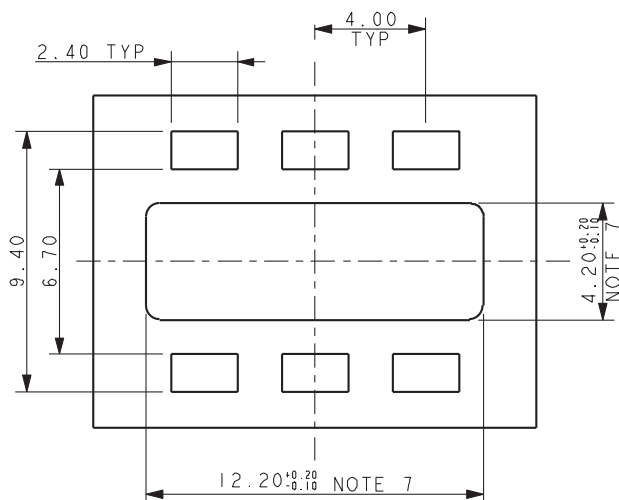
PICK AND PLACE  
2.1mm DIAMETER



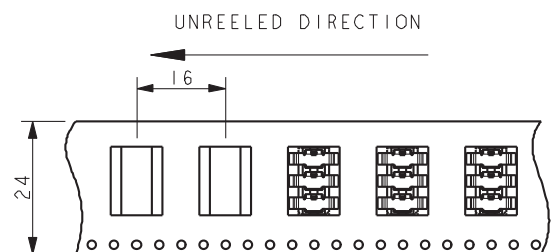
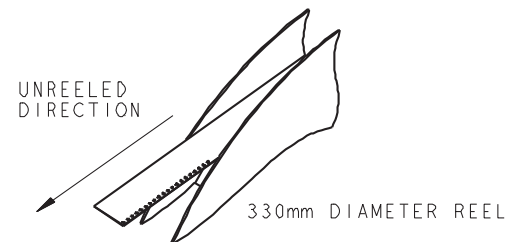
### NOTES:

1. THROUGH BOARD SMT MOUNT 3 WAY POKE HOME CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-151 AND APPLICATION NOTES 201-01-152.
2. SUITABLE FOR WIRES 18AWG TO 26AWG. MAXIMUM INSULATION 2.20MM DIAMETER.
3. INSULATOR: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 1.
4. CONTACT: TIN PLATE COPPER ALLOY.
5. PACKING IN TAPE AND REEL. QTY PER REEL 400, 330MM REEL.
6. GENERAL TOLERANCE  $\pm 0.20$ .
7. CLEARANCE HOLE FOR CONNECTOR.

### SUGGESTED PCB LAYOUT



### PACKING DETAILS

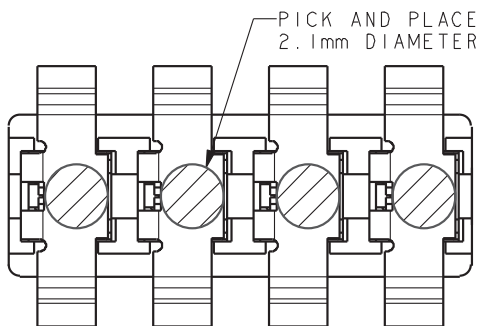
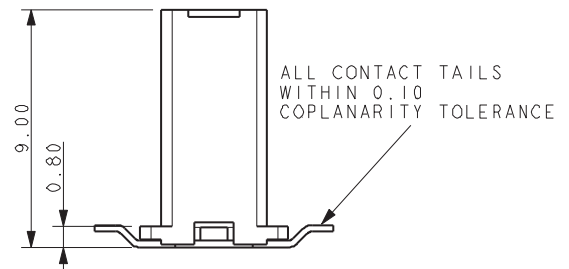
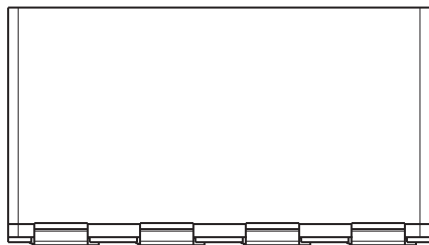
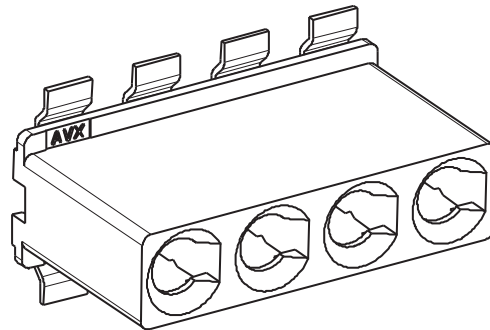
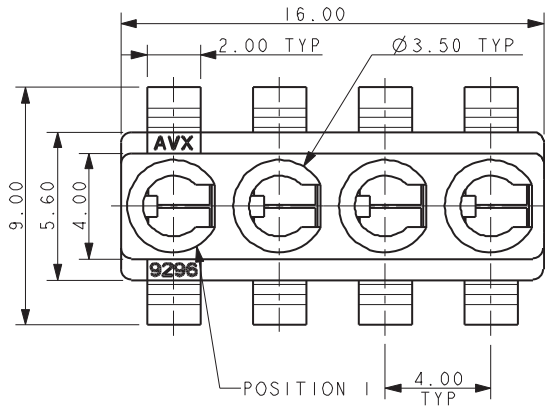


QUANTITY PER REEL 400

# Poke Home: Vertical Through Board WTB **AVX**

Series 9296

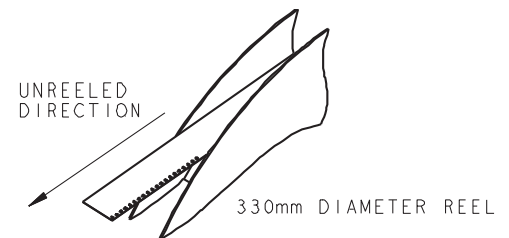
## 9296 THROUGH BOARD MOUNT POKE HOME CONNECTOR 4 WAY



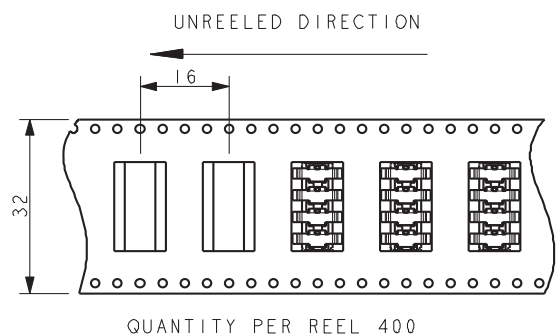
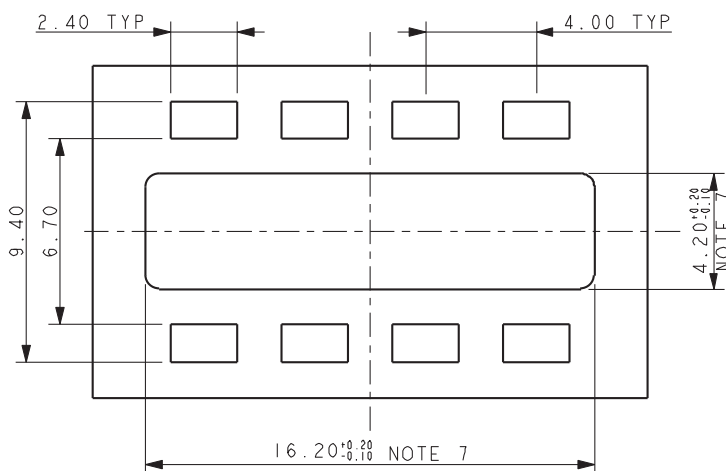
### NOTES:

1. THROUGH BOARD SMT MOUNT 4 WAY POKE HOME CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-151 AND APPLICATION NOTES 201-01-152.
2. SUITABLE FOR WIRES 18AWG TO 26AWG. MAXIMUM INSULATION 2.20MM DIAMETER.
3. INSULATOR: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 1.
4. CONTACT: TIN PLATE COPPER ALLOY.
5. PACKING IN TAPE AND REEL. QTY PER REEL 400, 330MM REEL.
6. GENERAL TOLERANCE  $\pm 0.20$ .
7. CLEARANCE HOLE FOR CONNECTOR.

### PACKING DETAILS



### SUGGESTED PCB LAYOUT



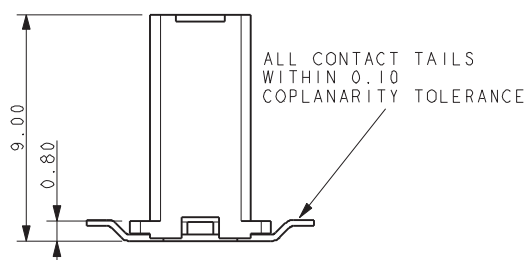
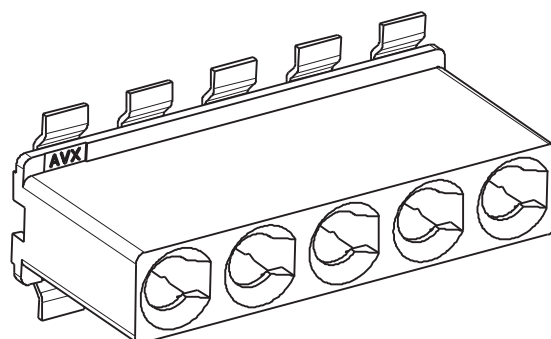
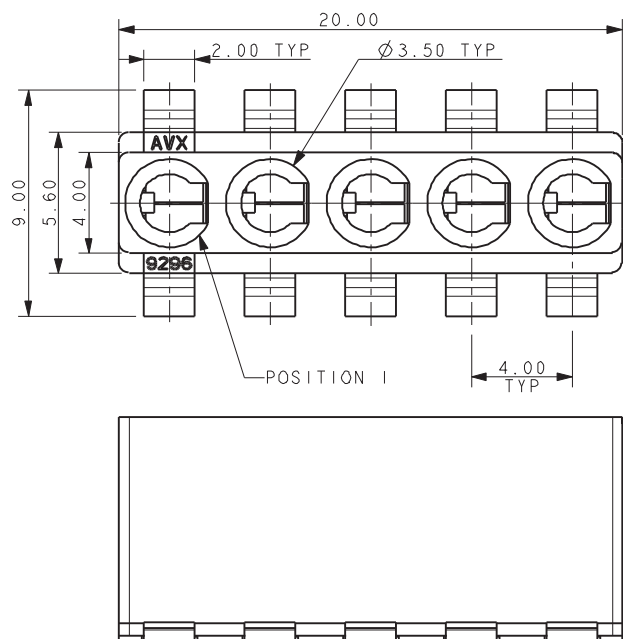
**AVX**

# Poke Home: Vertical Through Board WTB **AVX**

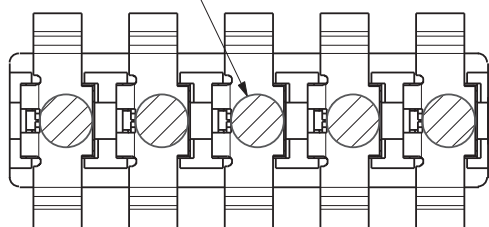
## Series 9296

### 9296 THROUGH BOARD MOUNT POKE HOME CONNECTOR

#### 5 WAY



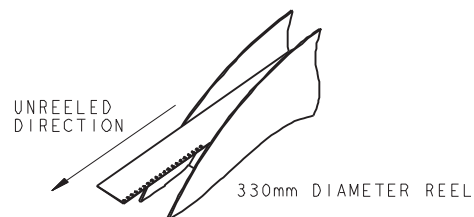
PICK AND PLACE  
2.1mm DIAMETER



#### NOTES:

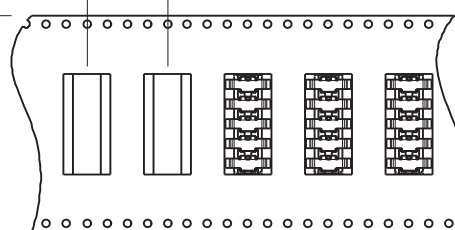
1. THROUGH BOARD SMT MOUNT 5 WAY POKE HOME CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-151 AND APPLICATION NOTES 201-01-152.
2. SUITABLE FOR WIRES 18AWG TO 26AWG. MAXIMUM INSULATION 2.20MM DIAMETER.
3. INSULATOR: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 1.
4. CONTACT: TIN PLATE COPPER ALLOY.
5. PACKING IN TAPE AND REEL. QTY PER REEL 400, 330MM REEL.
6. GENERAL TOLERANCE  $\pm 0.20$ .
7. CLEARANCE HOLE FOR CONNECTOR.

#### PACKING DETAILS



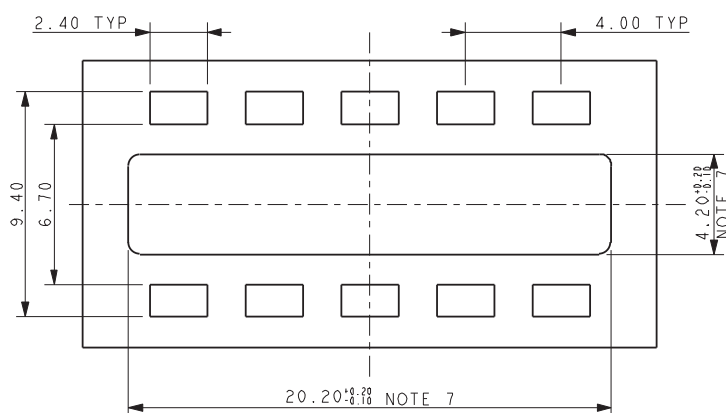
UNREELED DIRECTION

UNREELED DIRECTION



QUANTITY PER REEL 400

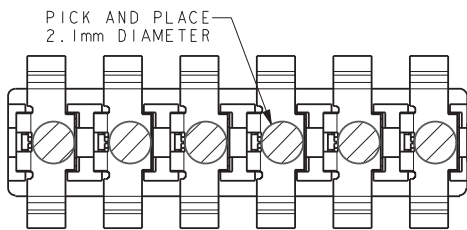
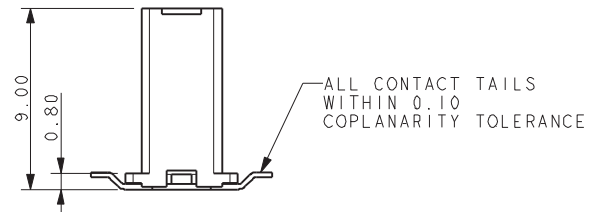
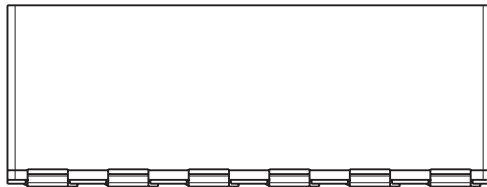
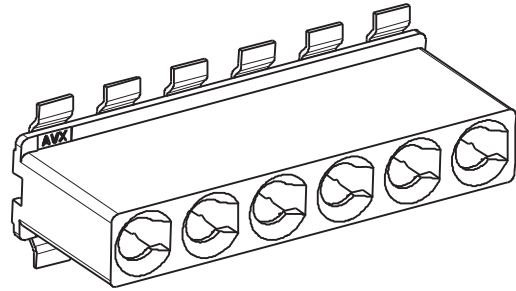
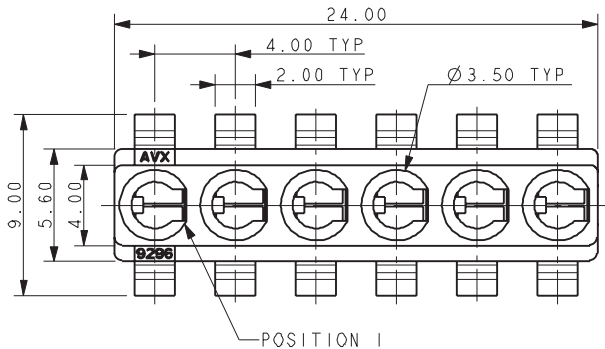
#### SUGGESTED PCB LAYOUT



# Poke Home: Vertical Through Board WTB **AVX**

Series 9296

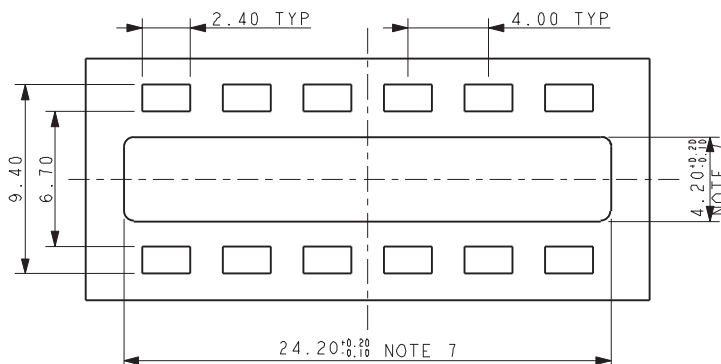
## 9296 THROUGH BOARD MOUNT POKE HOME CONNECTOR 6 WAY



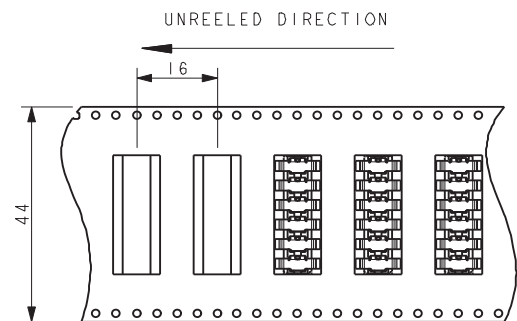
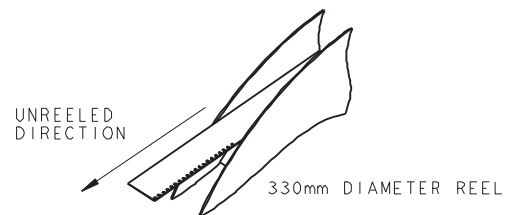
### NOTES:

1. THROUGH BOARD SMT MOUNT 6 WAY POKE HOME CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-151 AND APPLICATION NOTES 201-01-152.
2. SUITABLE FOR WIRES 18AWG TO 26AWG. MAXIMUM INSULATION 2.20MM DIAMETER.
3. INSULATOR: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 1.
4. CONTACT: TIN PLATE COPPER ALLOY.
5. PACKING IN TAPE AND REEL. QTY PER REEL 400, 330MM REEL.
6. GENERAL TOLERANCE  $\pm 0.20$ .
7. CLEARANCE HOLE FOR CONNECTOR.

### SUGGESTED PCB LAYOUT



### PACKING DETAILS



QUANTITY PER REEL 400



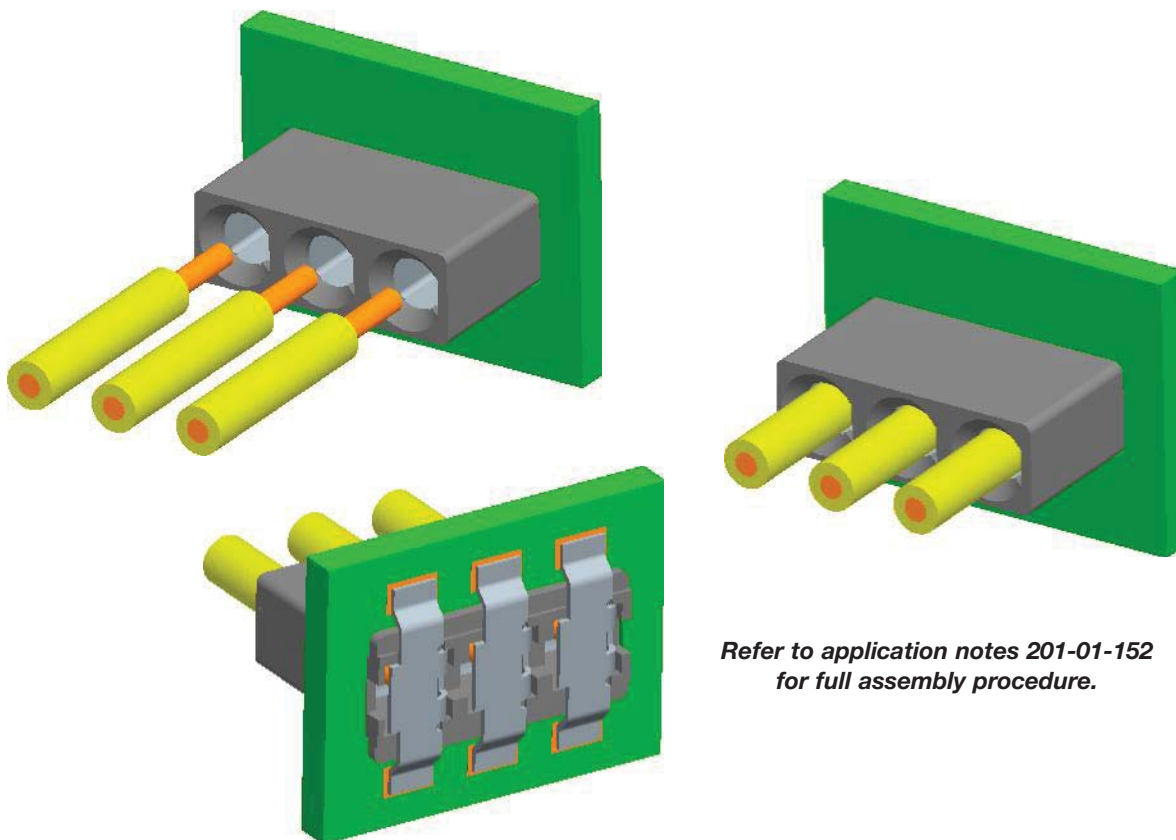
# Poke Home: Vertical Through Board WTB **AVXX**

Series 9296

## 9296 THROUGH BOARD MOUNT POKE HOME CONNECTOR ASSEMBLY

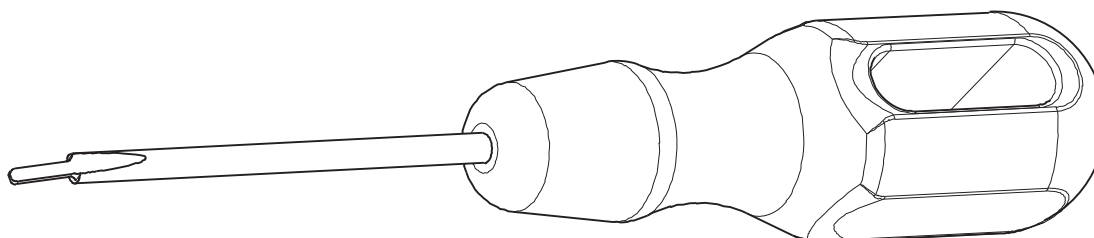


WIRE STRIP LENGTH



*Refer to application notes 201-01-152  
for full assembly procedure.*

## 9296 THROUGH BOARD MOUNT POKE HOME CONNECTOR WIRE EXTRACTION TOOL



06-9296-7003-01-000

*Refer to application notes 201-01-152  
for full wire extraction procedure.*