

# IDC/Press-Fit WTB: 18-24AWG

53-8702



For more than a decade, insulation displacement contacts (IDC) and press-fit or compliant pin technology have been proven to be two of the most reliable contact systems in critical automotive systems such as: airbag, engine and transmission control units.

AVX has combined these two contact technologies into a new and unique, high reliability WTB connection system to replace traditional 2-Piece solutions, offering designers a new packaging option.

## APPLICATIONS

- Automotive electronic systems

## FEATURES AND BENEFITS

- Proven “gas tight” cold welded wire termination to PCB
- Redundant contact systems provides enhanced wire retention and PCB attachment
- Replace costly 2-Piece connector solutions

## ELECTRICAL

- Current Rating:

AWG	Current (Amps)
18	10
20	9
22	7
24	6

- Voltage Rating: 125 VAC

## ENVIRONMENTAL

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

## MECHANICAL

- Contact Material: Tin Plated Copper Alloy
- Contact Plating: Pure tin over nickel
- Durability: 1 termination cycles

## HOW TO ORDER

**53**

**Prefix**

53 = Finished Part

**8702**

**Series**

**X**

**Number of Rows**

1XX = 1  
2XX = 2

**005**

**Number of Ways**

X01 = 1  
X02 = 2  
X03 = 3  
X04 = 4  
X05 = 5  
X06 = 6  
X07 = 7\*  
X08 = 8\*

**0XX**

**Hole Size**

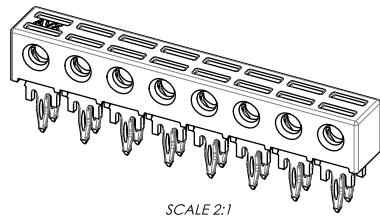
018 = 18 AWG  
020 = 20 AWG  
022 = 22 AWG  
024 = 24 AWG

**096**

**Serialized Project Number**

\*7 and 8 way only available  
in dual row version

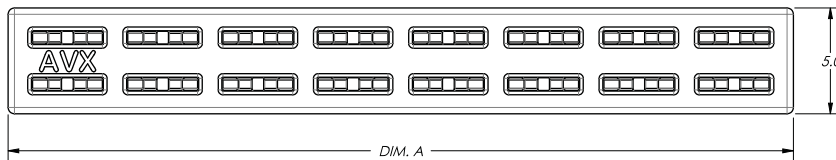
### WIRE-TO-PCB CONNECTOR – DUAL ROW IDC TO COMPLIANT TAIL



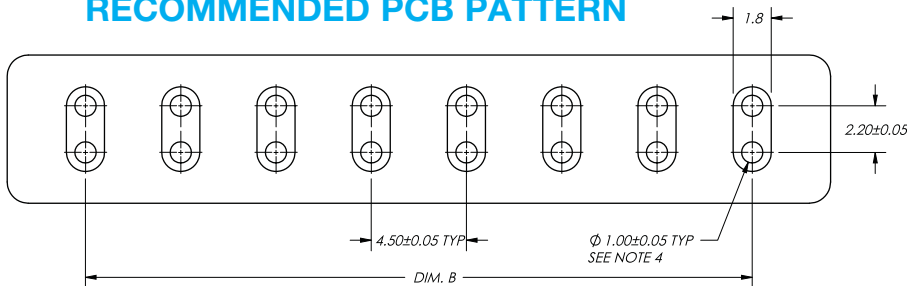
SCALE 2:1

Positions	Dim. A	Dim. B	Approx. Parts/Tube
1	5.6	N.A.	100
2	10.1	4.50	56
3	14.6	9.00	40
4	19.1	13.50	30
5	23.6	18.00	24
6	28.1	22.50	20
7	32.6	27.00	17
8	37.1	31.50	15

Wire Gauge	Dim. C	Wire Insulation
18 Awg Stranded	2.1	1.6 - 2.1
20 Awg Solid/Stranded	2.1	1.6 - 2.1
22 Awg Solid/Stranded	1.6	1.1 - 1.6
24 Awg Solid/Stranded	1.6	1.1 - 1.6

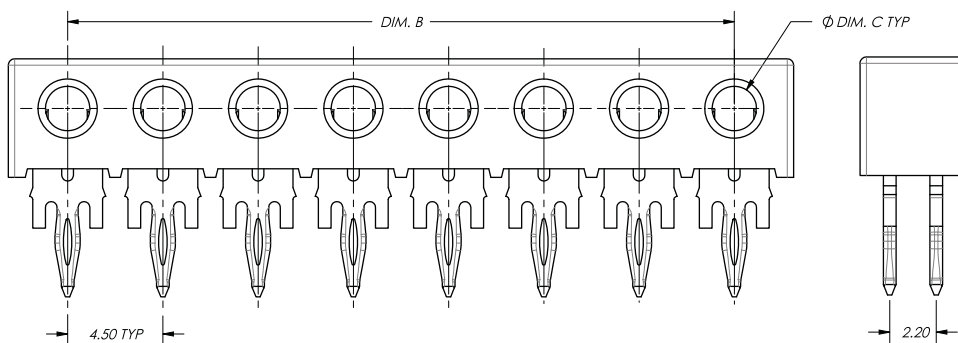


### RECOMMENDED PCB PATTERN

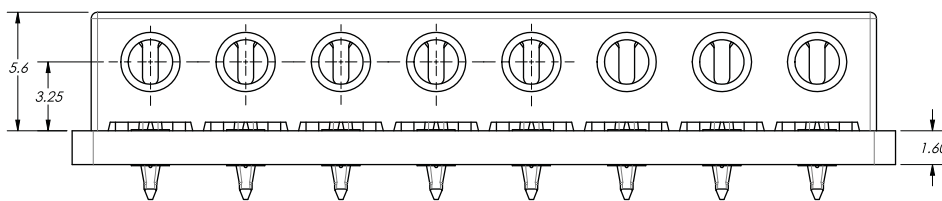


#### NOTES:

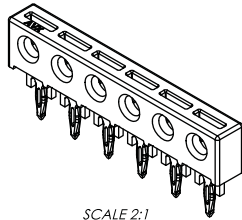
1. HOUSING MATERIAL: GLASS-FILLED PBT.
2. CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
3. PART CONTAINS TWO CONTACTS PER POSITION.
4. PLATED-THROUGH PCB HOLES TO MEET THE FOLLOWING: DRILL DIAMETER: 1.150/1.125; COPPER PLATING: 0.025 MIN; FINAL PLATED HOLE DIAMETER: 0.95/1.05. REF IEC 60352-5.
5. FOR INSTALLATION OPTIONS AND FIXTURES, SEE PAGE 4.
6. PARTS TO BE PACKAGED IN 699MM LONG ANTI-STATIC TUBES; NUMBER OF PARTS PER TUBE IS AS SHOWN IN THE TABLE.
7. GENERAL TOLERANCE 0.20 UNLESS OTHERWISE STATED.



### PART MOUNTED ON PCB

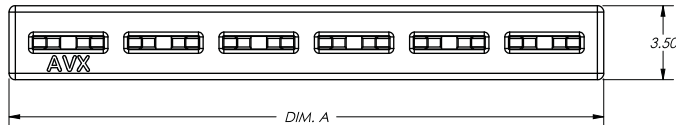


### WIRE-TO-PCB CONNECTOR – SINGLE ROW IDC TO COMPLIANT TAIL



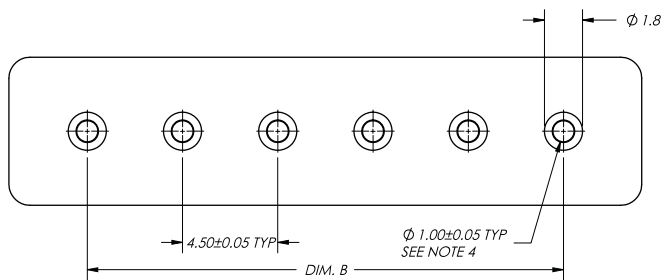
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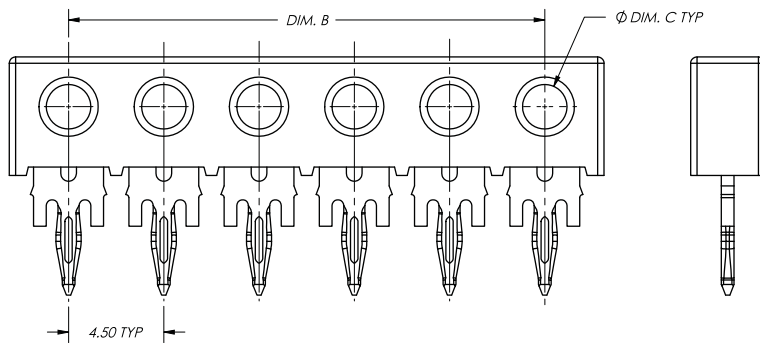
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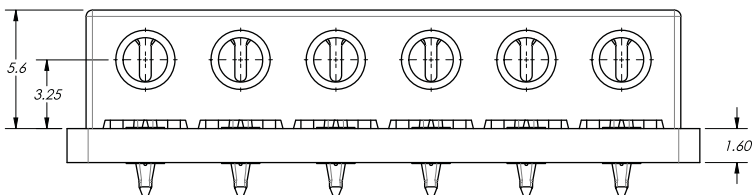


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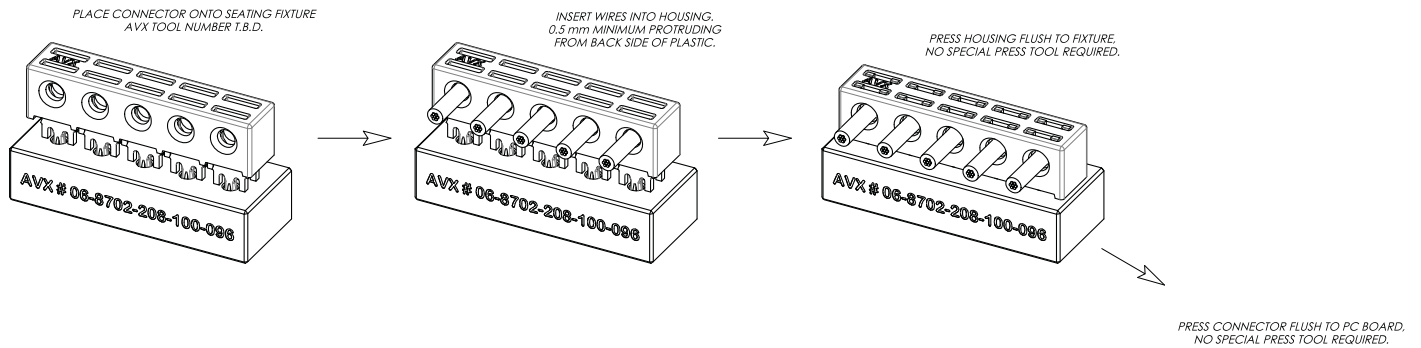


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## TERMINATION/MOUNTING OPTION 1 WIRES FIRST, PCB SECOND



## TERMINATION/MOUNTING OPTION 2 PCB FIRST, WIRES SECOND

