

AVX industrial/transportation grade insulation displacement connectors (IDC) have been proven in the market for over ten years. Providing a very simple one-step termination process, these connectors proved a robust wire-to-board (WTB) termination in harsh applications.

The 9176-800 series has been developed specifically for 22-26AWG discrete wires in size critical applications. By reducing the "Z" axis height by 1.0mm and the overall volume by up to 50%, this new package size is an ideal choice in space constrained applications over previous IDC connectors. In addition, an expanded size range is available starting from a 1 position up to 4 positions in each wire gauge. The entire range provides new packaging solutions in industrial, medical and transportation applications such as smart metering, LED lighting, industrial controls and portable monitoring and measurement devices.

## **APPLICATIONS**

- Connecting discrete wires and components to a PCB
- Bringing power and signals onto a PCB
- Daisy chaining or interconnecting PCB's together
- Application Notes: Refer to 201-01-216

## FEATURES AND BENEFITS

- Redundant and fatigue resistant phosphor bronze material provides a gas tight, cold welded connection to the wire
- IDC connectors can be potted or over molded to encapsulate electronic modules and provide environmental protection
- The 1p version is available in industry standard colors to match individual wires for error free wire termination

## **ELECTRICAL**

 Current Rating: 22AWG: 6 amps 24AWG: 5 amps 26AWG: 4 amps

## **ENVIRONMENTAL**

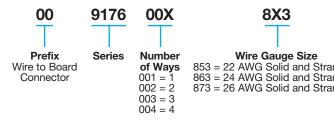
• Operating Temperature: -40°C to +125°C

## **MECHANICAL**

- Insulator Material: Glass-Filled Nylon 46; UL94V0
- Contact Material: Phosphor Bronze
- Plating: Lead-Free Tin Over Nickel
- Durability: 3 Cycles

• Voltage Rating: 1p: 600V 2p-4p: 300V

## **HOW TO ORDER**



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unded unded	<b>Insulator Color</b> 9 = White Standard	
inded	Solid Colors (1p only) 2 = Brown 3 = Blue 4 = Yellow 5 = Red 6 = Green	

7 = Orange8 = Black

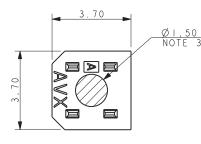


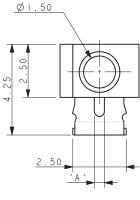
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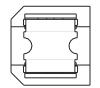


### 00-9176-001-8X3-X06

**1 WAY** 



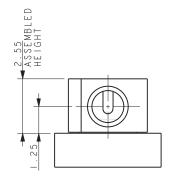


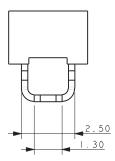


PART NUMBER See page 1	WIRE GAUGE	A
00-9176-001-853-X06	22AWG Solid and Stranded	0.47
00-9176-001-863-X06	24AWG Solid and Stranded	0.37
00-9176-001-873-X06	26AWG Solid and Stranded	0.28

<u>3.70</u> NOTE 8

2.70





NOTES:

- 1. 1 WAY CONNECTOR FOR IDC WIRE TO BOARD CONNECTOR.
- 2. CONTACT/CAP TO MATCH 22AWG TO 26AWG STRANDED AND SOLID WIRE, MAXIMUM INSULATOR 1.40 DIAMETER
- 3. FLAT FACE ON TOP OF CAP TO AID PICK AND PLACE ASSEMBLY.
- 4. FOR FULL PRODUCT SPECIFICATION REFER TO AVX SPEC 201-01-215.
- 5. ASSEMBLY PROCEDURE, REFER TO APPLICATION NOTES 201-01-216.
- 6. GENERAL TOLERANCE ±0.20 UNLESS STATED.
- 7. PACKED IN TAPE AND REEL, QUANTITY PER REEL 1700.
- 8. CONNECTOR OUTLINE.
- 9. CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
- 10. INSULATOR MATERIAL: HIGH TEMPERATURE NYLON, GLASS FILLED. UL94 V-0, COLOR REFER TO PAGE 1.

# UNREELED DIRECTION

330mm DIAMETER REEL



## SUGGESTED PCB LAYOUT

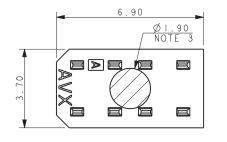
3.70 NOTE 8

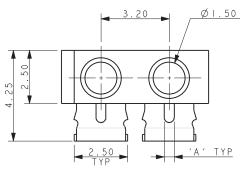
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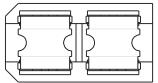


### 00-9176-001-8X3-X06

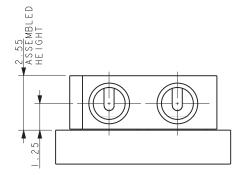
**2 WAY** 

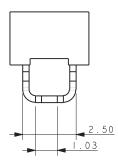






PART NUMBER See page 1	WIRE GAUGE	Α
00-9176-002-853-X06	22AWG Solid and Stranded	0.47
00-9176-002-863-X06	24AWG Solid and Stranded	0.37
00-9176-002-873-X06	26AWG Solid and Stranded	0.28

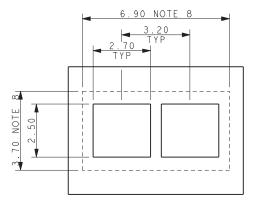




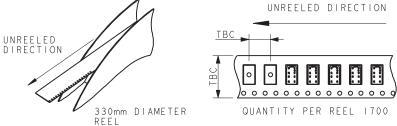
NOTES:

- 1. 2 WAY CONNECTOR FOR IDC WIRE TO BOARD CONNECTOR.
- 2. CONTACT/CAP TO MATCH 22AWG TO 26AWG STRANDED AND SOLID WIRE, MAXIMUM INSULATOR 1.40 DIAMETER
- 3. FLAT FACE ON TOP OF CAP TO AID PICK AND PLACE ASSEMBLY.
- 4. FOR FULL PRODUCT SPECIFICATION REFER TO AVX SPEC 201-01-215.
- 5. ASSEMBLY PROCEDURE, REFER TO APPLICATION NOTES 201-01-216.
- 6. GENERAL TOLERANCE ±0.20 UNLESS STATED.
- 7. PACKED IN TAPE AND REEL, QUANTITY PER REEL 1700.
- 8. CONNECTOR OUTLINE.
- 9. CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
- 10. INSULATOR MATERIAL: HIGH TEMPERATURE NYLON, GLASS FILLED. UL94 V-0, COLOR REFER TO PAGE 1.

## SUGGESTED PCB LAYOUT



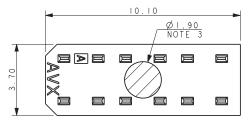
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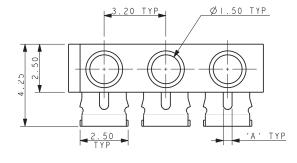




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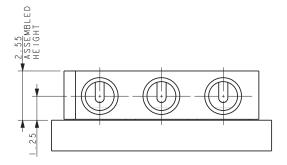


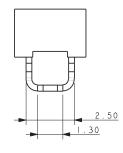
WIRE GAUGE

22AWG Solid and Stranded

24AWG Solid and Stranded

26AWG Solid and Stranded





#### NOTES:

Α

0.47

0.37

0.28

- 1. 3 WAY CONNECTOR FOR IDC WIRE TO BOARD CONNECTOR.
- 2. CONTACT/CAP TO MATCH 22AWG TO 26AWG STRANDED AND SOLID WIRE, MAXIMUM INSULATOR 1.40 DIAMETER
- 3. FLAT FACE ON TOP OF CAP TO AID PICK AND PLACE ASSEMBLY.
- 4. FOR FULL PRODUCT SPECIFICATION REFER TO AVX SPEC 201-01-215.
- 5. ASSEMBLY PROCEDURE, REFER TO APPLICATION NOTES 201-01-216.
- 6. GENERAL TOLERANCE ±0.20 UNLESS STATED.
- 7. PACKED IN TAPE AND REEL, QUANTITY PER REEL 1700.
- 8. CONNECTOR OUTLINE.
- 9. CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
- 10. INSULATOR MATERIAL: HIGH TEMPERATURE NYLON, GLASS FILLED. UL94 V-0, COLOR REFER TO PAGE 1.

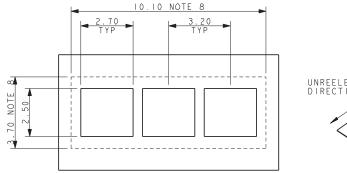
## SUGGESTED PCB LAYOUT

PART NUMBER

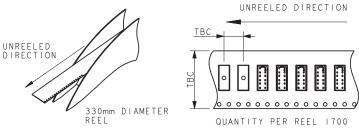
See page 1 00-9176-003-853-X06

00-9176-003-863-X06

00-9176-003-873-X06



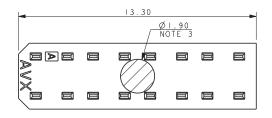
### **PACKING DETAILS**

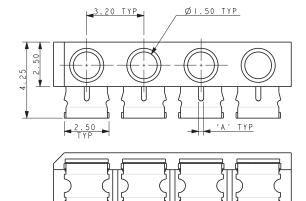


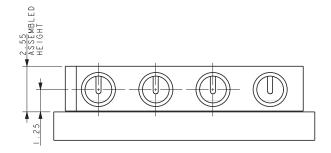


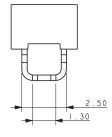
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#### NOTES:

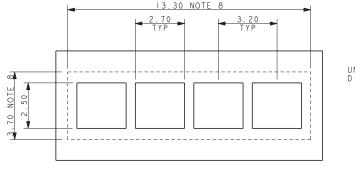
Α

0.47

0.37

0.28

- 1. 4 WAY CONNECTOR FOR IDC WIRE TO BOARD CONNECTOR.
- 2. CONTACT/CAP TO MATCH 22AWG TO 26AWG STRANDED AND SOLID WIRE, MAXIMUM INSULATOR 1.40 DIAMETER
- 3. FLAT FACE ON TOP OF CAP TO AID PICK AND PLACE ASSEMBLY.
- 4. FOR FULL PRODUCT SPECIFICATION REFER TO AVX SPEC 201-01-215.
- 5. ASSEMBLY PROCEDURE, REFER TO APPLICATION NOTES 201-01-216.
- 6. GENERAL TOLERANCE ±0.20 UNLESS STATED.
- 7. PACKED IN TAPE AND REEL, QUANTITY PER REEL 1700.
- 8. CONNECTOR OUTLINE.
- 9. CONTACT MATERIAL: TIN PLATED COPPER ALLOY.
- 10. INSULATOR MATERIAL: HIGH TEMPERATURE NYLON, GLASS FILLED. UL94 V-0, COLOR REFER TO PAGE 1.



WIRE GAUGE

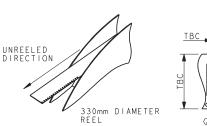
22AWG Solid and Stranded

24AWG Solid and Stranded

26AWG Solid and Stranded

SUGGESTED PCB LAYOUT

## **PACKING DETAILS**



## 

QUANTITY PER REEL 1700



PART NUMBER

See page 1

00-9176-004-853-X06

00-9176-004-863-X06

00-9176-004-873-X06



## **CONNECTOR DETAILS**

