IDC Socket Wire-To-Board: 24-9159-100

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 125°C 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.

The IDC cable socket connector allows for 22-24AWG discrete or cabled wires to be easily and reliably terminated into a 9159 standard interface plug connector. This will allow power and signals to be connected onto a PCB socket connector while providing positive latching. The wire assembly support block allows for 2 through 6 wires to be terminated all in one step with any standard bench top press. IDC covers provide both through (daisy chain applications) and wire stop termination options.

APPLICATIONS

- Provides Wire-to-Board capabilities to standard 9159 2-Piece connector system
- In conjunction with the IDC plug WTB connector (14-9159), these connectors provide maximum flexibility to bring power and signal wires onto or off of any board level 9159 connector
- Reference application notes 201-01-123
- Reference Product Specification 201-01-119

FEATURES AND BENEFITS

- Mates with standard 9159 horizontal plug. keeping same BTB connector system
- Economical and reliable IDC wire termination
- Molded latch offers positive latching after mating

ELECTRICAL

- Current Rating: 5 Amps / Contact
- · Voltage Rating: 125 VAC (RMS) or DC equivalent

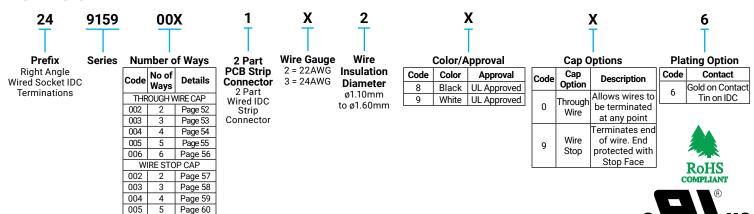
ENVIRONMENTAL

- · Operating Temperature: -40°C to +125°C
- · Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: UL94VO
- · Contact Material: Phos Bronze
- · Plating: Gold / Tin over Nickel
- · Durability: 10 Cycles

HOW TO ORDER



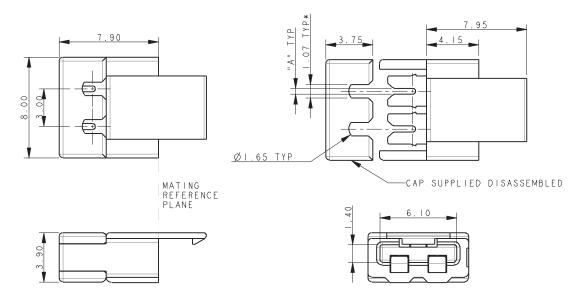
Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

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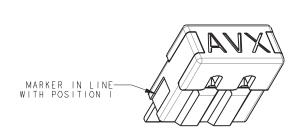


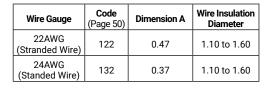
SOCKET WIRED - 2 WAY THROUGH WIRE CAP



NOTES:

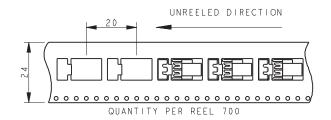
- 1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119. FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
- 2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
- 3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
- 4. GENERAL TOLERANCE ±0.20 UNLESS SPECIFIED.
- 5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 51.
- 6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
- 7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
- 8. WIRE GAUGE OPTIONS, SEE TABLE.
- ASSEMBLY AIDS, REFER TO PAGE 62.

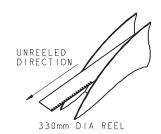




-INTEGRAL LATCH LOCKS TO PLUG

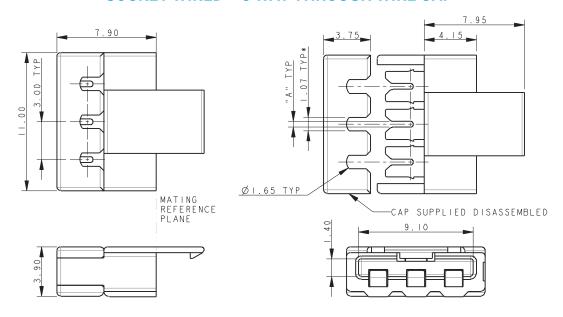








SOCKET WIRED - 3 WAY THROUGH WIRE CAP



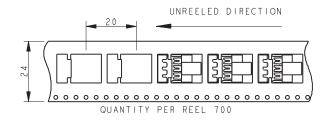
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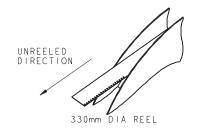
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- ASSEMBLY AIDS, REFER TO PAGE 62.



Code Wire Insulation Wire Gauge Dimension A (Page 50) Diameter 22AWG 122 0.47 1.10 to 1.60 (Stranded Wire) 24AWG 132 0.37 1.10 to 1.60 (Standed Wire)

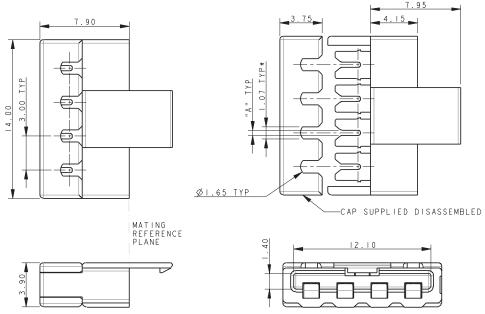
-INTEGRAL LATCH LOCKS TO PLUG





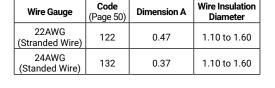


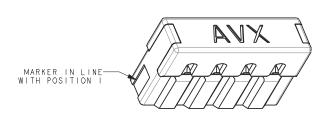
SOCKET WIRED - 4 WAY THROUGH WIRE CAP

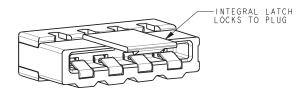


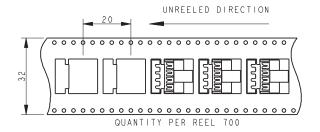
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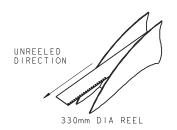
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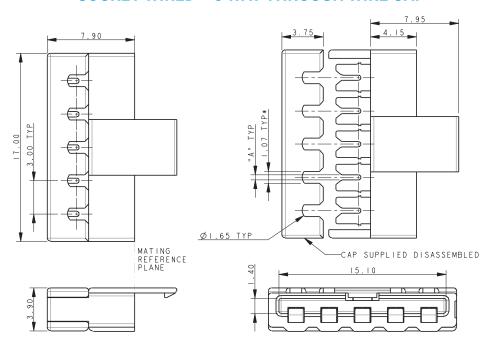
Wire Insulation

Diameter

1.10 to 1.60

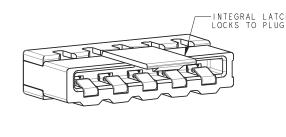
1.10 to 1.60

SOCKET WIRED - 5 WAY THROUGH WIRE CAP



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- ASSEMBLY AIDS, REFER TO PAGE 62.



Wire Gauge

22AWG

(Stranded Wire)

24AWG

(Standed Wire

Code

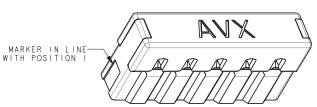
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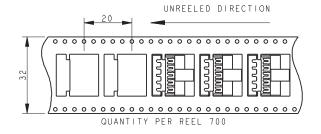
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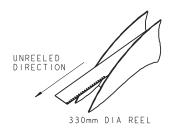
Dimension A

0.47

0.37

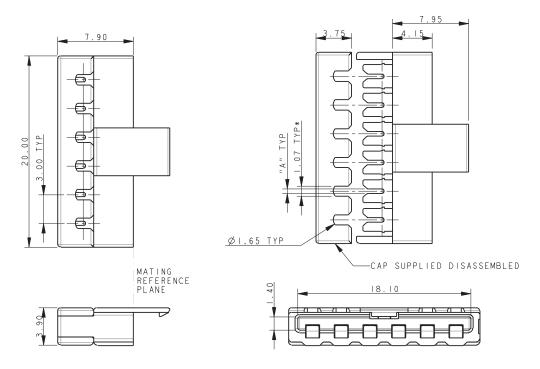






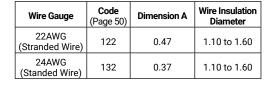


SOCKET WIRED - 6 WAY THROUGH WIRE CAP



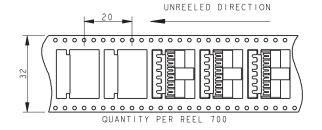
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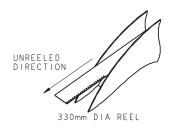
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INTEGRAL LATCH LOCKS TO PLUG



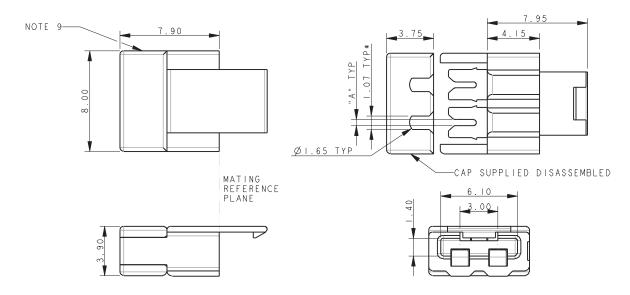








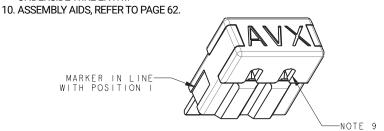
SOCKET-WIRED - 2 WAY WIRE STOP CAP

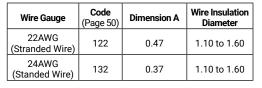


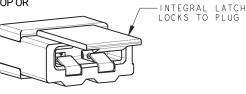
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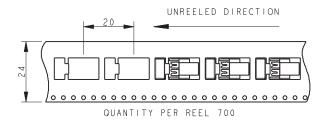
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SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.





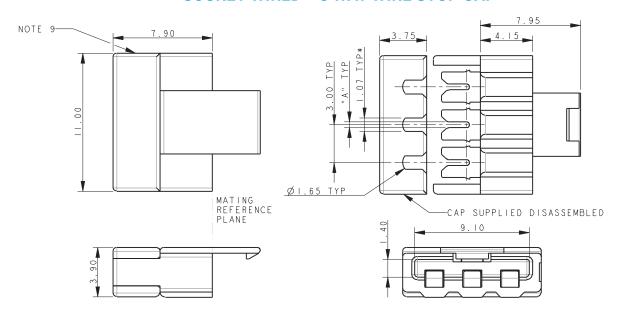








SOCKET-WIRED - 3 WAY WIRE STOP CAP



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- 8. WIRE GAUGE OPTIONS, SEE TABLE.

9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.



-INTEGRAL LATCH LOCKS TO PLUG

Dimension A

0.47

0.37

Wire Insulation

1.10 to 1.60

1.10 to 1.60

Code

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Wire Gauge

22AWG

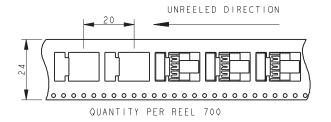
(Stranded Wire)

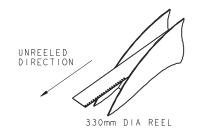
24AWG

(Standed Wire)



-NOTE 9







Wire Insulation

Diameter

1.10 to 1.60

1.10 to 1.60

Dimension A

0.47

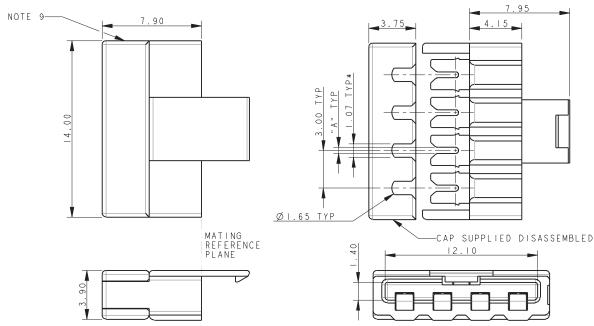
0.37

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SOCKET-WIRED - 4 WAY WIRE STOP CAP



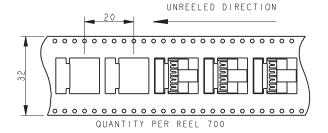
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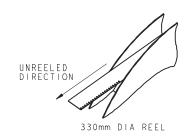
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SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.

-INTEGRAL LATCH LOCKS TO PLUG 10. ASSEMBLY AIDS, REFER TO PAGE 62 XVA MARKER IN LINE WITH POSITION

PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)





Wire Gauge

22AWG

(Stranded Wire)

24AWG

(Standed Wire)



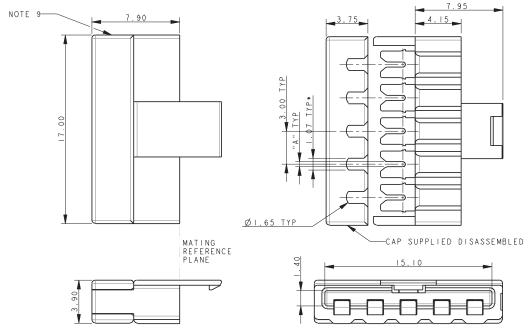
Wire Insulation

Diameter

1.10 to 1.60

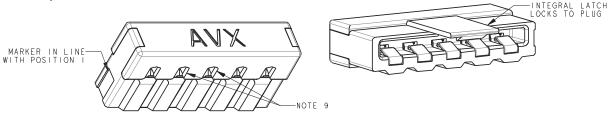
1.10 to 1.60

SOCKET-WIRED - 5 WAY WIRE STOP CAP

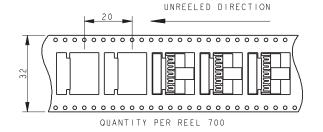


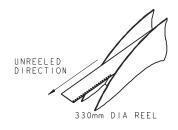
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- 10. ASSEMBLY AIDS, REFER TO PAGE 62.



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)





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122

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Dimension A

0.47

0.37

Wire Gauge

22AWG

(Stranded Wire)

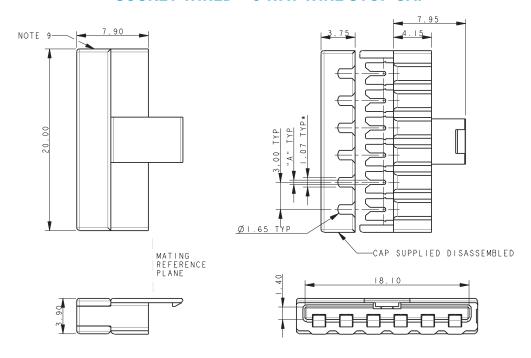
24AWG

(Standed Wire





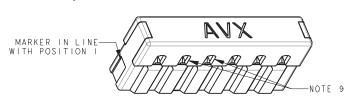
SOCKET-WIRED - 6 WAY WIRE STOP CAP

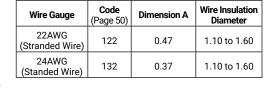


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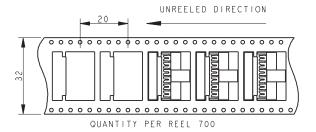
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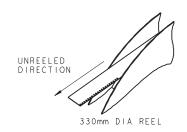






NTEGRAL LATCH OCKS TO PLUG



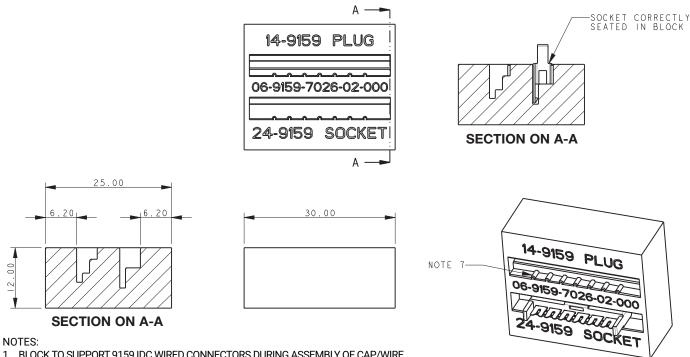


IDC Socket Wire-To-Board: 24-9159-100



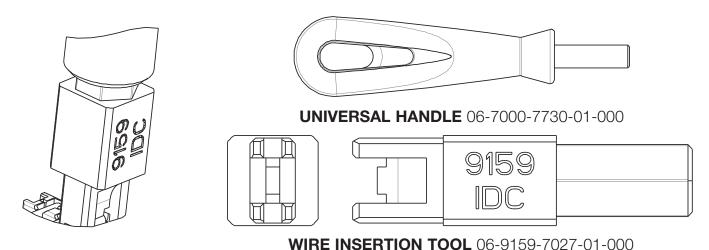


SOCKET-WIRED - ASSEMBLY SUPPORT BLOCK



- 1. BLOCK TO SUPPORT 9159 IDC WIRED CONNECTORS DURING ASSEMBLY OF CAP/WIRE.
- 2. PART NUMBER 06-9159-7026-01-000, MATERIAL ALUMINUM. PART NUMBER 06-9159-7026-02-000, MATERIAL NYLON 46.
- 3. CAN BE USED WITH EITHER THE PLUG OR SOCKET CONNECTORS, USE THE CORRECT SLOT AS IDENTIFIED.
- 4. FOR FULL WIRE ASSEMBLY DETAILS REFER TO APPLICATION NOTES 201-01-123.
- 5. ONLY A SIMPLE FLAT BOTTOMED TOOL REQUIRED TO PUSH THE CAP DOWN (NOT SUPPLIED.)
- 6. ALL DIMENSIONS ±0.20 UNLESS TOLERANCED.
- 7. 06-9159-7026-02-000 HAS RIBS TO HELP LOCATE CONTACT\/INSULATOR SUB-ASSEMBLY.

SOCKET-WIRED - WIRE INSERTION TOOL



NOTES:

- 1. TOOL 06-9159-7027-01-000 TO INSERT WIRES INTO CAP.
- 2. FOR USE WITH UNIVERSAL HANDLE 06-7000-7720-01-000.
- 3. CAN BE USED WITH BOTH THROUGH WIRE AND WIRE STOP CAPS.
- 4. REFER TO APPLICATION NOTES 201-01-123 FOR FURTHER DETAILS.