

IDC Plug Wire-To-Board: 14-9159-100

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 plug connector allows for 22-24AWG discrete or cabled wires to be easily and reliably terminated into a 9159 standard interface socket 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 socket WTB connector (24-9159), 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 socket, 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: Phosphor Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

14
Right Angle
Wired Plug
IDC

9159
Series

00X
Number of Ways

Code	No of Ways	Details
THROUGH WIRE CAP		
002	2	PAGE 26
003	3	PAGE 27
004	4	PAGE 28
005	5	PAGE 29
006	6	PAGE 30
WIRE STOP CAP		
002	2	PAGE 31
003	3	PAGE 32
004	4	PAGE 33
005	5	PAGE 34
006	6	PAGE 35

1
2 Part
PCB Strip
Connector

X
Wire Gauge
2 = 22AWG
3 = 24AWG

2
Wire
Insulation
Diameter
ø1.10mm
to ø1.60mm

X
Color/Approval

Code	Color	Approval
8	Black	UL Approved
9	White	UL Approved

X
Cap Options

Code	Cap Option	Description
0	Through Wire	Allows wires to be terminated at any point
9	Wire Stop	Terminates end of wire. End protected with Stop Face

6
Plating Option

Code	Contact
6	Gold on Contact Tin on IDC

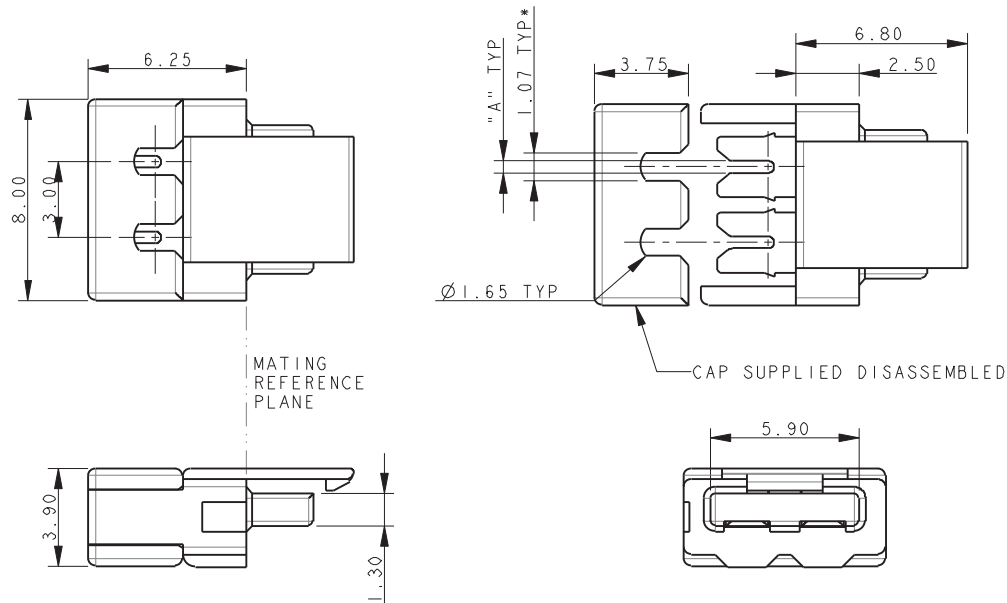
RoHS COMPLIANT

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

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2 Position Through Wire Cap

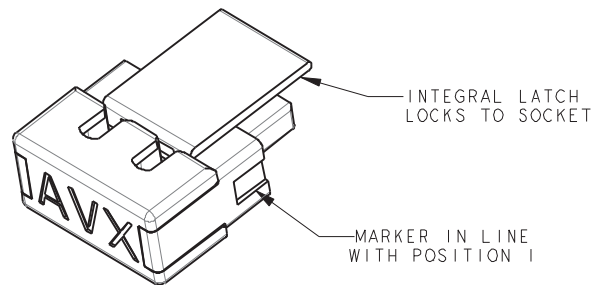
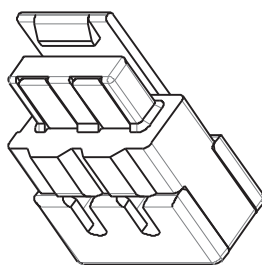
PLUG-WIRED – 2 WAY THROUGH WIRE CAP



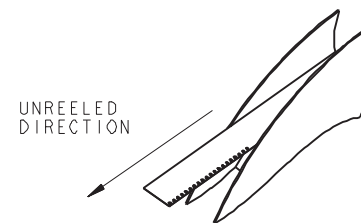
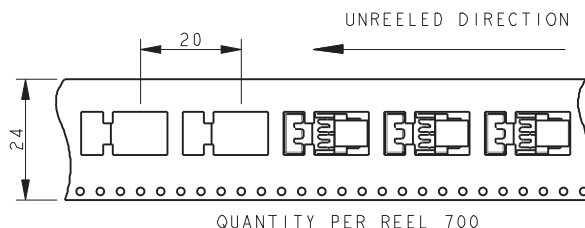
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2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 25.
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.
9. ASSEMBLY AIDS, REFER TO PAGE 36.

Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
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24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



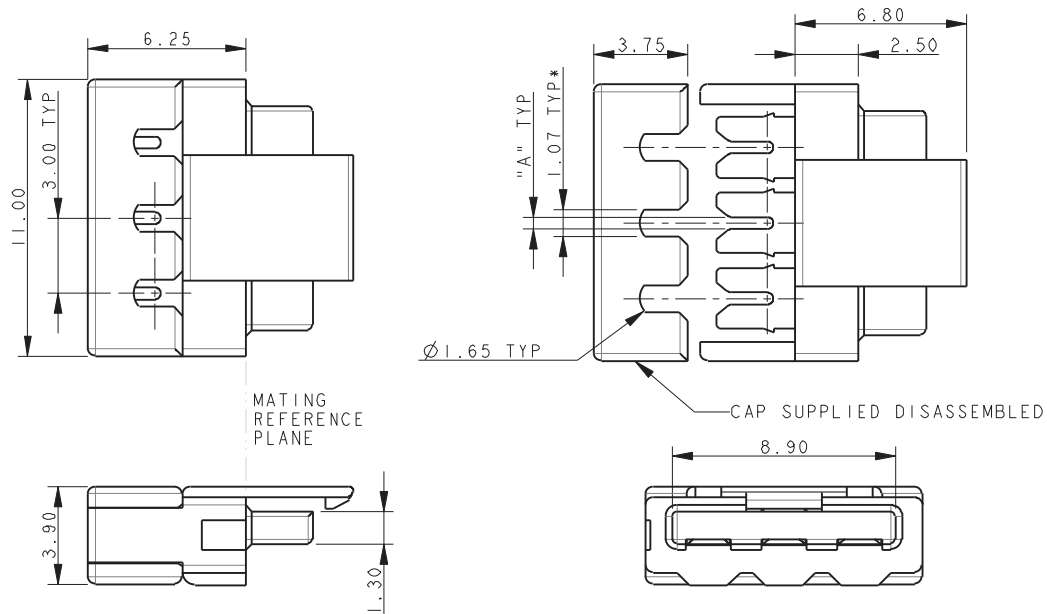
PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



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3 Position Through Wire Cap

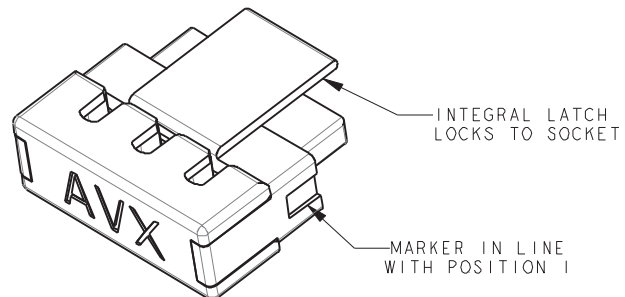
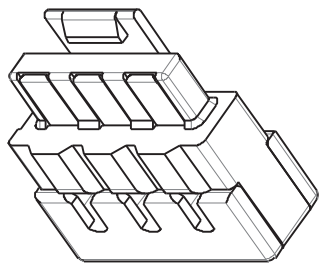
PLUG-WIRED – 3 WAY THROUGH WIRE CAP



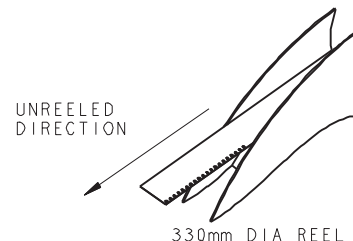
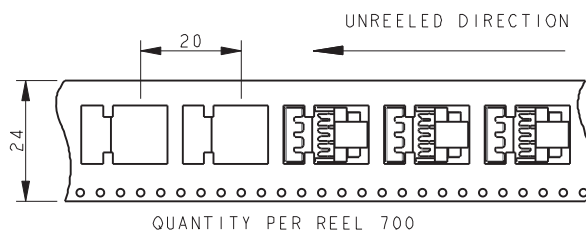
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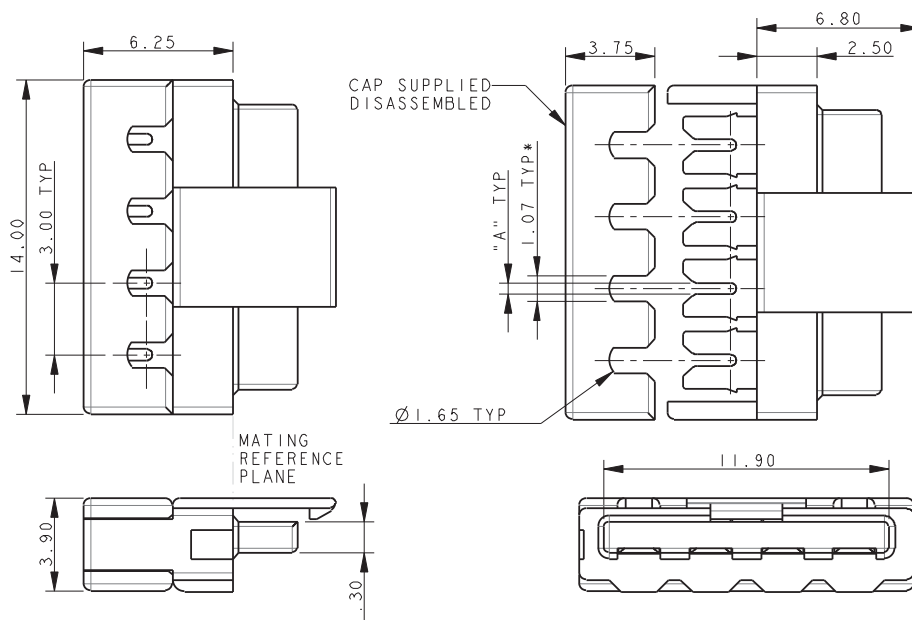
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4 Position Through Wire Cap

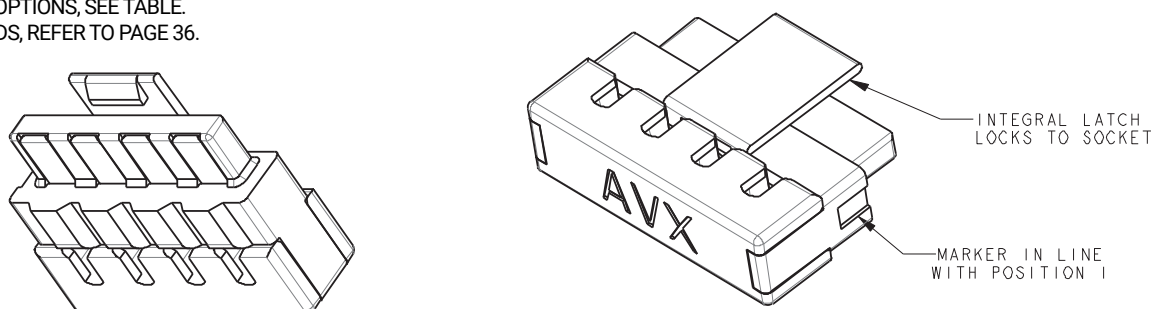
PLUG-WIRED – 4 WAY THROUGH WIRE CAP



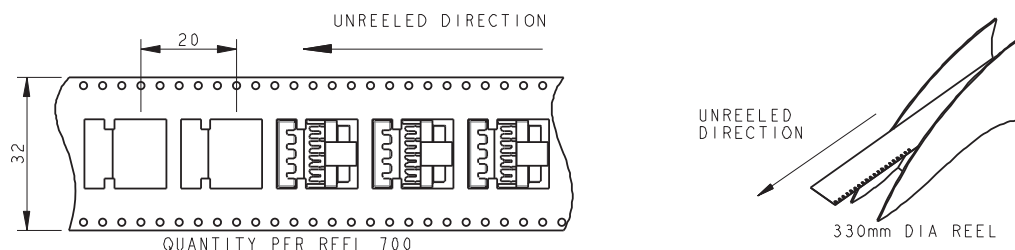
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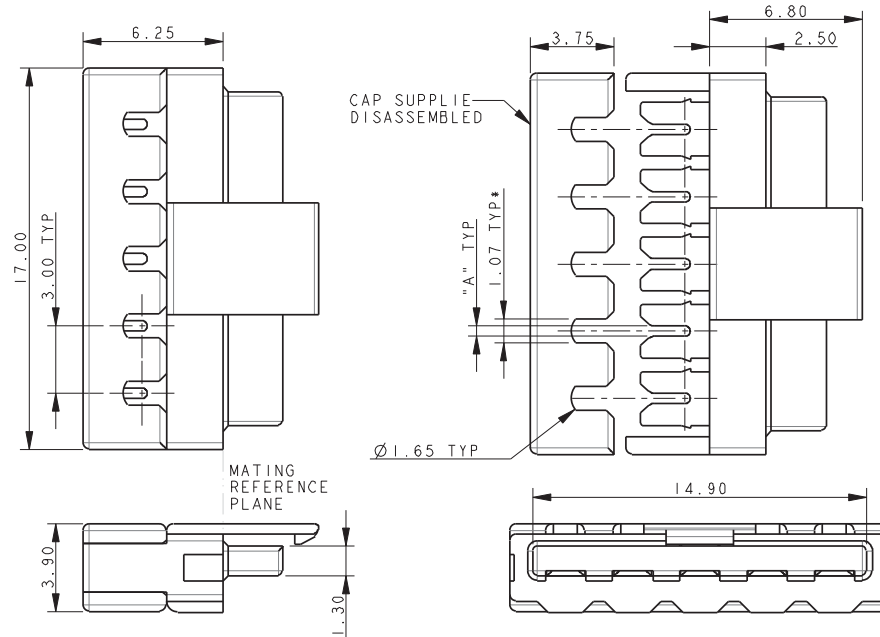
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5 Position Through Wire Cap

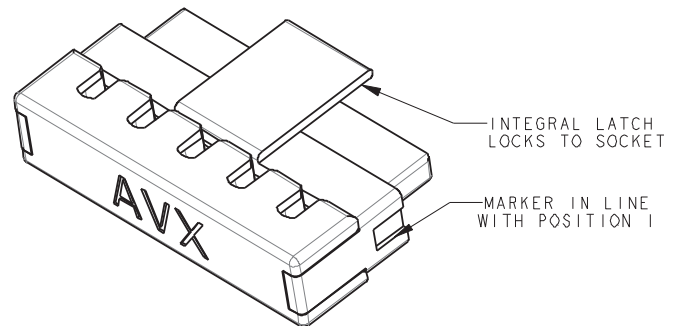
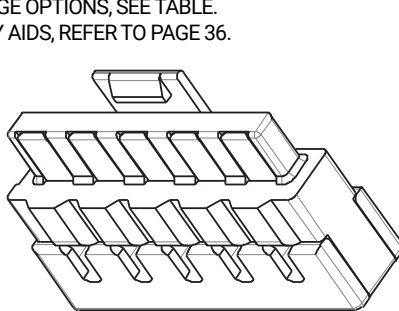
PLUG-WIRED – 5 WAY THROUGH WIRE CAP



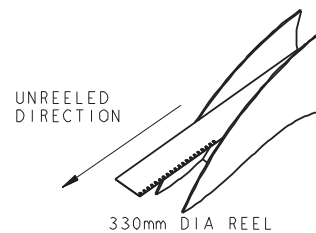
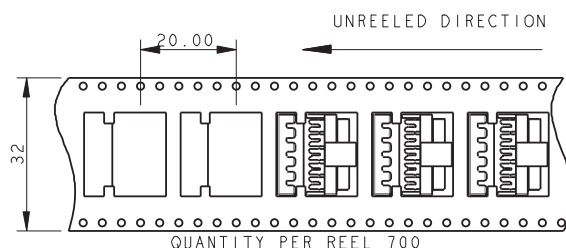
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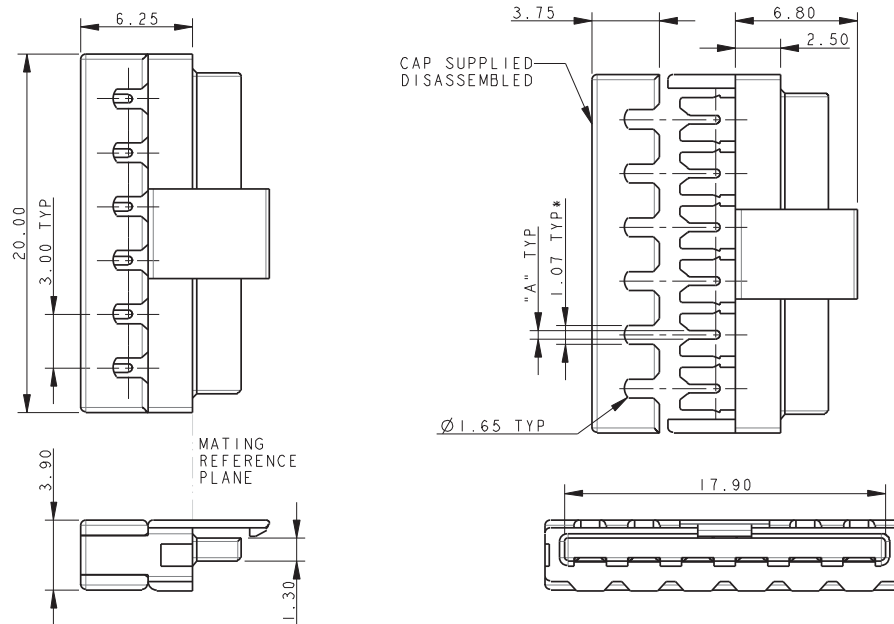
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IDC Plug Wire-To-Board: 14-9159-100

6 Position Through Wire Cap

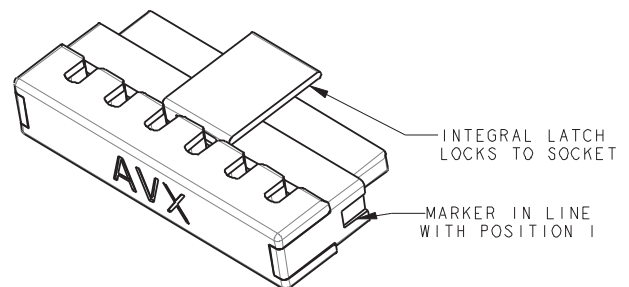
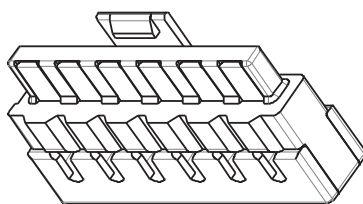
PLUG-WIRED – 6 WAY THROUGH WIRE CAP



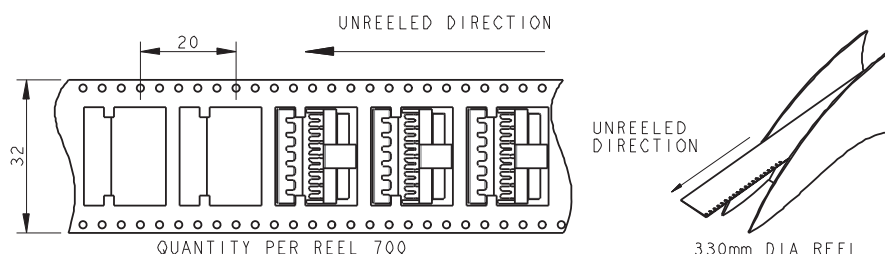
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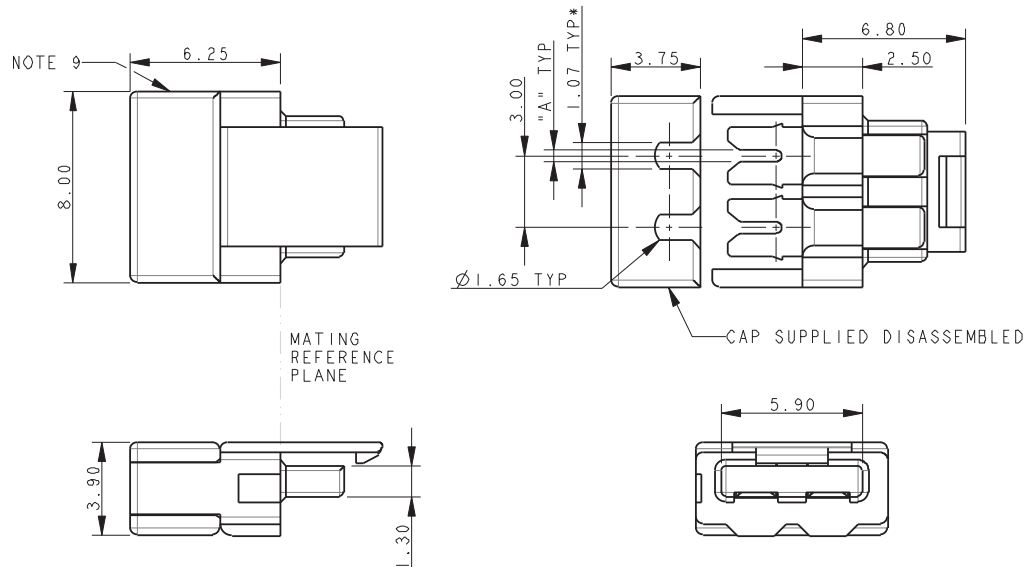
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2 Position Wire Stop Cap

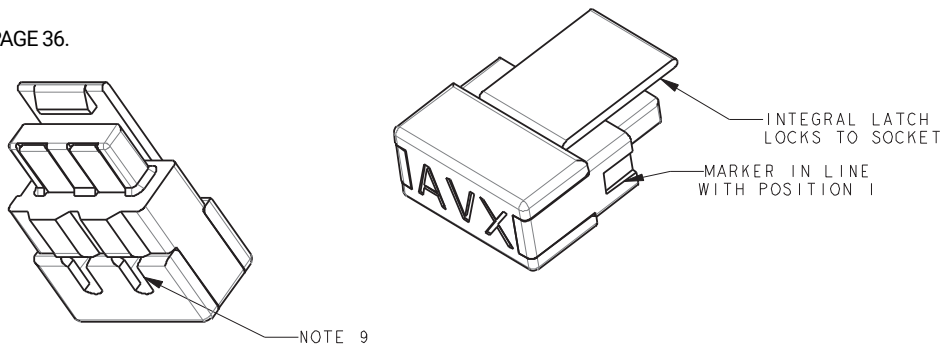
PLUG-WIRED – 2 WAY WIRE STOP CAP



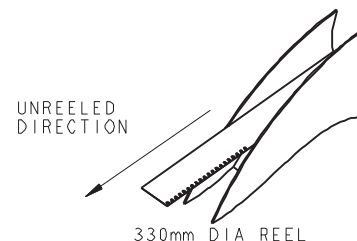
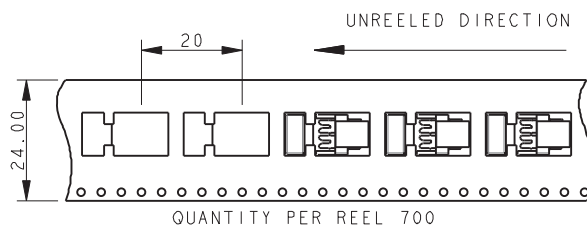
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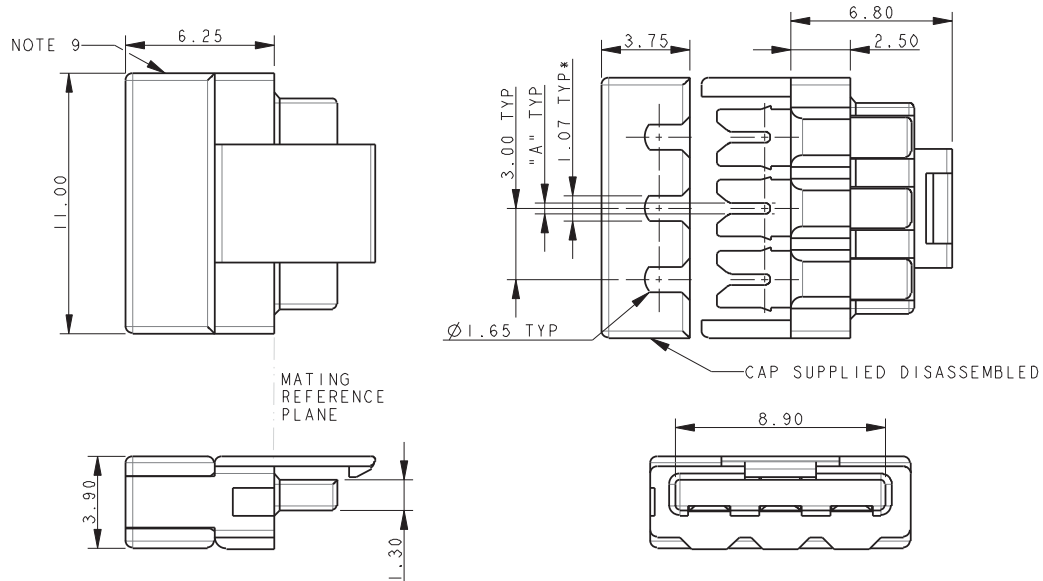
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IDC Plug Wire-To-Board: 14-9159-100

3 Position Wire Stop Cap

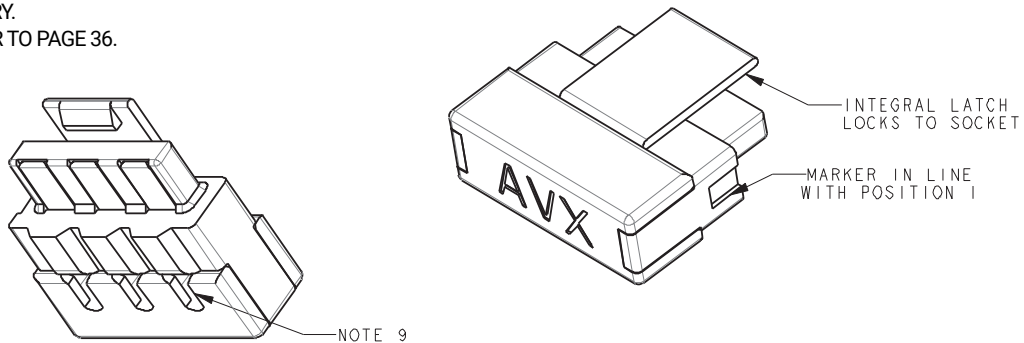
PLUG-WIRED – 3 WAY WIRE STOP CAP



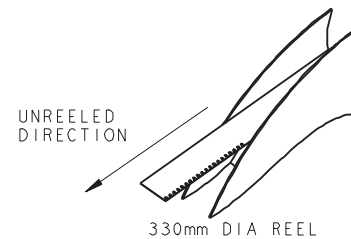
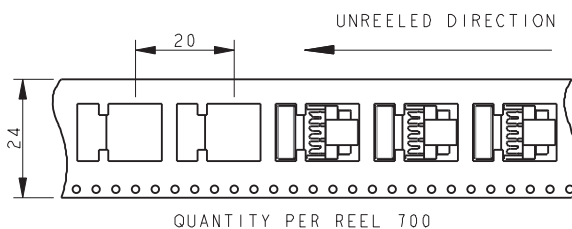
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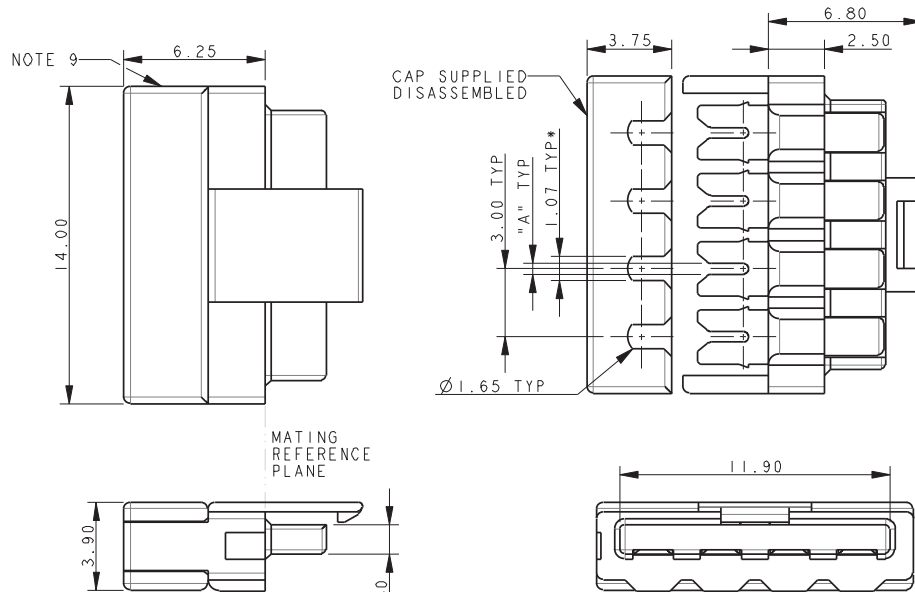
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IDC Plug Wire-To-Board: 14-9159-100

4 Position Wire Stop Cap

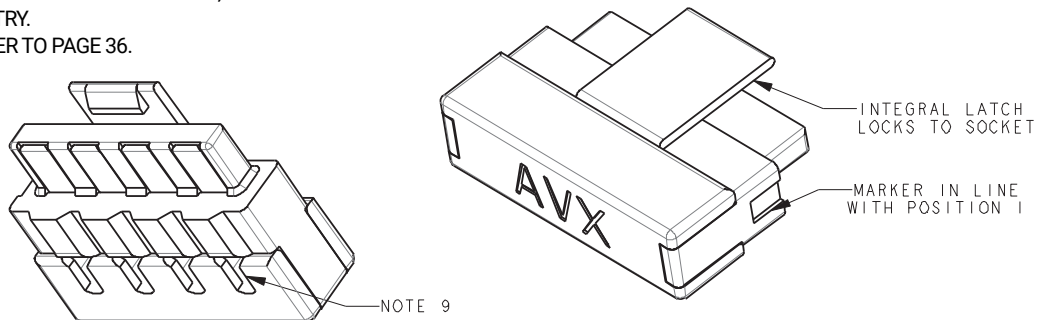
PLUG-WIRED – 4 WAY WIRE STOP CAP



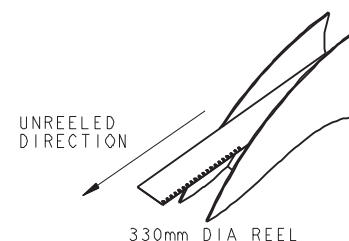
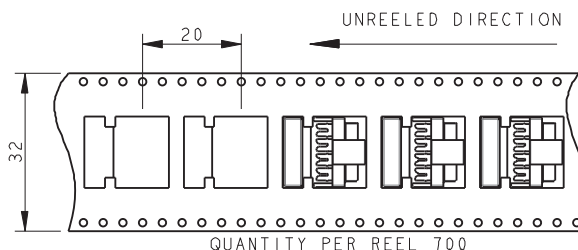
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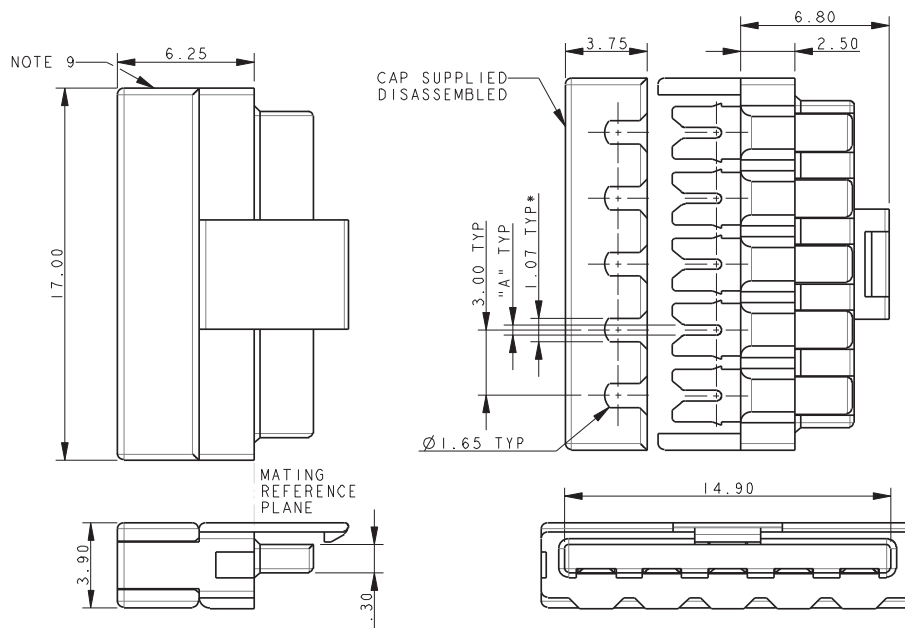
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5 Position Wire Stop Cap

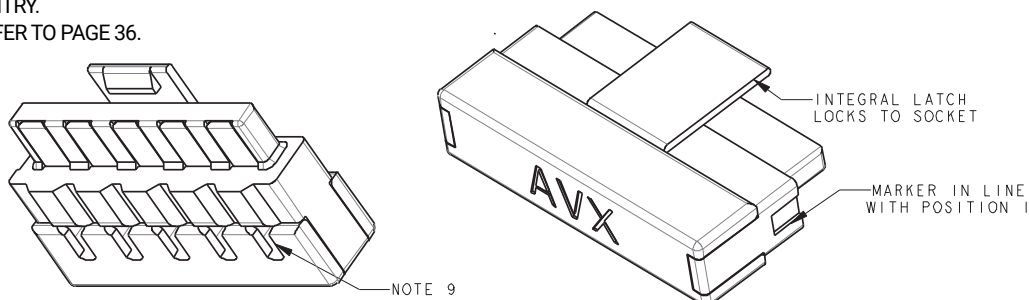
PLUG-WIRED – 5 WAY WIRE STOP CAP



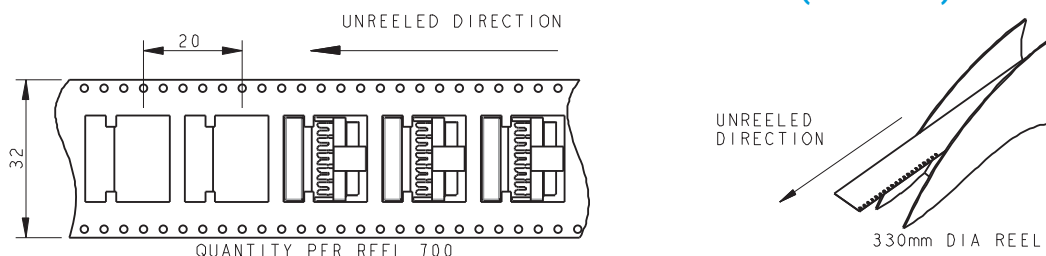
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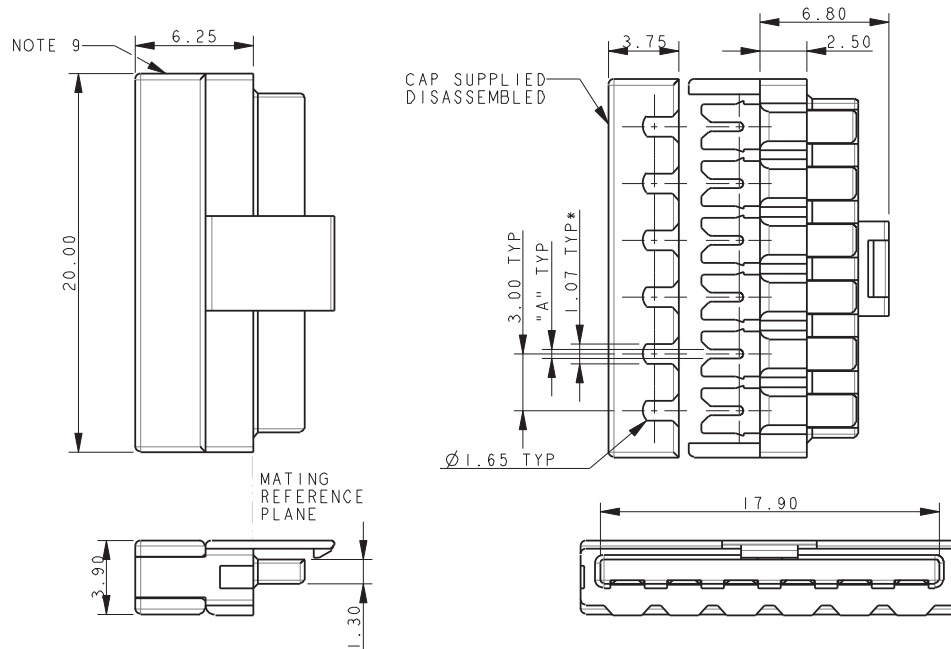
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6 Position Wire Stop Cap

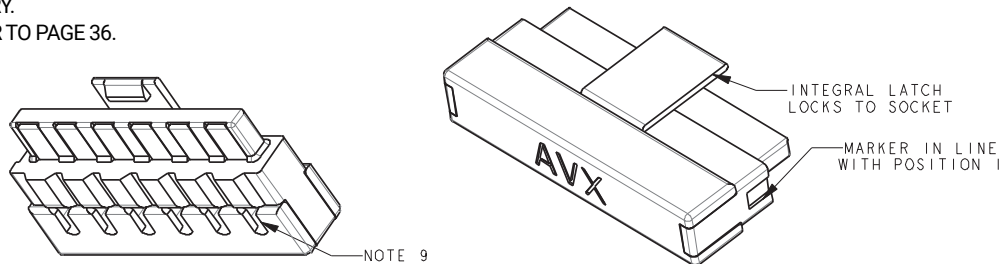
PLUG-WIRED – 6 WAY WIRE STOP CAP



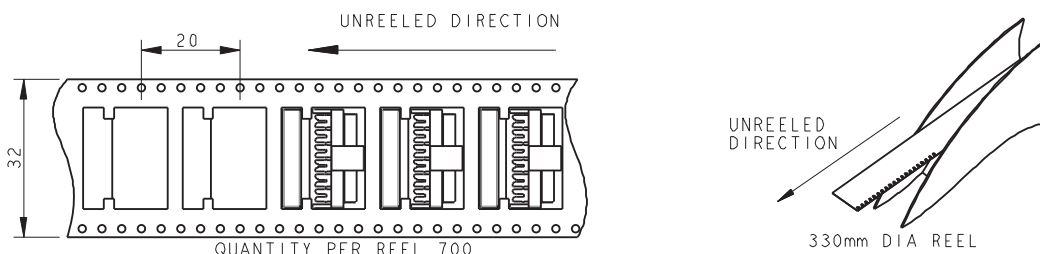
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6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 36.

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



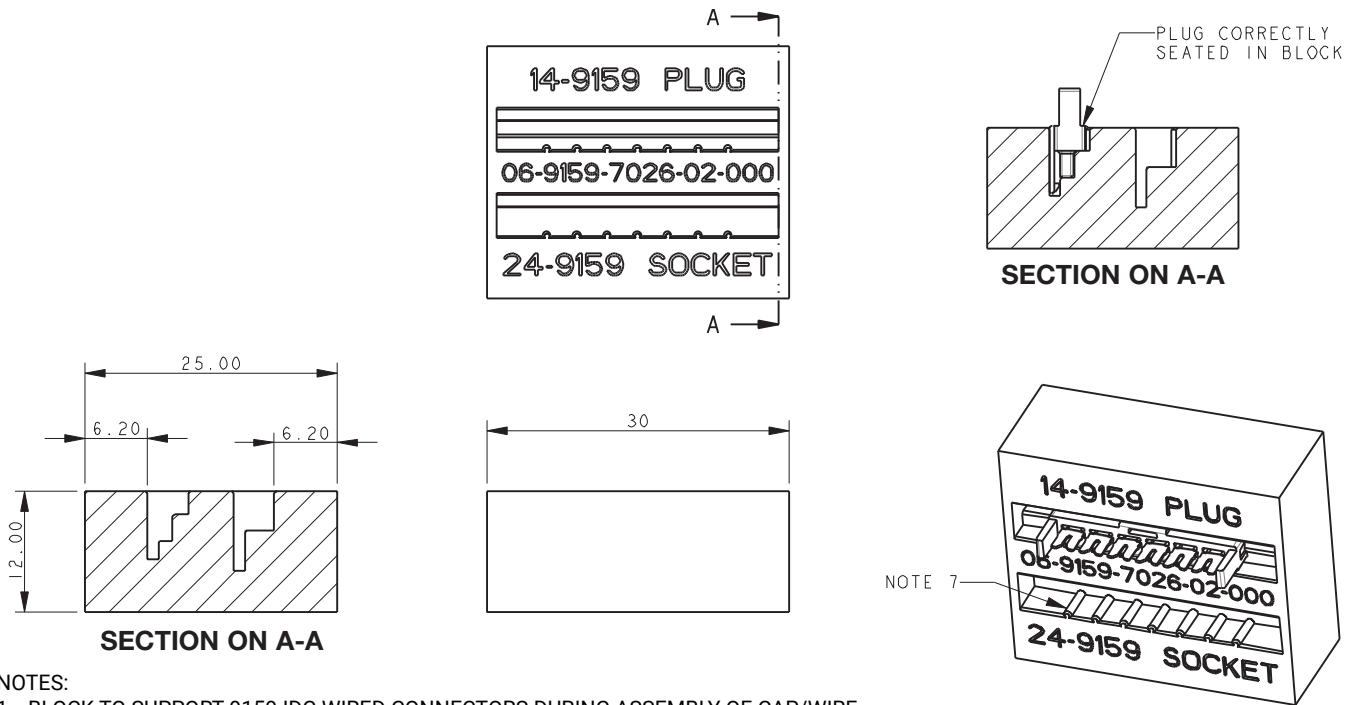
PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



IDC Plug Wire-To-Board: 14-9159-100

Assembly Support Block / Insertion Tool

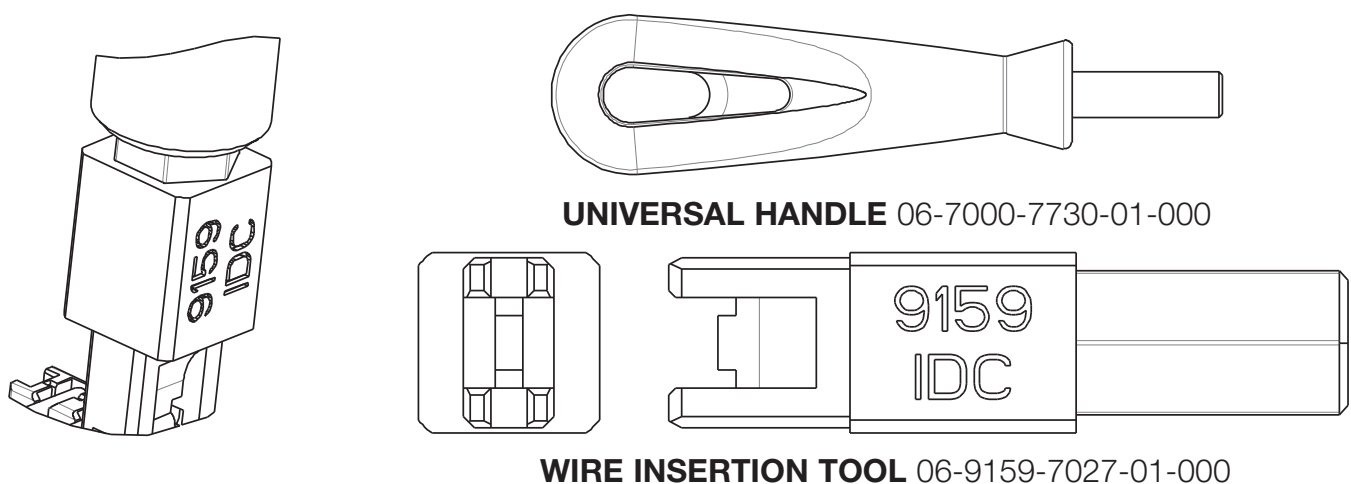
PLUG-WIRED – ASSEMBLY SUPPORT BLOCK



NOTES:

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.

PLUG-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.

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