# **IDC Socket: WTB**

### 24-9159





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 125C 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 where products are exposed to harsh mechanical and environmental environments.

The IDC cable socket connector allows for 22-24AWG discrete or cabled wires to be easily and reliability terminated into a 9159 standard interface plug connector. This will allow power and signals to be connectors 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

#### **ELECTRICAL**

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

### **ENVIRONMENTAL**

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

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#### FEATURES AND BENEFITS

- Mates with standard 9159 horizontal plug, keeping same BTB connector system
- Economical and reliable IDC wire termination
- Gold plated BeCu contact system for high reliability in harsh environments
- Integrally molded latch offers positive latching after mating

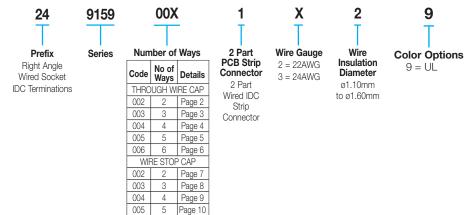
### Insulator Material: Nylon: UL94VO

- Contact Material: Phosphor Bronze
- Plating: Gold / Tin over Nickel ٠
- Durability: 10 Cycles

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**MECHANICAL** 

#### **HOW TO ORDER**



Page 11

		Т		Т	
Cap Options			Plating Option		
Code	Сар	Description	Code	Contact	
	Option		6	Gold on Cont	
0	Through Wire	Allows wires to be terminated at any point		Tin on IDC	
9	Wire Stop	Terminates end of wire. End protected with Stop Face		RoHS	
				OMPLIANT	



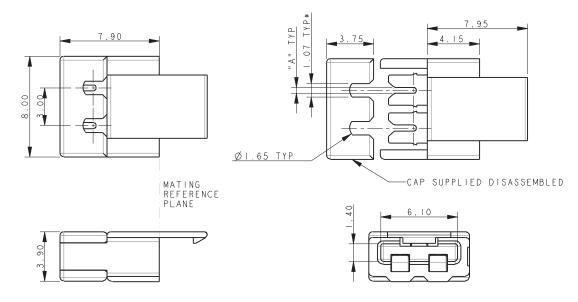
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Certification: UL File #E90723

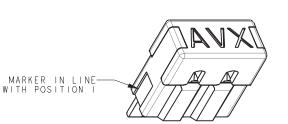


### SOCKET WIRED - 2 WAY THROUGH WIRE CAP



#### 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 1.
- 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 12.





Wire Gauge

22AWG

(Stranded Wire)

24AWG

(Standed Wire)

Code

(page 1)

122

132

-INTEGRAL LATCH LOCKS TO PLUG

**Dimension A** 

0.47

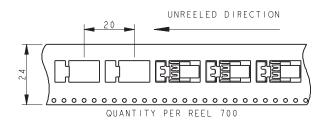
0.37

Wire Insulation

Diameter

1.10 to 1.60

1.10 to 1.60



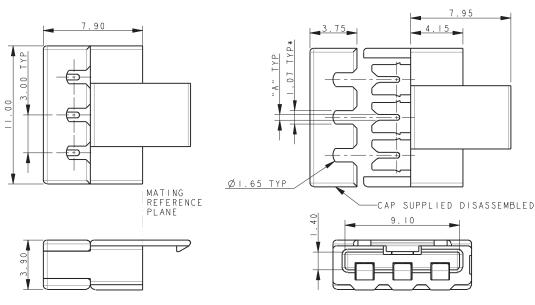


330mm DIA REEL



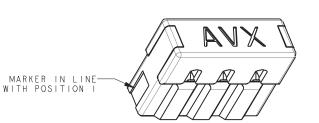


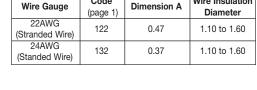
#### SOCKET WIRED - 3 WAY THROUGH WIRE CAP



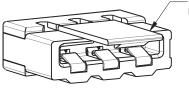
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- 9. ASSEMBLY AIDS, REFER TO PAGE 12.



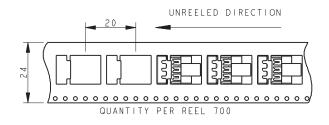


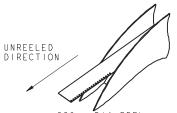
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INTEGRAL LATCH LOCKS TO PLUG

Wire Insulation



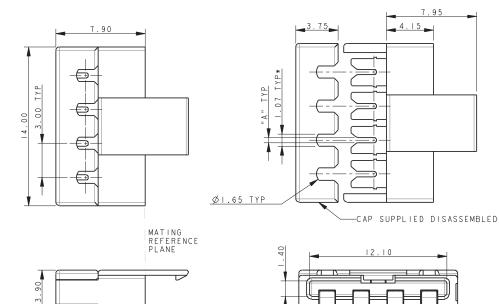


330mm DIA REEL



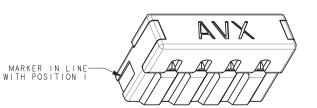


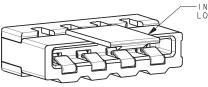
#### SOCKET WIRED - 4 WAY THROUGH WIRE CAP



#### NOTES:

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- 8. WIRE GAUGE OPTIONS, SEE TABLE.
- 9. ASSEMBLY AIDS, REFER TO PAGE 12.





Wire Gauge

22AWG

(Stranded Wire)

24AWG

(Standed Wire)

Code

(page 1)

122

132

-INTEGRAL LATCH LOCKS TO PLUG

**Dimension A** 

0.47

0.37

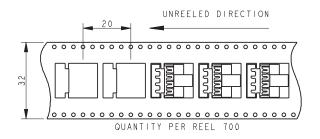
Wire Insulation

Diameter

1.10 to 1.60

1.10 to 1.60

#### PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



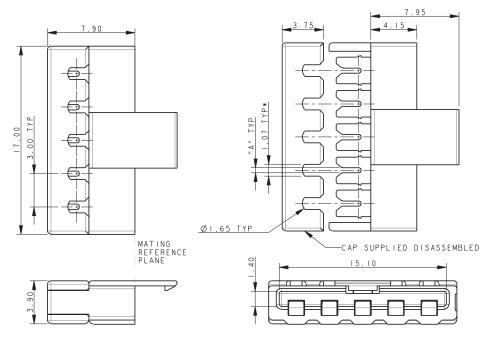


330mm DIA REEL



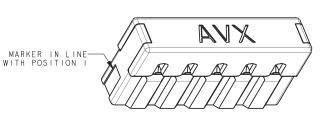


#### SOCKET WIRED - 5 WAY THROUGH WIRE CAP



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- FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
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- 9. ASSEMBLY AIDS, REFER TO PAGE 12.



	(page I)		Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Standed Wire)	132	0.37	1.10 to 1.60

Code

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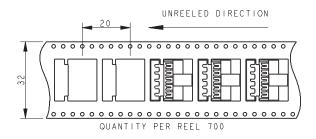
Wire Gauge

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INTEGRAL LATCH

Dimension A

Wire Insulation



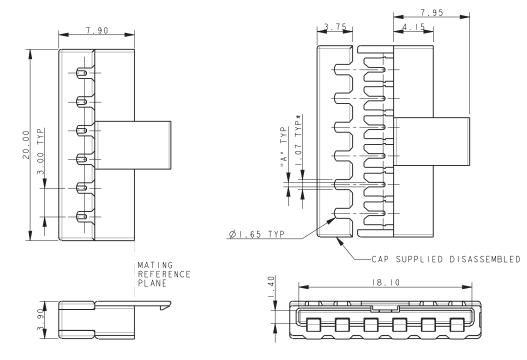


330mm DIA REEL





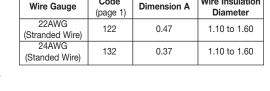
#### SOCKET WIRED - 6 WAY THROUGH WIRE CAP



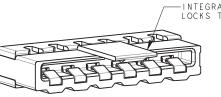
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- 8. WIRE GAUGE OPTIONS, SEE TABLE.
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XVA MARKER IN LINE WITH POSITION I



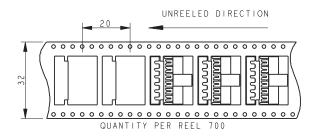
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-INTEGRAL LATCH LOCKS TO PLUG

Wire Insulation

**PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)** 



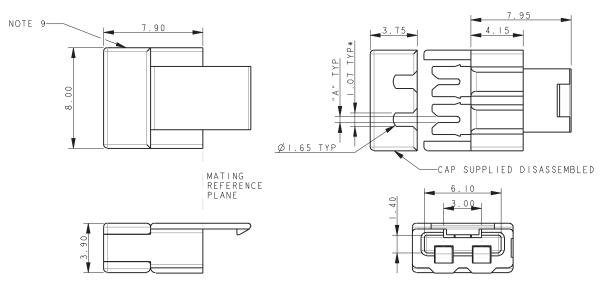


330mm DIA REEL



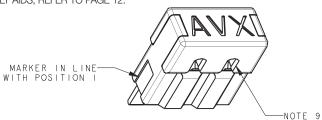


#### SOCKET-WIRED - 2 WAY WIRE STOP CAP

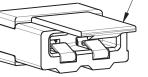


#### NOTES:

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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.
- 10. ASSEMBLY AIDS, REFER TO PAGE 12.

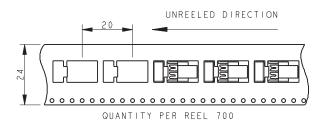


Wire Gauge	Code (page 1)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Standed Wire)	132	0.37	1.10 to 1.60



-INTEGRAL LATCH LOCKS TO PLUG

#### PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)

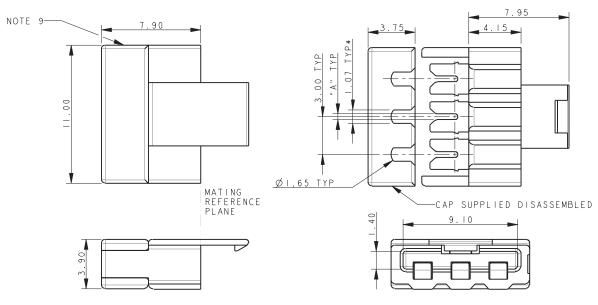




330mm DIA REEL

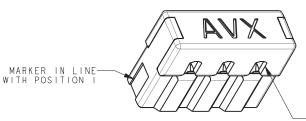


#### **SOCKET-WIRED – 3 WAY WIRE STOP CAP**



#### NOTES:

- 1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119. FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
- 2. WIRE STOP CAP, WITH STOP FACE O ONE SIDE TO PROTECT END OF WIRE.
- 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 1.
- 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.
- SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
- 10. ASSEMBLY AIDS, REFER TO PAGE 12.



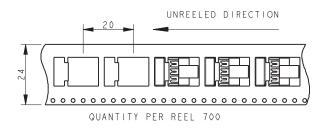
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22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
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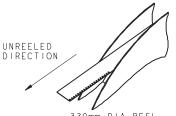


-INTEGRAL LATCH LOCKS TO PLUG

#### PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)

-NOTE 9





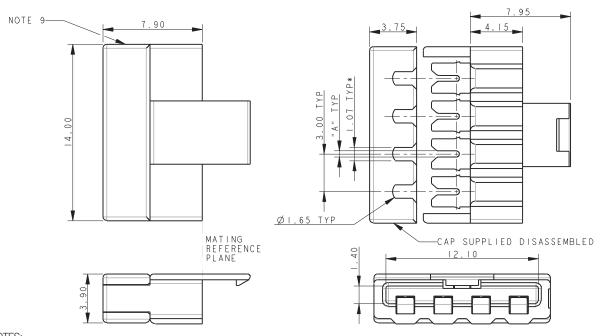
330mm DIA REEL



# IDC Socket: WTB



#### SOCKET-WIRED – 4 WAY WIRE STOP CAP

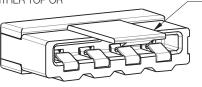


#### NOTES:

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- 2. WIRE STOP CAP, WITH STOP FACE O ONE SIDE TO PROTECT END OF WIRE.
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- 8. WIRE GAUGE OPTIONS, SEE TABLE.
- Will be a local of horito, dela model.
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- 10. ASSEMBLY AIDS, REFER TO PAGE 12.

MARKER IN LINE WITH POSITION I

XVA -NOTE 9



Wire Gauge

22AWG

(Stranded Wire)

24AWG

(Standed Wire)

-INTEGRAL LATCH LOCKS TO PLUG

**Dimension A** 

0.47

0.37

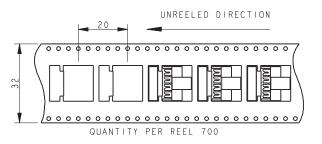
Wire Insulation

Diameter

1.10 to 1.60

1.10 to 1.60

PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)





330mm DIA REEL

Code

(page 1)

122





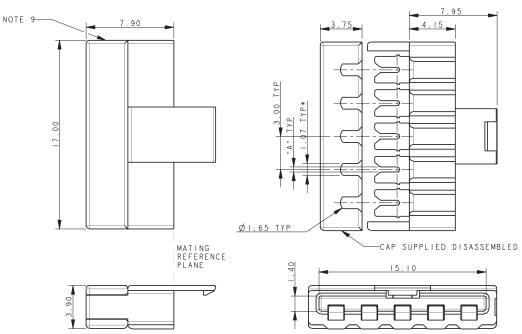
Wire Insulation

Diameter

1.10 to 1.60

1.10 to 1.60

#### **SOCKET-WIRED – 5 WAY WIRE STOP CAP**



#### NOTES:

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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.
- 10. ASSEMBLY AIDS, REFER TO PAGE 12.





Wire Gauge

22AWG

(Stranded Wire)

24AWG

(Standed Wire)

Code

(page 1)

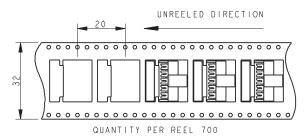
122

132

**Dimension A** 

0.47

0.37



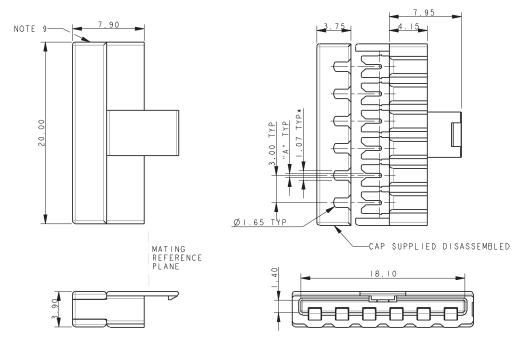








#### SOCKET-WIRED – 6 WAY WIRE STOP CAP



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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.
- 10. ASSEMBLY AIDS, REFER TO PAGE 12.

XVA MARKER IN LINE WITH POSITION I -NOTE 9



Code

(page 1)

122

132

**Dimension A** 

0.47

0.37

Wire Gauge

22AWG

(Stranded Wire)

24AWG

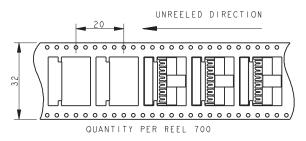
(Standed Wire)

Wire Insulation

Diameter

1.10 to 1.60

1.10 to 1.60





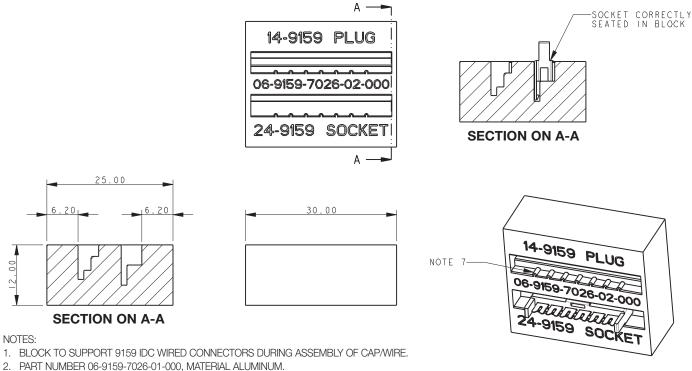


# IDC Socket: WTB

## 24-9159

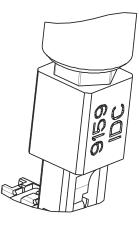


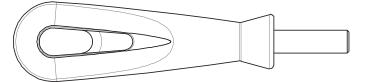
#### **SOCKET-WIRED – ASSEMBLY SUPPORT BLOCK**



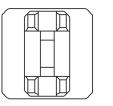
- PART NUMBER 06-9159-7026-01-000, MATERIAL ALCONINUM. PART NUMBER 06-9159-7026-02-000, MATERIAL NYLON 46.
- 3. CAN BE USED WITH EITHER THE PLUG OR SOCKET CONNECTORS, USE THE CORRECT SLOT AS IDENTIFIED.
- 4. FOR FULL WIRE ASSEMBLY DETAILS REFER TO APPLICATION NOTES 201-01-123.
- 5. ONLY A SIMPLE FLAT 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**





#### UNIVERSAL HANDLE 06-7000-7730-01-000





#### WIRE INSERTION TOOL 06-9159-7027-01-000

NOTES:

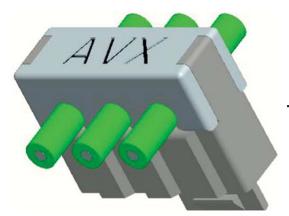
- 1. TOOL 06-9159-7027-01-000 TO INSERT WIRES INTO CAP.
- 2. FOR USE WITH UNIVERSAL HANDLE 06-7000-7720-01-000.
- 3. CAN BE USED WITH BOTH THROUGH WIRE AND WIRE STOP CAPS.
- 4. REFER TO APPLICATION NOTES 201-01-123 FOR FURTHER DETAILS.





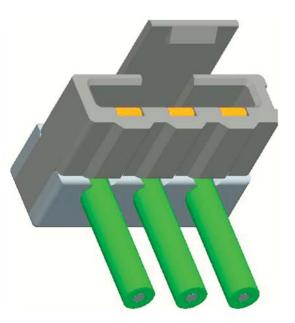


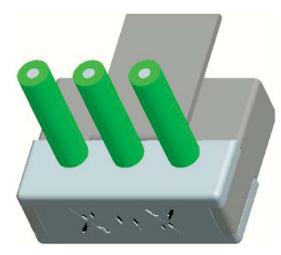
### **SOCKET-WIRED – ASSEMBLY**



**THROUGH WIRE** 

WIRED STOP WIRE ENTRY UNDERSIDE





WIRED STOP WIRE ENTRY TOP



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