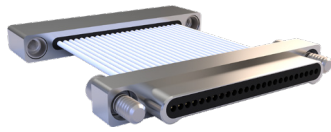


# SERIES 89 NANOMINIATURE Single-Row Rectangular Connectors



## 890-005 Back-to-Back Cable Assembly

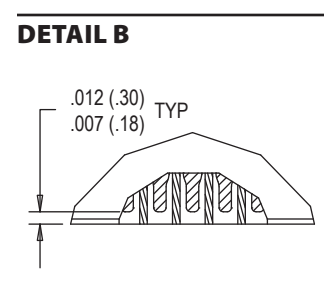
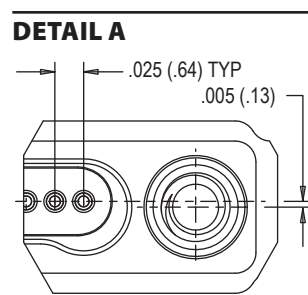
SINGLE-ROW RECTANGULAR CONNECTORS



**Glenair Back-To-Back Cable Assemblies** feature gold alloy TwistPin contacts. Contacts are precision-crimped to insulated, stranded wire. Nanominiature connectors offer premium performance and reliability for demanding applications. Contact spacing is .025 inches. 1 amp current rating, DWV rating 250 volts AC. Wire gages #30 and #32 AWG. TwistPin Contact System assures premium performance in demanding environments. The gold alloy contacts will stand up to years of exposure without corrosion. Connectors are wired 1 to 1, 2 to 2, 3 to 3, etc.

HOW TO ORDER													
<b>Sample Part Number</b>	890-005 -25 CS A2 -0 B 7 -12 JT												
<b>Series</b>	890-005 = Back-To-Back Cables, Single Row, Nanominiature												
<b>Insert Arrangement</b>	5, 9, 15, 21, 25, 31, 37, 51												
<b>Connector Type</b>	<table border="1"> <thead> <tr> <th>Type</th> <th>Side 1</th> <th>Side 2</th> </tr> </thead> <tbody> <tr> <td>GP</td> <td>Plug (Pins)</td> <td>Plug (Pins)</td> </tr> <tr> <td>GS</td> <td>Receptacle (Sockets)</td> <td>Receptacle (Sockets)</td> </tr> <tr> <td>CS</td> <td>Plug (Pins)</td> <td>Receptacle (Sockets)</td> </tr> </tbody> </table>	Type	Side 1	Side 2	GP	Plug (Pins)	Plug (Pins)	GS	Receptacle (Sockets)	Receptacle (Sockets)	CS	Plug (Pins)	Receptacle (Sockets)
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GS	Receptacle (Sockets)	Receptacle (Sockets)											
CS	Plug (Pins)	Receptacle (Sockets)											
<b>Shell Material and Finish</b>	<table border="1"> <tbody> <tr> <td>A1 = Aluminum Shell, Cadmium Plating</td> <td>A2 = Aluminum Shell, Electroless Nickel Plating</td> </tr> <tr> <td>A31 = Aluminum Shell, Zinc Nickel Plating, Black</td> <td>A33 = Aluminum Shell, Nickel PTFE Plating</td> </tr> <tr> <td>T = Titanium Shell, Unplated</td> <td>S = Stainless Steel Shell, Passivated</td> </tr> </tbody> </table>	A1 = Aluminum Shell, Cadmium Plating	A2 = Aluminum Shell, Electroless Nickel Plating	A31 = Aluminum Shell, Zinc Nickel Plating, Black	A33 = Aluminum Shell, Nickel PTFE Plating	T = Titanium Shell, Unplated	S = Stainless Steel Shell, Passivated						
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<b>Wire Gage</b>	0 = #30 AWG (Wire types A, B, C, E, and F)    2 = #32 AWG (Wire Type B only)												
<b>Wire Type</b>	<table border="1"> <tbody> <tr> <td>A = Ultra Lightweight XLETFE Insulation, Silver Coated Ultra High Strength Copper.</td> </tr> <tr> <td>B = Extruded PTFE Insulation, Silver Coated Copper NEMA HP3-ETX (MIL-W-16878/6)</td> </tr> <tr> <td>C = Cross Linked Modified ETFE Insulation, Silver Coated High Strength Copper. SAE AS22759/33-30</td> </tr> <tr> <td>E = Cross Linked Modified ETFE Insulation, Low Fluoride, Lightweight, Silver Coated High Strength Copper Alloy. SAE AS22759/51-30</td> </tr> <tr> <td>F = Cross Linked Modified ETFE Insulation, Low Fluoride, Lightweight, Silver-Coated Copper, SAE AS22759/52-30</td> </tr> </tbody> </table>	A = Ultra Lightweight XLETFE Insulation, Silver Coated Ultra High Strength Copper.	B = Extruded PTFE Insulation, Silver Coated Copper NEMA HP3-ETX (MIL-W-16878/6)	C = Cross Linked Modified ETFE Insulation, Silver Coated High Strength Copper. SAE AS22759/33-30	E = Cross Linked Modified ETFE Insulation, Low Fluoride, Lightweight, Silver Coated High Strength Copper Alloy. SAE AS22759/51-30	F = Cross Linked Modified ETFE Insulation, Low Fluoride, Lightweight, Silver-Coated Copper, SAE AS22759/52-30							
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<b>Wire Color Code</b>	1 = White    2 = Yellow    7 = 10 Color Repeating (wire type A is striped, types B, C, E, and F are solid colors)												
<b>Overall Length</b>	Overall Length In Inches Including Connectors; Example: "12" specifies 12 inches OAL; 2" minimum												
<b>Hardware</b>	<table border="1"> <tbody> <tr> <td>JJ = Jackscrews on both ends (GP, GS, CS)</td> <td>TJ = Jackscrews on receptacle, threaded holes on plug (CS)</td> </tr> <tr> <td>JT = Jackscrews on plug, threaded holes on receptacle (CS)</td> <td>JR = Jackscrews on receptacle, threaded holes on receptacle (GS)</td> </tr> <tr> <td>JP = Jackscrews on plug, threaded holes on plug (GP)</td> <td>TT = Threaded holes both ends (GP, GS, CS)</td> </tr> </tbody> </table> (Stainless Steel Inserts installed in Aluminum Shells, tapped directly into Stainless Steel and Titanium Shells)	JJ = Jackscrews on both ends (GP, GS, CS)	TJ = Jackscrews on receptacle, threaded holes on plug (CS)	JT = Jackscrews on plug, threaded holes on receptacle (CS)	JR = Jackscrews on receptacle, threaded holes on receptacle (GS)	JP = Jackscrews on plug, threaded holes on plug (GP)	TT = Threaded holes both ends (GP, GS, CS)						
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PLUG HARDWARE		RECEPTACLE HARDWARE	
J - Jackscrew Option	T - Female Thread Option	J - Jackscrew Option	T - Female Thread Option



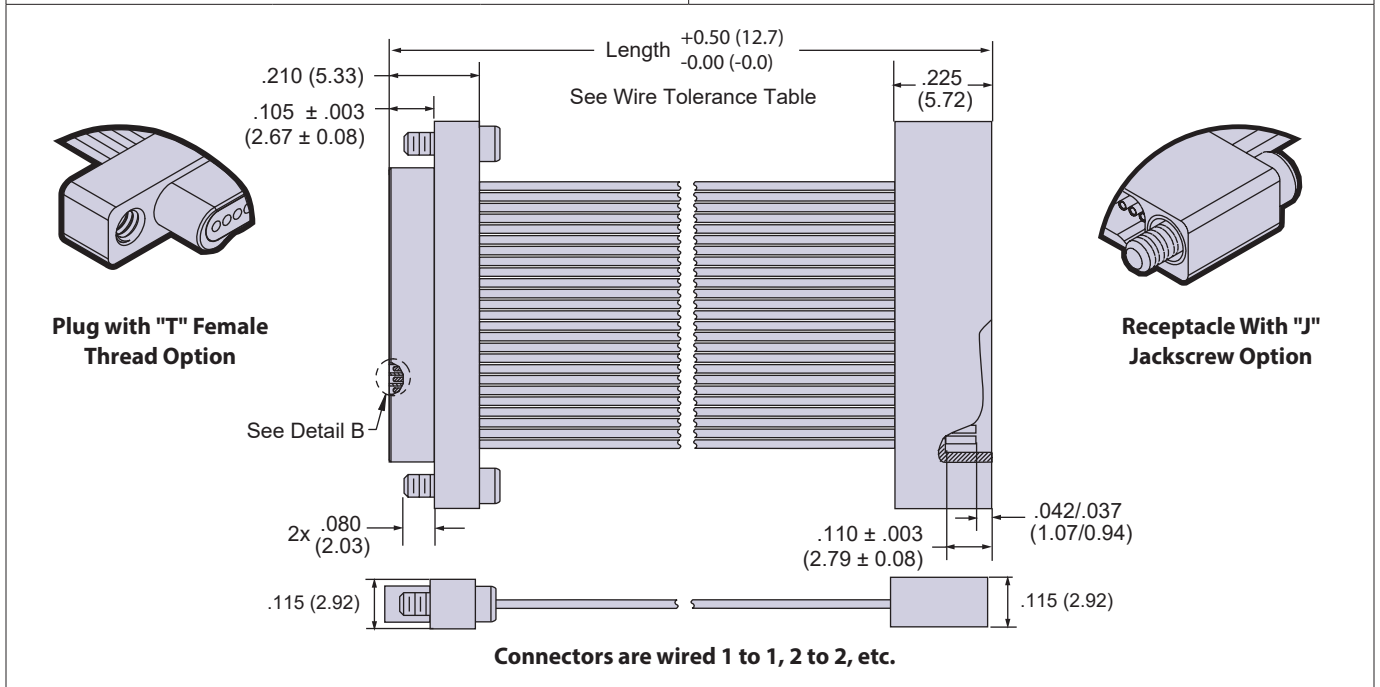
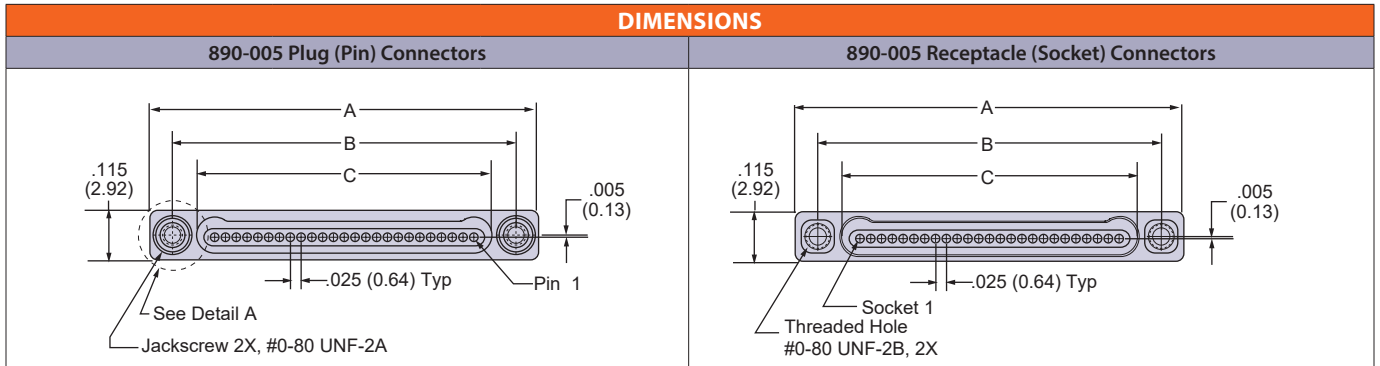
PERFORMANCE SPECIFICATIONS		
<b>Contact Spacing:</b> .025" (0.64) contact centers	<b>Operating Temperature:</b> -55° C. to +125° C.	<b>Corrosion Resistance:</b> 48 hours salt spray IAW EIA-364-26, Condition B
<b>Wire Accommodation:</b> #30-#32 AWG	<b>Contact Resistance:</b> 71 millivolt drop maximum, 1 AMP current, any catalog supported wire type	<b>Humidity:</b> 240 hours, IAW EIA-364-31, Test Condition B
<b>Current Rating:</b> 1 AMP maximum tested per EIA-364-70	<b>Vibration:</b> 20 g's, IAW EIA-364-28, Condition IV	<b>Contact Engaging/Separation Force:</b> 5 ounce maximum, 0.4 ounce minimum
<b>DWV:</b> 250 VAC RMS sea level, 100 VAC RMS 70,000 feet per EIA-364 Procedure 20	<b>Shock:</b> 100 g's, IAW EIA-364-27, Condition G	<b>Thermal Vacuum Outgassing:</b> Total mass loss (TML) 1.0% max., volatile condensable material (VCM) 0.1% max. IAW ASTM E595
<b>Insulation Resistance:</b> 5000 Megohms minimum test voltage 100 VDC, per EIA-364 Procedure 21	<b>Durability:</b> 200 mating cycles per test procedure EIA-364-09	

# SERIES 89 NANOMINIATURE Single-Row Rectangular Connectors



## 890-005 Back-to-Back Cable Assembly

SINGLE-ROW RECTANGULAR CONNECTORS



Layout	A ± .005 (0.127)	B BSC.	C BSC.
5P	.400 (10.16)	.295 (7.49)	.184 (4.67)
5S	.400 (10.16)	.295 (7.49)	.185 (4.70)
9P	.500 (12.70)	.395 (10.03)	.284 (7.21)
9S	.500 (12.70)	.395 (10.03)	.285 (7.24)
15P	.650 (16.51)	.545 (13.84)	.434 (11.02)
15S	.650 (16.51)	.545 (13.84)	.435 (11.05)
21P	.800 (20.32)	.695 (17.65)	.584 (14.83)
21S	.800 (20.32)	.695 (17.65)	.585 (14.86)
25P	.900 (22.86)	.795 (20.19)	.684 (17.37)
25S	.900 (22.86)	.795 (20.19)	.685 (17.40)
31P	1.050 (26.67)	.945 (24.00)	.834 (21.18)
31S	1.050 (26.67)	.945 (24.00)	.835 (21.21)
37P	1.200 (30.48)	1.095 (27.81)	.984 (24.99)
37S	1.200 (30.48)	1.095 (27.81)	.985 (25.02)
51P	1.550 (39.37)	1.445 (36.70)	1.334 (33.88)
51S	1.550 (39.37)	1.445 (36.70)	1.335 (33.91)

WIRE LENGTH TOLERANCE	
Length Range	Tolerance
2" - 48" (50.80 - 1219.20)	+0.50/-0.00 (+12.70/-0.00)
>48" - 72" (>1219.20 - 1828.80)	+1.00/-0.00 (+25.4/-0.00)
>72" - 120" (>1828.80 - 3048.00)	+2.00/0.00 (+50.80/-0.00)
>120" (>3048.00)	+4.00/-0.00 (+101.60/-0.00)

### NOTES

1. Material and finish:
  - Shell: see part number breakdown
  - Insulator: LCP N/A
  - Contacts: gold alloy/ unplated
  - Wire: see part number breakdown
  - Hardware: stainless steel, passivated
2. Inspect and Test IAW MIL-DTL-32139
3. Interface dimensions per MIL-DTL-32139/1 and MIL-DTL-32139/2