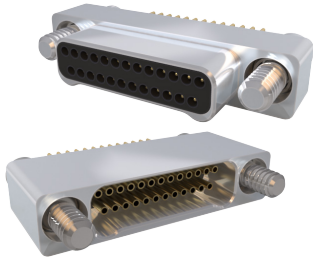


# SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



## 891-003 and 891-004 Plug and Receptacle Connectors with Uninsulated Wire

DUAL-ROW RECTANGULAR CONNECTORS



**Nanominiature Connectors** with uninsulated wire feature gold alloy TwistPin contacts. Contacts are precision-crimped to uninsulated wire. These 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.

**Typical Applications** include UAV's, satellites, missile systems and geophysical instruments.

HOW TO ORDER							
<b>Sample Part Number</b>	891-003 -9P A2 -0 D3 -.125 J						
<b>Series</b>	891-003 = Plug 891-004 = Receptacle						
<b>Insert Arrangement/ Contact Type</b>	Plugs (891-003): 9P, 15P, 21P, 25P, 31P, 37P, 41P, 51P, 65P, 69P, 85P, 91P Receptacles (891-004): 9S, 15S, 21S, 25S, 31S, 37S, 41S, 51S, 65S, 69S, 85S, 91S						
<b>Shell Material and Finish</b>	A1 = Aluminum Shell, Cadmium Plating A33 = Aluminum Shell, Nickel PTFE Plating S = Stainless Steel Shell, Passivated		A2 = Aluminum Shell, Electroless Nickel Plating A31 = Aluminum Shell, Zinc Nickel Plating, Black T = Titanium Shell, Unplated				
<b>Wire Gage</b>	0 = #30 AWG 2 = #32 AWG						
<b>Wire Type</b>	D3 = Single Strand Copper Wire, Uninsulated with Gold Plating						
<b>Wire Length</b>	.125, .250, .375, .500						
<b>Hardware</b>	J = Jackscrew T = Female Thread (Stainless Steel Inserts installed in Aluminum Shells, tapped directly into Stainless Steel and Titanium Shells)						

PLUG HARDWARE		RECEPTACLE HARDWARE	
J - Jackscrew	T - Female Thread	J - Jackscrew	T - Female Thread

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

NOTES
Material and Finishes: Shell: see part number break down Insulator: LCP/N/A Contacts: gold alloy / unplated Wire: see part number break down Hardware: passivated stainless steel Inspect and test IAW MIL-DTL-32139 Interface dimensions per MIL-DTL-32139/3 & /4

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## 891-003 and 891-004 Plug and Receptacle Connectors with Uninsulated Wire

DUAL-ROW RECTANGULAR CONNECTORS

DIMENSIONS						
891-003 Plug (Pin) Connector				891-004 Receptacle (Socket) Connector		
<p><b>Plug With "T" Female Thread Option</b></p>				<p><b>Receptacle With "J" Jackscrew Option</b></p>		
Layout	A ± .005	B BSC.	C BSC.	D ± .005	E BSC.	F Thread
9P	.375 (9.52)	.270 (6.86)	.160 (4.06)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
9S	.375 (9.52)	.270 (6.86)	.163 (4.14)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
15P	.450 (11.43)	.345 (8.76)	.235 (5.97)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
15S	.450 (11.43)	.345 (8.76)	.238 (6.05)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
21P	.525 (13.34)	.420 (10.67)	.310 (7.87)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
21S	.525 (13.34)	.420 (10.67)	.313 (7.95)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
25P	.575 (14.61)	.470 (11.94)	.360 (9.14)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
25S	.575 (14.61)	.470 (11.94)	.363 (9.22)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
31P	.650 (16.51)	.545 (13.84)	.435 (11.05)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
31S	.650 (16.51)	.545 (13.84)	.438 (11.13)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
37P	.725 (18.42)	.620 (15.75)	.510 (12.95)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
37S	.725 (18.42)	.620 (15.75)	.513 (13.03)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
41P	.775 (19.69)	.670 (17.02)	.560 (14.22)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
41S	.775 (19.69)	.670 (17.02)	.563 (14.30)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
51P	.900 (22.86)	.795 (20.19)	.685 (17.40)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
51S	.900 (22.86)	.795 (20.19)	.688 (17.48)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
65P	1.075 (27.31)	.970 (24.64)	.860 (21.84)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
65S	1.075 (27.31)	.970 (24.64)	.863 (21.92)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
69P	1.125 (28.58)	1.020 (25.91)	.910 (23.11)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
69S	1.125 (28.58)	1.020 (25.91)	.913 (23.19)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
85P	1.377 (34.98)	1.246 (31.65)	1.110 (28.19)	.150 (3.81)	.0700 (1.78)	#2-56 UNC
85S	1.377 (34.98)	1.246 (31.65)	1.113 (28.27)	.150 (3.81)	.0700 (1.78)	#2-56 UNC
91P	1.452 (36.88)	1.321 (33.55)	1.188 (30.18)	.150 (3.81)	.0700 (1.78)	#2-56 UNC
91S	1.452 (36.88)	1.321 (33.55)	1.188 (30.18)	.150 (3.81)	.0700 (1.78)	#2-56 UNC