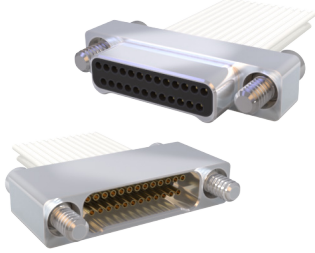


# SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



## 891-001 and 891-002 Plug and Receptacle Connectors with Insulated Wire

DUAL-ROW RECTANGULAR CONNECTORS



**Nanominiature Connectors** with Insulated Wire feature gold alloy TwistPin contacts. Contacts are precision-crimped to insulated, stranded 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.

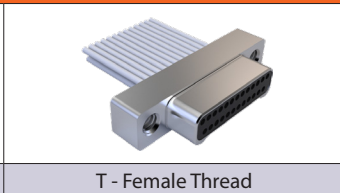
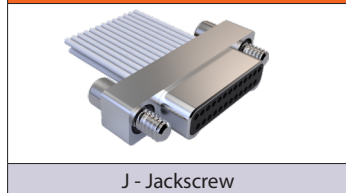
**TwistPin Contact System** assures premium performance in demanding environments. The gold alloy contacts will stand up to years of exposure without corrosion.

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

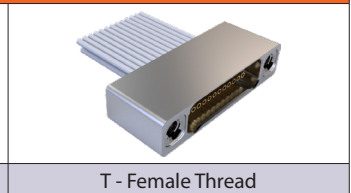
### HOW TO ORDER

Sample Part Number	891-002	-25S	A2	-0	B	7	-12	4
<b>Series</b>	891-001 = Plug 891-002 = Receptacle							
<b>Contact Layout</b>	Plugs (891-001): <b>9P, 15P, 21P, 25P, 31P, 37P, 41P, 51P, 65P, 69P, 85P, 91P</b> Receptacles (891-002): <b>9S, 15S, 21S, 25S, 31S, 37S, 41S, 51S, 65S, 69S, 85S, 91S</b>							
<b>Shell Material and Finish</b>	A1 = Aluminum Shell, Cadmium A31 = Aluminum Shell, Zinc Nickel, Black T = Titanium Shell, Unplated		A2 = Aluminum Shell, Electroless Nickel A33 = Aluminum Shell, Nickel PTFE S = Stainless Steel Shell, Passivated					
<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>	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							
<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>Wire Length</b>	12 = 12.00 inches; as required in one inch increments.							
<b>Hardware</b>	J = Hex Head Jackscrew T = Female Threads* *Stainless Steel Inserts installed in Aluminum Shells, tapped directly into Stainless Steel and Titanium Shells							

### PLUG HARDWARE



### RECEPTACLE HARDWARE



### PERFORMANCE SPECIFICATIONS

**Contact Spacing:** .025" (0.64) contact centers  
**Wire Accommodation:** #30-#32 AWG  
**Current Rating:** 1 AMP maximum tested per EIA-364-70  
**DWV:** 250 VAC RMS sea level, 100 VAC RMS 70,000 feet per EIA-364 Procedure 20  
**Insulation Resistance:** 5000 Megohms minimum test voltage 100 VDC, per EIA-364 Procedure 21

**Operating Temperature:** -55° C. to +125° C.  
**Contact Resistance:** 71 millivolt drop maximum, 1 AMP current, any catalog supported wire type  
**Vibration:** 20 g's, IAW EIA-364-28, Condition IV  
**Shock:** 100 g's, IAW EIA-364-27, Condition G  
**Durability:** 200 mating cycles per test procedure EIA-364-09

**Corrosion Resistance:** 48 hours salt spray IAW EIA-364-26, Condition B  
**Humidity:** 240 hours, IAW EIA-364-31, Test Condition B  
**Contact Engaging/Separation Force:** 5 ounce maximum, 0.4 ounce minimum  
**Thermal Vacuum Outgassing:** Total mass loss (TML) 1.0% max., volatile condensable material (VCM) 0.1% max. IAW ASTM E595

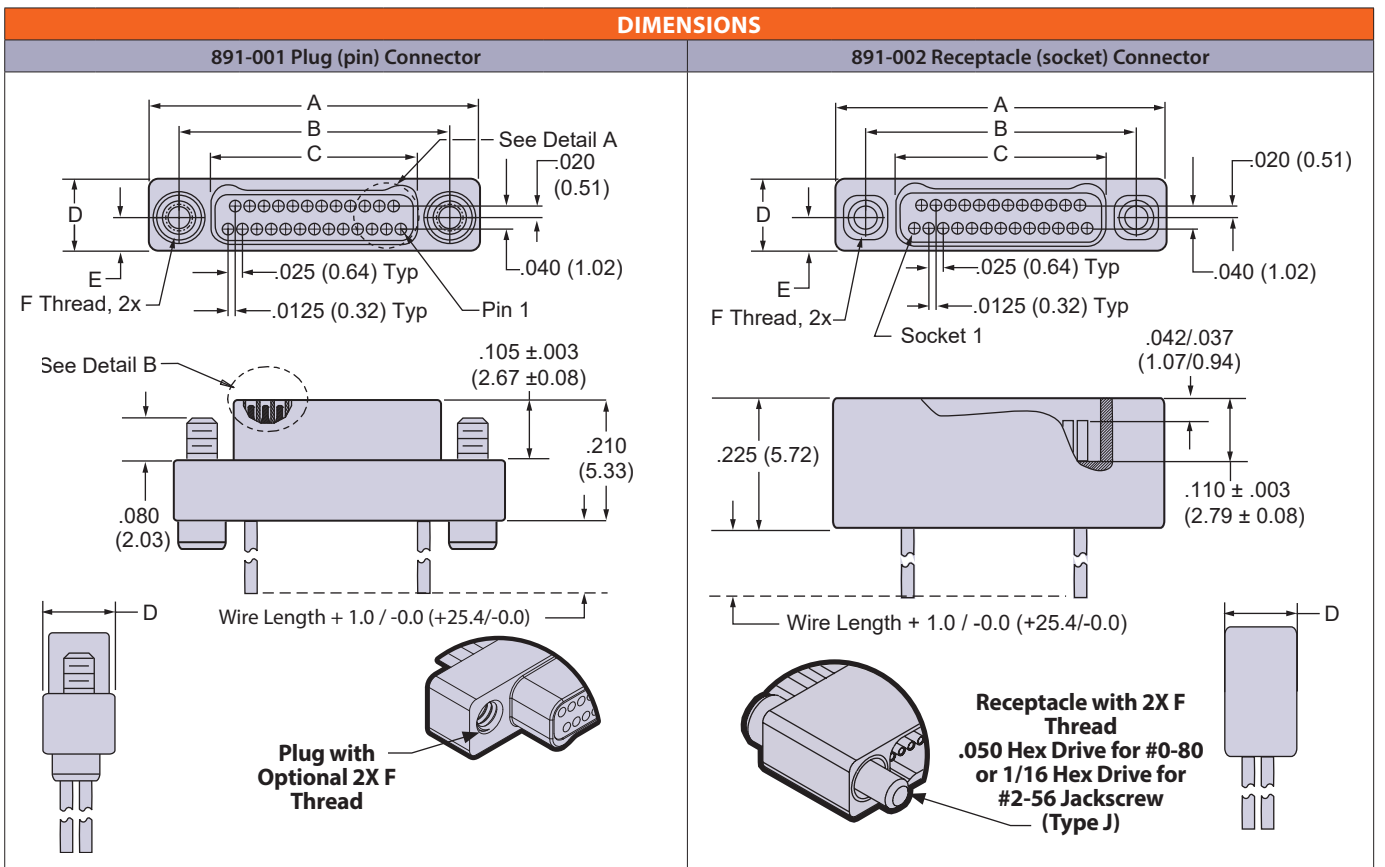
### NOTES

- 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 and /4

# SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



## 891-001 and 891-002 Plug and Receptacle Connectors with Insulated Wire



Layout	A ±.005(0.13)	B BSC.	C BSC.	D ±.005(0.13)	E BSC.	F Thread
9P	.375 (9.53)	.270 (6.86)	.160 (4.06)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
9S	.375 (9.53)	.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)	1.185 (30.10)	.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

DUAL-ROW RECTANGULAR CONNECTORS