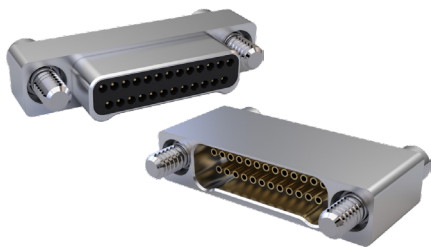


SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



891-037 and 891-038 Plug and Receptacle Shorting Connector



Nano Plug, Dual-Row Shorting Connectors feature gold alloy TwistPin contacts. These nanominiature shorting connectors provide ESD protection for sensitive instrumentation. Available with #0-80 or #2-56 female threads or jackscrews.

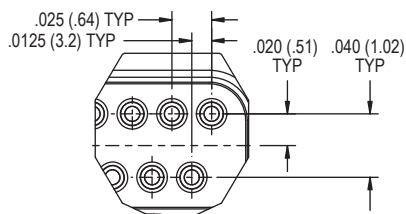
Typical Applications shorting plugs and receptacles protect unmated connectors from stray EMI and ESD which could lead to damage of sensitive components.

DUAL-ROW RECTANGULAR CONNECTORS

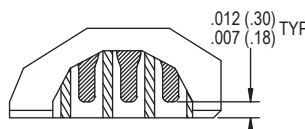
| HOW TO ORDER | | | | | | |
|---|--|----------------|-------------|-----------|-----------|-----------|
| Sample Part Number | | 891-037 | -25P | A2 | -C | -J |
| Series | 891-037 Plug Shorting Connector | | | | | |
| | 891-038 Receptacle Shorting Connector | | | | | |
| Insert Arrangement/ Contact Type | Plugs (891-037): 9P, 15P, 21P, 25P, 31P, 37P, 41P, 51P, 65P, 69P, 85P | | | | | |
| | Receptacles (891-038): 9S, 15S, 21S, 25S, 31S, 37S, 41S, 51S, 65S, 69S, 85S | | | | | |
| Shell Material and Finish | 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 | | | | | |
| Shorting Combination | C = All contacts shorted together, isolated from the shell | | | | | |
| | G = All contacts shorted together, and grounded to the shell | | | | | |
| Hardware | J - Hex Head 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 |

DETAIL A



DETAIL B



NOTES

1. Inspect and Test IAW MIL-DTL-32139
2. Interface dimensions per MIL-DTL-32139/3 and MIL-DTL-32139/4

PERFORMANCE SPECIFICATIONS

Contact Spacing: .025" (0.64) contact centers
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 2v0
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

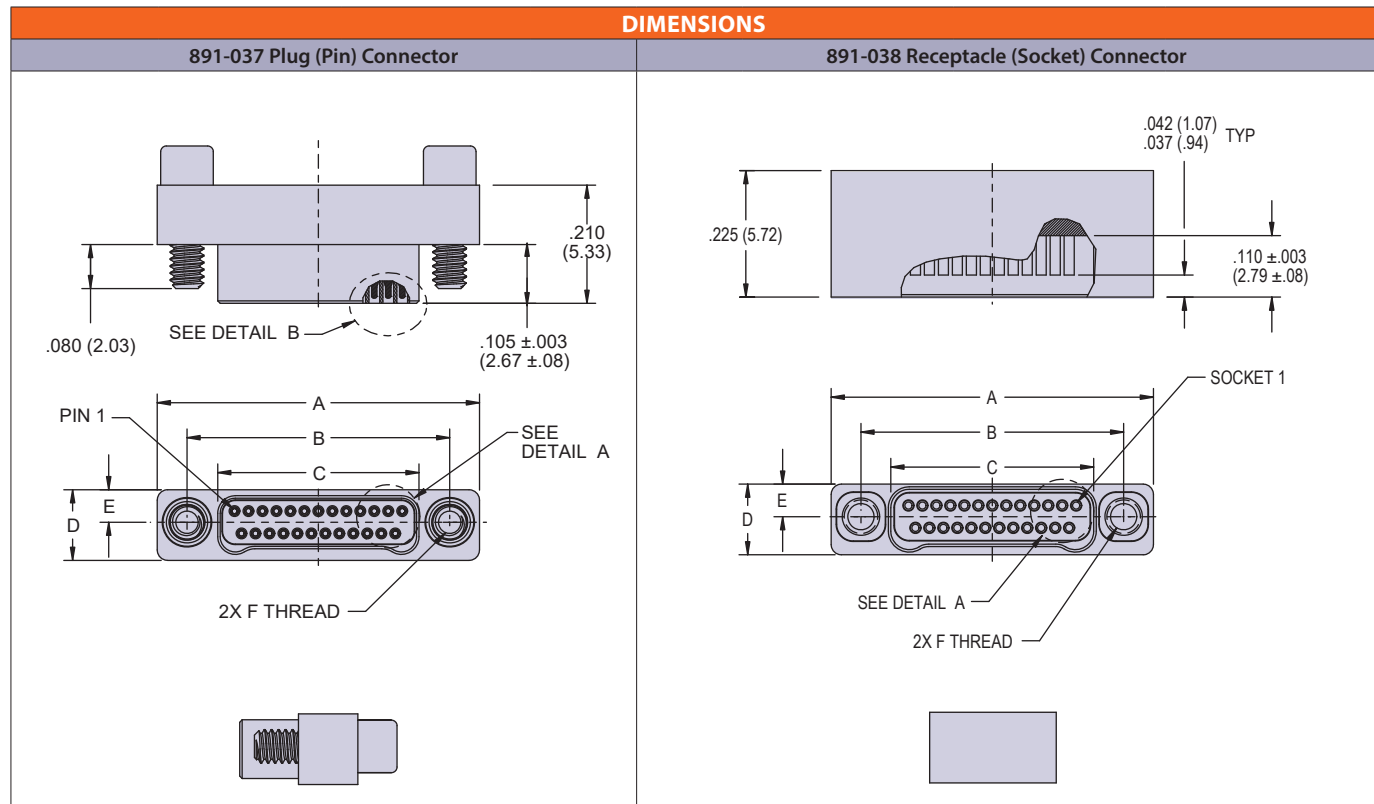
Corrosion Resistance: 48 hours salt spray IAW EIA-364-26, Condition B
Humidity: 240 hours, IAW EIA-364-31, Test Condition B
Contact Engaging/Separation Force: 5 ounce maximum, 0.4 ounce minimum
Thermal Vacuum Outgassing: Total mass loss (TML) 1.0% max., volatile condensable material (VCM) 0.1% max. IAW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

SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



891-037 and 891-038 Plug and Receptacle Shorting Connector

DUAL-ROW RECTANGULAR CONNECTORS



| 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) | 1.185 (30.10) | .150 (3.81) | .0700 (1.78) | #2-56 UNC |