

SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



891-039 and 891-040 Vertical Mount Thru-Hole PCB Connectors with Mounting Ears

DUAL-ROW RECTANGULAR CONNECTORS



Vertical Mount PCB Nano Connectors feature gold alloy TwistPin contacts. These nanominiature connectors offer premium performance and reliability for demanding applications. Available with female mounting threads and jackscrews. Pre-Tinned PC Tails are coated with Sn63Pb37 or Sn60Pb40 tin-lead for excellent solderability.

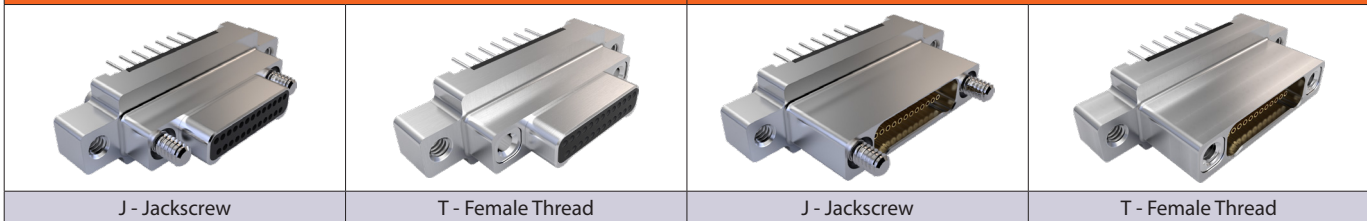
Choose Aluminum, Titanium or Stainless Steel Shells. Twelve layouts from 9 to 91 contacts. Complies to the requirements of MIL-DTL-32139. These connectors are intermateable with any corresponding Glenair Series 891 Dual-Row metal shell nanominiature connector.

HOW TO ORDER

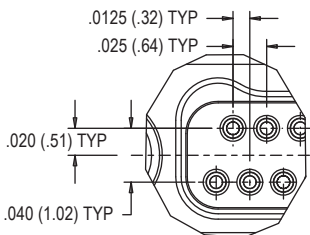
| Sample Part Number | 891-040 | -25S | A2 | -BST | 1 | J |
|---|--|------|----|------|---|---|
| Series | 891-039 Plug, Vertical Mount Thru-Hole PCB Connector with Mounting Ears 891-040 Receptacle, Vertical Mount Thru-Hole PCB Connector with Mounting Ears | | | | | |
| Insert Arrangement/ Contact Type | Pins (891-039 Plugs) 9P, 15P, 21P, 25P, 31P, 37P, 41P, 51P, 65P, 69P, 85P, 91P Sockets (891-040 Receptacles) 9S, 15S, 21S, 25S, 31S, 37S, 41S, 51S, 65S, 69S, 85S, 91S | | | | | |
| 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 S = Stainless Steel Shell, Passivated T = Titanium Shell, Unplated | | | | | |
| Termination Type | BST - Board Straight Thru-Hole | | | | | |
| PC Tail Length | 1 - .110 (2.79) 2 - .172 (4.37) 3 - .140 (3.56) | | | | | |
| Hardware | J = Jackscrew T = Female Thread (Stainless Steel Inserts installed in Aluminum Shells, tapped directly into Stainless Steel and Titanium Shells) | | | | | |

PLUG HARDWARE

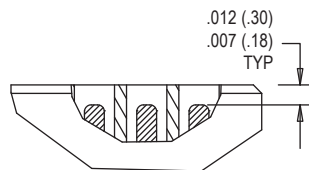
RECEPTACLE HARDWARE



DETAIL A



DETAIL B



NOTES

- Inspect and test IAW MIL-DTL-32139
- Interface dimensions per MIL-DTL-32139/3 and /4
- Materials/finishes
 - Shell: see part number break down
 - Insulator: LCP/N/A
 - Contacts: gold alloy / unplated
 - Pre-tinned PC tails: coated with Sn63Pb37 or Sn60Pb40 tin-lead
 - Hardware: passivated stainless steel

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 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

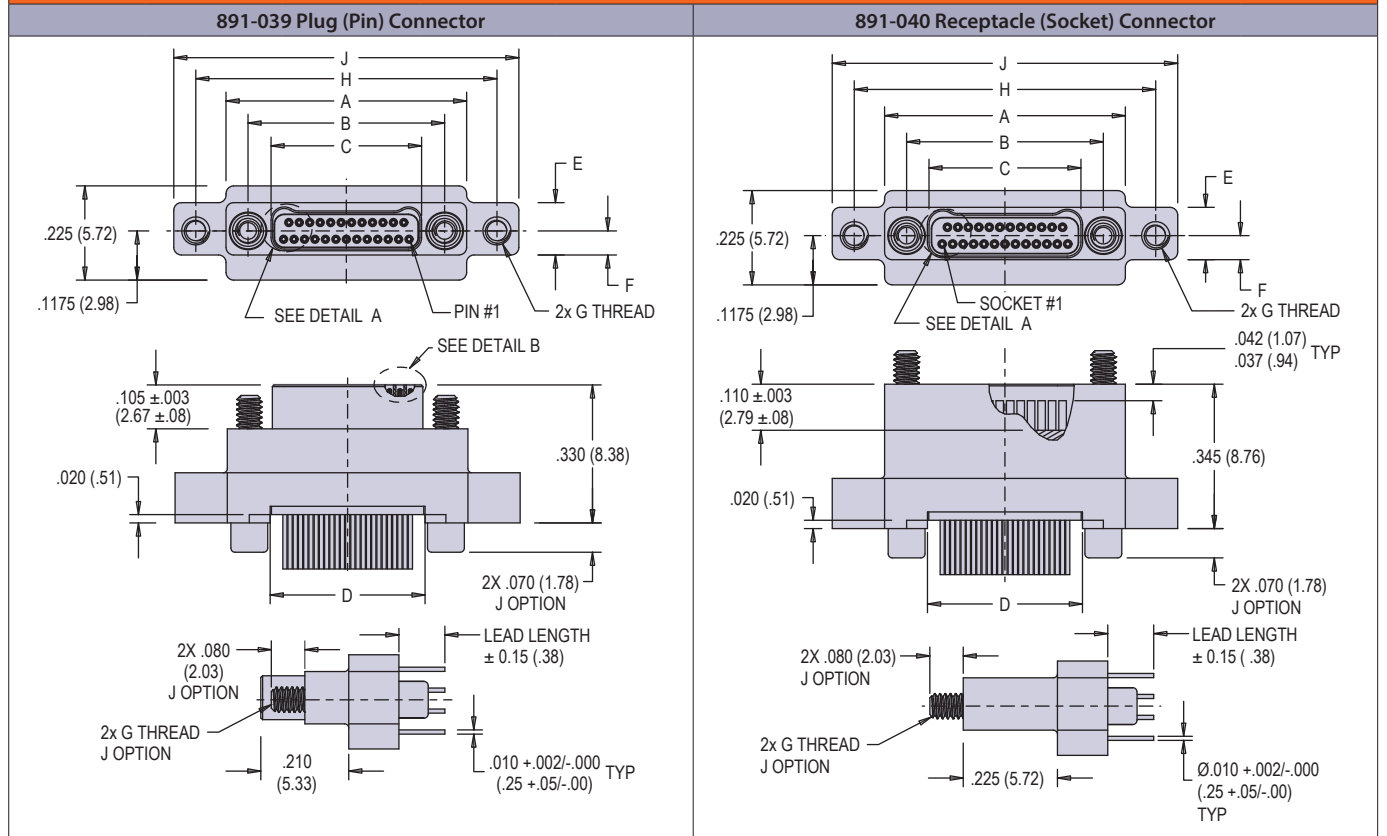
Humidity: 240 hours, IAW EIA-364-31, Test Condition B
Contact Engaging/Separation Force: 5 ounce maximum, 0.4 ounce minimum
Thermal Vacuum Outgassing: Total mass loss (TML) 1.0% max., volatile condensable material (VCM) 0.1% max. IAW ASTM E595

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DIMENSIONS



DUAL-ROW RECTANGULAR CONNECTORS

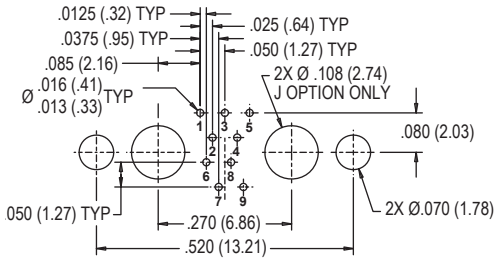
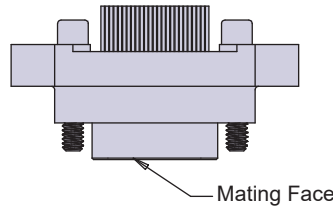
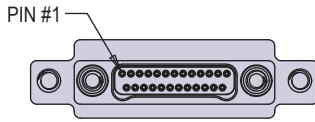
| Size | A | B BSC. | C BSC. | D | E | F | G Thd | H | J |
|------|---------------|---------------|---------------|---------------|-------------|--------------|-----------|---------------|---------------|
| 9P | .375 (9.53) | .270 (6.86) | .160 (4.06) | .170 (4.32) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .520 (13.21) | .625 (15.88) |
| 9S | .375 (9.53) | .270 (6.86) | .163 (4.14) | .170 (4.32) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .520 (13.21) | .625 (15.88) |
| 15P | .450 (11.43) | .345 (8.76) | .235 (5.97) | .245 (6.22) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .595 (15.11) | .700 (17.78) |
| 15S | .450 (11.43) | .345 (8.76) | .238 (6.05) | .245 (6.22) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .595 (15.11) | .700 (17.78) |
| 21P | .525 (13.34) | .420 (10.67) | .310 (7.87) | .320 (8.13) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .670 (17.02) | .775 (19.69) |
| 21S | .525 (13.34) | .420 (10.67) | .313 (7.95) | .320 (8.13) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .670 (17.02) | .775 (19.69) |
| 25P | .575 (14.61) | .470 (11.94) | .360 (9.14) | .370 (9.40) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .720 (18.29) | .825 (20.96) |
| 25S | .575 (14.61) | .470 (11.94) | .363 (9.22) | .370 (9.40) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .720 (18.29) | .825 (20.96) |
| 31P | .650 (16.51) | .545 (13.84) | .435 (11.05) | .445 (11.30) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .795 (20.19) | .900 (22.86) |
| 31S | .650 (16.51) | .545 (13.84) | .438 (11.13) | .445 (11.30) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .795 (20.19) | .900 (22.86) |
| 37P | .725 (18.42) | .620 (15.75) | .510 (12.95) | .520 (13.21) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .870 (22.10) | .975 (24.77) |
| 37S | .725 (18.42) | .620 (15.75) | .513 (13.03) | .520 (13.21) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .870 (22.10) | .975 (24.77) |
| 41P | .775 (19.69) | .670 (17.02) | .560 (14.22) | .570 (14.48) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .920 (23.37) | 1.025 (26.04) |
| 41S | .775 (19.69) | .670 (17.02) | .563 (14.30) | .570 (14.48) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | .920 (23.37) | 1.025 (26.04) |
| 51P | .900 (22.86) | .795 (20.19) | .685 (17.40) | .695 (17.65) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | 1.045 (26.54) | 1.150 (29.21) |
| 51S | .900 (22.86) | .795 (20.19) | .688 (17.48) | .695 (17.65) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | 1.045 (26.54) | 1.150 (29.21) |
| 65P | 1.075 (27.31) | .970 (24.64) | .860 (21.84) | .870 (22.10) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | 1.220 (30.99) | 1.325 (33.66) |
| 65S | 1.075 (27.31) | .970 (24.64) | .863 (21.92) | .870 (22.10) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | 1.220 (30.99) | 1.325 (33.66) |
| 69P | 1.125 (28.58) | 1.020 (25.91) | .910 (23.11) | .920 (23.37) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | 1.270 (32.26) | 1.375 (34.93) |
| 69S | 1.125 (28.58) | 1.020 (25.91) | .913 (23.19) | .920 (23.37) | .125 (3.18) | .0575 (1.46) | #0-80 UNF | 1.270 (32.26) | 1.375 (34.93) |
| 85P | 1.377 (34.98) | 1.246 (31.65) | 1.110 (28.19) | 1.120 (28.45) | .150 (3.81) | .0700 (1.78) | #2-56 UNC | 1.546 (39.27) | 1.679 (42.65) |
| 85S | 1.377 (34.98) | 1.246 (31.65) | 1.113 (28.27) | 1.120 (28.45) | .150 (3.81) | .0700 (1.78) | #2-56 UNC | 1.546 (39.27) | 1.679 (42.65) |
| 91P | 1.452 (36.88) | 1.321 (33.55) | 1.185 (30.10) | 1.195 (30.35) | .150 (3.81) | .0700 (1.78) | #2-56 UNC | 1.621 (41.17) | 1.754 (44.55) |
| 91S | 1.452 (36.88) | 1.321 (33.55) | 1.188 (30.18) | 1.195 (30.35) | .150 (3.81) | .0700 (1.78) | #2-56 UNC | 1.621 (41.17) | 1.754 (44.55) |

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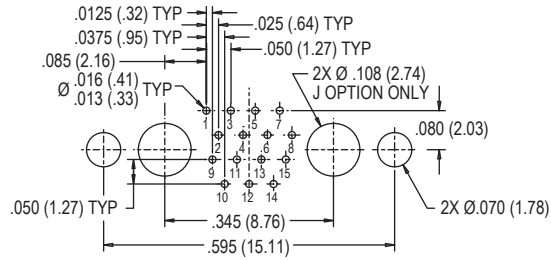


891-039 Vertical Mount Thru-Hole PCB with Mounting Ears - Plug PCB Footprint

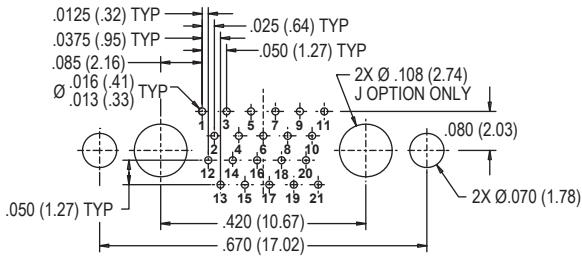
DUAL-ROW RECTANGULAR CONNECTORS



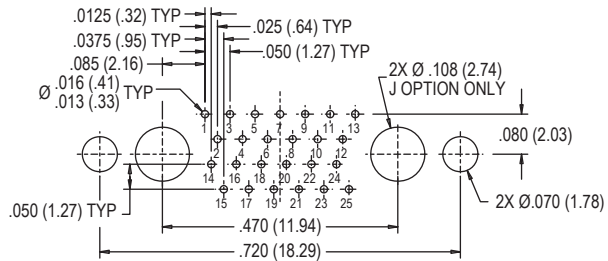
9 Contacts



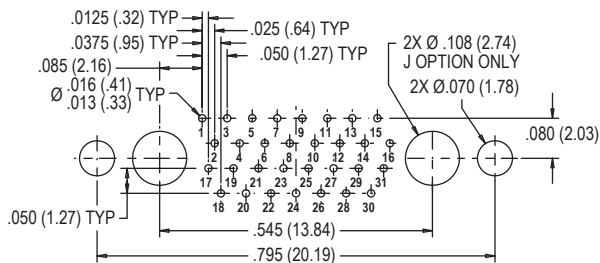
15 Contacts



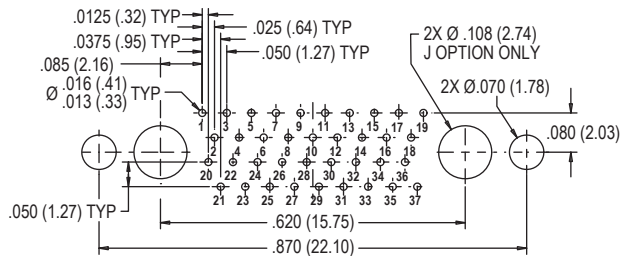
21 Contacts



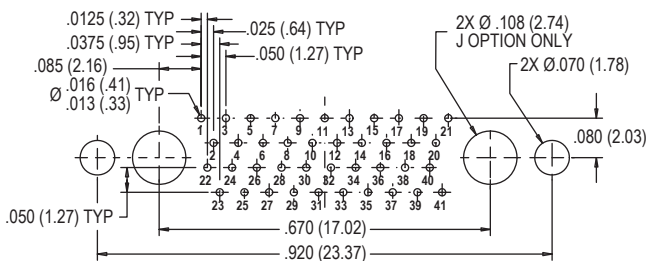
25 Contacts



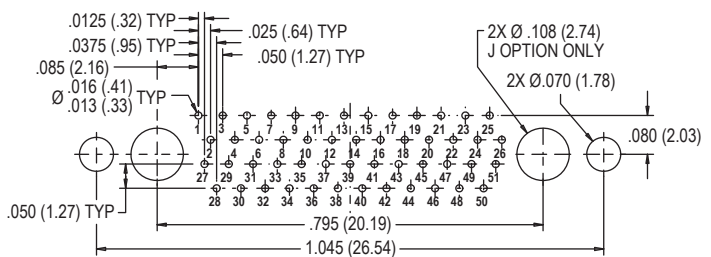
31 Contacts



37 Contacts



41 Contacts



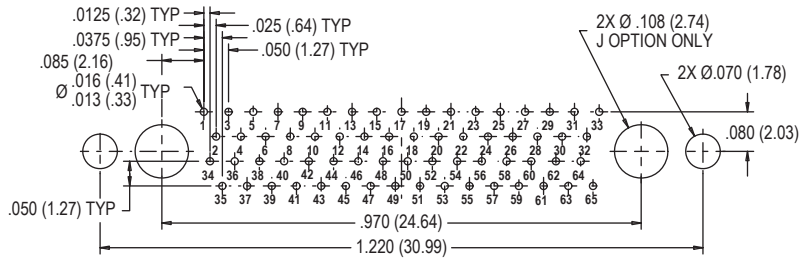
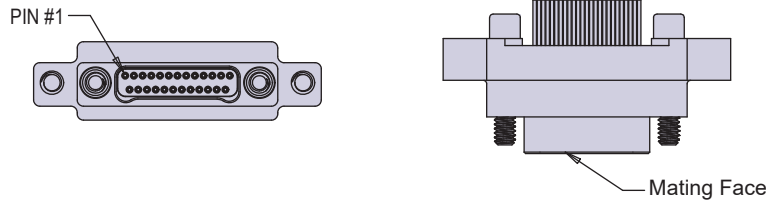
51 Contacts

Layouts shown are for connector mounting side of PC Board.

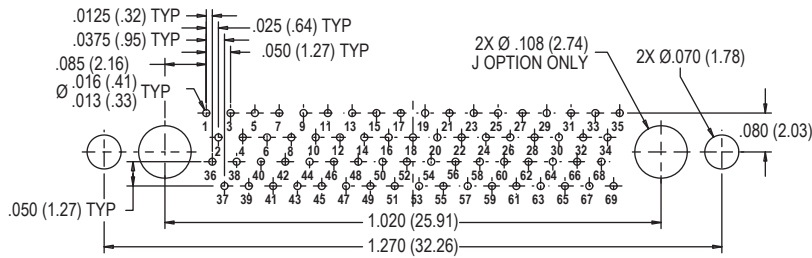
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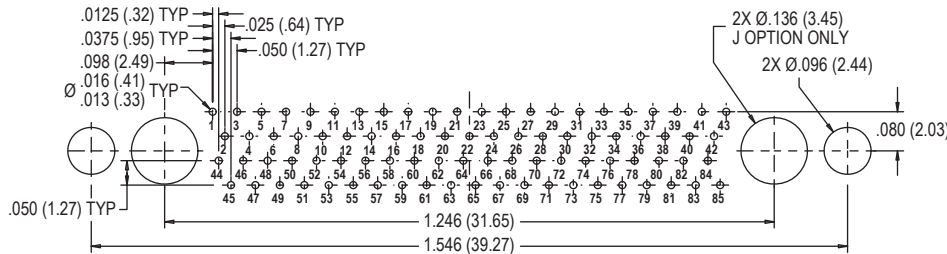
891-039 Vertical Mount Thru-Hole PCB with Mounting Ears - Plug PCB Footprint



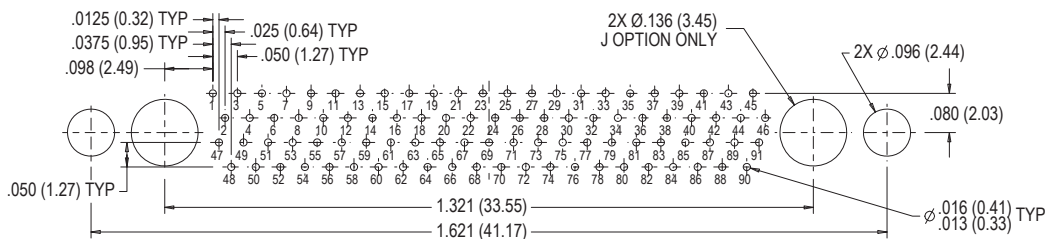
65 Contacts



69 Contacts



85 Contacts



91 Contacts

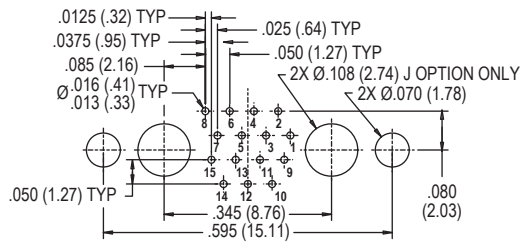
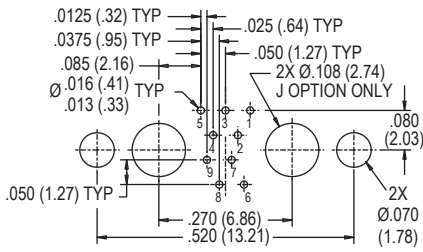
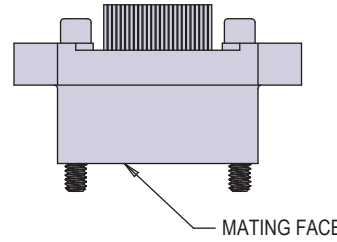
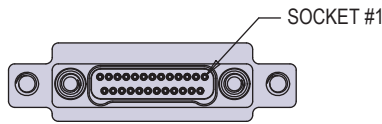
Layouts shown are for connector mounting side of PC Board.

SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



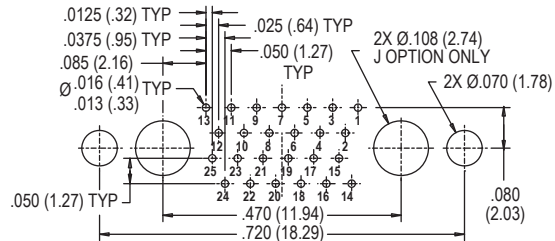
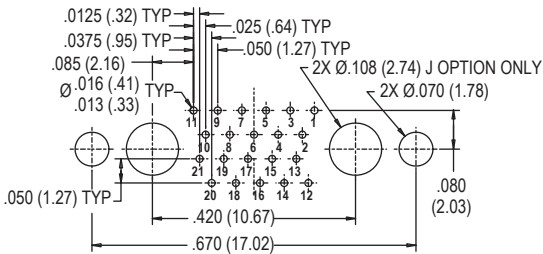
891-040 Vertical Mount Thru-Hole PCB with Mounting Ears - Receptacle PCB Footprint

DUAL-ROW RECTANGULAR CONNECTORS



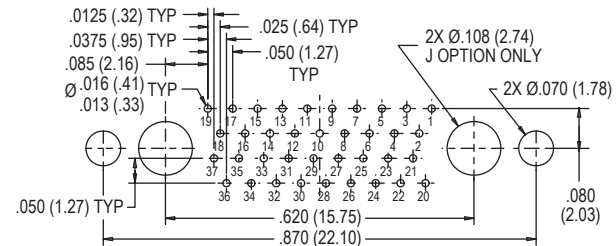
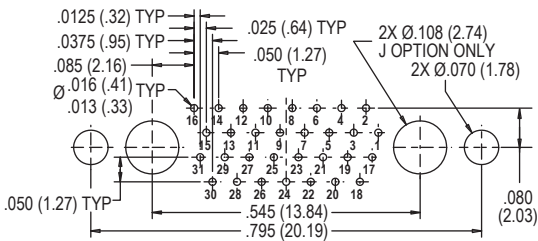
9 Contacts

15 Contacts



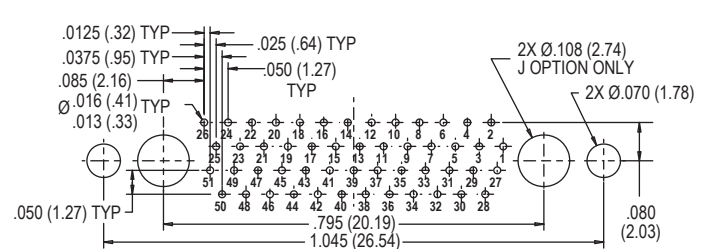
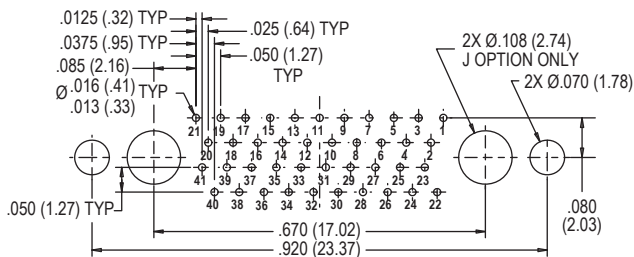
21 Contacts

25 Contacts



31 Contacts

37 Contacts



41 Contacts

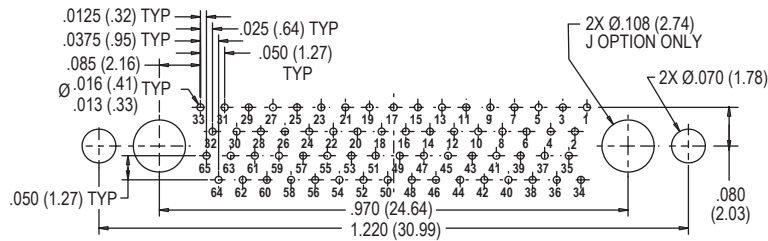
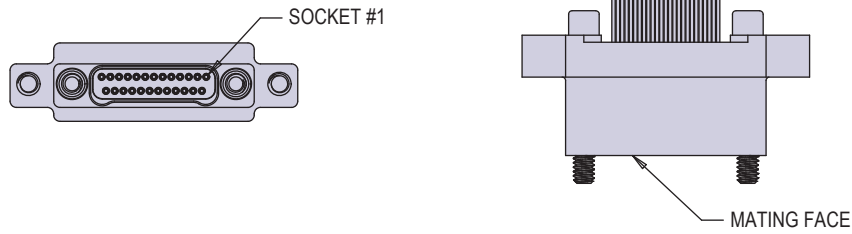
51 Contacts

Layouts shown are for connector mounting side of PC Board.

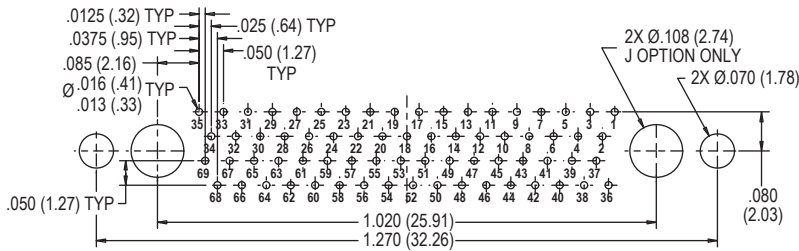
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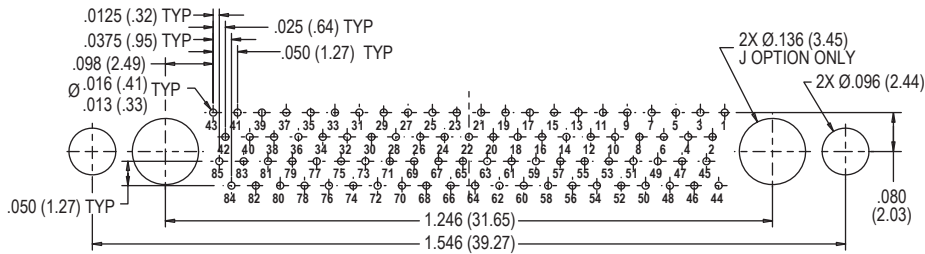
891-040 Vertical Mount Thru-Hole PCB with Mounting Ears - Receptacle PCB Footprint



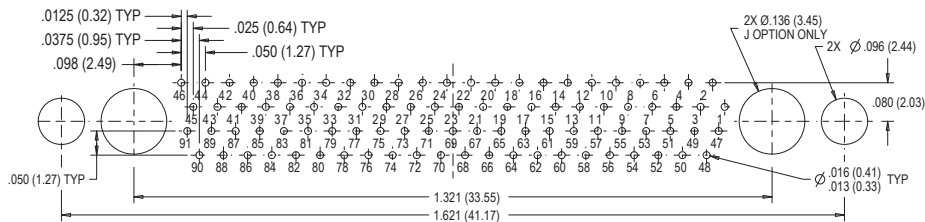
65 Contacts



69 Contacts



85 Contacts



91 Contacts

Layouts shown are for connector mounting side of PC Board.