

SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



891-010 and 891-011 Vertical Surface Mount PCB Connectors

DUAL-ROW RECTANGULAR CONNECTORS

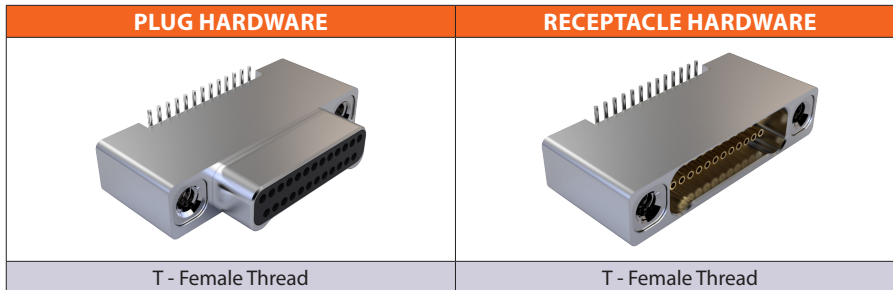


Vertical Surface Mount PCB Connectors feature gold alloy TwistPin contacts. Contacts are precision-crimped #30 AWG gold-plated wire. These nanominiature connectors offer premium performance and reliability for demanding applications.

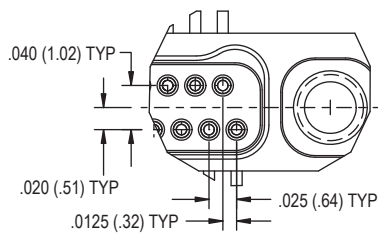
Pre-Tinned PC Tails are coated with Sn63Pb37 or Sn60Pb40 tin-lead for excellent solderability.

Choose Aluminum, Titanium or Stainless Steel Shells in twelve layouts from 9 to 91 contacts. Complies to the requirements of MIL-DTL-32139.

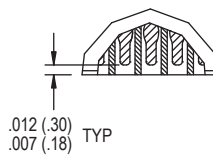
HOW TO ORDER						
Sample Part Number		891-011	-25S	A2	-BSS	T
Series	891-010 = Plug, Vertical SMT Connector 891-011 = Receptacle, Vertical SMT Connector					
Insert Arrangement/ Contact Type	Pins (891-010 Plugs): 9P, 15P, 21P, 25P, 31P, 37P, 41P, 51P, 65P, 69P, 85P, 91P Sockets (891-011 Receptacles): 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 T = Titanium Shell, Unplated S = Stainless Steel Shell, Passivated					
Termination Type	BSS = Board Surface Mount Straight					
Hardware	T = Female Thread (Stainless Steel Inserts installed in Aluminum Shells, tapped directly into stainless steel and titanium shells)					



DETAIL A



DETAIL B



NOTES

- Material and Finish:
 - 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
- Inspect and test IAW MIL-DTL-32139
- Interface dimensions per MIL-DTL-32139/3 and /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 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

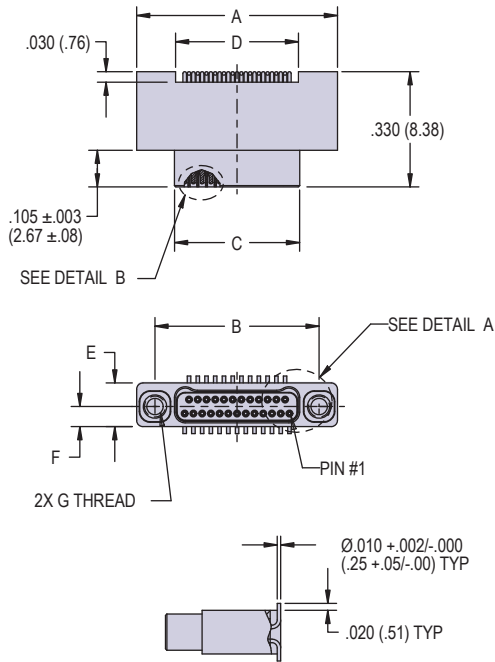
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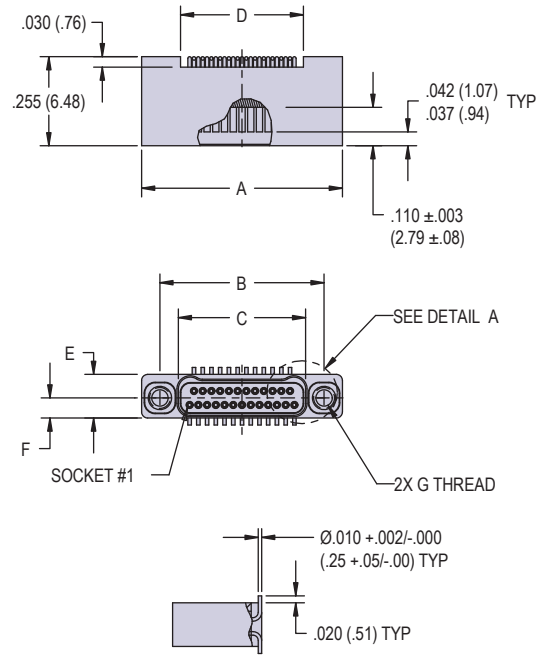
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DIMENSIONS

891-010 Plug (Pin) Connectors



891-011 Receptacle (Socket) Connectors



Layout	A ± .005	B BSC.	C BSC.	D ± .005	E ± .005	F BSC.	G Thread
9P	.375 (9.52)	.270 (6.86)	.160 (4.06)	.152 (3.86)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
9S	.375 (9.52)	.270 (6.86)	.163 (4.14)	.152 (3.86)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
15P	.450 (11.43)	.345 (8.76)	.235 (5.97)	.227 (5.77)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
15S	.450 (11.43)	.345 (8.76)	.238 (6.05)	.227 (5.77)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
21P	.525 (13.34)	.420 (10.67)	.310 (7.87)	.302 (7.67)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
21S	.525 (13.34)	.420 (10.67)	.313 (7.95)	.302 (7.67)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
25P	.575 (14.60)	.470 (11.94)	.360 (9.14)	.352 (8.94)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
25S	.575 (14.60)	.470 (11.94)	.363 (9.22)	.352 (8.94)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
31P	.650 (16.51)	.545 (13.84)	.435 (11.05)	.427 (10.85)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
31S	.650 (16.51)	.545 (13.84)	.438 (11.13)	.427 (10.85)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
37P	.725 (18.42)	.620 (15.75)	.510 (12.95)	.502 (12.75)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
37S	.725 (18.42)	.620 (15.75)	.513 (13.03)	.502 (12.75)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
41P	.775 (19.68)	.670 (17.02)	.560 (14.22)	.552 (14.02)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
41S	.775 (19.68)	.670 (17.02)	.563 (14.30)	.552 (14.02)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
51P	.900 (22.86)	.795 (20.19)	.685 (17.40)	.677 (17.20)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
51S	.900 (22.86)	.795 (20.19)	.688 (17.48)	.677 (17.20)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
65P	1.075 (27.30)	.970 (24.64)	.860 (21.84)	.852 (21.64)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
65S	1.075 (27.30)	.970 (24.64)	.863 (21.92)	.852 (21.64)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
69P	1.125 (28.58)	1.020 (25.91)	.910 (23.11)	.902 (22.91)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
69S	1.125 (28.58)	1.020 (25.91)	.913 (23.19)	.902 (22.91)	.125 (3.18)	.0575 (1.46)	#0-80 UNF
85P	1.377 (34.98)	1.246 (31.65)	1.110 (28.19)	1.102 (27.99)	.150 (3.81)	.0700 (1.78)	#2-56 UNC
85S	1.377 (34.98)	1.246 (31.65)	1.113 (28.27)	1.102 (27.99)	.150 (3.81)	.0700 (1.78)	#2-56 UNC
91P	1.452 (36.88)	1.321 (33.55)	1.185 (30.10)	1.177 (29.90)	.150 (3.81)	.0700 (1.78)	#2-56 UNC
91S	1.452 (36.88)	1.321 (33.55)	1.188 (30.18)	1.177 (29.90)	.150 (3.81)	.0700 (1.78)	#2-56 UNC

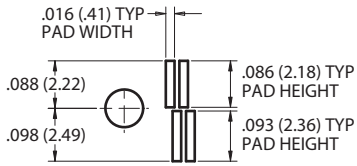
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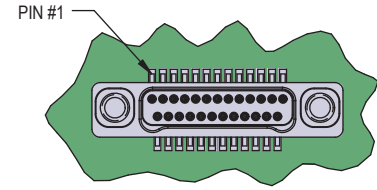


891-010 Vertical Surface Mount PCB Connectors - Plug Pad Footprint

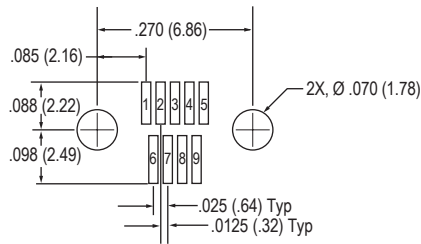
DUAL-ROW RECTANGULAR CONNECTORS



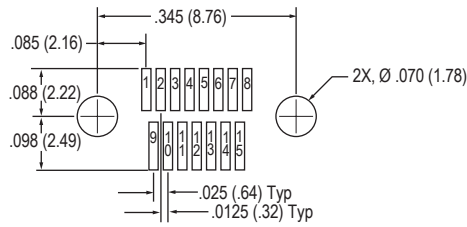
PAD FOOTPRINT DETAIL LAYOUT 9-69



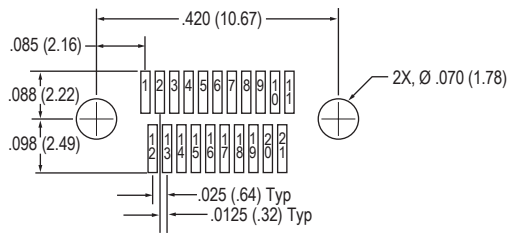
PAD FOOTPRINT DETAIL LAYOUT 9-69



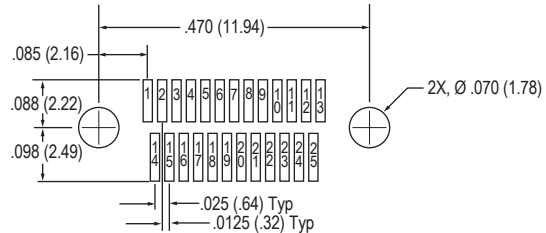
9 Contacts



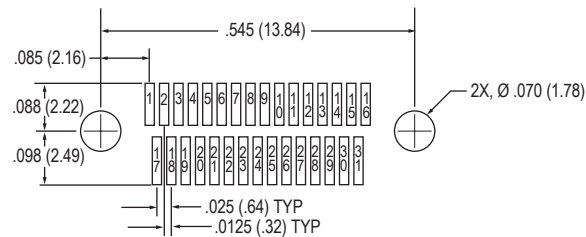
15 Contacts



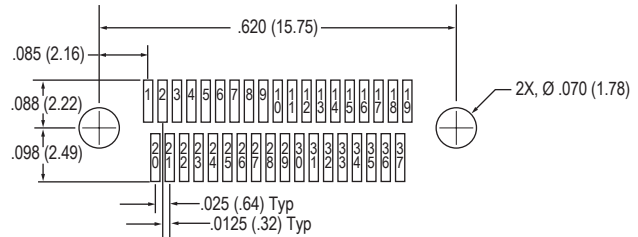
21 Contacts



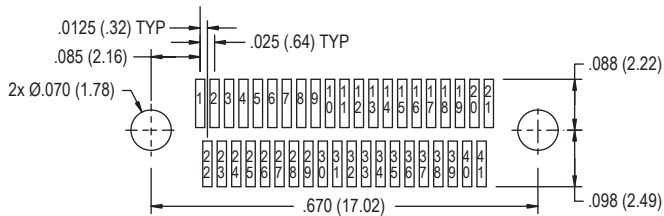
25 Contacts



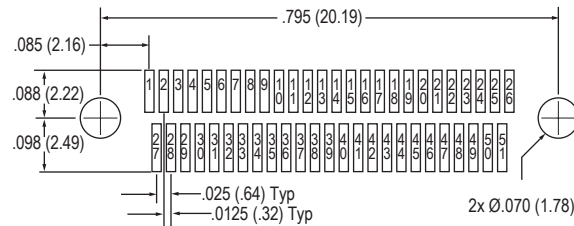
31 Contacts



37 Contacts



41 Contacts



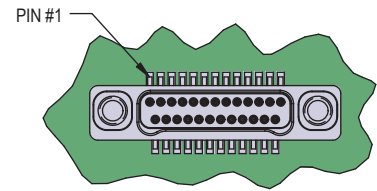
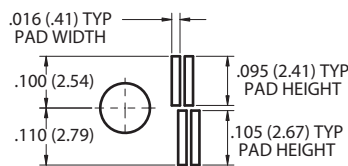
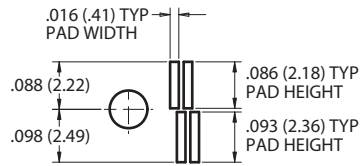
51 Contacts

Layouts shown are for connector mounting side of PC Board.

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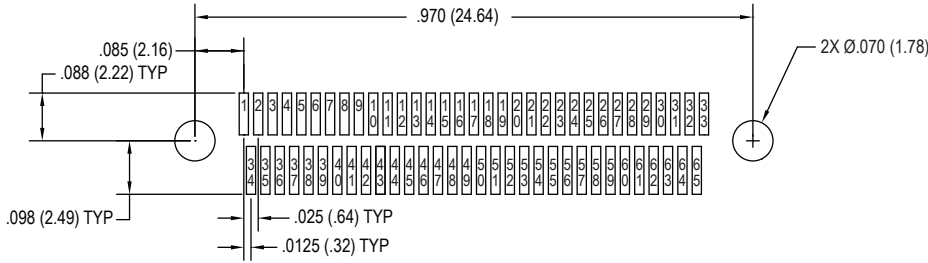


891-010 Vertical Surface Mount PCB Connectors - Plug Pad Footprint

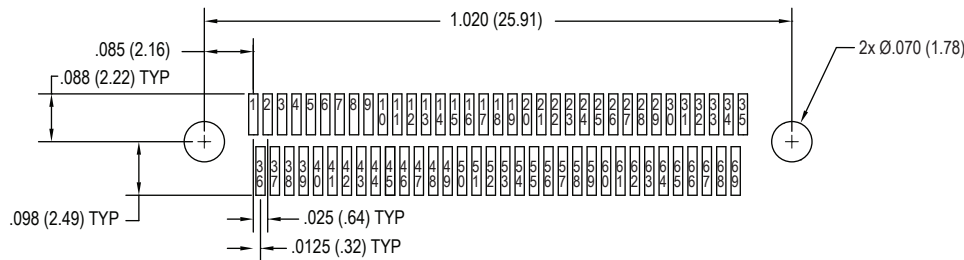


PAD FOOTPRINT DETAIL LAYOUT 9-69

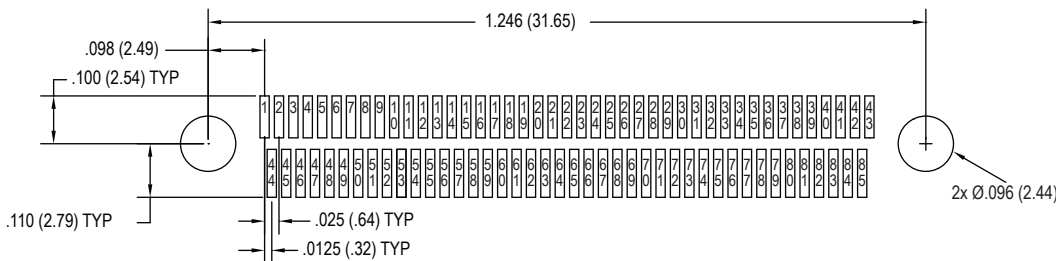
PAD DETAIL LAYOUT 85 & 91 ONLY



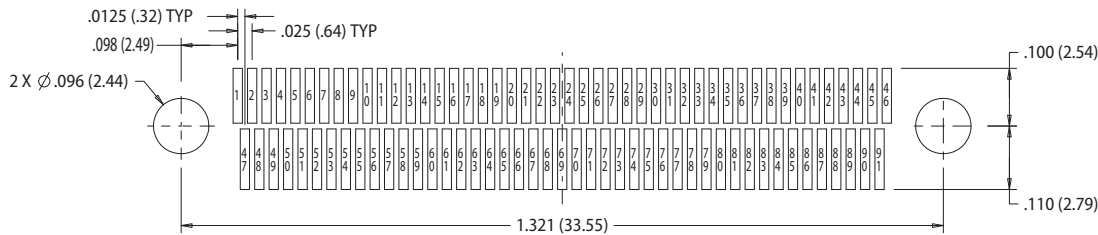
65 Contacts



69 Contacts



85 Contacts (see pad detail for 85 and 91 contact layout)



91 Contacts (see pad detail for 85 and 91 contact layout)

Layouts shown are for connector mounting side of PC Board.

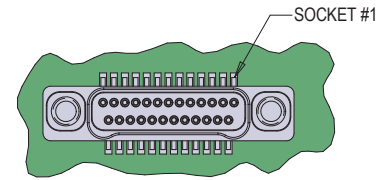
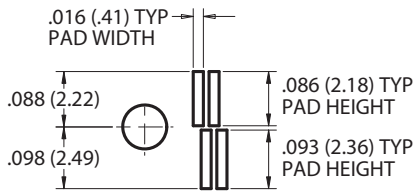
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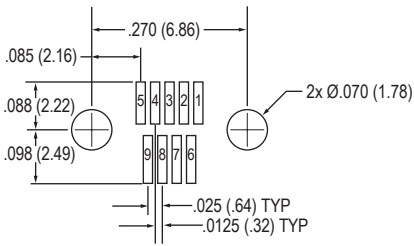


891-011 Vertical Surface Mount PCB Connectors - Receptacle Pad Footprint

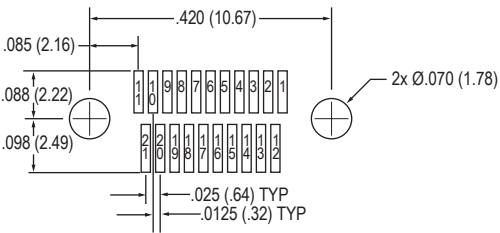
DUAL-ROW RECTANGULAR CONNECTORS



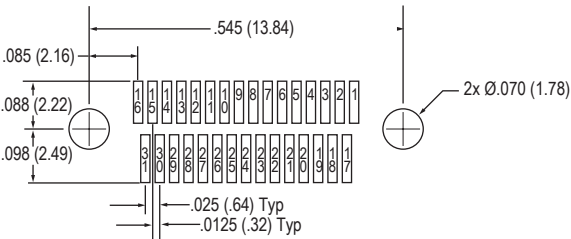
PAD DETAIL LAYOUT 9-69



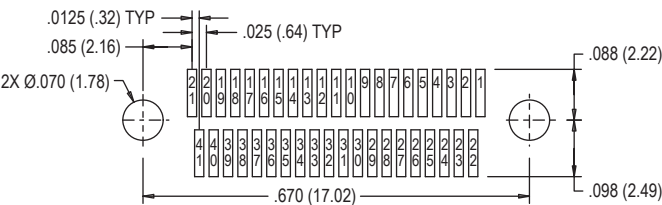
9 Contacts



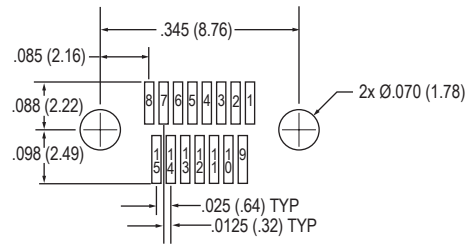
21 Contacts



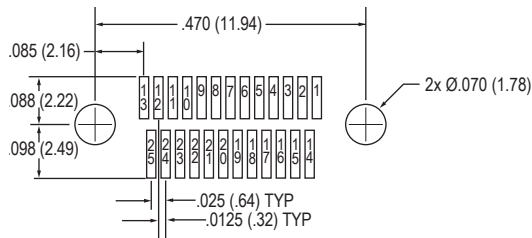
31 Contacts



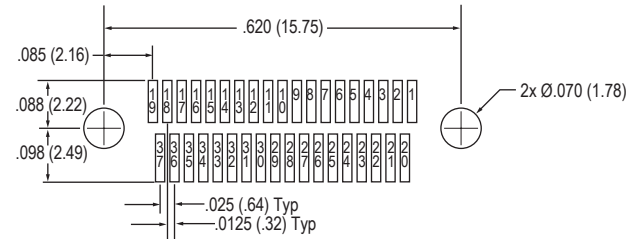
41 Contacts



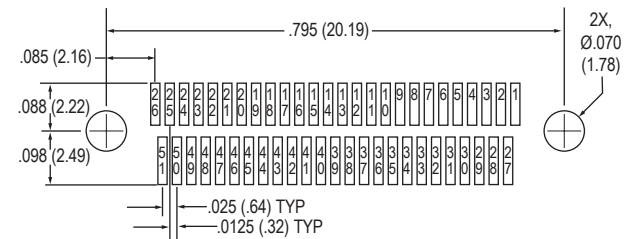
15 Contacts



25 Contacts



37 Contacts



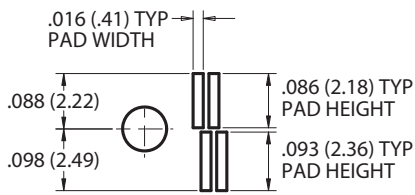
51 Contacts

Layouts shown are for connector mounting side of PC Board.

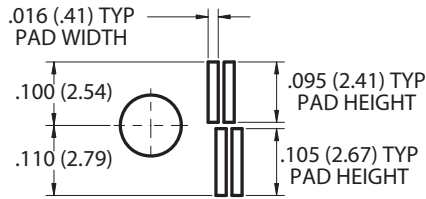
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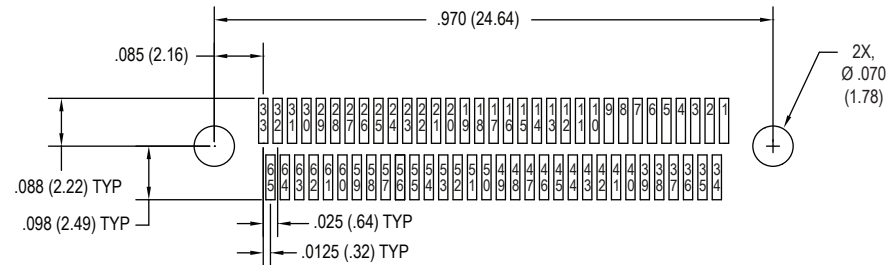
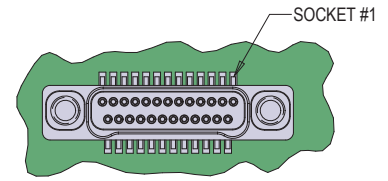
891-011 Vertical Surface Mount PCB Connectors - Receptacle Pad Footprint



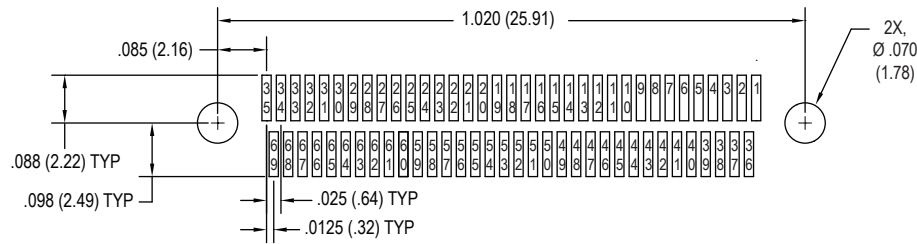
PAD DETAIL LAYOUT 9-69



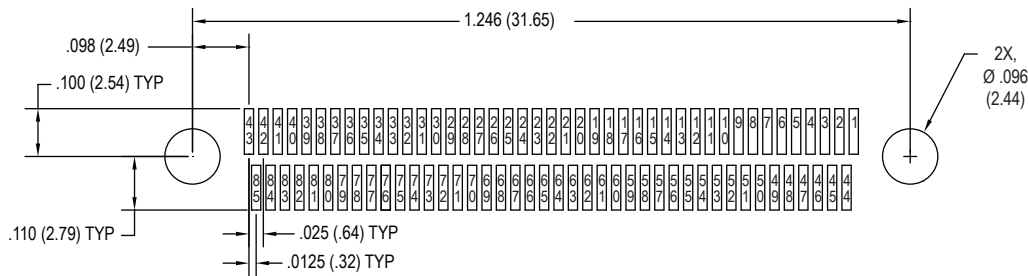
PAD DETAIL LAYOUT 85 & 91



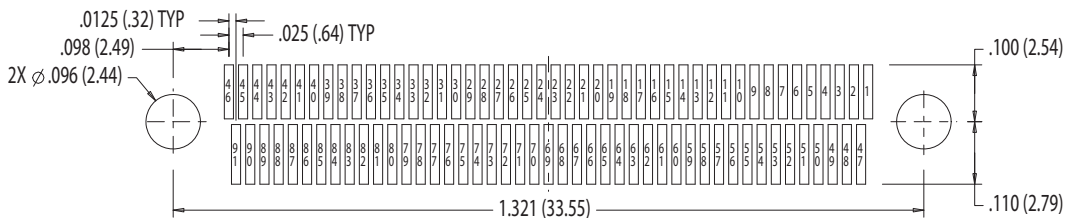
65 Contacts



69 Contacts



85 Contacts (see pad detail for 85 and 91 contact layout)



91 Contacts (see pad detail for 85 and 91 contact layout)

Layouts shown are for connector mounting side of PC Board.