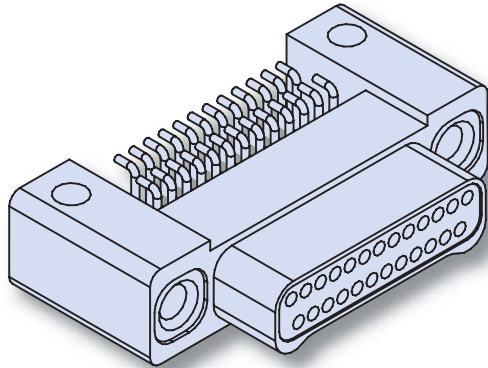




Series 89 Nanominiature Connectors Two Row Right Angle Surface Mount 891-012 and -013



Right Angle Surface Mount PCB Nano Connectors

feature gold alloy NanoPin contacts. These nanominiature connectors offer premium performance and reliability for demanding applications. Available with #0-80 threaded inserts, or with jackscrews for use with flexible circuits.

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

Choose Aluminum, Titanium or Stainless Steel Shells in seven layouts from 9 to 51 contacts. Complies to the requirements of MIL-DTL-32139.

HOW TO ORDER RIGHT ANGLE SURFACE MOUNT PCB CONNECTORS

| Series | Insert Arrangement/ Contact Type | Shell Material and Finish | Termination Type | Hardware |
|---|--|---|---|--|
| 891-012 Plug, Pin Contacts, Two Row, Right Angle Surface Mount Nanominiature | Plugs (891-012) 9P 15P 21P 25P 31P 37P 51P | A1 Aluminum Shell, Cadmium Plating A2 Aluminum Shell, Electroless Nickel Plating | BRS "Board Right Angle Surface Mount" | T Threaded Inserts, #0-80 Female |
| 891-013 Receptacle, Socket Contacts, Two Row, Right Angle Surface Mount Nanominiature | Receptacles (891-013) 9S 15S 21S 25S 31S 37S 51S | T Titanium Shell, Unplated S Stainless Steel Shell, Passivated | | |
| Sample Part Number | | | | |
| 891-012 | — 25P | A1 | —BRS | T |

MATERIALS AND FINISHES

| | |
|-----------------|--|
| Connector Shell | See Ordering Information |
| Insulator | Liquid Crystal Polymer (LCP), 30% Glass-Filled |
| Contacts | Gold Alloy, Unplated |
| Hardware | 300 Series Stainless Steel |
| PC Tails | #30 (.010 Dia.) Copper Wire, Solder Dipped |
| PCB Trays | Liquid Crystal Polymer (LCP) or Epoxy |
| Encapsulant | Epoxy |

SPECIFICATIONS

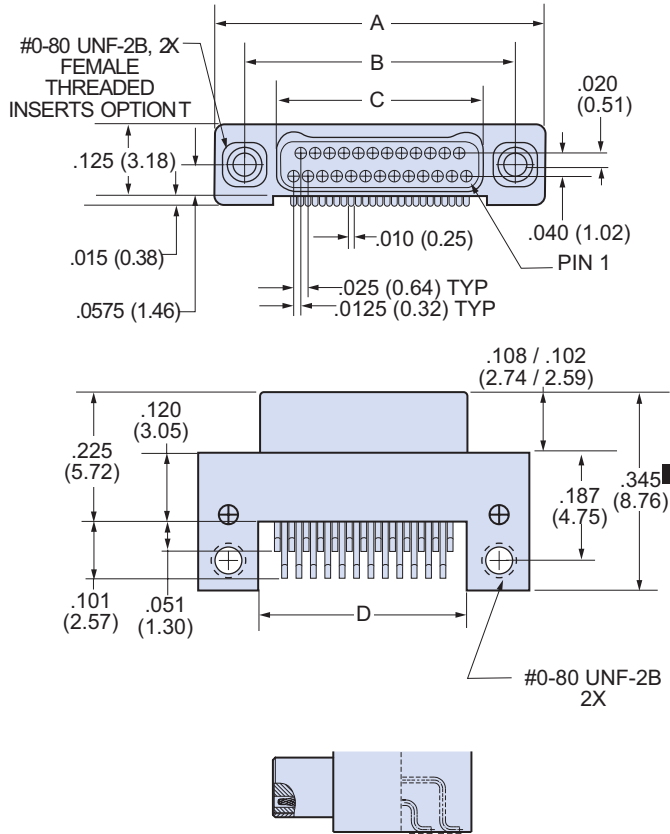
| | |
|---------------------------|----------------------------|
| Durability | 200 Cycles Minimum |
| Current Rating | 1 AMP Maximum |
| Voltage Rating (DWV) | 300 VAC RMS Sea Level |
| Insulation Resistance | 5000 Megohms Minimum |
| Operating Temperature | -55° C. to +125° C. |
| Contact Resistance | 71 mV. @1 AMP #30 AWG Wire |
| Thermal Vacuum Outgassing | 1.0% Max TML, 0.1% Max. |

Series 89 Nanominiature Connectors Two Row Right Angle Surface Mount 891-012 and -013

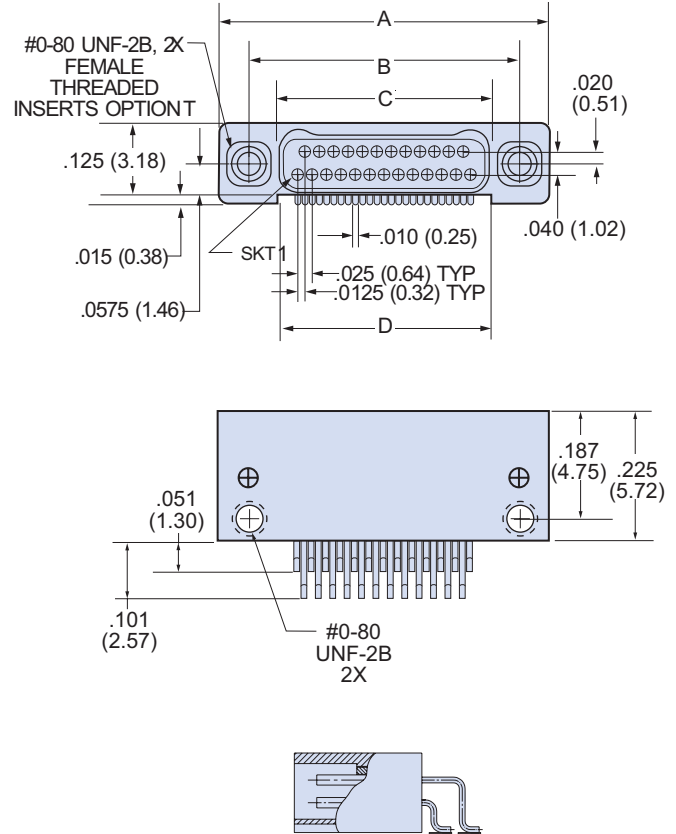


TWO ROW RIGHT ANGLE SURFACE MOUNT NANO DIMENSIONS

Plug (Pin) Connectors



Receptacle (Socket) Connectors



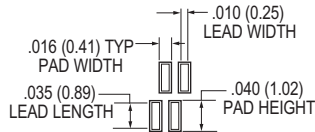
| Layout | A | | B BSC. | | C BSC. | | D | |
|--------|------|-------|--------|-------|--------|-------|------------|------------|
| | In. | mm. | In. | mm. | In. | mm. | In. ± .005 | mm. ± 0.13 |
| 9P | .375 | 9.52 | .270 | 6.86 | .160 | 4.06 | .170 | 4.32 |
| 9S | .375 | 9.52 | .270 | 6.86 | .163 | 4.14 | .170 | 4.32 |
| 15P | .450 | 11.43 | .345 | 8.76 | .235 | 5.97 | .245 | 6.22 |
| 15S | .450 | 11.43 | .345 | 8.76 | .238 | 6.04 | .245 | 6.22 |
| 21P | .525 | 13.33 | .420 | 10.67 | .310 | 7.87 | .320 | 8.13 |
| 21S | .525 | 13.33 | .420 | 10.67 | .313 | 7.95 | .320 | 8.13 |
| 25P | .575 | 14.60 | .470 | 11.94 | .360 | 9.14 | .370 | 9.40 |
| 25S | .575 | 14.60 | .470 | 11.94 | .363 | 9.22 | .370 | 9.40 |
| 31P | .650 | 16.51 | .545 | 13.84 | .435 | 11.05 | .445 | 11.30 |
| 31S | .650 | 16.51 | .545 | 13.84 | .438 | 11.12 | .445 | 11.30 |
| 37P | .725 | 18.41 | .620 | 15.75 | .510 | 12.95 | .520 | 13.21 |
| 37S | .725 | 18.41 | .620 | 15.75 | .513 | 13.03 | .520 | 13.21 |
| 51P | .900 | 22.86 | .795 | 20.19 | .685 | 17.40 | .695 | 17.65 |
| 51S | .900 | 22.86 | .795 | 20.19 | .688 | 17.47 | .695 | 17.65 |



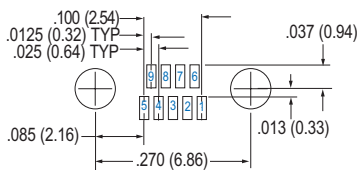
Series 89 Nanominiature Connectors Two Row Right Angle Surface Mount 891-012 and -013

Patterns shown are for connector mounting side of PC Board.

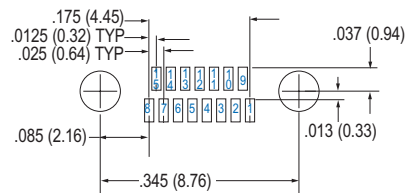
TWO ROW RIGHT ANGLE SURFACE MOUNT BOARD LAYOUT—891-012 PLUGS (PIN CONTACTS)



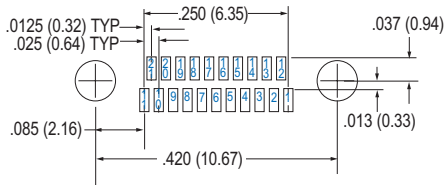
PAD/ FOOTPRINT DETAIL



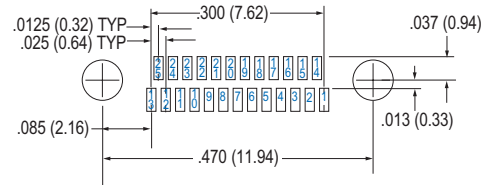
9 Contacts



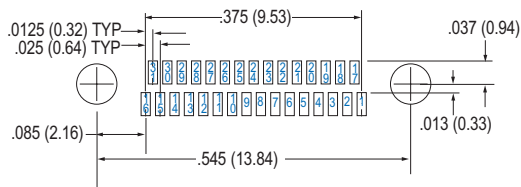
15 Contacts



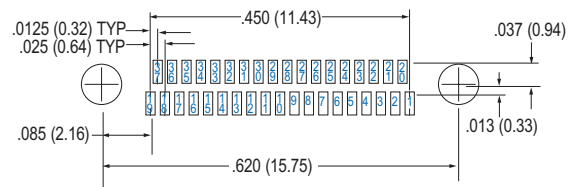
21 Contacts



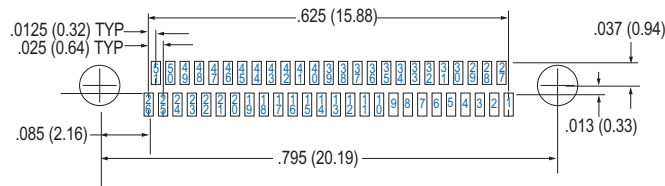
25 Contacts



31 Contacts



37 Contacts



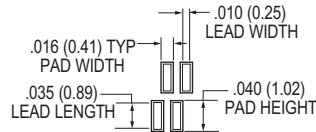
51 Contacts

Series 89 Nanominiature Connectors Two Row Right Angle Surface Mount 891-012 and -013

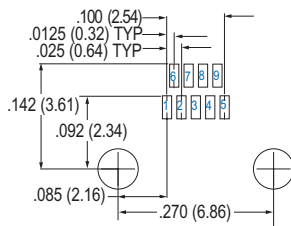


Patterns shown are for connector mounting side of PC Board.

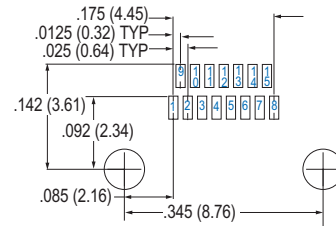
TWO ROW RIGHT ANGLE SURFACE MOUNT BOARD LAYOUT—891-013 RECEPTACLES



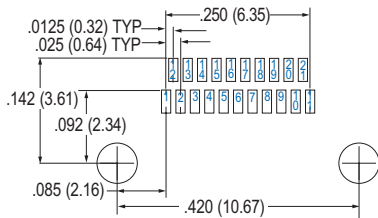
PAD/ FOOTPRINT DETAIL



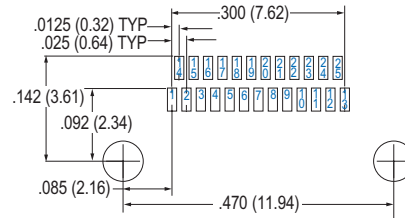
9 Contacts



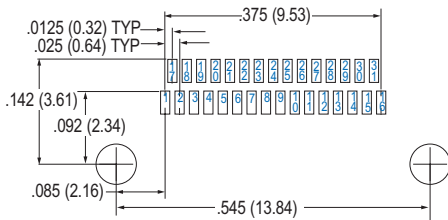
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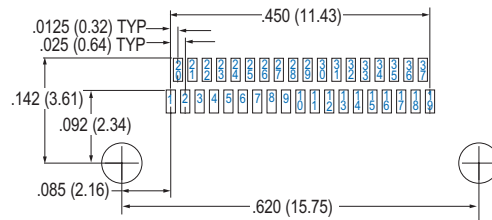
21 Contacts



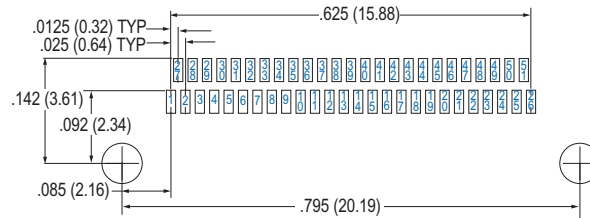
25 Contacts



31 Contacts



37 Contacts



51 Contacts

