



MIL-DTL-83513/10 Thru /15 Micro-D CBR Condensed Right Angle PCB Terminated



High Performance

These connectors feature gold-plated TwistPin contacts for best performance. PC tails are .020 inch diameter. Specify nickel-plated shells or cadmium plated shells for best availability.

Solder-Dipped

Terminals are coated with Sn60/Pb40 tin-lead solder for best solderability.

How To Order MIL-DTL-83513 Right Angle Micro-D Connectors

| Sample Part Number | M83513/ | 13-B | 02 | N | P |
|--------------------------|---|--|-------------------------------------|---|---|
| Base Part Number | M83513 | | | | |
| Slash Number-Shell Sizes | Plug (Pin Contacts) | | Receptacle (Socket Contacts) | | |
| | 10-A - 9 Contacts 10-B - 15 Contacts 10-C - 21 Contacts 10-D - 25 Contacts 10-E - 31 Contacts 10-F - 37 Contacts 11-G - 51 Contacts 12-H - 100 Contacts (See Table II) | 13-A - 9 Contacts 13-B - 15 Contacts 13-C - 21 Contacts 13-D - 25 Contacts 13-E - 31 Contacts 13-F - 37 Contacts 14-G - 51 Contacts 15-H - 100 Contacts | | | |
| PC Tail Length | 01 - .109 Inch (2.77 mm) PC Tail Length ± .015 (0.38) | 02 - .140 Inch (3.56 mm) | 03 - .172 Inch (4.37 mm) | | |
| Shell Finish | C - Cadmium N - Electroless Nickel P - Passivated SST | A - Electrodeposited Aluminum K - Zinc Nickel T - Nickel Fluorocarbon Polymer | | | |
| Hardware Options | N - No Jackpost P - Jackposts Installed Sizes 9-51 T - Threaded Insert in Board Mount Hole (No Jackposts) W - Threaded Insert in Board Mount Hole and jackposts Installed Shell Size 100 (H) U - #4-40 Threaded Insert Y - #4-40 Threaded Insert & Jackpost See "Hardware Options" below for Illustrations (See Table I) | | | | |

Table I: Hardware Options

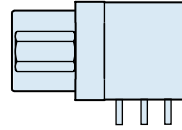
| N | P | T or U | W or Y |
|-------------|-----------|-----------------|---------------------------|
| | | | |
| THRU HOLE | THRU HOLE | THREADED INSERT | THREADED INSERT |
| No Jackpost | Jackpost | Threaded Insert | Jackpost, Threaded Insert |

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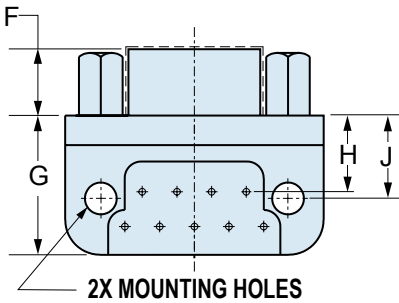
Micro-D
MIL-DTL-83513

Table II: Dimensions



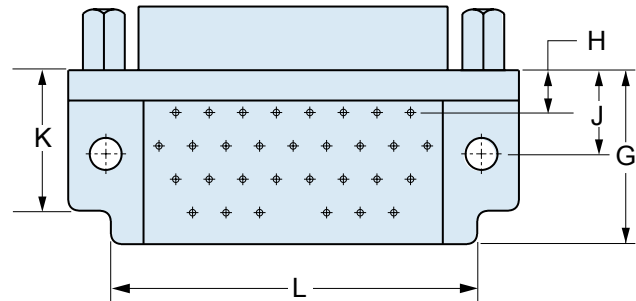
THREAD SIZES
9-51 CONTACTS #2-56 UNC
100 CONTACTS #4-40 UNC

CONFIGURATION FOR 9-25 CONTACTS



PCB MOUNTING HOLES
9-51 CONTACTS .096 DIA. $\pm .003$ (2.44 \pm 0.08)
100 CONTACTS .125 DIA. $\pm .003$ (3.18 \pm 0.08)

CONFIGURATION FOR 31-100 CONTACTS



| Layout | A Max. | | B | | C Max. | | D Max. | | E Max. | | F | | G Max. | | H | | J | | K Max. | | L Max. | |
|--------|--------|-------|-------------------|-------------------|--------|-------|--------|------|--------|-------|-------------------|-------------------|--------|-------|-------------------|-------------------|-------------------|-------------------|--------|-------|--------|-------|
| | In. | mm. | In. $\pm .003$ | mm. ± 0.08 | In. | mm. | In. | mm. | In. | mm. | In. $\pm .003$ | mm. ± 0.08 | In. | mm. | In. $\pm .010$ | mm. ± 0.25 | In. $\pm .010$ | mm. ± 0.25 | In. | mm. | In. | mm. |
| 9P | .787 | 19.94 | .565 | 14.35 | .333 | 8.46 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .425 | 10.80 | .230 | 5.84 | .250 | 6.35 | -- | -- | -- | -- |
| 9S | .787 | 19.94 | .565 | 14.35 | .400 | 10.16 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .425 | 10.80 | .230 | 5.84 | .250 | 6.35 | -- | -- | -- | -- |
| 15P | .937 | 23.75 | .715 | 18.16 | .483 | 12.27 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .425 | 10.80 | .130 | 3.30 | .250 | 6.35 | -- | -- | -- | -- |
| 15S | .937 | 23.75 | .715 | 18.16 | .551 | 14.00 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .425 | 10.80 | .130 | 3.30 | .250 | 6.35 | -- | -- | -- | -- |
| 21P | 1.087 | 27.56 | .865 | 21.97 | .633 | 16.08 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .425 | 10.80 | .130 | 3.30 | .250 | 6.35 | -- | -- | -- | -- |
| 21S | 1.087 | 27.56 | .865 | 21.97 | .701 | 17.81 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .425 | 10.80 | .130 | 3.30 | .250 | 6.35 | -- | -- | -- | -- |
| 25P | 1.187 | 30.01 | .965 | 24.51 | .733 | 18.62 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .425 | 10.80 | .130 | 3.30 | .250 | 6.35 | -- | -- | -- | -- |
| 25S | 1.187 | 30.01 | .965 | 24.51 | .801 | 20.35 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .425 | 10.80 | .130 | 3.30 | .250 | 6.35 | -- | -- | -- | -- |
| 31P | 1.337 | 33.91 | 1.115 | 28.32 | .883 | 22.43 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .525 | 13.34 | .130 | 3.30 | .250 | 6.35 | .450 | 11.43 | 1.085 | 27.56 |
| 31S | 1.337 | 33.91 | 1.115 | 28.32 | .951 | 24.16 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .525 | 13.34 | .130 | 3.30 | .250 | 6.35 | .450 | 11.43 | 1.085 | 27.56 |
| 37P | 1.487 | 37.72 | 1.265 | 32.13 | 1.033 | 26.24 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .525 | 13.34 | .130 | 3.30 | .250 | 6.35 | .450 | 11.43 | 1.185 | 30.10 |
| 37S | 1.487 | 37.72 | 1.265 | 32.13 | 1.101 | 27.96 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .525 | 13.34 | .130 | 3.30 | .250 | 6.35 | .450 | 11.43 | 1.185 | 30.10 |
| 51P | 1.435 | 36.45 | 1.215 | 30.86 | .983 | 24.97 | .228 | 5.79 | .351 | 8.92 | .183 | 4.65 | .660 | 16.76 | .150 | 3.81 | .300 | 7.62 | .450 | 11.43 | 1.225 | 31.12 |
| 51S | 1.435 | 36.45 | 1.215 | 30.86 | 1.051 | 26.70 | .296 | 7.52 | .351 | 8.92 | .195 | 4.95 | .660 | 16.76 | .150 | 3.81 | .300 | 7.62 | .450 | 11.43 | 1.225 | 31.12 |
| 100P | 2.175 | 55.12 | 1.800 | 45.72 | 1.383 | 35.13 | .270 | 6.86 | .394 | 10.01 | .183 | 4.65 | 1.010 | 25.65 | .200 | 5.08 | .400 | 10.16 | .590 | 14.99 | 1.820 | 46.23 |
| 100S | 2.175 | 55.12 | 1.800 | 45.72 | 1.451 | 36.86 | .333 | 8.46 | .394 | 10.01 | .195 | 4.95 | 1.010 | 25.65 | .200 | 5.08 | .400 | 10.16 | .590 | 14.99 | 1.820 | 46.23 |

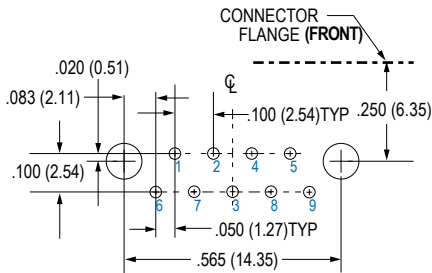




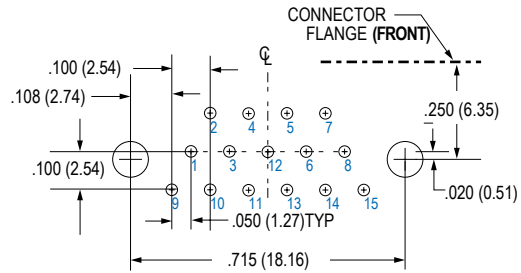
MIL-DTL-83513/10 Thru /15 Micro-D CBR Condensed Right Angle PCB Terminated

M83513/10 Thru /12 Connector PCB Layouts – Pin Connectors

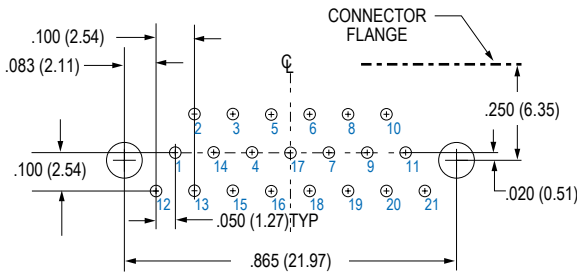
Patterns shown are for connector mounting side of PC board. 9 Thru 51 Contacts .096 (2.44) Diameter Mounting Holes, 100 Pin .125 (3.18) Diameter



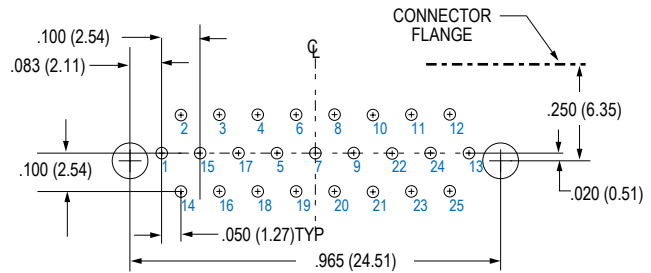
9 PIN M83513/10-A



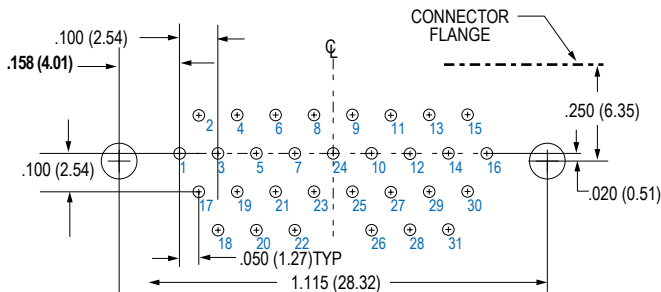
15 PIN M83513/10-B



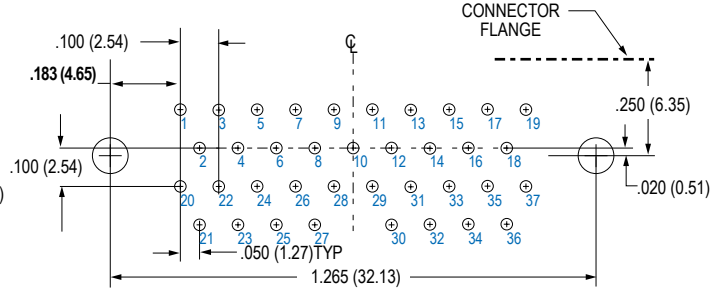
21 PIN M83513/10-C



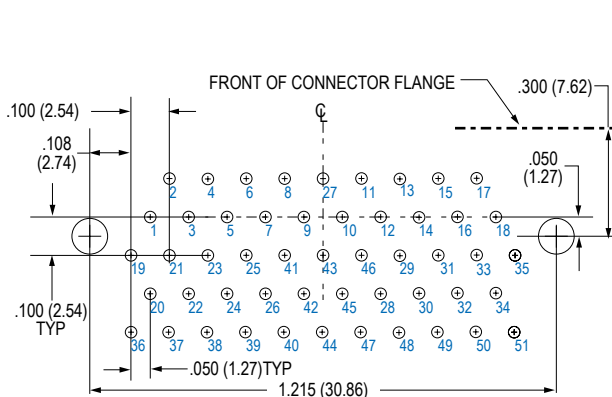
25 PIN M83513/10-D



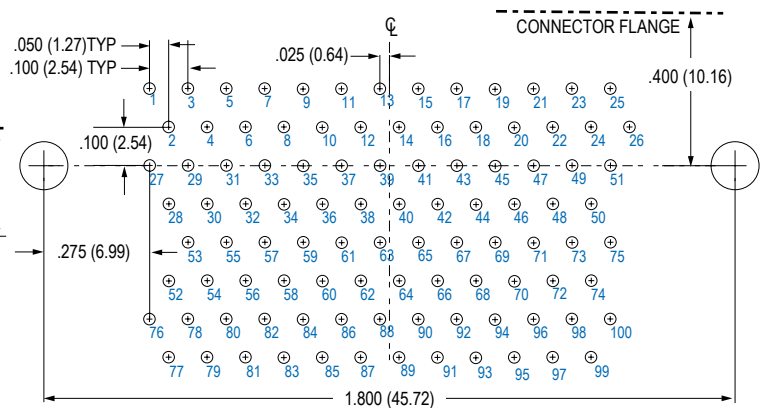
31 PIN M83513/10-E



37 PIN M83513/10-F



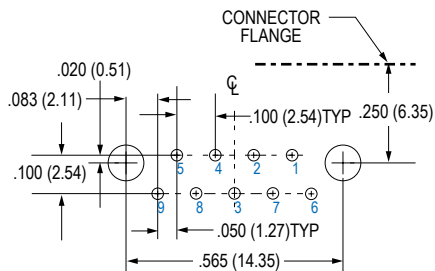
51 PIN M83513/11-G



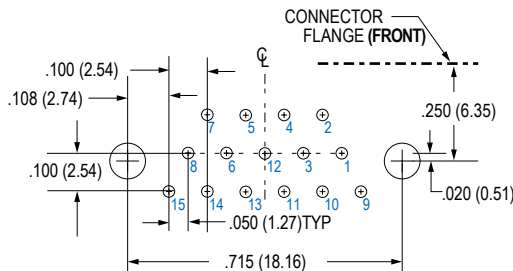
100 PIN M83513/12-H

M83513/13 THRU /15 connector PCB Layouts – Socket Connectors

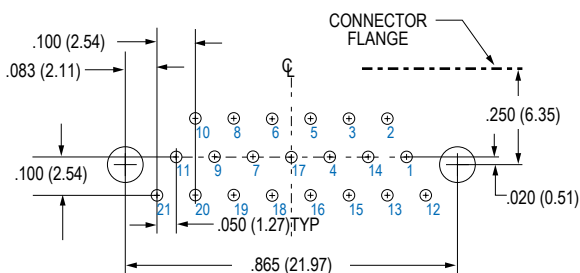
Patterns shown are for connector mounting side of PC board. 9 Thru 51 Contacts .096 (2.44) Diameter Mounting Holes, 100 Pin .125 (3.18) Diameter



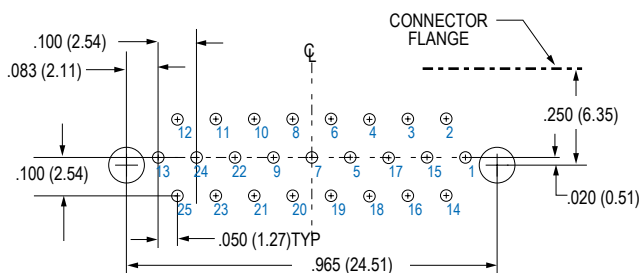
9 SOCKET M83513/13-A



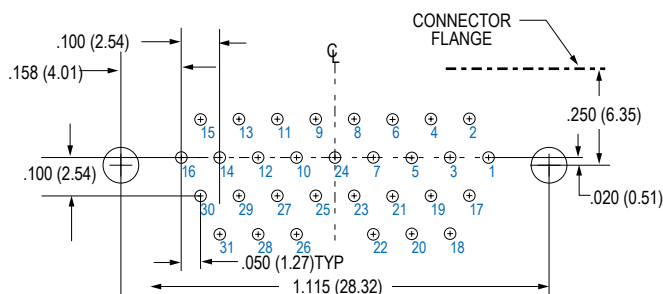
15 SOCKET M83513/13-B



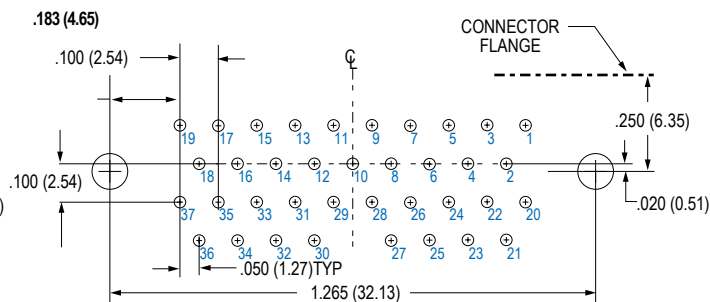
21 SOCKET M83513/13-C



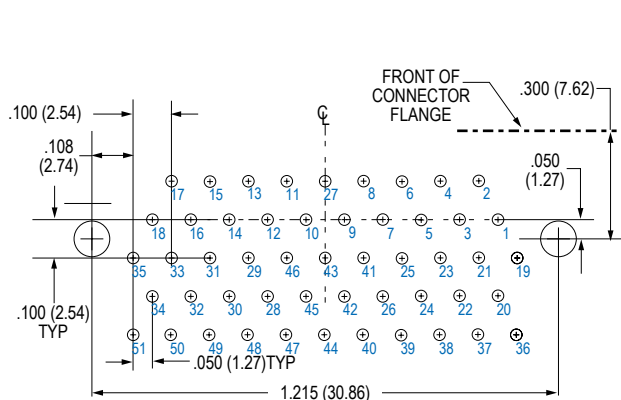
25 SOCKET M83513/13-D



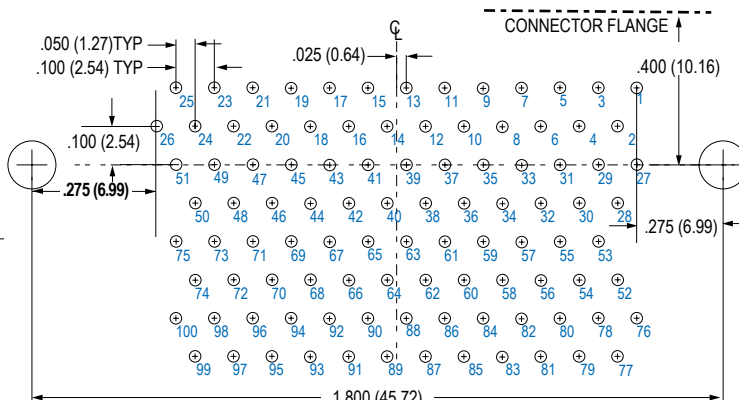
31 SOCKET M83513/13-E



37 SOCKET M83513/13-F



51 SOCKET M83513/14-G



100 SOCKET M83513/15-H