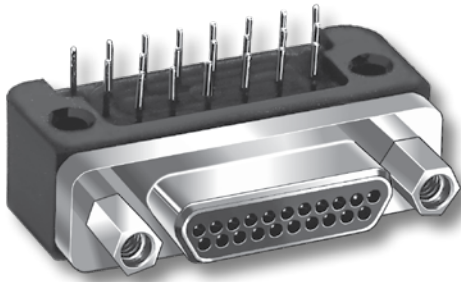


# MIL-DTL-83513/10 Thru /15 Micro-D Connectors Right Angle PCB Connectors (CBR)



M83513



**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.

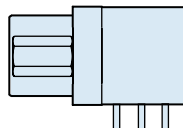
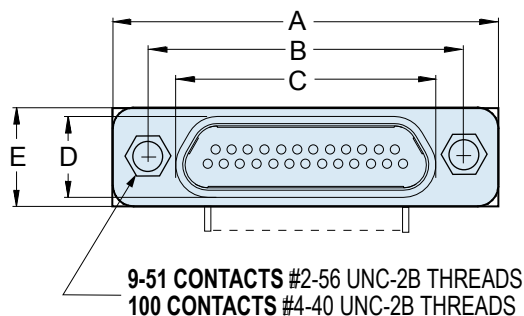
**Solder-Dipped** — Terminals are coated with SN63/Pb37 tin-lead solder for best solderability.

## HOW TO ORDER M83513/10 THRU /15 NARROW PROFILE RIGHT ANGLE PCB CONNECTORS

Spec Number	Slash Number- Shell Size	PC Tail Length	Shell Finish	Hardware Option	
<b>M83513/</b>	<b>Plug (Pin Contacts)</b>		<b>01</b> – .109 Inch (2.77 mm) <b>02</b> – .140 Inch (3.56 mm) <b>03</b> – .172 Inch (4.37 mm)	<b>C</b> – Cadmium <b>N</b> – Electroless Nickel <b>P</b> – Passivated SST	<b>N</b> – No Jackpost <b>P</b> – Jackposts Installed <b>T</b> – Threaded Insert in Board Mount Hole (No Jackposts) <b>W</b> – Threaded Insert in Board Mount Hole and jackposts Installed  See "Hardware Options" below for Illustrations  Shell sizes A (9) through G (51) are #2-56 UNC-2 threads.  Shell size H (100) is #4-40 UNC-2 threads.
	<b>10-A</b> - 9 Contacts	PC Tail Length ± .015 (0.38)			
	<b>10-B</b> - 15 Contacts				
	<b>10-C</b> - 21 Contacts				
	<b>10-D</b> - 25 Contacts				
	<b>10-E</b> - 31 Contacts				
	<b>10-F</b> - 37 Contacts				
	<b>11-G</b> - 51 Contacts				
	<b>12-H</b> - 100 Contacts				
	<b>Receptacle (Socket Contacts)</b>				
	<b>13-A</b> - 9 Contacts				
	<b>13-B</b> - 15 Contacts				
	<b>13-C</b> - 21 Contacts				
	<b>13-D</b> - 25 Contacts				
	<b>13-E</b> - 31 Contacts				
	<b>13-F</b> - 37 Contacts				
<b>14-G</b> - 51 Contacts					
<b>15-H</b> - 100 Contacts					
<b>Sample Part Number</b>					
<b>M83513/</b>	<b>13-B</b>	<b>02</b>	<b>N</b>	<b>P</b>	

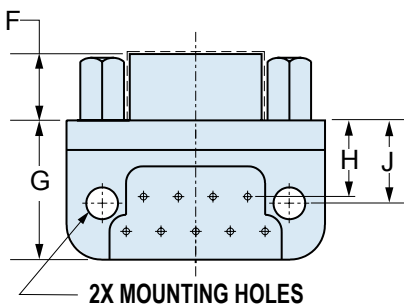
## HARDWARE OPTIONS

N	P	T	W
THRU HOLE	THRU HOLE	2X THREADED INSERTS	2X THREADED INSERTS
<b>No Jackpost</b>	<b>Jackpost</b>	<b>Threaded Insert</b>	<b>Jackpost, Threaded Insert</b>



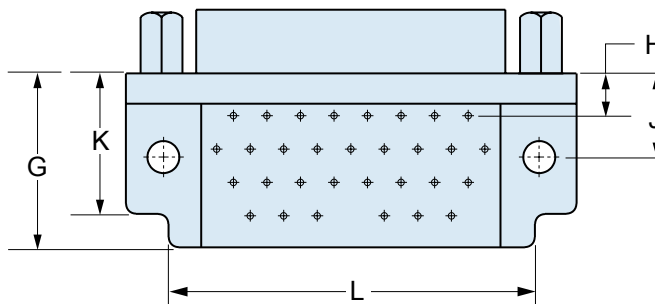
THREAD SIZES  
9-51 CONTACTS #2-56 UNC  
100 CONTACTS #4-40 UNC

### 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



## DIMENSIONS

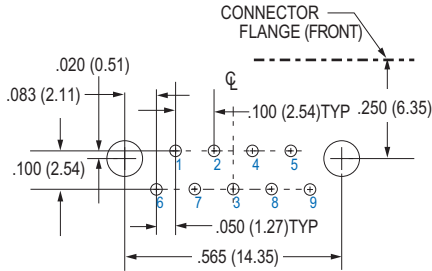
Layout	A Max.		B		C Max.		D Max.		E Max.		F		G Max.		H		J		K Max.		L Max.	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.
<b>9P</b>	.787	19.94	.565	14.35	.333	8.46	.184	4.67	.310	7.87	.183	4.65	.425	10.80	.230	5.84	.250	6.35				
<b>9S</b>	.787	19.94	.565	14.35	.400	10.16	.250	6.35	.310	7.87	.195	4.95	.425	10.80	.230	5.84	.250	6.35				
<b>15P</b>	.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				
<b>15S</b>	.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				
<b>21P</b>	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				
<b>21S</b>	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				
<b>25P</b>	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				
<b>25S</b>	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				
<b>31P</b>	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
<b>31S</b>	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
<b>37P</b>	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
<b>37S</b>	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
<b>51P</b>	1.435	36.45	1.215	30.86	.983	24.97	.224	5.69	.351	8.92	.183	4.65	.660	16.76	.150	3.81	.300	7.62	.450	11.43	1.225	31.12
<b>51S</b>	1.435	36.45	1.215	30.86	1.051	26.70	.293	7.44	.351	8.92	.195	4.95	.660	16.76	.150	3.81	.300	7.62	.450	11.43	1.225	31.12
<b>100P</b>	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
<b>100S</b>	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 Connectors Right Angle PCB Connectors (CBR)

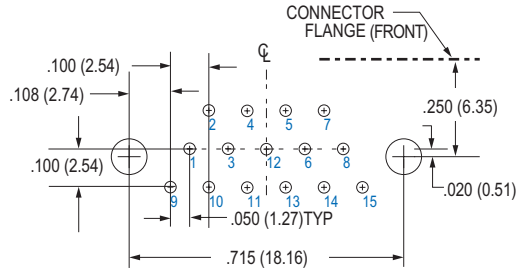


## M83513/10 THRU /12 CONNECTOR PCB LAYOUTS – PIN CONNECTORS

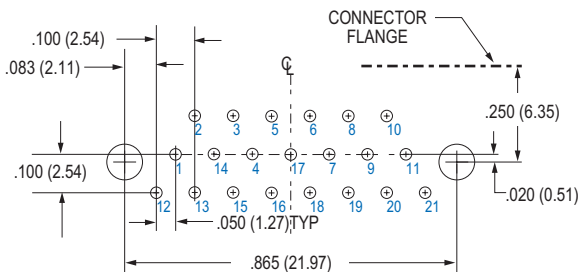
Patterns shown are for connector mounting side of PC board. 9 Thru 51 Contacts .096 (2.44) Diameter Mounting Holes, 100 Pin .125 (3.18) Diameter



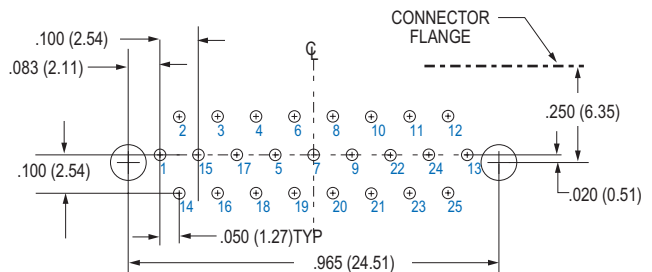
**9 PIN M83513/10-A**



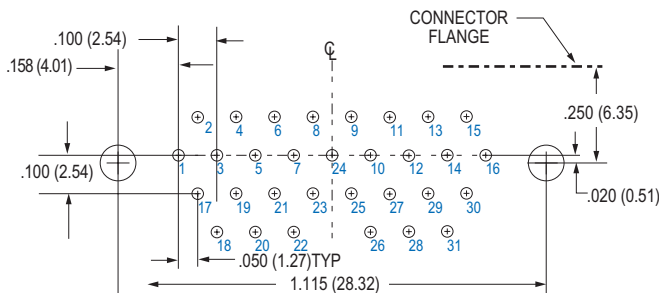
**15 PIN M83513/10-B**



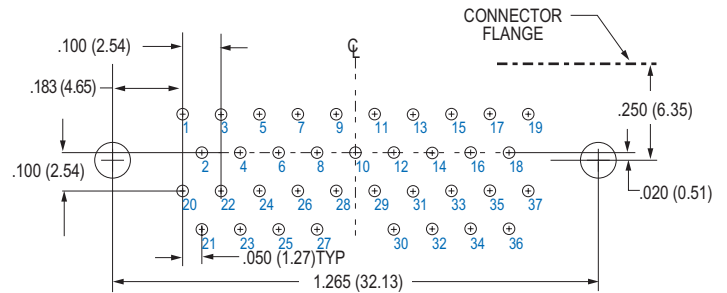
**21 PIN M83513/10-C**



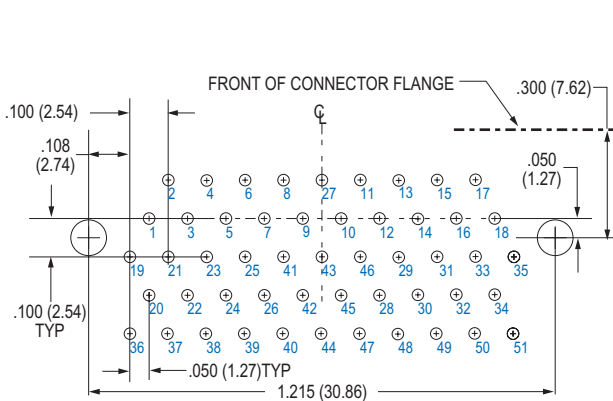
**25 PIN M83513/10-D**



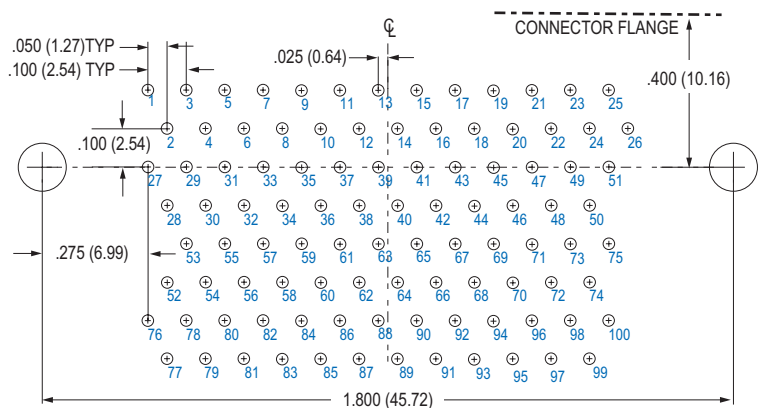
**31 PIN M83513/10-E**



**37 PIN M83513/10-F**



**51 PIN M83513/11-G**



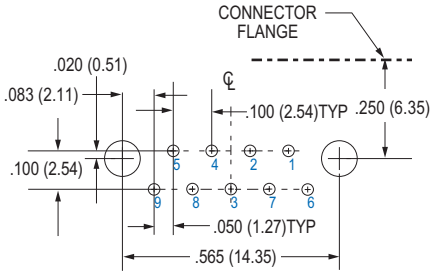
**100 PIN M83513/12-H**



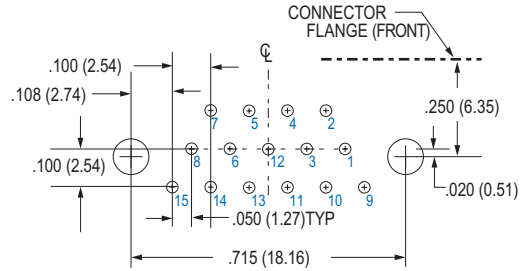
# MIL-DTL-83513/10 Thru /15 Micro-D Connectors Right Angle PCB Connectors (CBR)

## M83513/13 THRU /15 CONNECTOR PCB LAYOUTS – SOCKET CONNECTORS

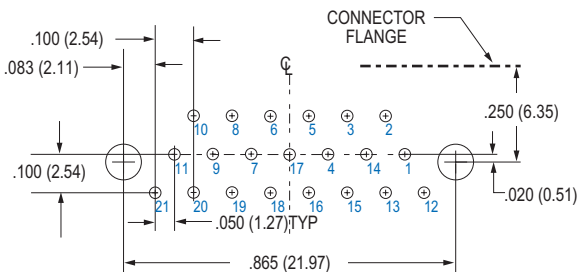
Patterns shown are for connector mounting side of PC board. 9 Thru 51 Contacts .096 (2.44) Diameter Mounting Holes, 100 Pin .125 (3.18) Diameter



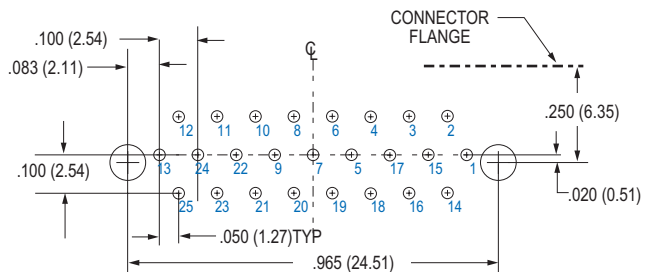
9 SOCKET M83513/13-A



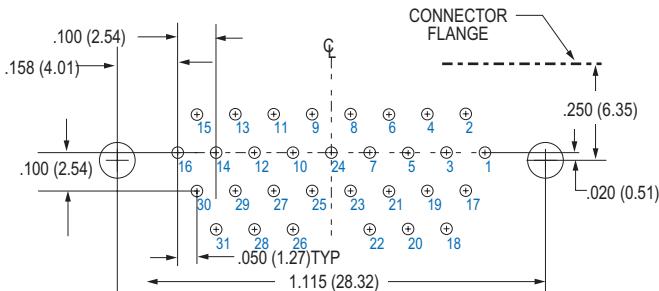
15 SOCKET M83513/13-B



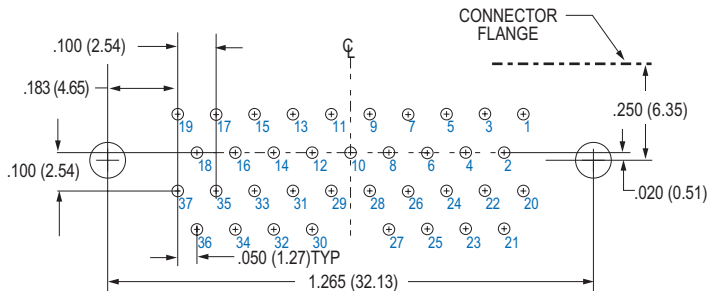
21 SOCKET M83513/13-C



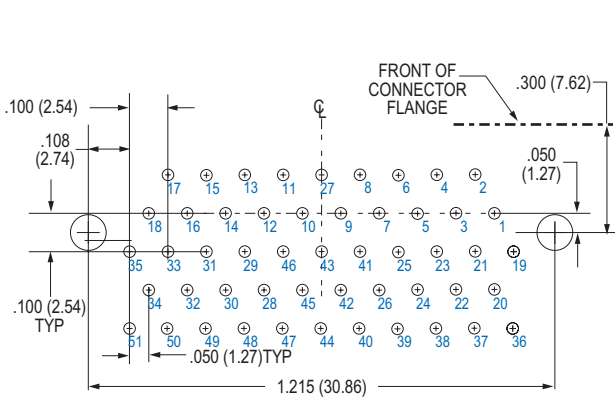
25 SOCKET M83513/13-D



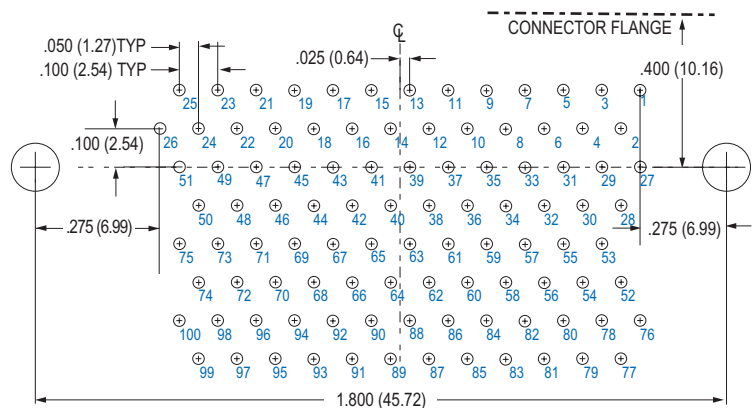
31 SOCKET M83513/13-E



37 SOCKET M83513/13-F



51 SOCKET M83513/14-G



100 SOCKET M83513/15-H