

Cylindrical Connectors with PCB contacts insert availability

The following table lists the most commonly used insert arrangements for printed circuit board application of MIL-DTL-38999, MIL-C-26482 and MIL-C-5015 cylindrical connectors. This represents the most readily available patterns within these series. See illustrations of these selected patterns on the following pages. If you require other arrangements than what are shown here, consult Amphenol for further availability.

MIL-DTL-38999			MIL-C-26482	MIL-5015	Service Rating	Total Contacts	Contact Size*		
JT Series II	LJT Series I	Tri-Start Series III					22D	20	16
8-3	9-3		8-3		M/I	3		3	
8-35	9-35	9-35			M	6	6		
8-98	9-98	9-98	8-98		I	3		3	
				10SL-3	A	3			3
10-5	11-5	11-5	10-5		I	5		5	
	11-6		10-6		I	6		6	
10-35	11-35	11-35			M	13	13		
12-3	13-3		12-3		II	3			3
			12-10		I	10		10	
12-35	13-35	13-35			M	22	22		
				14S-6	Inst.	6			6
14-18	15-18	15-18	14-18		I	18		18	
14-19	15-19	15-19	14-19		I	19		19	
14-35	15-35	15-35			M	37	37		
				16S-1	A	7			7
16-26	17-26	17-26	16-26		I	26		26	
16-35	17-35	17-35			M	55	55		
				18-1	A/Inst.	10			10
18-11	19-11	19-11	18-11		II	11			11
18-32	19-32	19-32	18-32		I	32		32	
18-35	19-35	19-35			M	66	66		
				20-11	Inst.	13			13
20-27	21-27		20-27		I	27		27	
20-35	21-35	21-35			M	79	79		
20-41	21-41	21-41	20-41		I	41		41	
				22-14	A	19			19
22-35	23-35	23-35			M	100	100		
22-55	23-55	23-55	22-55		I	55		55	
				24-5	A	16			16
				24-28	Inst.	24			24
24-31			24-31		I	31			31
24-35	25-35	25-35			M	128	128		
24-61	25-61	25-61	24-61		I	61		61	
				28-15	A	35			35

* For information on size 12 PC tail contacts consult Amphenol Aerospace.

Cylindrical Connectors with PCB contacts

alternate positioning available

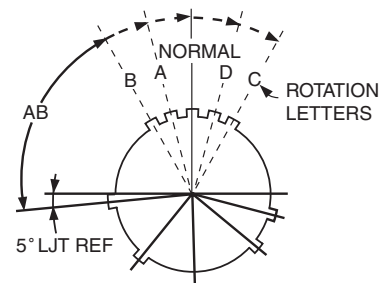
for MIL-DTL-38999 connectors

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same series, size and arrangement, alternate rotations are available as indicated in the accompanying charts.

In MIL-DTL-38999 Series I, II and III connectors the rotation is based on rotating the master key/keyway in the connector shell. A plug with a given rotation letter will mate with a receptacle with the same rotation letter. Only the master key/keyway rotates in the shell, and the insert always remains in the same position relative to the minor keys. Refer to diagrams below for each connector series.

LJT (MIL-DTL-38999 Series I) KEY/KEYWAY ROTATION

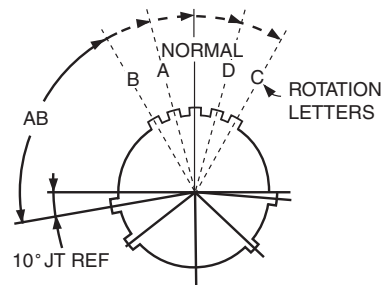
AB ANGLE OF ROTATION (Degrees)					
Shell Size	Normal°	A°	B°	C°	D°
9	95	77	—	—	113
11	95	81	67	123	109
13	95	75	63	127	115
15	95	74	61	129	116
17	95	77	65	125	113
19	95	77	65	125	113
21	95	77	65	125	113
23	95	80	69	121	110
25	95	80	69	121	110



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of LJT connector receptacle shown)

JT (MIL-DTL-38999 Series II) KEY/KEYWAY ROTATION

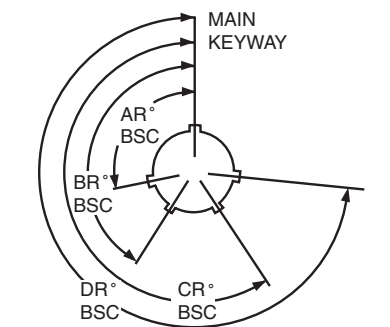
AB ANGLE OF ROTATION (Degrees)					
Shell Size	Normal°	A°	B°	C°	D°
8	100	82	—	—	118
10	100	86	72	128	114
12	100	80	68	132	120
14	100	79	66	134	121
16	100	82	70	130	118
18	100	82	70	130	118
20	100	82	70	130	118
22	100	85	74	126	115
24	100	85	74	126	115



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of JT connector receptacle shown)

Tri-Start (MIL-DTL-38999 Series III) KEY/KEYWAY ROTATION

Shell Size	Key & Keyway Arrangement Identification Letter	AR° BSC	BR° BSC	CR° BSC	DR° BSC
9	N	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	E	91	131	197	240
	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
17 and 19	D	119	146	176	298
	E	51	141	184	242
	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
21, 23, and 25	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
	N	80	142	196	293
	A	135	170	200	310



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of Tri-Start connector receptacle shown)

LJT & JT CONNECTORS ALTERNATE ROTATION CROSS REFERENCE LETTERS

Pins in Alternate Rotations	Sockets in Alternate Rotations
PA = E	SA = F
PB = R	SB = T
PC = W	SC = X
PD = Y	SD = Z

Explanation:
Use P at end of part number for pin contacts in Normal position.
Use S at end of part number for socket contacts in Normal position.
Use cross reference letters given in chart above for alternate rotations.

TRI-START CONNECTORS ALTERNATE ROTATION CROSS REFERENCE LETTERS

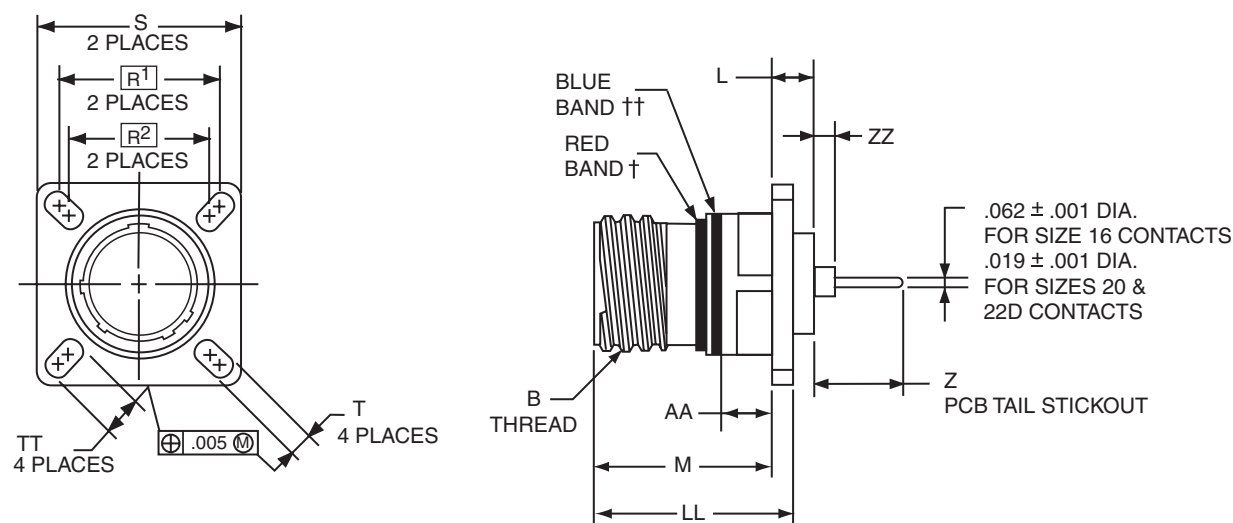
Pins in Alternate Rotations	Sockets in Alternate Rotations
PA = G	SA = H
PB = I	SB = J
PC = K	SC = L
PD = M	SD = N
PE = R	SE = T

Explanation:
Use P at end of part number for pin contacts in Normal position.
Use S at end of part number for socket contacts in Normal position.
Use cross reference letters given in chart above for alternate rotations.

MIL-DTL-38999 Series III Type Connectors

with PCB contacts

TVP02R box mounting receptacle



HOW TO ORDER

- Order by applicable 88/91 part number in table below.
88 prefix designates olive drab cadmium plated connector shell.
91 prefix designates electroless nickel plated connector shell.
- Add insert arrangement to end of number. Refer to insert availability chart on page 4 and pin-out illustrations on pages 5-24. Last letter of part number designates rotation; P for pins in normal position, S for sockets in normal position. See page 25 for alternate rotation letter to use.
Example part number: 88-569771-35P designates shell size 9 with a 9-35 insert and pin contacts in normal position.
- Z dimension is determined by contact type in the insert arrangement.
- Most common options are shown; other options are available.

Composite Series III connectors are available; consult Amphenol, Sidney, NY.

- Designates true position dimensioning
- † Red band indicates fully mated
- †† Blue band indicates rear release contact retention system

Shell Size	Part Number	B Thread Class 2A (Plated) 0.1P-0.3L-TS	L Max.	M +.000 - .005	R ¹	R ²	S Max.	T +.008 - .006	AA Max. Panel Thickness	LL +.006 - .000	TT +.008 - .006	Z	
												Size 16 & 20 Contacts	Size 22D Contacts
9	88/91-569771-XXX	.6250	.205	.820	.719	.594	.948	.128	.234	.905	.216	.460-.375	.471-.399
11	772-XXX	.7500	.205	.820	.812	.719	1.043	.128	.234	.905	.194	.460-.375	.471-.399
13	773-XXX	.8750	.205	.820	.906	.812	1.137	.128	.234	.905	.194	.460-.375	.471-.399
15	774-XXX	1.0000	.205	.820	.969	.906	1.232	.128	.234	.905	.173	.460-.375	.471-.399
17	775-XXX	1.1875	.205	.820	1.062	.969	1.323	.128	.234	.905	.194	.460-.375	.471-.399
19	776-XXX	1.2500	.205	.820	1.156	1.062	1.449	.128	.234	.905	.194	.460-.375	.471-.399
21	777-XXX	1.3750	.235	.790	1.250	1.156	1.575	.128	.204	.905	.194	.460-.375	.471-.399
23	778-XXX	1.5000	.235	.790	1.375	1.250	1.701	.154	.204	.905	.242	.460-.375	.471-.399
25	779-XXX	1.6250	.235	.790	1.500	1.375	1.823	.154	.204	.905	.242	.460-.375	.471-.399

All dimensions for reference only.

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