

MIL-C-38999 range

MIL-C-38999 connectors are designed & approved to meet the most stringent requirements of the military and aerospace industry. Within the connector range Amphenol produce 4 series of connectors. These cover low profile light weight to ruggedised scoop proof connectors. All connectors are rated at 175°C for olive drab finish and 200°C for electroless Nickel. A Cadmium free olive drab version is available. Contact counts in the connectors range from 1 to 128 with five sizes of contact and over 100 insert planforms are available. With this broad range, a MIL-C-38999 connector is suitable for the majority of harsh environment applications



JT Light weight low profile bayonet connector. Ideal for use in avionics box and other limited space conditions.

Approved to: MIL-C-38999 series 2
BS9520 G0002
PAN 6433-1
HE309



SJT A light weight scoop proof bayonet connector intermountable with MIL-C-26482 type connectors. Commonly used on European military aircraft

Approved to: LN29729
VG96912
PAN 6433-2
JN1003

LJT A range of rugged scoop proof bayonet connector suitable for general duty applications ie. ground support systems.

Approved to: MIL-C-38999 series 1
BS9522 F0029, BS9520 G0001
HE308

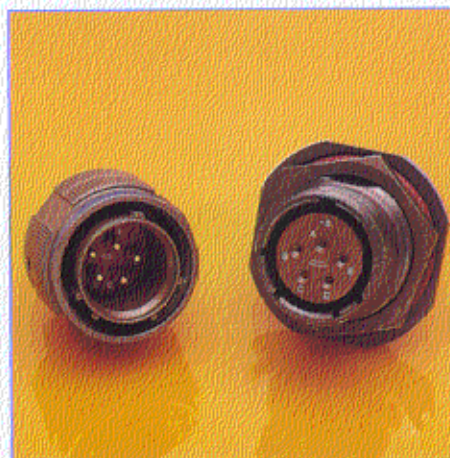


TV Highest performance connector with quick threaded coupling mechanism. Used in high vibration & EMI/RFI environments and on portable communication systems. A stainless steel connector firewall version is available for use on engine harnesses.

CTV Composite light weight connector ideal for use in aircraft or extreme salt spray environments.

TVRB Marine Nickel Aluminium Bronze version chosen for use on standard naval applications.

Approved to: MIL-C-38999 series 3
BS9522 F0039 / BS9520 G0003
JN1034



Specifications

Contact Rating

Contact Size	22D	22M	22	20	16	12	8
Wire Size	Test Current						
28	1.5	1.5	-	-	-	-	-
26	2.0	2.0	2.0	-	-	-	-
24	3.0	3.0	3.0	3.0	-	-	-
22	5.0	-	5.0	5.0	-	-	-
20	-	-	-	7.5	7.5	-	-
18	-	-	-	-	10.0	-	-
16	-	-	-	-	13.0	-	-
14	-	-	-	-	-	17.0	-
12	-	-	-	-	-	23.0	-
10	-	-	-	-	-	-	-
8	-	-	-	-	-	-	46.0
6	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
Hermetic Contacts	3	2	3	5	10	17	N/A
Crimp Well Data							
Diameter ± 0.01	0.0345	0.0280	0.0365	0.047	0.067	0.100	0.181
Depth	0.141	0.141	0.141	0.209	0.209	0.209	0.394
Maximum Milivolt Drop							
Crimp Contacts	73	45	73	55	49	42	26
Hermetic Contacts	85	60	85	60	85	85	N/A
Hermetic Contacts according to M39029 Standard	803	803	803	605	539	462	N/A

Tested using silver plated wire

Service Rating**

Service Rating	Suggested Operating Voltage (Sea Level)		Test Voltage (Sea Level)	Test Voltage 50,000ft	Test Voltage 70,000ft	Test Voltage 110,000ft
	AC(RMS)	DC				
M	400	500	1300 VRMS	550 VRMS	350 VRMS	200 VRMS
N	300	450	1000 VRMS	400 VRMS	260 VRMS	200 VRMS
I	600	850	1800 VRMS	600 VRMS	400 VRMS	200 VRMS
II	900	1250	2300 VRMS	800 VRMS	500 VRMS	200 VRMS

* Please note that the establishment of electrical safety factors is left entirely in the designers hands, since he is in the best position to know what peak voltages, switching surges, transients, etc., can be expected in a particular circuit.

EMI shielding effectiveness

Frequency MHz	Leakage attenuation (dB) Minimum				
	Series II	Series III			Series I & SJT
	Finish B and F	Class K and Y	Class F, N, M and S	Class W and J	Finish B and F
100	65	80	90	90	90
200	60	75	88	88	88
300	55	73	88	88	88
400	55	71	87	87	87
800	45	66	85	85	85
1,000	45	65	85	85	85
1,500	-	59	76	69	69
2,000	-	55	70	65	65
3,000	-	52	69	61	61
4,000	-	50	68	58	58
6,000	-	48	66	55	55
10,000	-	45	65	50	50

Fluid Immersion

- | | | |
|--|---|---|
| (a) MIL-H-5606 | (i) Isopropyl alcohol per TT-1-735, grade A or B mixed one part by volume with three parts by volume of mineral spirits per TT-T-291, type 1 or P-D-680, type 1 | (k) Azeotrope or trichlorotrifluoroethane (Freon TMC or equal) and methylene chloride |
| (b) M2-V chevroni | (j) 1-1-1 trichloroethane | (l) Coolant-dielectric fluid synthetic silicate ester base |
| (c) MIL-T-5624 (grade JP-5) | | |
| (d) MIL-L-7803 | | |
| (e) MIL-L-23699 | | |
| (f) MIL-A-8243 | | |
| (g) MIL-L-25769 (Diluted for cleaning) | | |
| (h) MIL-G-3056 Type 1 | | |

Insert availability and identification

JT	LJT	TV	SJT	Status	Crimp	Hermetics		Service Rating	Total Contacts	Contact Size									
						Class H	Class Y*			22D	22M	22	20	16	12	8 (Coax)	8 == (Twinax)	10 (Power)	12 Coax
8-2				B	#P			M	2				2						
8-3	9-3			B	#P			M	3				3						
8-6	9-6			C	X			M	6		6								
	9-7			C	X														
				B	#			M	7		7								
	9-22							I	2				2						
8-35	9-35	9-35	8-35	B	X														
				A	X	P	P	M	6	6									
8-44	9-44			B	X			M	4			4							
				B	X														
8-97				B	#			M	4		2		2						
8-98	9-98	9-98	8-98	A	X			I	3				3						
				A	X	P	P												
			10-01		2			M	I								1		
	11-01				2														
	11-2	11-2			2			I	2					2					
10-4	11-4				2			I	4				4						
					2														
10-5	11-5	11-5	10-5		X			I	5				5						
					2														
	11-6			B	#			I	6				6						
10-13	11-13			C	X			M	13		13								
				C	X														
10-35	11-35	11-35	10-35	A	X	P	P	M	13	13									
				A	X														
10-98	11-98	11-98		A	X			I	6				6						
				A	X														
10-99	11-99				X			I	7				7						
					P														
12-3	13-3				X			II	3					3					
					P														
12-4	13-4	13-4	12-4		X	P	P	I	4					4					
					X														
12-8	13-8	13-8	12-8		X			I	8				8						
					X														
12-22	13-22			C	X			M	22		22								
				C	X														
12-35	13-35	13-35	12-35	A	X	P	P	M	22	22									
				A	X														
12-98	13-98	13-98	12-98	A	X			I	10				10						
				A	X														
14-4	15-4			B	2			I	4					4					
				B	3														
14-5	15-5	15-5	14-5	A	X			II	5					5					
				A	X														
14-15	15-15	15-15	14-15		X			I	15				14	1					
					X														
14-18	15-18	15-18	14-18	A	X			I	18				18						
				A	X														
14-19	15-19	15-19	14-19	A	X	P	P	I	19				19						
				A	X														
14-35	15-35	15-35	14-35	A	X	P	P	M	37	37									
				A	X														
14-37	15-37			C	X			M	37		37								
				C	X														
14-68	15-68			B	2			I	8					8					
				B	3														
14-97	15-97	15-97	14-97	A	2			I	12				8	4					
				A	2														
	17-2	17-2		B	2			M	39	38						1			
16-6	17-6	17-6	16-6		X	P	P	I	6					6					
					X														
16-8	17-8	17-8	16-8		X			II	8					8					
					X														
16-13	17-13			B	2			i	13					13					
					2														
16-26	17-26	17-26	16-26	A	x			I	26				26						
				A	X														
16-35	17-35	17-35	16-35	A	X	P	P	M	55	55									
				A	X														
16-42	17-42			B	X			M	42			42							
				B	P														
16-55	17-55			C	X			M	55		55								
				C	X														
16-99	17-99	17-99	16-99		X			I	23				21	2					
					X														
18-11	19-11	19-11	18-11		X			II	11					11					
					X														
		19-17	18-17		2			M	17	10			1	4		2			
					2														
18-28	19-28				X			i	28				26	2					
					P														
18-30	19-30				X			I	30				29	1					
					P														
18-32	19-32	19-32	18-32		X	P	P	I	32				32						
					X														

(A) Preferred

(B) Non preferred

(C) Inactive

(X) Fully Tooled

(2) Not tooled for RP or 02RE

(3) Pin insert only, not tooled for RP or 02RE

Solder contact version only

(P) Pin insert only

* Same as H with interfacial seal

† For RG180/U and RG195/U Cables only

(S) Socket inserts only

** Two size 16 contacts dedicated to fiber optics

‡ Size 8 Coax, Twinax and Power contacts are interchangeable

NOTE: MS Connector 21-75 is supplied with size 8 twinax. Proprietary connector 21-75 is supplied with size 8 coax

Insert availability and identification

JT	LJT	TV	SJT	Status	Crimp	Hermetics		Service Rating	Total Contacts	Contact Size									
						Class H	Class Y*			22D	22M	22	20	16	12	8 (Coax)	8 == (Twinax)	10 (Power)	12 Coax
18-35			18-35	A	X			M	66	66									
	19-35	19-35		A	X														
18-53				B	X			M	53			53							
	19-53			B	P														
18-66				C	X			M	66		66								
	19-66			C	X														
				B	3			M	67		67								
18-68				B	2			I	18					18					
	19-68			B	3														
18-96				B	2			I	9						9				
20-1				C	X			M	79		79								
	21-1			C	X														
20-2			20-2	B	X			M	65			65							
	21-2			B	2														
20-11			20-11		3			I	11						11				
	21-11	21-11			X														
20-16			20-16		X			II	16					16					
	21-16	21-16			X	P	P												
				B	#			I	24				24						
	21-24																		
				B	#			I	25				25						
	21-25																		
				B	#			I	27				27						
20-35			20-35	A	X			M	79	79									
	21-35	21-35		A	X														
20-39			20-39		X			I	39				37	2					
	21-39				X														
20-41			20-41	A	X			I	41				41						
	21-41	21-41		A	X														
			20-75	B	2			M	4							4☞☞	(See Note)		
	21-75	21-75		B	X														
			20-79	B	2			II	19	17							2☞☞		
	21-79			B	2														
22-1			22-1	2	X			M	100		100								
	23-1			C	X														
22-2			22-2	B	V			M	85			85							
	23-2			B	X														
22-14				B	2			I	14						14				
	23-14			B	3														
22-21			22-21		X			II	21					21					
	23-21	23-21			X														
22-32					X			I	32				32						
	23-34			B	#			I	34				34						
22-35			22-35	A	X			M	100	100									
	23-35	23-35		A	X														
				B	#			I	36				36						
22-53			22-53		P			I	53				53						
	23-53	23-53			X														
		23-54			2			M	53	40				9	4				
22-55					X			I	55				55						
	23-55	23-55			3														
				B	#			II	16					16					
	23-97																		
				B	#			II	11					11					
24-1				C	X			M	128		128								
	25-1			C	X														
24-2			24-2	B	X			M	100			100							
	25-2			B	X														
24-4			24-4		X			I	56				48	8					
	25-4	25-4			X														
			24-7	B	2			M	99	97							2		
	25-7			B	2														
			24-11					N	11				2					9	
24-19			24-19		2			I	19						19				
	25-19	25-19			2														
			24-20	A				N	30				10	13**			3		4
	25-20	25-20		A	2														
24-24			24-24		X			I	24					12	12				
	25-24	25-24			X														
								I	25				16		5	4			
24-29			24-29		2			I	29					29					
	25-29	25-29			X														
24-35			24-35	A	X			M	128	128									
	25-35	25-35		A	X														
24-37			24-37	B	2			I	37					37					
	25-37	25-37		B	2														
			24-41		2			N	41	22			3	11	2		3		
	25-41				2														
24-43			24-43		3			I	43				23	20					
	25-43	25-43			2														
			24-46		2			I	46				40	4		2☞			
	25-46	25-46			2														
24-61			24-61		X	P	P	I	61				61						
	25-61	25-61			X														
								M	64	18			28	18					
	25.64				2														

(A) Preferred

(B) Non preferred

(C) Inactive

(X) Fully Tooled

NOTE: MS Connector 21-75 is supplied with size 8 twinax. Proprietary connector 21-75 is supplied with size 8 coax

(2) Not tooled for RP or 02RE

(3) Pin insert only, not tooled for RP or 02RE

Solder contact version only

(P) Pin insert only

* Same as H with interfacial seal

☞☞ For RG180/U and RG195/U Cables only

(S) Socket inserts only

** Two size 16 contacts dedicated to fiber optics

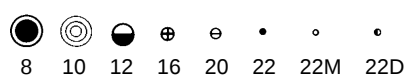
☞☞ Size 8 Coax, Twinax and Power contacts are interchangeable.

Insert arrangements

8-2	8-3 9-3	8-6* 9-6	9-7	9-22	8-35 9-35	8-44* 9-44	8-97	8-98 9-98	10-01 11-01	11-2	10-4 11-4	10-5 11-5		
18-28 19-28	18-30 19-30	18-32 19-32	18-35 19-35	18-53 19-53	18-66* 19-66	18-66* 19-66	18-66* 19-66	18-66* 19-66	18-66* 19-66	18-66* 19-66	18-66* 19-66	18-66* 19-66	18-66* 19-66	18-66* 19-66

* Inactive

Contact Legend
Front end of pins illustrated



Insert arrangements

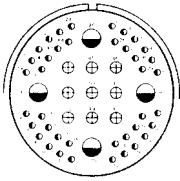
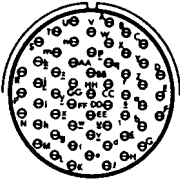
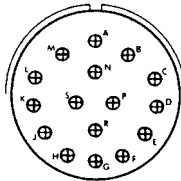
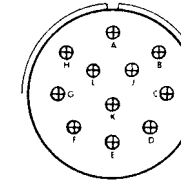
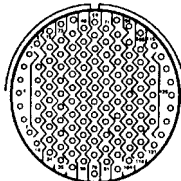
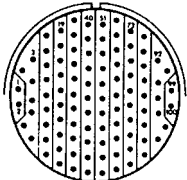
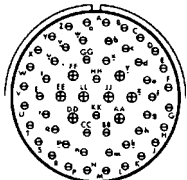
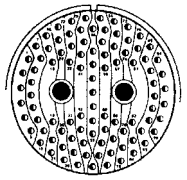
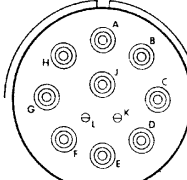
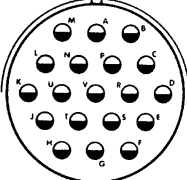
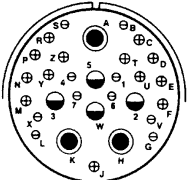
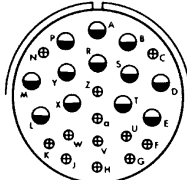
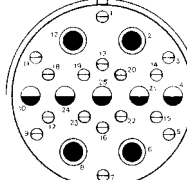
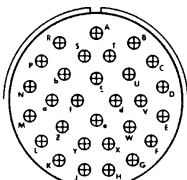
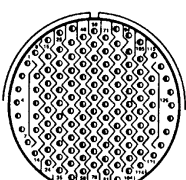
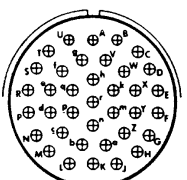
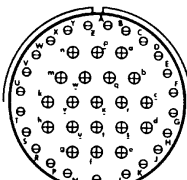
19-67	18-68 19-68	18-96	20-1* 21-1	20-2* 21-2
20-11 21-11	20-16 21-16	21-24	21-25	21-27
20-35 21-35	20-39 21-39	20-41 21-41	20-75 21-75	20-79 21-79
22-1* 23-1	22-2* 23-2	22-14 23-14	22-21 23-21	22-32 23-32
23-34	22-35 23-35	23-36	22-53 23-53	

* Inactive

Contact Legend
 Front end of pins illustrated

8
 10
 12
 16
 20
 22
 22M
 22D

Insert arrangements

				
22-54 23-54	22-55 23-55	23-97	23-99	24-1 25-1
				
24-2 25-2	24-4 25-4	24-7 25-7	24-11 25-11	
				
24-19 25-19	24-20 25-20	24-24 25-24	25-26	
				
24-29 25-29	24-35 25-35	24-37 25-37	24-43 25-43	

Contact Legend
 Front end of pins illustrated

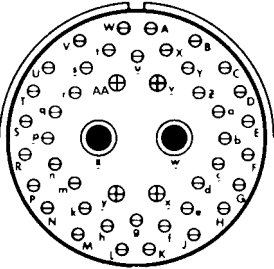
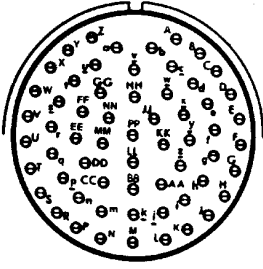
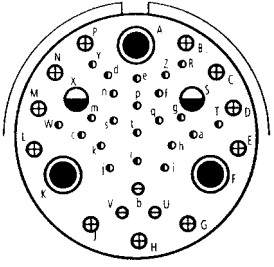
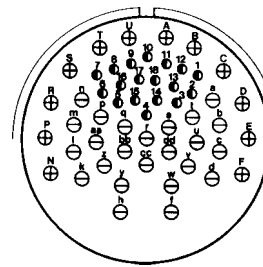









Insert arrangements

	
24-46 25-46	24-61 25-61
	
24-41 25-41	25-64

Contact Legend
Front end of pins illustrated

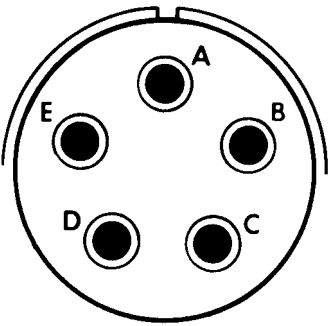
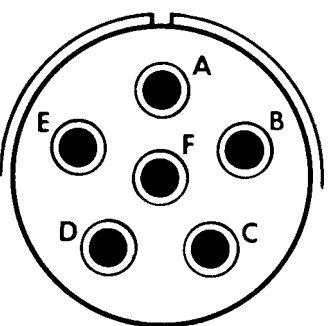
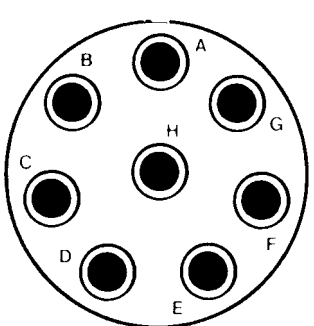









New Inserts

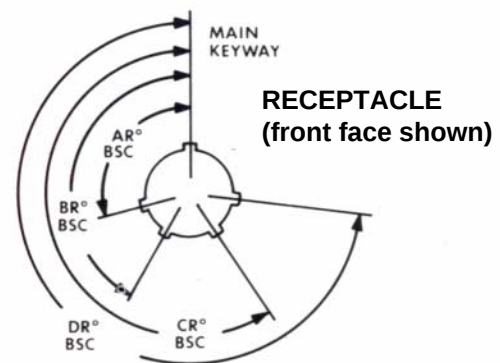
		
23-5	23-6	25-8

Insert Orientations

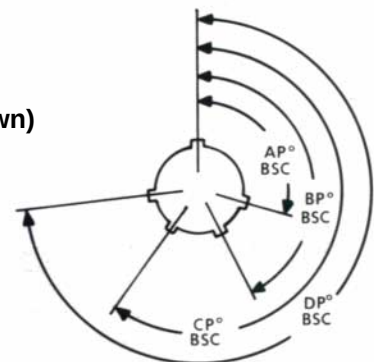
A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.

Master Key/Keyway Rotation

Shell Size	Key & Keyway Arrangement identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° 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
	E	91	131	197	240
11 13 15	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
	E	51	141	184	242
17 19	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
21 23 25	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272

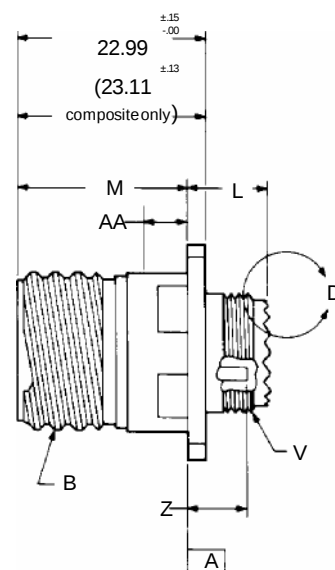
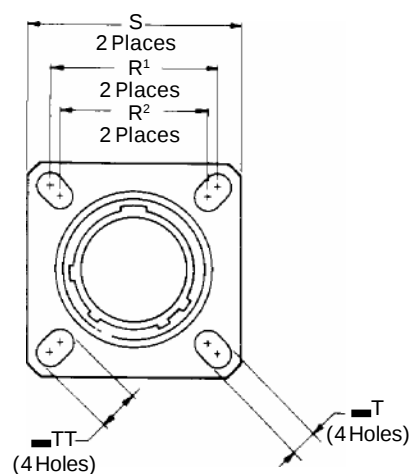


PLUG
(front face shown)



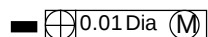
TVP00R, CTVP00R, BS-C6170 D38999/20 JN1034A

Wall mounting receptacle



*TVP00RW...	Olive Drab Aluminium
*TVPS00RF...	Nickel Plated Aluminium
*TVPS00RB...	Marine Aluminium Bronze
*TVPS00RS...	Nickel Plated Stainless
*TVPS00RK...	Firewall Stainless Steel
*CTVP00RW...	Olive Drab Composite
*CTVPS00RF...	Electroless Nickel Composite
*BS9522 G0003 C6170...	BS Specification
*D38999/20...	Mil Specification
*JN1034 A...	Olive Drab Aluminium
*CECC 75-201-002 B	Marine Aluminium Bronze

* To complete order see "how to order" pages.

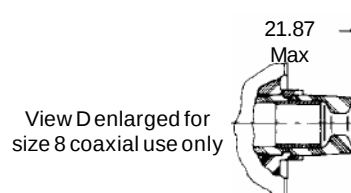


Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L Max	M +.00 -.13	M Composite +.00 -.13	R ¹	R ²	S ±.25	T -.20 -.13	Z Max	TT +.20 -.13	V Thread Metric	AA Max Panel Thickness
9	A	.6250	11.91	20.83	19.69	18.26	15.09	24.1	3.25	3.89	5.49	M12X1-6g	5.94
11	B	.7500	11.91	20.83	19.69	20.62	18.26	26.5	3.25	3.89	4.93	M15X1-6g	5.94
13	C	.8750	11.91	20.83	19.69	23.01	20.62	28.9	3.25	3.89	4.93	M18X1-6g	5.94
15	D	1.0000	11.91	20.83	19.69	24.61	23.01	31.3	3.25	3.89	4.93	M22X1-6g	5.94
17	E	1.1875	11.91	20.83	19.69	26.97	24.61	33.7	3.25	3.89	4.93	M25X1-6g	5.94
19	F	1.2500	11.91	20.83	19.69	29.36	26.97	36.9	3.25	3.89	4.93	M28X1-6g	5.94
21	G	1.3750	12.70	20.07	18.92	31.75	29.36	40.1	3.25	4.65	4.93	M31X1-6g	5.18
23	H	1.5000	12.70	20.07	18.92	34.93	31.75	43.3	3.91	4.65	6.15	M34X1-6g	5.18
25	J	1.6250	12.70	20.07	18.92	38.10	34.93	46.4	3.91	4.65	6.15	M37x1-6g	5.18

All dimensions for reference only

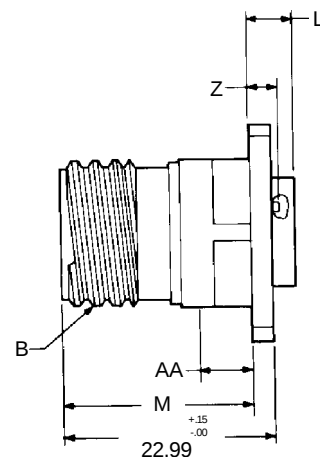
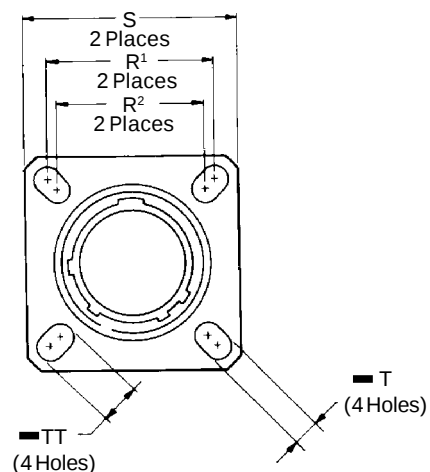
Designates true position dimensioning

From Surface A



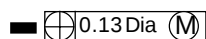
TVP02R CTVP02R JN1034F

Box mounting receptacle



- *TVP02RW... Olive Drab Aluminium
- *TVPS02RF... Electroless Nickel Aluminium
- *TVPS02RB... Marine Aluminium Bronze
- *TVPS02RS... Nickel Plated Stainless Steel
- *TVPS02RK... Firewall stainless Steel
- *CTVP02RW.. Olive Drab Composite
- *CTVP02RF.. Electroless Nickel Composite
- *JN1034F... Olive Drab Aluminium

* To complete order number, see "How to order" pages.



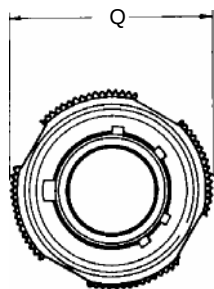
Shell Size	MS Shell Size Code	B Thread Class 2a 0.1P-0.3L-TS (Plated)	L Max	M +.00 -.13	R ¹	R ²	S ±.25	T +.20 -.13	Z Max	AA Max Panel Thickness	TT +.20 -.13
9	A	.6250	5.21	20.83	18.26	15.09	23.82	3.25	3.89	5.94	5.49
11	B	.7500	5.21	20.83	20.62	18.26	26.19	3.25	3.89	5.94	4.93
13	C	.8750	5.21	20.83	23.01	20.62	28.58	3.25	3.89	5.94	4.93
15	D	1.0000	5.21	20.83	24.61	23.01	30.96	3.25	3.89	5.94	4.93
17	E	1.1875	5.21	20.83	26.97	24.61	33.32	3.25	3.89	5.94	4.93
19	F	1.2500	5.21	20.83	29.36	26.97	36.52	3.25	3.89	5.94	4.93
21	G	1.3750	5.97	20.07	31.75	29.36	39.67	3.25	4.65	5.18	4.93
23	H	1.5000	5.97	20.07	34.92	31.75	42.88	3.91	4.65	5.18	6.15
25	J	1.6250	5.97	20.07	38.10	34.92	46.02	3.91	4.65	5.18	6.15

All dimensions for reference only

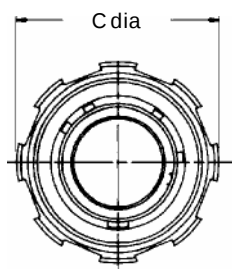
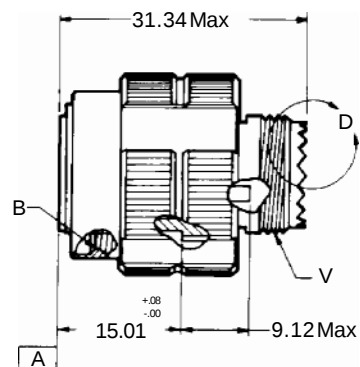
 Designates true position dimensioning

TV06R, CTV06, BS-C6176 D38999/26 JN1034C

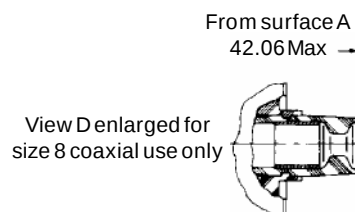
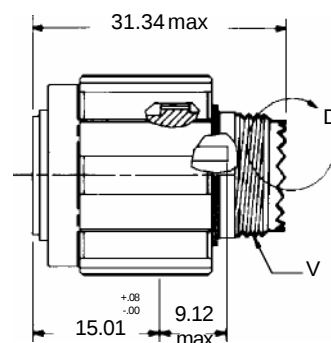
Straight plug



- * TV06RW- ... Olive Drab Aluminium
- * TVS06RF- ... Electroless Nickel Aluminium
- * TVS06RB- ... Marine Aluminium Bronze
- * TVS06RS- ... Electroless Nickel Stainless Steel
- * TVS06RK- ... Firewall Stainless Steel
- * CTV06RW- ... Olive Drab Composite
- * CTVS06RF Electroless Nickel Composite
- * BS9520 G0003 C6176 ... BS Specification
- * D38999/26-... Mil Specification
- * JN1034C... Olive drab Aluminium



- * TVS06RB-... (W88) Marine Aluminium Bronze
- * CECC75-201-002A-... Marine Aluminium Bronze



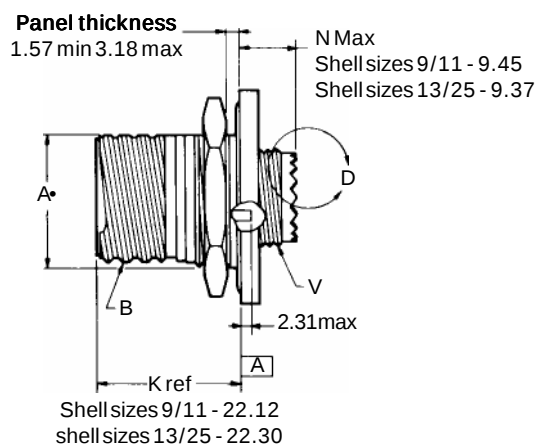
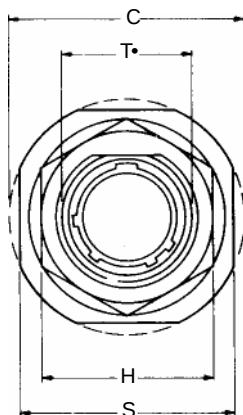
* To complete order number, see "how to order" pages

Shell Size	MS Shell Size Code	C Dia Max	B Thread 0.1P.0.3L.TS.2B Code	Q Max	V Thread Metric
9	A	21.1	.6250	21.82	M12X1.6g
11	B	23.8	.7500	24.62	M15X1.6g
13	C	28.2	.8750	28.98	M18X1.6g
15	D	31.4	1.0000	32.16	M22X1.6g
17	E	36.5	1.1875	35.33	M25X1.6g
19	F	39.3	1.2500	38.10	M28X1.6g
21	G	42.5	1.3750	41.28	M31X1.6g
23	H	45.3	1.5000	44.45	M34X1.6g
25	J	48.4	1.6250	47.63	M37X1.6g

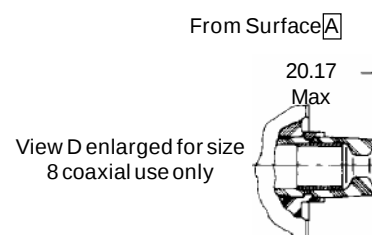
All dimensions for reference only

TV07R, CTV07R BS-C6177 D38999/24 JN1034B

Jam nut receptacle



- * TV07RW-... Olive drab Aluminium
- * TVS07RF-... Electroless Nickel Aluminium
- * TVS07RB-... Marine Aluminium Bronze
- * TVS07RS-... Electroless Nickel Stainless Steel
- * TVS07RK-... Firewall stainless Steel
- * CTV07RW-... Olive drab composite
- * CTVS07RF-... Electroless Nickel composite
- * BS9520G0003C6177-... BS approved
- * D38999/24-... Mil Spec Approved
- * JN1034B-... Olive drab Aluminium
- * CECC 75-201-002-C-... Marine Aluminium Bronze



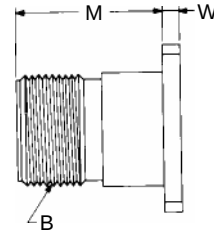
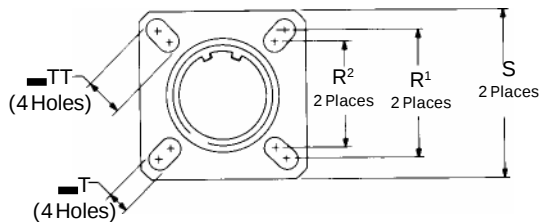
- * To complete order number see "how to order" pages
- D shaped panel cut-out dimensions

Shell size	MS shell size code	A* +.00 -.25	C max	H hex +.43 -.41	S ±.25	T* +.25 -.00	V thread metric	B Thread Class 2A 0.1P-0.3L-TS (Plated)
9	A	16.99	30.45	22.23	26.97	17.70	M12X1-6g	.6250
11	B	19.53	35.20	25.40	31.75	20.88	M15X1-6g	.7500
13	C	24.26	38.38	30.18	34.93	25.58	M18X1-6g	.8750
15	D	27.53	41.55	33.32	38.10	28.80	M22X1-6g	1.000
17	E	30.68	44.73	36.53	41.28	31.98	M25X1-6g	1.1875
19	F	33.86	49.50	39.67	46.02	35.15	M28X1-6g	1.2500
21	G	37.06	52.65	42.88	49.23	38.28	M31X1-6g	1.3750
23	H	40.01	55.85	46.02	52.37	41.50	M34X1-6g	1.500
25	J	43.41	59.00	50.80	55.58	44.68	M37X1-6g	1.6250

All dimensions for reference only

TVBS-A6178JN1034D

Dummy receptacle



Aluminium

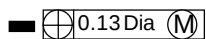
- * 10-553974-XXX
- * BS9522-G0003A6178
- * JN1034D

Nickel Aluminium Bronze

- * 418-1392-XX

Finish	10-No. Suffix
Olive Drab, Cadmium, nickel base	-XX9
Electroless nickel	-XXG

* To complete order number, add shell size and suffix number. For example, shell size 11 with olive drab cadmium nickel base, 10-553974-119
For Nickel Aluminium Bronze dummy receptacle shell size only "XX" =



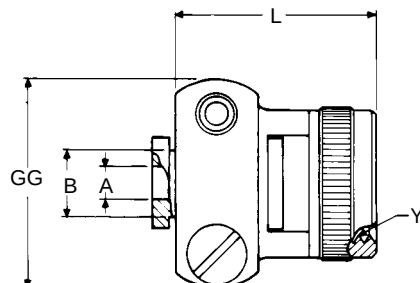
Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	M +.51 -.00	R1	R2	S ±.25	T +.20 -.15	W ±.25	TT +.20 -.15
9	A	.6250	20.88	18.26	15.09	23.83	3.25	2.49	5.49
11	B	.7500	20.88	20.62	18.26	26.19	3.25	2.49	4.93
13	C	.8750	20.88	23.01	20.62	28.58	3.25	2.49	4.93
15	D	1.0000	20.88	24.61	23.01	30.96	3.25	2.49	4.93
17	E	1.1875	20.88	26.97	24.61	33.32	3.25	2.49	4.93
19	F	1.2500	20.88	29.36	26.97	36.53	3.25	2.49	4.93
21	G	1.3750	20.09	31.75	29.36	39.67	3.25	3.18	4.93
23	H	1.5000	20.09	34.93	31.75	42.88	3.91	3.18	6.15
25	J	1.6250	20.09	38.10	34.93	46.02	3.91	3.18	6.15

All dimensions for reference only

Designates true position dimensioning

TV - Accessories

Cable Clamp



* 10-595103-XXX

* To complete order number, add shell size and suffix number.
For example, shell size 11 with cadmium plate, nickel base, 10-595103-119.

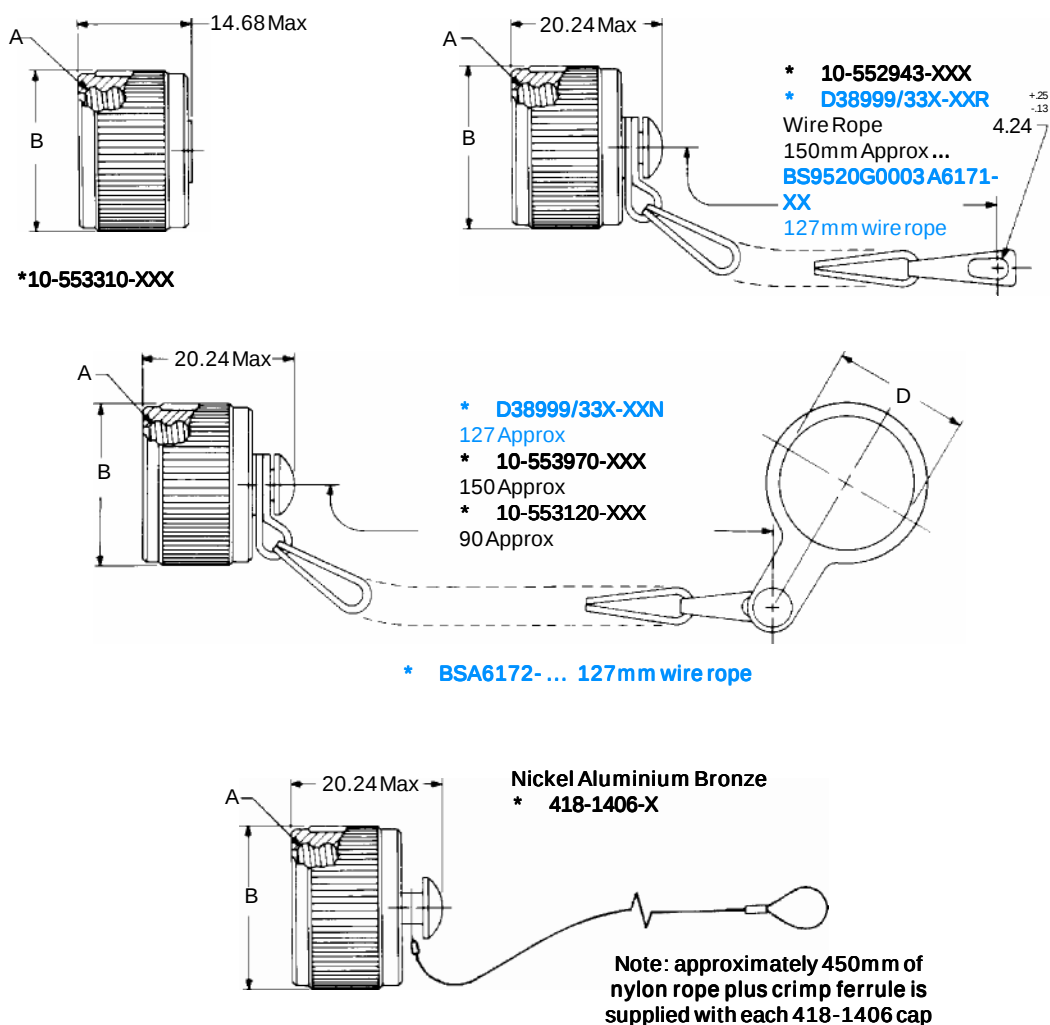
Finish	10-No. Suffix
Chromate treat	-XX0
Anodic coating	-XX5
Cadmium plate nickel base	-XX7
Olive Drab, Cadmium, nickel base	-XX9
Electroless nickel	-XXG

Shell Size	A Dia +02 -06	B Dia +00 -03	L Max	Y Thread	GG Max
9	3.17	6.35	23.42	M12X1-6H	19.68
11	4.77	7.92	23.42	M15X1-6H	20.09
13	7.92	11.12	23.42	M18X1-6H	24.46
15	9.52	14.27	29.76	M22X1-6H	27.60
17	12.70	15.89	29.76	M25X1-6H	29.31
19	15.87	19.05	29.76	M28X1-6H	35.54
21	15.87	19.05	29.76	M31X1-6H	35.54
23	19.03	23.82	32.94	M34X1-6H	40.31
25	20.32	25.54	32.94	M37X1-6H	42.69

All dimensions for reference only

Tri-Start - Accessories **BS-A6171 D38999/33**

Receptacle protection cap



*To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel base,
10-552943-119.

Plating Finish on Aluminium	10-No. Suffix	MIL Spec Suffix
Olive Drab, Cadmium, nickel base	-XX9	W
Electroless nickel	-XXG	F

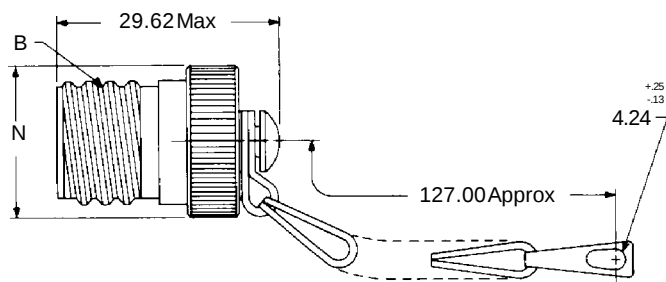
Shell Size	MS Shell Size Code	A Thread Class 2a 0.1P-0.3L-TS	B Dia -.00	D Dia +.25 -.00
9	A	.6250	22.23	17.86
11	B	.7500	25.40	21.44
13	C	.8750	28.58	25.81
15	D	1.0000	31.75	28.98
17	E	1.1875	36.53	32.16
19	F	1.2500	38.10	35.33
21	G	1.3750	41.28	38.51
23	H	1.5000	44.45	41.68
25	J	1.6250	47.63	44.86

All dimensions for reference only

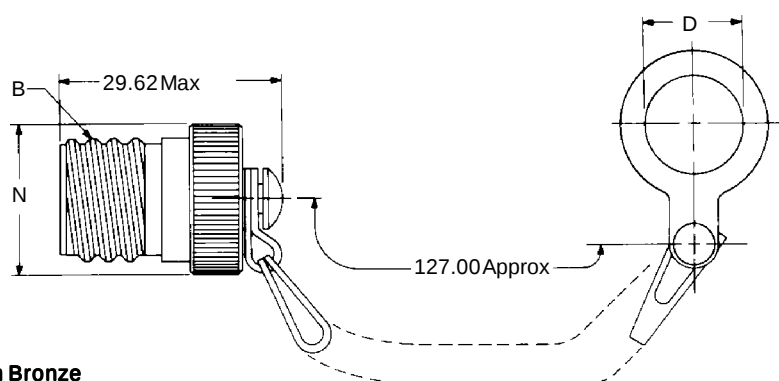
Tri-Start - Accessories **BS-A6173 D38999/32**

Plug protection cap

- * 10-552944-XXX
- * BS9520 G0003 A6173-...
- * D38999/32X-XXR

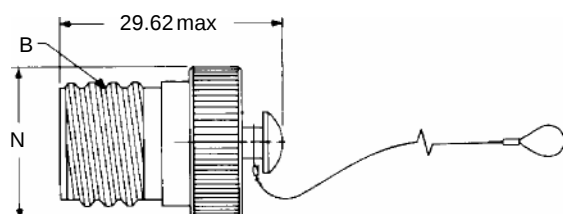


- * 10-553998-XX
- * D38999/32X-XXN



Nickel Aluminium Bronze

- * 418-1405-XX



Note: Approximately 450mm of Nylon rope, plus crimp ferrule is supplied with each 418-1405 cap.

* To complete order number, add shell size and suffix number.
For example, shell size 11 with olive drab cadmium nickel base,
10-552944-119.

Plating Finish on Aluminium	10-No. Suffix	MIL Spec Suffix
Olive Drab, Cadmium, nickel base	-XX9	W
Electroless nickel	-XXG	F

Shell Size	MS Shell Size Code	B Thread Class 2a 0.1P-0.3L-TS	D +.25 -.00	N Dia Max
9	A	.6250	13.11	22.73
11	B	.7500	16.28	25.40
13	C	.8750	19.46	29.74
15	D	1.0000	22.63	32.99
17	E	1.1875	25.81	36.47
19	F	1.2500	28.98	39.19
21	G	1.3750	32.16	42.42
23	H	1.5000	34.11	45.39
25	J	1.6250	38.51	48.62

All dimensions for reference only

Crimp Contacts

Contact Size	SJT/JT/LJT Pins+TV		JT Sockets		SJT/LJT Sockets+TV	
	Proprietary No	MS Number	Proprietary No	MS Number	Proprietary No	MS Number
8 (Coax)	21-33102-21	M39029/60-367	NA	NA	21-33101-21	M39029/59-366
8 (Twinax)	21-33190-529	M39029/90-529†	NA	NA	21-33191-530†	M39029/91-530
10 (Power)	10-251415-105	M39029/58-528	NA	NA	10-407035-105	M39029/56-527
12	10-251415-12H	M39029/58-365	10-251416-125	M39029/57-359	10-407035-125	M39029/56-353
16	10-251415-165	M39029/58-364	10-251416-165	M39029/57-358	10-407035-165	M39029/56-352
20	10-251415-205	M39029/58-363	10-497401-205	M39029/57-357	10-497403-205	M39029/56-351
22	10-251415-225	M39029/58-362	10-251416-225	M39029/57-356	10-407035-225	M39029/56-350
22M	10-251415-235	M39029/58-361	10-251416-235	M39029/57-355	10-407035-235	M39029/56-349
22D	10-251415-725	M39029/58-360	10-251416-725	M39029/57-354	10-407035-725	M39029/56-348

† for use with M17/M176-00002 cable

Filler Plugs

Contact Size	Sealing Plugs	
	Proprietary No	MS Number
8 (Coax)	10-482099-8	MS27488-8
8 (Twinax)	10-405996-8	NA
10 (Power)	10-576225	NA
12	10-405996-12	MS27488-12
16	10-405996-16	MS27488-16
20	10-405996-20	MS27488-20
22	10-405996-22	MS27488-22
22M	10-405996-22	MS27488-22
22D	10-405996-22	MS27488-22

Dummy Contacts

Dummy Contacts Size	
8 Pin	418-920P
8 Sockets	418-920S

Thermocouple Contacts

Contact Size	Material	JT/LJT/TV Pins	JT Sockets	LJT/TV Sockets
20	Chromel	10-407862-310	10-407863-310	10-407865-310
	Alumel	10-407862-320	10-407863-320	10-407865-320
	Iron	10-407862-335	10-407863-335	10-407865-335
	Constanstan	10-407862-342	10-407863-342	10-407865-342

Premating Contacts

SJT/LJT/JT/TV	Size 20	Size 16	Size 12
Pin Contact	418-1038-2000P-02	418-1038-1600P-02	418-1038-1200P-02

Last Mate Contacts

SJT/LJT/JT/TV	Size 20	Size 16	Size 12
Pin Contact	418-1038-2001P-02	418-1038-1601P-02	418-1038-1201P-02

Heavy Duty Power Contacts

Size 8 Power Contacts rated at 60 amps. LJT, SJT, TV series only.

8 AWG Cable: Pin Contact 900-197
Socket Contact 900-217

10 AWG Cable: Standard Contact plus Reducing Sleeve 900-154

Crimping Tools

Contact Size/Type	Crimping Tool	Turret Die or Positioner	Contact Size/Type	Crimping Tool	Turret Die or Positioner
12 Pin and Socket	M22520/1-01	M22520/1-04	8 Coaxial Inner Pin and Socket	M22520/2-01	M22520/2-31
16 Pin and Socket	M22520/1-01	M22520/1-04	8 Coaxial Outer Pin and Socket	M22520/5-01	M22520/5--05
20 Pin and Socket	M22520/1-01	M22520/1-04		M22520/5-01	Die Closure B
22, 22D, 22M Pin	M22520/2-01	M22520/2-10		M22520/10-01	M22520/5-41
22, 22D, 22M Socket (LJT-R)	M22520/7-01	M22520/7-08			Die Closure B
22D Socket (JT-R)	M22520/2-01	M22520/2-09			M22520/10-07
8 Twinax Centre Pin and Socket	M22520/7-01	M22520/7-07	16 Coaxial Inner Pin and Socket	M22520/2-01	Die Closure B
8 Twinax Intermediate Outer Pin & Socket	M22520/2-01	M22520/2-07	16 Coaxial Outer Pin and Socket	M22520/4-01	M22520/2-35
		M22520/7-05	12 Coaxial Inner Pin and Socket	M22520/2-01	M22520/4-02
		M22520/2-06	12 Coaxial Outer Pin and Socket	M22520/31-01	M22520/2-34
		M22520/7-06	10 (Power)	*CONSULT	M22520/31-02
		M22520/2-37			FACTORY

Where 2 or 3 tools are listed for a contact size, only one tool and its die or positioner are required to crimp the contact. The above crimping tools and positioners are available from the approved tool manufacturer.

Insertion Tools

Use With Contact Size	Plastic Tools		Metal Tools			
	Part Number	Colour	Angle Type		Straight Type	Colour
			MS Part Number	Proprietary Part Number	Proprietary Part Number	
12	M81969/14-04	Yellow / (White)	M81969/8-09	11-8674-12	11-8794-12	Yellow
16	M81969/14-03	Blue / (White)	M81969/8-07	11-8674-16	11-8794-16	Blue
20	M81969/14-10	Red / (Orange)	M81969/8-05	11-8674-20	11-8794-20	Red
22	M81969/14-09	Brown / (White)	M81969/8-03	11-8674-22	11-8794-22	Brown
22D, 22M	M81969/14-01	Green / (White)	M81969/8-01	11-8674-24	11-8794-24	Black
8 Coaxial	None Required					
8 Twinax	None		M81969/46-06	None		Red

Removal Tools

Use With Contact Size	Plastic Tools		Metal Tools				
	Part Number	Colour Code	For Unwired Contacts Proprietary Part Number	Angle Type		Straight Type	Colour Code
				MS Part Number	Proprietary Part Number	Proprietary Part No	
12	M81969/14-04	(Yellow) / White	11-10050-11	M81969/8-10	11-8675-12	11-8795-12	Yellow / White
16	M81969/14-03	(Blue) / White	11-10050-10	M81969/8-08	11-8675-16	11-8795-16	Blue / White
20	M81969/14-10	(Red) / Orange	11-10050-9	M81969/8-06	11-8675-20	11-8795-20	Red / White
22	M81969/14-09	(Brown) / White	11-10050-8	M81969/8-04	11-8675-22	11-8795-22	Brown / White
22D, 22M	M81969/14-01	(Green) / White	11-10050-7	M81969/8-02	11-8675-24	11-8795-24	Black / White
8 Coaxial	M81969/14-12	Green	None	None	11-9170	DRK264-8	N/A
8 Twinax	M81969/14-12	Green	None	M81969/46-12	11-9170	N/A	N/A

Coaxial Contacts

Contacts		P/S	Size	Cable	Crimping Tools	
LJT/TV/SJT	JT				Inner Contact	Crimp Ferrule
418-840-16001-02 M39029/76-424		P	16	RG179B/U RG174a/U RG188A/U RG316/U RG161/U RG187A/U	MIL-C-22520/2-01 with positioner M22520/2-35 or Daniels Positioner K32	M22520/4-01 with positioner M2520/4-02
418-841-16001-02 M39029/77-428	21-33121-563 M39029/78-432	S	16	Teledyne 11299 Times (HS-179) AA3248	MIL-C-22520/2-01 with positioner M22520/2-34 or Daniels Positioner 323	M22520/31-01 Positioner M22520/31-02 or Daneels G5200 Tool Positioner G2P330
418-840-12001-02 M39029/28-211		P	12			
418-841-12001-02 M39029/75-416	21-33121-546 M39029/27-210	S	12			

Partial Lists - Please see "Coaxial Contacts" catalogue for other contacts available

Short #8 MIL-STD-1553B Contacts for 1760 Interfaces

Contacts designed to meet the requirements of MIL-C-39029/90A (PIN) and 91A (Socket). For use in aircraft stores management interfaces.

711-1760-X-X X	
Series Designator	Variation (Cable accepted) 1- Raychem EPD 221898 & 10614 Grumman GC 875 F24H 2- Raychem 10613 711 Series - Pan 6421 3- McDonnell Douglas SM2022/003 4- Tensolite M17/176.00002 Raychem 10612 5- Rychem 10606 6- Raychem EPD 2984A
Contact Style 1=Pin 2=Socket	
Sealing Style 0=No seal supplied 1=1760/heatshrink boot 2=38999/cable grommet 3=Improved cable grommet	

Contacts are of a four piece weight reduced design and utilises the MIL-Spec tooling listed below-

For centre contact crimp - Positioner Part No. 294GB 5049

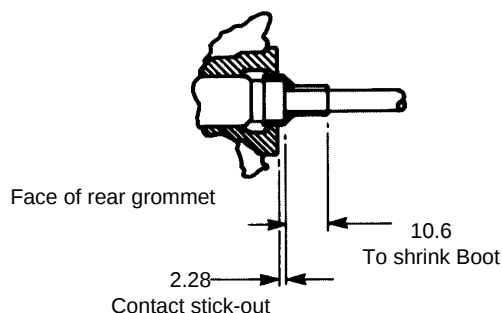
Hand tool M22520/2-01

For intermediate & outer Die Part No 294GB 5050

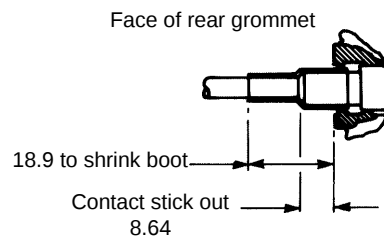
Body crimps

Hand tool M22520/5-01

***JN1057-X
711-1760-X-XX
in situ dimensions**



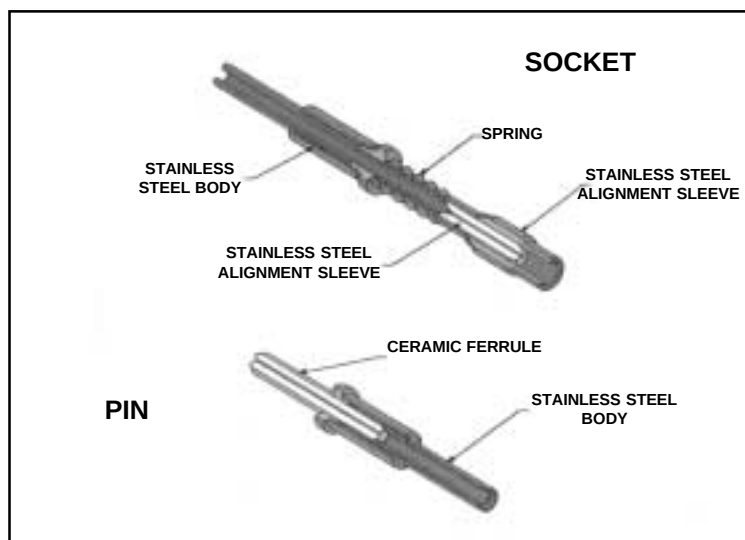
**M39029/90/91A
in situ dimensions**



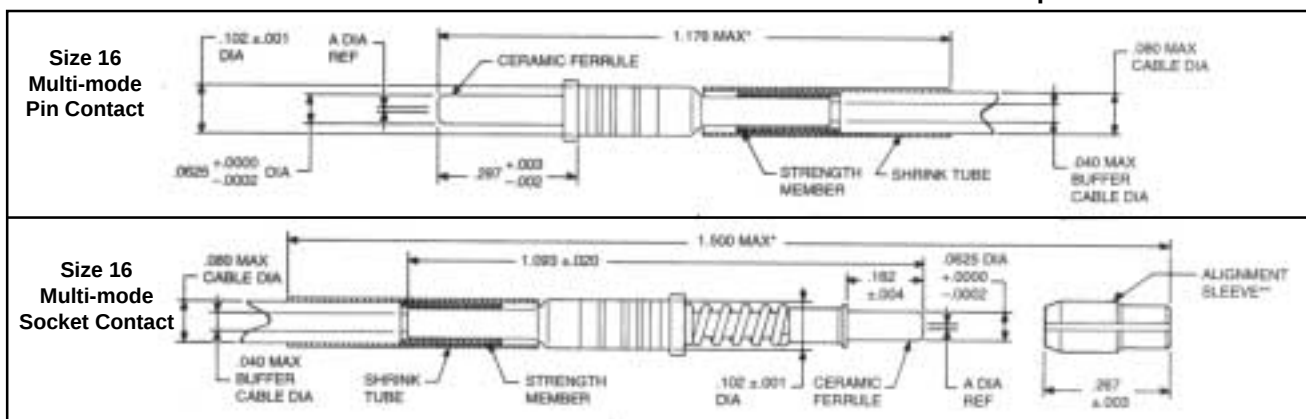
Multi-mode termini, size 16 for multi-channel cylindrical fibre optic connectors features, how to order

Amphenol® Multi-mod16 Termini
Features and Performance Levels:

- Ceramic alignment ferrule which precisely positions the fibre within the termini.
- Stainless steel alignment sleeve, assembled on the socket after polishing insures accurate fibre to fibre alignment (a ceramic alignment sleeve is also available).
- Typical insertion loss for 100/140fibre with .2NA at 820nm is .5 to .7 dB using Air Gap (AG) polish
Use of the ceramic ferrule and sleeve maximises the ability to hold extremely tight dimensional tolerances while maintaining accurate concentricity, thus providing superior and consistent optical loss performance.
- Termination accomplished using the industry proven epoxy/polish method. Can be polished Air Gap (AG)) or Physical Contact (PC).
Socket cleaning optional. Consult Amphenol, for termini cleaning tool.



Multi-mode Size 16 Fibre Optic Termini



Amphenol® Multi-Channel fibre optic connectors are supplied less contacts. Order multi-mode termini by Amphenol part number designation or MIL-29504 designation as shown in the charts below.

* Indicated dimension when fully assembled.
** Alignment sleeve shipped unassembled

Fibre Size• Core Cladding Dia (Microns)	Size 16 Socket	Size 16 Pin	A Dia Ref	
			Inches	Microns
50/125	CF-198035-010	CF-198036-010	.0050	127
62.5/125				
100/140	CF-198035-017	CF-198036-017	.0057	145
100/140/172	CF-198035-029	CF-198036-029	.0069	175
100/140/172	CF-198035-29A	CF-198036-29A	.0068	173.5
200/230	CF-198035-053	CF-198036-053	.0093	236
200/240	CF-198035-057	CF-198036-057	.0097	245
200/280	CF-198035-074	CF-198036-074	.0114	290
200/300	CF-198035-080	CF-198036-080	.0120	305

M29504 Part Number		Reference Amphenol Part Number	
Socket	Pin	Socket	Pin
M29504/5-4046	M29504/4-4040	CF-198035-10	CF-198036-10
M29504/5-4050	M29504/4-4044	CF-198035-17	CF-198036-17

• Additional sizes available upon request
Power contacts can be purchased separately.

How to order

LJT 06 RT**-11-35 S A (014)

Series Designator	MIL-C-38999
LJT	Series I
JT	Series II
SJT	PAN6433-2
Style See Chart	
Class	
RE=	Box mount receptacles with grommet nut
RT=	Removable contacts accessory thread
A=	Fixed solder contacts
Y=	Hermetic Seal
Deviation see chart	
Alternate Keyway	Letters A to D
Contact Style	P= Pin contact S= Socket contact
Insert Arrangement	
Shell	LJT odd nos 9 to 25 JT & SJT even nos 8 to 24

* Note: Add S to TV on F class connectors
** For Hermetic connectors drop RT and replace with Y

TV POO R W**-11-35 S A (W02)

Series	TV MIL-C-38999 Series 3 CTV Composite (C)TVS=200°C rated
Style See Chart	
Contact Class	R= Removable Contacts Y= Hermetic Seal
Class	*B= Nickel Aluminium Bronze *F= Electroless Nickel W= Olive Drab *K= Fire Wall
Deviation see chart	
Alternate Keyway	Letters A to E
Contact Style	P= Pin contact S= Socket contact
Insert Arrangement	
Shell Size	

* Note: 200°C rated use "S" in part number
** For Hermetic connectors drop RW and replace with Y

MS27467 T**-11B-35 S A

Style See Chart	
Class	*T= Threaded accessory E= With grommet nut Y= Hermetic Seal
Shell Size	Series 1 Odd nos 9 to 25 Series 2 Even Nos 8 to 24
Finish	A= Clear Chromate B= Olive drab F= Electroless nickel
Alternate Keyway	Letters A to D
Contact Style	P= Pin contact S= Socket contact A= Less pin contact B= Less socket contact
Insert arrangement	

* Not available in box mount receptacle style
** For Hermetic connectors drop T and replace with Y

D38999 26 W** A 35 S A

MIL-C-38999 Series III	
Style See Chart	
Contact	W= Olive drab F= Electroless nickel K= Fire Wall M= Electroless Nickel Composite J= Olive Drab Composite Y= Hermetic Seal
Shell Size	Letters A to J A=9 B=11 etc
Alternate Keyway	Letters A to E
Contact Style	P= Pin contact S= Socket contact A= Less pin contact B= Less socket contact H= 1500 mating pin contacts J= 1500 mating socket contacts
Insert arrangement	

** For Hermetic connectors drop W and replace with Y

A	B	C	D	E	F	G	H	J	MIL Shell Size
9	11	13	15	17	19	21	23	25	AMPHENOL Shell Size

Style Chart Series 1

Style	LJT	MS Series 1	BS Series	HE308
Wall mount receptacle	00	27466	C6160	00
Back wall mount receptacle	PQ00	27656	C6163	
Box mount receptacle	02	27496	C6162	
Long box mount receptacle	02 (053)	-	-	
Jam nut	07	27468	C6167	07
Back box receptacle	P02	27505	C6164	
Grounded plug	06	27467	C6166	06
Hermetic Rec. Wall Mount	00	27469	-	-
Hermetic Jam Nut Rec.	07	27470	-	-
Hermetic Solder Mount Rec.	01	27471	-	-

Style Chart Series 2

Style	JT	Pan	BS series 2	MS series 2	HE309
Wall mount receptacle	00	-	C2022	27472	
Back wall mount receptacle	PQ00	B	C2023	27497	03
Box mount receptacle	02	-	C2251	27499	
Long box mount receptacle	02 (053)	-	C2552	27513	
Jam nut	07	A	C2024	27474	07
Back box receptacle	P02	E	C2253	27508	
Plug	06	F	C2020	27473	06
Grounded plug	G06	FG	C2021	27484	G06
Hermetic Wall Mount Rec.	00	-	-	27475	-
Hermetic Box Mount Rec.	02	-	-	27476	-
Hermetic Solder Mount Rec.	1Y	-	-	27478	-
Hermetic Jam Nut Rec.	07	-	-	27477	-

Style Chart Series 3

Style	TV	D38999	BS Series 3	JN1034
Back wall mount receptacle	(S) P00	20	C6170	A
Jam nut	(S) 07	24	C6177	B
Back box receptacle	(S) P02	-	-	F
Grounded plug	(S) 06	26	C6176	C
Lanyard release	FBR	31	-	E
Hermetic Box Mount Rec.	02Y	21	-	-
Hermetic Jam Nut Rec.	07Y	23	-	-
Hermetic Solder Mount Rec.	1Y	25	-	-

Style Chart Series SJT

Style	SJT	PAN	JN1003	VG96912
Wall mount receptacle	00	-	-	-
Back wall mount receptacle	00	B	B	A
Box mount receptacle	02	-	-	-
Jam nut	07	A	-	B
Plug	06	F	-	E
Grounded plug	G06	FG	FG	D
Hermetic Solder Mount Rec.	1Y	-	E	C
Hermetic Jam Nut Rec.	07Y	-	-	-

PAN6433 1 F-10-35 S A

Series Designator 1= MIL-C-38999 Series 2 2= LN 29729	Alternate Keyway Letters A to D
Style See Chart	Contact Style P= Pin contact S= Socket contact
Shell Size Srs 2 & 5 Even nos 8 to 24	Insert arrangement

Note: All PAN6433 Connectors are olive drab plated

BS 9520G0003 C6176 NW 11 35 F N O

Series Designator MIL-C-38999 G0001 Series 1 G0002 Series 2 G0003 Series 3	Deviation See Chart Connector O= Std on G0001/G0003 O= Olive Drab (G0002) 2= Electroless Nickel (G0002) 1= Olive Drab Zinc Cobalt (G0002)
Style See Chart	Alternate Keyway Letters A to E
Finish G0001/G0003 NF= Electroless Nickel NW= Olive Drab Cadmium NT= Zinc Cobalt Omit for G0002	Contact Style M= Pin contact F= Socket contact
Shell Size	Insert arrangement

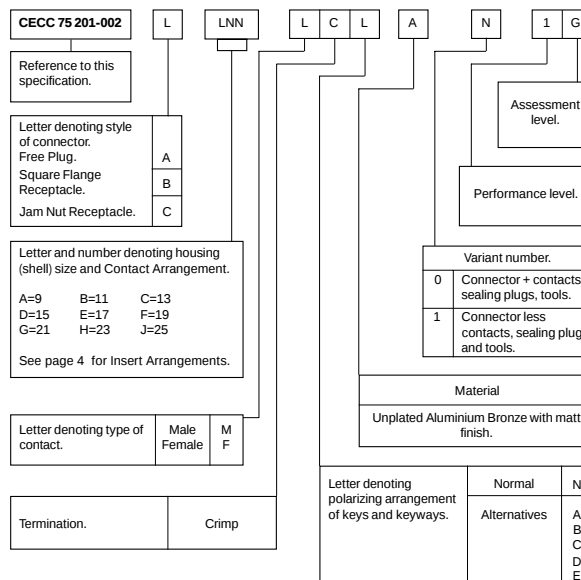
SN-WITH CONTACTS

JN1034AXXXSNL LESS CONTACTS JN1034A-F 10 35 SN1 - WITH CONTACTS

Series Designator JN1003 = SJT JN1034 = TV	Contact style P=Pin S=Socket
Style See Chart	Insert Arrangement
Shell Size SJT even numbers 8-24 TV odd numbers 9-25	

VG96912-A 10 35 S

Series Designator VG96912=SJT	Contact style P=Pin S=Socket
Style See Chart	Insert Arrangement
Shell Size Even numbers 8-24	



L=Letter N=Number
Eg. CECC 75 201-002 AB35 MCN AOIG
Free Plug Size 11, 13 Way, Crimp Pin Contacts, Normal Orientation, Including Contacts, Seal Plugs and Tools
Performance Level 1, Assessment Level G.

Deviation List

LJT/JT TV/SJT	Description
* Blank	Clear Chromate Plating
*014	Olive Drab Cadmium Over Electroless Nickel Plating
*023	Electroless Nickel Plating
*386	014 + Cable Clamp
*424	023 + Cable Clamp
L/C	Less Contacts
*SR	Clear Chromate + Cable Clamp
W02	Drilled & Tapped Square Flange
W03	Clear Chromate + Heavy Duty Coupling Ring - LJT
W08	014 + Heavy Duty Coupling Ring + Less Contacts
W09	014 + Heavy Duty Coupling Ring
W12	023+Heavy Duty Coupling Ring - LJT
W14	Snatch Plug-LJT/JT
W52	Olive Drab Zinc Cobalt

* Applicable to LJT, JT & SJT part numbers only