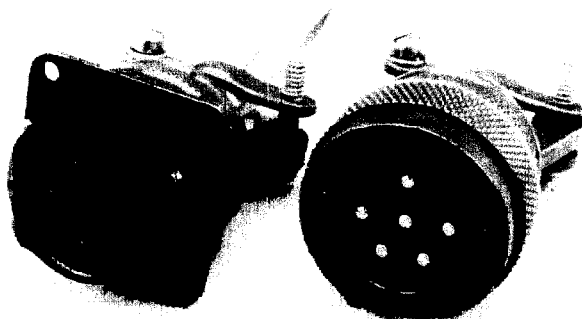


SERIES II SUB MINIATURE CIRCULAR CONNECTORS (AE2 SERIES) REAR RELEASE LOW PROFILE BAYONET CONFIGURATION



The MIL-C-38999 Series II connector series is a bayonet coupling subminiature configuration, with a lower profile design, utilizing a shorter socket contact than employed by the MIL-C-38999 Series I and III. This series is popular for instrumentation applications where space is at a premium. As a result, the connectors are not "scoop proof".

The connectors are available in nine shell sizes, with five receptacle configurations, and standard or RFI plugs. There are 54 insert arrangements available, utilizing 3 to 128 contacts. Contacts are 22D, 20, 16, and 12 gauge (and combinations), terminating wire sizes 28 through 12 gauge.

The hard plastic socket interface features the chamfered conical entry that aids in the proper mating of contacts. The fluorosilicone interfacial seal has conical risers around each pin contact, that compress into the socket interface, assuring the seal of the mating surface. Cad over Nickel, Anodic, and electroless nickel finishes are available for aluminum shells. Polarization is machined into shell (locksmith keying).

GENERAL SPECIFICATIONS

Operating temperature range: Refer to Part numbering System under "Finish"
Operating Voltage service rating: M = 400 v, I = 600 v, II = 900 v.
Test Voltage:

Polarization: Locksmith keying
Contact sizes: 22D, 20, 16, and 12 per MIL-C-39029

ALTITUDE	Service Rating M		Service Rating I		Service Rating II	
	Mated	Unmated	Mated	Unmated	Mated	Unmated
SEA LEVEL	1300	2300	1800	1800	2300	2300
50,000 FT.	800	550	1000	600	1000	800
70,000 FT.	800	550	1000	400	1000	500
110,000 FT.	800	200	1000	200	1000	200

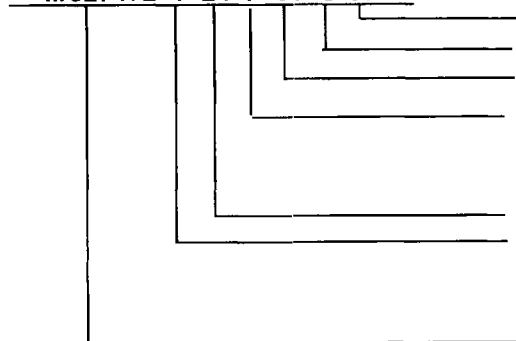
Contact Current Rating	
22D	5.0 AMPS
20	7.5 AMPS
16	13.0 AMPS
12	23.0 AMPS

Environmental fluorosilicone Elastomers

MIL-C-38999 SERIES II MILITARY PART NUMBERING SYSTEM

(AE2**)

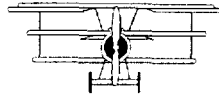
MS27472 T 24 F 35 S A



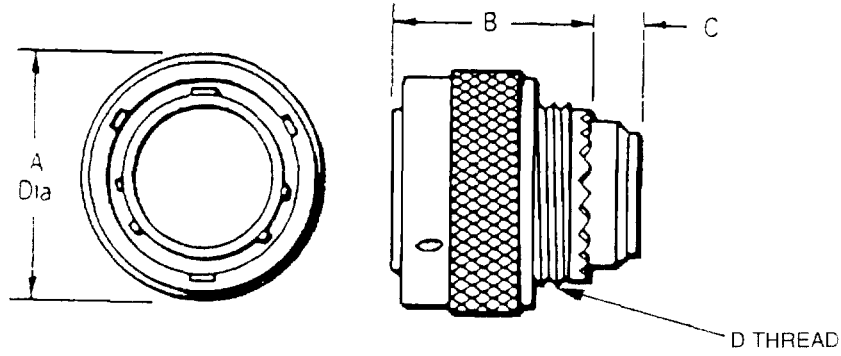
- Polarization** (not required for normal)
- Contacts** (P = Pin, S = Socket)
- Insert Arrangement** (Refer to MIL-C-38999 Insert Arrangements)
- Finish:** B = Aluminum, olive drab cadmium over nickel, -65 °C to +175 °C
 C = Aluminum, anodized (non-conductive), -65 °C to +200 °C
 F = Aluminum, electroless nickel, -65 °C to 200 °C
- Shell Size:** (even numbers only, 8 thru 24)
- Class:** T = Environmental with accessory threads and teeth (with exception of box mount version)
 E = Environmental box mount versions only

MS Number _____ **(AE2 series number)**

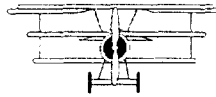
- MS27472 = Receptacle, wall mount flange AE272
- MS27473 = Plug, standard AE273
- MS27474 = Receptacle, jam nut mount AE274
- MS27499 = Receptacle, box mount AE299
- MS27508 = Receptacle, box mount flange AE208
- MS27497 = Receptacle, back panel wall mount AE297
- MS27484 = Plug, RFI AE284
- MS27513 = Receptacle, box mount flange, long grommet AE213



MS27473 SERIES II PLUG, STANDARD
MS27484 SERIES II PLUG, RFI GROUNDING

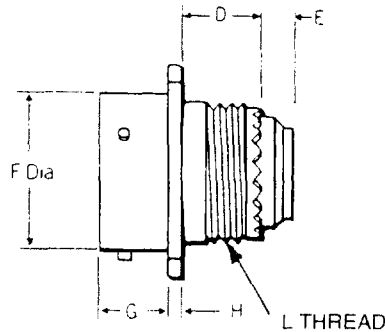
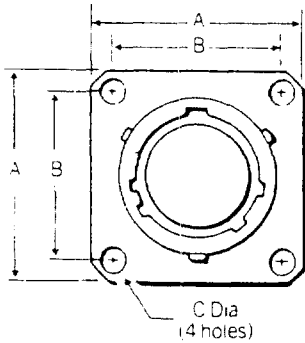


SHELL SIZE	D THREAD CLASS 2A	A DIA		B		C	
		INCH	MM	INCH	MM	INCH	MM
8	.4375-28 UNEF	.745	18.92	.750	19.05	.140	3.56
10	.5625-24 UNEF	.859	21.82	.750	19.05	.140	3.56
12	.6875-24 UNEF	1.023	25.98	.750	19.05	.140	3.56
14	.8125-20 UNEF	1.141	28.98	.750	19.05	.140	3.56
16	.9375-20 UNEF	1.275	32.39	.750	19.05	.140	3.56
18	1.0625-18 UNEF	1.406	35.71	.750	19.05	.140	3.56
20	1.1875-18 UNEF	1.525	38.74	.750	19.05	.140	3.56
22	1.3125-18 UNEF	1.641	41.68	.750	19.05	.140	3.56
24	1.4375-18 UNEF	1.760	44.70	.750	19.05	.140	3.56

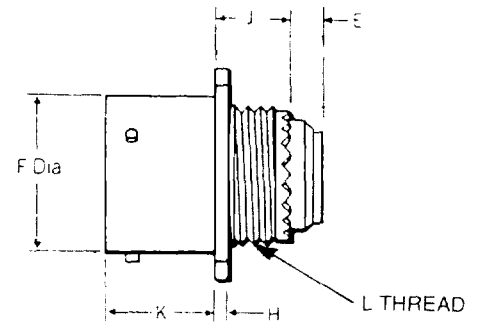


MS27472 SERIES II RECEPTACLE, WALL MOUNTING FLANGE

MS27497 SERIES II RECEPTACLE, BACK PANEL WALL MOUNTING FLANGE



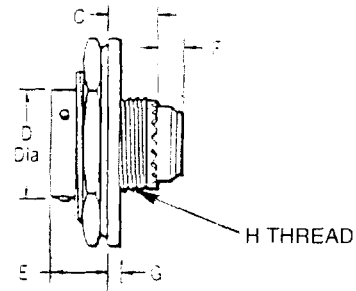
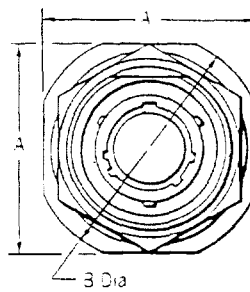
MS27472



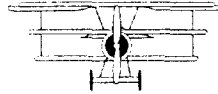
MS27497

SHELL SIZE	L THREAD CLASS 2A UNEF	A MAX		B NOMINAL		C NOM DIA		D MAX		F MAX DIA		G MAX		H MAX		J MAX		K MAX	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	4375-28	0.827	21.00	0.594	15.09	.120	3.05	.370	0.94	.474	12.04	.322	8.18	.069	1.75	.308	7.83	.447	11.35
10	5625-24	0.953	24.2	0.719	18.26	.120	3.05	.370	.940	.591	15.01	.322	8.18	.069	1.75	.308	7.83	.447	11.35
12	6875-24	1.047	26.6	0.812	20.62	.120	3.05	.370	.940	.751	19.08	.322	8.18	.069	1.75	.308	7.83	.447	11.35
14	8125-20	1.141	28.98	0.906	23.01	.120	3.05	.370	.940	.876	22.25	.322	8.18	.069	1.75	.308	7.83	.447	11.35
16	9375-20	1.234	31.34	0.969	24.61	.120	3.05	.370	.940	1.001	25.43	.322	8.18	.069	1.75	.308	7.83	.447	11.35
18	1.0625-18	1.327	33.7	1.062	26.97	.120	3.05	.370	.940	1.126	28.60	.322	8.18	.069	1.75	.308	7.83	.447	11.35
20	1.1875-18	1.453	36.9	1.156	29.36	.120	3.05	.370	.940	1.251	31.78	.322	8.18	.069	1.75	.308	7.83	.447	11.35
22	1.3125-18	1.578	40.08	1.25	31.75	.120	3.05	.370	.940	1.376	34.95	.322	8.18	.069	1.75	.308	7.83	.447	11.35
24	1.4375-18	1.703	43.26	1.375	34.93	.147	3.73	.370	.940	1.501	38.13	.322	8.18	.069	1.75	.308	7.83	.447	11.35

MS27474 SERIES II RECEPTACLE, JAM NUT

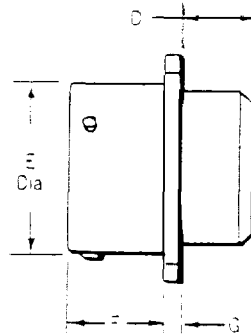
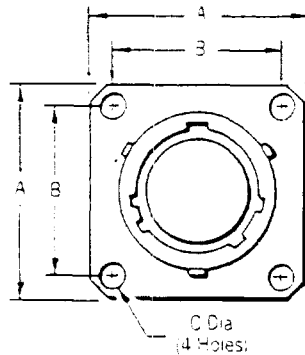


SHELL SIZE	A MAX		B DIA		C		D DIA		E		F		G		H THREAD CLASS 2A UNEF
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	
8	1.266	32.16	1.391	35.33	0.317	8.05	0.474	12.04	.443	11.25	.140	3.56	.104	2.64	4375-28
10	1.389	35.28	1.515	38.48	0.317	8.05	0.591	15.01	.443	11.25	.140	3.56	.104	2.64	5625-24
12	1.515	38.48	1.641	41.68	0.317	8.05	0.751	19.08	.443	11.25	.140	3.56	.104	2.64	6875-24
14	1.641	41.68	1.766	44.86	0.317	8.05	0.876	22.25	.443	11.25	.140	3.56	.104	2.64	8125-20
16	1.795	45.59	1.954	49.63	0.317	8.05	1.001	25.43	.443	11.25	.140	3.56	.104	2.64	9375-20
18	1.905	48.39	2.031	51.59	0.317	8.05	1.126	28.6	.443	11.25	.140	3.56	.104	2.64	1.0625-18
20	2.031	51.59	2.157	54.78	0.291	7.39	1.251	31.78	.469	11.91	.140	3.56	.104	2.64	1.1875-18
22	2.156	54.76	2.281	57.94	0.291	7.39	1.376	34.95	.469	11.91	.140	3.56	.104	2.64	1.3125-18
24	2.279	57.89	2.405	61.09	0.291	7.39	1.501	38.13	.469	11.91	.140	3.56	.104	2.64	1.4375-18

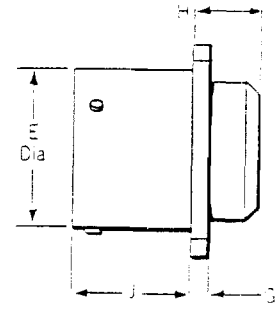


MS27499 SERIES II RECEPTACLE, BOX MOUNT FLANGE

MS27508 SERIES II RECEPTACLE, BACK PANEL BOX MOUNT FLANGE



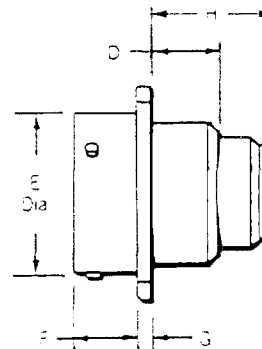
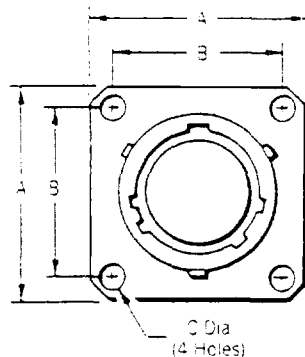
MS27499



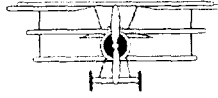
MS27508

SHELL SIZE	A MAX		B NOMINAL		C NOM DIA		D MAX		E MAX DIA		F MAX		G MAX		H MAX		J MAX	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	0.827	21.00	0.594	15.09	.120	3.05	.312	7.92	.474	12.04	.322	8.18	.069	1.75	.250	6.35	.447	11.35
10	0.953	24.2	0.719	18.26	.120	3.05	.312	7.92	.591	15.01	.322	8.18	.069	1.75	.250	6.35	.447	11.35
12	1.047	26.6	0.812	20.62	.120	3.05	.312	7.92	.751	19.08	.322	8.18	.069	1.75	.250	6.35	.447	11.35
14	1.141	28.98	0.906	23.01	.120	3.05	.312	7.92	.876	22.25	.322	8.18	.069	1.75	.250	6.35	.447	11.35
16	1.234	31.34	0.969	24.61	.120	3.05	.312	7.92	1.001	25.43	.322	8.18	.069	1.75	.250	6.35	.447	11.35
18	1.327	33.7	1.062	26.97	.120	3.05	.312	7.92	1.126	28.60	.322	8.18	.069	1.75	.250	6.35	.447	11.35
20	1.453	36.9	1.156	29.36	.120	3.05	.312	7.92	1.251	31.78	.322	8.18	.069	1.75	.250	6.35	.447	11.35
22	1.578	40.08	1.25	31.75	.120	3.05	.312	7.92	1.376	34.95	.322	8.18	.069	1.75	.250	6.35	.447	11.35
24	1.703	43.26	1.375	34.93	.147	3.73	.312	7.92	1.501	38.13	.322	8.18	.069	1.75	.250	6.35	.447	11.35

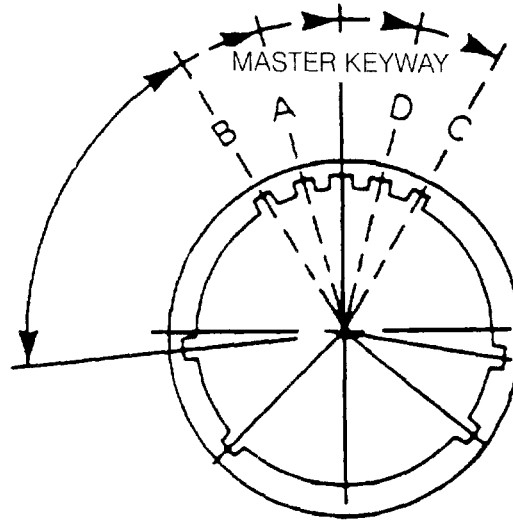
MS27513 SERIES II RECEPTACLE, BOX MOUNT FLANGE, LONG GROMMET



SHELL SIZE	A MAX		B NOMINAL		C NOM. DIA		D MAX		E MAX DIA		F MAX		G MAX		H MAX	
	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	.827	21.00	.594	15.09	.120	3.05	.312	7.92	.474	12.04	.322	8.18	.069	13.11	.516	13.11
10	.953	24.20	.719	18.26	.120	3.05	.312	7.92	.591	15.01	.322	8.18	.069	13.11	.516	13.11
12	1.047	26.60	.812	20.62	.120	3.05	.312	7.92	.751	19.08	.322	8.18	.069	13.11	.516	13.11
14	1.141	28.58	.906	23.01	.120	3.05	.312	7.92	.876	22.25	.322	8.18	.069	13.11	.516	13.11
16	1.234	31.34	.969	24.61	.120	3.05	.312	7.92	1.001	25.43	.322	8.18	.069	13.11	.516	13.11
18	1.327	33.70	1.062	26.97	.120	3.05	.312	7.92	1.126	28.60	.322	8.18	.069	13.11	.516	13.11
20	1.453	36.90	1.156	29.36	.120	3.05	.312	7.92	1.251	31.78	.322	8.18	.069	13.11	.516	13.11
22	1.578	40.08	1.250	31.75	.120	3.05	.312	7.92	1.376	34.95	.322	8.18	.069	13.11	.516	13.11
24	1.703	43.26	1.375	34.93	.147	3.73	.312	7.92	1.501	38.13	.322	8.18	.069	13.11	.516	13.11



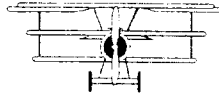
**SERIES II POLARIZATION REFERENCE
LOCKSMITH KEYING (MACHINED INTO SHELL)**



FACE OF THE RECEPTACLE SHOWN, ANGLE FOR THE PLUG IS OPPOSITE

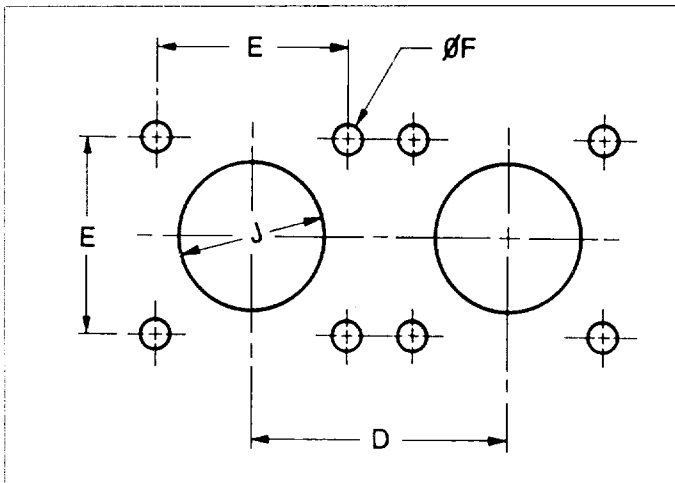
SHELL KEYING

SHELL SIZE	ANGLES IN DEGREES				
	NORMAL	A	B	C	D
8	100	182			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

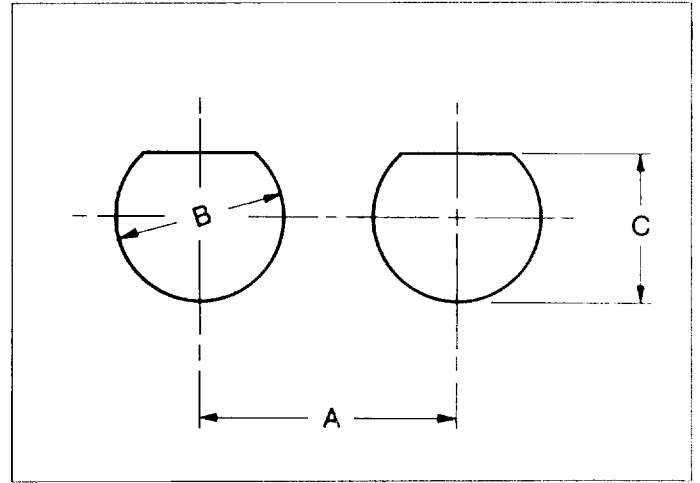


PANEL CUTOUTS SERIES II

FLANGE MOUNT



JAM NUT



SHELL SIZE	A MIN	B +.010-.000	C +.000-.010	D MIN	E	F ±.005
8	1.299	.884	.830	.846	.594	.128
10	1.417	1.007	.955	.984	.719	.128
12	1.575	1.134	1.084	1.063	.812	.128
14	1.693	1.259	1.208	1.181	.906	.128
16	1.850	1.384	1.333	1.299	.969	.128
18	2.008	1.507	1.459	1.437	1.062	.128
20	2.126	1.634	1.576	1.535	1.156	.128
22	2.362	1.759	1.701	1.673	1.250	.128
24	2.520	1.864	1.826	1.811	1.375	.154