

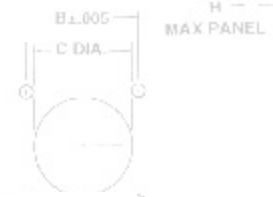
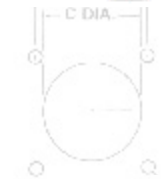


# Allen Electric Connector Sales, Inc.

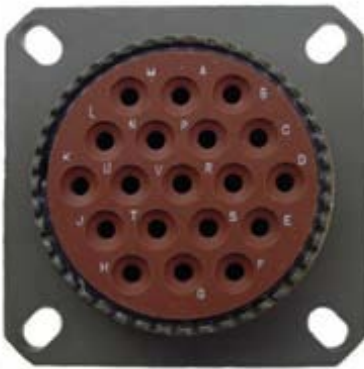


## MIL-DTL-38999 Series III

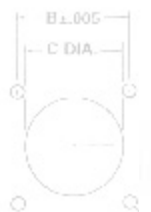
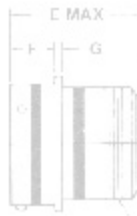
SHELL SIZE	MAX	±.005	±.005	-.005	MAX	-.015	+.010	MAX	TH-LEAD 2A
8	828	554	568	120	1.215	446	052	087	1-20 UNF
10	854	719	585	120	1.215	446	052	087	3-8 24 UNEF



PANEL CUTOUT



D DIA 4 HOLES



H MAX PANEL J THREAD

B ±.005 C DIA H MAX PANEL

PANEL CUTOUT



D DIA 4 HOLES



The MIL-DTL-38999 Series III connectors have the triple start threaded coupling mechanism that offers greater vibration protection. Series III also has metric accessory threads for greater strength and backshell support. These environmental resistant connectors are 100 percent scoop proof. Series III is available in nine shell sizes with two receptacle configurations and a standard plug. Series III has 55 insert arrangements using 3 to 128 contacts. Contacts 22D, 20, 16, 12 gauge terminate wire gauge sizes 28 through 12. The hard plastic socket interface features the chamfered conical entry that aids in proper contact mating. The fluorosilicone interfacial seal has conical risers around each pin contact that compress into the socket interface assuring the seal of mating surfaces. Three finishes are available for the aluminium shell.

### GENERAL SPECIFICATIONS

12	1.047	672	564	120	1.215	446	052	087	3-8 24 UNEF
14	1.141	806	663	120	1.215	446	052	087	7-8 20 UNEF
16	1.234	960	1.115	120	1.215	446	052	087	1-20 UNEF
18	1.328	1.135	1.115	120	1.215	446	052	087	1-16-18 UNLF

Contacts: Sizes 22D, 20, 16, and 12 Operating Temperature Range: Listed under Part

12 gauge per MIL-C-39029

Numbering System Below

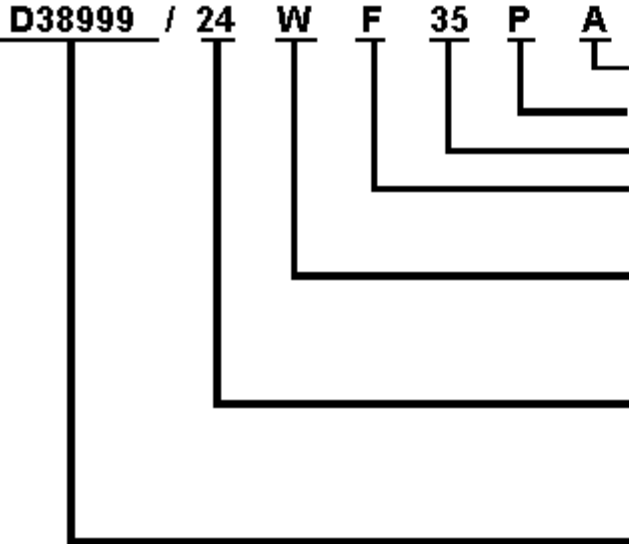
Environmental Fluorosilicone Elastomers

Voltage Service Rating: M = 400 v, I = 600 v, II = 900 v

Polarization: Locksmith Keying

Contact Current Rating: Size 22D: 5 amps, Size 20: 7.5 amps, Size 16: 13 amps, Size 12: 23 amps

### MILITARY PART NUMBERING SYSTEM



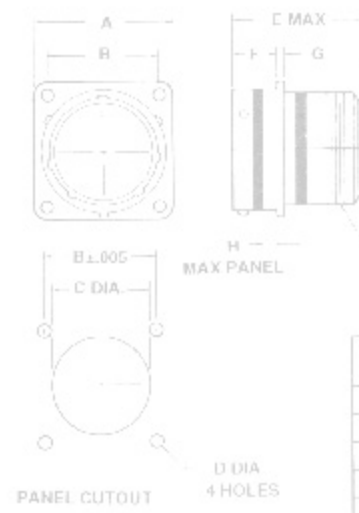
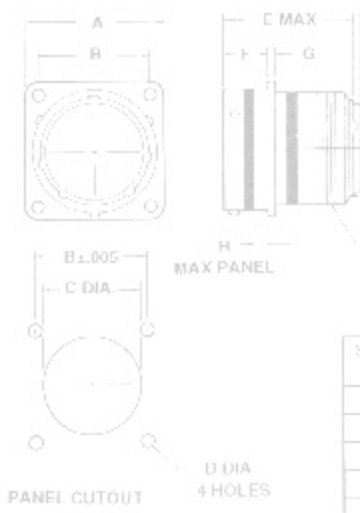
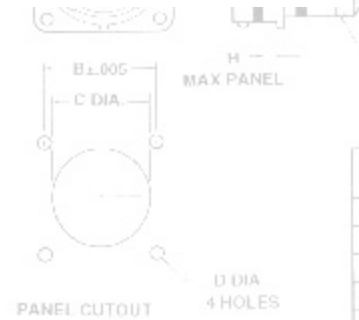
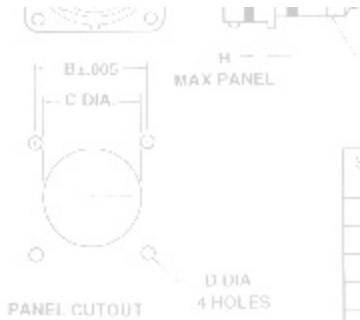
- Polarization** (n for normal, A,B,C or D for alternates)
- Contact Style** (P for Pin, S for Socket)
- Insert Arrangement** (Refer to MIL-C-38999 Insert Arrangements)
- Shell Size Code:**  
 A = 9 B = 11 C = 13 D = 15 E = 17 F = 19 G = 21  
 H = 23 J = 25
- Class:**  
 W = Aluminum, olive drab cadmium over nickel, -65 C to +175 C  
 F = Aluminum, electroless nickel, -65 C to +200 C  
 C = Aluminum, Anodic (Non-Conductive) -65 C to +200 C
- Shell Style:**  
 20 = Wall mount receptacle  
 24 = Jam nut receptacle  
 26 = RFI plug
- MS Prefix**

### MATING THREADS

SHELL SIZE	MS SHELL CODE	MATING THREAD
9	A	.6250-0.P-0.3L
11	B	.7500-0.P-0.3L
13	C	.8750-0.1P-0.3L
15	D	1.0000-0.1P-0.3L
17	E	1.875-0.1P-0.3L
19	F	1.2500-0.1P-0.3L
21	G	1.3750-0.1P-0.3L
23	H	1.5000-0.1P-0.3L
25	J	1.6250-0.1P-0.3L

### ACCESSORY THREADS

SHELL SIZE	MS SHELL CODE	ACCESSORY THREAD	TEETH NUMBER
9	A	M12 x 1-6g	12
11	B	M15 x 1-6g	16
13	C	M18 x 1-6g	20
15	D	M22 x 1-6g	24



17	E	M25 x 1-6g	28
19	F	M28 x 1-6g	32
21	G	M31 x 1-6g	36
23	H	M34 x 1-6g	40
25	J	M37 x 1-6g	44

SHELL SIZE	MAX	±.005	±.005	±.005	MAX	-.015	+.010	MAX	TH-HEAD SA
18	1.275	1.375	1.475	1.575	1.275	1.404	0.994	0.212	1.5/16"-8 UNF
19	1.275	1.375	1.475	1.575	1.275	1.404	0.994	0.212	1.5/16"-8 UNF
20	1.275	1.375	1.475	1.575	1.275	1.404	0.994	0.212	1.5/16"-8 UNF
21	1.275	1.375	1.475	1.575	1.275	1.404	0.994	0.212	1.5/16"-8 UNF
22	1.275	1.375	1.475	1.575	1.275	1.404	0.994	0.212	1.5/16"-8 UNF
23	1.275	1.375	1.475	1.575	1.275	1.404	0.994	0.212	1.5/16"-8 UNF
24	1.275	1.375	1.475	1.575	1.275	1.404	0.994	0.212	1.5/16"-8 UNF

- [Series III Polarization & Shell Keying](#)
- [Series III Panel Cut-Out Dimensions](#)
- [Series III Strain Reliefs](#)
- [D38999/20 Series III Wall Mount Flange Receptacle](#)
- [D38999/24 Series III Jam Nut Mount Receptacle](#)
- [D38999/26 Series III RFI Grounding Plug](#)

For pricing and availability, please fill out our RFQ form



If you need any other information, please [E-Mail aecs@aecsinc.com](mailto:aecs@aecsinc.com)



phone (703) 425-3815 fax (703) 425-3814

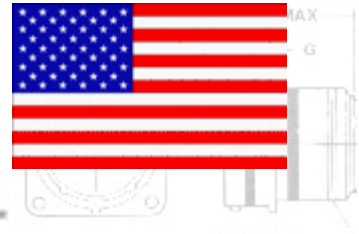
We look forward to hearing from you!



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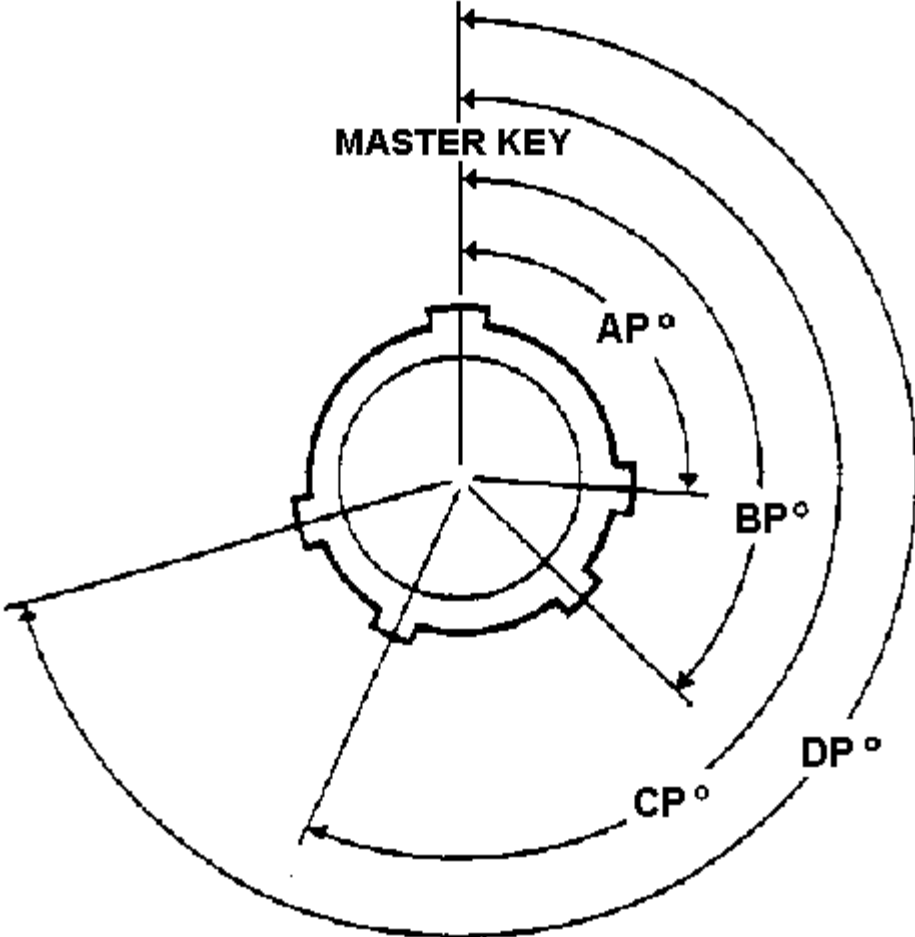
# Allen Electric Connector Sales, inc.



## MIL-DTL-38999 SERIES III LOCKSMITH KEYING POLARIZATION

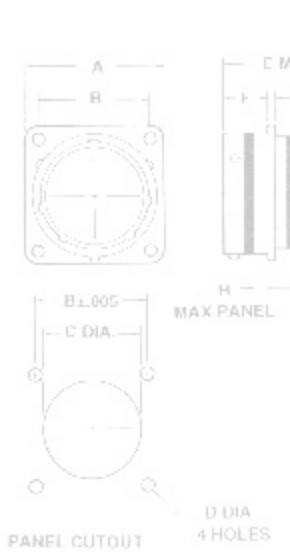
(MACHINED INTO SHELL)

SHELL	A	B	C	D	E	F	G	H	J	J THREAD
147	MAX	±.005	±.002	±.006	MAX	-0.0	+0.10	MAX	1H-BAU 3A	3/4-20 UNF
18	928								3/4-20 UNF	
20	964								3/4-20 UNF	
22	1047	8.2	5E4	120	1.215	446	962	087	3/4-20 UNF	

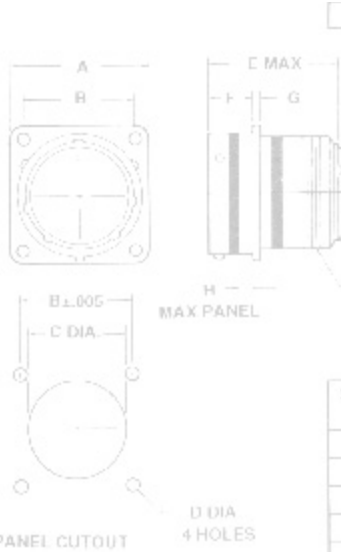


SHOWN IS THE FACE OF THE PLUG, RECEPTACLE ANGLE IS THE OPPOSITE

SHELL SIZE	SHELL KEYING							
	KEY AND KEYWAY IDENTIFICATION LETTER	ANGLES IN DEGREES						
		AP	BP	CP	DP			
18	N	105	140	215	265			
20	A	102	132	248	320			
22								
24								



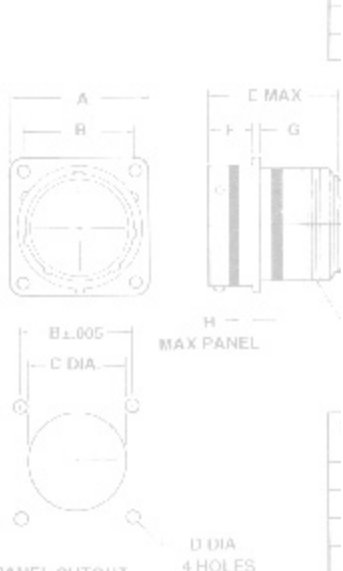
9	B	60	118	230	275
	C	35	140	205	275
	D	64	155	234	304
	E	91	131	197	240
	N	95	141	208	236
11, 13, AND 15	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
	E	51	141	184	242



SHELL SIZE	KEY AND KEYWAY IDENTIFICATION LETTER	ANGLES IN DEGREES			
		AP	BP	CP	DP

17 AND 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

21, 23 AND 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



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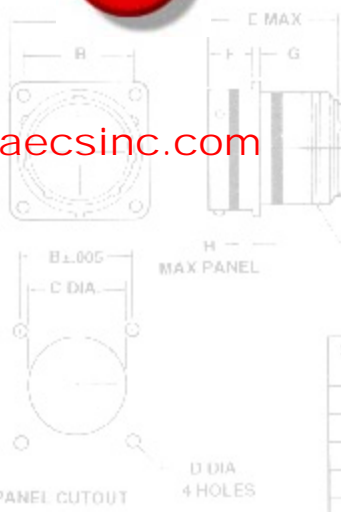
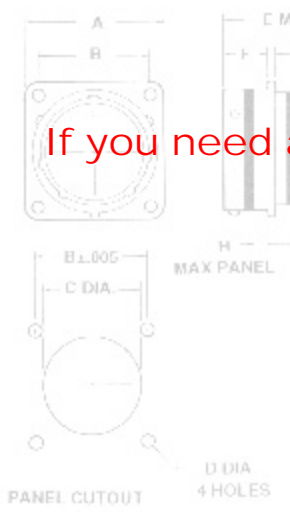


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8	828	564	568	129	1215	446	662	687	1116-18 UNLF
10	964	700	692	150	1215	446	662	687	1116-18 UNLF
12	1047	768	760	171	1215	446	662	687	1116-18 UNLF
14	1161	836	828	192	1215	446	662	687	1116-18 UNLF
16	1234	896	888	213	1215	446	662	687	1116-18 UNLF
18	1328	960	952	234	1215	446	662	687	1116-18 UNLF
20	1443	1024	1016	255	1215	446	662	687	1116-18 UNLF
22	1578	1088	1080	276	1215	446	662	687	1116-18 UNLF





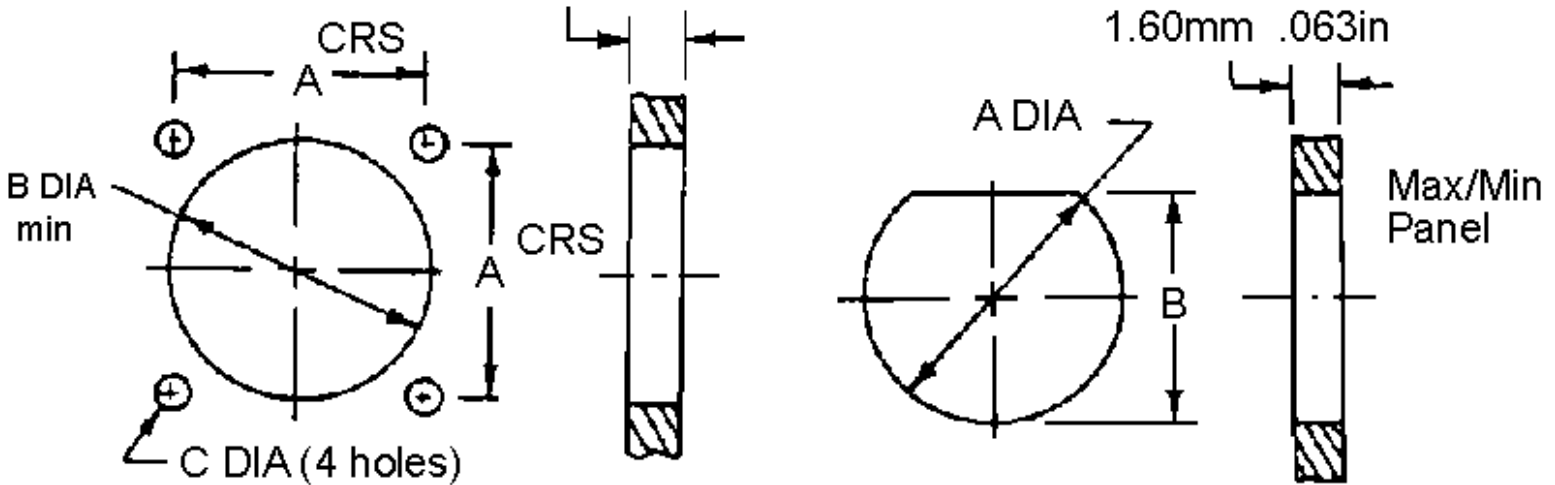
# Allen Electric Connector Sales, inc.



## MIL-DTL-38999 SERIES III PANEL CUT-OUT DIMENSIONS

SHELL SIZE	MAX	+0.005	+0.005	+0.006	MAX	-0.01	+0.10	MAX	1/4-20 UNF
9	.628	.564	.568	.120	1.215	.446	.062	.087	1/2-20 UNF
11	.864	.719	.685	.120	1.215	.446	.062	.087	5/8-24 UNF
13	1.047	.812	.684	.120	1.215	.446	.062	.087	3/4-20 UNF

### PANEL THICKNESS MAXIMUM



### FLANGE MOUNTING DIMENSIONS

SHELL SIZE	A CRS		B DIA MIN		C DIA MIN	
	INCH	MM	INCH	MM	INCH	MM
9	.719	18.26	.656	16.66	.123 - .133	3.12 - 3.38
11	.812	20.62	.796	20.22	.123 - .133	3.12 - 3.38
13	.906	23.01	.922	<b>23.42</b>	.123 - .133	3.12 - 3.38
15	.969	26.97	1.047	26.59	.123 - .133	3.12 - 3.38
17	1.062	24.61	1.219	30.96	.123 - .133	3.12 - 3.38
19	1.156	29.36	1.297	32.94	.123 - .133	3.12 - 3.38
21	1.250	31.75	1.422	36.12	.123 - .133	3.12 - 3.38
23	1.375	34.93	1.547	39.29	.149 - .159	3.78 - 4.04
25	1.500	38.10	1.672	42.47	.149 - .159	3.78 - 4.04

# JAM NUT MOUNTING RECEPTACLE

SHELL SIZE	A DIA		B	
	INCH	MM	INCH	MM
9	.697 - .707	17.70 - 17.95	.659 - .669	16.74 - 16.99
11	.822 - .832	20.88 - 21.13	.759 - .769	19.28 - 19.53
13	1.007 - 1.017	25.58 - 25.83	.945 - .955	24.01 - 24.26
15	1.134 - 1.144	28.80 - 29.05	1.074 - 1.084	27.28 - 27.53
17	1.259 - 1.269	31.98 - 32.23	1.198 - 1.208	30.43 - 30.68
19	1.384 - 1.394	35.15 - 35.40	1.323 - 1.333	33.61 - 33.86
21	1.507 - 1.517	38.28 - 38.53	1.449 - 1.459	36.81 - 37.06
23	1.634 - 1.644	41.50 - 41.75	1.574 - 1.584	39.99 - 40.24
25	1.759 - 1.769	44.68 - 44.93	1.699 - 1.709	43.16 - 43.41

For pricing and availability, please fill out our RFO form



If you need any other information, please E-Mail [aecs@aecsinc.com](mailto:aecs@aecsinc.com)



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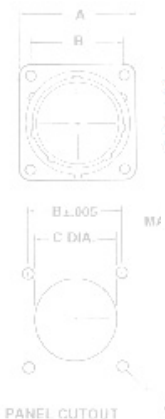
# Allen Electric Connector Sales, Inc.



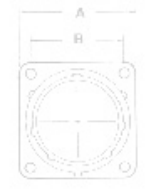
## D38999/20 SERIES III WALL MOUNT FLANGE RECEPTACLE

SHELL SIZE	MAX	+005	+003	+005	MAX	+015	+010	MAX	TH-650 2A
R	820	554	568	120	1215	445	552	687	1/2-20 UNF
G	954	719	585	120	1215	446	552	687	3/8-24 UNEF

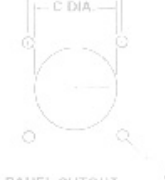
SHELL SIZE	A	B	C
R	820	554	568
G	954	719	585
2	1047	812	564
4	1121	906	569
6	1234	986	1115
8	1308	1062	1236
20	1443	1150	1365
22	1578	1200	1485
24	1703	1375	1615



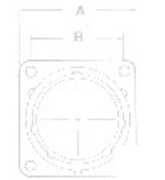
PANEL CUTOUT 4 HOLES



PANEL CUTOUT 4 HOLES



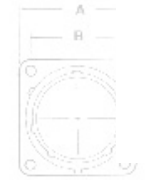
PANEL CUTOUT 4 HOLES



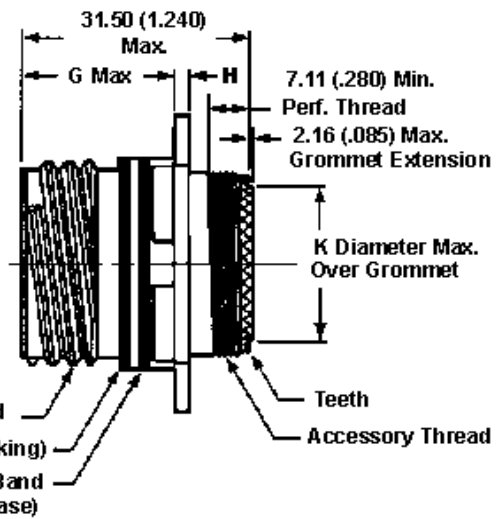
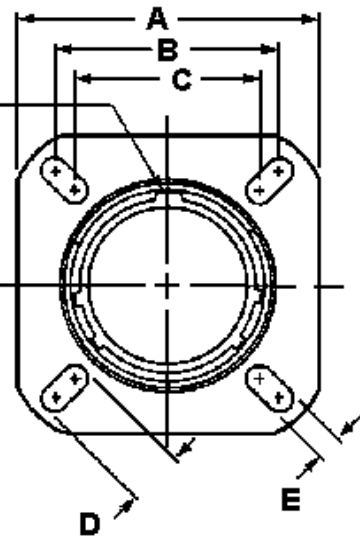
PANEL CUTOUT 4 HOLES



PANEL CUTOUT 4 HOLES



PANEL CUTOUT 4 HOLES



B	C
+005	+003
554	568
719	585
812	564
906	569
986	1115
1062	1236
1150	1365
1200	1485
1375	1615

SHELL SIZE	MS SHELL CODE	A	B	C	D	E	G MAX	H MAX	K MAX
------------	---------------	---	---	---	---	---	-------	-------	-------



		INCH + .012	MM + .30	INCH + .010	MM + .26	INCH + .010	MM + .26	INCH + .004 - .002	MM + 0.10 - 0.05	INCH + .028 - .004	MM + 0.70 - 0.10	INCH	MM	INCH	MM	INCH	MM
9	A	.937	23.80	.719	18.26	.594	15.09	.216	5.49							.299	7.59
11	B	1.031	26.20	.812	20.82	.719	18.26	.173	4.39							.427	10.85
13	C	1.126	28.60	.906	23.01	.812	20.62									.541	13.74
15	D	1.200	31.00	.969	24.61	.906	23.01									.666	16.92
17	E	1.311	33.30	1.062	26.97	.969	24.61	.194	4.93							.791	20.09
19	F	1.437	36.50	1.156	29.36	1.062	26.97									.897	22.78
21	G	1.563	39.70	1.250	31.75	2.156	29.36									1.022	25.96
23	H	1.689	42.90	1.375	34.93	1.250	31.75	2.42	6.14	.154	3.91	.792	20.10	.126	3.20	1.147	29.13
25	J	1.811	46.00	1.500	38.10	1.375	34.93									1.272	32.31

- [MIL-DTL-38999 Insert and Contact Identification](#)
- [MIL-DTL-38999 Insert Arrangements](#)
- [MIL-DTL-38999 Contacts, Tooling, Wire Sizes, Sealing Plugs](#)
- [Series III Polarization & Shell Keying](#)
- [Series III Panel Cut-Out Dimensions](#)
- [Series III Strain Reliefs](#)

SHELL SIZT	A MAX	B + .005 - .002	C + .032
8	820	554	568
10	954	719	585
12	1047	812	584
14	1151	906	589
16	1234	980	1115
18	1328	1062	1236
20	1413	1150	1265
22	1578	1250	1486
24	1703	1375	1615

### MILITARY PART NUMBERING SYSTEM

**D38999 / 20 W C 35 P B**

- D38999** / **20** : MS Prefix
- W** : Class: Aluminum, olive drab cadmium over nickel, -65 C to +175 C
- C** : Class: Aluminum, electroless nickel, -65 C to +200 C
- 35** : Shell Style: 20 = Wall mount receptacle, 24 = Jam nut receptacle, 26 = RFI plug
- P** : Contact Style (P for Pin, S for Socket)
- B** : Insert Arrangement (Refer to MIL-C-38999 Insert Arrangements)
- Shell Size Code:**  
 A = 9 B = 11 C = 13 D = 15 E = 17 F = 19 G = 21  
 H = 23 J = 25
- Polarization** (n for normal, A,B,C or D for alternates)

For pricing and availability, please fill out our RFQ form



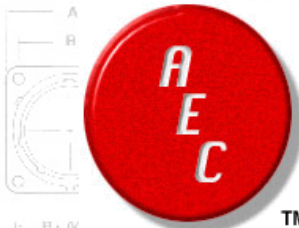
If you need any other information, please [E-Mail aecs@aecsinc.com](mailto:aecs@aecsinc.com)

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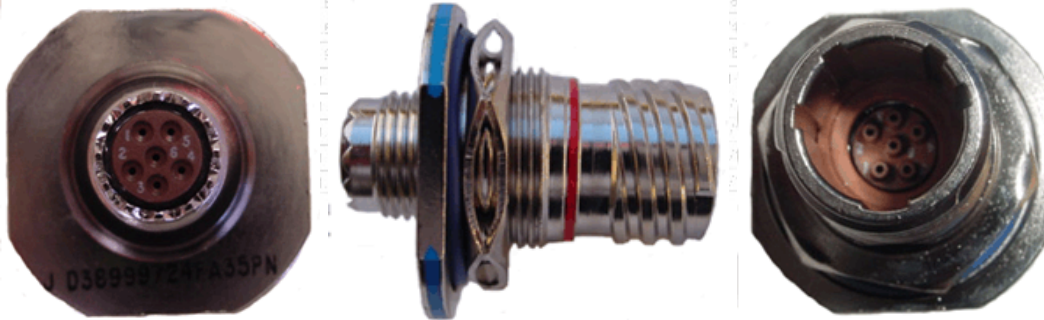


# Allen Electric Connector Sales, Inc.

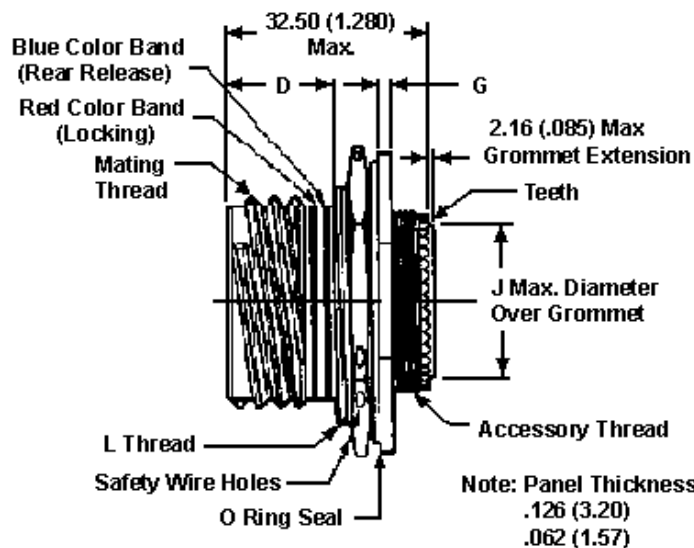
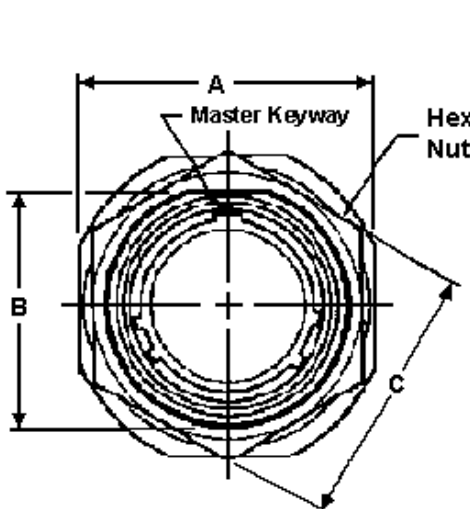


## D38999/24 SERIES III JAM NUT MOUNT RECEPTACLE

SHELL SIZE	MAX	±.005	±.005	±.006	MAX	-0.02	+0.10	MAX	TH-HEAD SA
8	828	564	568	120	1.275	4-6	052	087	12 20 UNF



SHELL SIZE	A MAX
8	828
9	954
11	1047
13	1141
15	1234
17	1328
20	1443
22	1578
24	1703



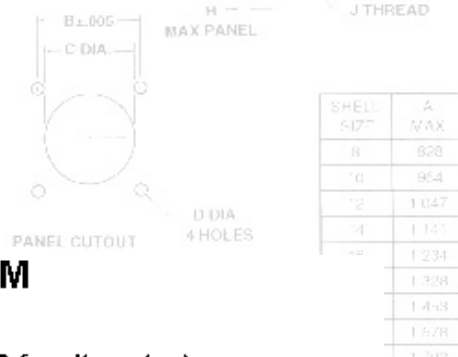
Note: Panel Thickness  
.126 (3.20)  
.062 (1.57)

SHELL SIZE	A MAX
8	828
9	954
11	1047
13	1141
15	1234
17	1328
20	1443
22	1578
24	1703

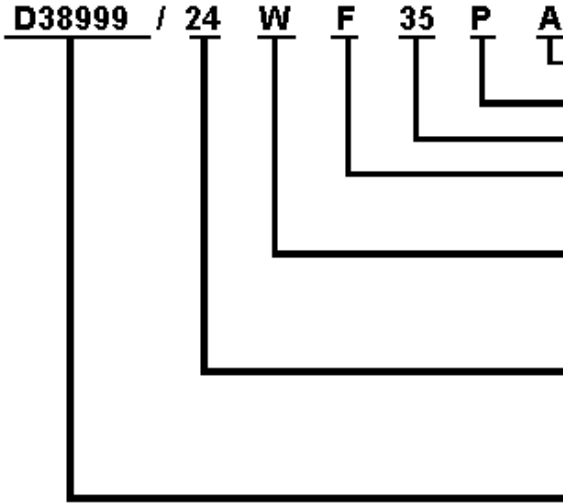
SHELL SIZE	MS SHELL CODE	A		B MTG. FLAT		C HEX		D		G		J MAX		L JAM NUT THREAD
		INCH ±.016	MM ±.40	INCH +.004 -0.15	MM +0.10 -0.15	INCH	MM	INCH +.028 -.004	MM +0.70 -0.05	INCH +.028 -.004	MM +0.70 -0.10	INCH	MM	
9	A	1.063	27.00	.651	16.53	.945/1.859	24.00/21.82	.555	14.10	.087	2.20	.299	7.59	M17 x 1-6g
11	B	1.252	31.80	.751	19.07	1.063/1.984	27.00/24.99	.555	14.10	.087	2.20	.427	10.85	M20 x 1-6g
13	C	1.374	34.90	.938	23.82	1.260/1.172	32.00/29.77	.555	14.10	.087	2.20	.541	13.74	M25 x 1-6g
15	D	1.500	38.10	1.062	26.97	1.417/1.296	36.00/32.91	.555	14.10	.087	2.20	.666	16.92	M28 x 1-6g
17	E	1.626	41.30	1.187	30.15	1.457/1.422	37.00/36.12	.555	14.10	.087	2.20	.791	20.09	M32 x 1-6g
19	F	1.811	46.00	1.312	33.32	1.614/1.546	41.00/39.26	.563	14.30	.118	3.00	.897	22.78	M35 x 1-6g
21	G	1.937	49.20	1.437	1.811	1.811/1.672	46.00/42.47	.563	14.30	.118	3.00	1.022	25.96	M38 x 1-6g
23	H	2.063	52.40	1.562	39.67	1.969/1.796	50.00/45.61	.563	14.30	.118	3.00	1.147	29.13	M41 x 1-6g

25	J	2.189	55.60	1.687	42.85	2.017/1.939	51.23/49.25			1.272	32.31	M44 x 1-6g
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- [MIL-DTL-38999 Insert and Contact Identification](#)
- [MIL-DTL-38999 Insert Arrangements](#)
- [MIL-DTL-38999 Contacts, Tooling, Wire Sizes, Sealing Plugs](#)
- [Series III Polarization & Shell Keying](#)
- [Series III Panel Cut-Out Dimensions](#)
- [Series III Strain Reliefs](#)



### MILITARY PART NUMBERING SYSTEM



- Polarization** (n for normal, A, B, C or D for alternates)
- Contact Style** (P for Pin, S for Socket)
- Insert Arrangement** (Refer to MIL-C-38999 Insert Arrangements)
- Shell Size Code:**  
 A = 9 B = 11 C = 13 D = 15 E = 17 F = 19 G = 21  
 H = 23 J = 25
- Class:**  
 W = Aluminum, olive drab cadmium over nickel, -65 C to +175 C  
 F = Aluminum, electroless nickel, -65 C to +200 C  
 C = Aluminum, Anodic (Non-Conductive) -65 C to +200 C
- Shell Style:**  
 20 = Wall mount receptacle  
 24 = Jam nut receptacle  
 26 = RFI plug
- MS Prefix**

16	1.234	168	1.115	20	1.215	446	062	087	1-20 UNEF
18	1.328	1.002	1.235	20	1.215	446	062	087	1-1/16-18 UNLF
20	1.428	1.100	1.363	20	1.275	522	094	2*2	1-3/16-18 UNLF

For pricing and availability, please fill out our RFQ form



If you need any other information, please [E-Mail aecs@aecsinc.com](mailto:aecs@aecsinc.com)



phone (703) 425-3815 fax (703) 425-3814

We look forward to hearing from you!



SHELL SIZE	A MAX	±.005	±.035	±.005	MAX	±.015	±.010	MAX	H-HEAD 2A
8	628	554						082	1-20 UNEF
10	954	779						082	1-20 UNEF
12	1047	872						082	1-20 UNEF
14	1141	906						082	1-20 UNEF
16	1234	968						082	1-20 UNEF
18	1328	1002						082	1-20 UNEF
20	1428	1100	1.363	20	1.275	522	094	2*2	1-3/16-18 UNLF
22	1528	1200	1.493	20	1.275	522	094	2*2	1-3/16-18 UNLF
24	1628	1300	1.623	20	1.275	522	094	2*2	1-3/16-18 UNLF

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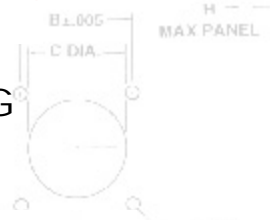
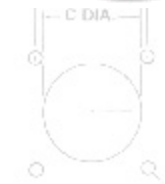
# Allen Electric Connector Sales, inc.



TM

## D38999/26 SERIES III RFI GROUNDING PLUG

.017	MAX	±.005	±.002	±.006	MAX	-.010	+.010	MAX	1H-6AD 2A
B	828	554	568	120	1.215	446	662	.087	52 20 UNF
G	954	719	885	120	1.215	446	662	.087	52 20 UNF

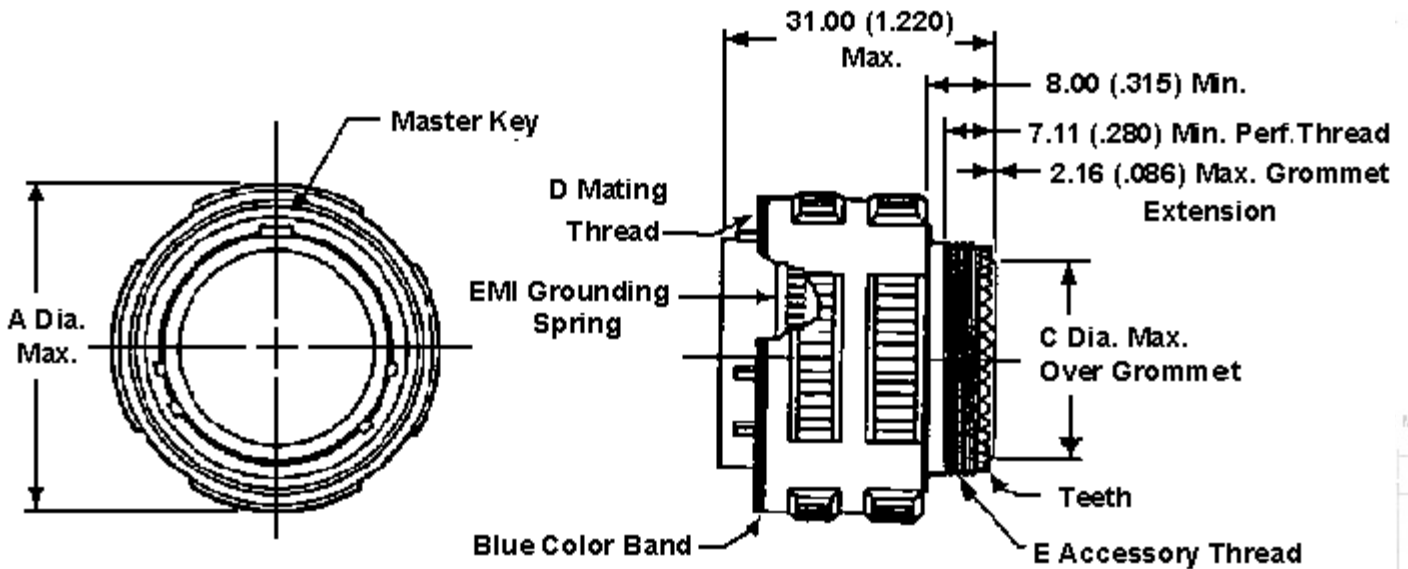


PANEL CUTOUT

D DIA 4 HOLES



PAN



MAX G

SHELL SIZE	MS SHELL CODE	A DIA. MAX	B TEETH	C MAX		D MATING THREAD	E ACCESSORY THREAD
				INCH	MM		
9	A	21.8	12	.299	7.59	.6250-0.1P-0.3L	M12 x 1-6g
11	B	25	16	.427	10.85	.7500-0.1P-0.3L	M15 x 1-6g
13	C	29.4	20	.541	13.74	.8750-0.1P-0.3L	M18 x 1-6g
15	D	32.5	24	.666	16.92	1.0000-0.1P-0.3L	M22 x 1-6g
17	E	35.7	28	.791	20.29	1.1875-0.1P-0.3L	M25 x 1-6g

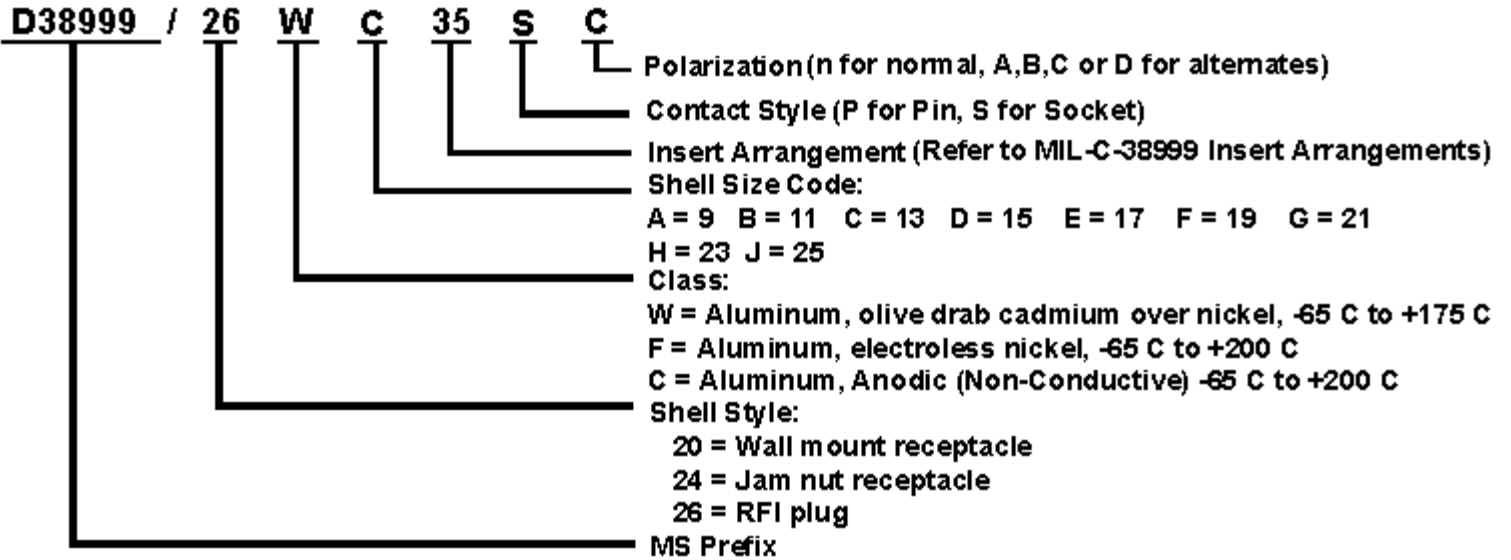
PAN CUTOUT

PAN CUTOUT

19	F	38.5	32	.897	22.78	1.2500-0.1P-0.3L	M28 x 1-6g
21	G	41.7	36	1.022	25.96	1.3750-0.1P-0.3L	M31 x 1-6g
23	H	44.9	40	1.147	29.13	1.5000-0.1P-0.3L	M34 x 1-6g
25	J	48	44	1.272	32.31	1.6250-0.1P-0.3L	M37 x 1-6g

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