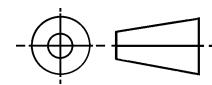


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PREPARED BY SAE SUBCOMMITTEE AE-8C1			
 <i>An SAE International Group</i>	AEROSPACE STANDARD <small>CONTACTS, ELECTRICAL, CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR MIL-T-81714 TERMINAL JUNCTION SYSTEM SERIES II AND MIL-C-81511 SERIES 3 AND 4 CLASS L CONNECTORS)</small>	AS39029/22 <small>SHEET 1 OF 8</small>	

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THE COMPLETE REQUIREMENTS FOR ACQUIRING THE CONTACTS DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF SPECIFICATION MIL-C-39029.

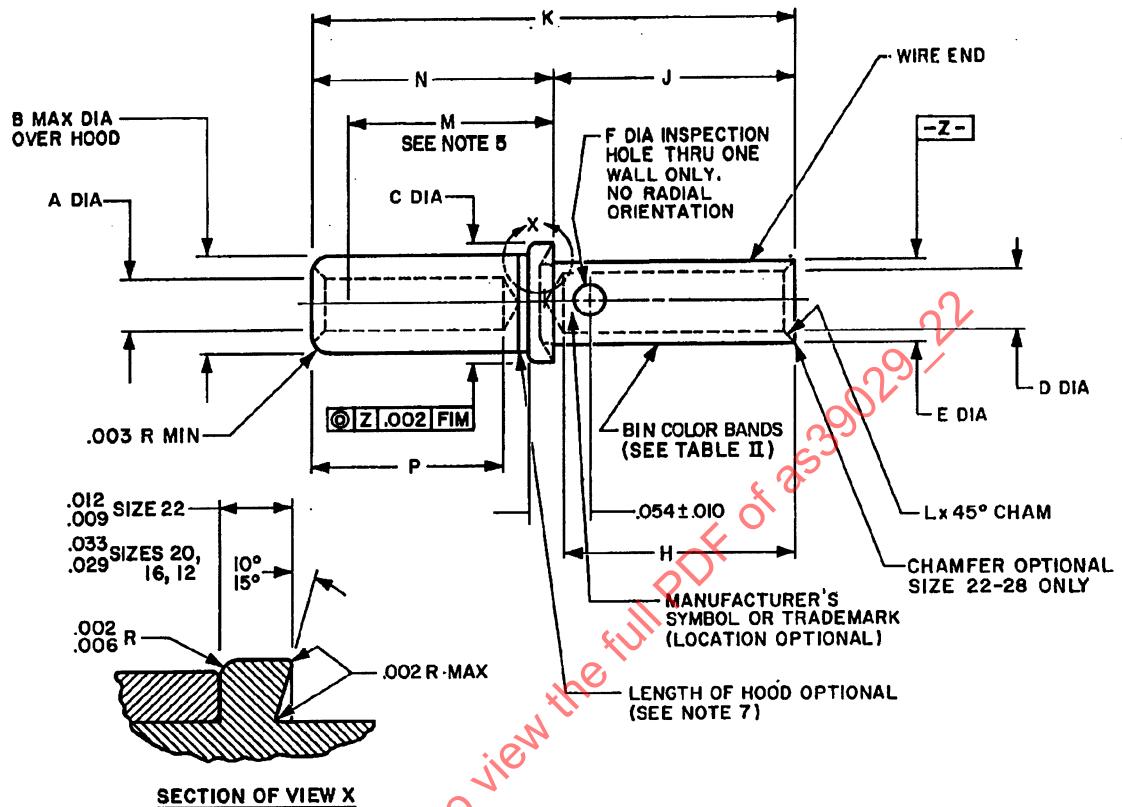


FIGURE 1. CONTACT, SOCKET SIZE 22, 20, 16.

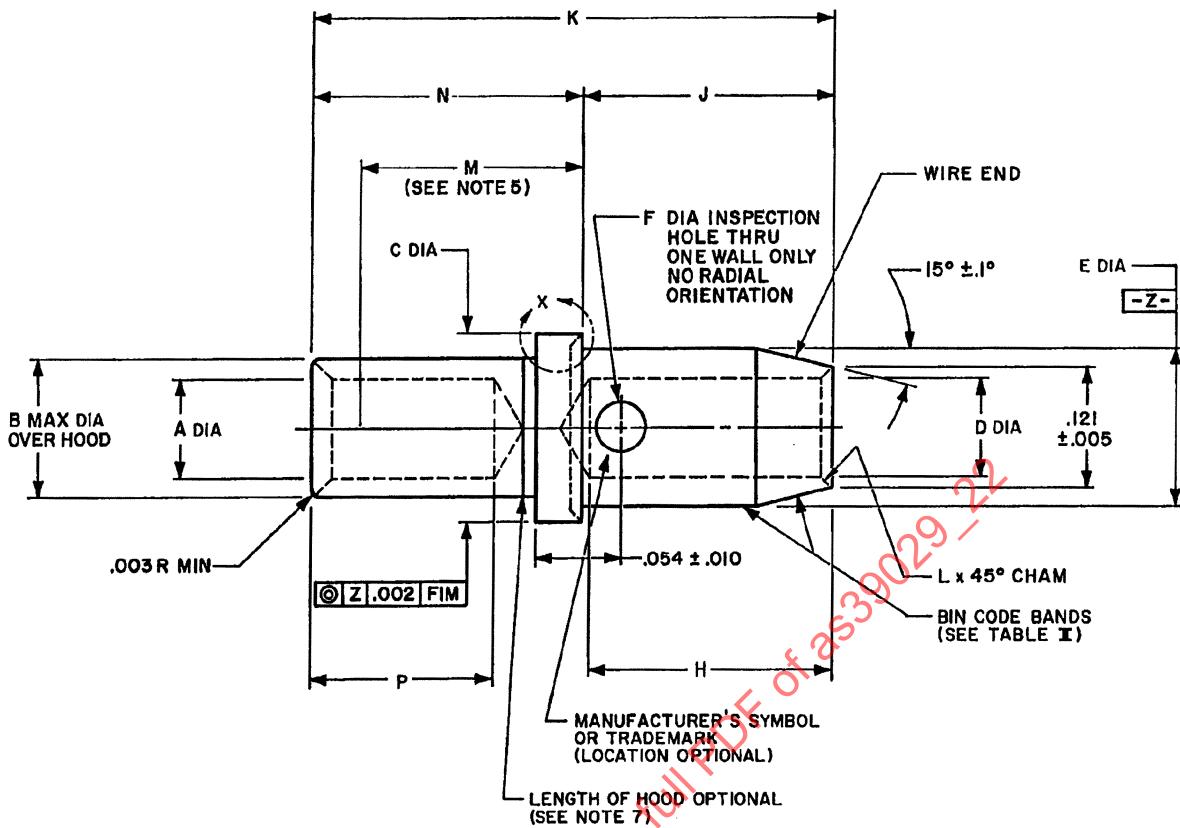


FIGURE 2. CONTACT, SOCKET SIZE 12.

AS39029/22

INCH	mm	INCH	mm	INCH	mm	INCH	mm
.0001	0.003	.0305	0.77	.091	2.36	.150	3.81
.0012	0.03	.031	0.79	.0935	2.37	.152	3.86
.0015	0.04	.033	0.84	.094	2.39	.158	4.01
.002	0.05	.0335	0.85	.0945	2.4	.160	4.06
.0030	0.08	.0355	0.90	.095	2.41	.168	4.27
.004	0.10	.0395	1.00	.096	2.44	.170	4.32
.0050	0.13	.0405	1.03	.097	2.46	.171	4.34
.006	0.15	.042	1.07	.100	2.54	.175	4.45
.0070	0.18	.044	1.12	.101	2.57	.176	4.47
.009	0.23	.046	1.17	.102	2.59	.180	4.57
.010	0.25	.0465	1.18	.103	2.62	.187	4.75
.016	0.41	.048	1.22	.105	2.67	.188	4.78
.0180	0.46	.052	1.32	.108	2.74	.205	5.21
.019	0.48	.0600	1.52	.120	3.05	.215	5.46
.0200	0.51	.0615	1.56	.121	3.07	.220	5.59
.022	0.56	.0625	1.59	.125	3.176	.230	5.84
.023	0.58	.064	1.63	.127	3.23	.240	6.10
.027	0.69	.066	1.68	.130	3.30	.327	8.31
.029	0.74	.068	1.73	.135	3.45	.349	8.86
.0295	0.75	.070	1.78	.137	3.48	.446	11.33
.030	0.76	.076	1.93	.148	3.76		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Dimensioning and tolerancing are in accordance with ANSI Y14.5M-1982.
4. Dimensions shown apply after plating.
5. Distance between rear of contact shoulder and point at which a gage pin, of same basic diameter as mating pin contact and a square face, first engages socket contact spring member.
6. Axial concentricity: All diameters to be concentric within .004 FIM except as noted.
7. Maximum gap of .010 inch between hood and body of the contact.

TABLE I. DIMENSIONS.

BIN code	A dia	B max dia	C dia	D dia	E dia	F dia	H	J	K ref	L cham	M min	N	P
190	.033 .031	.060 .0600	.0615 .0180	.0200 .0465	.0480 .013	.017 .018	.175 .160	.170 .160	.327	.006 .003	.130	.166 .158	.137 .120
191	.033 .031	.060 .0600	.0615 .0335	.0355 .0465	.0480 .018	.022 .023	.175 .160	.170 .160	.327	.006 .003	.130	.166 .158	.137 .120
192	.044 .042	.076 .091	.094 .046	.048 .068	.070 .023	.027 .023	.175 .160	.170 .160	.349	.010 .005	.150	.188 .180	.137 .120
193	.066 .064	.108 .127	.130 .066	.068 .101	.103 .023	.027 .023	.175 .160	.170 .160	.349	.010 .005	.150	.188 .180	.137 .120
605	.100 .097	.168 .168	.171 .096	.102 .148	.152 .019	.030 .205	.220 .205	.215 .205	.446	.016 .005	.176 .240	.240 .230	.187 .170

TABLE II. DESIGN CHARACTERISTICS

BIN code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st	2nd	3rd				
1/ 190	Brown	White	Black	22	28	A	B
191	Brown	White	Brown	22	22		
192	Brown	White	Red	20	20		
193	Brown	White	Orange	16	16		
605	Blue	Black	Green	12	12		

1/ 190 for internal black box wiring and shall not be used in airframe wiring.

TABLE III. TOOLS.

BIN code	Basic crimping tool	Positioner	Installing and removal tool
190	M22520/7-01	M22520/7-11	M81969/14-01
191	M22520/7-01	M22520/7-11	---
192	M22520/7-01	M22520/7-12	M89169/14-10
193	M22520/7-01	M22520/7-13	M81969/14-03
605	M22520/1-01	M22520/1-16	M81969/16-03 M81969/8-10

REQUIREMENTS:

Dimensions, design characteristics and configuration: See figure and Tables I and II.

Tools: See Table III.

Intended use: These contacts are for use in components designed to MIL-T-81714. In addition, these contacts replace MIL-C-39029/15 size 22-28 and size 22-22 for use with MIL-C-81511 series 3 and 4 class L.

Contact resistance: When mated to .100 depth with type A pin contacts of specified mating diameters, the contact resistance shall be as specified in Table IV.

TABLE IV. CONTACT RESISTANCE.

Engaging end size	Wire size (AWG)	Test current (amperes)	Maximum voltage drop (millivolts)		
			25° $\pm 3^\circ\text{C}$	25° $\pm 3^\circ\text{C}$ After conditioning	200° $\pm 3^\circ\text{C}$ -0°C
22	28	1.5	60	70	100
	32	1.0	95	105	135
22	22	5.0	70	80	120
	26	2.0	60	70	100
20	20	7.5	55	65	95
	24	3.0	45	55	80
16	16	13.0	50	60	85
	20	7.5	45	55	80
12	12 1/4	23.0	60	70	100
		17.0	55	65	95

1/ Silver plated wire.