

**AS39029/88**

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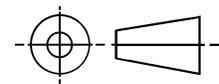
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THIRD ANGLE PROJECTION



ISSUED 2000-07 REAFFIRMED 2006-10

PREPARED BY SAE SUBCOMMITTEE AE-8C1



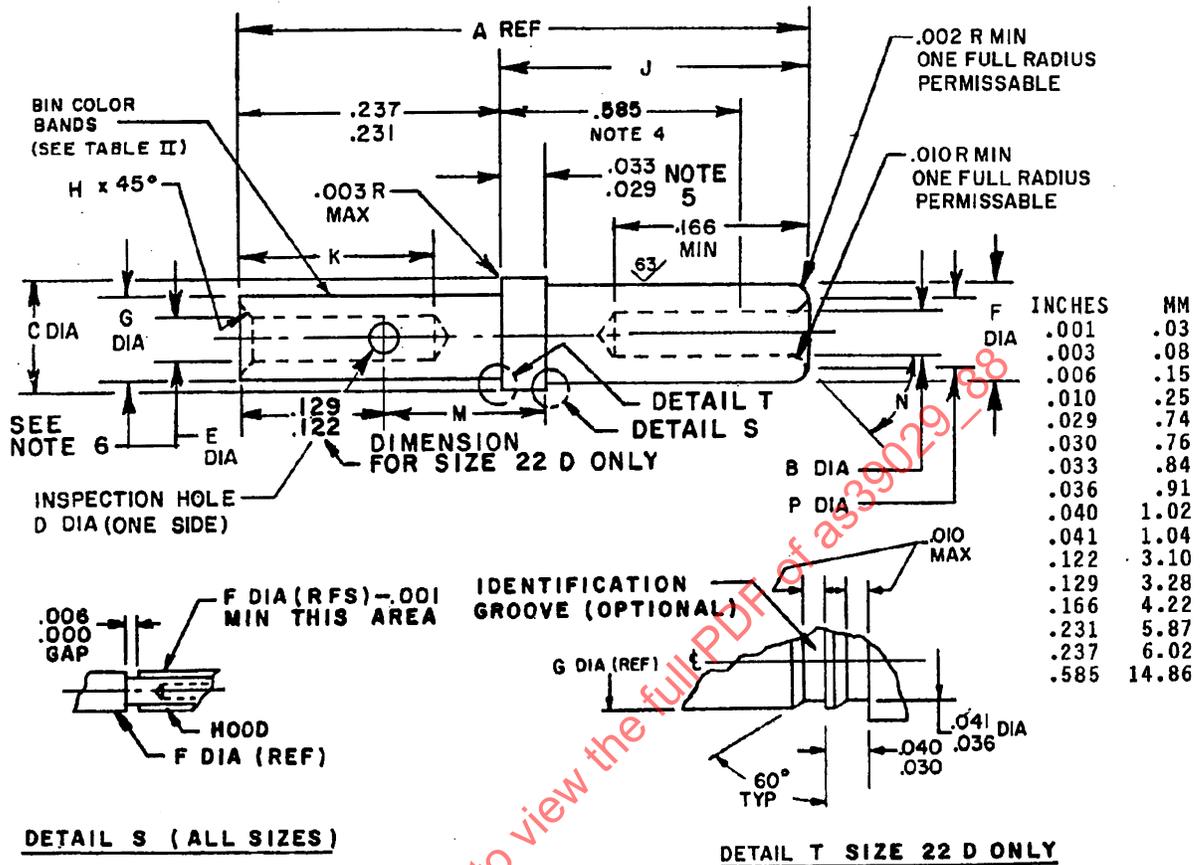
**AEROSPACE STANDARD**

CONTACTS, ELECTRICAL CONNECTOR,  
SOCKET, CRIMP REMOVABLE, THERMOCOUPLE  
(FOR MIL-C-38999 SERIES I, II, III, IV CONNECTORS)

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SHEET 1 OF 5

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



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Dimensions shown apply after plating.
4. Point at which a square ended pin of the same basic diameter as the mating contact first engages the socket contact spring.
5. Indicated dimension does not apply for size 22D.
6. For size 22D only, diameters E and G to be concentric within .003 (TIR) regardless of feature size (RFS); for all other contact sizes, diameters E and G to be concentric within .001 (TIR) at maximum material condition (MMC).
7. Hoods shall not exceed contact body diameter regardless of feature size (RFS) in attachment area.

FIGURE 1. SOCKET CONTACTS.

INCHES	MM	INCHES	MM	INCHES	MM
.002	.05	.044	1.07	.094	2.39
.003	.08	.046	1.17	.101	2.57
.005	.13	.047	1.19	.103	2.62
.010	.25	.048	1.22	.113	2.87
.018	.46	.053	1.35	.127	3.23
.020	.51	.060	1.52	.130	3.30
.022	.56	.062	1.57	.141	3.58
.026	.66	.064	1.63	.209	5.31
.029	.74	.066	1.68	.229	5.82
.031	.79	.068	1.73	.231	5.87
.032	.81	.070	1.78	.237	6.02
.033	.84	.072	1.83	.576	14.63
.0335	.85	.078	1.98	.616	15.65
.0355	.90	.082	2.08	.626	15.90
.036	.91	.084	2.13	.855	21.72
.0366	.93	.088	2.24		
.042	1.07	.091	2.31		

TABLE I. Dimensions.

BIN code	A DIA	B DIA	C DIA	D DIA	E DIA	F DIA MAX	G	H	J	K	M	N <sup>o</sup>	P DIA MIN
482 through 485	.855	.031	.062	.022	.0355	.062	.048	.005		.141	---	50°	.047
		(MIN)	.060	.018	.0335		.046	.003		(MIN)	---	44°	
486 through 489		.044	.094	.032	.048	.078	.070	.010	.626	.229	.078	47°	.053
		.042	.091	.026	.046		.068	.005	.616	.209	.072	40°	
490 through 493		.064	.130	.042	.068	.113	.103			.229	.088	47°	.084
		(MIN)	.127	.036	.066		.101			.209	.082	40°	

FIGURE 1. SOCKET CONTACTS - CONTINUED.

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TABLE II. DESIGN CHARACTERISTICS.

BIN code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st.	2nd.	3rd.				
482	Yellow	Gray	Red	22	22D	(See table IV)	B
483	Yellow	Gray	Orange	22	22D		
484	Yellow	Gray	Yellow	22	22D		
485	Yellow	Gray	Green	22	22D		
486	Yellow	Gray	Blue	20	20		
487	Yellow	Gray	Violet	20	20		
488	Yellow	Gray	Gray	20	20		
489	Yellow	Gray	White	20	20		
490	Yellow	White	Black	16	16		
491	Yellow	White	Brown	16	16		
492	Yellow	White	Red	16	16		
493	Yellow	White	Orange	16	16		

TABLE III. TOOLS.

BIN code	Basic crimping tool	Positioner	Installing tool	Removal tool
482	M22520/2-01	M22520/2-07	M81969/14-01	M81969/14-01
483	M22520/7-01	M22520/7-05	M81969/8-01	M81969/8-02
484				
485				
486	M22520/1-01	M22520/1-04	M81969/8-05	M81969/8-06
487	M22520/2-01	M22520/2-10	M81969/14-02	M81969/14-02
488	M22529/7-01	M22520/7-08		
489				
490	M22520/1-01	M22520/1-04	M81969/8-07	M81969/8-08
491	M22520/7-01	M22520/7-04	M81969/14-03	M81969/14-03
492				
493				

TABLE IV. MATERIALS, PLATING, AND TENSILE STRENGTH.

BIN code	Material	Plating	Tensile strength <sup>1/</sup>			
			Wire size	Axial load lbs	Wire size	Axial load lbs
482	Constantan	None	28	2.25	22	7.5
483	Alumel	None				
484	Chromel	None				
485	Iron	Cadmium Plate <sup>2/</sup>				
486	Constantan	None	24	6.00	20	12.0
487	Alumel	None				
488	Chromel	None				
489	Iron	Cadmium Plate <sup>2/</sup>				
490	Constantan	None	20	14.00	16	45.0
491	Alumel	None				
492	Chromel	None				
493	Iron	Cadmium plate <sup>2/</sup>				

<sup>1/</sup> Applies to type 1 wire per MIL-W-5846.

<sup>2/</sup> Chromate clear coat.