FEDERAL SUPPLY CLASS
5935

RATIONALE

THIS DOCUMENT HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE 5-YEAR REVIEW POLICY.

NOTICE

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THE ORIGINAL MILITARY SPECIFICATION WAS ADOPTED AS AN SAE STANDARD UNDER THE PROVISIONS OF THE SAE TECHNICAL STANDARDS BOARD (TSB) RULES AND REGULATIONS (TSB 001) PERTAINING TO ACCELERATED ADOPTION OF GOVERNMENT SPECIFICATIONS AND STANDARDS. TSB RULES PROVIDE FOR (A) THE PUBLICATION OF PORTIONS OF UNREVISED GOVERNMENT SPECIFICATIONS AND STANDARDS WITHOUT CONSENSUS VOTING AT THE SAE COMMITTEE LEVEL, AND (B) THE USE OF THE EXISTING GOVERNMENT SPECIFICATION OR STANDARD FORMAT.

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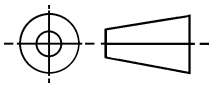
REAFFIRMED 2006-10
ISSUED 2000-07

THIRD ANGLE PROJECTION



PREPARED BY SAE SUBCOMMITTEE AE-8C1

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (THERMOCOUPLE FOR MIL-C-38999 SERIES II, MIL-C-83733, AND MIL-C-24308 CONNECTORS)

AS39029/89
SHEET 1 OF 6

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

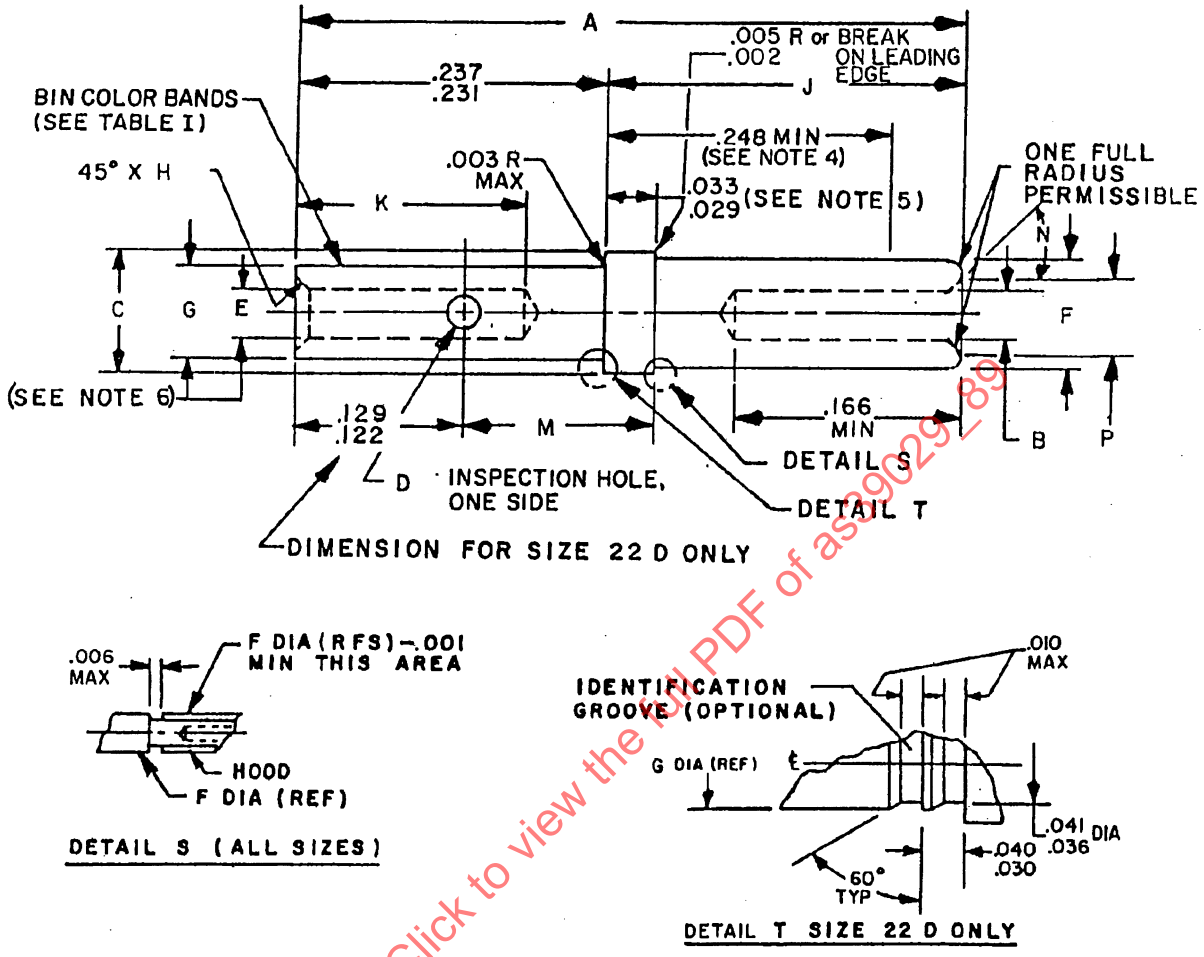


FIGURE 1. SOCKET CONTACTS.

Inches	mm	Inches	mm	Inches	mm
.002	0.05	.044	1.12	.088	2.24
.003	0.08	.046	1.17	.091	2.31
.005	0.13	.047	1.19	.094	2.39
.010	0.25	.048	1.22	.101	2.57
.018	0.46	.053	1.35	.103	2.62
.022	0.56	.060	1.52	.113	2.87
.026	0.66	.062	1.57	.127	3.23
.029	0.74	.064	1.63	.130	3.30
.031	0.79	.066	1.68	.141	3.58
.032	0.81	.068	1.73	.209	5.31
.0335	0.85	.070	1.78	.231	5.87
.0355	0.90	.072	1.83	.237	6.02
.036	0.91	.078	1.98	.279	7.09
.0415	1.05	.082	2.08	.289	7.34
.042	1.07	.084	2.16	.518	13.16

BIN code	A REF	B DIA	C DIA	D DIA	E DIA	F DIA MAX	G DIA	H	J	K MIN	M	N°	P DIA MIN
494 through 497	.518	.031	.062	.022	.0355	.062	.048	.005	.289	.141	---	50°	.047
		MIN	.060	.018	.0335		.046	.003				44°	
498 through 501		.0415	.094	.032	.048	.078	.070	.010		.209	.078	47°	.053
		MIN	.091	.026	.046		.068	.005	.279		.072	28°	
502 through 505		.064	.130	.042	.068	.113	.103	.010			.088		.084
		MIN	.127	.036	.066		.101	.005			.082		

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
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 - CONTINUED.

TABLE I. DESIGN CHARACTERISTICS.

BIN code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st	2nd	3rd				
494	Yellow	White	Yellow	22	22D	C (See table III)	B
495	Yellow	White	Green	22	22D		
496	Yellow	White	Blue	22	22D		
497	Yellow	White	Violet	22	22D		
498	Yellow	White	Gray	20	20		
499	Yellow	White	White	20	20		
500	Green	Black	Black	20	20		
501	Green	Black	Brown	20	20		
502	Green	Black	Red	16	16		
503	Green	Black	Orange	16	16		
504	Green	Black	Yellow	16	16		
505	Green	Black	Green	16	16		

TABLE II. TOOLS.

BIN code	Basic crimping tool	Positioner	Installing tool	Removal tool
494	M22520/2-01	M22520/2-06	M81969/14-01	M81969/14-01
495	M22520/7-01	M22520/7-06	M81969/8-01	M81969/8-02
496				
497				
498	M22520/1-01	M22520/1-04	M81969/8-05	M81969/8-06
499	M22520/2-01	M22520/2-10	M81969/14-02	M81969/14-02
500	M22529/7-01	M22520/7-08		
501				
502	M22520/1-01	M22520/1-04	M81969/8-07	M81969/8-08
503	M22520/7-01	M22520/7-04	M81969/14-03	M81969/14-03
504				
505				

TABLE III. MATERIALS, PLATING, AND TENSILE STRENGTH.

BIN code	Material	Plating	Tensile strength 1/			
			Wire size	Axial load (lbf)	Wire size	Axial load (lbf)
494	Constantan	None	28	1.5	22	6
495	Alumel	None				
496	Chromel	None				
497	Iron	Cadmium plate 2/				
498	Constantan	None	24	4.5	20	14
499	Alumel	None				
500	Chromel	None				
501	Iron	Cadmium plate 2/				
502	Constantan	None	20	14	16	33
503	Alumel	None				
504	Chromel	None				
505	Iron	Cadmium plate 2/				

1/ Applies to type 1 wire per MIL-W-5846.
2/ Chromate clear coat.