

REV.
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SAE AS39029/92

FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISE TO INCORPORATE THE OUTSTANDING AMENDMENT AS REQUIRED BY SAE GUIDELINES AND UPDATE FORMAT, FIGURES AND TABLES.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS39029.

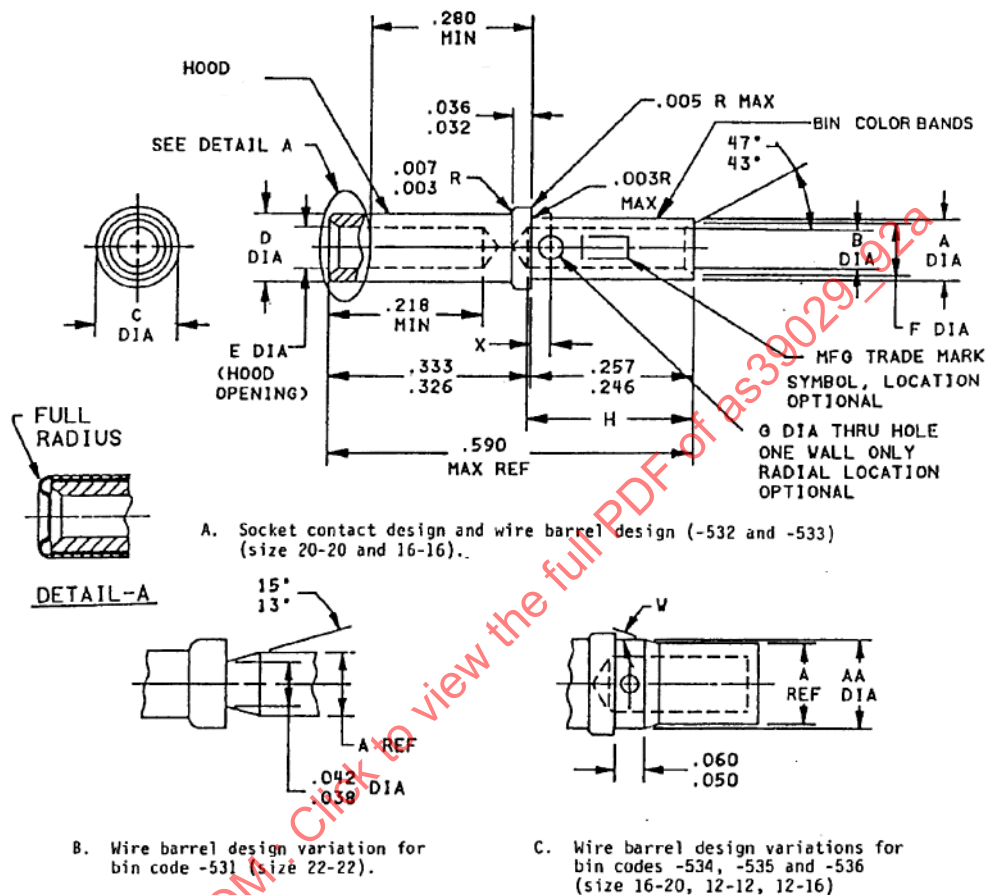


FIGURE 1 - SOCKET CONTACT DESIGN AND WIRE BARREL DESIGN VARIATION

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THIRD ANGLE PROJECTION

CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS39029

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTOR, SOCKET, REMOVABLE (FOR MIL-PRF-6106 AND MIL-DTL-12883/40 AND /41 RELAY SOCKETS)

SAE AS39029/92
SHEET 1 OF 4

REV.
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BIN CODE	A DIA	B DIA	C DIA	D DIA MAX	E DIA MIN	F DIA	G DIA	H	W°	X	AA
531	.053 .051	.038 .036	.076 .073	.0615	.0315	.047 .043	.022 .017	.140 .120	N/A	.146 .126	N/A
532	.078 .076	.050 .048	.103 .100	.078	.0415	.066 .062	.032 .026	.284 .250		.040 .020	
533	.103 .101	.068 .066	.133 .130	.113	.0635	.089 .083	.042 .036				
534	.078 .076	.050 .048				.066 .062	.032 .026				
535	.151 .148	.102 .098	.190 .187	.161	.0955	.136 .130					
536	.103 .101	.068 .066				.089 .083					

FIGURE 1 – SOCKET CONTACT DESIGN AND WIRE BARREL DESIGN VARIATION (CONTINUED)

REQUIREMENTS:

- DESIGN AND CONSTRUCTION: SEE FIGURE 1 AND TABLE 1. DIMENSIONS ARE IN INCHES. THE .280 MIN DIMENSION IS THE DISTANCE BETWEEN THE REAR OF THE CONTACT SHOULDER AND THE POINT AT WHICH A GAGE PIN OF THE SAME BASIC DIAMETER AS THE MATING CONTACT AND SQUARE FACE, FIRST ENGAGES THE SOCKET CONTACT SPRING MEMBER. DIAMETERS ARE TO BE CONCENTRIC WITHIN .004 FIM. DIMENSIONS SHOWN APPLY AFTER PLATING. THE MAXIMUM ALLOWABLE GAP BETWEEN THE HOOD AND THE BODY OF THE CONTACT IS .010 INCHES.

- QUALIFICATION:

ELECTRICAL CONTACTS SHALL BE TESTED USING A RELAY AND RELAY SOCKET IN ACCORDANCE WITH MIL-DTL-12883/40 AND MIL-DTL-12883/41 (LATEST REVISION).

TABLE 1 – DESIGN CHARACTERISTICS

BIN CODE	COLOR BAND 1/			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1ST	2ND	3RD				
531	GREEN	ORANGE	BROWN	22	22	A	A
532	"	"	RED	20	20		
533	"	"	ORANGE	16	16		
534	"	"	YELLOW	16	20		
535	"	"	GREEN	12	12		
536	"	"	BLUE	12	16		

1/ SEE AS39029 FOR MARKING OPTIONS.

3. ELECTRICAL:

MATING ELECTRICAL CONTACT: RELAY PIN, SEE MIL-DTL-12883/40 AND MIL-DTL-12883/41 FOR PART OR IDENTIFYING NUMBER (PIN).

CURRENT RATING (MAXIMUM): OPERATING CURRENT SHALL BE DETERMINED BY DERATING FOR INTENDED APPLICATIONS (SEE TABLE 2).

TABLE 2 – CURRENT RATING (MAXIMUM RMS)

BIN CODE	MAX (RMS)	BIN CODE	MAX (RMS)
-531	5 AMPS	-534	7.5 AMPS
-532	7.5 AMPS	-535	23 AMPS
-533	10 AMPS	-536	10 AMPS

4. ENVIRONMENTAL:

TEMPERATURE RANGE: -70 °C TO +125 °C.

5. MECHANICAL:

VIBRATION (SINUSOIDAL): IN ACCORDANCE WITH MIL-STD-202, METHOD 204, CONDITION G WITH THE FOLLOWING EXCEPTIONS:

- A. THE FREQUENCY RANGE SHALL BE VARIED LOGARITHMICALLY BETWEEN THE LIMITS OF 10 AND 3000 HZ.
- B. THE PROCEDURE OF MIL-STD-202, METHOD 201 MAY BE APPLIED DURING 10 TO 55 HZ BAND OF THE VIBRATION FREQUENCY RANGE.

VIBRATION (RANDOM): IN ACCORDANCE WITH MIL-STD-202, METHOD 214 TEST CONDITION IG. UNLESS OTHERWISE SPECIFIED, A QUALIFIED MATING RELAY SHALL BE USED AS A TEST GAUGE.

- A. 0.4 g²/Hz.
- B. 15 MIN EACH PLANE.

MECHANICAL SHOCK: IN ACCORDANCE WITH MIL-STD-202, METHOD 213, CONDITION C, EXCEPT PEAK VALUE SHALL BE 200 G.

6. TOOLS: SEE TABLE 3.

TABLE 3 - TOOLS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL	
				WIRED CONTACT	UNWIRED CONTACT
-531	M22520/2-01	K1561 OR 640100 OR EQUIVALENT ^{1/}	M81969/8-04 M81969/14-01	M81969/8-04 M81969/14-01	M81969/30-01
-532	M22520/2-01 M22520/1-01 OR M22520/7-01	M22520/2-02, M22520/1-02 RED OR M22520/7-02	M81969/8-05 M81969/14-02	M81969/8-06 M81969/14-02	M81969/30-05
-533	M22520/1-01 OR M22520/7-01	M22520/1-02 BLUE OR M22520/7-03	M81969/8-07 M81969/14-03	M81969/8-08 M81969/14-03	M81969/30-06
-534	M22520/7-01 OR M22520/1-01	M22520/7-03 OR M22520/1-02 BLUE	M81969/8-07 M81969/14-03	M81969/8-08 M81969/14-03	M81969/30-05
-535	M22520/1-01	M22520/1-02 YELLOW	M81969/8-09 M81969/14-04	M81969/8-10 M81969/14-04	M81969/30-07
-536	M22520/1-01	M22520/1-02 YELLOW	M81969/8-09 M81969/14-04	M81969/8-10 M81969/14-04	M81969/30-06

^{1/} K1561 IS A DANIELS MANUFACTURING CORP PART NUMBER AND 640100 IS AN ASTRO TOOL CORP PART NUMBER