

REV. A

SAE AS39029/56

FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISE TO INCLUDE COMMENTS RECEIVED BY THE GOVERNMENT AND INDUSTRY, REMOVE GOVERNMENT JARGON, UPDATE REFERENCES, ALIGN SPECIFICATION WITH SAE GUIDELINES, AND REVIEW SPECIFICATION FOR KNOWN TECHNICAL PROBLEMS.

NOTICE

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

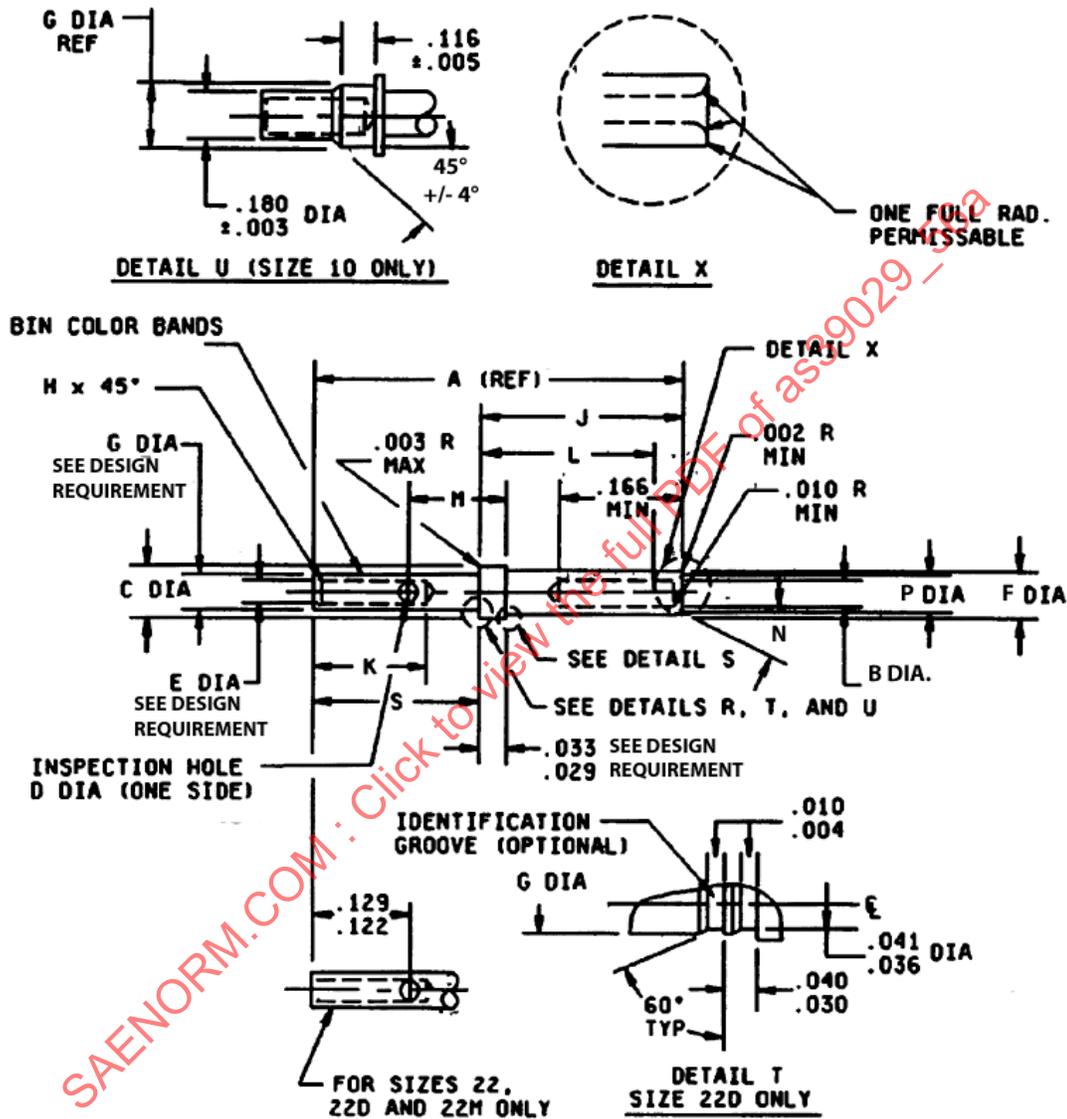
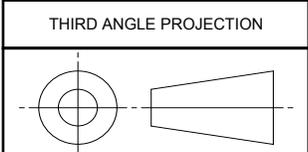


FIGURE 1 - CONNECTOR CONTACT

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CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS39029

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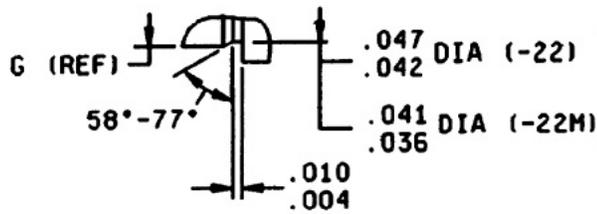
(R) CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR MIL-DTL-38999 SERIES I, III, AND IV CONNECTORS)

SAE AS39029/56
SHEET 1 OF 6

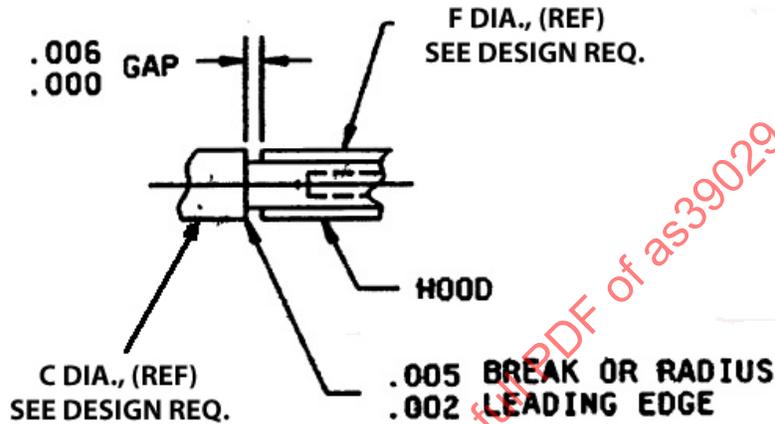
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ISSUED 2000-07 REVISED 2011-11



DETAIL R
SIZES 22, 22M ONLY



DETAIL S (ALL SIZES)

FIGURE 1 - CONNECTOR CONTACT (CONTINUED)

TABLE 1 - DIMENSIONS

BIN CODE	A REF	B DIA (MIN)	C DIA	D DIA	E DIA	F DIA MAX	G DIA	H	
348	.855 (21.72)	.031 (.79)	.062 (1.57) .060 (1.52)	.022 (.56) .018 (.46)	.0355 (.90) .0335 (.85)	.062 (1.57)	.048 (1.22) .046 (1.17)		
349		.031 (.79)	.062 (1.57) .060 (1.52)	.022 (.56) .018 (.46)	.029 (.74) .027 (.69)	.062 (1.57)	.046 (1.17) .044 (1.12)		.005 (.13) .003 (.08)
350		.031 (.79)	.071 (1.80) .069 (1.75)	.022 (.56) .018 (.46)	.0375 (.95) .0355 (.90)	.062 (1.57)	.052 (1.32) .050 (1.27)		
351		.0415 (1.05)	.094 (2.39) .091 (2.31)	.032 (.81) .026 (.66)	.048 (1.22) .046 (1.17)	.078 (1.98)	.070 (1.78) .068 (1.73)	.010 (.25)	
352		.064 (1.63)	.130 (3.30) .127 (3.23)	.042 (1.07) .036 (.914)	.068 (1.73) .066 (1.68)	.113 (2.87)	.103 (2.62) .101 (2.57)	.005 (.13)	
353		.0955 (2.43)	.182 (4.62) .179 (4.55)	.042 (1.07) .036 (.914)	.102 (2.59) .098 (2.49)	.161 (4.09)	.151 (3.84) .148 (3.76)	.016 (.41) .005 (.13)	
527		1.021 (25.93)	.1265 (3.21)	.242 (6.15) .238 (6.05)	.052 (1.32) .046 (1.17)	.140 (3.56) .134 (3.40)	.215 (5.46)	.213 (5.41) .207 (5.26)	.016 (.41) .005 (.13)

TABLE 1 – DIMENSIONS (CONTINUED)

BIN CODE	J	K MIN	L MIN	M	N°	P DIA MIN	S
348	626 (15.90) 616 (15.65)	.141 (3.58)	.585 (14.86)	----	50° 44°	.047 (1.19)	.237 (6.02) .231 (5.87)
349		.141 (3.58)		----	50° 44°	.047 (1.19)	
350		.141 (3.58)		----	50° 44°	.047 (1.19)	
351		.209 (5.31)		.078 (1.98) .072 (1.83)	47° 40°	.053 (1.35)	
352		.209 (5.31)		.088 (2.24) .082 (2.08)	47° 40°	.084 (2.13)	
353		.209 (5.31)		.088 (2.24) .082 (2.08)	47° 40°	.118 (2.30)	
527		.385 (9.98) .355 (9.02)		.115 (2.92) .108 (2.74)	N/A 1/ 1/	.146 (3.71) 1/ 1/	.405 (10.29) .395 (10.03)

1/ FULL RADIUS PERMISSIBLE.

TABLE 2 - DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1 ST	2 ND	3 RD				
348	ORANGE	YELLOW	GRAY	22	22D	A	B
349	ORANGE	YELLOW	WHITE	22	22M		
350	ORANGE	GREEN	BLACK	22	22		
351	ORANGE	GREEN	BROWN	20	20		
352	ORANGE	GREEN	RED	16	16		
353	ORANGE	GREEN	ORANGE	12	12		
527	GREEN	RED	VIOLET	10	10		

TABLE 3 – TOOLS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL 1/	REMOVAL TOOL 1/
348	M22520/2-01 M22520/7-01	M22520/2-07 M22520/7-05	M81969/14-01 M81969/8-01	M81969/14-01 M81969/8-02
349	M22520/2-01 M22520/7-01	M22520/2-07 M22520/7-05	M81969/14-01 M81969/8-01	M81969/14-01 M81969/8-02
350	M22520/2-01 M22520/7-01	M22520/2-07 M22520/7-05	M81969/8-03	M81969/8-04
351	M22520/2-01 M22520/7-01 M22520/1-01	M22520/2-10 M22520/7-08 M22520/1-04 (RED)	M81969/14-10 M81969/8-05	M81969/14-10 M81969/8-06
352	M22520/1-01 M22520/7-01	M22520/1-04 (BLUE) M22520/7-04	M81969/14-03 M81969/8-07	M81969/14-03 M81969/8-08
353	M22520/1-01	M22520/1-04 (YELLOW)	M81969/14-04 M81969/8-09	M81969/14-04 M81969/8-10
527	1716P (DANIELS) 2/ AL114 (ASTRO) 2/	POSITIONER BUILT INTO BASIC TOOL	M81969/8-11 M81969/14-05	M81969/8-12 M81969/14-05

1/ SEE APPLICATION NOTE 2.

2/ OR EQUIVALENT

TABLE 4 – PROBE DAMAGE INSERTION DEPTHS

CONTACT SIZE	INSERTION DEPTH (INCHES) +.020 -.000
22, 22M, 22D, 20	.083 - .125 1/
16	.135
12	.166
10	.166

1/ INDICATED DIMENSIONS REPRESENT ½ AND ¼ DEPTHS.

TABLE 5 – PART NUMBER AND BIN CODE

BIN CODE	PART NUMBER	SUPERSEDED PART NUMBER
348	M39029/56-348	MS27490-22D
349 1/	M39029/56-349	MS27490-22M
350 1/	M39029/56-350	MS27490-22
351	M39029/56-351	MS27490-20
352	M39029/56-352	MS27490-16
353	M39029/56-353	MS27490-12
527	M39029/56-527	----

1/ NOT RECOMMENDED FOR NEW DESIGN

TABLE 6 - CONTACT ENGAGEMENT AND SEPARATION FORCES

MATING END SIZE	INITIAL			AFTER CONDITIONING		
	MINIMUM SEPARATION FORCE (OZ)	MAXIMUM AVERAGE ENGAGEMENT FORCE (OZ)	MAXIMUM ENGAGEMENT FORCE (OZ)	MINIMUM SEPARATION FORCE (OZ)	MAXIMUM AVERAGE ENGAGEMENT FORCE (OZ)	MAXIMUM ENGAGEMENT FORCE (OZ)
	MINIMUM DIAMETER MS3197 PIN	MAXIMUM DIAMETER MS3197 PIN	MAXIMUM DIAMETER MS3197 PIN	MINIMUM DIAMETER MS3197 PIN	MAXIMUM DIAMETER MS3197 PIN	MAXIMUM DIAMETER MS3197 PIN
10	4	N/A	60	3	N/A	72