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REV.
C

AS39029™/12

RATIONALE

LIMITED SCOPE REVISION IS REQUIRED TO CORRECT THE DOCUMENT FEDERAL SUPPLY CLASS (FSC) NUMBER; IT SHOULD BE 5999 RATHER THAN 5935.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS39029.

FEDERAL SUPPLY CLASS
5999

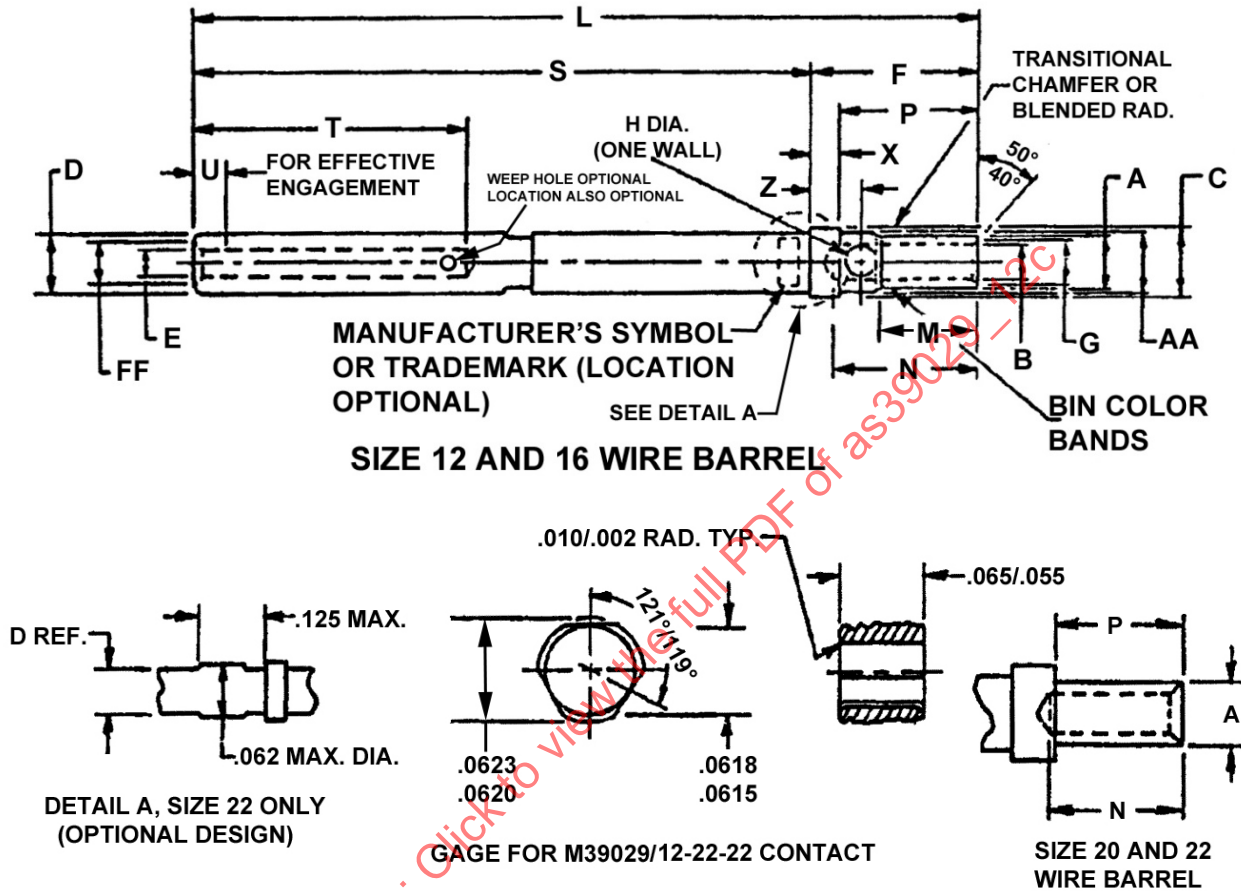
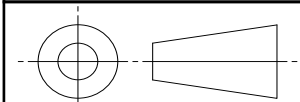


FIGURE 1 - SOCKET CONTACT

For more information on this standard, visit
<https://www.sae.org/standards/content/AS39029/12C/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR,
SOCKET, CRIMP REMOVABLE
(FOR AS181659 SERIES 2 CONNECTORS)

AS39029™/12
SHEET 1 OF 4

REV.
C

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ISSUED 2001-03 REVISED 2021-11

TABLE 1 - FIGURE 1 METRIC EQUIVALENTS

INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS
.002	0.05	.055	1.40	.0618	1.57	.0620	1.57	.065	1.65
.010	0.25	.0615	1.56	.062	1.57	.0623	1.58	.125	3.18

TABLE 2 - DIMENSIONS

BIN CODE	A DIA	B DIA	C DIA	D DIA	E DIA MIN	F	G DIA	H DIA	L (REF)
148 (22-22)	.052 (1.32) .050 (1.27)	.0375 (0.953) .0340 (0.864)	.070 (1.78) .068 (1.73)	.061 (1.55) .059 (1.50)	.031 (0.787)	.271 (6.88) .260 (6.60)	.047 (1.19) .041 (1.04)	.022 (0.559) .018 (0.457)	.650 (16.51) .630 (16.00)
149 (20-20)	.068 (1.73) .065 (1.65)	.0460 (1.17) .0430 (1.09)	.084 (2.13) .082 (2.08)	.074 (1.88) .068 (1.73)	.0415 (1.05)	.199 (5.05) .184 (4.67)	.058 (1.47) .052 (1.32)	.033 (0.838) .025 (0.635)	.918 (23.32) .898 (22.81)
150 (16-16)	.103 (2.62) .101 (2.57)	.068 (1.73) .066 (1.68)	.134 (3.40) .130 (3.30)	.113 (2.87) .110 (2.79)	.064 (1.63)	.305 (7.75) .289 (7.34)	.090 (2.29) .080 (2.03)	.042 (1.07) .036 (0.914)	.982 (24.94) .952 (24.18)
151 (12-12)	.151 (3.84) .148 (3.76)	.102 (2.59) .098 (2.49)	.190 (4.83) .186 (4.72)	.161 (4.09) .158 (4.01)	.0955 (2.43)	.305 (7.75) .289 (7.34)	.140 (3.56) .130 (3.30)	.042 (1.07) .036 (0.914)	.982 (24.94) .952 (24.18)

TABLE 2 - DIMENSIONS (CONTINUED)

BIN CODE	M MIN	N	P	S	T MIN	U MAX	X	Z	AA DIA	FF MIN
148 (22-22)	N/A	.165 (4.19) .135 (3.43)	.237 (6.02) .231 (5.87)	.379 (9.63) .370 (9.40)	.200	.043	.034 (0.864) .029 (0.737)	.161 (4.09) .132 (3.35)	N/A	.043 (1.09)
149 (20-20)	N/A	.190 (4.83) .150 (3.81)	.165 (4.19) .155 (3.94)	.719 (18.26) .714 (18.14)	.325	.041	.034 (0.864) .029 (0.737)	.069 (1.75) .054 (1.37)	N/A	.056 (1.42)
150 (16-16)	.150 (3.81)	.290 (7.37) .250 (6.35)	.257 (6.53) .245 (6.22)	.677 (17.20) .653 (16.59)	.468	.060	.048 (1.22) .044 (1.12)	.083 (2.11) .069 (1.75)	.111 (2.82) .107 (2.72)	.086 (2.18)
151 (12-12)	.150 (3.81)	.290 (7.37) .250 (6.35)	.257 (6.53) .245 (6.22)	.677 (17.20) .653 (16.59)	.468	.060	.048 (1.22) .044 (1.12)	.083 (2.11) .069 (1.75)	.158 (4.01) .155 (3.94)	.116 (2.95)

TABLE 3 - DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1 ST	2 ND	3 RD				
148	BROWN	YELLOW	GRAY	22	22	A	B
149	BROWN	YELLOW	WHITE	20	20		
150	BROWN	GREEN	BLACK	16	16		
151	BROWN	GREEN	BROWN	12	12		

TABLE 4 - TOOLS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL
148	M22520/2-01	M22520/2-23	M81969/1-01 M81969/14-09	M81969/1-01 M81969/14-09
149	M22520/2-01 M22520/7-01	M22520/2-08 M22520/7-02	M81969/1-02 M81969/14-11	M81969/1-02 M81969/14-11
150	M22520/1-01 M22520/7-01	M22520/1-02 (BLUE) M22520/7-03	M81969/1-03 M81969/14-03	M81969/1-03 M81969/14-03
151	M22520/1-01	M22520/1-11	M81969/14-04	M81969/28-02 M81969/14-04

TABLE 5 - PART NUMBER

BIN CODE	PART NUMBER	SUPERSEDED PART NUMBER
148	M39029/12-148	M39029/12-22-22
149	M39029/12-149	M39029/12-20-20
150	M39029/12-150	M39029/12-16-16
151	M39029/12-151	M39029/12-12-12

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS39029.

1. DESIGN:

CONTACTS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1 AND TABLES 2 AND 3. DIMENSIONS ARE IN INCHES AND APPLY AFTER PLATING. METRIC EQUIVALENTS ARE IN PARENTHESES, ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1 INCH = 25.4 MM. A MATING END WEEP HOLE IS OPTIONAL IF NEEDED, THE WEEP HOLE LOCATION IS ALSO OPTIONAL. AN ALTERNATE DESIGN OF THE WIRE BARREL LEAD-IN ANGLE SHALL BE AS FOLLOWS:

SIZE 22 - BLEND RADIUS .010 INCHES ± .005 INCHES.
 SIZE 20 - BLEND RADIUS .015 INCHES ± .005 INCHES.
 SIZE 16 - BLEND RADIUS .020 INCHES ± 0.005 INCHES
 SIZE 12 - BLEND RADIUS .020 INCHES ± .010 INCHES.

2. TOOLS:

TOOLS REQUIRED FOR CRIMPING CONTACTS TO THE WIRE/CABLE AND THE INSTALLING/REMOVAL FROM THE CONNECTOR SHALL BE IN ACCORDANCE WITH TABLE 4.

3. PART NUMBERS:

CONTACT PART NUMBERS SHALL BE IN ACCORDANCE WITH TABLE 5. SUPERSEDED PART NUMBERS ARE AS SPECIFIED.

4. MATERIALS:

MATERIALS SHALL BE IN ACCORDANCE WITH AS39029.

5. MECHANICAL:

MECHANICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

CONTACT ENGAGEMENT AND SEPARATION FORCES: FOR M39029/12-148, WITH A MINIMUM DIAMETER AS31971 PIN, IT SHALL BE .5 OUNCE.

6. ELECTRICAL:

ELECTRICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

LOW SIGNAL LEVEL CONTACT RESISTANCE: THE MATING DEPTH SHALL BE .150 INCH.

	AEROSPACE STANDARD	AS39029™/12 SHEET 3 OF 4	REV. C
	CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR AS81659 SERIES 2 CONNECTORS)		