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REV.
C

AS39029™/11

FEDERAL SUPPLY CLASS
5999

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.

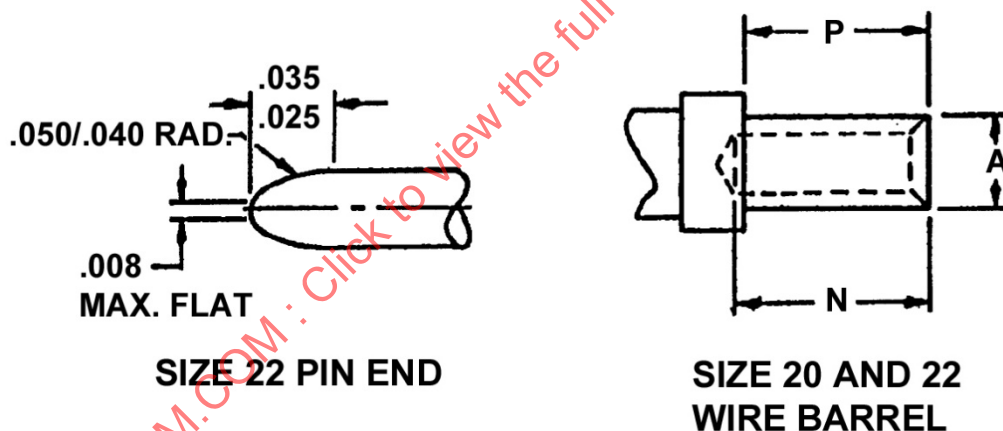
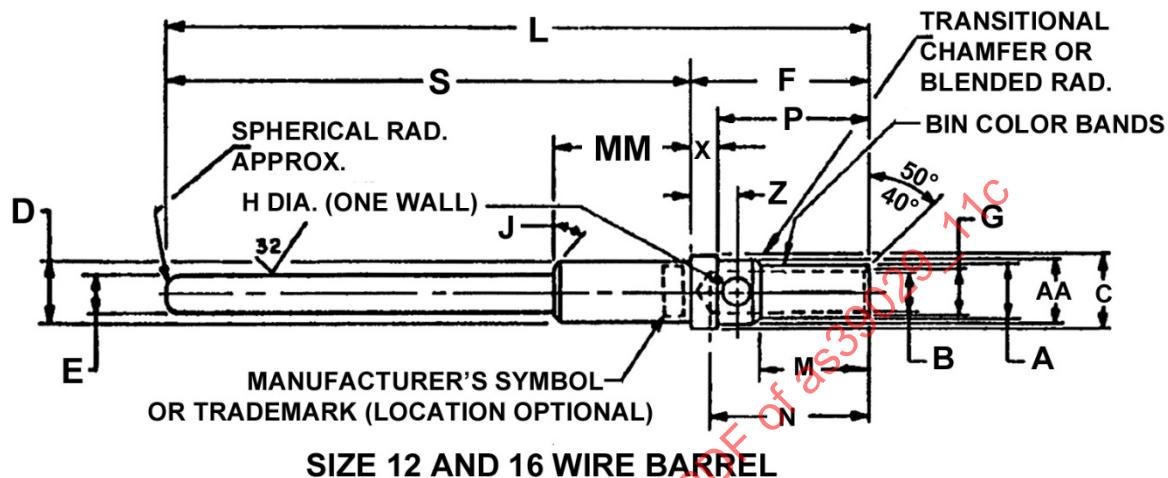
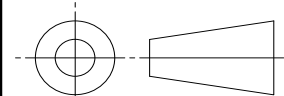


FIGURE 1 - PIN CONTACT CONFIGURATION/DIMENSIONS

For more information on this standard, visit
<https://www.sae.org/standards/content/AS39029/11C>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR,
PIN, CRIMP REMOVABLE
(FOR AS81659 SERIES 2 CONNECTORS)

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TABLE 1 - FIGURE 1 METRIC EQUIVALENTS

INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS
.008	0.20	.035	0.89	.050	1.27
.025	0.64	.040	1.02		

TABLE 2 - DIMENSIONS

BIN CODE	A DIA	B DIA	C DIA	D DIA	E DIA	F	G DIA	H DIA	J (DEG)	L (REF)
144 (22-22)	.052	.0375	.070	.050	.031	.271	.047	.022	-----	.665
	(1.32)	(.953)	(1.78)	(1.27)	(.787)	(6.88)	(1.19)	(.559)		(16.89)
	.050	.0340	.068	.047	.029	.260	.041	.018		.645
145 (20-20)	(1.27)	(.864)	(1.73)	(1.19)	(.737)	(6.60)	(1.04)	(.457)		(16.38)
	.068	.0460	.084	.072	.041	.199	.058	.033	50	.790
	(1.73)	(1.17)	(2.13)	(1.83)	(1.04)	(5.05)	(1.47)	(.838)		(20.07)
146 (16-16)	.065	.0430	.082	.069	.039	.184	.052	.025	40	.770
	(1.65)	(1.09)	(2.08)	(1.75)	(.991)	(4.67)	(1.32)	(.635)		(19.56)
	.103	.068	.134	.113	.0635	.305	.090	.042	35	1.014
147 (12-12)	(2.62)	(1.73)	(3.40)	(2.87)	(1.61)	(7.75)	(2.29)	(1.07)		(25.76)
	.101	.066	.130	.110	.0615	.289	.080	.036	25	.994
	(2.57)	(1.68)	(3.30)	(2.79)	(1.56)	(7.34)	(2.03)	(.914)		(25.25)
147 (12-12)	.151	.102	.190	.151	.095	.305	.140	.042	35	1.017
	(3.84)	(2.59)	(4.83)	(3.84)	(2.41)	(7.75)	(3.56)	(1.07)		(25.83)
	.148	.098	.186	.148	.093	.289	.130	.036	25	.996
	(3.76)	(2.49)	(4.72)	(3.76)	(2.36)	(7.34)	(3.30)	(.914)		(25.30)

TABLE 2 - DIMENSIONS (CONTINUED)

BIN CODE	M MIN	N	P (REF)	S	X	Z	AA DIA	MM
144 (22-22)	N/A	.165	.237	.394	.034	.161	N/A	.105
		(4.19)	(6.02)	(10.01)	(.864)	(4.09)		(2.67)
		.135	.231	.385	.029	.132		.095
145 (20-20)	N/A	(3.43)	(5.87)	(9.78)	(.737)	(3.35)		(2.41)
		.190	.165	.591	.034	.069	N/A	.146
		(4.83)	(4.19)	(15.01)	(.864)	(1.75)		(3.71)
146 (16-16)	.150 (3.81)	.150	.155	.586	.029	.054		.140
		(3.81)	(3.94)	(14.88)	(.737)	(1.37)		(3.56)
		.290	.257	.715	.048	.083	.111 (2.82)	.195
147 (12-12)	.150 (3.81)	(7.37)	(6.53)	(18.16)	(1.22)	(2.11)		(4.95)
		.250	.245	.705	.044	.069		.175
		(6.35)	(6.22)	(17.91)	(1.12)	(1.75)	(2.72)	(4.45)
147 (12-12)	.150 (3.81)	.290	.257	.715	.048	.083	.158 (4.01)	.195
		(7.37)	(6.53)	(18.16)	(1.22)	(2.11)		(4.95)
		.250	.245	.705	.044	.069		.180
		(6.35)	(6.22)	(17.91)	(1.12)	(1.75)	(3.94)	(4.57)

TABLE 3 - DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1 ST	2 ND	3 RD				
144	BROWN	YELLOW	YELLOW	22	22	A	B
145	BROWN	YELLOW	GREEN	20	20		
146	BROWN	YELLOW	BLUE	16	16		
147	BROWN	YELLOW	VIOLET	12	12		



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TABLE 4 - TOOLS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL
144	M22520/2-01	M22520/2-23	M81969/1-01 M81969/14-09	M81969/1-01 M81969/14-09
145	M22520/2-01 M22520/7-01	M22520/2-08 M22520/7-02	M81969/1-02 M81969/14-11	M81969/1-02 M81969/14-11
146	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
147	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
144	M39029/11-144	M39029/11-22-22
145	M39029/11-145	M39029/11-20-20
146	M39029/11-146	M39029/11-16-16
147	M39029/11-147	M39029/11-12-12

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 MILLIMETERS. SPHERICAL END DIMENSIONS SHALL CONFORM TO AS39029. 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 ±.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 STRENGTH: THE BENDING MOMENT OF M39029/11-144 SHALL BE .23 LB-IN.

6. ELECTRICAL:

ELECTRICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

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

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