

REV.
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AS39029™/11

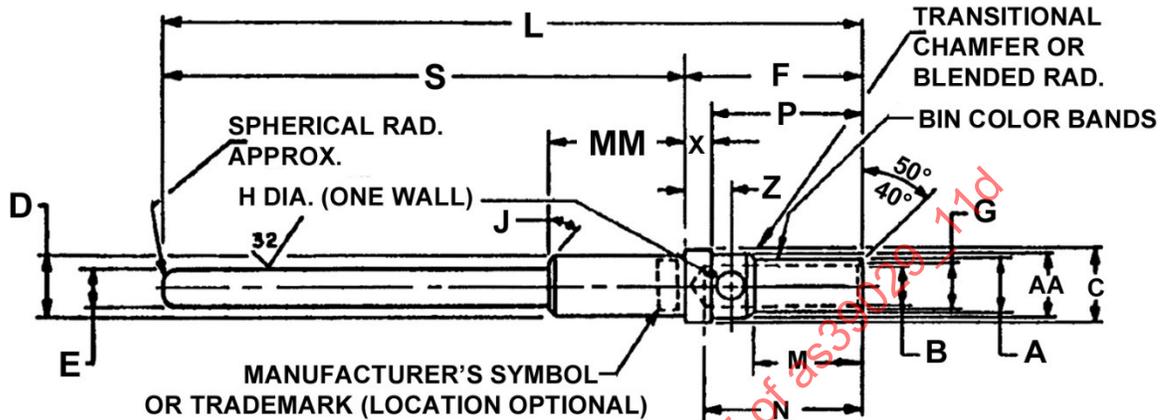
FEDERAL SUPPLY CLASS
5999

RATIONALE

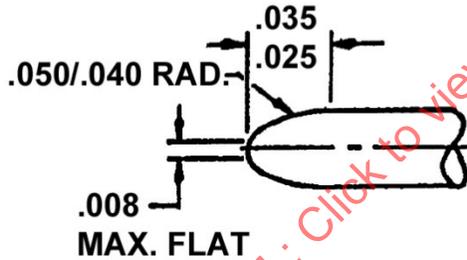
LIMITED SCOPE REVISION REQUIRED TO CHANGE THE AS39029/11-145 BIN CODE TOOL POSITIONER FROM AS22520/7-02 TO -14 IN TABLE 4.

NOTICE

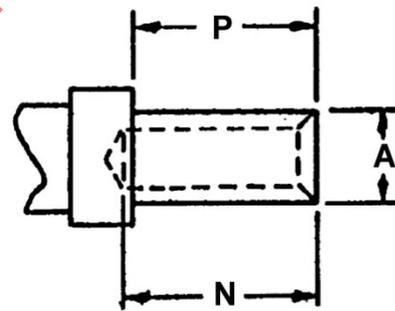
THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS39029.



SIZE 12 AND 16 WIRE BARREL



SIZE 22 PIN END

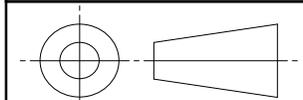


SIZE 20 AND 22 WIRE BARREL

FIGURE 1 - PIN CONTACT CONFIGURATION/DIMENSIONS

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

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

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

AS39029™/11
SHEET 1 OF 4

REV.
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ISSUED 2001-03 REVISED 2024-04

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 (1.32)	.0375 (0.953)	.070 (1.78)	.050 (1.27)	.031 (0.787)	.271 (6.88)	.047 (1.19)	.022 (0.559)	--	.665 (16.89)
	.050 (1.27)	.0340 (0.864)	.068 (1.73)	.047 (1.19)	.029 (0.737)	.260 (6.60)	.041 (1.04)	.018 (0.457)		.645 (16.38)
	.068 (1.73)	.0460 (1.17)	.084 (2.13)	.072 (1.83)	.041 (1.04)	.199 (5.05)	.058 (1.47)	.033 (0.838)		.790 (20.07)
145 (20-20)	.065 (1.65)	.0430 (1.09)	.082 (2.08)	.069 (1.75)	.039 (0.991)	.184 (4.67)	.052 (1.32)	.025 (0.635)	50 40	.770 (19.56)
	.103 (2.62)	.068 (1.73)	.134 (3.40)	.113 (2.87)	.0635 (1.61)	.305 (7.75)	.090 (2.29)	.042 (1.07)	35 25	1.014 (25.76)
	.101 (2.57)	.066 (1.68)	.130 (3.30)	.110 (2.79)	.0615 (1.56)	.289 (7.34)	.080 (2.03)	.036 (0.914)		.994 (25.25)
.151 (3.84)	.102 (2.59)	.190 (4.83)	.151 (3.84)	.095 (2.41)	.305 (7.75)	.140 (3.56)	.042 (1.07)	1.017 (25.83)		
147 (12-12)	.148 (3.76)	.098 (2.49)	.186 (4.72)	.148 (3.76)	.093 (2.36)	.289 (7.34)	.130 (3.30)	.036 (0.914)	35 25	.996 (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 (4.19)	.237 (6.02)	.394 (10.01)	.034 (0.864)	.161 (4.09)	N/A	.105 (2.67)
		.135 (3.43)	.231 (5.87)	.385 (9.78)	.029 (0.737)	.132 (3.35)		.095 (2.41)
		.190 (4.83)	.165 (4.19)	.591 (15.01)	.034 (0.864)	.069 (1.75)		.146 (3.71)
145 (20-20)	N/A	.150 (3.81)	.155 (3.94)	.586 (14.88)	.029 (0.737)	.054 (1.37)	N/A	.140 (3.56)
		.290 (7.37)	.257 (6.53)	.715 (18.16)	.048 (1.22)	.083 (2.11)		.195 (4.95)
		.250 (6.35)	.245 (6.22)	.705 (17.91)	.044 (1.12)	.069 (1.75)		.175 (4.45)
146 (16-16)	.150 (3.81)	.290 (7.37)	.257 (6.53)	.715 (18.16)	.048 (1.22)	.083 (2.11)	.111 (2.82)	.195 (4.95)
		.250 (6.35)	.245 (6.22)	.705 (17.91)	.044 (1.12)	.069 (1.75)	.107 (2.72)	.175 (4.45)
		.290 (7.37)	.257 (6.53)	.715 (18.16)	.048 (1.22)	.083 (2.11)	.111 (2.82)	.195 (4.95)
147 (12-12)	.150 (3.81)	.250 (6.35)	.245 (6.22)	.705 (17.91)	.044 (1.12)	.069 (1.75)	.158 (4.01)	.180 (4.57)
		.290 (7.37)	.257 (6.53)	.715 (18.16)	.048 (1.22)	.083 (2.11)	.111 (2.82)	.195 (4.95)
		.250 (6.35)	.245 (6.22)	.705 (17.91)	.044 (1.12)	.069 (1.75)	.155 (3.94)	.180 (4.57)

TABLE 3 - DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1ST	2ND	3RD				
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		

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 M22520/7-14	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 IN PARENTHESES ARE FOR GENERAL INFORMATION ONLY AND ARE BASED ON 1 INCH = 25.4 MM. 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 INCH ± .005 INCH.
- SIZE 20 - BLEND RADIUS .015 INCH ± .005 INCH.
- SIZE 16 - BLEND RADIUS .020 INCH ± .005 INCH.
- SIZE 12 - BLEND RADIUS .020 INCH ± .010 INCH.

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.

	AEROSPACE STANDARD	AS39029™/11 SHEET 3 OF 4	REV. D
	CONTACTS, ELECTRICAL CONNECTOR, PIN, CRIMP REMOVABLE (FOR AS81659 SERIES 2 CONNECTORS)		