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**REV. C**  
**AS39029™/16**

FEDERAL SUPPLY CLASS  
5935

**RATIONALE**

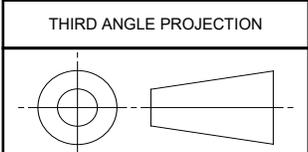
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CUSTODIAN: AE-8C1		PROCUREMENT SPECIFICATION: AS39029	
	<b>AEROSPACE STANDARD</b>		<b>AS39029™/16</b>
	CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR AS81511 SERIES 4 CONNECTORS)		

ISSUED 2001-03 REVISED 2014-10 REAFFIRMED 2019-12 STABILIZED 2025-02

NOTICE

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

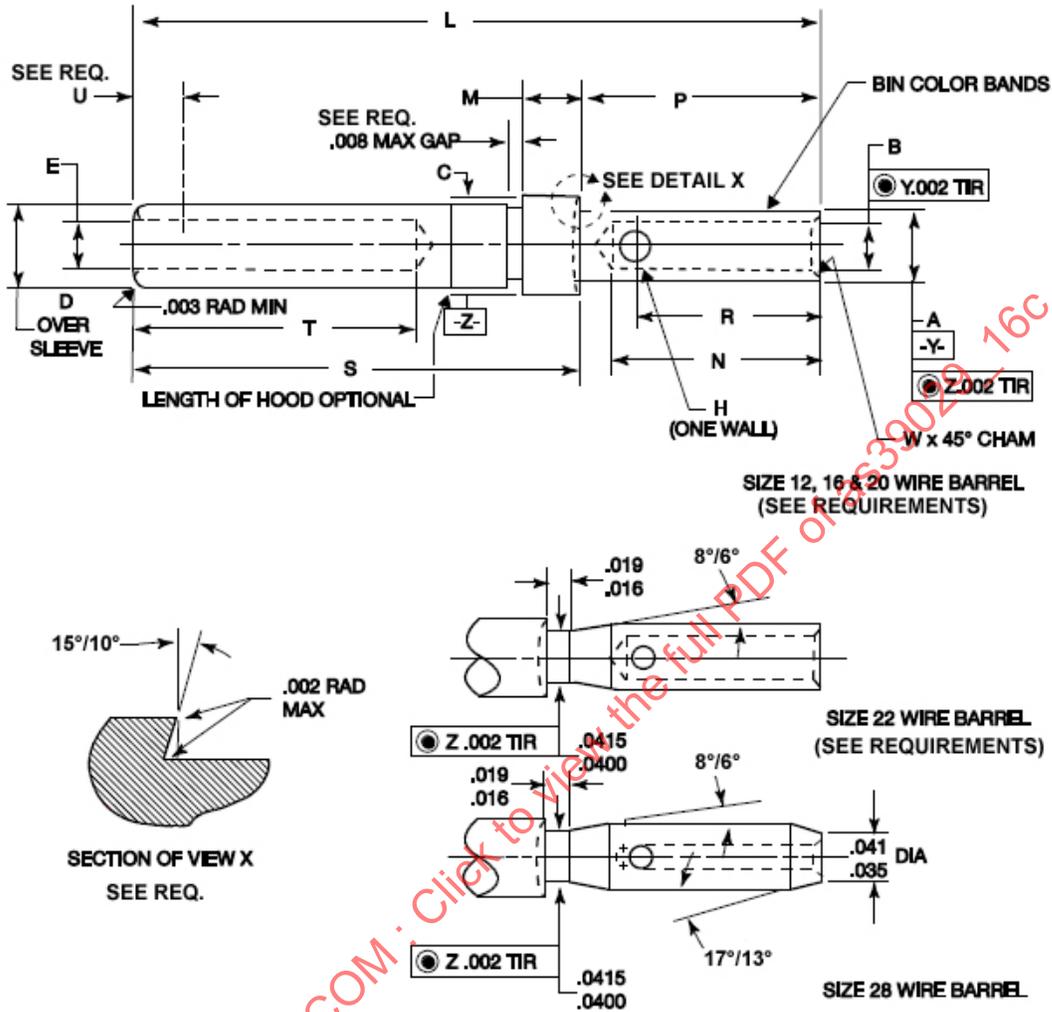


FIGURE 1 – SOCKET CONFIGURATION AND DIMENSIONS

	<b>AEROSPACE STANDARD</b> CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR AS81511 SERIES 4 CONNECTORS)	<b>AS39029™/16</b> SHEET 1 OF 4	<b>REV.</b> <b>C</b>

TABLE 1 – FIGURE 1 DIMENSIONS

BIN CODE	A DIA	B DIA	C DIA	D MAX DIA	E MIN DIA ONLY	H DIA	L (REF)	M
166	.0480 (1.219)	.0200 (0.508) .0180 (0.457)	.0555 (1.41) .0540 (1.37)	.055 (1.397)	.0280 (0.7112)	.022 (0.5588) .018 (0.4572)	.607 (15.42)	.115 (2.92) .095 (2.41)
167	.0465 (1.181)	.0355 (0.9017) .0335 (0.8509)	.0555 (1.41) .0540 (1.37)					.065 (1.65) .045 (1.14)
168	.0615 (1.562) .0600 (1.524)	.0450 (1.143) .0430 (1.092)	.0760 (1.93) .0745 (1.89)	.076 (1.930)	.0415 (1.054)	.027 (0.6858) .023 (0.5842)	.607 (15.42)	.065 (1.65) .045 (1.14)
169	.0925 (2.350) .0910 (2.311)	.0645 (1.638) .0625 (1.588)	.1080 (2.74) .1065 (2.71)	.108 (2.743)	.0640 (1.626)			.607 (15.42)
170	.1515 (3.848) .1500 (3.810)	.1020 (2.591) .0980 (2.489)	.1695 (4.31) .1680 (4.27)	.169 (4.293)	.0955 (2.426)	.042 (1.067) .038 (0.9652)	.624 (15.85)	

TABLE 1A – FIGURE 1 DIMENSIONS

BIN CODE	N	P	R	S	T	U MAX	W CHAM
166	.155 (3.937)		.145 (3.683)		.250 (6.350)	.038 (0.9652)	.006 (0.1524)
167	.145 (3.683)		.139 (3.531)		.190 (4.826)		.003 (0.0762)
168	.195 (4.953)	.218 (5.537) .208 (5.283)	.165 (4.191)	.396 (10.058) .392 (9.957)	.360 (9.144)	.045 (1.143)	.007 (0.1778) .004 (0.1016)
169	.185 (4.699)		.159 (4.039)	.270 (6.858)	.010 (0.2540) .006 (0.1524)		
170	.232 (5.893) .216 (5.486)	.245 (6.223) .235 (5.969)	.196 (4.978) .190 (4.826)	.386 (9.804) .382 (9.703)	.360 (9.144) .250 (6.350)	.050 (1.270)	.012 (0.3048) .006 (0.1524)

TABLE 2 - MARKING AND DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1 <sup>ST</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>				
166	BROWN	BLUE	BLUE	23	28	A	B
167	BROWN	BLUE	VIOLET	23	22		
168	BROWN	BLUE	GRAY	20	20		
169	BROWN	BLUE	WHITE	16	16		
170	BROWN	VIOLET	BLACK	12	12		

TABLE 3 - TOOL REQUIREMENTS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL	
				WIRED CONTACT	UNWIRED CONTACT
166	M22520/2-01	M22520/2-13	M81969/16-04	M81969/16-04	M81969/30-01
167	M22520/2-01	M22520/2-13	M81969/16-04	M81969/16-04	M81969/30-01
168	M22520/2-01	M22520/2-14	M81969/16-01	M81969/16-01	M81969/30-02
169	M22520/2-01	M22520/2-15	M81969/16-02	M81969/16-02	M81969/30-03
170	M22520/1-01	M22520/1-09	M81969/16-03	M81969/16-03	M81969/30-04

TABLE 4 - PART NUMBERS

AS39029 PART NUMBER	BIN CODE	SUPERSEDED PART NUMBER(S)
M39029/16-166	166	M39029/16-23-28
M39029/16-167	167	M39029/16-23-22
M39029/16-168	168	M39029/16-20-20
M39029/16-169	169	M39029/16-16-16
M39029/16-170	170	M39029/16-12-12

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

1. DESIGN:

CONTACT SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1 AND TABLES 1 AND 2. DIMENSIONS ARE IN INCHES AND SHOWN AFTER PLATING. UNLESS OTHERWISE SPECIFIED, SPHERICAL END DIMENSIONS SHALL CONFORM TO AS39029. ALL DIMENSIONS PROVIDED IN PARENTHESES ARE METRIC EQUIVALENTS AND GIVEN FOR GENERAL INFORMATION ONLY. DIMENSION "U" IS THE POINT AT WHICH A SQUARE ENDED PIN OF THE SAME BASIC DIAMETER AS THE MATING CONTACT FIRST ENGAGES THE SOCKET CONTACT SPRING. THERE SHALL BE A MAXIMUM GAP OF .008 INCHES BETWEEN THE HOOD AND BODY OF THE CONTACT. A .002 INCH MAXIMUM BURR IS PERMITTED ON THE PERIPHERY OF SHOULDER NOTED (SEE VIEW X). 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

2. TOOLS:

TOOLS REQUIRED FOR CRIMPING CONTACTS TO WIRE/CABLE AND THE INSTALLING/REMOVAL FROM THE CONNECTOR SHALL BE IN ACCORDANCE WITH TABLE 3.

3. PART NUMBERS:

CONTACT PART NUMBERS SHALL BE IN ACCORDANCE WITH TABLE 4. 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.

	<b>AEROSPACE STANDARD</b> CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR AS81511 SERIES 4 CONNECTORS)	<b>AS39029™/16</b> SHEET 3 OF 4	<b>REV.</b> <b>C</b>