

RATIONALE

REVISE TO INCLUDE COMMENTS RECEIVED BY THE GOVERNMENT AND INDUSTRY SINCE 1988, INCORPORATES VARIOUS AMENDMENTS, REMOVE GOVERNMENT JARGON AS A RESULT OF THE WORD-FOR-WORD TRANSFERENCE OF AS39029 TO SAE, UPDATE SPECIFICATION REFERENCES, ALIGN SPECIFICATIONS WITH SAE GUIDELINES AS NEEDED, AND REVIEW SPECIFICATIONS 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.

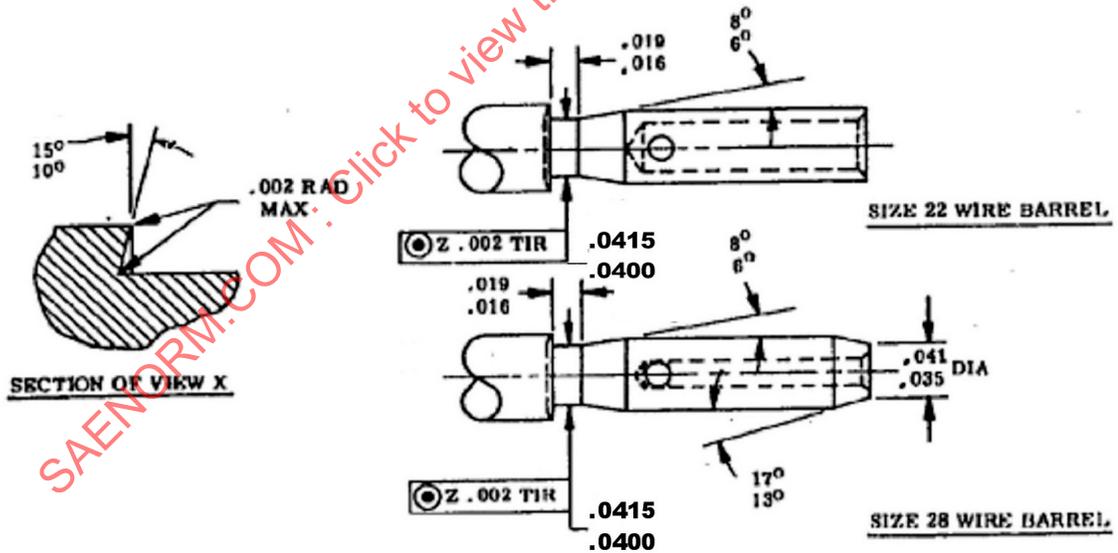
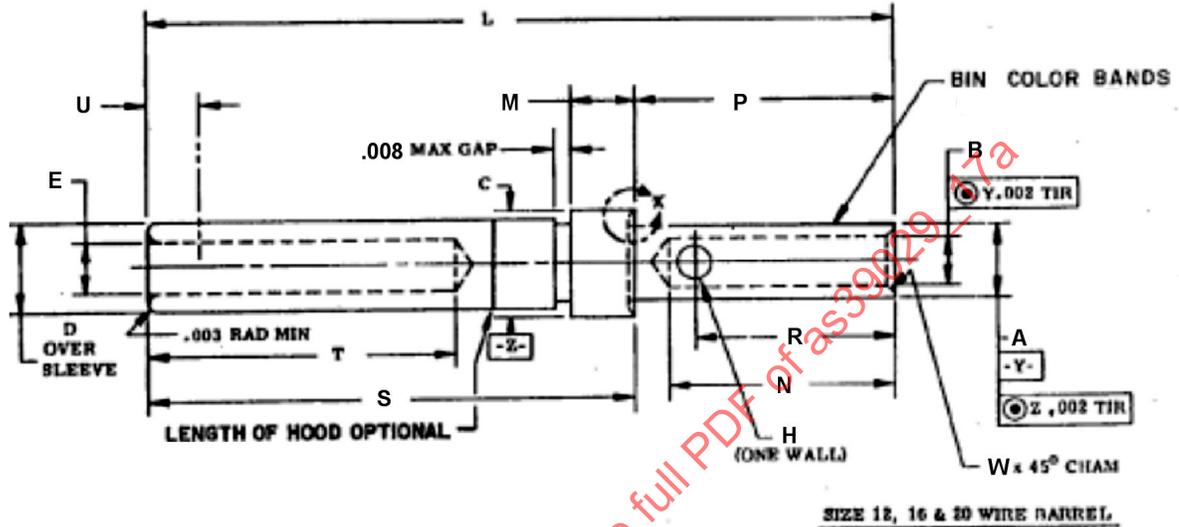
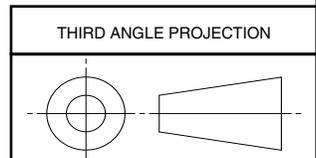


FIGURE 1 - AS39029/17 SOCKET



CUSTODIAN: SAE AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD
(R) CONTACTS, ELECTRICAL CONNECTOR,
SOCKET, CRIMP REMOVABLE
(FOR MIL-C-81511 SERIES 3 CONNECTORS)

SAE AS39029/17A
SHEET 1 OF 4

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TABLE 1 - CONTACT DIMENSIONS

BIN CODE	A DIA	B DIA	C DIA	D MAX DIA	E MIN DIA ONLY	H DIA	L (REF)	M	N	P	R	S	T	U MAX	W CHAM
171	.0480 .0465	.0200 .0180	.0555 (1.41) .0540 (1.37)	.055	.028	.022 .018	.937 (23.80)	.445 .425	.155 .145	.218 .208	.145 .139	.726 .716	.250 .190	.038	.006 .003
172	.0480 .0465	.0355 .0335	.0555 (1.41) .0540 (1.37)	.055	.028	.022 .018	.937 (23.80)	.445 .425	.155 .145	.218 .208	.145 .139	.726 .716	.250 .190	.038	.006 .003
173	.0615 .0600	.0450 .0430	.0760 (1.93) .0745 (1.89)	.076	.0415	.027 .023	.937 (23.80)	.395 .375	.195 .185	.218 .208	.165 .159	.726 .716	.360 .270	.045	.007 .004
174	.0925 .0910	.0645 .0625	.1080 (2.74) .1065 (2.71)	.108	.064	.027 .023	.937 (23.80)	.370 .350	.195 .185	.218 .208	.165 .159	.726 .716	.360 .270	.045	.010 .006
175	.1515 .1500	.1020 .0980	.1695 (4.31) .1680 (4.27)	.169	.0955	.042 .038	.954 (24.23)	.370 .350	.232 .216	.245 .235	.196 .190	.726 .716	.360 .250	.050	.012 .006

TABLE 2 - MARKING AND DESIGN CHARACTERISTICS

BIN code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st	2nd	3rd				
171	Brown	Violet	Brown	23	28	A	B
172	Brown	Violet	Red	23	22		
173	Brown	Violet	Orange	20	20		
174	Brown	Violet	Yellow	16	16		
175	Brown	Violet	Green	12	12		

TABLE 3 - TOOL REQUIREMENTS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL	
				WIRED CONTACT	UNWIRED CONTACT
171	M22520/2-01	M22520/2-13	M81969/16-04	M81969/16-04	M81969/30-01
172	M22520/2-01	M22520/2-13	M81969/16-04	M81969/16-04	M81969/30-01
173	M22520/2-01	M22520/2-14	M81969/16-01	M81969/16-01	M81969/30-02
174	M22520/2-01	M22520/2-15	M81969/16-02	M81969/16-02	M81969/30-03
175	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)
M39029/17-171	171	M39029/17-23-28
M39029/17-172	172	M39029/17-23-22
M39029/17-173	173	M39029/17-20-20
M39029/17-174	174	M39029/17-16-16
M39029/17-175	175	M39029/17-12-12

DETAIL SPECIFICATION REQUIREMENTS:

1. DESIGN:

CONTACT SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1, TABLE 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 (SEE AS39029 SECTION 6). DIMENSION "U" IS THE POINT OF INITIAL ENGAGEMENT. THERE SHALL BE A MAXIMUM GAP OF .008 INCHES BETWEEN THE HOOD AND BODY OF THE CONTACT. A 0.002 IN. MAXIMUM BURR IS PERMITTED ON THE PERIPHERY OF SHOULDER NOTED (SEE VIEW X).

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.

6. ELECTRICAL:

ELECTRICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

7. ENVIRONMENTAL:

ENVIRONMENTAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

VIBRATION SHALL BE IN ACCORDANCE WITH EIA-364-28 TEST CONDITION IV WITH A TEMPERATURE CYCLE IN ACCORDANCE WITH TEST CONDITION I. TEST THE CONTACT IN THE HIGHEST TEMPERATURE RATED, MIL-C-81511 CONNECTOR SERIES. THE MINIMUM TEMPERATURE SHALL BE -65 (+0, -3) °C. THE DURATION OF TIME AT THE TEMPERATURE'S STEPS 1 AND 3 SHALL BE 25% OF THE TIME DETERMINED BY THE SPECIFIED CONNECTOR MASS. THERE SHALL BE A MINIMUM OF 10% OR NOT LESS THAN THREE MATED CONTACTS WIRED IN SERIES. THE CONTACT RESISTANCE SHALL NOT INCREASE MORE THAN 5 OHMS DURING 1 MICROSECOND.

SHOCK SHALL BE IN ACCORDANCE WITH EIA-364-27 TEST CONDITION A. PERFORM ONE SHOCK IN EACH AXIS. THERE SHALL BE A MINIMUM OF 10% OR NOT LESS THAN THREE MATED CONTACTS WIRED IN SERIES. THE CONTACT RESISTANCE SHALL NOT EXCEED 5 OHMS IN 1 MICROSECOND.

 An SAE International Group	AEROSPACE STANDARD	 AS39029/17A SHEET 3 OF 4
	(R) CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR MIL-C-81511 SERIES 3 CONNECTORS)	