

LIMITED SCOPE REVISION NEEDED TO ADD NEW CRIMP TOOLS AND MINOR EDITING AS NEEDED.

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

THIS DETAIL SPECIFICATION SPECIFIES LOWER PERFORMANCE REQUIREMENTS THAN THE APPLICABLE MIL-DTL-38999 SERIES I, III, AND IV CONNECTORS (SEE APPLICATION NOTES).

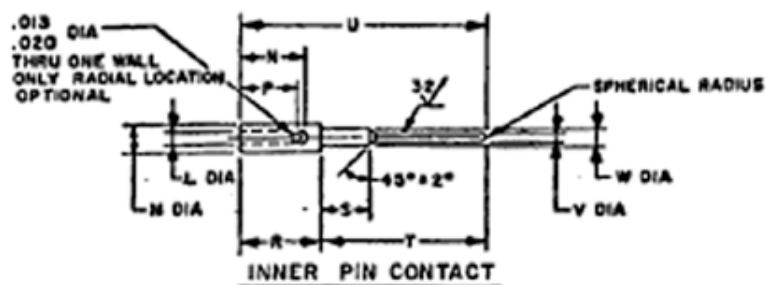
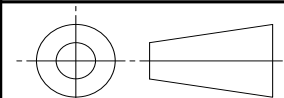


FIGURE 1 - SOCKET CONTACTS

<https://www.sae.org/standards/content/AS39029/77D>

THIRD ANGLE PROJECTION



PROCUREMENT SPECIFICATION: AS39029



CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP
REMOVABLE, SHIELDED, SIZE 16
(FOR MIL-DTL-38999 SERIES I, III, AND IV CONNECTORS)

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TABLE 1A - CONTACT DIMENSIONS

BIN CODE	A DIA MAX	B DIA	C DIA	D DIA MIN	E DIA	F DIA	G DIA MAX	H DIA MIN	J DIA MAX	K	L DIA MIN
428	.113 (2.87)	.068 (1.73) .065 (1.65)	.089 (2.26) .084 (2.13)	.0670 (1.70)	.103 (2.62) .101 (2.57)	.130 (3.30) .127 (3.23)	.108 (2.74)	.105 (2.67)	.120 (3.05)	.105 (2.67) .095 (2.41)	.0210 (0.53)
429				.0575 (1.46)				.094 (2.39)			.0210 (0.53)
430				.0670 (1.70)				.105 (2.67)			.0355 (0.90)
431				.0575 (1.46)				.094 (2.39)			.0270 (0.69)

TABLE 1B - CONTACT DIMENSIONS (CONTINUED)

BIN CODE	M DIA MAX	N MIN	P	R	S	T	U REF	V DIA	W DIA	X	Z DIA MAX
428	.046 (1.17)	.103 (2.62)	.094 (2.39) .087 (2.21)	.125 (3.18) .119 (3.02)	.079 (2.01) .073 (1.85)	.269 (6.83) .266 (6.76)	.3895 (9.89)	.0155 (0.39) .0145 (0.37)	.030 (0.76) .028 (0.71)	.611 (15.52) .601 (15.27)	.085 (2.16)
429	.046 (1.17)										.076 (1.93)
430	.052 (1.32)										.085 (2.16)
431	.046 (1.17)										.076 (1.93)

TABLE 2 - MARKING AND DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			CABLE ACCOMMODATED	CONTACT CAVITY SIZE	TYPE	CLASS
	1 ST	2 ND	3 RD				
428	YELLOW	RED	GRAY	M17/119-RG174 3/ M17/113-RG316 M17/094-RG179	16	D	B
429	YELLOW	RED	WHITE	M17/093-RG178			
430 1/	YELLOW	ORANGE	BLACK	2/			
431 1/	YELLOW	ORANGE	BROWN	2/			

1/ CONTACT NOT RECOMMENDED FOR USE.

2/ NO KNOWN STANDARD CABLE EXISTS TO REPLACE THE PREVIOUSLY RECOMMENDED COMMERCIAL CABLES OR THE CABLES ARE NO LONGER MANUFACTURED. STANDARD TOOLS MAY NOT APPLY. FOLLOW CONTACT SUPPLIER'S INSTRUCTIONS.

3/ CABLE IS NOT RECOMMENDED FOR NEW DESIGN.

TABLE 3 - TOOLS

BIN CODE	INNER CONTACT		OUTER CONTACT		INSTALLING TOOL	REMOVAL TOOL
	BASIC CRIMPING TOOL	POSITIONER	BASIC CRIMPING TOOL	POSITIONER		
428, 429, 430, 431	M22520/2-01	M22520/2-35	M22520/4-01	M22520/4-02	M81969/8-07 OR M81969/8-307 OR M81969/14-03	M81969/8-08 OR M81969/8-308 OR M81969/14-03

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	CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE, SHIELDED, SIZE 16 (FOR MIL-DTL-38999 SERIES I, III, AND IV CONNECTORS)		



TABLE 3A - INNER CONTACT TOOL SELECTOR SETTING

BIN CODE	KNOWN CABLE ACCOMMODATED	INNER CONTACT TOOL SELECTOR SETTING NO.
428	M17/119-RG174 <u>3/</u> M17/113-RG316 M17/094-RG179	3 5 3
429	M17/093-RG178	3
430 <u>1/</u>	<u>2/</u>	<u>2/</u>
431 <u>1/</u>	<u>2/</u>	<u>2/</u>

1/ CONTACT NOT RECOMMENDED FOR USE.

2/ NO KNOWN STANDARD CABLE EXISTS TO REPLACE THE PREVIOUSLY RECOMMENDED COMMERCIAL CABLES OR THE CABLES ARE NO LONGER MANUFACTURED. STANDARD TOOLS MAY NOT APPLY. FOLLOW CONTACT SUPPLIER'S INSTRUCTIONS.

3/ CABLE IS NOT RECOMMENDED FOR NEW DESIGN.

TABLE 4 - INNER CONTACT ENGAGEMENT AND SEPARATION FORCES

TEST PIN DIAMETER (INCHES)	MINIMUM SEPARATION FORCE (OUNCES)		MAXIMUM ENGAGEMENT FORCE (OUNCES)		MAXIMUM AVERAGE ENGAGEMENT FORCE (OUNCES)	
	INITIAL	AFTER CONDITIONING	INITIAL	AFTER CONDITIONING	INITIAL	AFTER CONDITIONING
.0635 (1.61) +.0002 (0.01) -.0000 (0.00)	N/A	N/A	30	36	N/A	N/A
.0615 (1.56) +.0000 (0.00) -.0002 (0.01)	2.0	1.5	N/A	N/A	N/A	N/A

TABLE 5 - CONTACT RESISTANCE

BIN CODE	CABLE ACCOMMODATED	MAXIMUM VOLTAGE DROP (MILLIVOLTS)					
		25° +3°, -0 °C		25° +3°, -0 °C <u>4/</u>		200° +3°, -0 °C	
		INNER	OUTER	INNER	OUTER	INNER	OUTER
428	M17/119-RG174 <u>3/</u> M17/113-RG316 M17/094-RG179	55 55 120	85 75 70	66 66 144	102 90 84	94 <u>1/</u> 94 204	145 <u>3/</u> 128 119
429	M17/093-RG178	120	110	144	132	204	187
430 <u>1/</u>	<u>2/</u>						
431 <u>1/</u>	<u>2/</u>						

1/ CONTACT NOT RECOMMENDED FOR USE.

2/ NO KNOWN STANDARD CABLE EXISTS TO REPLACE THE PREVIOUSLY RECOMMENDED COMMERCIAL CABLES OR THE CABLES ARE NO LONGER MANUFACTURED. STANDARD TOOLS MAY NOT APPLY. FOLLOW CONTACT SUPPLIER'S INSTRUCTIONS.

3/ THE MAXIMUM OPERATING TEMPERATURE OF THE RG174 PVC CABLE IS 85° +3°, -0 °C. CABLE IS NOT RECOMMENDED FOR NEW DESIGN.

4/ AFTER CONDITIONING.



AEROSPACE STANDARD

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