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REV.
B

AS39029™/75

RATIONALE

REVISION IS REQUIRED TO IMPROVE DRAWING QUALITY AND TO UPDATE THE AVAILABLE CABLES AND RELATED DETAILS.

NOTICE

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

FEDERAL SUPPLY CLASS
5935

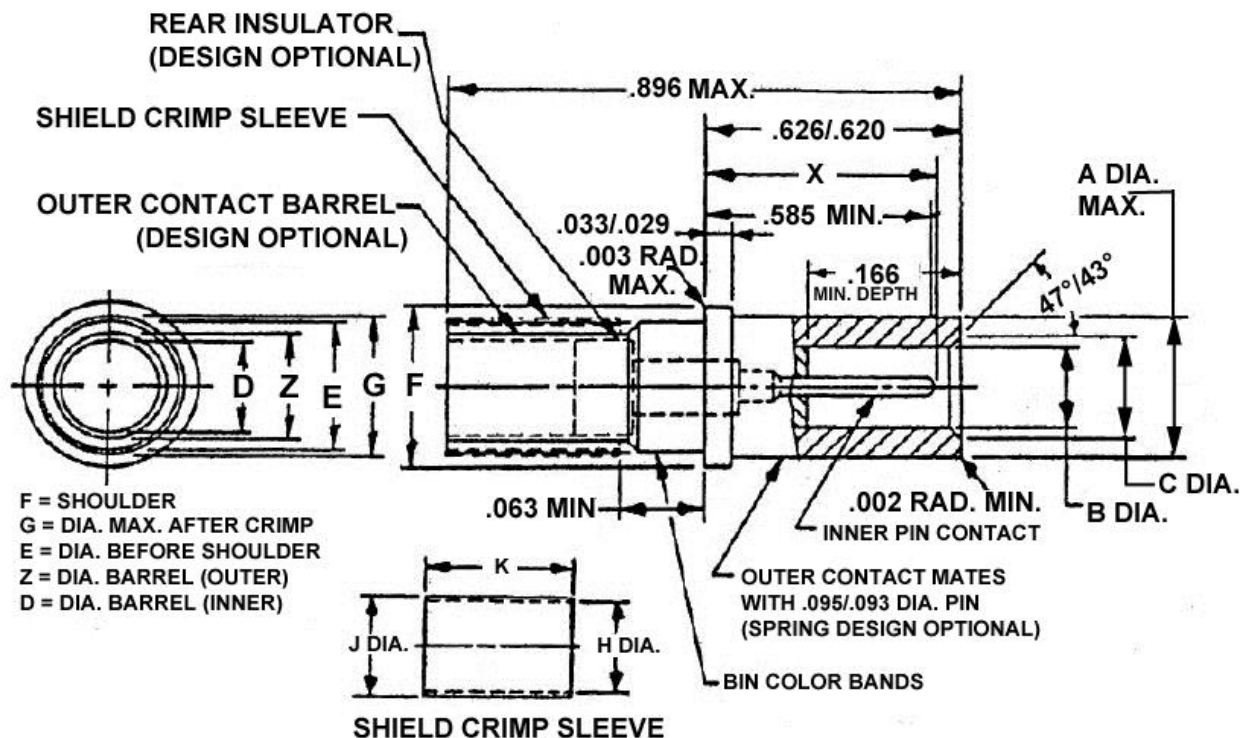
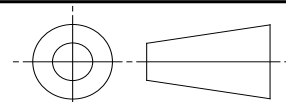


FIGURE 1 - SOCKET CONTACTS

For more information on this standard, visit
<https://www.sae.org/standards/content/AS39029/75B>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTOR, SOCKET,
CRIMP REMOVABLE, SHIELDED, SIZE 12
(FOR MIL-DTL-38999 SERIES I, III, AND IV CONNECTORS)

AS39029™/75
SHEET 1 OF 7

REV.
B

Documents

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TABLE 1 – FIGURE 1 METRIC EQUIVALENTS

INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS
.002	0.05	.029	0.74	.095	2.41	.626	15.90
.003	0.08	.033	0.84	.166	4.22	.896	22.76
.013	0.33	.063	1.60	.585	14.86		
.020	0.51	.093	2.36	.620	15.75		

TABLE 2A - 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.	
416	.161 (4.09)	.100 (2.54) .097(2.46)	.123 (3.12) .118 (3.00)	.090 (2.29)	.151 (3.84) .148 (3.76)	.182 (4.62) .179 (4.55)	.156 (3.96)	.127 (3.23)	.169 (4.29)	.125 (3.18) .115 (2.92)	.0225 (.57)	
417				.108 (2.74)				.144 (3.66)			.0355 (.90)	
418												
419				.090 (2.29)				.127 (3.23)				
420				.174 (4.42)							.0225 (.57)	
421								.117 (2.97)	.156 (3.96)		.0270 (.686)	
422								.090 (2.29)	.138 (3.51)		.0225 (.57)	
423								.108 (2.74)	.156 (3.96)		.0355 (.90)	

TABLE 2B - DIMENSIONS (CONTINUED)

BIN CODE	M DIA. MAX.	N MIN.	P	R	S	T	U REF.	V DIA.	W DIA.	X	Z DIA. MAX.
416	.052 (1.32)	.112 (2.84)	.103 (2.62) .096 (2.44)	.146 (3.71) .140 (3.56)	.039 (.99) .033 (.84)	.222 (5.64) .219 (5.56)	.3635 (9.23)	.0205 (.52) .0195 (.50)	.035 (.89) .033 (.84)	.613 (15.57) 603 (15.32)	.110 (2.79)
417											.127 (3.23)
418											.110 (2.79)
419											
420											.136 (3.45)
421											
422											.110 (2.79)
423											.127 (3.23)

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TABLE 3 - DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			CABLE ACCOMMODATED	CONTACT CAVITY SIZE	TYPE	CLASS
	1 ST	2 ND	3 RD				
416	YELLOW	BROWN	BLUE	M17/119-RG174 ^{3/} M17/113-RG316 M17/94-RG179	12	D	B
417	YELLOW	BROWN	VIOLET	M17/95-RG180			
418 ^{1/}	YELLOW	BROWN	GRAY	^{2/}			
419 ^{1/}	YELLOW	BROWN	WHITE	^{2/}			
420 ^{1/}	YELLOW	RED	BLACK	^{2/}			
421 ^{1/}	YELLOW	RED	BROWN	^{2/}			
422	YELLOW	RED	RED	M17/152-00001			
423	YELLOW	RED	ORANGE	MIL-DTL-24643/28			

^{1/} CONTACT NOT RECOMMENDED FOR USE.

^{2/} NO KNOWN STANDARD CABLE EXIST 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 - TOOLS

BIN CODE	INNER CONTACT		OUTER CONTACT		INSTALLING TOOL	REMOVAL TOOL
	BASIC CRIMPING TOOL	POSITIONER	BASIC CRIMPING TOOL	POSITIONER		
416, 417, 418, 419, 420, 421, 422, 423	M22520/2-01	M22520/2-34	M22520/31-01	M22520/31-02	M81969/8-09 OR M81969/14-04 DAK264-12 ^{1/}	M81969/8-10 OR M81969/14-04 DRK264-12 ^{1/}

^{1/} DANIELS TOOL NUMBER OR EQUIVALENT FOR MIL-STD-790 PROGRAM APPLICATIONS

TABLE 5 - CONTACT ENGAGEMENT AND SEPARATION FORCES

TEST PIN DIAMETER (INCH)	MINIMUM SEPARATION FORCE (OUNCES)		MAXIMUM ENGAGEMENT FORCE (OUNCES)		MAXIMUM AVERAGE ENGAGEMENT FORCE (OUNCES)
	INITIAL	AFTER CONDITIONING	INITIAL	AFTER CONDITIONING	
.0950 (2.41) +.0002 (0.01) -.0000 (0.00)	N/A	N/A	30	36	N/A
.0930 (2.36) +.0000 (0.00) -.0002 (0.01)	3.0	2.5	N/A	N/A	N/A

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