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AS39029™/32

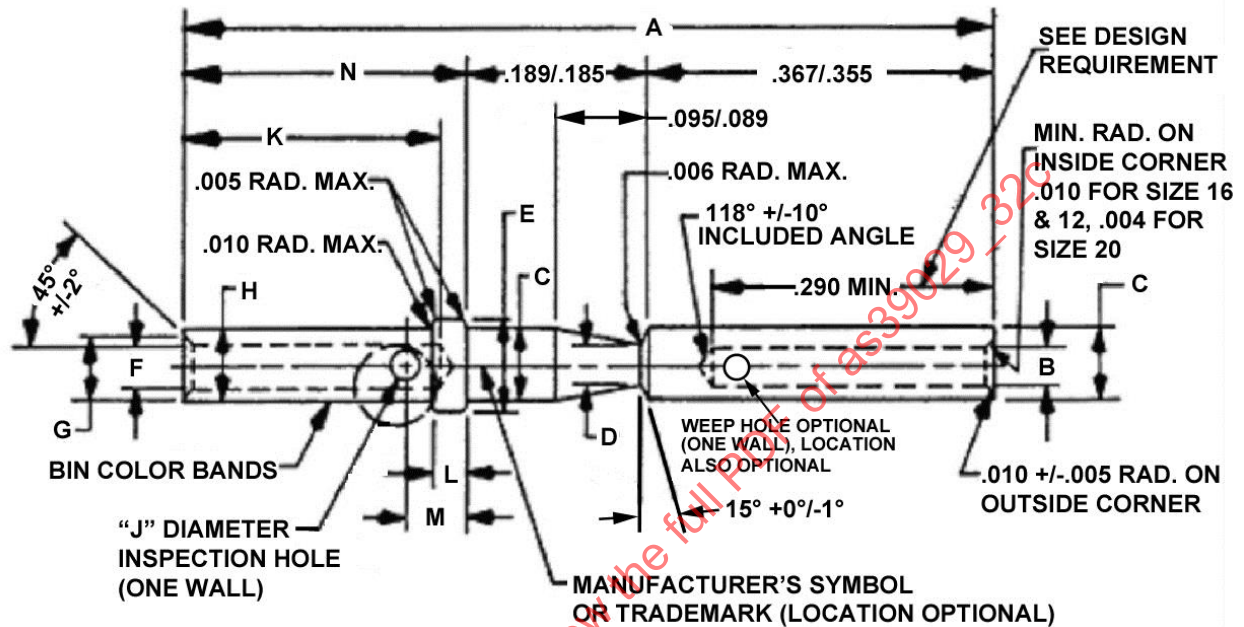
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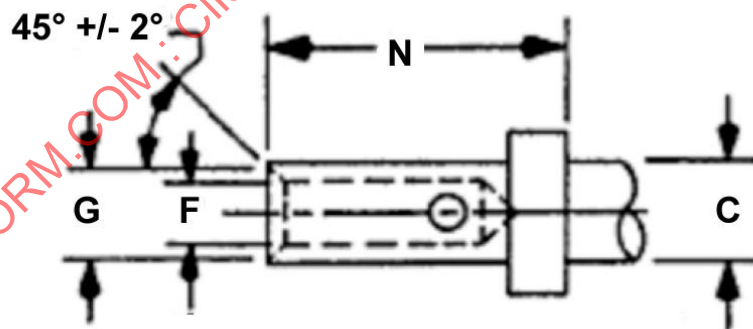
REVISION IS REQUIRED TO ADD THE BASE SPECIFICATION EXCEPTIONS SPECIFIC TO THIS DETAIL SHEET, TO UPDATE THE USAGE RESTRICTION, TO IMPROVE DRAWINGS, ADD THE MATING END WEEP HOLE OPTION, ADD METRIC NUMBERS AND UPDATE DOCUMENT FORMAT TO LATEST SAE GUIDELINES.

NOTICE

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



SOCKET INTERFACE DESIGN FOR ALL BIN CODES
WIRE BARREL DESIGN FOR BIN CODES 247 THROUGH 258 (SIZES 16 AND 12 CONTACTS)



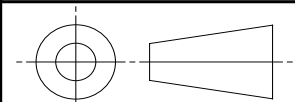
WIRE BARREL DESIGN BIN CODE 242 THROUGH 246 (SIZE 20 CONTACTS)

FIGURE 1 - AS39029/32 SOCKET CONTACT

For more information on this standard, visit

<https://www.sae.org/standards/content/AS39029/32C/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR MIL-DTL-26482 SERIES 1, MIL-DTL-26500 AND MIL-DTL-26518 CONNECTORS)

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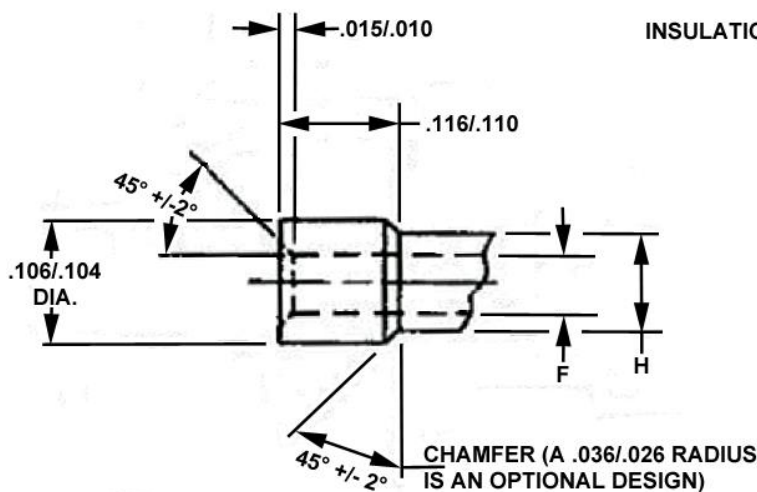
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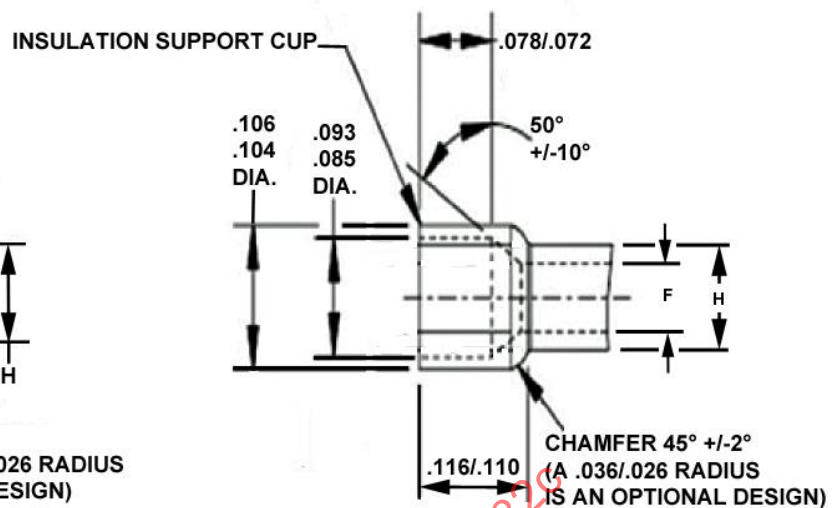
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ISSUED 2001-03 REVISED 2017-04 REAFFIRMED 2021-11



WIRE BARREL DESIGN BIN CODE 449 (SIZE 20)



WIRE BARREL DESIGN BIN CODE 259 & 260 (SIZE 20)

FIGURE 1 - AS39029/32 SOCKET CONTACT (CONTINUED)

TABLE 1 - FIGURE 1 METRIC EQUIVALENTS

INCH	MILLIMETER	INCH	MILLIMETERS	INCH	MILLIMETERS
.004	0.10	.072	1.83	.107	2.72
.005	0.13	.078	1.98	.110	2.79
.006	0.15	.085	2.16	.116	2.95
.008	0.20	.089	2.26	.185	4.70
.010	0.25	.093	2.36	.189	4.80
.015	0.38	.095	2.41	.355	9.02
.026	0.66	.104	2.64	.367	9.32
.036	0.91	.106	2.69		

TABLE 2 - CONTACT DIMENSIONS

BIN CODE	A REF	B MIN DIA	C DIA	D DIA	E DIA	F DIA	G DIA	H DIA	J DIA	K MIN	L	M	N
242, 243, 244, 245, & 246	.854 (21.69)	.0415 (1.05)	.078 (1.98) .076 (1.93)	.052 (1.32) .048 (1.22)	.103 (2.62) .100 (2.54)	.050 (1.27) .048 (1.22)	.064 (1.63) .060 (1.52)	.078 (1.98) .076 (1.93)	.032 (0.81) .026 (0.66)	.250 (6.35)	.033 (0.84) .029 (0.74)	.068 (1.73) .053 (1.35)	.308 (7.82) .304 (7.72)
247, 248, 249, 250, 251, & 252	.844 (21.44)	.064 (1.63)	.113 (2.87) .110 (2.79)	.087 (2.21) .083 (2.11)	.148 (3.76) .144 (3.66)	.068 (1.73) .066 (1.68)	.092 (2.34) .080 (2.03)	.105 (2.67) .101 (2.57)	.042 (1.07) .036 (0.91)	.236 (5.99)	.048 (1.22) .044 (1.12)	.085 (2.16) .068 (1.73)	.298 (7.57) .294 (7.47)
253, 254, 255, 256, 257, & 258	.844 (21.44)	.0955 (2.43)	.161 (4.09) .158 (4.01)	.135 (3.43) .131 (3.33)	.202 (5.13) .198 (5.03)	.102 (2.59) .098 (2.49)	.135 (3.43) .115 (2.92)	.153 (3.89) .147 (3.73)	.042 (1.07) .036 (0.91)	.236 (5.99)	.048 (1.22) .044 (1.12)	.085 (2.16) .068 (1.73)	.298 (7.57) .294 (7.47)
259, 260, & 449	.854 (21.69)	.0415 (1.05)	.078 (1.98) .076 (1.93)	.052 (1.32) .048 (1.22)	.103 (2.62) .100 (2.54)	.050 (1.27) .048 (1.22)	N/A	.078 (1.98) .076 (1.93)	.032 (0.81) .026 (0.66)	.267 (6.78)	.033 (0.84) .029 (0.74)	.068 (1.73) .053 (1.35)	.308 (7.82) .304 (7.72)



AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR MIL-DTL-26482 SERIES 1, MIL-DTL-26500 AND MIL-DTL-26518 CONNECTORS)

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TABLE 3 - MARKING AND DESIGN CHARACTERISTICS

BIN CODES	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1ST	2ND	3RD				
242	RED	YELLOW	RED	20	20	A	A
243	RED	YELLOW	ORANGE	20	20	C-JP 1/ CADMIUM PLATE	A
244	RED	YELLOW	YELLOW	20	20	C-KP	A
245	RED	YELLOW	GREEN	20	20	C-KN	A
246	RED	YELLOW	BLUE	20	20	C-JN	A
247	RED	YELLOW	VIOLET	16	16	A	A
248	RED	YELLOW	GRAY	16	16	A	B
249	RED	YELLOW	WHITE	16	16	C-JP 1/ CADMIUM PLATE	A
250	RED	GREEN	BLACK	16	16	C-KP	A
251	RED	GREEN	BROWN	16	16	C-KN	A
252	RED	GREEN	RED	16	16	C-JN	A
253	RED	GREEN	ORANGE	12	12	A	A
254	RED	GREEN	YELLOW	12	12	A	B
255	RED	GREEN	GREEN	12	12	C-JP 1/ CADMIUM PLATE	A
256	RED	GREEN	BLUE	12	12	C-KP	A
257	RED	GREEN	VIOLET	12	12	C-KN	A
258	RED	GREEN	GRAY	12	12	C-JN	A
259	RED	GREEN	WHITE	20	20	A	A
260	RED	BLUE	BLACK	20	20	A	B
449	YELLOW	YELLOW	WHITE	20	20	A	B

JN = TYPE J NEGATIVE (FORMERLY CONSTANTAN)

KN = TYPE K NEGATIVE (FORMERLY ALUMEL)

KP = TYPE K POSITIVE (FORMERLY CHROMEL)

JP = TYPE J POSITIVE (FORMERLY IRON)

1/ CHROMATE CLEAR COAT

TABLE 4 - TOOL REQUIREMENTS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL	
				WIRED CONTACT	UNWIRED CONTACT
242, 243, 244, 245, & 246	M22520/1-01 OR M22520/2-01 OR M22520/7-01	M22520/1-02 (RED) OR M22520/2-02 OR M22520/7-02	M81969/17-09	M81969/19-06	M81969/19-06
247, 248, 249, 250, 251, & 252	M22520/1-01 OR M22520/7-01	M22520/1-02 (BLUE) OR M22520/7-03	M81969/17-04	M81969/19-01	M81969/19-01
253, 254, 255, 256, 257, & 258	M22520/1-01	M22520/1-02 (YELLOW)	M81969/17-05	M81969/19-02	M81969/19-02
259, 260, & 449	M22520/1-01 OR M22520/2-01 OR M22520/7-01	M22520/1-02 (RED) OR M22520/2-02 OR M22520/7-02	M81969/17-03	M81969/19-06	M81969/19-06



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TABLE 5 - PART NUMBERS

AS39029 PART NUMBER	BIN CODE	SUPERSEDED PART NUMBER(S)		AS39029 PART NUMBER	BIN CODE	SUPERSEDED PART NUMBER(S)
M39029/32-242	242	MS3193-20-20A		M39029/32-252	252	MS3193-16-16C3
M39029/32-243	243	MS3193-20-20C4		M39029/32-253	253	MS3193-12-12A
M39029/32-244	244	MS3193-20-20C1		M39029/32-254	254	MS24255-12S
M39029/32-245	245	MS3193-20-20C2		M39029/32-255	255	MS3193-12-12C4
M39029/32-246	246	MS3193-20-20C3		M39029/32-256	256	MS3193-12-12C1
M39029/32-247	247	MS3193-16-16A		M39029/32-257	257	MS3193-12-12C2
M39029/32-248	248	MS24255-16S		M39029/32-258	258	MS3193-12-12C3
M39029/32-249	249	MS3193-16-16C4		M39029/32-259	259	MS3193A20-20A
M39029/32-250	250	MS3193-16-16C1		M39029/32-260	260	MS24255-20S
M39029/32-251	251	MS3193-16-16C2		M39029/32-449	449	M39029/32-20-20

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 2 AND 3. DIMENSIONS ARE IN INCHES AND SHOWN AFTER PLATING. METRIC EQUIVALENTS ARE IN PARENTHESES, ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1 INCH = 25.4 MM (SEE TABLE 1). AN ALTERNATE DESIGN OF THE WIRE BARREL LEAD IN ANGLE SHALL BE AS FOLLOWS:

SIZE 20 - BLEND RADIUS .015 INCH $\pm$.005 INCH
 SIZE 16 - BLEND RADIUS .020 INCH $\pm$ 0.005 INCH
 SIZE 12 - BLEND RADIUS .020 INCH $\pm$.010 INCH

THE .290 MINIMUM DIMENSION IS THE CONTACT ENGAGEMENT AREA FOR LOCALIZED FINISH OPTION (SEE REQUIREMENTS IN AS39029).

2. TOOLS:

TOOLS REQUIRED FOR CRIMPING CONTACTS TO 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.

AUXILIARY PRESSURE MEMBERS OF CANTILEVER TYPE ARE NOT PERMISSIBLE. CANTILEVER PRESSURE MEMBERS THAT ARE AN INTEGRAL PART OF THE CONTACT BODY ARE PERMISSIBLE.

6. ELECTRICAL:

ELECTRICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

7. ENVIRONMENTAL:

ENVIRONMENTAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

CLASS A CONTACTS SHALL BE VIBRATION TESTED IN ACCORDANCE WITH EIA364.28, TEST CONDITION III.

CLASS A CONTACT SHALL BE SHOCK TESTED IN ACCORDANCE WITH EIA364.27, TEST CONDITION A.

CLASS B CONTACTS SHALL BE VIBRATION TESTED IN ACCORDANCE WITH EIA364.28, TEST CONDITION IV.

CLASS B CONTACTS SHALL BE SHOCK TESTED IN ACCORDANCE WITH EIA364.27, TEST CONDITION C.

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