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AS39029™/9

RATIONALE

LIMITED SCOPE REVISION REQUIRED TO UPDATE TOOL TABLE AND DEFINE WHAT WIRE SHOULD BE USED FOR QUALIFICATION.

NOTICE

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

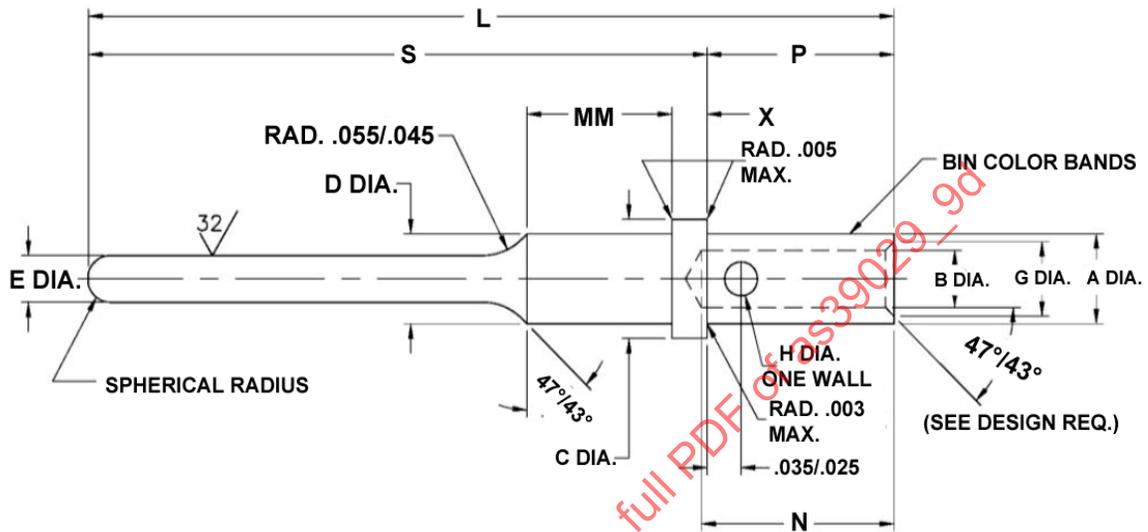


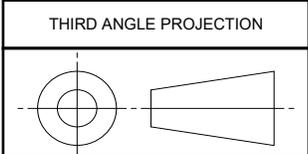
FIGURE 1 - AS39029/9 PIN CONTACT (SIZE 16 AND 20)

TABLE 1 - FIGURE 1 METRIC EQUIVALENTS

INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS
.003	0.076	.025	0.635	.045	1.14
.005	0.127	.035	0.889	.055	1.40

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CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR, PIN,
 CRIMP REMOVABLE, THERMOCOUPLE (FOR MIL-DTL-26482
 SERIES 2, AS81703 SERIES 3, MIL-DTL-83723 SERIES I AND III,
 AND MIL-DTL-83733 CONNECTORS)

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ISSUED 2001-03 REAFFIRMED 2020-12 REVISED 2024-01

TABLE 2 - CONTACT DIMENSIONS

BIN CODE	A DIA	B DIA	C DIA	D DIA	E DIA	G DIA	H DIA
132 THROUGH 136	.078 (1.98)	.050 (1.27)	.103 (2.62)	.078 (1.98)	.041 (1.04)	.066 (1.68)	.032 (0.81)
	.076 (1.93)	.048 (1.22)	.100 (2.54)	.076 (1.93)	.039 (0.99)	.062 (1.57)	.026 (0.66)
514 THROUGH 518	.103 (2.62)	.068 (1.73)	.133 (3.38)	.103 (2.62)	.0635 (1.61)	.089 (2.26)	.042 (1.07)
	.101 (2.57)	.066 (1.68)	.130 (3.30)	.101 (2.57)	.0615 (1.56)	.083 (2.11)	.036 (0.91)

TABLE 2 - CONTACT DIMENSIONS (CONTINUED)

BIN CODE	L MAX (REF)	N	P	S	X	MM
132 THROUGH 136	.720 (18.29)	.186 (4.72)	.171 (4.34)	.549 (13.94)	.033 (0.84)	.130 (3.30)
		.157 (3.99)	.160 (4.06)	.543 (13.79)	.029 (0.74)	.125 (3.18)
514 THROUGH 518	.821 (20.85)	.284 (7.21)	.257 (6.53)	.564 (14.33)	.048 (1.22)	.130 (3.30)
		.250 (6.35)	.246 (6.25)	.558 (14.17)	.044 (1.12)	.125 (3.18)

TABLE 3 - MARKING AND DESIGN CHARACTERISTICS

BIN CODES	COLOR BANDS			MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
	1ST	2ND	3RD				
132	BROWN	ORANGE	RED	20	20	C-COPPER WITH GOLD FLASH	B
133	BROWN	ORANGE	ORANGE	20	20	C-JN ^{1/}	B
134	BROWN	ORANGE	YELLOW	20	20	C-KN ^{1/}	B
135	BROWN	ORANGE	GREEN	20	20	C-KP ^{1/}	B
136	BROWN	ORANGE	BLUE	20	20	C-JP (WITH CADMIUM PLATE) ^{1/}	B
514	GREEN	BROWN	YELLOW	16	16	C-COPPER WITH GOLD FLASH	B
515	GREEN	BROWN	GREEN	16	16	C-JN ^{1/}	B
516	GREEN	BROWN	BLUE	16	16	C-KN ^{1/}	B
517	GREEN	BROWN	VIOLET	16	16	C-KP ^{1/}	B
518	GREEN	BROWN	GRAY	16	16	C-JP (WITH CADMIUM PLATE) ^{1/}	B

^{1/} JN = TYPE J NEGATIVE (FORMERLY CONSTANTAN/COPPER-NICKEL-ALLOY), KN = TYPE K NEGATIVE (FORMERLY ALUMEL/NICKEL-ALUMINUM/SILICONE), KP = TYPE K POSITIVE (FORMERLY CHROMEL/NICKEL CHROMIUM), JP = TYPE J POSITIVE (FORMERLY IRON).

TABLE 4 - TOOL REQUIREMENTS

BIN CODE	BASIC CRIMPING TOOL	POSITIONER	INSTALLING TOOL	REMOVAL TOOL	
				WIRED CONTACT	UNWIRED CONTACT
132 133 134 135 136	M22520/1-01 OR M22520/2-01	M22520/1-02 RED OR M22520/2-02	M81969/14-11	M81969/8-206 (METAL) OR M81969/14-11 (PLASTIC)	M81969/30-05 (RED PROBE -25)
514 515 516 517 518	M22520/1-01 OR M22520/7-01	M22520/1-02 BLUE OR M22520/7-03	M81969/14-03	M81969/8-208 (METAL) OR M81969/14-03 (PLASTIC)	M81969/30-06 (BLUE PROBE -26)

TABLE 5 - PART NUMBERS

AS39029 PART NUMBER	BIN CODE	SUPERSEDES PART NUMBER(S)
M39029/9-132	132	M39029/9-20-20 C1
M39029/9-133	133	M39029/9-20-20 C2
M39029/9-134	134	M39029/9-20-20 C3
M39029/9-135	135	M39029/9-20-20 C4
M39029/9-136	136	M39029/9-20-20 C5
M39029/9-514	514	5000-070-516 <u>1/</u>
M39029/9-515	515	5000-070-416 <u>1/</u>
M39029/9-516	516	5000-070-116 <u>1/</u>
M39029/9-517	517	5500-070-216 <u>1/</u>
M39029/9-518	518	5000-070-316 <u>1/</u>

1/ MANUFACTURER'S CAGE CODE 14283.

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

- 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 IN PARENTHESES ARE FOR GENERAL INFORMATION ONLY (REFER TO AS39029, SECTION 6). SPHERICAL END DIMENSIONS SHALL CONFORM TO AS39029. AN ALTERNATE DESIGN OF THE WIRE BARREL LEAD-IN ANGLE SHALL BE AS FOLLOWS:

SIZE 20 - BLEND RADIUS .015 INCH ± .005 INCH.

SIZE 16 - BLEND RADIUS .020 INCH ± .005 INCH.

- TOOLS: TOOLS REQUIRED FOR CRIMPING CONTACTS TO WIRE/CABLE AND THE INSTALLING/REMOVAL FROM THE CONNECTOR SHALL BE IN ACCORDANCE WITH TABLE 4.
- PART NUMBERS: CONTACT PART NUMBERS SHALL BE IN ACCORDANCE WITH TABLE 5. SUPERSEDING PART NUMBERS ARE AS SPECIFIED.
- MATERIALS: MATERIALS SHALL BE IN ACCORDANCE WITH AS39029.
- MECHANICAL: MECHANICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

TENSILE STRENGTH SHALL BE AS SHOWN IN TABLE 6.

TABLE 6 - CONTACT TENSILE STRENGTH

BIN CODE	TENSILE STRENGTH (LB)	
	WIRE SIZE	AXIAL LOAD
132, 133, 134, 135, & 136	24	6
	20	12
514, 515, 516, 517, & 518	20	14
	16	45

- ELECTRICAL: NOT REQUIRED.
- ENVIRONMENTAL: ENVIRONMENTAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.
- QUALIFICATION: WIRE TYPE SHALL BE IN ACCORDANCE WITH AS22759 WITH A SILVER-PLATED CONDUCTOR.

	AEROSPACE STANDARD CONTACTS, ELECTRICAL CONNECTOR, PIN, CRIMP REMOVABLE, THERMOCOUPLE (FOR MIL-DTL-26482 SERIES 2, AS81703 SERIES 3, MIL-DTL-83723 SERIES I AND III, AND MIL-DTL-83733 CONNECTORS)	AS39029™/9 SHEET 3 OF 4	REV. D