FEDERAL SUPPLY CLASS
5999

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.

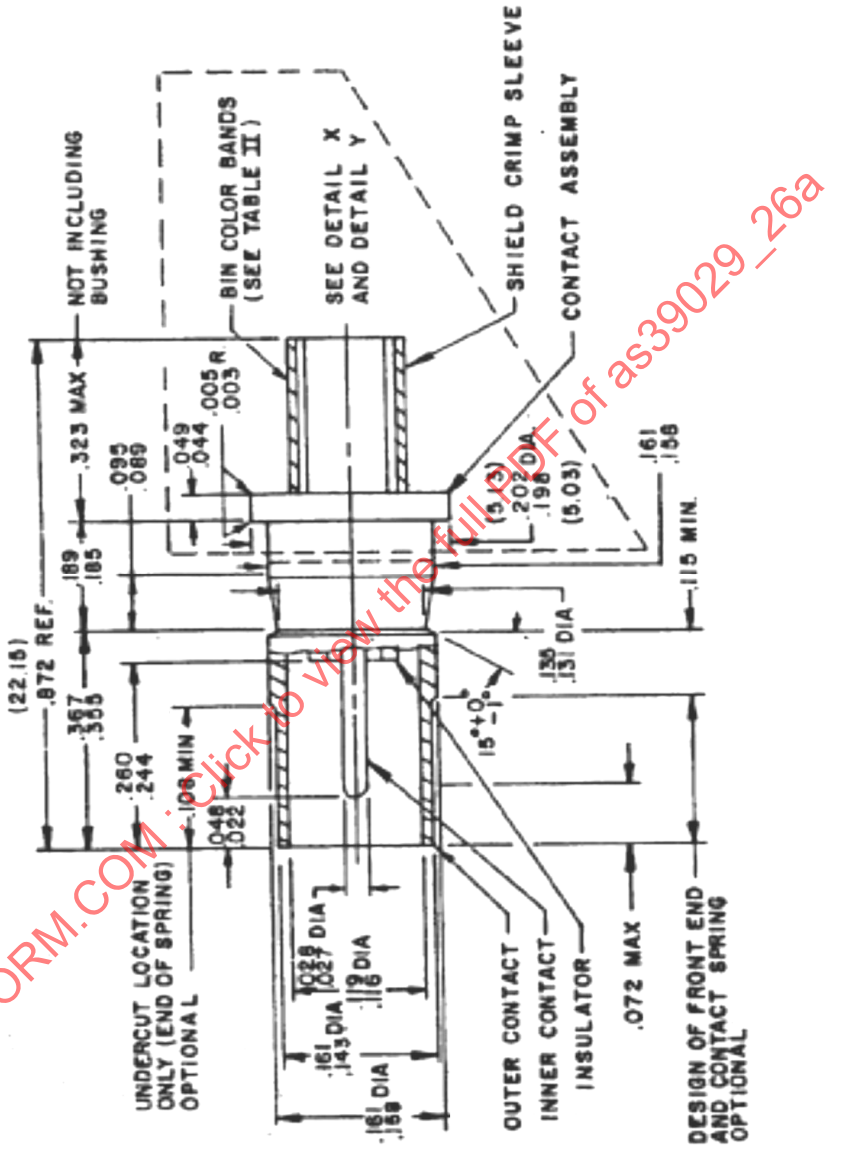
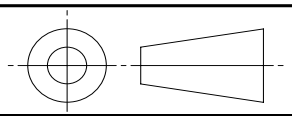


FIGURE 1 - AS39029/26 SHIELDED SOCKET CONTACT

THIRD ANGLE PROJECTION



ISSUED 2001-03 REVISED 2007-07

CUSTODIAN: SAE AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

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

AS39029/26
SHEET 1 OF 7

REV. A

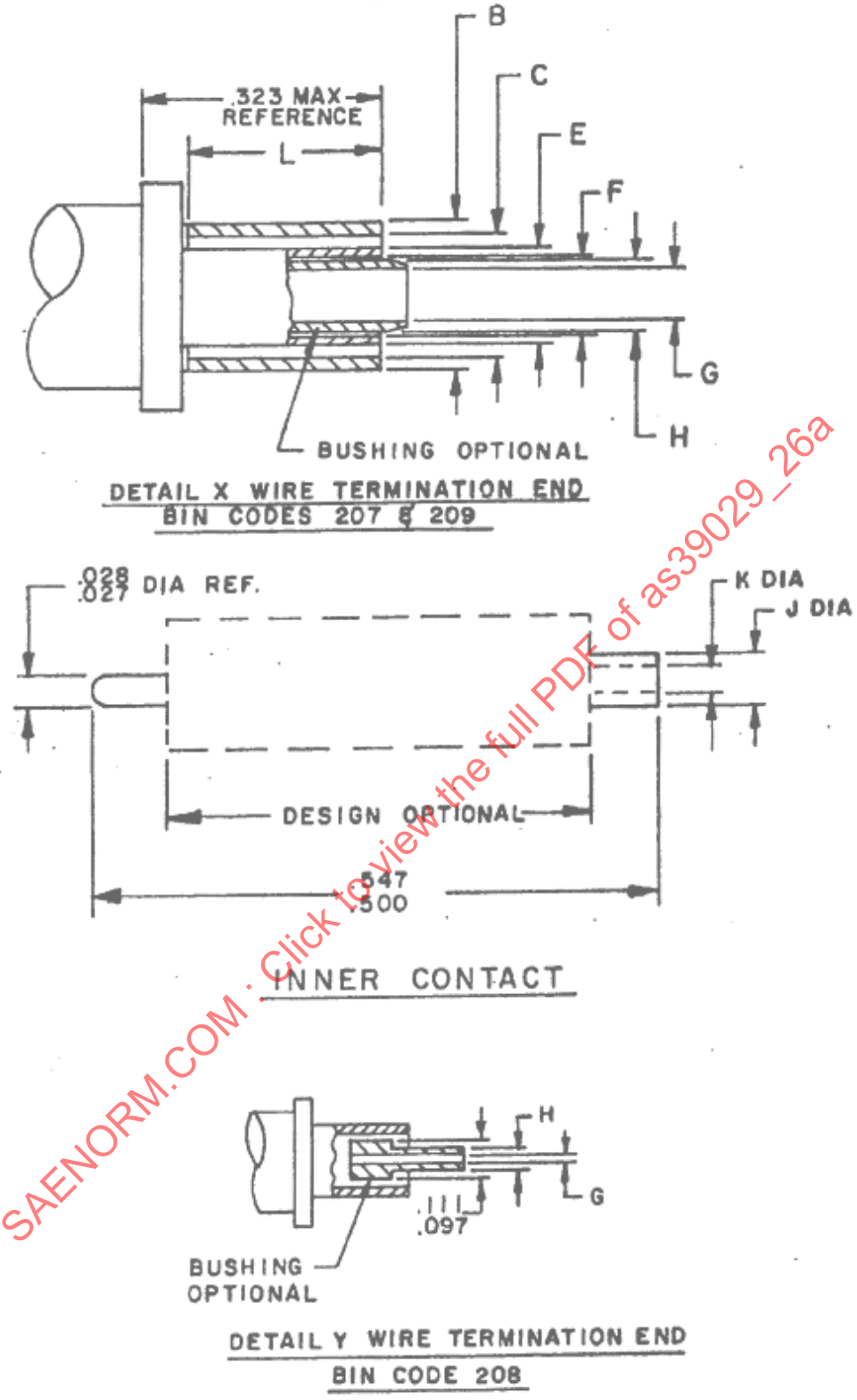


FIGURE 1 - AS39029/26 SHIELDED SOCKET CONTACT (CONTINUED)

TABLE 1 - CONTACT DIMENSIONS

BIN code	B	C	E	F	G	H	J	K	L
207	.201 (5.11) .189 (4.80)	.161 (4.09) .151 (3.84)	.136 (3.45) .126 (3.20)	.1150 (2.92) .1065 (2.70)	.069 (1.75) .065 (1.65)	.106 (2.69) .102 (2.59)	.055 (1.40) .045 (1.14)	.030 (.76) .020 (.51)	.270 (6.86) .230 (5.84)
208	---	---	.136 (3.45) .126 (3.20)	.1150 (2.92) .1065 (2.70)	.047 (1.19) .037 (.94)	.076 (1.93) .066 (1.68)	.055 (1.40) .045 (1.14)	.030 (.76) .020 (.51)	.330 (8.38) .290 (7.37)
209	.201 (5.11) .189 (4.80)	.161 (4.09) .151 (3.84)	.136 (3.45) .126 (3.20)	.1150 (2.92) .1065 (2.70)	.058 (1.47) .055 (1.40)	.106 (2.69) .102 (2.59)	.067 (1.70) .057 (1.45)	.044 (1.12) .034 (.86)	.270 (6.86) .230 (5.84)

TABLE 2 - MARKING AND DESIGN CHARACTERISTICS

Dash No. and BIN code	Color bands			Contact cavity size	Type	Class
	1st	2nd	3rd			
207	Red	Black	Violet	12	D	A
208	Red	Black	Gray	12		
209	Red	Black	White	12		

TABLE 3 - TOOL REQUIREMENTS

BIN CODE	INNER CONTACT		SHIELD CRIMP SLEEVE		INSTALLING TOOL	REMOVAL TOOL
	BASIC CRIMPING TOOL	POSITIONER	BASIC CRIMPING TOOL	DIES		
207	M22520/2-01	M22520/2-32	M22520/5-01	M22520/5-10	M81969/17-05	M81969/19-09
208	M22520/2-01	M22520/2-32		---	M81969/17-05	M81969/19-09
209	M22520/2-01	M22520/2-32	M22520/5-01	M22520/5-10	M81969/17-05	M81969/19-09

TABLE 4 - PART NUMBERS

AS39029 PART NUMBER	BIN CODE	SUPERSEDES PART NUMBER(S)
M39029/26-207	207	M39029/26-01
M39029/26-208	208	M39029/26-02
M39029/26-209	209	M39029/26-03

TABLE 5 - CONTACT ENGAGEMENT AND SEPARATION FORCES

Test pin diameter (inches)	Socket contact only					
	Initial			After conditioning		
	Minimum separation force	Maximum average engagement	Maximum engagement force	Minimum separation force	Maximum average engagement	Maximum engagement force
	oz	oz	oz	oz	oz	oz
.1140 +.0002 -.0000	N/A	N/A	30	N/A	N/A	36
.1120 +.0000 -.0002	3	N/A	N/A	2	N/A	N/A

TABLE 6 - CONTACT TENSILE STRENGTH (INNER AND OUTER CRIMP JOINT)

BIN CODE	CABLE ACCOMMODATION	AXIAL LOAD (POUND MINIMUM)	
		INNER CONTACT	OUTER CONTACT
207	M17/119-RG174	15	15
	M17/94-RG179	3.5	15
	M17/113-RG316	10	10
208	M17/93-RG178	3.5	10
209	NEMA WC27500 SIZE 22 (SHIELDED)	15	15

TABLE 7 - CONTACT RESISTANCE

BIN code	Contact	Cable accommodated	Test current (amps)	Maximum voltage drop (millivolts)		
				25° +3°, -0°		150° +3°, -0°
					After conditioning	
				Max	Max	Max
207	Inner	M17/119-RG174	1	55	66	88
	Outer		12	85	102	136
	Inner	M17/94-RG179	1	120	144	192
	Outer		12	70	84	112
	Inner	M17/113-RG316	1	55	66	88
	Outer		12	75	90	120
208	Inner	M17/093-RG178	1	120	144	192
	Outer		12	110	132	176
209	Inner	No. 22 shielded				
	Outer	**NEMA WC27500**	12	60	72	96

TABLE 8 - LOW SIGNAL CONTACT RESISTANCE (INTER CONTACT ONLY)

BIN CODE	CABLE ACCOMMODATION	MAXIMUM CONTACT RESISTANCE (MILLIOHMS)	
		INITIAL	AFTER CONDITIONING
207	M17/119-RG174 M17/94-RG179 M17/113-RG316	55 120 55	66 144 66
208	M17/93-RG178	120	144
209	NEMA WC27500 SIZE 22 (SHIELDED)	10	12

TABLE 9 - DIELECTRIC WITHSTAND VOLTAGE (BETWEEN INNER AND OUTER CONTACT)

ALTITUDE (FEET)	TEST VOLTAGE (AC RMS)
SEA LEVEL	1000
50,000	250

DETAIL SPECIFICATION REQUIREMENTS:

1. DESIGN:

   CONTACT SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1, TABLES 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). THE 0.072 INCH DIMENSION IS THE DISTANCE FROM THE FRONT OF THE CONTACT TO THE POINT OF ENGAGEMENT WHEN USING AN AS39029/25 SOCKET OR A 0.113 (.287 MM) DIAMETER SQUARE END PIN. THE OUTSIDE SOCKET DIAMETER, 0.161/0.158 INCHES, SHALL BE MAINTAINED TO THE SPECIFIED 0.115 INCH MINIMUM LENGTH.

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. SUPERSEDING PART NUMBERS ARE AS SPECIFIED.

4. MATERIALS:

   MATERIALS SHALL BE IN ACCORDANCE WITH AS39029.

5. MECHANICAL:

   MECHANICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

   THE CONTACT SEPARATION AND ENGAGEMENT FORCES SHALL MEET THE REQUIREMENTS OF TABLE 5. THE TEST PINS SHALL BE IN ACCORDANCE WITH AS31971 EXCEPT THE DIAMETER SHALL BE AS SPECIFIED. THE SURFACE ROUGHNESS SHALL NOT EXCEED THREE.

   THE TENSILE STRENGTH SHALL MEET THE REQUIREMENTS OF TABLE 6.