

REV.
C

AS39029™/59

FEDERAL SUPPLY CLASS
5999

RATIONALE

LIMITED SCOPE REVISION IS REQUIRED TO CORRECT THE DOCUMENT FEDERAL SUPPLY CLASS (FSC) NUMBER; IT SHOULD BE 5999 RATHER THAN 5935.

NOTICE

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

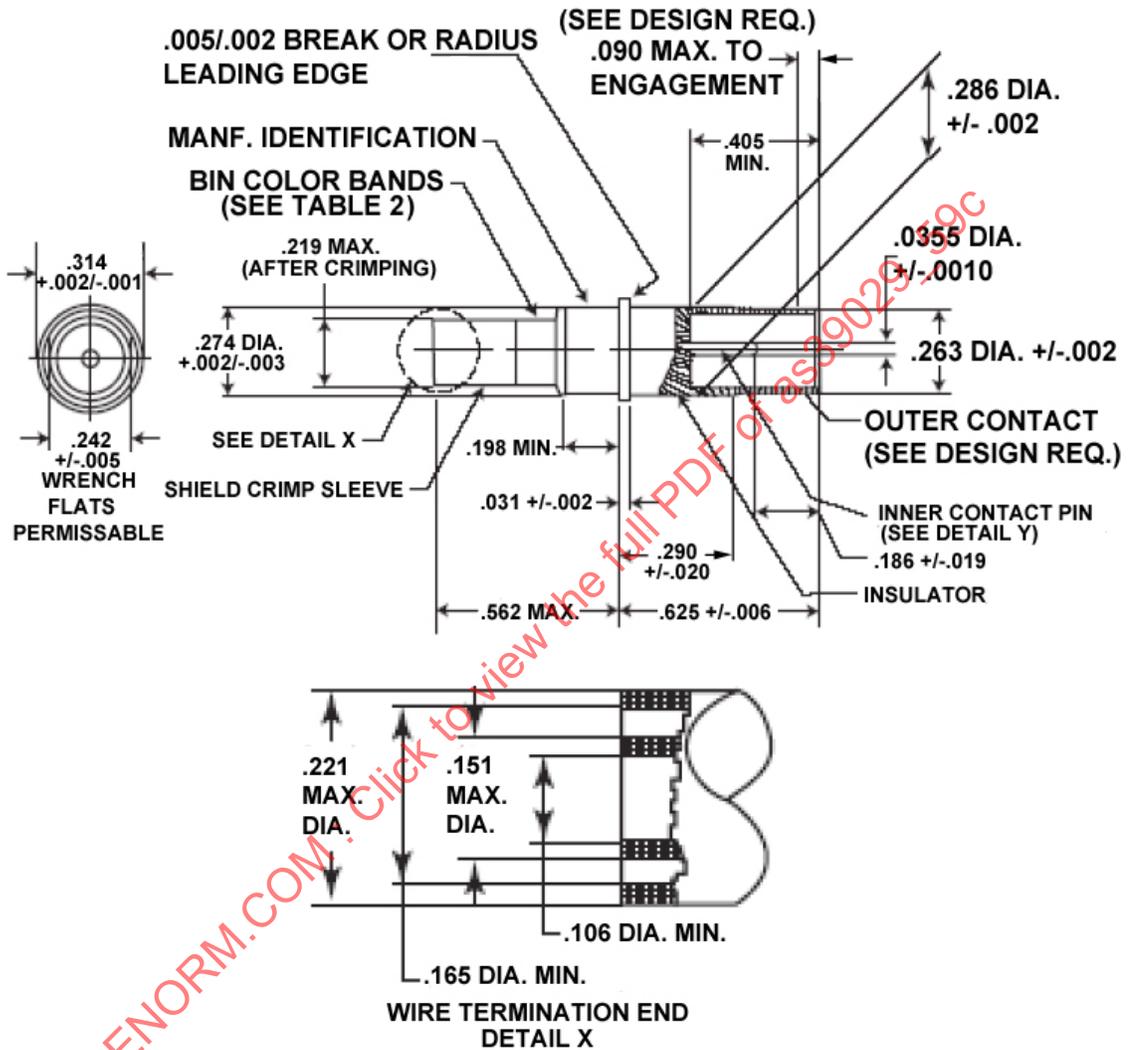
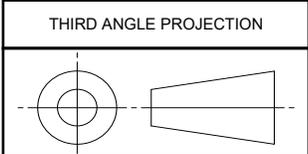


FIGURE 1 - CONNECTOR CONTACT

For more information on this standard, visit
<https://www.sae.org/standards/content/AS39029/59C/>



CUSTODIAN: AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

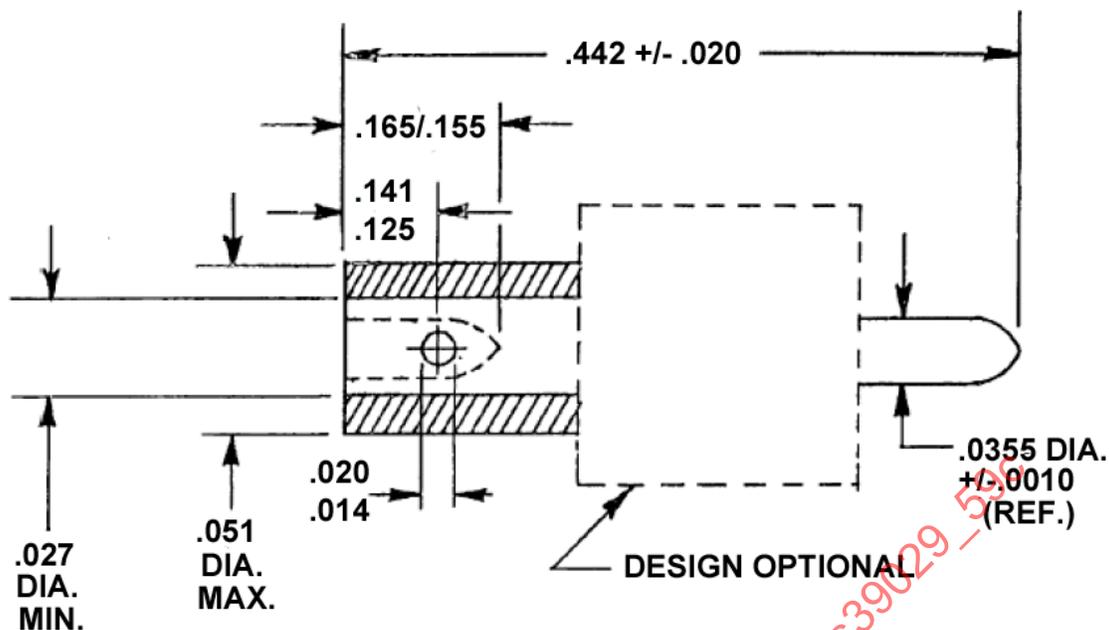
CONTACTS, ELECTRICAL CONNECTOR, SOCKET,
CRIMP REMOVABLE, SHIELDED, SIZE 8
(FOR MIL-DTL-38999 SERIES I, III, AND IV CONNECTORS)

AS39029™/59
SHEET 1 OF 7

REV. C

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ISSUED 2000-07 REVISED 2021-02



**INNER PIN CONTACT (WIRE BARREL)
DETAIL Y**

FIGURE 1 - CONNECTOR CONTACT (CONTINUED)

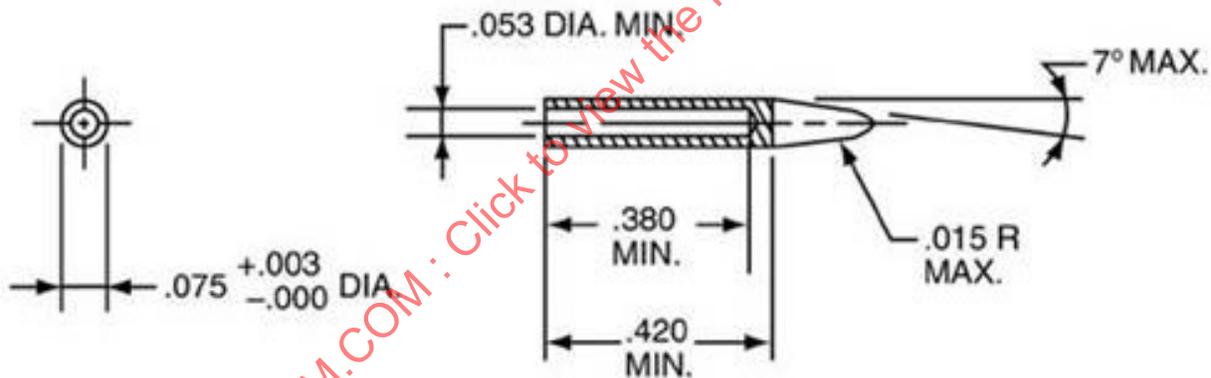


FIGURE 2 - INSULATOR EXPANDER TOOL

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	CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE, SHIELDED, SIZE 8 (FOR MIL-DTL-38999 SERIES I, III, AND IV CONNECTORS)		

TABLE 1 - FIGURE 1 AND 2 METRIC EQUIVALENTS

INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS	INCHES	MILLIMETERS
.001	0.03	.031	0.79	.155	3.94	.286	7.26
.002	0.05	.0355	0.90	.165	4.19	.290	7.37
.003	0.08	.051	1.30	.186	4.72	.314	7.98
.005	0.13	.053	1.35	.198	5.03	.380	9.65
.006	0.15	.075	1.91	.2180	5.54	.405	10.29
.014	0.36	.090	2.29	.219	5.56	.420	10.67
.015	0.38	.106	2.69	.221	5.61	.442	11.23
.019	0.48	.125	3.18	.242	6.15	.562	14.27
.020	0.51	.141	3.58	.263	6.68	.625	15.88
.027	0.69	.151	3.84	.274	6.96		

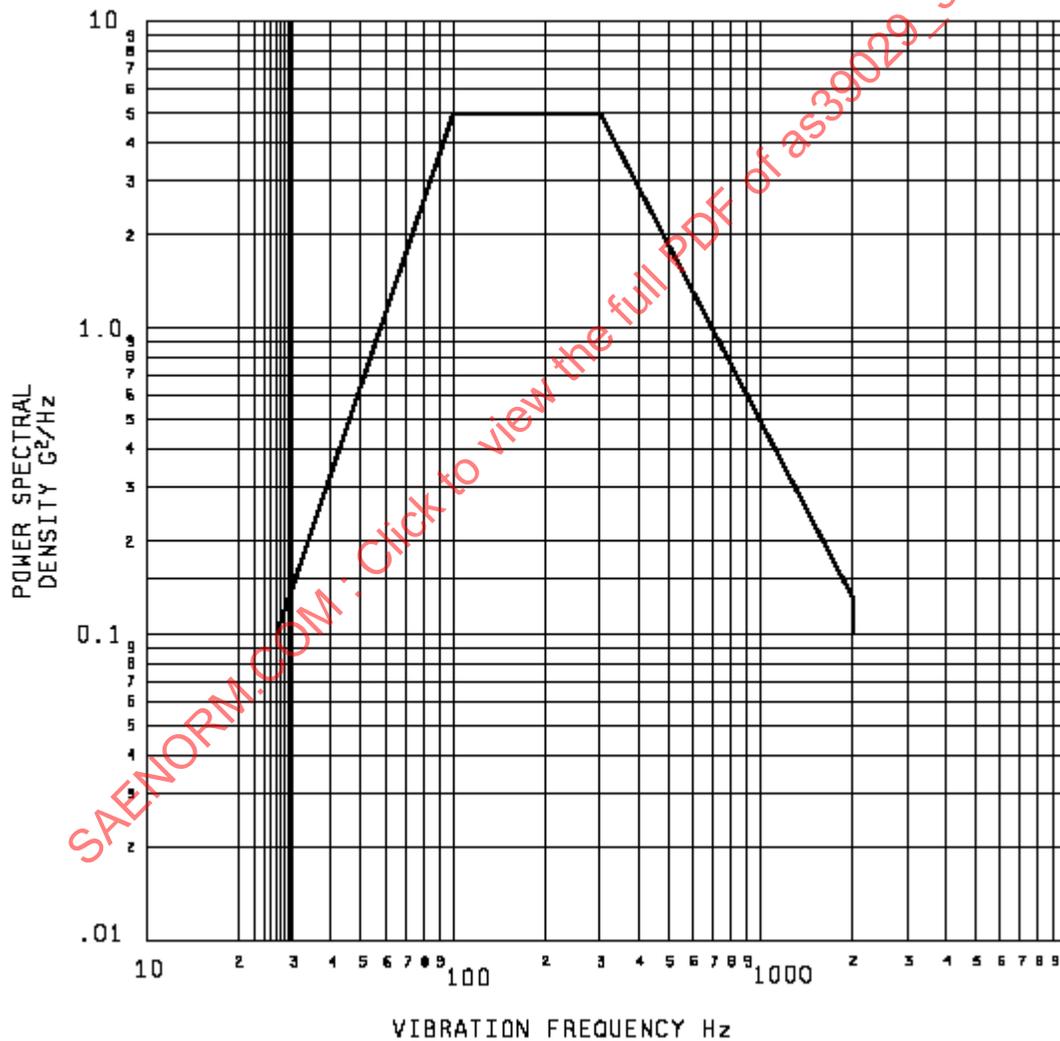


FIGURE 3 - VIBRATION ENVELOPE

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TABLE 2 - DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS			CONTACT CAVITY SIZE	CABLES ACCOMMODATED	TYPE	CLASS
	1ST	2ND	3RD				
366	ORANGE	BLUE	BLUE	8	M17/095-RG180	D	B

TABLE 3 - TOOLS

BIN CODE	INSTALLING TOOL	REMOVAL TOOL	INSULATOR EXPANDER TOOL (CRIMP ONLY) ^{1/}
366	M81969/8-13	M81969/14-12 M81969/8-14	SEE MANUFACTURER'S ASSEMBLY INSTRUCTIONS

^{1/} INSULATOR EXPANDER TOOL KIT MUST BE USED TO ASSEMBLE REAR INSULATOR OVER CONTACT WHEN THE INNER CONTACT IS INSTALLED BY CRIMPING MEANS ALONE.

TABLE 4 - TOOLS (INNER CONTACT AND SHIELD CRIMP SLEEVE TOOLS)

BIN CODE	INNER CONTACT TOOLING ^{1/}		SHIELD CRIMP SLEEVE TOOLING	
	BASIC CRIMPING TOOL	CONTACT POSITIONER	BASIC CRIMPING TOOL	DIE PART OR IDENTIFYING NO.
366	M22520/2-01	M22520/2-31	M22520/5-01 M22520/10-01	M22520/5-05 DIE CLOSURE B M22520/10-07 DIE CLOSURE B

^{1/} MAY BE SOLDERED IN ACCORDANCE WITH MANUFACTURER'S ASSEMBLY INSTRUCTIONS.

TABLE 5 - LOW SIGNAL LEVEL CONTACT RESISTANCE (INNER CONTACT ONLY)

BIN CODE	CABLE ACCOMMODATED	MAXIMUM CONTACT RESISTANCE (MILLIOHMS)	
		INITIAL	AFTER CONDITIONING
366	M17/095-RG180	120	144

TABLE 6 - CONTACT RESISTANCE

BIN CODE	CONTACT	CABLE ACCOMMODATED	TEST CURRENT (AMPERES)	MAXIMUM VOLTAGE DROP (MILLIVOLTS)		
				25 °C +3 °C, -0 °C		200 °C +3 °C, -0 °C
				MAX	AFTER CONDITIONING MAX	
366	INNER OUTER	M17/095-RG180	1 12	120 60	144 72	204 102

TABLE 7 - CONTACT ENGAGEMENT AND SEPARATION FORCES

TEST PIN DIAMETER (INCHES)	INITIAL			AFTER CONDITIONING		
	MINIMUM SEPARATION FORCE (OZ)	MAXIMUM AVERAGE ENGAGEMENT FORCE (OZ)	MAXIMUM ENGAGEMENT FORCE (OZ)	MINIMUM SEPARATION FORCE (OZ)	MAXIMUM AVERAGE ENGAGEMENT FORCE (OZ)	MAXIMUM ENGAGEMENT FORCE (OZ)
.2190 +.0002 -.0000	N/A	N/A	48	N/A	N/A	60
.2170 +.0000 -.0002	4	N/A	N/A	2	N/A	N/A

TABLE 8 - CRIMP TENSILE STRENGTH

BIN CODE	CABLE ACCOMMODATED	AXIAL LOAD (POUNDS MINIMUM)	
		INNER CONTACT	OUTER CONTACT
366	M17/095-RG180	3.5	25

TABLE 9 - DIELECTRIC WITHSTANDING VOLTAGE

ALTITUDE	TEST VOLTAGES, AC RMS
SEA LEVEL	1300
50000 FEET	250

TABLE 10 - PART NUMBER

BIN CODE	PART NUMBER	SUPERSEDED PART NUMBER
366	M39029/59-366	MS27535

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

1. DESIGN:

CONTACTS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1 AND TABLE 2. DIMENSIONS ARE IN INCHES. DIMENSIONS SHOWN APPLY AFTER PLATING. OPERATING TEMPERATURE RANGE: -65 °C (-85 °F) TO 200 °C (392 °F). THE OUTER CONTACT MATES WITH A .2180 ± .0010 DIAMETER PIN, THE SPRING DESIGN IS OPTIONAL. THE .090 MAXIMUM DIMENSION TO ENGAGEMENT IN FIGURE 1 IS MEASURED WITH A .2180 DIAMETER BASIC SQUARE ENDED PIN. MANUFACTURER'S RECOMMENDED ASSEMBLY INSTRUCTIONS SHALL BE SHIPPED WITH UNIT PACKAGE.

2. TOOLS:

TOOLS REQUIRED FOR CRIMPING CONTACTS TO THE WIRE/CABLE AND THE INSTALLING/REMOVAL FROM THE CONNECTOR SHALL BE IN ACCORDANCE WITH TABLES 3 AND 4. THE EXPANDER TOOL SOURCING INFORMATION SHALL BE PROVIDED BY THE CONTACT MANUFACTURER WITH THE UNIT PACKAGE. SEE FIGURE 2 FOR EXPANDER TOOL DETAILS.

3. PART NUMBERS:

CONTACT PART NUMBERS SHALL BE IN ACCORDANCE WITH TABLE 10. SUPERSEDING PART NUMBERS ARE AS SPECIFIED.

4. MATERIALS:

MATERIALS SHALL BE IN ACCORDANCE WITH AS39029.

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