FEDERAL SUPPLY CLASS
5935

RATIONALE

REVISION IS REQUIRED TO REMOVE THE ELEVATED OPERATING TEMPERATURE SO THE DEFAULT IS THE AS39029 BASE SPEC TEMPERATURE REQUIREMENT.

NOTICE

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

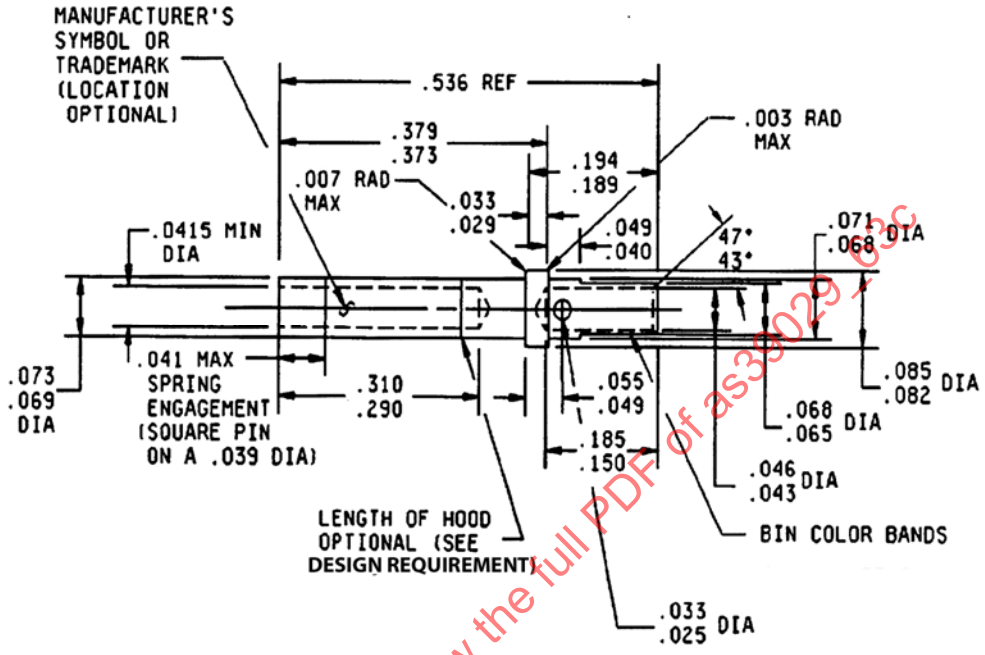
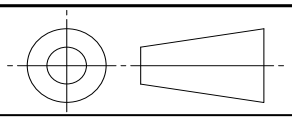


FIGURE 1 - DIMENSIONS AND CONFIGURATION

INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
.003	0.08	.0415	1.054	.071	1.80	.290	7.37
.007	0.18	.043	1.09	.073	1.85	.310	7.87
.025	0.64	.046	1.17	.082	2.08	.373	9.47
.029	0.74	.049	1.24	.085	2.16	.379	9.63
.033	0.84	.055	1.40	.150	3.81	.536	13.61
.039	0.99	.065	1.65	.185	4.70		
.040	1.02	.068	1.73	.189	4.80		
.041	1.04	.069	1.75	.194	4.93		

THIRD ANGLE PROJECTION



ISSUED 2000-07 REAFFIRMED 2006-10 REVISED 2014-05

CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029

SAE INTERNATIONAL

AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE (FOR MIL-DTL-24308 CONNECTORS)

AS39029/63
SHEET 1 OF 4

REV. C

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TABLE 1 - DESIGN CHARACTERISTICS

BIN CODE	COLOR BANDS 1ST	COLOR BANDS 2ND	COLOR BANDS 3RD	MATING END SIZE	WIRE BARREL SIZE	TYPE	CLASS
368	ORANGE	BLUE	GRAY	20	20	A	A
656 1/	BLUE	GREEN	BLUE	20	20	A	A

1/ FINISH SHALL BE GOLD PLATING IN ACCORDANCE WITH ASTM B488, TYPE II, CODE C, CLASS 1.27 OVER A SUITABLE UNDERPLATE. SILVER AND NICKEL SHALL NOT BE USED AS AN UNDERPLATE ON CLASSES M & N. THIS FINISH IS INTENDED FOR USE WITH MIL-DTL-24308 NON-MAGNETIC CONNECTORS, CLASS M AND N ONLY.

TABLE 2 - TOOLS

BIN CODE	BASIC CRIMPING	POSITIONER	INSTALLING AND REMOVAL TOOLS
368, 656	M22520/2-01	M22520/2-08	M81969/39-01 OR M81969/1-02

TABLE 3 - PART NUMBER

BIN CODE	PART NUMBER	SUPERSEDED PART NUMBER
368	M39029/63-368	M24308/10-1
656	M39029/63-656	------

REQUIREMENTS: ALL COMPLETE 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 1. DIMENSIONS ARE IN INCHES. METRIC EQUIVALENTS ARE GIVEN FOR GENERAL INFORMATION ONLY. DIMENSIONS SHOWN APPLY AFTER PLATING. MACHINED SURFACES TO HAVE 63 (RA) OR BETTER PER USASI B46.1 UNLESS OTHERWISE SPECIFIED. REMOVE ALL BURRS AND SHARP EDGES .003 INCH (0.08 MM) MAXIMUM UNLESS OTHERWISE SPECIFIED. ALL DIAMETERS TO BE CONCENTRIC WITH EACH OTHER WITHIN .004 INCH (0.10 MM) TIR. THE MECHNICAL PRESSURE MEMBER SHALL BE SHROUDED. HOODS, IF USED, SHALL CONFORM TO THE REQUIREMENTS SPECIFIED HERIN. MAXIMUM ALLOWABLE GAP BETWEEN HOOD AND BODY OF CONTACT IS .010 INCH (0.254 MM). AN ALTERNATE DESIGN OF THE WIRE BARREL LEAD-IN ANGLE SHALL BE AS FOLLOWS: SIZE 20 - BLEND RADIUS .015 INCHES ± .005 INCHES.

2. TOOLS:

TOOLS REQUIRED FOR CRIMPING CONTACTS TO THE WIRE/CABLE AND THE INSTALLING/REMOVAL FROM THE CONNECTOR SHALL BE IN ACCORDANCE WITH TABLE 2.

3. PART NUMBERS:

CONTACT PART NUMBERS SHALL BE IN ACCORDANCE WITH TABLE 3. SUPERSEDED PART NUMBERS ARE AS SPECIFIED.

4. MATERIALS:

MATERIALS SHALL BE IN ACCORDANCE WITH AS39029.

OUTGASSING REQUIREMENT:

PART NUMBER M39029/63-656 SHALL MEET THE OUTGASSING REQUIREMENTS OF ASTM E595. THE REQUIREMENT MAY BE VERIFIED BY CERTIFICATION. CONTACT THE QUALIFYING ACTIVITY FOR DETAILS CONCERNING THE CERTIFICATION PROCESS.

RESIDUAL MAGNETISM REQUIREMENT:

PART NUMBER M39029/63-656 SHALL ALSO MEET THE RESIDUAL MAGNETISM. CONTACT HOODS MAY BE OF AN ALTERNATE MATERIAL TO MEET THE RESIDUAL MAGNETISM REQUIREMENT, HOWEVER THE CONTACTS MUST MEET ALL OTHER REQUIREMENTS OF AS39029 AND THIS DETAIL SHEET. WHEN TESTED WITH THE APPLICABLE MIL-DTL-24308 CONNECTOR, THE RESIDUAL MAGNETISM SHALL NOT EXCEED 200 GAMMA. THE FOLLOWING DETAILS SHALL APPLY:

ACCEPTABLE TEST METHOD.

CONNECTOR SHALL BE FULLY ASSEMBLED BEFORE TESTING. THE RESIDUAL MAGNETISM TEST SHALL BE PERFORMED IN A MAGNETICALLY QUIET AREA, I.E., WHERE MACHINES, ELECTRONIC EQUIPMENT, VEHICLES, AND PERSONNEL TRAFFIC ARE RESTRICTED. REFER TO THE TEST ARRANGEMENT OF FIGURE 2 BELOW AND PROCEED AS FOLLOWS:

a. WARM UP THE MILLIAMMETER OR FLUX METER FOR A MINIMUM OF 15 MINUTES

b. MOUNT THE MAGNETOMETER PROBE IN A NON-MAGNETIC STAND IN A HORIZONTAL POSITION AT FULL CABLE LENGTH FROM THE MILLIAMMETER.

c. WITH THE METER PRESET TO THE APPROPRIATE SCALE, ALIGN THE PROBE IN A MAGNETIC E-W DIRECTION OR ORIENT TO OBTAIN A ZERO READING ON THE METER.

d. PASS THE CONNECTOR SPECIMEN THREE TIMES BETWEEN THE POLES OF A MAGNET WITH A FIELD STRENGTH OF 5000 GAUSS ± 5%. THE CONNECTOR SHALL NOT CONTACT THE POLE PIECES.

e. IMMEDIATELY PLACE THE CONNECTOR TO WITHIN ONE-EIGHT (1/8) INCH OF THE PROBE TIP AND ORIENT THE SPECIMEN FOR A MAXIMUM MAGNETISM READING. THE MEASUREMENT UNIT SHALL BE IN GAMMA, WHERE ONE GAMMA IS EQUIVALENT TO 1 X 10^{-5} GAUSS.

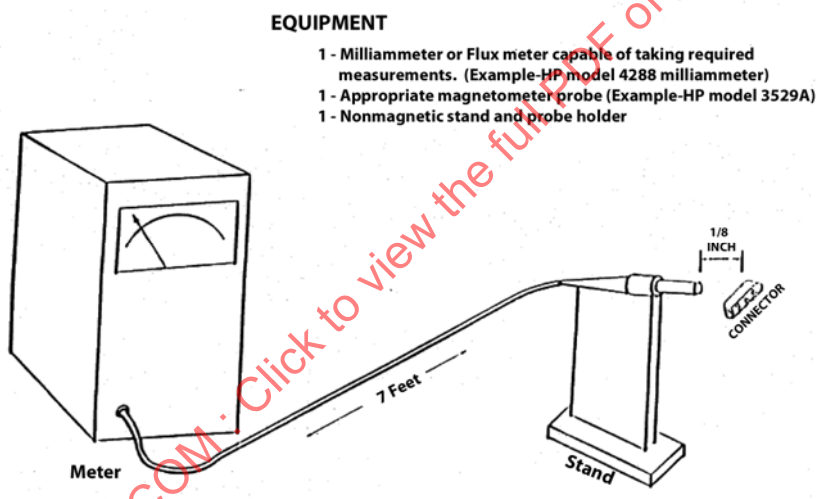

FIGURE 2 - RESIDUAL MAGNETISM TEST ARRANGEMENT

AN ALTERNATIVE RESIDUAL MAGNETISM TEST METHOD MAY BE USED WITH APPROVAL FROM THE QUALIFYING ACTIVITY.

5. MECHANICAL:

MECHANICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

6. ELECTRICAL:

ELECTRICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.

7. ENVIRONMENTAL:

ENVIRONMENTAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029.