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AS39029/59

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5935

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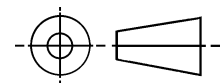
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THIRD ANGLE PROJECTION



ISSUED 2000-07

PREPARED BY SAE SUBCOMMITTEE AE-8C1

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AEROSPACE STANDARD

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

AS39029/59
SHEET 1 OF 9

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION: MIL-C-39029.

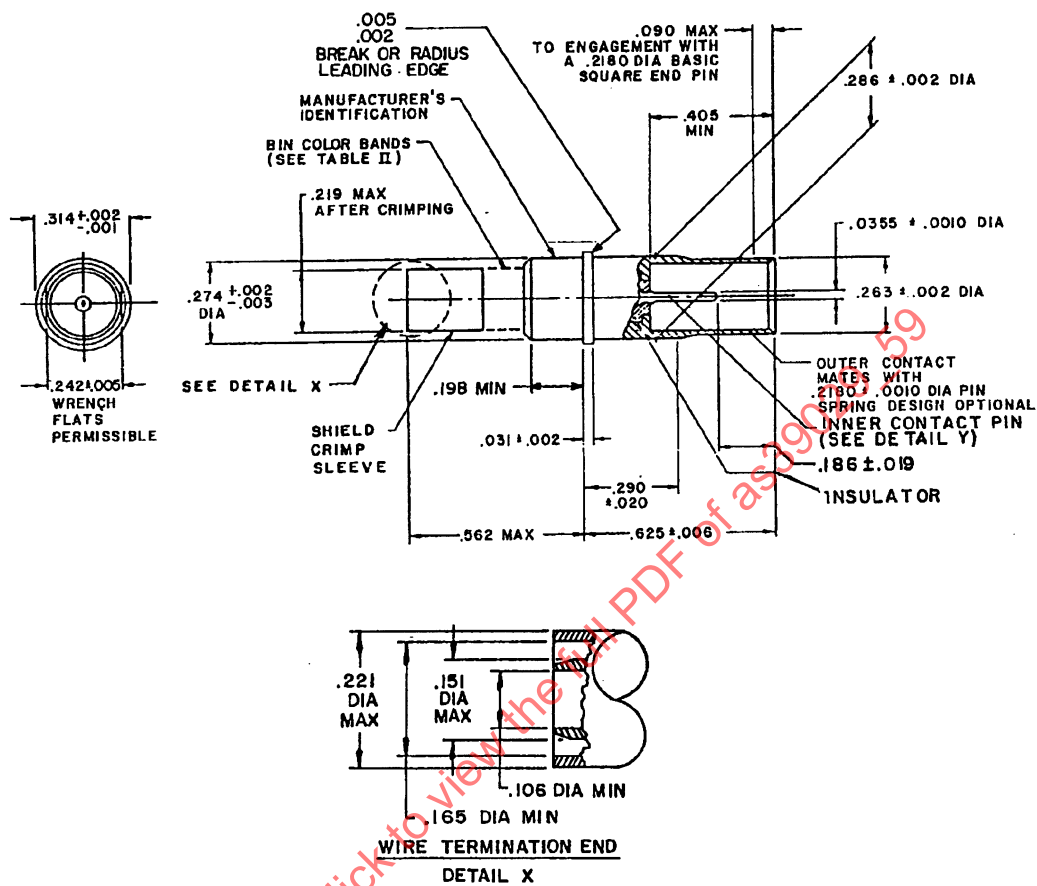
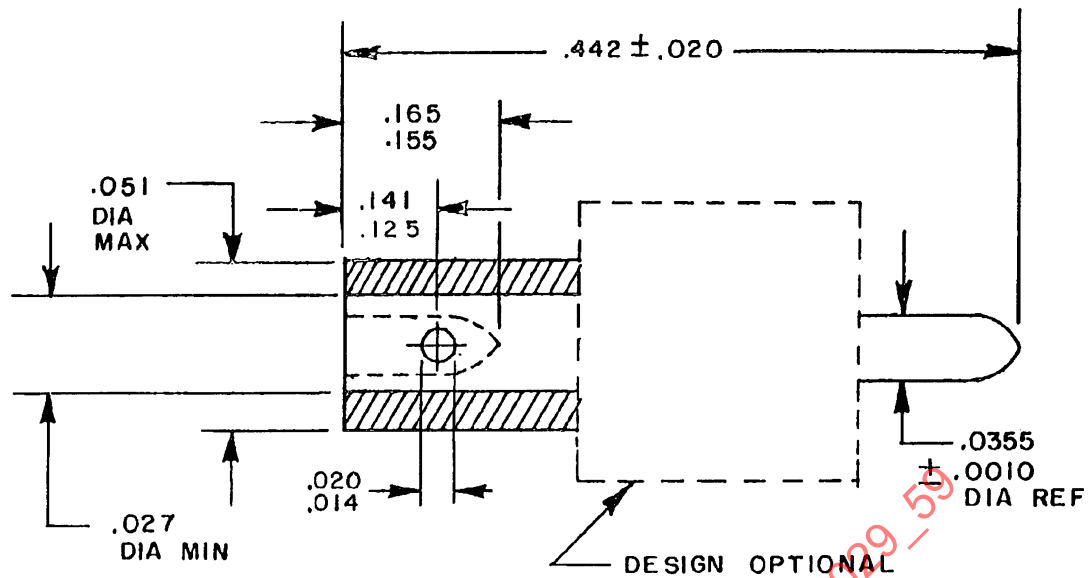


FIGURE 1. CONNECTOR CONTACT.



INNER PIN CONTACT (WIRE BARREL)

DETAIL Y

Inches	mm	Inches	mm	Inches	mm
.0010	0.025	.0355	0.902	.219	5.56
.001	0.03	.051	1.30	.221	5.61
.002	0.05	.090	2.29	.242	6.15
.003	0.08	.106	2.69	.263	6.68
.005	0.13	.125	3.18	.274	6.96
.006	0.15	.141	3.58	.286	7.26
.014	0.36	.151	3.84	.290	7.37
.019	0.48	.155	3.94	.314	7.98
.020	0.51	.165	4.19	.405	10.29
.027	0.69	.186	4.72	.442	11.23
.031	0.79	.198	5.03	.562	14.27
		.2180	5.537	.625	15.88

NOTES:

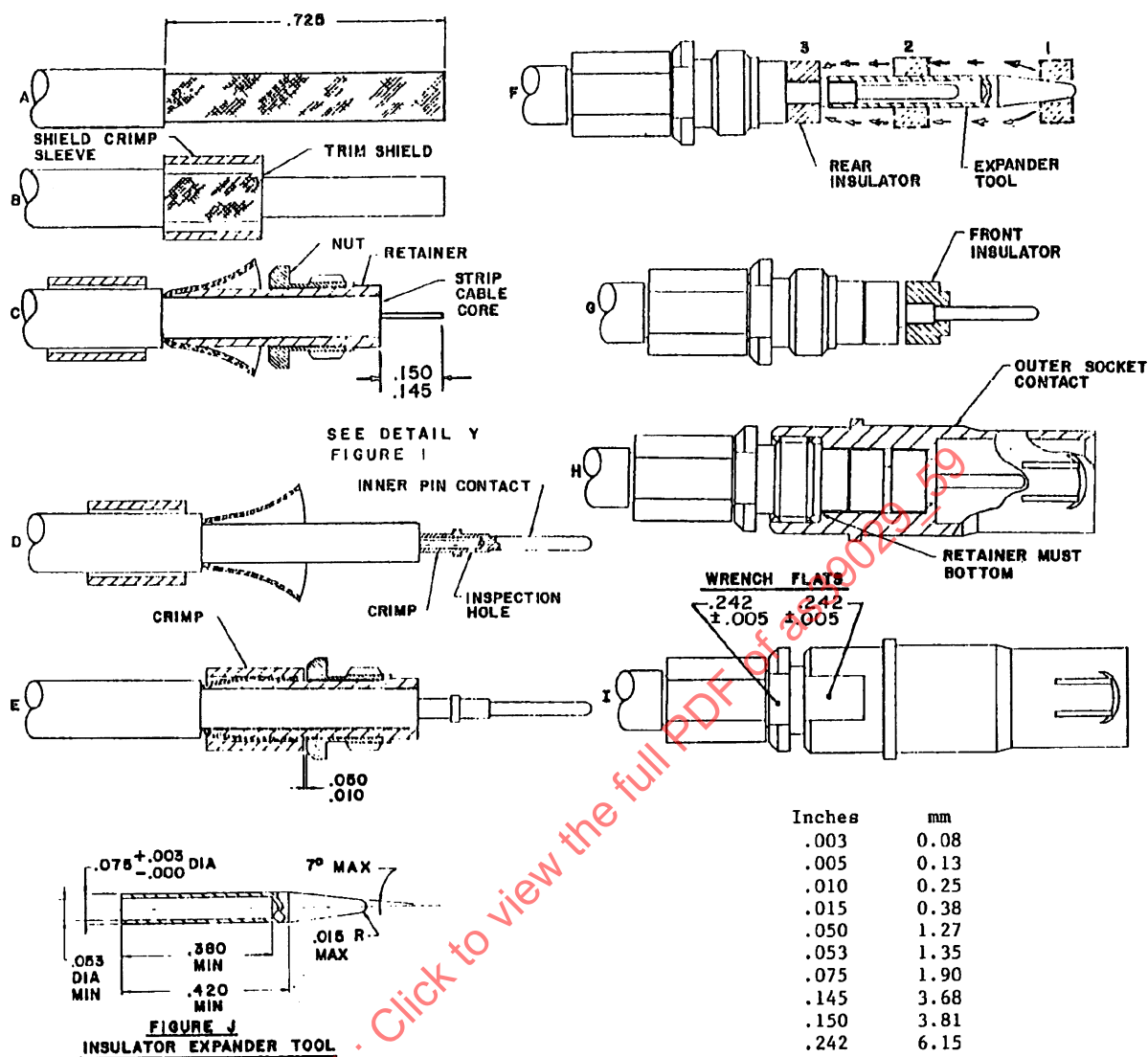
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimensions shown apply after plating.
4. Inactive for new design for Air Force, Army, and Navy.
5. Active for new design for NASA only.

FIGURE 1. CONNECTOR CONTACT - CONTINUED.

ASSEMBLY INSTRUCTIONS

- A**
1. If the connector incorporates an individual wire sealing member, this member must be slid on the cable prior to assembly of the coaxial cable to the coaxial contact.
 2. Strip cable as illustrated. Ends must be cut cleanly and at right angles to the axial plane of the cable. The cable must not be deformed while making cuts.
- B**
1. Slide shield crimp sleeve over cable shield until flush with edge of cable jacket.
 2. Trim shield flush with edge of shield crimp sleeve.
- C**
1. Slide shield crimp sleeve back over cable jacket.
 2. Assemble nut over retainer. Slide retainer and nut assembly over the cable core and under the cable shield. Retainer must bottom against cable shield.
 3. Strip cable core flush with end of retainer exposing cable center conductor.
- D**
1. Remove nut and retainer assembly from cable end.
 2. Slide inner socket contact over cable center conductor. Cable center conductor must be visible through inspection hole in the inner socket contact.
 3. Crimp inner socket contact using crimp tool and positioner listed in table III.
- E**
1. Slide retainer and nut assembly over inner socket contact, cable core and under cable shield. Retainer must bottom against cable shield.
 2. Bring shield crimp sleeve forward over cable shield and observe .010-.050 dimension.
 3. Crimp shield crimp sleeve using tool and dies listed in table III. Nut must rotate freely after crimping shield crimp sleeve.
- F**
1. Slide rear insulator on expander tool (see figure J) and slide tool over inner socket contact. Slide rear insulator until it seats between retainer end and the inner socket contact shoulder. Remove expander tool.
- G**
- Slide front insulator, large end first, over the inner socket contact until insulator seats against inner socket contact shoulder.
- H**
1. Slide outer pin contact over insulator and retainer assembly. Thread nut into rear of the outer pin contact.
 2. Tighten nut with wrenches until metal to metal bottoming is achieved between retainer shoulder and outer pin contact. Torque on nut shall be 30-36 inch ounces. Cable must not rotate while tightening the nut.
- I**
- Illustrates final assembly.

FIGURE 2. ASSEMBLY PROCEDURE.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 2. ASSEMBLY PROCEDURE - CONTINUED.

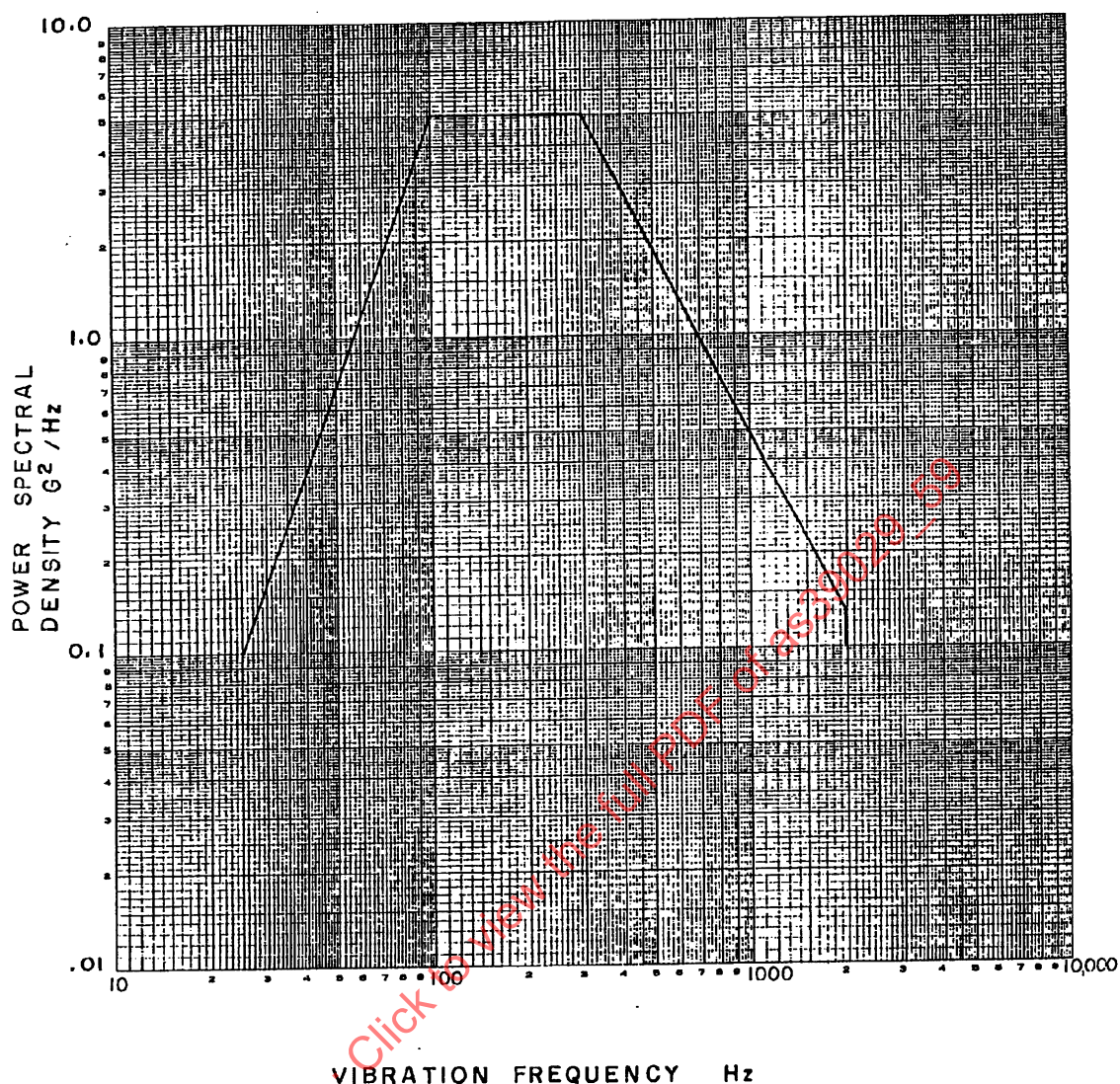


FIGURE 3. VIBRATION ENVELOPE.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1 and table I.

Tools: See tables II and III.

Assembly procedure: See figure 2. Manufacturer's recommended assembly instructions shall be shipped with unit package.

Mating contact: See MIL-C-39029/60.

Low signal level contact resistance (inner contact only): See table IV.

Contact resistance: See table V.

Contact engagement and separation forces: The engagement depth shall be as encountered in normal service. The test pins shall be in accordance with MS3197, except the diameters shall be as specified in table VI and surface roughness shall not exceed 3.

Crimp tensile strength (inner and outer contact crimp joint): See table VII.

Random vibration: Method 2005 of MIL-STD-1344, test condition V. The following details shall apply:

- Use the vibration envelope shown on figure 3, derived from zone 2 outlined in Aerospace information report (AIR 1557).
- Vibration: To be conducted under standard test conditions.
- Duration: Eight hours in the longitudinal direction and 8 hours in a perpendicular direction (16 hours).

High impact shock: All contacts shall be wired in a series circuit with 100 milliamperes maximum current flow through the series circuit during shock. Connectors shall be monitored for any discontinuities. A detector capable of detecting all discontinuities in excess of 1 microsecond shall be used. Wired and mated connectors shall be subjected to the test specified in MIL-S-901, grade A with the following modifications and additions. Mounting fixture shall be in accordance with MIL-S-901, light weight. The cable or wire bundle shall be supported on a stationary frame to provide a free flexing cable length between the frame and fixture of not less than 36 inches (914.4 mm).

- Coupling. Coupled by normal mounting means.
- Test condition A. Plug shall be terminated with at least 80 percent of wired contacts. The wire bundle shall be provided with the straight, open frame, strain relief accessory hardware.

Dielectric withstanding voltage (applied between inner and outer contact): See table VIII.

Operating temperature range: -65°C (-85°F) to 200°C (392°F).

Part or Identifying number (PIN): See table IX.

QPL evaluating activity: Defense Electronics Supply Center (DESC-E), Dayton, OH 45444.

International interest: NEPR 57.

Contacts shall comply with reliability assurance provisions of MIL-STD-790 as specified in MIL-C-38999.

TABLE I. 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 II. TOOLS.

BIN code	Installing tool	Removal tool	Insulator expander tool (crimp only) ^{1/}
366	None required hand installed	MIL-I-81969/14-06	11-10134 (Bendix-77820)

^{1/} Insulator expander tool kit must be used to assemble rear insulator over contact when the inner contact is installed by crimping means alone.