

AS39029/6

FEDERAL SUPPLY CLASS
5935

RATIONALE

THIS DOCUMENT HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE 5-YEAR REVIEW POLICY.

NOTICE

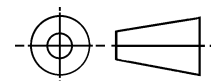
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THIRD ANGLE PROJECTION



ISSUED 2000-06 REAFFIRMED 2007-01

PREPARED BY SAE SUBCOMMITTEE AE-8C1

SAE Aerospace
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AEROSPACE STANDARD

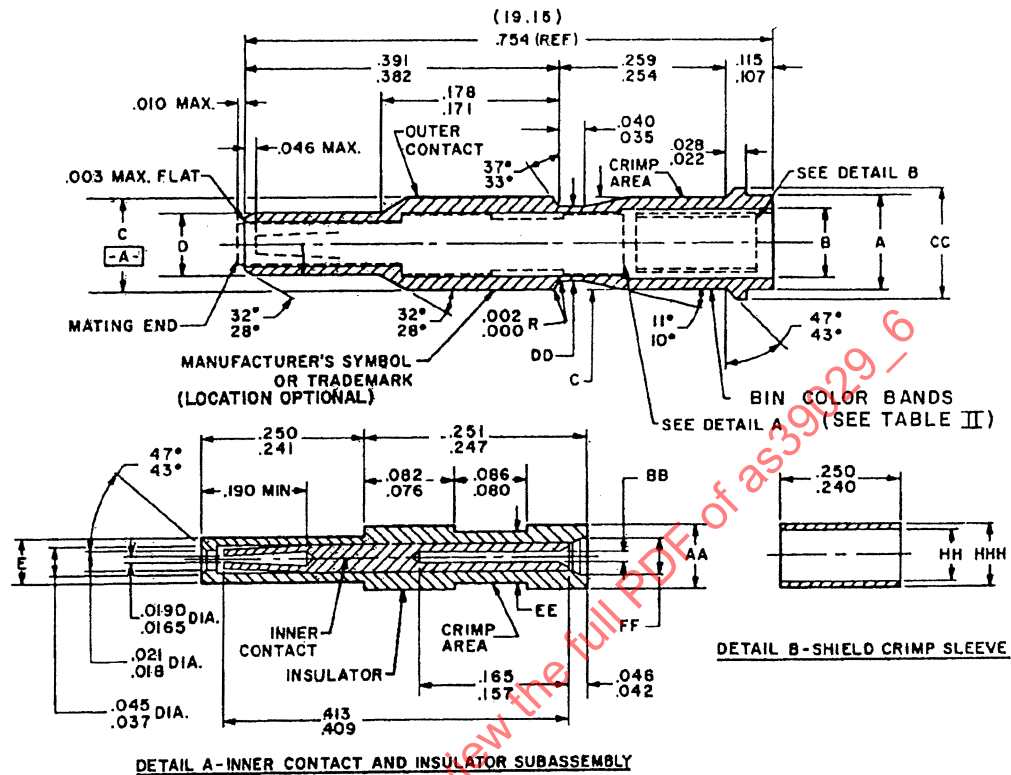
CONTACTS, ELECTRICAL CONNECTOR,
PIN, CRIMP REMOVABLE, SHIELDED,
(FOR MIL-C-81511 SERIES 1 AND 2 CONNECTORS)

AS39029/6
SHEET 1 OF 7

THE COMPLETE REQUIREMENTS FOR PROCURING THE CONTACTS DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF SPECIFICATION MIL-C-39029.

INACTIVE FOR NEW DESIGN

AS39029/6



NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Metric equivalents are in parentheses for overall length and diameter only.
4. Dimensions shown apply after plating.

FIGURE 1. CONNECTOR CONTACT.

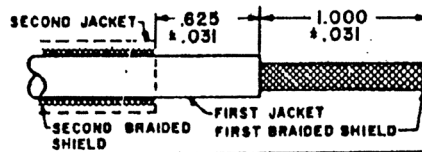
TABLE I. DIMENSIONS.

BIN code	A	B	C	D	E MAX DIA	AA DIA	BB MIN DIA	CC DIA	DD DIA	EE DIA	FF MIN DIA	HH MIN DIA	HH MAX DIA
120	.103 .101	.0910 .0885	.113 (2.87) .110 (2.79)	.071 .069	.058	.081 .078	.022	.133 .130	.099 .096	.068 .062	.037	.058	.087
121	.162 .159	.1430 .1405	.161 (4.09) .158 (4.01)	.1165 .1140	.093	.128 .126	.022	.190 .187	.145 .142	.076 .070	.067	.086	.130
122	.162 .159	.1430 .1405	.161 (4.09) .158 (4.01)	.1165 .1140	.093	.128 .126	.022	.190 .187	.145 .142	.076 .070	.108	.110	.130
123	.162 .159	.1430 .1405	.161 (4.09) .158 (4.01)	.1165 .1140	.093	.128 .126	.022	.190 .187	.145 .142	.076 .070	.108	.128	.142
124	.162 .159	.1430 .1405	.161 (4.09) .158 (4.01)	.1165 .1140	.093	.128 .126	.034	.190 .187	.145 .142	.089 .085	.098	.128	.142
125	.162 .159	.1430 .1405	.161 (4.09) .158 (4.01)	.1165 .1140	.093	.128 .126	.034	.190 .187	.145 .142	.089 .085	.098	.110	.130

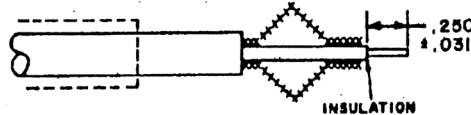
STEP 1

- 1A. STRIP FIRST CABLE JACKET BACK 1 INCH.
 1B. IN THE CASES WHERE TRIAXIAL CABLES ARE USED THE SECOND JACKET AND BRAIDED SHIELD SHALL BE STRIPPED BACK AN ADDITIONAL 5/8 INCH.

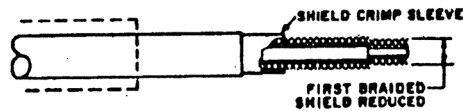
CAUTION: DO NOT CUT INTO BRAIDED SHIELD

**STEP 2**

- 2A. SLIDE FIRST BRAIDED SHIELD BACK AND TRIM INSULATION 1/4 INCH.



- 2B. SLIDE FIRST BRAIDED SHIELD FORWARD AND ROLL BETWEEN FINGERS TO REDUCE ITS DIAMETER.
 2C. SLIDE SHIELD CRIMP SLEEVE OVER BRAIDED SHIELD UNTIL IT RESTS AGAINST THE FIRST JACKET

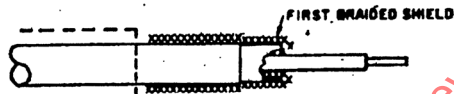


FOR CABLES USING
M 39029/6-02, 03
OR 06 CONTACTS

FOR CABLES USING
M 39029/6-01, 04
OR 05 CONTACTS

- 2D₁. NO CRIMPING NECESSARY
 2E. COMB OUT THE BRAIDED SHIELD AND FOLD IT BACK OVER THE SHIELD CRIMP SLEEVE.

- 2D₂. CRIMP SHIELD CRIMP SLEEVE USING CAVITY B IN CRIMPING TOOL.



- 2F. TRIM EXCESS BRAIDED SHIELD EXTENDING BEYOND THE SHIELD CRIMP SLEEVE.

**STEP 3**

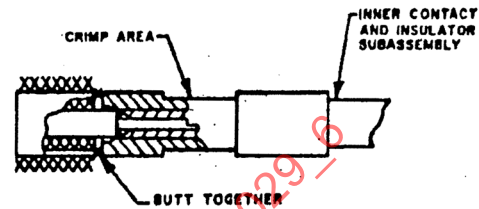
- 3A. CUT INNER CONDUCTOR AND INSULATION.



- 3B. STRIP INSULATION FROM INNER CONDUCTOR.

**STEP 4**

- 4A. RESTORE INNER CONDUCTOR TO ORIGINAL LAY AND INSTALL INTO INNER CONTACT AND INSULATOR SUBASSEMBLY, BUTT CABLE AND CONTACT AS SHOWN.
 4B. CRIMP INNER CONTACT THRU INSULATOR WITH CRIMPING TOOL AND POSITIONED LISTED IN TABLE III.

**STEP 5**

- 5A. INSERT CRIMPED SUBASSEMBLY INTO OUTER CONTACT UNTIL SOLID RESISTANCE IS FELT AND OUTER CONTACT COVERS FIRST BRAIDED SHIELD.
 5B. CRIMP OUTER CONTACT USING CAVITY A IN CRIMPING TOOL.

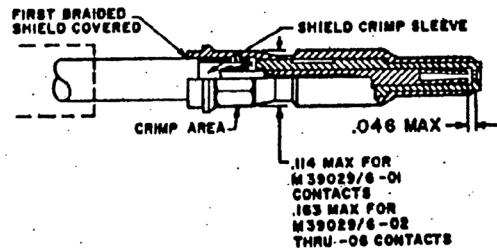


FIGURE 2. ASSEMBLY PROCEDURE.

TABLE II. DESIGN CHARACTERISTICS.

BIN code	Color bands			Contact cavity size	Cables accommodated	Type	Class
	1st	2nd	3rd				
120	Brown	Red	Black	16	RG-178A/U RG-196A/U	D	B
121	Brown	Red	Brown	12	RG-179B/U RG-187A/U RG-188A/U		
122	Brown	Red	Red	12	9530D5117 (RAYCHEM) <u>1/</u>		
123	Brown	Red	Orange	12	RG-180B/U RG-195A/U 293-3922 (MICRODOT) <u>1/</u>		
124	Brown	Red	Yellow	12	250-4070 (MICRODOT) <u>1/</u>		
125	Brown	Red	Green	12	5022E5111 (RAYCHEM) <u>1/</u>		

1/ or equivalent**REQUIREMENTS:**

Dimensions, design characteristics, and configuration: See figure 1 and tables I and II.

Tools: See table III.

Mating contact: MIL-C-39029/13 and MIL-C-39029/14.

Manufacturer's recommended assembly instructions to be shipped with unit package.

Assembly procedure: See figure 2.

Preparation of samples: Contacts shall be wired as required using wire in accordance with table II (cables accommodated column).

Contact resistance: Contact resistance at a load current of 1.0 ampere shall meet the requirements of table IV.

Contact engagement and separation forces: The contact separation and engagement forces shall meet the requirements of table IV.

Dielectric withstanding voltage: 1,000 volts, ac, rms from sea level to 110,000 feet altitude.

Tensile strength: The tensile strength shall meet the requirements of table IV.

QPL evaluating activity: Naval Weapons Support Center, Code 3074, Crane, Indiana 47522.