

INCH-POUND

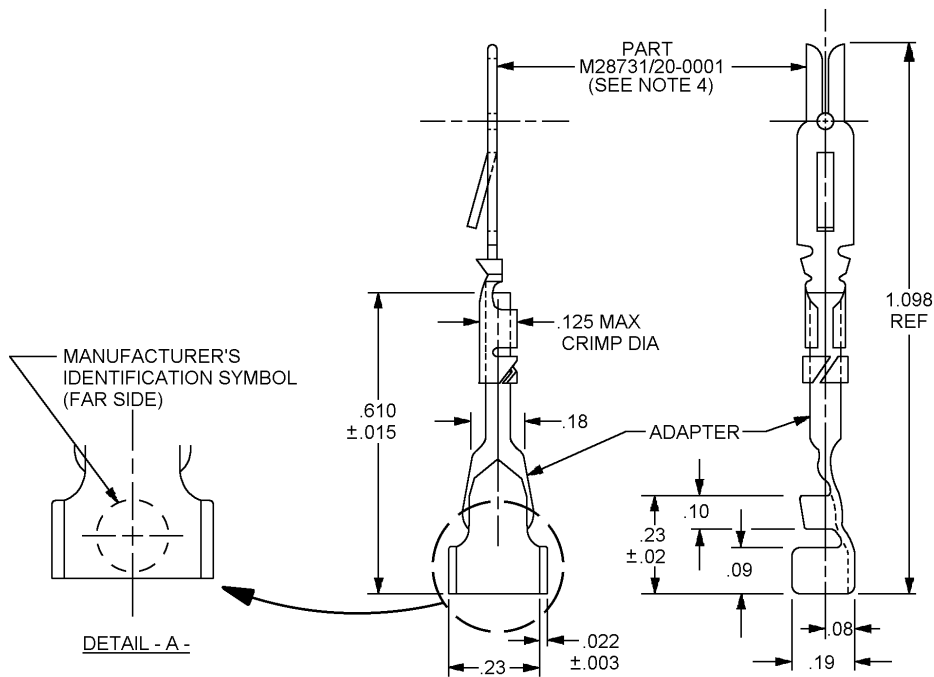
MIL-DTL-28731/23G
w/AMENDMENT 1
29 October 2018
SUPERSEDING
MIL-DTL-28731/23G
15 March 2004

DETAIL SPECIFICATION SHEET

CONNECTOR ELECTRICAL, CONTACT, FORK TYPE, REMOVABLE, DOUBLE WIRE CRIMP

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-28731.



Inches	mm
.003	0.08
.015	0.38
.02	0.5
.022	0.56
.08	2.0
.09	2.3
.10	2.5
.125	3.18
.18	4.6
.19	4.8
.23	5.8
.610	15.49
1.098	27.89

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified the tolerance for three place decimals is $\pm .010$ (0.25 mm).
4. The adapter shall be crimped as shown to a contact in accordance with MIL-DTL-28731.

AMSC N/A

FSC 5935



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FIGURE 1. Contact, fork type, double wire crimp.

REQUIREMENTS

Dimensions and configurations: See figure 1.

Material (adapter): Brass in accordance with ASTM-B121/B121M, ASTM-B36/B36M, ASTM-B16/B16M and ASTM-B124/B124M.

Plating: Adapter shall be gold plated in accordance with ASTM-B488, grade C, class (50 -microinches minimum) over nickel plating in accordance with SAE-AMS-QQ-N-290, class 2, 50 to 150 microinches.

Crimp diameter: .125 inch (3.18 mm) maximum.

Adapter crimp tensile strength: 35 pounds, minimum.

Wire crimp tensile strength: During crimp tensile strength testing of wires, only one wire shall be tested for each barrel and the required value shall be as shown in table I.

TABLE I. Minimum tensile strength versus wire size (in accordance with NEMA HP-3 and NEMA HP-6).

Wire size (AWG)	Minimum tensile strength (lbs.)
16	35.0
18	25.0
20	20.0

Application: Crimp shall accept wires of the following AWG sizes and combinations: Two AWG 16 wires, two AWG 18 wires, two AWG 20 wires, one AWG 20 and one AWG 16 and two AWG 20 wires.

Crimping tools (Elco CAGE 12763):

- a. Part or Identifying Number (PIN) 18003-024 or equivalent shall be used for 2-16 AWG wires.
- b. PIN 18003-025 or equivalent shall be used for:
 1. 1-16 and 1-20 AWG wires
 2. 2-18 AWG wires
 3. 2-20 AWG wires

Contact resistance: Dependent upon wire size. See value specified in table II.

PIN: M28731/23-0001

Note: This unit shall be preassembled by the manufacturer and supplied loose for hand crimping end installation.

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TABLE II. Wire size verses contact resistance and low level circuit resistance.

Wire size (AWG)	Contact resistance			Low level circuit resistance		
	Test current (amperes)	Maximum potential drop (mV)	Maximum contact resistance (mΩ)	Test current (amperes)	Maximum potential drop (mV)	Maximum contact resistance (mΩ)
16	8.5	59.5	7.0	.001	7.0	7.0
18	8.5	59.5	7.0	.001	8.0	8.0
20	7.5	52.5	7.0	.001	10.0	10.0

Amendment Notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. In addition to MIL-DTL-28731, this document references the following:

ASTM-B16/B16M SAE-AMS-QQ-N-290 NEMA-HP6
 ASTM-B36/B36M NEMA-HP3
 ASTM-B121/B121M
 ASTM-B124/B124M
 ASTM-B488

CONCLUDING MATERIAL

Custodians:
 Army - CR
 Navy - EC
 Air Force - 11
 DLA - CC

Preparing activity:
 DLA - CC
 (Project 5935-2018-148)

Review activities:
 Army - AR, AT, AV, CR4, MI
 Navy - AS, MC, OS
 Air Force - 19, 85

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NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.