

MIL-C-50156  
 AMENDMENT 4  
 9 May 1980  
~~SUPERSEDING~~  
 AMENDMENT 3  
 9 APRIL 1979

# MILITARY SPECIFICATION

## CONNECTORS, ELECTRICAL, CIRCULAR THREADED, AN TYPE, GENERAL SPECIFICATION FOR

This amendment forms a part of Military Specification MIL-C-50156, dated 23 March 1976, and is approved for use by all Departments and Agencies of the Department of Defense.

### PAGE 1

1.2.1, line 2: Delete "(see 3.7)" and substitute "(see 3.32)".

### PAGE 2

1.2.1.2.1, delete material designator "T" in its entirety and substitute:

"T - Ferrous alloy with cadmium plate (class K for MS340D and MS345D series); electrically conductive fused tin (class H) (see 3.3.6c and 3.3.6.1c)".

### PAGE 3

TABLE 1, Class H, Finish column: Delete "Cadmium, olive drab 5/" and substitute "Electrically conductive fused tin 5".

### PAGE 4

TABLE 1, Class V, Fluid resistant column: Delete "Partial" and substitute "Complete 8".

Add the following footnote at end of table:

"8/ Upgraded from partial to complete as of 10 December 1977."

TABLE 1, column 2, add footnote 9.

Add the following footnote at end of table:

"9/ Backshells shall be fabricated and finished with the same material as the connectors (see 1.2.1.2.1, 3.3.6, and 3.3.6.1)".

### PAGE 5

1.2.1.5, delete and substitute:

"1.2.1.5 Insert arrangement. The insert arrangement indicates service rating, the quantity, size and position of contacts as shown in MIL-STD-1651".

### PAGE 6

1.3, title: Delete "accomodations" and substitute "accommodations." Make this same change wherever "accomodations" appear in this specification.

TABLE 11, footnote 2/: Delete "see 6.1.2" and substitute "see 6.1.1."

### PAGE 7

2.1: In list of Military Specifications, delete "MIL-J-5624" and substitute "MIL-T-5624". Delete "MIL-C-23216" and accompanying title. Add the following:

"MIL-C-39029 - Contacts, Electrical Connector, General Specifications for.

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- MIL-C-39029/29 - Contacts, Electrical Connector, Pin, Crimp Removable, (For MIL-C-5015 Series 3450 and MIL-C-83723 Series II Connectors).
- MIL-C-39029/30 - Contacts, Electrical Connector, Socket, Crimp Removable, (For MIL-C-5015 Series 3450 and MIL-C-83723 Series II Connectors).
- MIL-C-39029/44 - Contacts, Electrical Connector, Pin, Crimp Removable, (For MIL-C-5015 Series 3400 Connectors).
- MIL-C-39029/45 - Contacts, Electrical Connector, Socket, Crimp Removable, (For MIL-C-5015 Series 3400 Connectors)".

## PAGE 8

2.1, list of Military Standards: Delete "MIL-STD-456" and accompanying title. Delete "MS3162", "MS3163", "MS90453", "MS90454" and accompanying titles.

2.2, line 1: Delete "documents form" and substitute "document forms".

## PAGE 9

- \* 3.3.3.1.1 Delete entirely and substitute: "Contact plating (solder type, except class H). Contacts shall be silver plated in accordance with QQ-S-365 or gold plated in accordance with MIL-G-45204 over silver plating in accordance with QQ-S-365. The resultant minimum thickness of contact plating shall be 100 microinches. Accessory members of the socket contacts need not be plated but shall comply with the requirements for dissimilar metals specified in 3.3.1."

## PAGE 10

3.3.6d: In line 3, Revise to read " - - - 300 or 316 SERIES Classes, - - - ".

3.3.6.1c: In line 1, delete "classes H and K" and substitute "class K"; and following line 8, add new sentence "The finish of class H connectors and external screws with ferrous alloy shells and coupling rings shall be electrically conductive fused tin."

## PAGE 11

3.4.1, first sentence: Delete "MIL-C-23216" and substitute "MIL-C-39029".

3.4.1.2, delete and substitute:

"3.4.1.2 Crimp contacts. Crimp contacts shall be designed to prevent damage to the contact retention device or sealing member during insertion or removal of the contact. Front release crimp contacts shall conform to MIL-C-39029/44 and MIL-C-39029/45 and be qualified to MIL-C-39029. Rear release crimp contacts shall conform to MIL-C-39029/29 and MIL-C-39029/30 and be qualified to MIL-C-39029".

## PAGE 14

Figure 4, under pin contact: Delete "MS90453" and substitute "MIL-C-39029/44". Under socket contact: Delete "MS90454" and substitute "MIL-C-39029/45".

## PAGE 15

Figure 4-continued, shell size 10SL, dimension F: Delete ".396" and substitute ".398".

## PAGE 16

Figure 5, under pin contact: Delete "MS90453" and substitute "MIL-C-39029/44". Under socket contact: Delete "MS90454" and substitute "MIL-C-39029/45".

## PAGE 18

Figure 6, under pin contact: Delete "MS3162" and substitute "MIL-C-39029/29". Under socket contact: Delete "MS3163" and substitute MIL-C-39029/30.

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## PAGE 19

Figure 6, shell size 10SL, dimension F: Delete ".396" and substitute ".398".

## PAGE 20

Figure 7, under pin contact: Delete "MS3162" and substitute "MIL-C-39029/29".  
Under socket contact: Delete "MS3163" and substitute "MIL-C-39029/30".

## PAGE 25

3.4.6.6: Following last sentence, add "For insert arrangements containing 1 contact of a particular size, sealing plugs shall not be supplied".

## PAGE 26

3.15, line 2: Delete "MIL-C-23216" and substitute "MIL-C-39029".

## PAGE 27

3.25, line 1: Delete "crimp contact, front release and crimp contact, rear release". (This had been added by previous amendment).

## PAGE 28

3.32, line 2: Delete "and MIL-STD-456". Add after 2nd sentence: "the Date Code, manufacturers symbol or code, and assembly plant symbol or code shall be required for all connector types except classes A, P, B and C."

## PAGE 32

TABLE VII, group 5: Delete "External bending moment" and associated requirement and test paragraphs.

## PAGE 33

TABLE VIII, group 1: Following "Altitude immersion", delete "Durability" and associated requirement and test paragraphs; also delete "Corrosion" and substitute the following:

"Corrosion (all classes except D, DJ, and W) - - -	3.17	4.6.13
Dynamic test (classes D, DJ, and W) - - - - -	3.17	4.6.13.1"

## PAGE 34

TABLE VIII, group 5, Fluid immersion: In line 4, delete "(classes K and L only)" and substitute "(Classes K, L, and W only)", and in line 5, delete "(classes D, W, and U only)" and substitute "(classes D and U only)".

## PAGE 44

4.6.11, line 2: Delete "MIL-C-23216" and substitute "MIL-C-39029".

4.6.12.1: At end of sentence, add "Durability may be interrupted for other tests".

After 4.6.13b, add the following new paragraph:

"4.6.13.1 Dynamic test (classes D, DJ, and W). The wired, assembled plugs and receptacles shall be mated and unmated 50 cycles at a rate of 300 cycles per hour maximum. The mating and unmating shall be accomplished so that the plug and receptacle are completely separated during each cycle. The connectors shall then be subjected to the salt spray test in accordance with method 1001 of MIL-STD-1344. The following details and exceptions shall apply:

- a. The connectors shall be tested for 452 hours mated followed by 48 hours unmated.
- b. The connectors shall not be mounted, but shall be suspended from the top of the chamber using waxed twine or string, glass rods or glass cord.

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- c. Wire ends must be protected to prevent salt migration. After the salt spray exposure, the remaining number of durability cycles specified in 4.6.12.1 shall be completed.

PAGE 45

4.6.15.2, title: Delete "(classes D, U, and W)" and substitute "(classes D and U)".

4.6.15.3, title: Delete "(classes K, L, and H)" and substitute "(classes K, L, H, and W)".

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TABLE XVII, delete and substitute:

\* TABLE XVII. External bending moment.

Shell size	Bending moment (inch pounds)	Lever arm (inches)
8S	60	2.2
10S, 10SL	110	
12S, 12	170	
14S, 14	300	
16S, 16	370	
18	420	2.6
20	450	
22	520	
24	570	2.7
28	630	
32	750	2.8
36	810	
40	870	
44	930	
48	990	

PAGE 54

4.6.22, line 2: Delete "MIL-C-23216" and substitute "MIL-C-39029".

4.6.23, line 2: Delete "MIL-C-23216" and substitute "MIL-C-39029".

PAGE 56

6.1v, line 1: Delete "partial" and substitute "complete".

PAGE 57

6.2.2, line 2: Delete "MIL-C-23216" and substitute "MIL-C-39029."

NOTE: The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. 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 and relationship to the last previous amendment.

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Custodians:

Navy - AS  
Army - CR  
Air Force - 85

Review activities:

Army - MI, AR  
Navy - EC  
Air Force - 11, 17, 99  
DLA - ES

Preparing activity:

Navy - AS

Agent:

DLA - ES

(Project 5935-3153)