DETAIL SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRICAL, CIRCULAR, BREAKAWAY, WALL MOUNTING FLANGE, REMOVABLE CRIMP CONTACTS, SOCKETS, SERIES III, SHELL SIZE 25, METRIC

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-38999.

FIGURE 1. Receptacle, classes J, M, R, T, W and Z.
MIL-DTL-38999/35D
w/AMENDMENT 1

DETAIL B

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NOTES:
1. Dimensions are in millimeters.
2. Inch equivalents are given for information only.
3. Front or rear panel mounting.
4. For details of connector front and rear configurations, see MIL-DTL-38999.
5. The specified red band location is measured from the front of the shell to the back end of the red band.


REQUIREMENTS:
Dimensions and configurations: See figure 1.
Interface dimensions shall conform to MIL-DTL-38999.
This receptacle mates with the following lanyard release plugs: MIL-DTL-38999/29, /30, and /31. It is intended to be used only on stores.
Insert arrangement: See MIL-STD-1560.
Separation force: The receptacle shell shall break into two parts when a separation force is applied at any angle within 15° of the normal axis by the mating plug assembly. Separation shall occur such that the plug assembly shall be pulled free of the receptacle insert and contacts shall remain secure in the mounted part.
Part or Identifying Number (PIN) example:

D38999/ 35 W 20 A

Military prefix
Specification sheet number
Class
Insert arrangement
Polarizing positions
N is required for normal position

QUALIFICATION:

Qualification is required. Qualification shall be in accordance with MIL-DTL-38999 with the following exceptions:

Group I:

Durability: Wired connectors shall meet the durability requirements of MIL-DTL-38999, with the following exceptions:

The total number of cycles of mating and unmating shall be 500, in the following sequence: 200 cycles of normal mating and unmating, 50 cycles of normal mating with pull-separation unmating, 200 cycles of normal mating and unmating, 50 cycles of normal mating with pull-separation unmating. The lanyard release velocity during the pull-separation force unmating cycles shall be 9.15 meters per second.

Separation force: Upon conclusion of the group I test, all samples shall be subjected to an axial force applied by a mated plug assembly. The connector shall meet the requirements of separation force when the applied load is 1,800 ± 200 newtons.

External bending moment: Wired connectors shall meet external bending moment requirements of MIL-DTL-38999 with the following exception: Shell size 25 loading shall be 28.3 newton-meters.

Group II:

Durability: Wired connectors shall meet the durability requirements of MIL-DTL-38999, with the following exceptions:

The total number of cycles of mating and unmating shall be 500, in the following sequence: 200 cycles of normal mating and unmating, 50 cycles of normal mating with pull-separation unmating, 200 cycles of normal mating and unmating, 50 cycles of normal mating with pull-separation unmating. The lanyard release velocity during the pull-separation force unmating cycles shall be 9.15 meters per second.
Vibration: Wired connectors shall meet the vibration requirements of MIL-DTL-38999 with the following exceptions:

Sine vibration: Connectors shall be subjected to the test specified in accordance with MIL-STD-202-204, test condition G.

Random vibration: Connectors shall be subjected to the test specified in test procedure EIA-364-28, test condition VI, letter J, ambient temperature. Duration shall be 8 hours in the longitudinal direction and 8 hours in the perpendicular direction, for a total of 16 hours.

The qualifying activity will define the accessory load and cable to be used in the random and sine vibration tests.

Separation force: Upon conclusion of the group II test, all samples shall be subjected to an axial force applied by a mated plug assembly. The connector shall meet the requirements of separation force when the applied load is 1,800 ±200 Newton.

External bending moment: Wired connectors shall meet external bending moment requirements of MIL-DTL-38999 with the following exception: Shell size 25 loading shall be 28.3 Newton-meters.

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-38999, this document references the following:

MIL-DTL-38999/29
MIL-DTL-38999/30
MIL-DTL-38999/31
MIL-STD-202-204
MIL-STD-1560
EIA-364-28

CONCLUDING MATERIAL

Custodians:
Army – CR
Air Force - 85
DLA – CC

Preparing activity:
DLA – CC

(Project 5935–2016-161)

Review activities:
Army - MI
Air Force – 19, 99

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.