INCH POUND

MIL-DTL-3655/23B
w/AMENDMENT 1
18 March 2008
SUPERSEDING
MIL-DTL-3655/23B
4 October 1999

DETAIL SPECIFICATION SHEET

CONNECTOR, RECEPTACLE, ELECTRICAL, CLASS I (COAXIAL, SERIES TWIN, TWBNC, BULKHEAD)

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-3655.

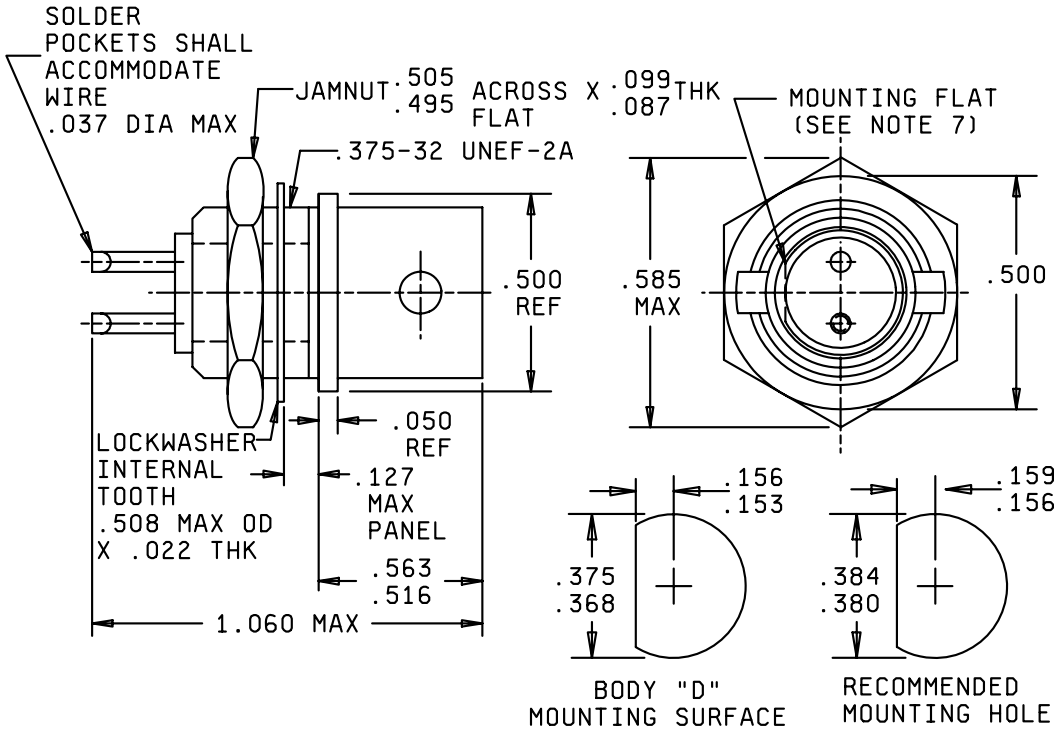

FIGURE 1. Type TWBNC, electrical bulkhead receptacle connector.

Inches	mm	Inches	mm
.022	0.56	.380	9.65
.037	0.94	.384	9.75
.050	1.27	.495	12.57
.087	2.21	.500	12.70
.099	2.51	.505	12.83
.127	3.23	.508	12.90
.153	3.89	.516	13.11
.156	3.96	.563	14.30
.159	4.04	.585	14.86
.368	9.35	1.060	40.79
.375	9.53		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Wrench flats to accommodate standard wrench in accordance with FED-STD-H28, appendix 10.
4. Unless otherwise specified, tolerance is ± .005 (0.13 mm).
5. All undimensioned pictorial representations are for reference purposes only.
6. Full threads to within .063 of shoulder.
7. Contacts, insulator, bayonet studs, and mounting flat shall be oriented within ±3° of position shown.

FIGURE 1. Type TWBNC, electrical bulkhead receptacle connector – Continued.

ENGINEERING DATA

Nominal impedance: 78 ohms.

Frequency range: 0 to 500 MHz.

Voltage rating: 500 V rms, maximum, at sea level; 125 V rms, maximum at 70,000 feet.

Mating connector: See MIL-DTL-3655/15.

REQUIREMENTS:

Design and construction: See figure 1 and MIL-STD-348.

Force to engage/disengage:
Torque: One inch-pound, maximum.
Longitudinal force: 3 pounds, maximum.

Coupling proof torque: Not applicable.

Mating characteristics (see figure 1 and MIL-STD-348 for dimensions):
Inner contact (sockets):
Oversize test pin: 0.042 inch diameter, minimum (nonclosed entry contacts only).
Test pin finish: 16 microinches.
Insertion depth: .093 inch, minimum.
Number of insertions: One.

Insertion force test:
Steel test pin diameter: .039 inch, minimum.
Test pin finish: 16 microinches.
Insertion depth: .093 inch, minimum.
Insertion force: 2 pounds, maximum.

Withdrawal force test:
Steel test pin diameter: .037 inch, maximum.
Test pin finish: 16 microinches.
Insertion depth: .093 inch, minimum.
Withdrawal force: 2 ounces, minimum.

Permeability: Applicable.

Hermetic seal: Not applicable.

Leakage: Not applicable.

Insulation resistance: 5×10^9 ohms, minimum.

Contact insulator captivation: Applicable.

Salt spray (corrosion): Applicable.

Connector durability: Applicable.

Contact resistance (milliohms, maximum):

	Initial	After environment
Inner conductor contacts:	3.5	4.7
Outer conductor contacts:	.4	Not applicable

Dielectric withstanding voltage: 1,500 V rms, minimum, at sea level.

Vibration, high frequency: Applicable.

Shock (specified pulse): Applicable.

Temperature cycling: Applicable.

Humidity: Applicable, but no measurement shall be made at high humidity. Insulation resistance shall be at least 2×10^8 ohms within 5 minutes after removal from the humidity chamber.

Cable retention force: Not applicable.

Coupling nut retention: Not applicable.

Part or Identifying Number (PIN): M3655/23-0001.

First article shall apply as follows: First article test inspection shall be performed in accordance with the requirements outlined in the latest revision of MIL-DTL-3655.

Amendment notations. The margins of this specification are marked with vertical lines to indicate where modifications from this 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.

Referenced documents. In addition to MIL-DTL-3655, this document references the following:

FED-STD-H28
MIL-STD-348
MIL-DTL-3655/15

CONCLUDING MATERIAL

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

Preparing activity:
DLA - CC

(Project 5935-2007-030)

Review activities:
Army – AT, MI
Navy – AS, MC, OS, SH
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 http://assist.daps.dla.mil.