

INCH POUND

MIL-DTL-3655/3C  
18 March 2008  
SUPERSEDING  
MIL-C-3655/3B  
11 April 1980

DETAIL SPECIFICATION SHEET

CONNECTOR, RECEPTACLE, ELECTRICAL, CLASS I  
(COAXIAL, SERIES TWIN) TYPE UG-423B/U

**Inactive for new design  
after 11 April 1980**

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.

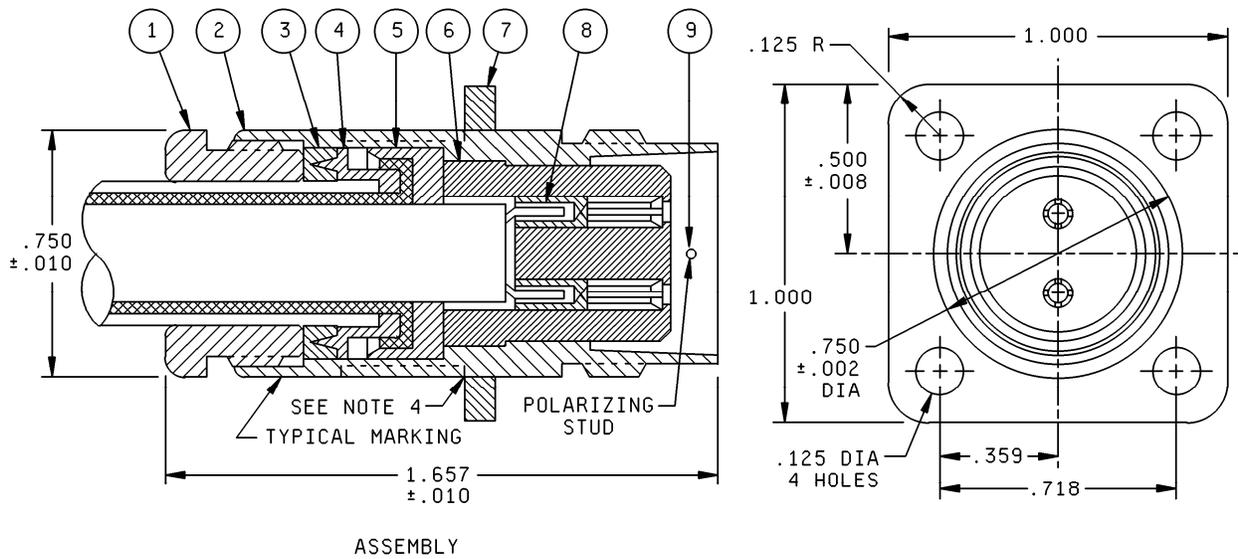


FIGURE 1. Type UG-423B/U, connector, electrical, receptacle.

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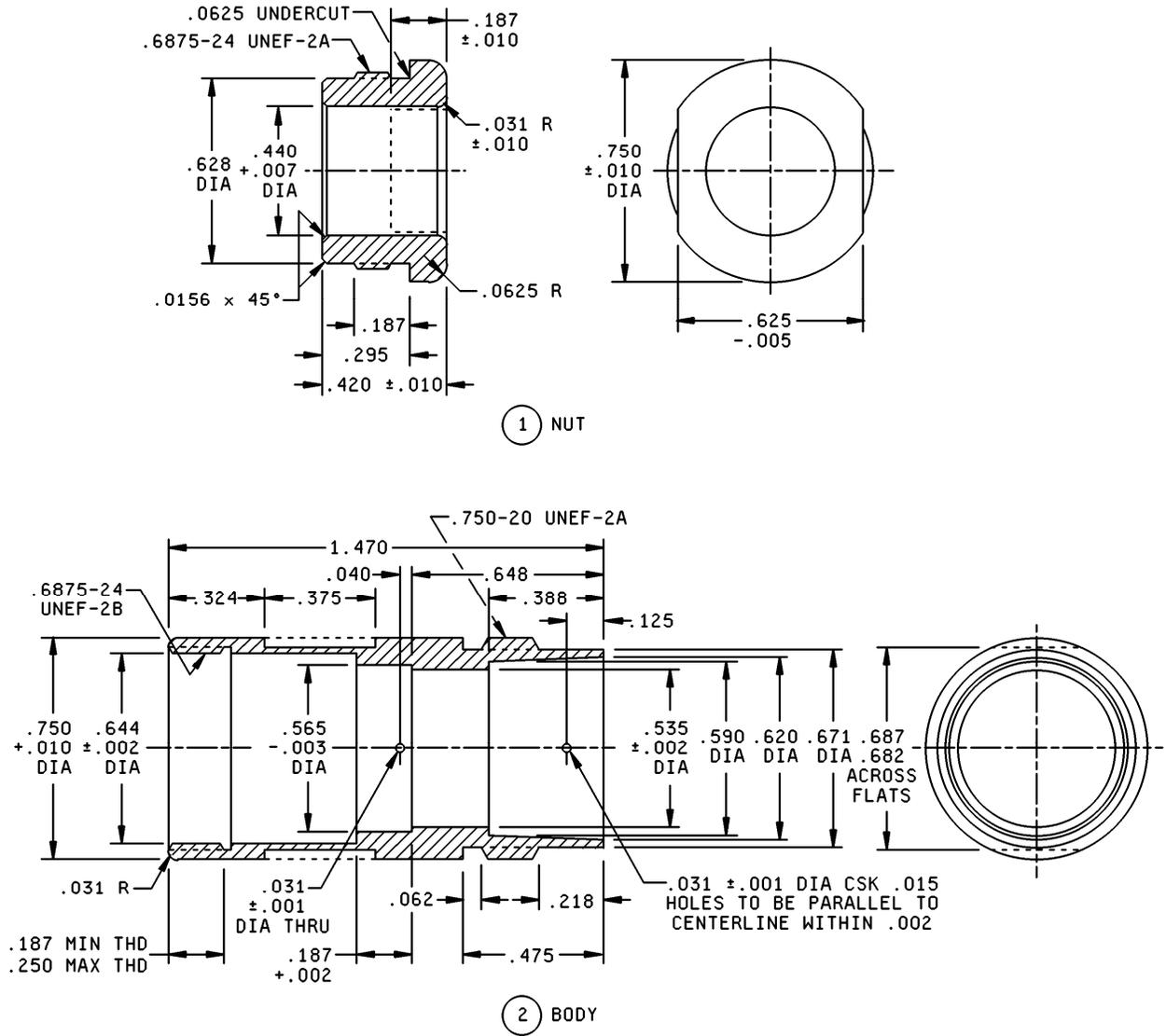


FIGURE 1. Type UG-423B/U, connector, electrical, receptacle – Continued.

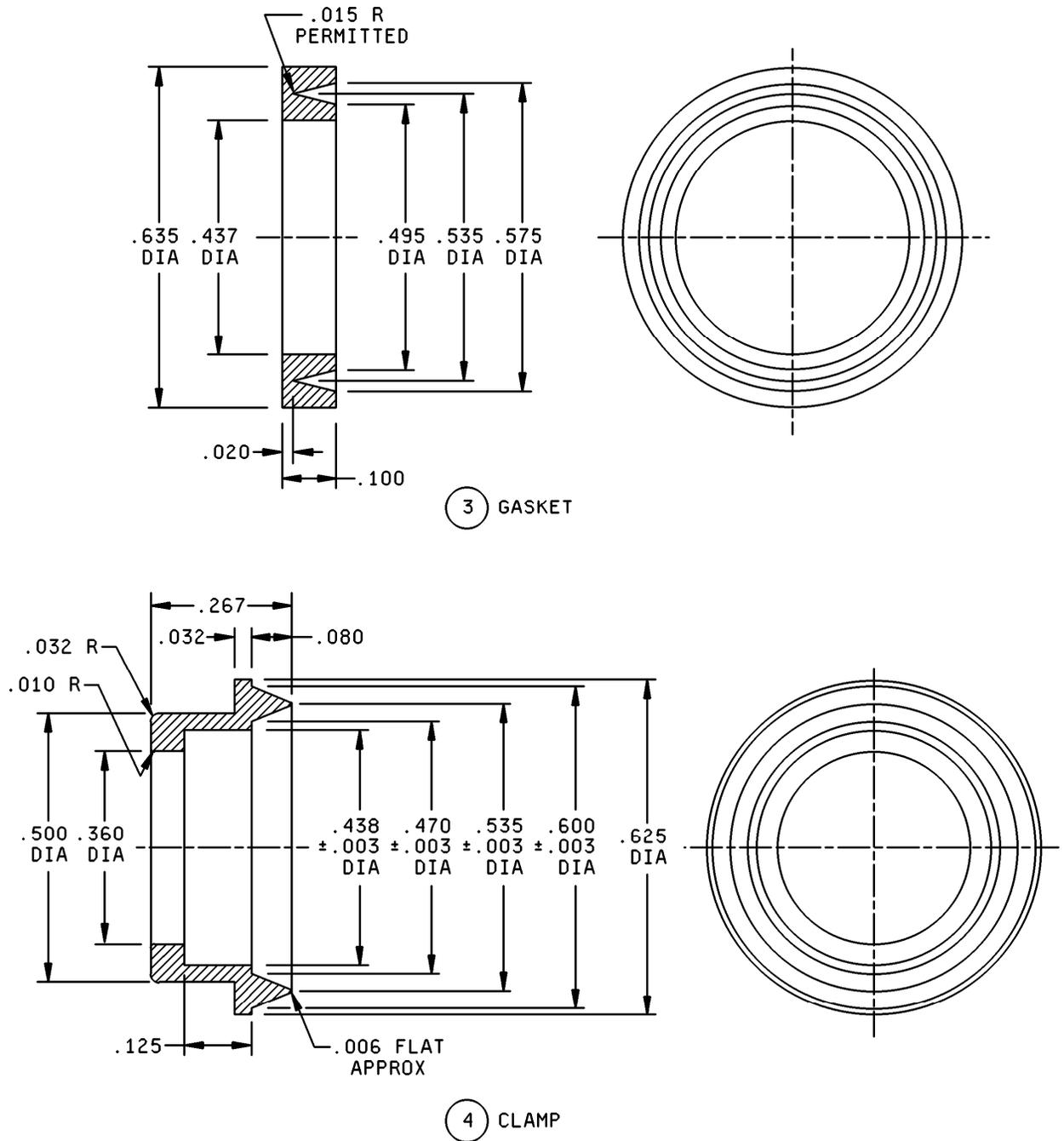
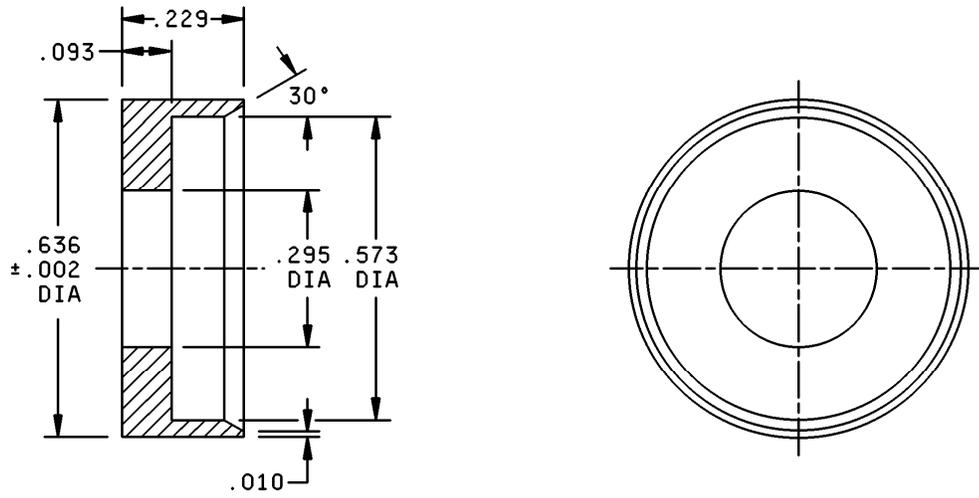
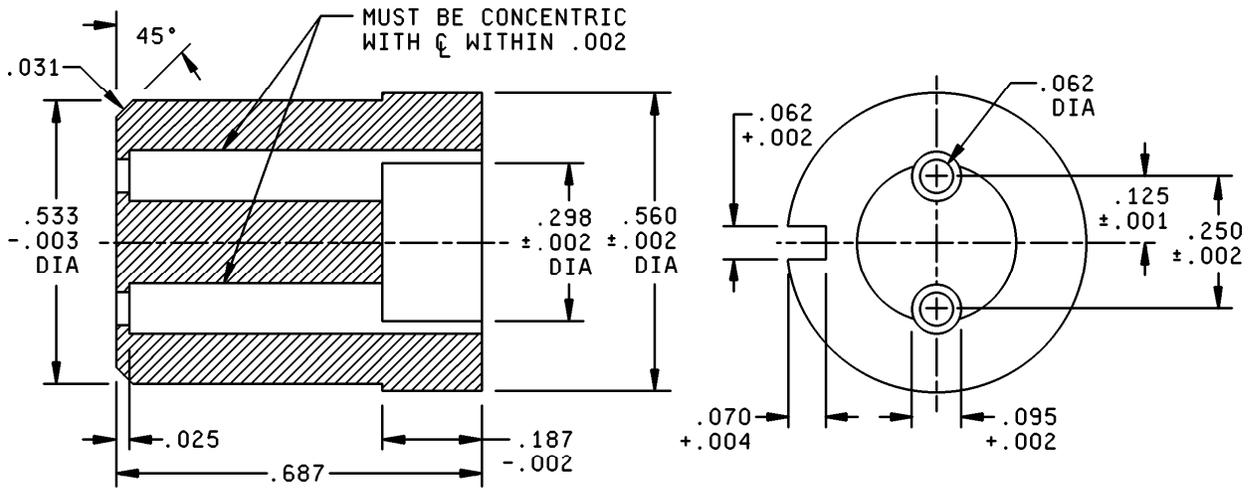


FIGURE 1. Type UG-423B/U, connector, electrical, receptacle – Continued.



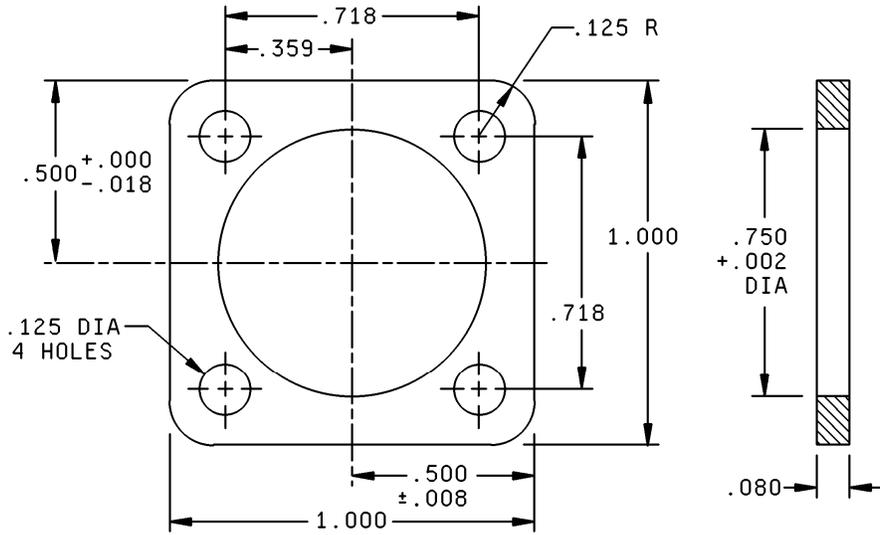
5 SLEEVE



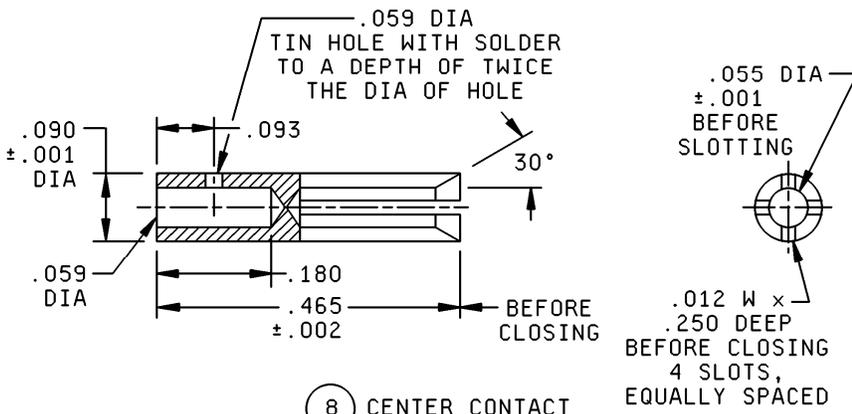
6 INSULATOR

FIGURE 1. Type UG-423B/U, connector, electrical, receptacle – Continued.

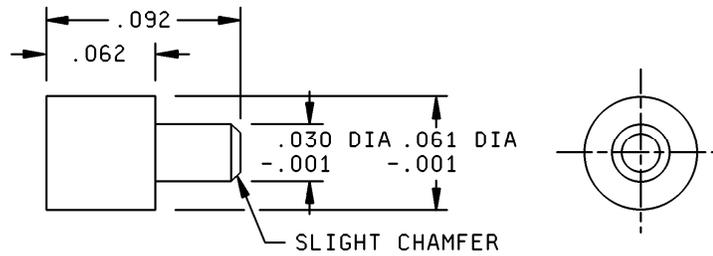
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7 MOUNTING PLATE



8 CENTER CONTACT



9 PIN

FIGURE 1. Type UG-423B/U, connector, electrical, receptacle – Continued.

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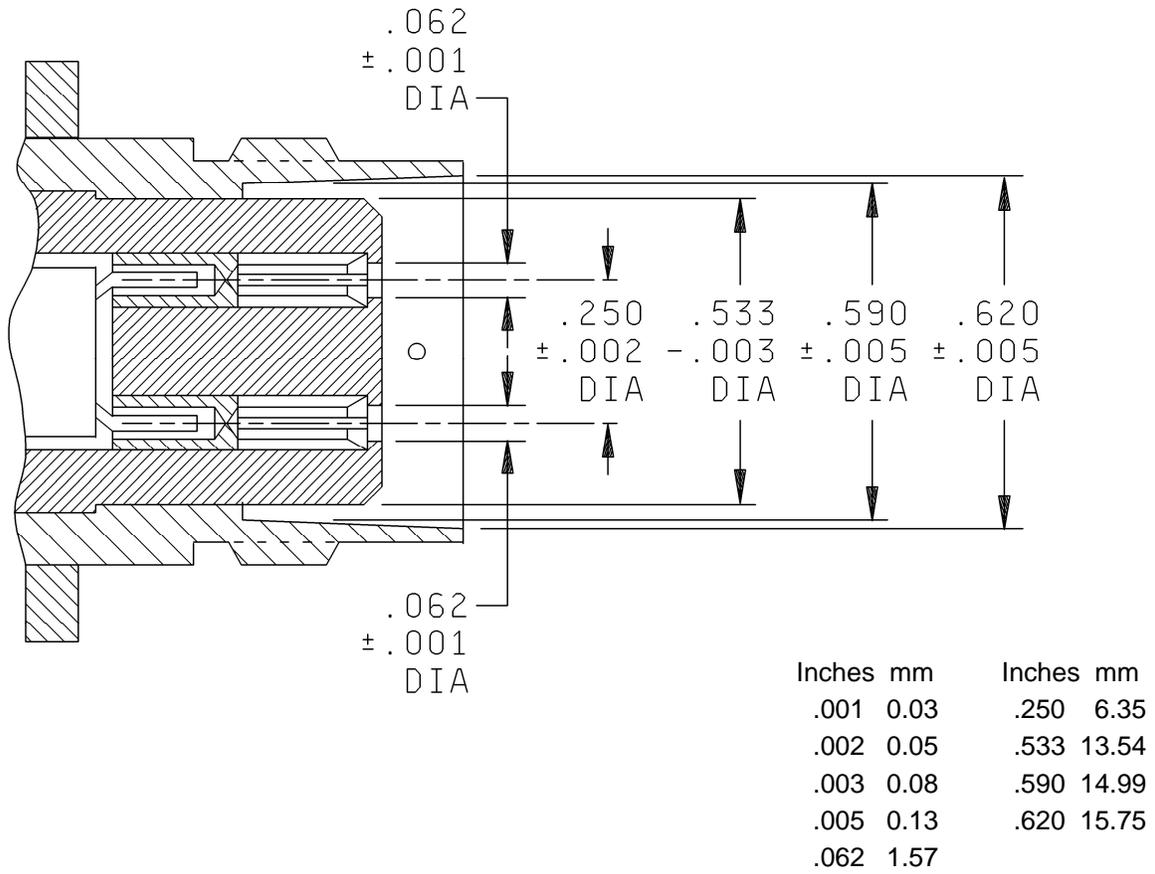
Inches	mm								
.001	0.03	.032	0.81	.180	4.57	.438	11.13	.620	15.75
.002	0.05	.040	1.02	.187	4.75	.440	11.18	.625	15.88
.003	0.08	.055	1.40	.218	5.54	.465	11.81	.628	15.95
.004	0.10	.059	1.50	.229	5.82	.470	11.94	.635	16.13
.005	0.13	.061	1.55	.250	6.35	.475	12.07	.636	16.15
.006	0.15	.062	1.57	.267	6.78	.495	12.57	.644	16.36
.007	0.18	.0625	1.588	.295	7.49	.500	12.70	.648	16.46
.008	0.20	.070	1.78	.298	7.57	.533	13.54	.671	17.04
.010	0.25	.080	2.03	.324	8.23	.535	13.59	.682	17.32
.012	0.30	.090	2.29	.359	9.12	.560	14.22	.687	17.45
.015	0.38	.092	2.34	.360	9.14	.565	14.35	.6875	17.46
.0156	0.396	.093	2.36	.375	9.53	.573	14.55	.718	18.24
.018	0.46	.095	2.41	.388	9.86	.575	14.61	.750	19.05
.020	0.51	.100	2.54	.420	10.67	.590	14.99	1.000	25.40
.031	0.79	.125	3.18	.437	11.10	.600	15.24	1.470	37.34

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, the tolerance is  $\pm .005$  (0.13 mm).
4. Silver solder all around.
5. All undimensioned pictorial configurations are for reference purposes only.

FIGURE 1. Type UG-423B/U, connector, electrical, receptacle – Continued.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

FIGURE 2. Interface mating requirements.

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ENGINEERING DATA

Nominal impedance: 95 ohms (balanced line not matched).

Frequency range: DC to 500 MHz, maximum.

Voltage rating: 500 V peak, maximum at sea level.

Mating connector: M3655/1-0421.

Intended use: Type M3655/3-0423 electrical connector is designed for use with radio frequency cable M17/15-RG22.

REQUIREMENTS:

Design and construction: See figures 1 and 2.

Center contact shall be plated in accordance with MIL-DTL-3655. All other metal parts shall be silver plated to a minimum thickness of .0002 inch in accordance with ASTM-B700.

Force to engage/disengage:

Torque: Not applicable.

Longitudinal force: Not applicable.

Coupling proof torque: Not applicable.

Mating characteristics (see figures 1 and 2 for dimensions):

Center contact:

Oversize test pin: .062 inch diameter, minimum (non-closed entry contact only).

Test pin finish: 16 microinches.

Insertion depth: .093 inch, minimum.

Number of insertions: One.

Insertion force test:

Steel test pin diameter: .062 inch, minimum.

Test pin finish: 16 microinches.

Insertion depth: .125 inch, minimum.

Insertion force: 2 pounds, maximum.

Withdrawal force test:

Steel test pin diameter: .052 inch, maximum.

Test pin finish: 16 microinches.

Insertion depth: .125 inch, minimum.

Withdrawal force: 2 ounces, minimum.

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Permeability: Applicable.

Hermetic seal: Not applicable.

Leakage: Not applicable.

Insulation resistance:  $5 \times 10^9$  ohms, minimum.

Contact insulator captivation: Not applicable.

Salt spray (corrosion): Applicable.

Connector durability: Applicable.

Contact resistance (milliohms, maximum):

	<u>Initial</u>	<u>After environment</u>
Inner conductor contacts:	2.67	3.50
Outer conductor contacts:	.38	Not applicable
Braid to body	.20	Not applicable

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

Vibration, high frequency: Applicable.

Shock (specified pulse): Not applicable.

Temperature cycling: Applicable.

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

Cable retention force: 75 pounds, minimum.

Coupling nut retention: Not applicable.

Part or Identifying Number (PIN): M3655/3-0423.

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.

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Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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

ASTM-B700

CONCLUDING MATERIAL

Custodians:

Army - CR

Navy - EC

Air Force – 11

DLA – CC

Preparing activity:

DLA - CC

(Project 5935-2007-016)

Review activities:

Army – AT, AV, 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>.