

INCH-POUND

MS33800E

9 July 2004

SUPERSEDING

MS33800D

28 January 1988

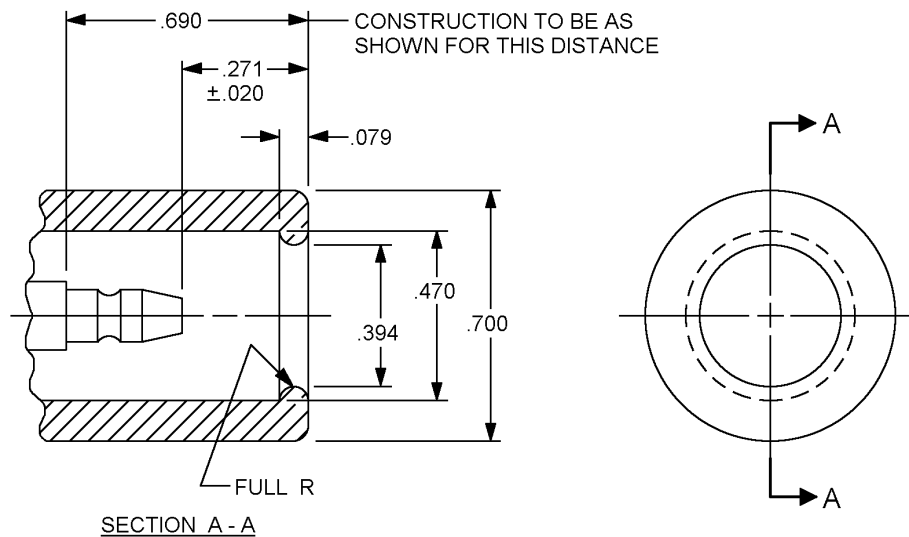
DETAIL SPECIFICATION SHEET

CONNECTOR, RECEPTACLE, ELECTRICAL, PIN CONTACT  
NO. 8, 12, 14 AND 16 AWG, WATERPROOF

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.

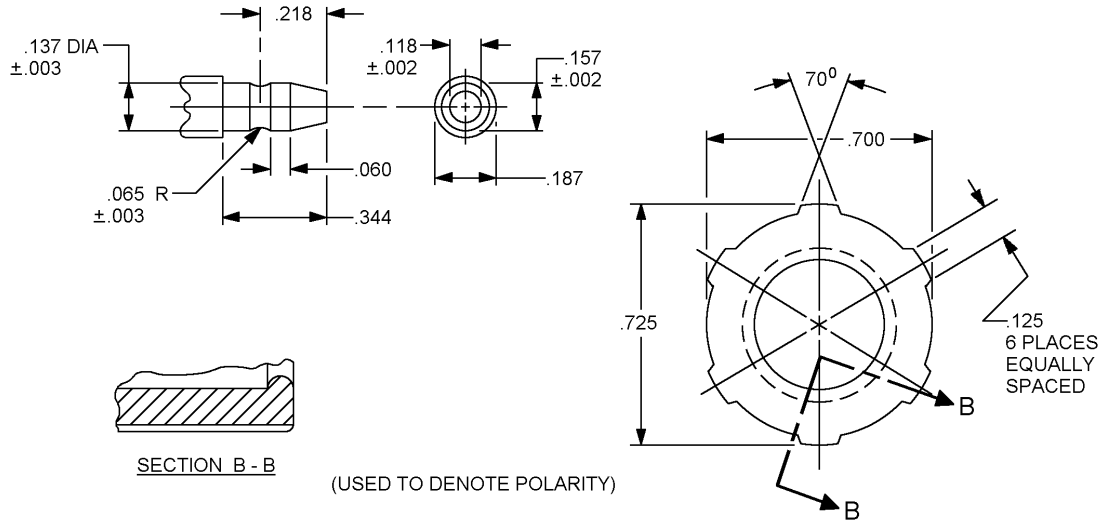
This is a design standard not to be used as an MS part number.



STYLE I

FIGURE 1. Connector, receptacle (small), imperial dimensions (inch).

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STYLE II

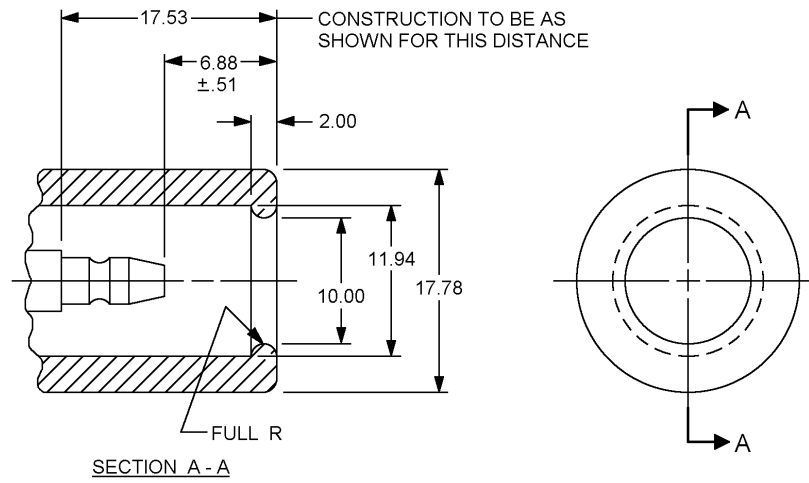
## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance shall be  $\pm .005$  (.127 mm) on decimals,  $\pm 1^\circ$  on angles, and  $\pm .015$  (.381 mm) for rubber products.

Inches	mm	Inches	mm	Inches	mm
.002	.051	.125	3.175	.394	10.010
.003	.076	.137	3.480	.470	11.938
.020	.508	.157	3.988	.690	17.526
.060	1.524	.187	4.750	.700	17.780
.065	1.651	.218	5.580	.725	18.415
.079	2.007	.271	6.883		
.118	3.000	.344	8.738		

FIGURE 1. Connector, receptacle (small), imperial dimensions (inch) - Continued.

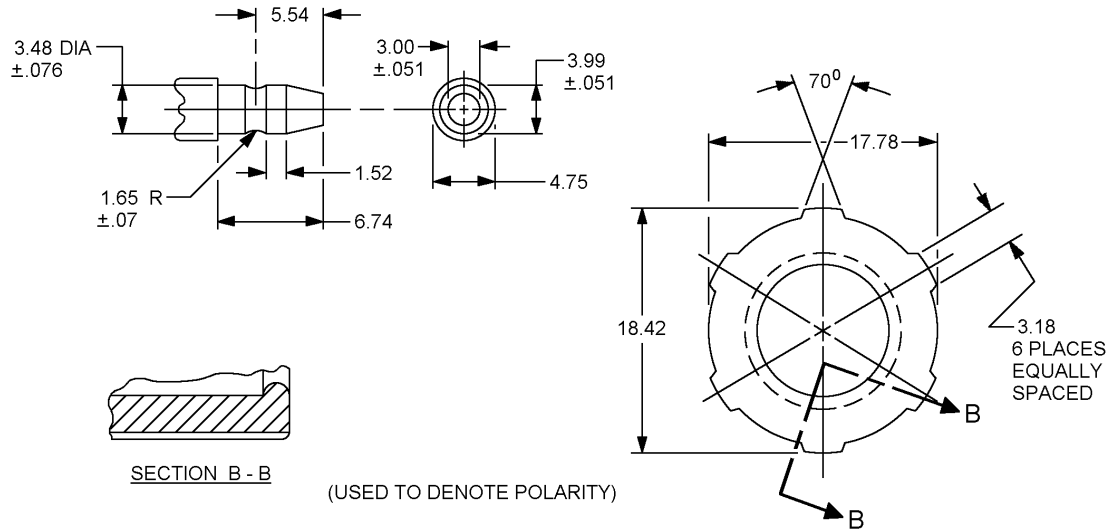
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STYLE I

FIGURE 2. Connector, receptacle (large), metric.

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STYLE II

mm	Inches	mm	Inches	mm	Inches
.051	.0020	3.00	.0398	6.88	.2708
.070	.0027	3.18	.3756	10.00	.3937
.076	.0029	3.48	.1370	11.94	.4700
.51	.0200	3.99	.1570	17.53	.6902
1.52	.0598	4.75	.1870	17.78	.7000
1.65	.0649	5.54	.2181	18.42	.7252
2.00	.0787	6.74	.2653		

NOTES:

1. Dimensions are in millimeters.
2. Imperial (inch) dimensions are given for general information only.
3. Unless otherwise specified, tolerance shall be  $\pm .13$  (.005 inches) on decimals,  $\pm 1^\circ$  on angles, and  $\pm .38$  (.0150 inches) for rubber products.

FIGURE 2. Connector, receptacle (large), metric - Continued.

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### REQUIREMENTS:

Design and construction: see figures 1 and 2.

For mating connectors see MS27143 and MS27144.

#### Material:

Shell: rubber, grade SC615, A1, C1, E3, F2 in accordance with ASTM D2000.

Terminal: brass, composition 11 on 22 temper half hard minimum in accordance with ASTM B121, ASTM B36, ASTM B16, ASTM B16M and ASTM B124.

Protective finish terminal, silver plate, type II, grade A, .0002 minimum thickness, in accordance with ASTM B700.

Style II to be used with ribbed connector to denote polarity.

Style II dimensions identical to style I except as noted.

Terminal shall be attached to component and shall withstand a full test of 100 pounds (46 kilograms).

For multiple connector design, minimum cavity center distance shall be 600 inches.

When connectors are coupled, the voltage drop shall not exceed 20 millivolts when tested in a 20-volt circuit as outlined in MIL-STD-202, method 307.

When connectors are coupled, the assembly shall meet the 1000-volt requirement of the dielectric strength test outlined in MIL-STD-202, method 302.

When connectors are coupled, waterproofness shall be achieved. For guidance on waterproofness, see MIL-HDBK-1184.

When connectors are coupled, the assembly shall meet the requirements of salt spray corrosion test outlined in MIL-STD-202, method 101 (5% saline, 200 hrs.)

Recycled, virgin and reclaimed materials: There are no requirements for the exclusive use of virgin materials; however, all materials shall be new and unused. The use of recycled or reclaimed (recovered) materials is acceptable provided that all other requirements of this document are met.

All provisions of this standard are the subjects of international standardization agreement NATO-STANAG 4040. When revision or cancellation of this standard is proposed which will effect or violate the international agreement concerned, the preparing activity will take appropriate reconciliation action through international standardization channels, including departmental standardization offices, if required.

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.

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Reference documents. This document references the following:

MS27143	ASTM B16/B16M
MS27144	ASTM B36
MIL-STD-202	ASTM B121
MIL-HDBK-1184	ASTM B124
	ASTM B700
	ASTM D2000

CONCLUDING MATERIAL

Custodians:

Army - AT  
Navy - AS  
Air Force - 11  
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-4419-027)

Review activities:

Army - AR, CR, CR4, GL  
Navy - MC

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://www.dodssp.daps.mil>.