

INCH-POUND

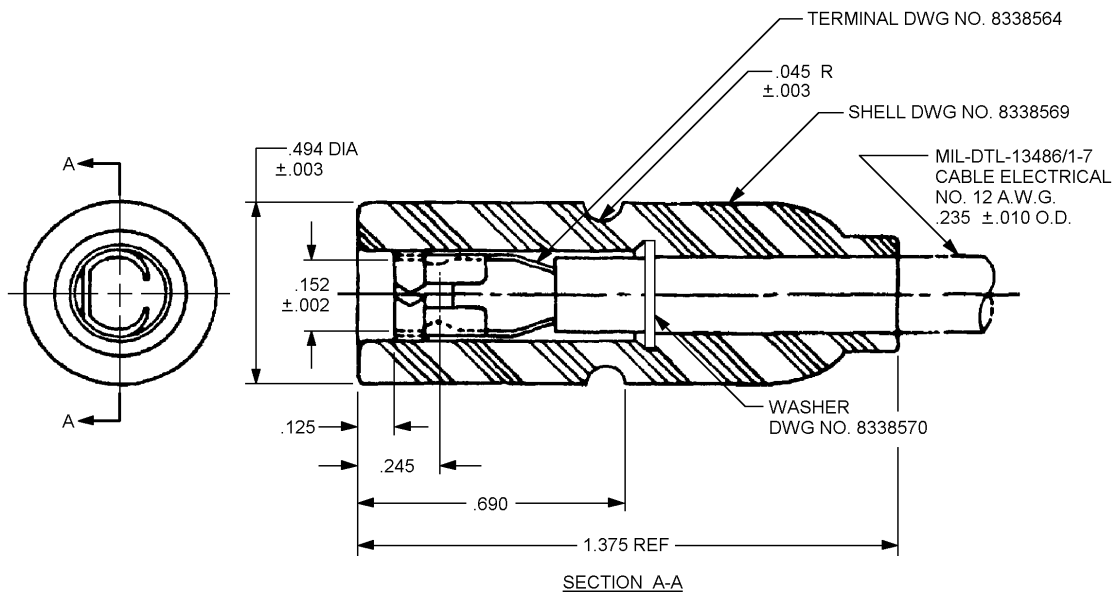
MS27143C  
 17 June 2003  
 SUPERSEDING  
 MS27143B  
 16 February 1968

## DETAIL SPECIFICATION SHEET

CONNECTOR, PLUG, ELECTRICAL, SOCKET CONTACT,  
 NO. 12 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.



Inches	mm	Inches	mm
.002	.05	.235	6.00
.003	.07	.246	6.20
.010	.30	.494	12.55
.045	1.10	.690	17.50
.125	3.18	1.375	35.00
.152	3.86		

FIGURE 1. Configuration and dimensions.

## MS27143C

### REQUIREMENTS:

#### Material:

Shell: Rubber in accordance with ASTM D2000, M3BC610A14C12EO34F19.

Terminal: Brass composition, temper half hard minimum in accordance with ASTM B 36/B 36M, ASTM 121/B 121M or ASTM B124/B 124M.

Washer: Steel, commercial quality, 1008 to 1020, HRP60 or CR, temper optional, in accordance with QQ-S-698.

#### Protective finish:

Terminal: Silver plate, grade D, class S, .0002 minimum thickness, in accordance with ASTM B700.

Washer: Cadmium plate, type 1, class 2, in accordance with SAE AMS QQ-P-416.

Mating plug: See MS27142.

When connectors are coupled, the following requirements shall apply:

Voltage drop: The voltage drop shall not exceed 20 millivolts and shall meet the requirements outlined in MIL-STD-202, method 307.

Dielectric strength: The assembly shall withstand dielectric strength test of 1000 volts, and meet the requirements of MIL-STD-202, method 302.

Waterproof requirements: The assembly shall be waterproof. Refer to MIL-HDBK-1184, or equivalent, for guidance on waterproof testing.

Salt spray corrosion test: The assembly shall meet the requirements of salt spray corrosion test outlined in MIL-STD-202, method 101 (5% saline solution, 200 hours duration).

Pull test: The terminal to be crimped to the cable shall withstand a pull test of 90 pounds (40 kilograms).

Separation force: The force required to uncouple the connectors shall not exceed 50 percent of the values expressed in the pull test above at -55°C and at 85°C.

Part or Identifying Number (PIN): MS27143-1.

Engineering parts list 8338568 for MS27143 may be obtained from the U.S. Army Tank Automotive Command, Warren, MI., 48397-5000.

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

MS27143C

CONCLUDING MATERIAL

Custodians:

Army – AT  
Air Force – 11  
Navy – YD  
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-4427-002)

Review activities:

Army – CR, CR4  
Navy – MC