INCH-POUND

MS27147D
17 June 2003
SUPERSEDING
MS27147C
16 February 1988

DETAIL SPECIFICATION SHEET

ADAPTER, CONNECTOR – 3-WAY, NO. 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.

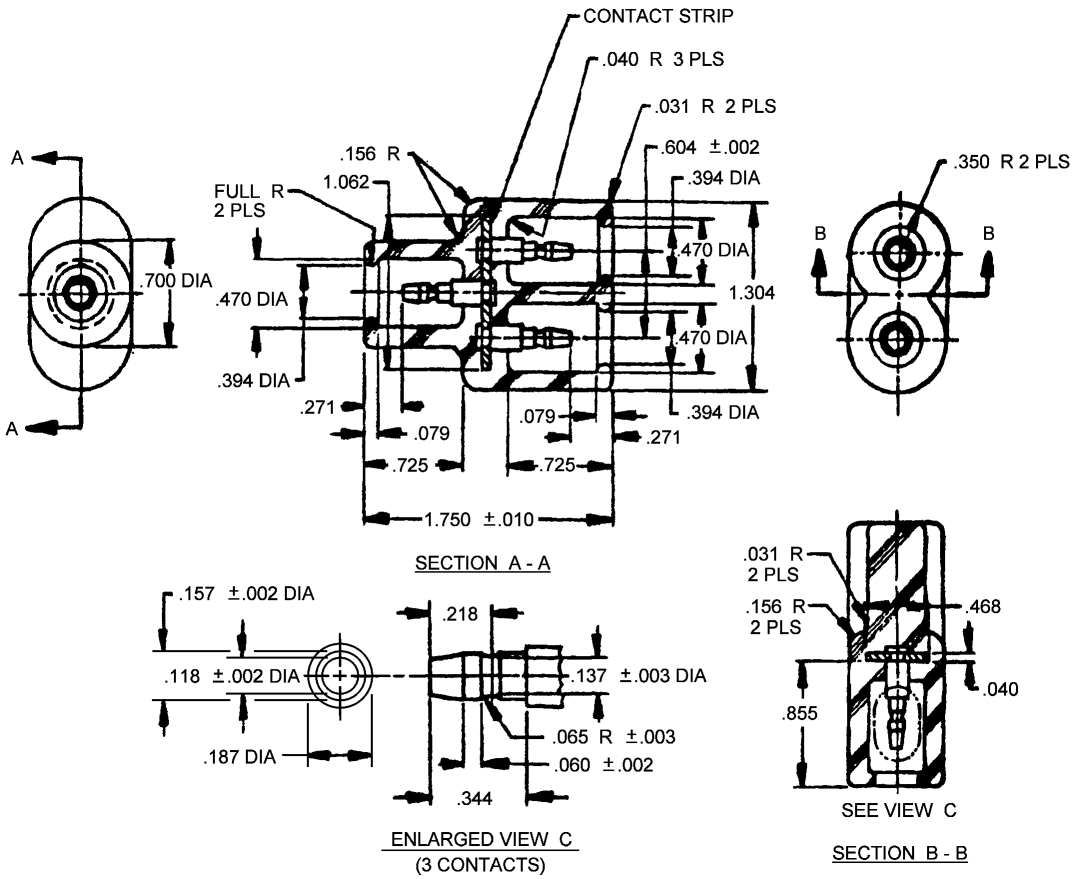

FIGURE 1. Configurations and dimensions.

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.002	.051	.118	3.00	.344	8.74	.725	18.42
.003	.076	.137	3.48	.350	8.89	.855	21.72
.031	.787	.156	3.96	.394	10.00	1.062	26.97
.040	1.02	.157	3.99	.468	11.89	1.304	33.12
.060	1.52	.187	4.75	.470	11.94	1.750	44.45
.065	1.65	.218	5.53	.604	15.34		
.079	2.00	.271	6.88	.700	17.78		

FIGURE 1. Configurations and dimensions – Continued.

REQUIREMENTS:

Material:

Shell: Rubber in accordance with ASTM D2000, M3BC610A14C12EO34F19.

Terminal: Brass composition, temper half hard minimum in accordance with ASTM B36/B36M, ASTM B121/B121M or ASTM B124/B124M.

Contact strip: Steel, commercial quality, 1008 to 1020, HRP&O or CR, temper optional, in accordance with QQ-S-698.

Protective finish:

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

Contact strip: Cadmium plate, type I, class A, in accordance with SAE AMS QQ-P-416.

Mating connector: See MS27143 and MS27144, style 1 and 2.

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).

Marking shall consist of the MS number and the manufacturer's identification in accordance with MIL-STD-130.

Pull test: Terminals shall withstand a pull test of 100 pounds (46 kilograms).

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

Part or Identifying Number (PIN): MS27147-1.

Reference drawing number 7982404 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.)

CONCLUDING MATERIAL

Custodians:
Army – AT
Air Force - 11
Navy – MC
DLA – CC

Review activities:
Army – CR, CR4

Preparing activity:
DLA - CC

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