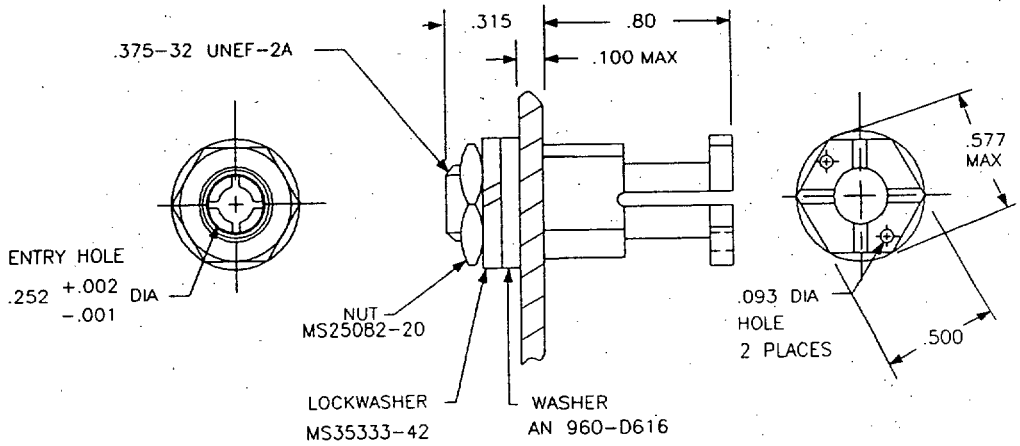
INCH-POUND
MIL-C-83413/11B
27 Dec 93
SUPERSEDING
MIL-C-83413/11A
2 March 1988

MILITARY SPECIFICATION SHEET

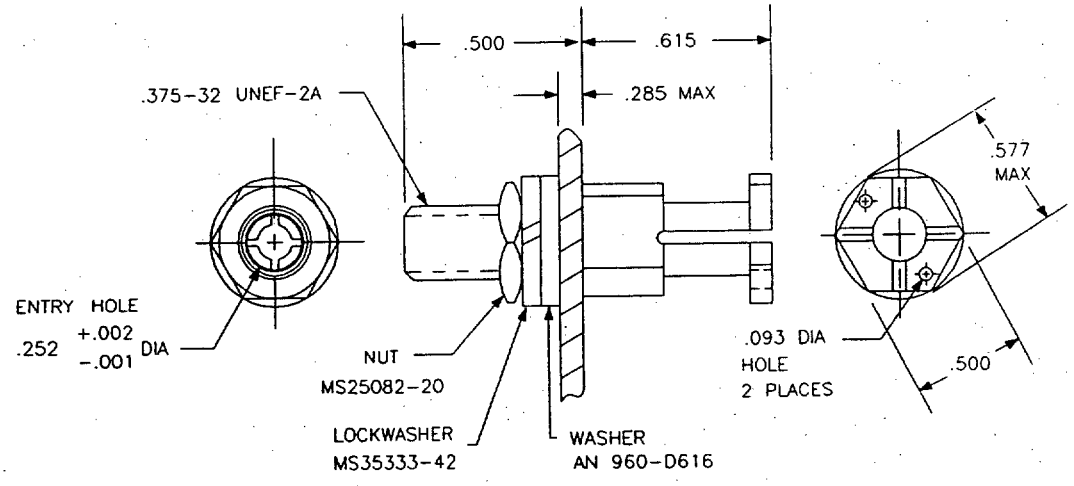
CONNECTORS AND ASSEMBLIES, ELECTRICAL, AIRCRAFT GROUNDING: RECEPTACLES, ONE PIECE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

(B) The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of specifications and standards (DODISS) specified in the solicitation: MIL-C-83413.



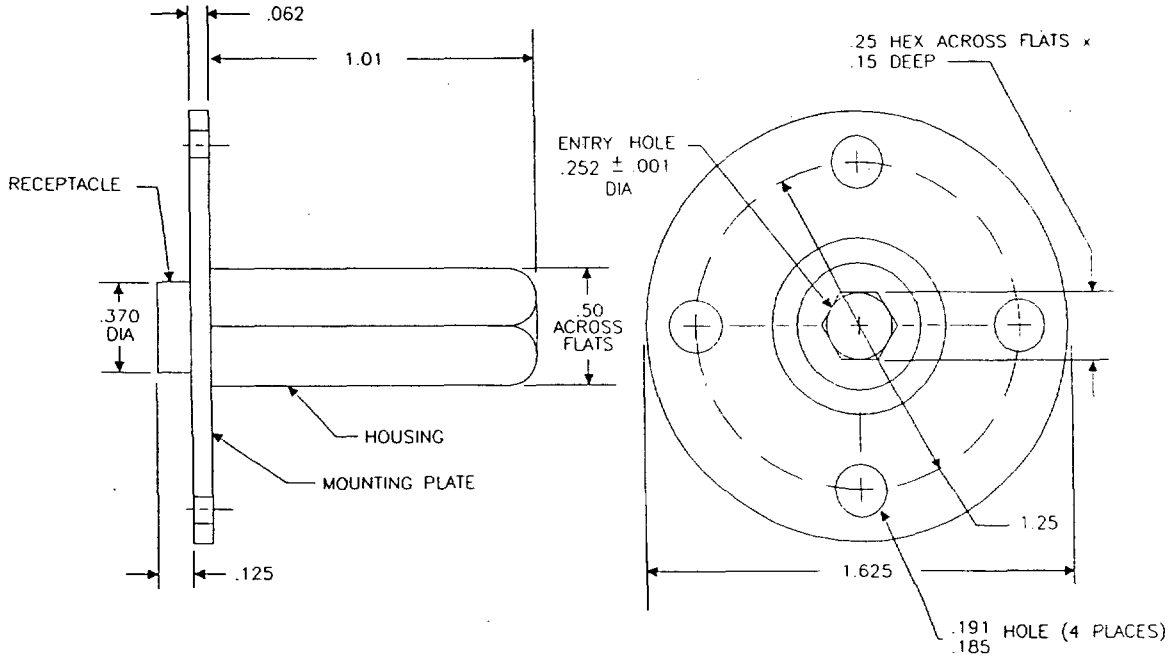
CONFIGURATION A



CONFIGURATION B

FIGURE 1. Connector dimensions and configuration.

(B) denotes changes.



CONFIGURATION C

Inches	mm	Inches	mm
.001	0.02	.285	7.23
.002	0.05	.315	8.00
.062	1.57	.370	9.39
.093	2.36	.375	9.52
.100	2.54	.500	12.70
.125	3.17	.577	14.65
.150	3.81	.615	15.62
.185	4.69	.800	20.32
.191	4.85	1.010	25.65
.250	6.35	1.250	31.75
.252	6.40	1.625	41.27

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.005 (0.13 mm) for three place decimals and ± .01 (0.3 mm) for two place decimals.
4. Where only maximum dimensions are shown, the receptacle need not have the shape shown, but the receptacle including all protrusions shall be contained within maximum outline shown
5. Panel cutout .500 maximum (12.70 mm).

FIGURE 1. Connector dimensions and configuration. - Continued

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Materials:

Receptacle: Beryllium copper alloy C17300 in accordance with QQ-C-530, temper H04, Hardness HRC40-45. Cadmium plate in accordance with QQ-P-416, Type II, class 2

Housing (M83413/11-03 only): Brass CA360 in accordance with QQ-B-626, temper H02, hardness HRB78-80.

Mounting plate (M83413/11-03 only): Stainless steel 303 in accordance with MIL-S-862, passivated shall be in accordance with MIL-S-5002.

Mating grounding plug: In accordance with MS3493-5 or M83413/4-1.

Hardware: See figure 1, configuration A and B.

Torque: Apply a 60 inch-pound torque to the connector sleeve with the contact held fixed.

Contact resistance: Mount the receptacle in a test apparatus with an aluminum panel thickness of .091 inch (2.31 mm) and approximately 6 X 6 inches (152.4 mm). Mate the plug with the receptacle. Apply a test current of 200 ±1 amperes through the plug and back through the mounting panel. No damage to the receptacle shall occur nor shall there be more than 30 millivolts potential difference between the back end of the plug and a point on the panel 2 ±0.1 inches (50.8 mm) from the axis of the receptacle.

Durability: Insert and withdraw test plug (MS3493-5 or M83413/4-1) 3,000 times minimum. Following this phase, withdrawal force shall be not less than 10 pounds. Insert and withdraw the test plug for an additional 22,000 times - total 10,000 times, minimum. After this phase, the withdrawal force shall be not less than 6 pounds. Measure contact resistance after each phase. It shall not exceed 5 milliohms with a test current of 10 ±1 amperes flowing through the plug and receptacle.

Part or Identifiying Number (PIN): See table I.

TABLE I. PIN, characteristics and supersession data.

Dash no. M83413/11-	Configuration	Superseding
1	A (one piece) 1/	8240704-1
2	B (one piece) 1/	8240704-2
3	C (parts combination which cannot be dismantled) (Functional portion is one part)	8240704-3

1/ Unless otherwise specified by the acquiring activity, the following hardware shall be included with each receptacle (-1 and -2 only):
a. 1 each nut MS25082-20.
b. 1 each lockwasher MS35333-42.
c. 1 each washer AN960-D616.

(B) QUALIFICATION:

(B) Qualification is not required for this specification sheet. First article inspection shall be a visual and mechanical inspection in accordance with 4.7.1 of MIL-C-83413.

Patent notice: The Government does not have a royalty-free license under the following patents for the benefit of manufacturers of the item, either for the Government or for the use in equipment to be delivered to the Government:

Patent no.
US 4,525,014
US 4,541,684

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air Force - 85

Review activities:
Army - AR, CR, ME, MI
Navy - MC
Air Force - 13, 18, 82, 90, 99

International interest:
ASCC 12/25
NATO STANAG 3632
ISO 46

Preparing activity:
Air Force - 85

Agent:
DLA - ES

(Project 5935-3962-05)