

MILITARY SPECIFICATION SHEET

SOCKETS AND ACCESSORIES FOR PLUG-IN ELECTRONIC COMPONENTS
 (RELAY, TOP MOUNTING, 14 CONTACT, RADIAL)

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

The complete requirements for procuring the sockets and accessories described herein shall consist of this document and the latest issue of Specification MIL-S-12883.

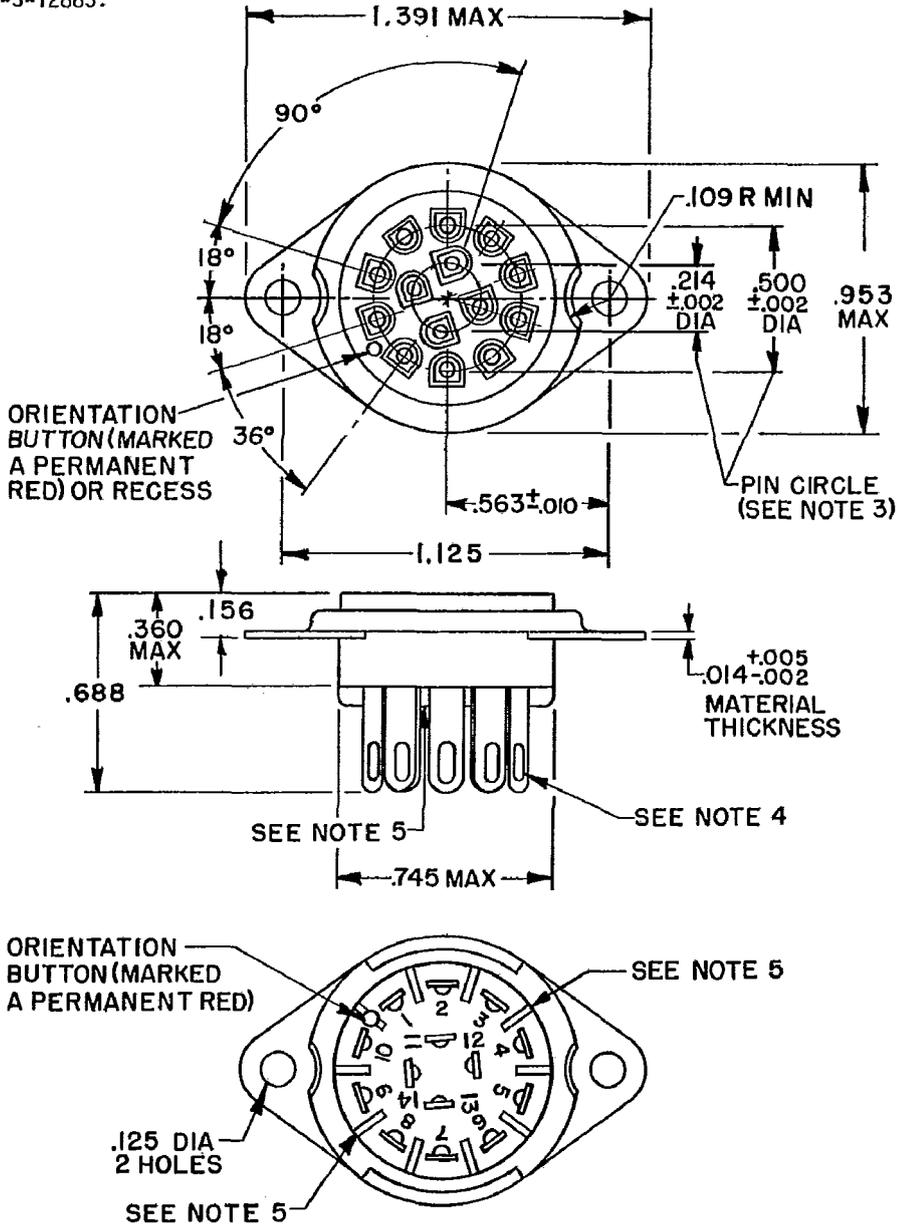


FIGURE 1. Socket configuration.

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are ± 0.016 (.41 mm) on decimals and $\pm 1/2^\circ$ on angles.
3. Fourteen contact cavities oriented as indicated, and each cavity located within $1/2^\circ$ of true position, shall be established along the respective pin circle.
4. Each contact tab shall have either 2 wire holes of .040 (1.02 mm) minimum width and .075 (1.91 mm) minimum length, or 1 hole of .040 (1.02 mm) minimum width and .125 (3.18 mm) minimum length. The hole, or holes, shall lie on the longitudinal centerline of the contact tab within ± 0.008 (.20 mm).
5. Barriers and their shapes are optional. When present, barriers shall have a maximum height of .062 (1.57 mm).
6. Marking shall be at any convenient visible location.
7. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.

INCHES	MM
.002	.05
.005	.13
.010	.25
.014	.36
.109	2.77
.125	3.18
.156	3.96
.214	5.44
.360	9.14
.500	12.70
.563	14.30
.688	17.48
.745	18.92
.953	24.21
1.125	28.58
1.391	35.33

FIGURE 1. Socket configuration - Continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.

Design and construction:

Mating-base dimensions: See figure 2 and table II.

Contact cavities: One shape only; D-shaped or circular, at the option of the contractor.

Saddle: The method of attaching the saddle to the insulator body, and the shape of the saddle where attachment is effected, are optional.

Test-gage details: See table II and MIL-S-12883.

Mounting flange: Material thickness shall be measured in an area where burring or dishing of the mounting hole is not present.

Insulating material: See table I.

Insertion and withdrawal force:

Initial insertion force: 8 pounds, minimum.

Initial withdrawal force: 20 pounds, maximum.

Insulation resistance: 1,000 megohms, minimum.

(Test-pin diameter: 0.040 ± 0.001 inch).

Dielectric withstanding voltage:

Sea level: Test voltage: 2,000 volts root mean square (rms).

(Test-pin diameter: 0.040 ± 0.001 inch.)

High altitude Test voltage: 660 volts rms.

(Test-pin diameter: 0.040 ± 0.001 inch.)

Contact retention: Test gage shall be in accordance with table II.

Contact resistance:

Average for all contacts: 0.015 ohm maximum.

Individual contacts: 0.030 ohm, maximum.

Vibration: The test-gage shall be an approved 14-pin relay.

Mechanical shock: Sockets shall meet the shock requirements specified in MIL-S-12883 with an approved mating relay inserted for use as a test-gage.

Durability: After the durability test, the withdrawal force shall be 5 pounds, minimum.

Static load: 80 pounds.

Continuity test circuit: With the test gage inserted into the socket(s) under test, the pins of the test gage(s) and the contacts of the socket(s) under test shall result in a series circuit. The test gage shall be an approved 14-pin relay.

TABLE I. Dash numbers, material, and type designator.

Dash number	Insulating material	Old type designator and replacement data
01	SDG-F or GDI-30F	TS1405P01 (1-way) <u>1/</u>
02	MIL-M-14, type MFE	TS1405P01 (2-way) <u>2/</u>

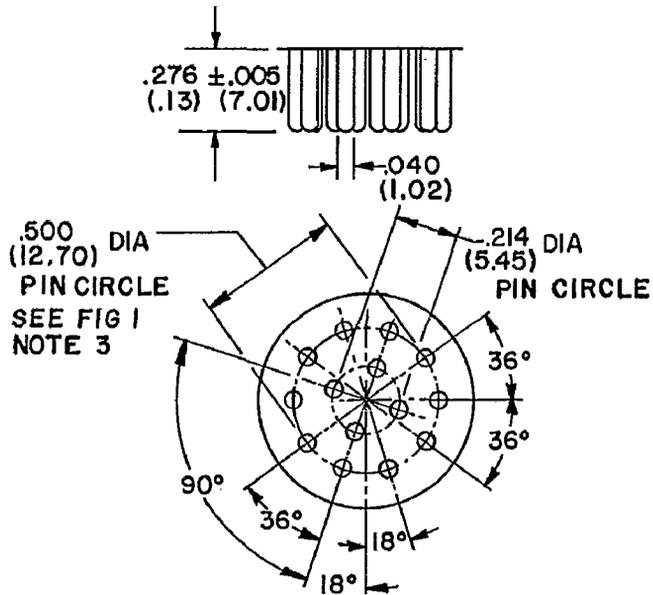
1/ 1-way replacement. The new item (designated by military part number) will replace the old item (formerly designated by type designator); however, the old item will not replace the new item.

2/ 2-way replacement. The two items are interchangeable; i.e., the new item will replace the old item, and the old item will replace the new item.

TABLE II. Test-gage details. 1/

Inspection	A (pin length)	B (pin dia)	M (test end dia)	N (probe end dia)	K (large pin-circle dia)	L (small pin-circle dia)	D (gage dia) (max)	No. of pins	Total weight of gage (±5%)
	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Ounces
Insertion and withdrawal force - - -	0.276 ±0.005	0.0390 ±0.0001	---	---	0.500 basic	0.214 basic	47/64	14 (10:large pin circle; 4:small pin circle)	---
Contact resistance -	0.276 ±0.005	0.0390 ±0.0005	---	---	0.500 basic	0.214 basic	47/64	14 (10:large pin circle; 4:small pin circle)	---
Contact retention - -	0.276 ±0.005	---	0.0390 ±0.0001	0.0410 ±0.0001	---	---	---	---	3
Durability - -	0.276 ±0.005	0.0410 ±0.0001	---	---	0.500 basic	0.214 basic	47/64	14 (10:large pin circle; 4:small pin circle)	---

1/ See appendix MIL-S-12883B.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Metric equivalents are in parentheses.
4. Unless otherwise specified, tolerance is ±.002 (.05 mm).

FIGURE 2. Mating-base dimensions.

OPERATING INFORMATION:

WARNING: This socket is not to be used in Air Force airborne electronic equipment.

Ratings (absolute maximum):

Voltage:

Sea level: 500 volts rms.
50,000 feet: 375 volts rms.

Current: 1 ampere.

Operating temperature: 100°C.

Part number: M12883/6-(and dash number from table I).

NOTE:

This specification is subject to NATO international standardization agreement NEPR 67.

Revision letters are not used to denote changes due to the extensiveness of the changes.

Custodians:

Army - EL
Navy - EC
Air Force - 85

Preparing activity:

Army - EL

Agent:

DLA - ES

Review activities:

Army - MI, AR, ME, AT, AV
Navy - SH, AS, OS
Air Force - 11, 17, 99
DLA - ES

(Project 5935-3033-1)

User activities:

Army - WC
Navy - MC, CG, YD
Air Force - 19