

INCH-POUND

MIL-DTL-83502/2G
w/AMENDMENT 1
10 January 2014
SUPERSEDING
MIL-DTL-83502/2G
10 February 2004

DETAIL SPECIFICATION SHEET

SOCKETS PLUG-IN ELECTRONIC COMPONENTS, ROUND STYLE
(T05, PRESS TO FIT)

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 and
MIL-DTL-83502.

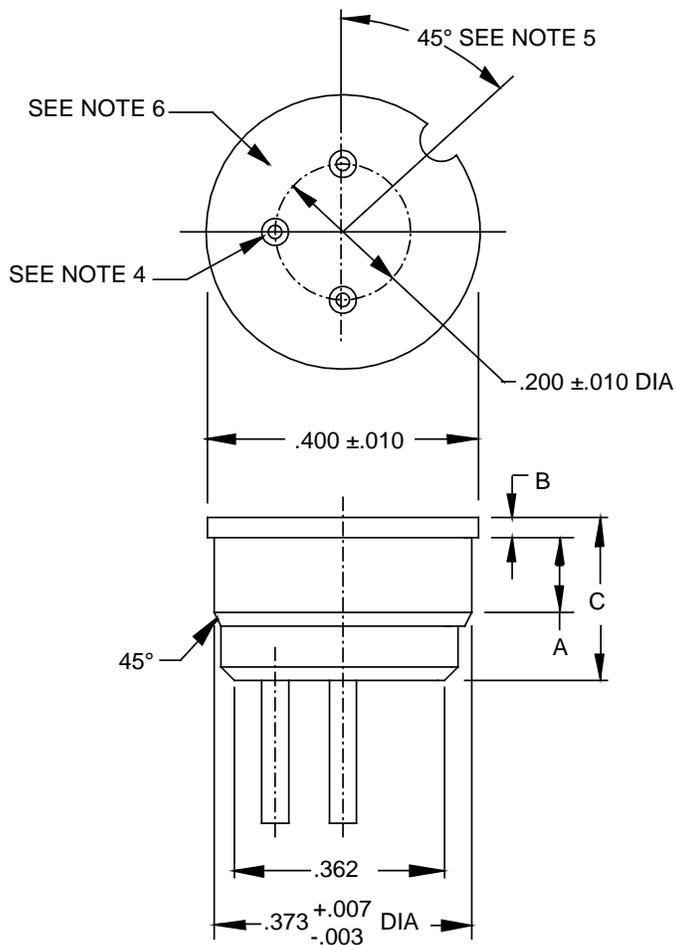
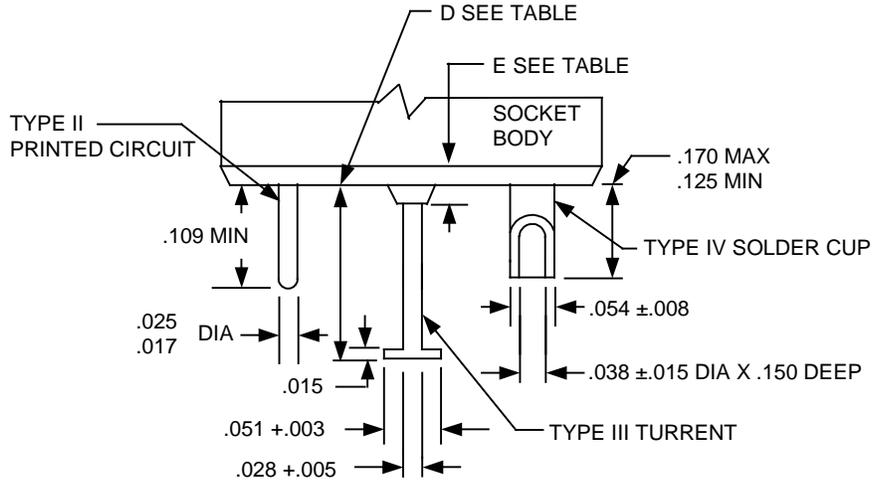
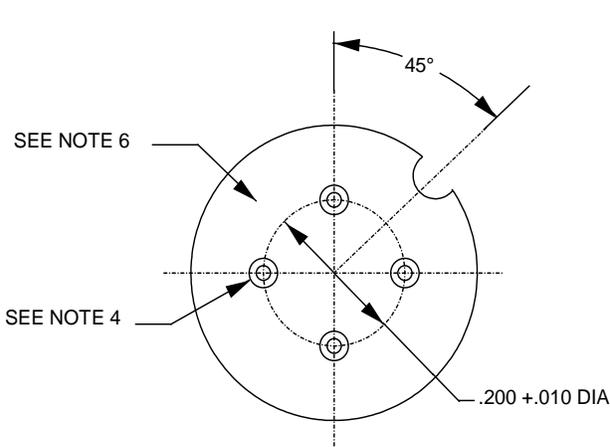


FIGURE 1. Dimensions and configurations.

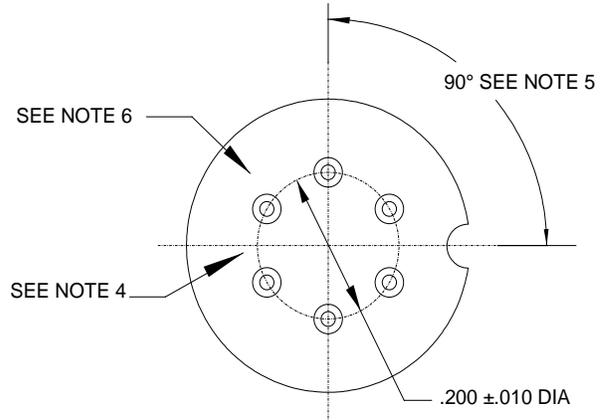
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TERMINAL DIMENSION



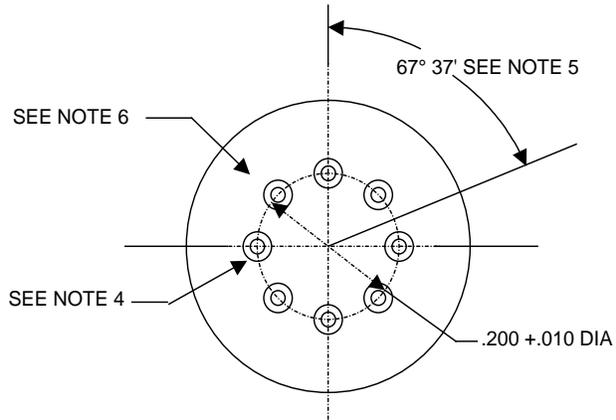
Dash numbers 006, 007, 008



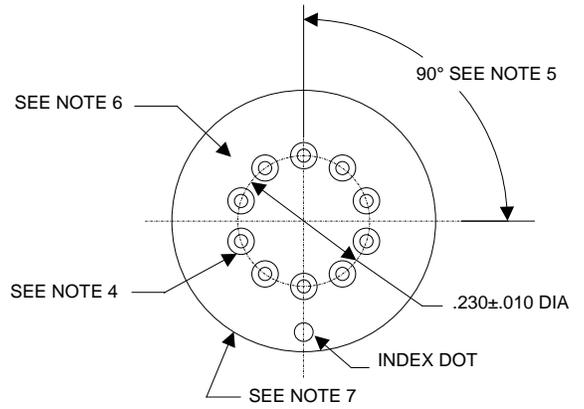
Dash numbers 010, 011, 012

FIGURE 1. Dimensions and configurations - Continued.

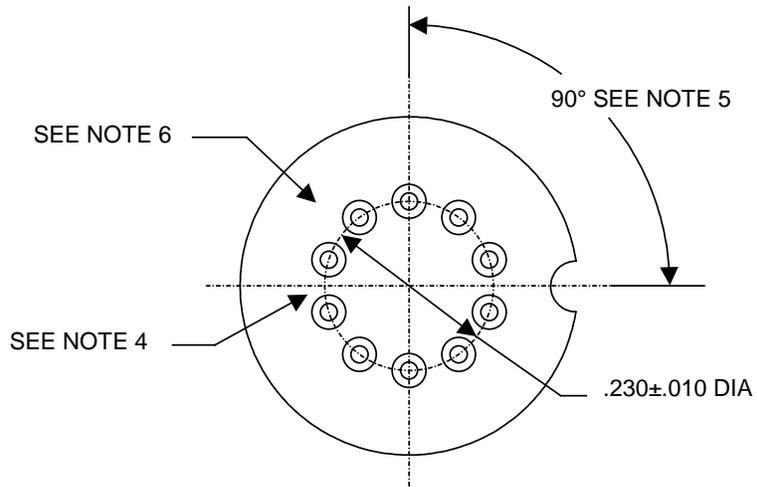
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Dash numbers 014, 015, 016



Dash number 022



Dash numbers 018, 019, 020

FIGURE 1. Dimensions and configurations - Continued.

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Dash number	Termination Type	Number of contacts	Dimensions inches (mm)				
			A ±.031 (0.79)	B	C ±.010 (0.25)	C ±.015 (0.38)	D ±.003 (0.08)
002	II	3	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
003	III	3	.150 (3.81)	.060 (1.52)	.270 (6.86)	.160 (4.06)	.028 (0.71)
004	IV	3	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
006	II	4	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
007	III	4	.150 (3.81)	.060 (1.52)	.270 (6.86)	.160 (4.06)	.028 (0.71)
008	IV	4	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
010	II	6	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
011	III	6	.150 (3.81)	.060 (1.52)	.270 (6.86)	.093 (2.36)	.035 (0.89)
012	IV	6	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
014	II	8	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
015	III	8	.150 (3.81)	.060 (1.52)	.270 (6.86)	.093 (2.36)	.035 (0.89)
016	IV	8	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
018	II	10	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
019	III	10	.150 (3.81)	.060 (1.52)	.270 (6.86)	.093 (2.36)	.035 (0.89)
020	IV	10	.150 (3.81)	.060 (1.52)	.270 (6.86)	---	---
022 see note 7	II	10	---	---	---	---	---

FIGURE 1. Dimensions and configurations - Continued.

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Dash number	Accepts lead dia. +.003 inch (0.08 mm) -.001 inch (0.03 mm)	Accepts lead length (see note 4)
002 through 020	.017 inch (0.43 mm)	.156/.218 inch (3.96/5.54 mm)
022	.017 inch (0.43 mm)	.125/.165 inch (3.18/4.19 mm)

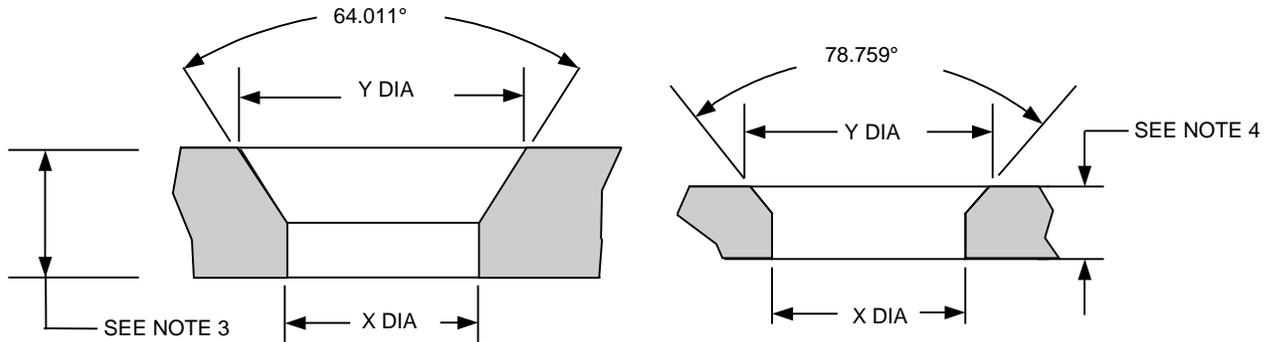
Inches	mm	Inches	mm	Inches	mm
.003	0.08	.031	0.79	.150	3.81
.005	0.13	.035	0.89	.160	4.06
.006	0.15	.038	0.97	.170	4.32
.007	0.18	.051	1.30	.200	5.08
.008	0.20	.054	1.37	.230	5.84
.010	0.25	.060	1.52	.270	6.86
.015	0.38	.093	2.36	.362	9.19
.017	0.43	.109	2.77	.373	9.47
.025	0.64	.125	3.18	.400	10.16
.028	0.71				

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerance is ± 0.005 inch (0.13 mm).
4. Contact shall be made at or before reaching a depth of .100 inch (2.54 mm).
5. A visual polarization index to be provided in the first quadrant. Location of index dot (inside or outside the socket circle) shall be optional.
6. Marking shall be on the package.
7. Socket is cylindrical in shape having .046 inch (11.68 mm) maximum diameter and is .165 inch (4.19 mm) long, ± 0.10 inch (2.54 mm).

FIGURE 1. Dimensions and configurations - Continued.

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Busing minor diameter (see figure 1)		"X" Diameter Hole or punch		"Y" Diameter	
Inches	mm	Inches	mm	Inches	mm
3.73 +.007 -.003	94.7 +0.18 -0.08	.366/.369 ±.002	9.30/9.37 ±0.05	.380 +.010 -.000	9.65 +0.25 -0.00

NOTES:

1. For recommended installation procedure drill or punch hole in chassis for press-fit of socket.
2. For printed circuit mounting drill holes to accept terminals.
3. Use 60° countersink for chassis thickness .040 inch (1.02 mm) and over.
4. Use 82° countersink for chassis thickness .039 inch (1.02 mm) and under.
5. Dimensions are in inches.
6. Metric equivalents are given for information only.
7. Metric equivalents are in parentheses.

FIGURE 2. Recommend mounting.

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TABLE I. Dash numbers and characteristics.

Dash number M83502/2-	Number of contacts	Termination type	Mating force (maximum) lbs (kg)	Retention force (minimum) lbs (kg)
002	3	II	4.0 (1.81)	4.5 (2.04)
003	3	III	4.0 (1.81)	4.5 (2.04)
004	3	IV	4.0 (1.81)	4.5 (2.04)
006	4	II	4.0 (1.81)	4.5 (2.04)
007	4	III	4.0 (1.81)	4.5 (2.04)
008	4	IV	4.0 (1.81)	4.5 (2.04)
010	6	II	2.5 (1.13)	3.0 (1.36)
011	6	III	2.5 (1.13)	3.0 (1.36)
012	6	IV	2.5 (1.13)	3.0 (1.36)
014	8	II	2.5 (1.13)	3.0 (1.36)
015	8	III	2.5 (1.13)	3.0 (1.36)
016	8	IV	2.5 (1.13)	3.0 (1.36)
018	10	II	2.5 (1.13)	3.0 (1.36)
019	10	III	2.5 (1.13)	3.0 (1.36)
020	10	IV	2.5 (1.13)	3.0 (1.36)
022	10	II	2.5 (1.13)	3.0 (1.36)

REQUIREMENTS:

Dimensions and configurations: See figure 1.

Recommend mounting: See figure 2.

Reference material: See MIL-DTL-83502.

Body: PTFE (polytetrafluoroethylene) rod in accordance with ASTM D1710.

Contact: Beryllium Copper in accordance with ASTM B139/B139M, ASTM B194, ASTM B103/B103M, or UNS C729000 spinodal alloy in accordance with ASTM B740.

Contact finish: Gold over nickel in accordance with MIL-DTL-83502.

Terminal: Brass in accordance with ASTM B16/B16M.

These sockets are intended for use on .093 inch (2.36 mm) nominal printed circuit boards.

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Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Reference documents. In addition to MIL-DTL-83502, this document references the following:

ASTM B16/B16M
ASTM B103/B103M
ASTM B139/B139M
ASTM B194
ASTM B740
ASTM D1710
UNS C72900

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2013-180)

Review activities:

Army - AR, AT, AV, CR4, MI
Navy - AS, MC, SH
Air Force - 19, 99

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 data at <https://assist.dla.mil/>.