

INCH-POUND

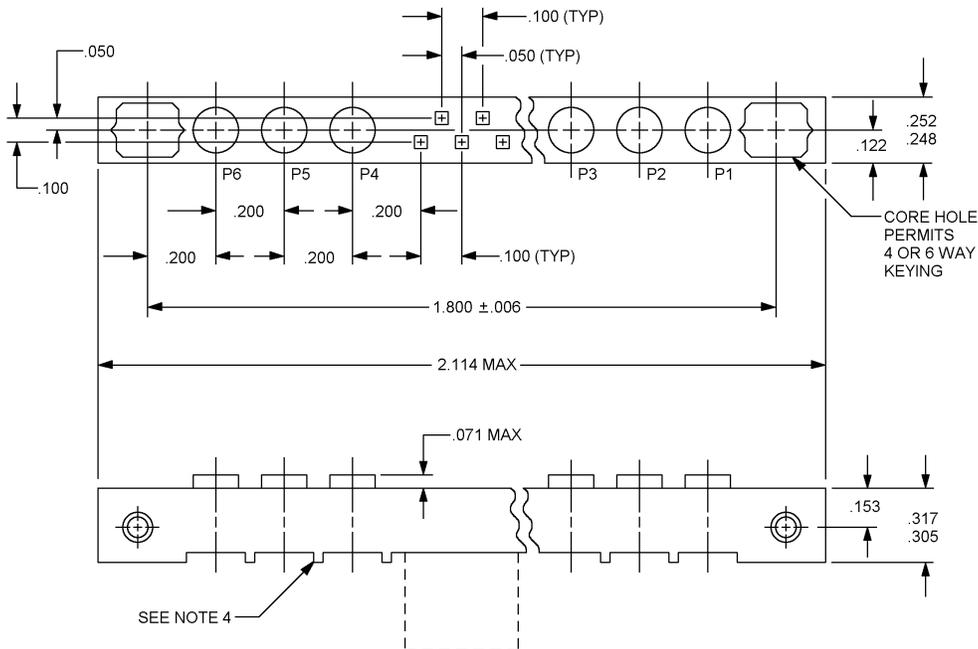
MIL-DTL-55302/150C
w/AMENDMENT 1
30 November 2012
SUPERSEDING
MIL-DTL-55302/150C
18 February 2005

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES:
PLUG WITH SOCKET CONTACTS, 2.114 INCHES LENGTH, 2 KEYING PINS,
FOR PRINTED WIRING BOARDS (.100 INCH SPACING)

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-55302.



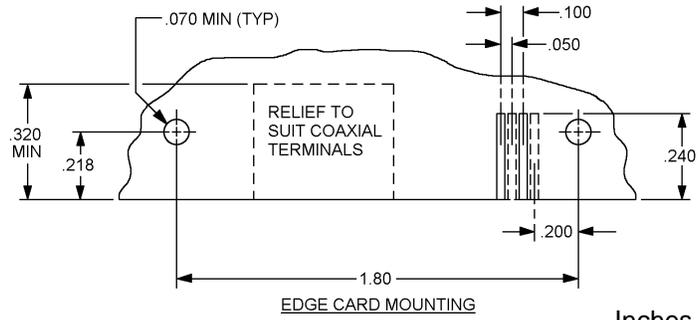
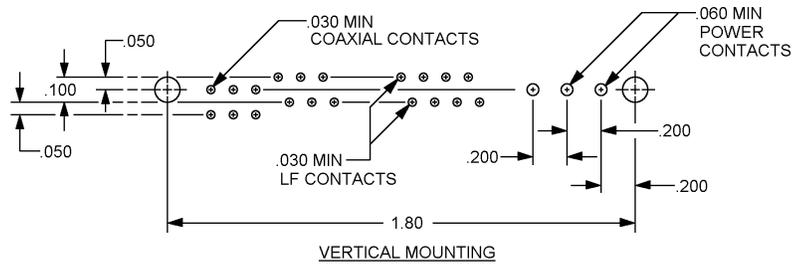
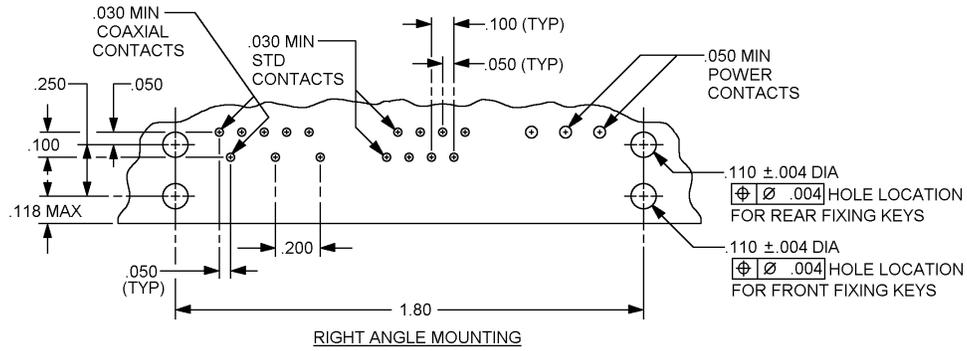
Inches	mm	Inches	mm
.006	0.15	.248	6.30
.050	1.27	.252	6.40
.071	1.80	.305	7.75
.100	2.54	.317	8.05
.122	3.10	1.800	45.72
.153	3.89	2.114	53.70
.200	5.08		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .005$ (0.13 mm).
4. Standoffs are located between each cable hole and between each hole and contact hole set.

FIGURE 1. Connector, plug (.100 inch spacing).

MIL-DTL-55302/150C
w/AMENDMENT 1



Inches	mm	Inches	mm
.004	0.10	.118	3.00
.030	0.76	.200	5.08
.050	1.27	.218	5.54
.060	1.52	.240	6.10
.070	1.78	.32	8.13
.100	2.54	.370	8.40
.106	2.69	1.80	45.7
.110	2.79		

NOTES:

1. Dimensions are in inches.
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3. Unless otherwise specified, tolerance is ± .005 (0.13 mm).

FIGURE 2. Recommended hole patterns.

MIL-DTL-55302/150C
w/AMENDMENT 1

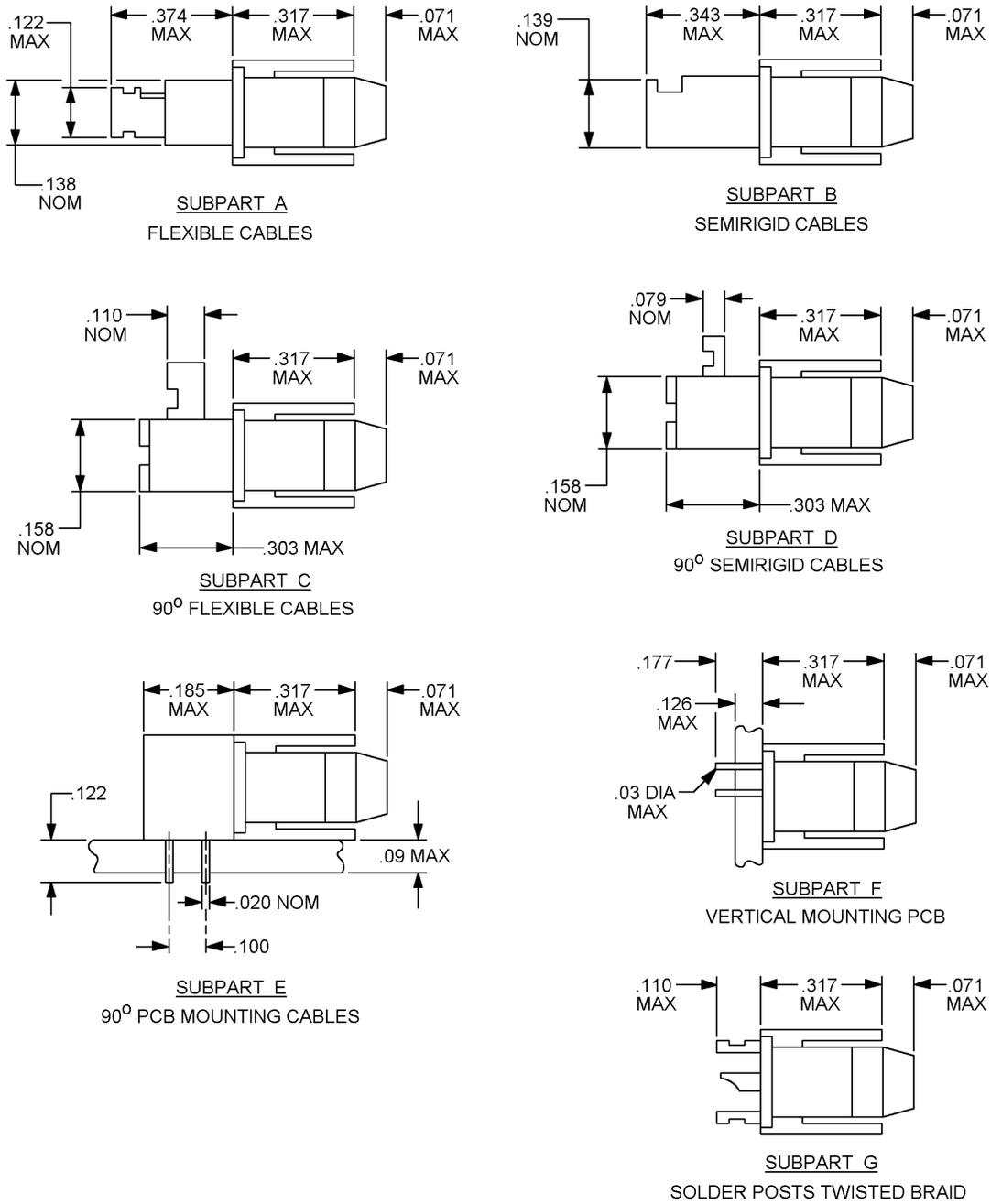
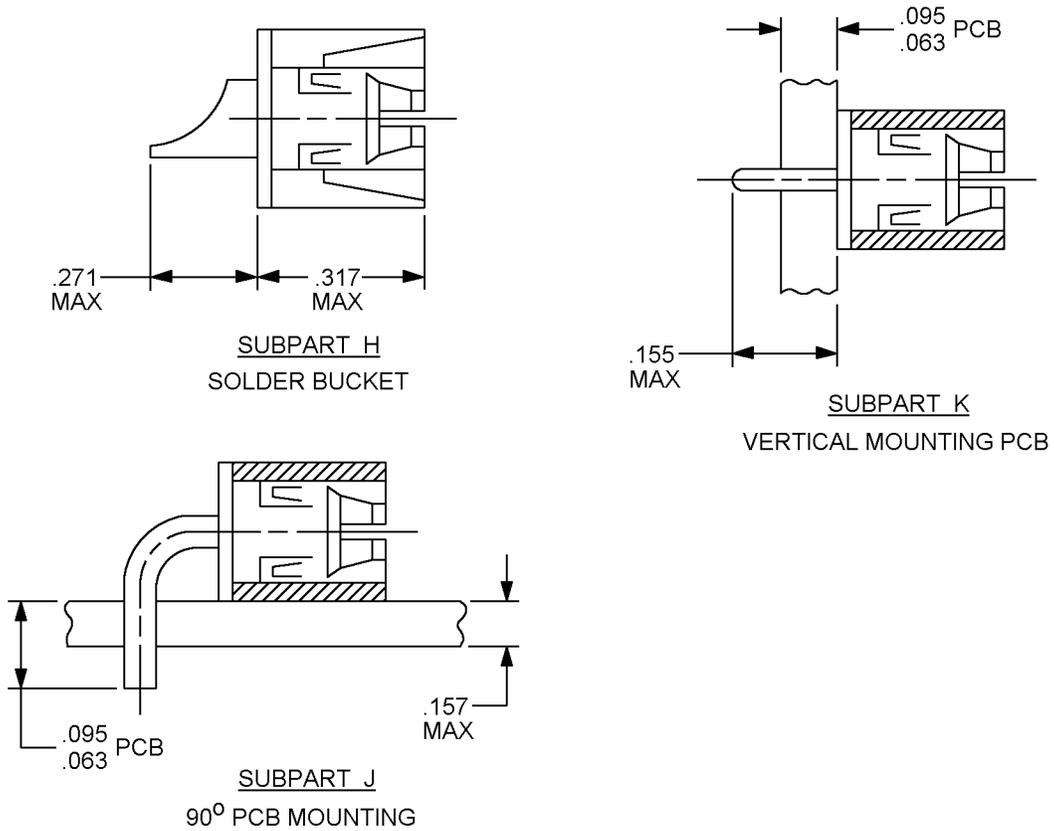


FIGURE 3. Coaxial configurations.

MIL-DTL-55302/150C
w/AMENDMENT 1



Inches	mm	Inches	mm
.020	0.51	.138	3.51
.03	0.8	.139	3.53
.063	1.60	.155	3.94
.071	1.80	.157	3.99
.079	2.01	.158	4.01
.09	2.29	.177	4.50
.094	2.39	.185	4.70
.095	2.41	.271	6.88
.100	2.54	.303	7.70
.110	2.79	.317	8.05
.122	3.10	.343	8.71
.126	3.20	.374	9.50

NOTES:

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3. Unless otherwise specified, tolerance is $\pm .005$ (0.13 mm).

FIGURE 3. Coaxial configurations – Continued.

MIL-DTL-55302/150C
w/AMENDMENT 1

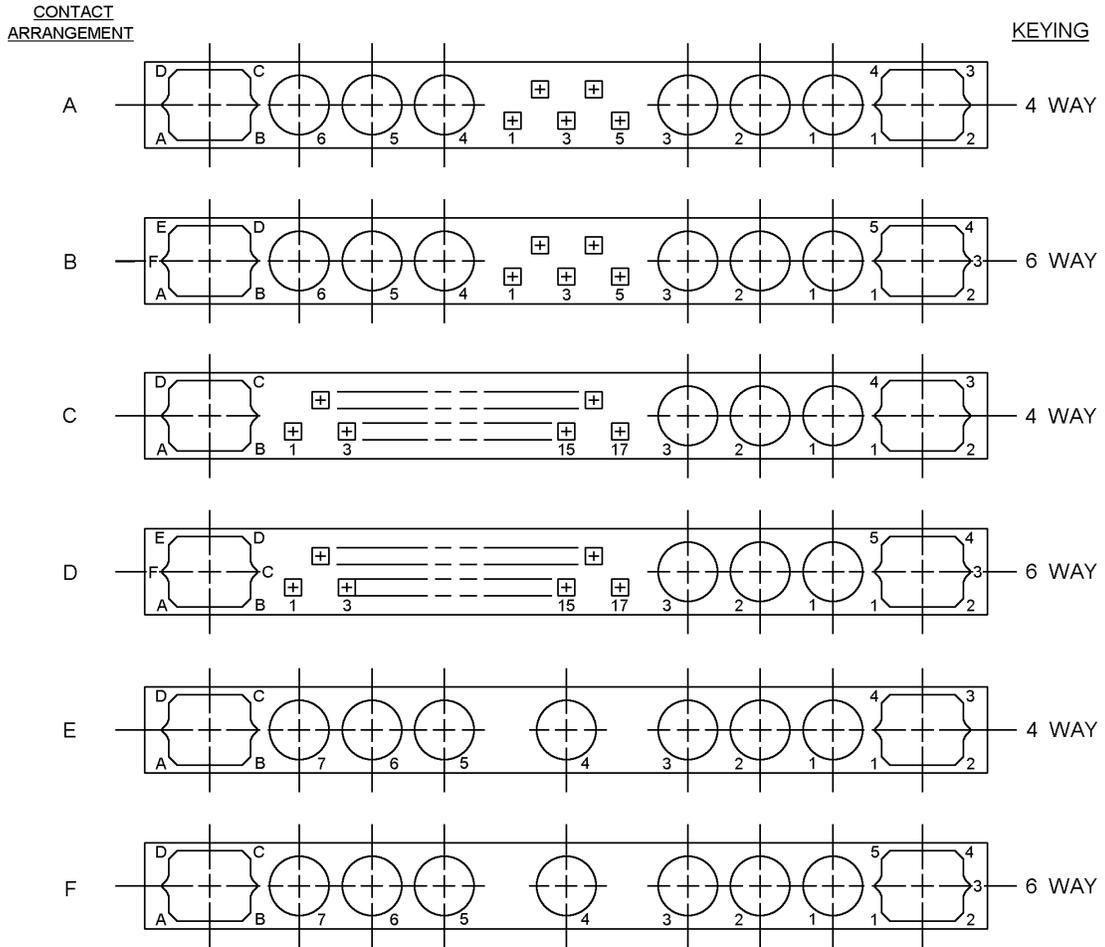


FIGURE 4. Contact and keying arrangements.

MIL-DTL-55302/150C
w/AMENDMENT 1

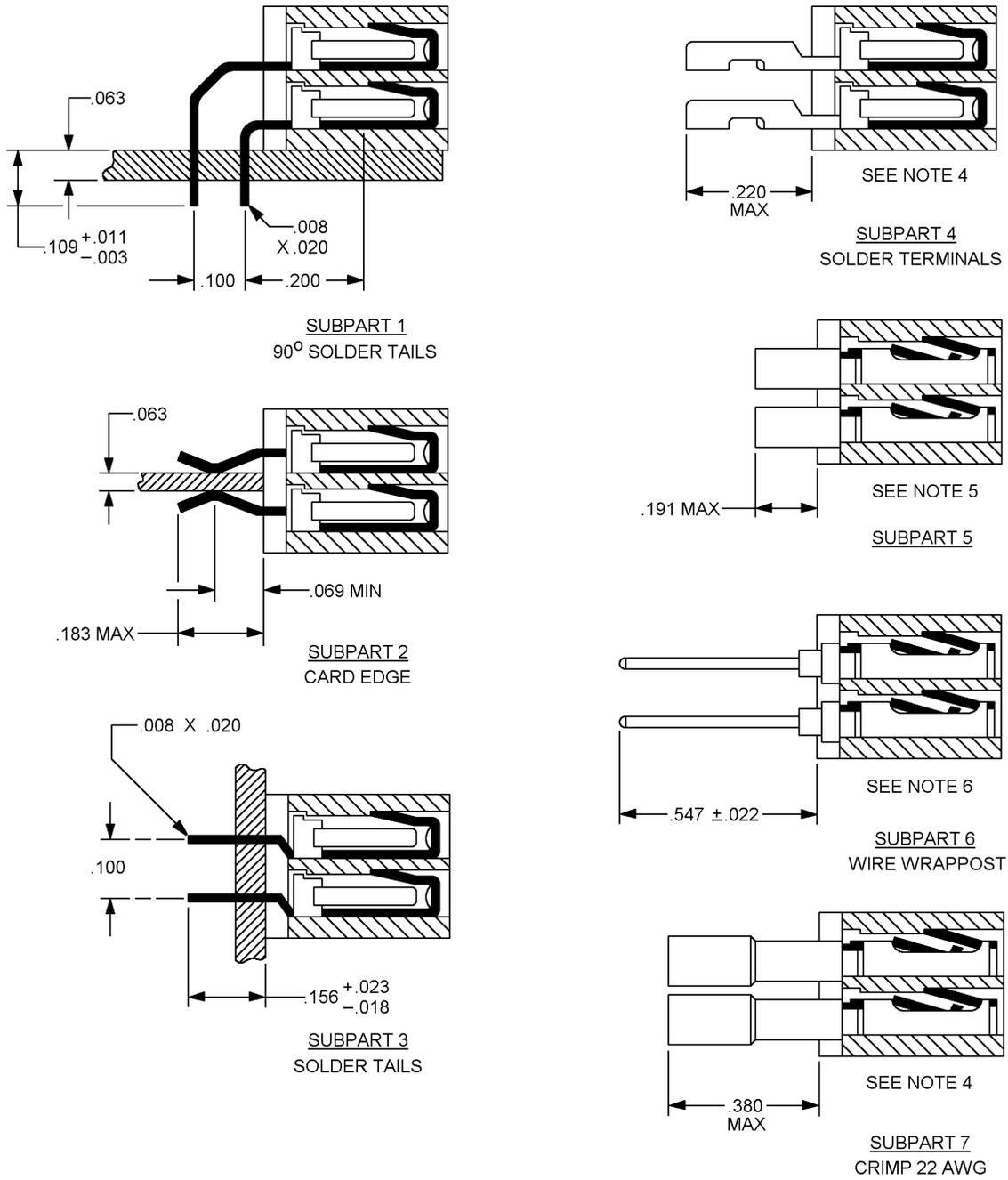


FIGURE 5. Contact terminations.

MIL-DTL-55302/150C
w/AMENDMENT 1

Inches	mm	Inches	mm
.003	0.08	.100	2.54
.008	0.20	.109	2.77
.011	0.28	.156	3.96
.018	0.46	.183	4.65
.020	0.51	.191	4.85
.022	0.56	.200	5.08
.023	0.58	.220	5.59
.063	1.60	.380	9.65
.069	1.75	.547	13.89

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .005$ (0.13 mm).
4. Solder tail accepts no. 22 AWG wire.
5. Crimp contact accepts no. 22-26 AWG wire.
6. Contact with .025 inch square (0.64 mm) wrappost.

FIGURE 5. Contact terminations - Continued.

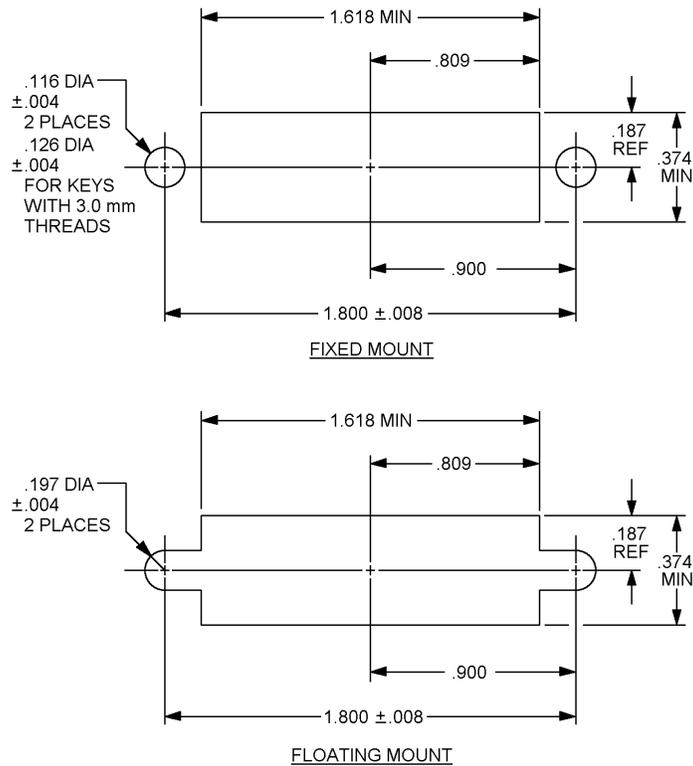


FIGURE 6. Recommended panel cutouts.

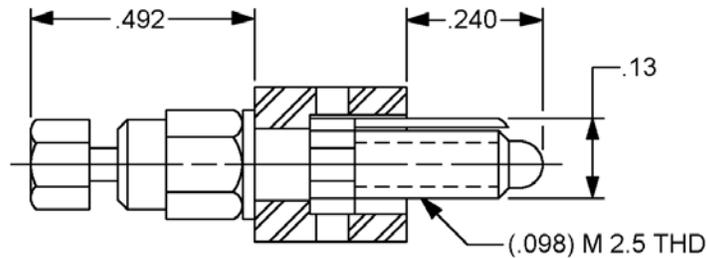
MIL-DTL-55302/150C
w/AMENDMENT 1

Inches	mm	Inches	mm
.004	0.10	.374	9.50
.008	0.20	.809	20.55
.116	2.95	.900	22.86
.126	3.20	1.618	41.10
.187	4.75	1.800	45.72
.197	5.00		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .005$ (0.13 mm).
4. Floating mount panel thickness .085 (2.15 mm) maximum.

FIGURE 6. Recommended panel cutouts - Continued.



(1U & 2U) PLUG - ROTATING
JACKSCREW - POLARIZED

Inches	mm
.098	2.49
.13	3.30
.240	6.10
.492	12.50

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerance is $\pm .015$ (0.38 mm) for lengths in hundredths, and $\pm .010$ (± 0.38 mm) for lengths in thousandths.
4. 1U has hexagonal base with 6 polarizing positions; 2U has a square base with 4 polarizing positions.

FIGURE 7. Mounting hardware

MIL-DTL-55302/150C
w/AMENDMENT 1

REQUIREMENTS

Dimensions and configurations: See figures 1 through 6.

Contact identification: See figure 4.

Contact retention: Coaxial and power: 11.25 pounds minimum.
Signal: 4 pounds minimum.

Mating and unmating force (per contact):	<u>Coaxial</u>	<u>Power</u>	<u>Signal</u>
(Min)	7.2 ounces	3.6 ounces	0.7 ounce
(Max)	36 ounces	18 ounces	3.6 ounces

Values for each connector to be addition of contacts according to contact type.

Contact separation:

Signal: 0.5 ounce minimum using test pins as specified in MIL-DTL-55302/142.

Contact resistance: 12 milliohms maximum.

Dielectric withstanding voltage:

Sea level: 1,000 V rms, 60 Hz.

High altitude: 300 V rms, 60 Hz.

Current rating:

Power contacts: 25 amperes at 25°C.

Coaxial contacts: .5 ampere at 25°C.

Signal contacts: 3 amperes at 25°C.

Keying: Moldings and mounting hardware provide 16 or 36 polarizing positions according to choice of 4 or 6 way capability. Connectors are supplied with hex pins in the "1" and "A" positions, except for 1/4-turn locking styles, which are keyed in "F" and "6" positions. When required, connectors can be easily keyed to desired position by using a simple wrench.

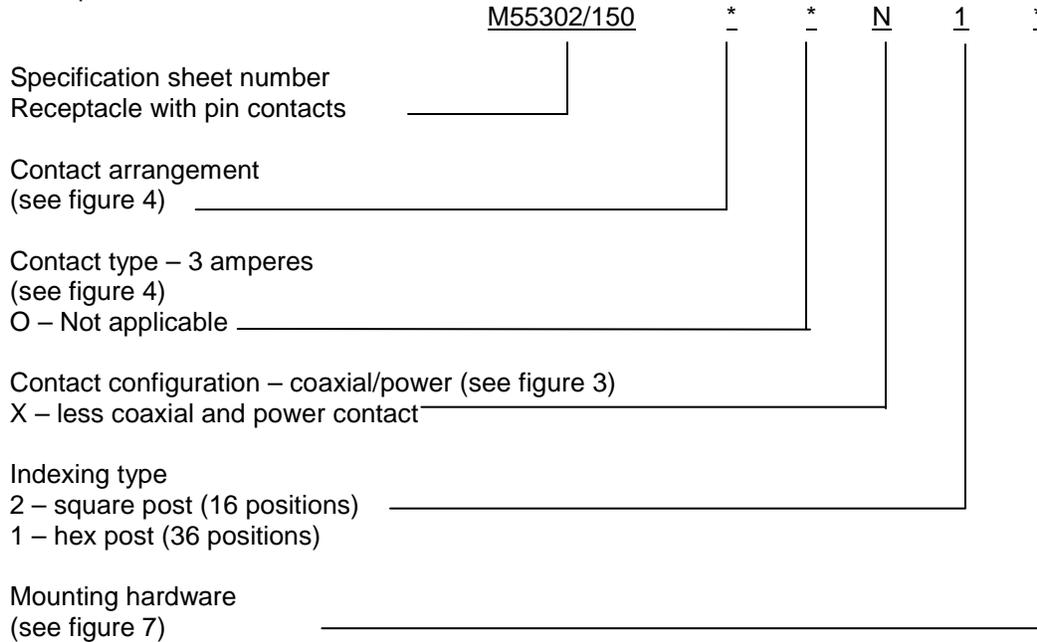
Mating connectors: As specified in MIL-DTL-55302/145.

Oversize pin exclusion test: Not applicable.

MIL-DTL-55302/150C
w/AMENDMENT 1

Part or Identifying Number (PIN): Consists of the letter M, the basic number of the specification sheet, and a dash number compiled as follows:

Example:



Qualification: Qualification is not required for this specification sheet.

First article testing (FAT): FAT shall be in accordance with MIL-DTL-55302, qualification inspection.

Sample size: 6 connectors shall be subjected to the FAT. All sample units shall be subjected to the inspections in subgroup I. The sample units shall be divided equally into 3 groups of 2 and subjected to the inspection for their particular subgroups. Contacts shall be tested as specified in subgroup 4A or 4B as applicable.

Amendment notations. The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were made. 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.

MIL-DTL-55302/150C
w/AMENDMENT 1

Referenced documents. In addition to MIL-DTL-55302, this document references the following:

MIL-DTL-55302/142
MIL-DTL-55302/145

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5935-2012-081)

Review activities:

Army – AR, AT, AV, CR4, MI
Navy – AS, MC, OS, 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 database at <https://assist.dla.mil/>.