

INCH-POUND

MS24133K
w/AMENDMENT 2
1 July 2014
SUPERSEDING
MS24133K
w/AMENDMENT 1
28 October 2013

DETAIL SPECIFICATION SHEET

SHIELD, ELECTRICAL, CONNECTOR, FOR 34, 42, 50,
AND 75 CONTACT RACK AND PANEL CONNECTOR

Reinstated after 10 July 2009 and may be used
for new and existing designs and acquisitions.

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-28748.

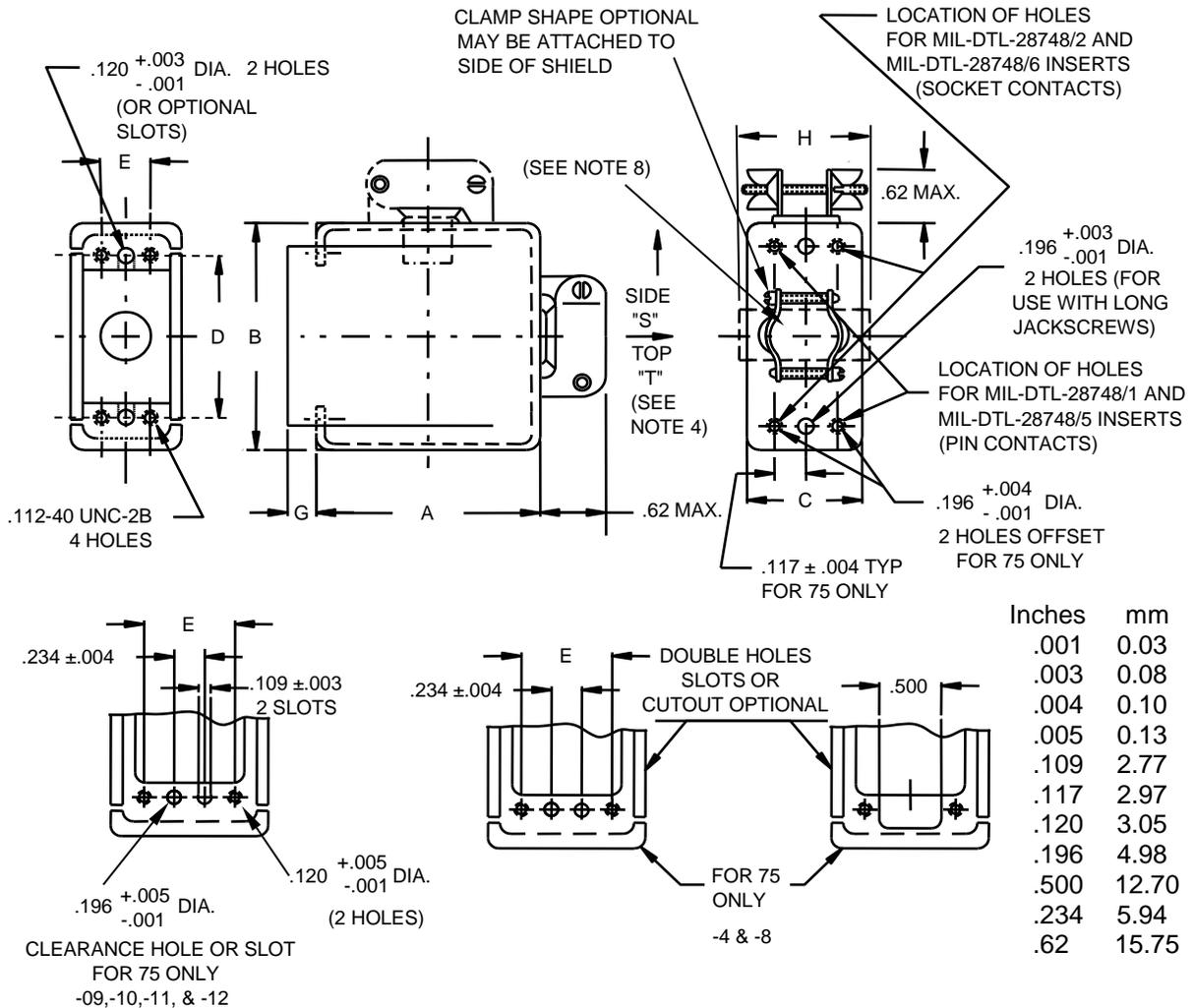


FIGURE 1. Shields for 34, 42, 50, and 75.

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Shield designator	Connector size (number of contacts)	A		B	C	D	E	F	G
		min	max	±0.016 (0.41) (mm)	±0.016 (0.41) (mm)	±0.005 (0.13) (mm)	±.005 (0.13) (mm)	Minimum cable opening square inch (mm)	±0.047 (1.19) (mm)
MS24133-T1 MS24133-S1	34	1.22 (31.0)	1.35 (34.3)	2.000 (50.80)	0.828 (21.03)	1.688 (42.88)	.468 (11.89)	.34 (8.6)	0.265 (6.73)
MS24133-T2 MS24133-S2	42	1.22 (31.0)	1.35 (34.3)	2.312 (58.72)	0.828 (21.03)	2.000 (50.80)	.468 (11.89)	.34 (8.6)	0.093 (2.36)
MS24133-T3 MS24133-S3	50	1.22 (31.0)	1.35 (34.3)	2.594 (65.89)	0.828 (21.03)	2.282 (57.96)	.468 (11.89)	.34 (8.6)	0.093 (2.36)
MS24133-T4 MS24133-S4	75	1.22 (31.0)	1.35 (34.3)	2.594 (65.89)	1.188 (30.18)	2.282 (57.96)	.766 (19.46)	.55 (14.0)	0.093 (2.36)

The following designators are the same as those listed above, except the two .120 inch (3.05 mm) diameter thru holes for mounting are threaded and the two .196 inch (4.98 mm) diameter holes are omitted. NOT RECOMMENDED FOR NEW DESIGN.

Shield designator	Connector size (number of contacts)	Thread size
MS24133-T5 MS24133-S5	34	.112-40 UNC-2B
MS24133-T6 MS24133-S6	42	.112-40 UNC-2B
MS24133-T7 MS24133-S7	50	.112-40 UNC-2B
MS24133-T8 MS24133-S8	75	.112-40 UNC-2B

The following shields are for use with one piece jackscrews and are not used with shells.

Shield designator	Connector size (number of contacts)	A		B	C	D	E	F	G	H
		min	max	±0.016 (0.41) (mm)	±0.016 (0.41) (mm)	±0.005 (0.13) (mm)	±.005 (0.13) (mm)	Minimum cable opening square inch (mm)	±0.047 (1.19) (mm)	max
MS24133-T9 MS24133-S9	34	1.22 (31.0)	1.35 (34.3)	2.000 (50.80)	0.828 (21.03)	1.688 (42.88)	.468 (11.89)	.34 (8.6)	.265 (6.73)	1.13 (28.7)
MS24133-T10 MS24133-S10	42	1.22 (31.0)	1.35 (34.3)	2.312 (58.72)	0.828 (21.03)	2.000 (50.80)	.468 (11.89)	.34 (8.6)	.093 (2.36)	1.13 (28.7)
MS24133-T11 MS24133-S11	50	1.22 (31.0)	1.35 (34.3)	2.594 (65.88)	0.828 (21.03)	2.282 (57.96)	.468 (11.89)	.34 (8.6)	.093 (2.36)	1.13 (28.7)
MS24133-T12 MS24133-S12	75	1.22 (31.0)	1.35 (34.3)	2.594 (65.88)	1.188 (30.18)	2.282 (57.96)	.766 (19.46)	.55 (14.0)	.093 (2.36)	1.37 (34.8)

FIGURE 1. Shields for 34, 42, 50, and 75 – Continued.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ± 0.016 inch (0.41 mm).
4. For shield with top cable opening suffix part number with "T".
For shield with side cable opening suffix part number with "S".
5. Material aluminum alloy in accordance with SAE AMS4016, temper H32 .040 inch (1.02 mm) thick.
6. Finish anodize in accordance with MIL-A-8625, type I or type II.
7. Spacer washers (4) used only with shell: Discard otherwise.
8. Edges of cable entry hole to be rounded to prevent insulation chafing.
9. No cracks, chips, or sharp edges on all 4 edges of flange.

FIGURE 1. Shields for 34, 42, 50, and 75 – Continued.

Shields for 34, 42, 50, and 75. See figure 1.

Qualification: Qualified sources for MIL-DTL-28748/1 through MIL-DTL-28748/6 that meet the qualification testing requirements in MIL-DTL-28748 require no further testing for the hardware.

Qualification of hardware only: the hardware shall be installed in a qualified connector and shall be subjected to the tests below in accordance with MIL-DTL-28748. Sample size, if qualifying all hardware configurations, shall be two connector pairs.

Visual and mechanical inspection
Vibration
Shock
Salt spray

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.

Referenced documents. In addition to MIL-DTL-28748, this document references the following:

MIL-A-8625
MIL-DTL-28748/1
MIL-DTL-28748/2
MIL-DTL-28748/3
MIL-DTL-28748/4
MIL-DTL-28748/5
MIL-DTL-28748/6
SAE AMS4016

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5935-2014-081)

Review activities:

Army - AM, AR, AT, CR4, MI
Navy - AS, MC, OS, SH
Air Force - 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>.