

**INCH-POUND**  
 MS18204F  
 w/AMENDMENT 2  
 1 July 2014  
 SUPERSEDING  
 MS18204F  
 w/AMENDMENT 1  
 28 October 2013

DETAIL SPECIFICATION SHEET

SHELL, ELECTRICAL, CONNECTOR, RECEPTACLE,  
 RECTANGULAR, POLARIZING

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.

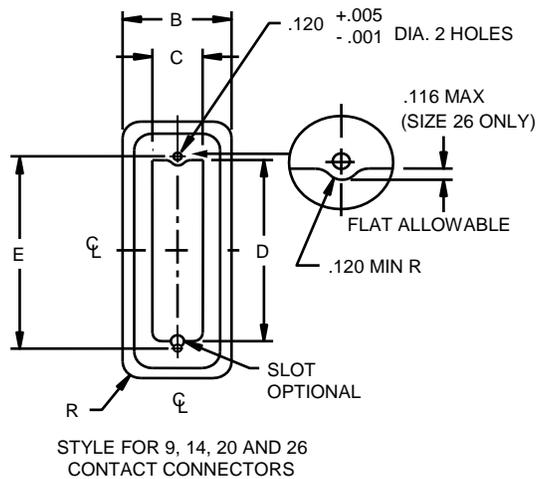
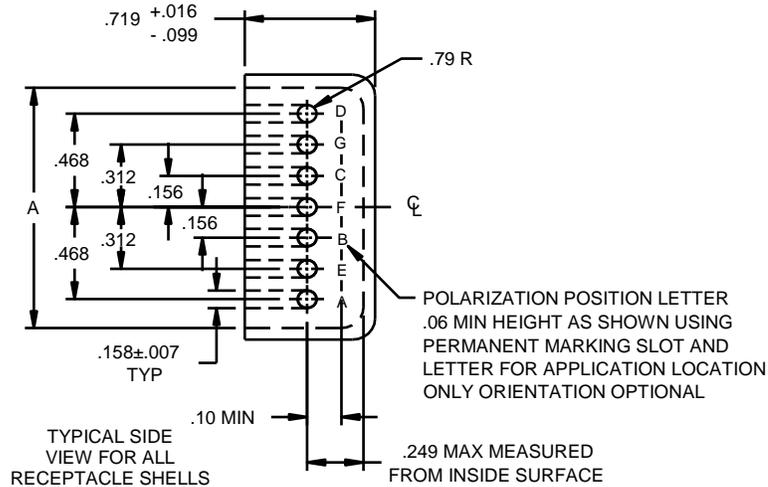
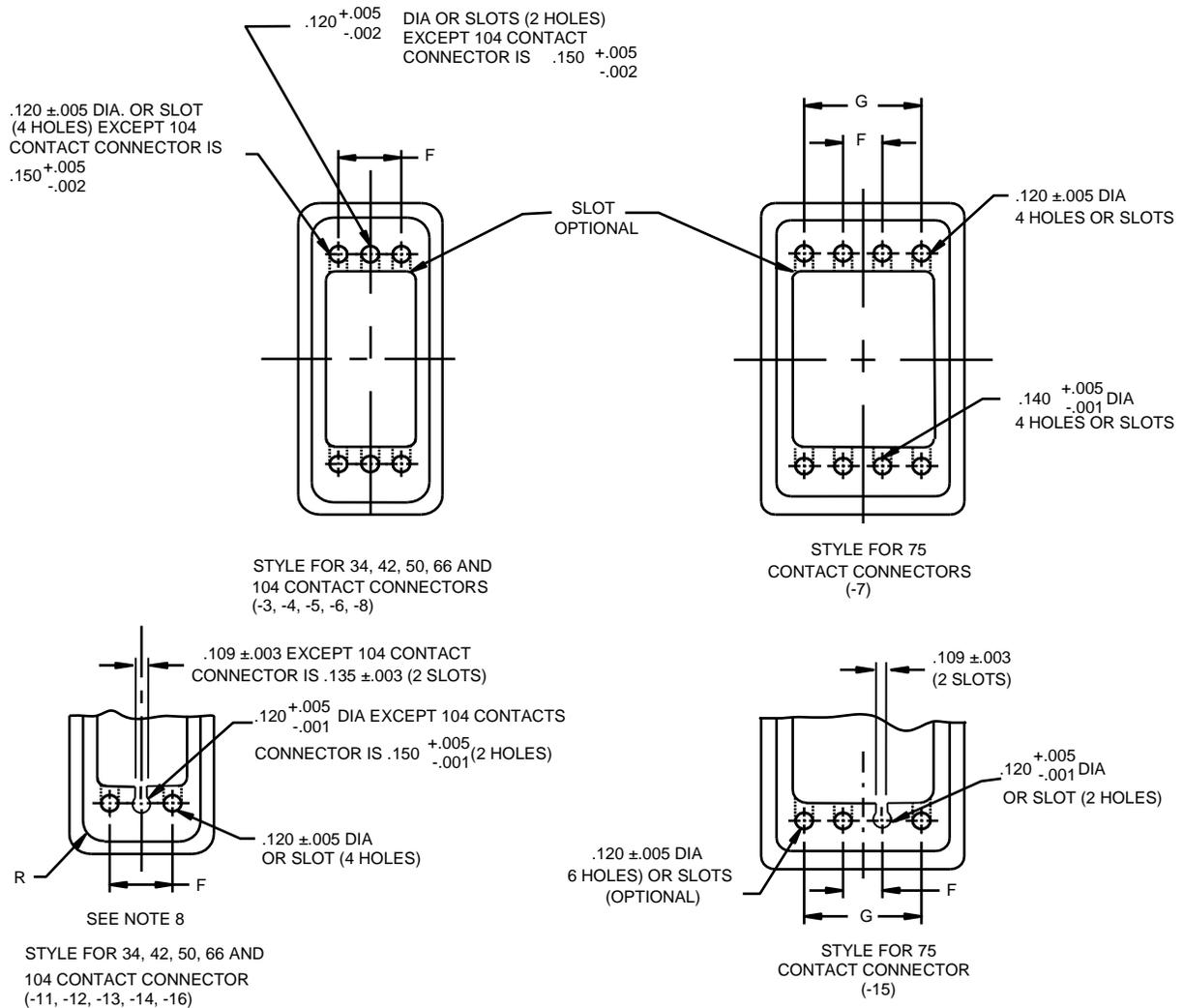


FIGURE 1. Receptacle shell, polarizing.

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Inches	mm	Inches	mm
.001	0.03	.120	3.05
.002	0.05	.135	3.43
.003	0.08	.140	3.56
.005	0.13	.150	3.81
.016	0.41	.156	3.96
.021	0.53	.158	4.01
.060	1.52	.249	6.32
.099	2.51	.312	7.92
.109	2.77	.468	11.89
.116	2.95	.719	18.26

Receptacle shell MS18204, polarizing

FIGURE 1. Receptacle shell, polarizing – Continued.

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Receptacle shell with polarization designator	Connector size (number of contacts)	A min	B min	C min	D min	E ±.005 (0.13 mm)	F ±.005 (0.13 mm)	G ±.005 (0.13 mm)	R
MS18204-9( )	9	1.448 (36.78)	.512 (13.00)	.375 (9.53)	.864 (21.95)	1.000 (25.40)	---	---	.141 (3.58)
MS18204-1( )	14	1.388 (35.26)	.575 (14.61)	.440 (11.18)	.800 (20.32)	.938 (23.83)	---	---	.141 (3.58)
MS18204-17( )	18	1.450 (36.83)	.696 (17.68)	.565 (14.35)	.880 (22.35)	1.00 (25.40)	---	---	.141 (3.58)
MS18204-2( )	20	1.702 (43.23)	.575 (14.61)	.440 (11.18)	1.097 (27.86)	1.250 (31.75)	---	---	.141 (3.58)
MS18204-10( )	26	1.763 (44.78)	.696 (17.68)	.565 (14.35)	1.182 (30.02)	1.312 (33.32)	---	---	.141 (3.58)
MS18204-3( )	34	2.138 (54.31)	.888 (22.56)	.745 (18.92)	1.400 (35.56)	1.688 (42.88)	.468 (11.89)	---	.141 (3.58)
MS18204-4( )	42	2.450 (62.23)	.888 (22.56)	.745 (18.92)	1.700 (43.18)	2.000 (50.80)	.468 (11.89)	---	.141 (3.58)
MS18204-5( )	50	2.856 (72.54)	1.015 (25.78)	.745 (18.92)	2.026 (51.46)	2.281 (57.94)	.468 (11.89)	---	.188 (4.78) (see note 4)
MS18204-6( )	66	2.420 (61.47)	1.264 (32.11)	1.115 (28.32)	1.696 (43.08)	1.969 (50.01)	.500 (12.70)	---	.375 (9.53)
MS18204-7( )	75	2.855 (72.52)	1.370 (34.80)	1.104 (28.04)	2.026 (51.46)	2.281 (57.94)	.234 (5.94)	.766 (19.46)	.203 (5.16)
MS18204-8( )	104	2.900 (73.66)	1.680 (42.67)	1.476 (37.49)	2.073 (52.65)	2.375 (60.33)	.875 (22.23)	---	.422 (10.72)
MS18204-11( ) see note 9	34	2.138 (54.31)	.888 (22.56)	.745 (18.92)	1.400 (35.56)	1.688 (42.88)	.468 (11.89)	---	.141 (3.58)
MS18204-12( ) see note 9	42	2.450 (62.23)	.888 (22.56)	.745 (18.92)	1.700 (43.18)	2.000 (50.80)	.468 (11.89)	---	.141 (3.58)
MS18204-13( ) see note 9	50	2.856 (72.54)	1.015 (25.78)	.745 (18.92)	2.026 (51.46)	2.281 (57.94)	.468 (11.89)	---	.188 (4.78) (see note 4)
MS18204-14( ) see note 9	66	2.420 (61.47)	1.264 (32.11)	1.115 (28.32)	1.696 (43.08)	1.969 (50.01)	.500 (12.70)	---	.375 (9.53)
MS18204-15( ) see note 9	75	2.855 (72.52)	1.370 (34.80)	1.104 (28.04)	2.026 (51.46)	2.281 (57.94)	.234 (5.94)	.766 (19.46)	.203 (5.16)
MS18204-16( ) see note 9	104	2.900 (73.66)	1.680 (42.67)	1.476 (37.49)	2.073 (52.65)	2.375 (60.33)	.875 (22.23)	---	.422 (10.72)

Polarization designators ( ) indicate location of polarization slot designator A through G (see note 8).

FIGURE 1. Receptacle shell polarizing - 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  $\pm 0.016$  inch (0.41 mm).
4. Tolerance  $+0.020$  inch (0.51 mm)  $-0.016$  inch (0.41 mm).
5. Material aluminum alloy in accordance with SAE AMS4015, temper O, or ASTM B209, temper H12, .040 inch (1.02 mm) thick.
6. Finish anodize in accordance with MIL-A-8625, type I or type II.
7. Each slot may vary  $\pm 0.005$  inch (0.13 mm) from centerline.
8. PIN examples:
  - a. Polarization required, specify as MS18204-# (A through G). Example: MS18204-5D.
  - b. Polarization not required, specify as MS18204-#. Example: MS18204-5.
9. Receptacle shell designators MS18204-11, -12, -13, -14, -15, and -16 are not used with one-piece jackscrew shields of MS24133.

FIGURE 1. Receptacle shell polarizing - Continued.

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  
MS24133  
ASTM B209  
SAE AMS4015

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:  
DLA - CC

(Project 5935-2014-080)

Review activities:

Army - AM, AR, CR4  
Navy - MC  
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>.