

INCH-POUNDS

MIL-DTL-28754/31D  
14 May 2015  
SUPERSEDING  
MIL-C-28754/31C  
13 December 1982

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, MODULAR, CONNECTOR ASSEMBLY,  
TYPE V, 40-PIN, TWO PIECE INSERT, AND 20-PIN,  
ONE HALF, ONE PIECE INSERT

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-C-28754.

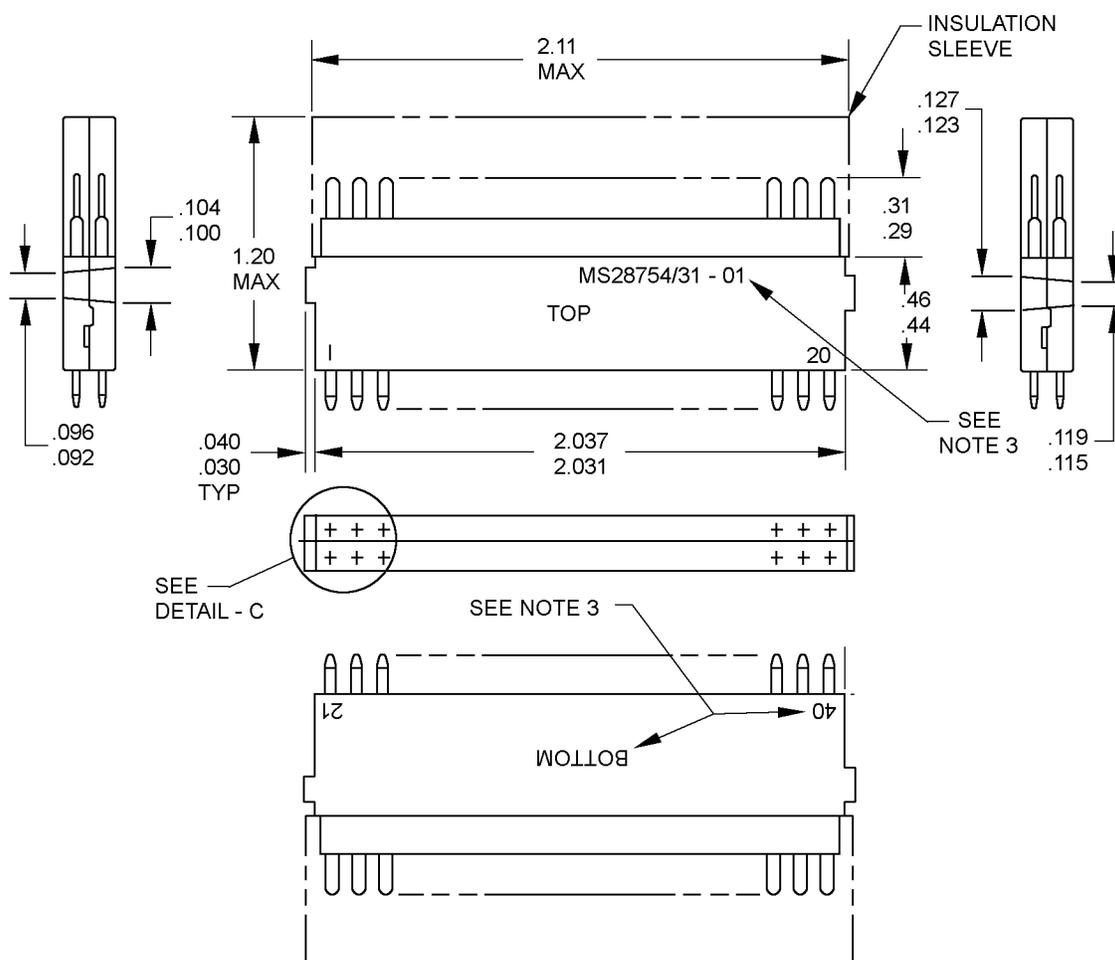


FIGURE 1A. Top and bottom inserts.

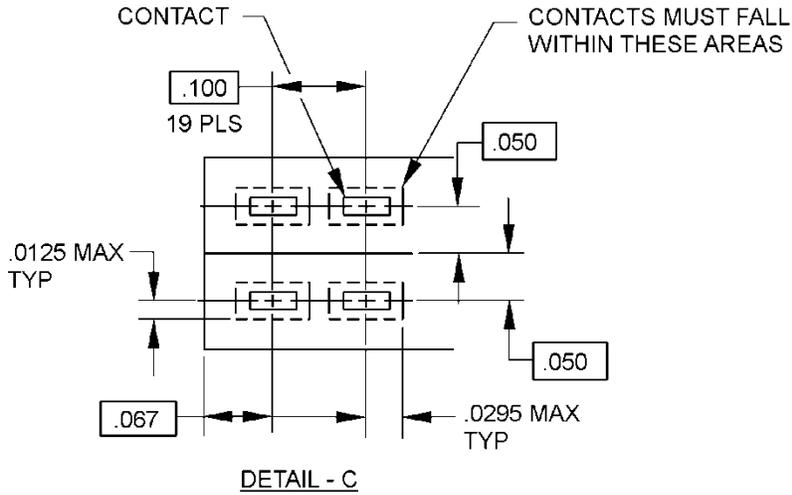
FIGURE 1. Dimensions and configurations.

AMSC N/A

FSC 5935



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Inches	mm	Inches	mm
.005	.13	.115	2.92
.01	.3	.119	3.02
.0125	.318	.123	3.12
.0295	.749	.127	3.23
.030	.76	.29	7.4
.040	1.02	.30	7.6
.050	1.27	.31	7.9
.067	1.70	.44	11.2
.092	2.34	.46	11.7
.096	2.44	1.20	30.5
.100	2.54	2.031	51.59
.104	2.64	2.037	51.74
		2.11	53.6

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only and are based upon 1.00 inch = 25.4 mm.
3. Mark in this area in white characters, .30 inch high maximum.
4. Individual inserts shall be marked in this area. When combined to make a two-piece assembly, the marking shall be per figure 1.
5. Unless otherwise specified, tolerance is  $\pm .005$  for three place decimals,  $\pm .01$  for two place decimals and  $\pm 2^\circ$  on angles.

FIGURE 1. Configurations and dimensions – Continued.

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TABLE I. Dash numbers and applicable insert.

Dash no.	Top insert MIL-DTL-28754/50	Bottom insert MIL-DTL-28754/51	Figure
01	-01	-01	1A
02	-01	-02, -04	1A
03	-01	-03	1A
04	-02, -04	-01	1A
05	-02, -04	-02, -04	1A
06	-02, -04	-03	1A
07	-03	-01	1A
08	-03	-02, -04	1A
09	-03	-03	1A

REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.

Design characteristics: See table II.

Contacts: In accordance with applicable MIL-C-28754 specification sheet (see table I).

Material: In accordance with applicable MIL-C-28754 specification sheet (see table I).

Temperature rating: -55°C to +105°C.

Voltage rating: 300 volts, AC (rms) at sea level.

Solderability: The insulation sleeve is to be removed prior to testing. For first article testing, solderability to be transferred from subgroup 1 to subgroup IV of table V, MIL-C-28754. Number of units to be inspected shall be 2; number of defects allowed shall be 0.

Marking: In accordance with MIL-C-28754 and figure 1.

Part or Identifying Number (PIN): M28754/31- (dash number from table I).

TABLE II. Design characteristics.

Conductor size (AWG)	Current rating (Amps)	Contact resistance (mV)	Durability (mV)	Solder joint resistance (mV)
20	3	20	20	4.0
22	3	20	20	4.0
24	3	20	20	4.0
26	2	13.3	13.3	4.0
28	1.5	10.0	10.0	4.0
30	1.0	6.7	6.7	4.0

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First article testing: Perform the applicable tests as specified in MIL-C-28754 and the appendix thereto.

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue 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 and relationship to the previous issue.

Referenced documents. In addition to MIL-C-28754, this document references the following:

MIL-DTL-28754/50  
MIL-DTL-28754/51

CONCLUDING MATERIAL

Custodians:

Army – CR  
Navy – AS  
Air Force – 85  
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-2015-120)

Review activities:

Army – AR, MI  
Navy – MC, YD  
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/>.