

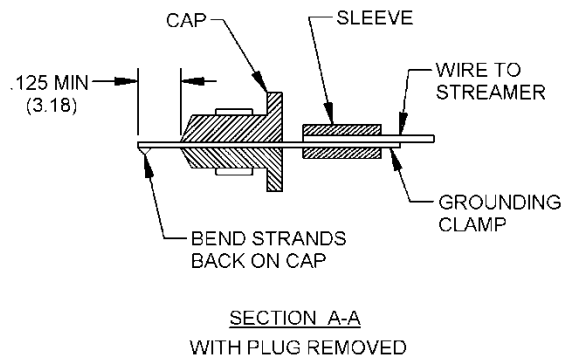
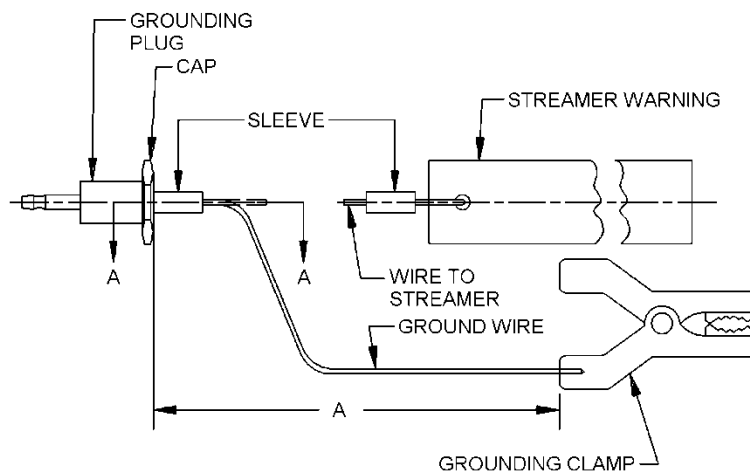
MIL-DTL-83413/1E
w/AMENDMENT 1
21 December 2018
SUPERSEDING
MIL-DTL-83413/1E
15 November 2014

DETAIL SPECIFICATION SHEET

CONNECTORS AND ASSEMBLIES, ELECTRICAL, AIRCRAFT GROUNDING: TYPE I GROUNDING ASSEMBLY, DISCHARGER, ELECTROSTATIC

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-83413.



Wire Length (A)	
10ft	±1
20ft	±1
30ft	±1
40ft	±1

NOTES:

1. Dimensions are in inches.
2. QPL subcomponents shall be procured from a qualified QPL source.
3. Metric equivalents are given for general information only.

FIGURE 1. Type I grounding assembly.

REQUIREMENTS

Design and configuration: See figure 1.

Grounding plug: In accordance with MIL-DTL-83413/4. See figure 1, note 2.

Grounding cap: In accordance with MIL-DTL-83413/10.

Grounding wire: M83420/4-013, 7 X 7 wire in accordance with MIL-DTL-83420/4, type II, composition B, jacket color translucent (see PIN example), or international orange in accordance with SAE AMS-STD-595/22510. See figure 1, note 2.

Grounding clamp: In accordance with MIL-DTL-83413/7 or MIL-DTL-83413/12.

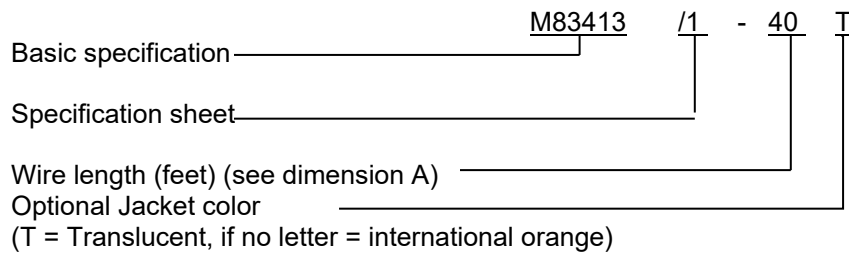
Sleeves: Shall be manufactured from SAE-AS20659-109 terminals. See figure 1, note 2.

Warning streamers: Shall be in accordance with NAS1756, and shall be attached securely near the plug. See figure 1.

Splices shall not be used.

Assembly resistance: Resistance of the grounding assembly shall not exceed 6.0 ohms.

Part or Identifying Number (PIN) example:



Wire length shall be 10, 20, 30, or 40 feet $\pm$ 1 foot.

QUALIFICATION: Qualification is not required. First article inspection shall consist of a visual and mechanical inspection and assembly resistance in accordance with MIL-DTL-83413 and the requirements stated in this specification sheet. First article inspection shall consist of the inspections specified in table I.

Visual and Mechanical Inspections are required on Grounding clamps that are procured from manufactures with a Certificate of Conformance that certifies the Grounding clamp complies with first article inspections.

Samples for first article inspection shall be representative of the products proposed to be furnished to this specification. Test samples shall consist of 100% testing, up to 12 grounding assemblies. Test samples shall be examined and tested in accordance with MIL-DTL-83413 and this specification. Test results shall be submitted to the acquiring activity.

TABLE I. First article inspection. 1/

Inspection	Clamp connector	Grounding assembly	Requirement paragraph	Test Paragraph
<u>Group I</u>				
Visual and mechanical Inspection	X	X	3.1, 3.3, 3.4 3.6, 3.8	4.7.1
Detent action			3.5.1	4.7.2
Handgrip force	X		3.5.2	4.7.3
Side loading			3.5.3	4.7.4
Torque			3.5.4	4.7.5
Engagement			3.5.5	4.7.6
Contact resistance			3.5.6.1	4.7.7.1
Clamp connector resistance	X		3.5.6.2	4.7.7.2
Assembly resistance		X	3.5.6.3	4.7.7.3
<u>Group II</u>				
Cable attachment	X		3.5.7	4.7.8
Clamp release force (initial)	X		3.5.8.1	4.7.9
Clamp release force (after conditioning)	X		3.5.8.2	4.7.9
Clamping life	X		3.5.9	4.7.10
Vibration			3.5.10	4.7.11
Durability			3.5.11	4.7.12
Flexibility			3.5.13	4.7.14
Tensile strength			3.5.12	4.7.13
Crush			3.5.14	4.7.15
<u>Group III</u>				
Humidity	X		3.5.15	4.7.16
Temperature cycling	X		3.5.16	4.7.17
Drop	X		3.5.17	4.7.18
Altitude – low temperature			3.5.18	4.7.19
Dust			3.5.19	4.7.20
Fluid immersion			3.5.20	4.7.21
Salt spray	X		3.5.22	4.7.23
<u>Group IV</u>				
Lightning current			3.5.23	4.7.24

1/ - X indicates that a test is applicable.

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-83413, this document references the following:

MIL-DTL-83413/4	SAE AMS-STD-595/22510
MIL-DTL-83413/7	NAS1756
MIL-DTL-83413/10	SAE-AS20659
MIL-DTL-83413/12	
MIL-DTL-83420/4	

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5920-2018-004)

Review activities:

Army - AR, CR, CR4, MI
Navy - MC
Air Force - 02

NOTE: The activities listed above were interested in this document as of the date of this document. Since organization and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.