

INCH-POUND

MIL-DTL-12883/51B  
w/AMENDMENT 1  
29 March 2010  
SUPERSEDING  
MIL-DTL-12883/51B  
18 February 2003

DETAIL SPECIFICATION SHEET

SOCKETS AND ACCESSORIES FOR PLUG-IN ELECTRONIC COMPONENTS, BRACKET AND  
SOCKET ASSEMBLY FOR RELAYS, 4-POLE, 10 AMPERES  
(MIL-PRF-6106, MIL-PRF-83536, AND MIL-PRF-83726)

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-12883.

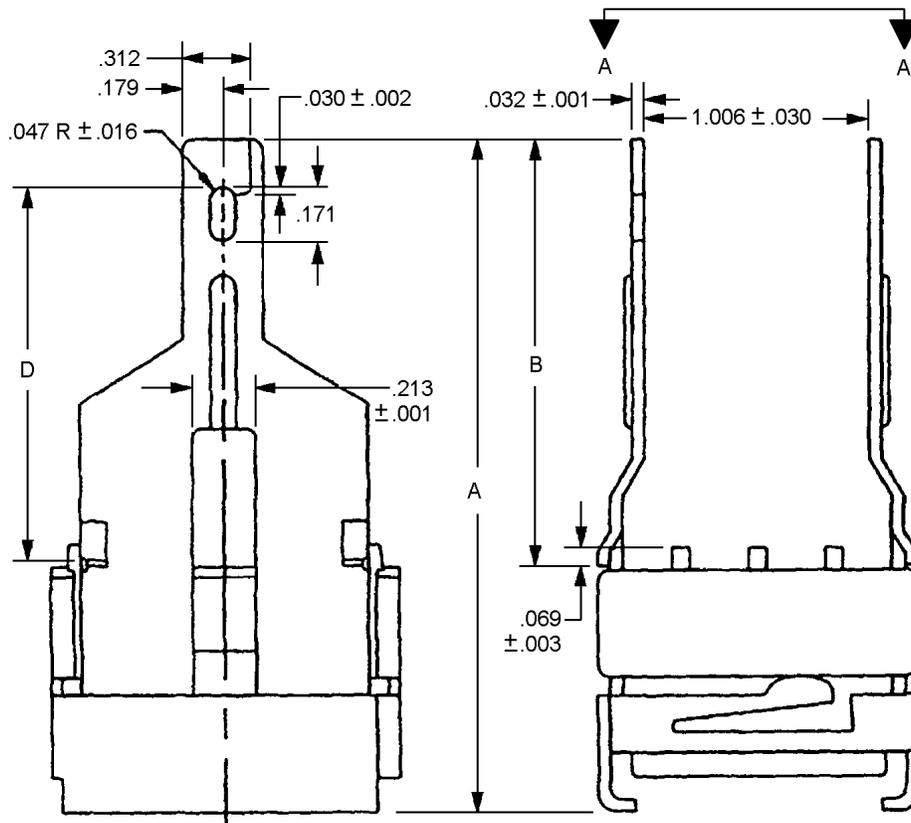


FIGURE 1. Dimensions and configurations.

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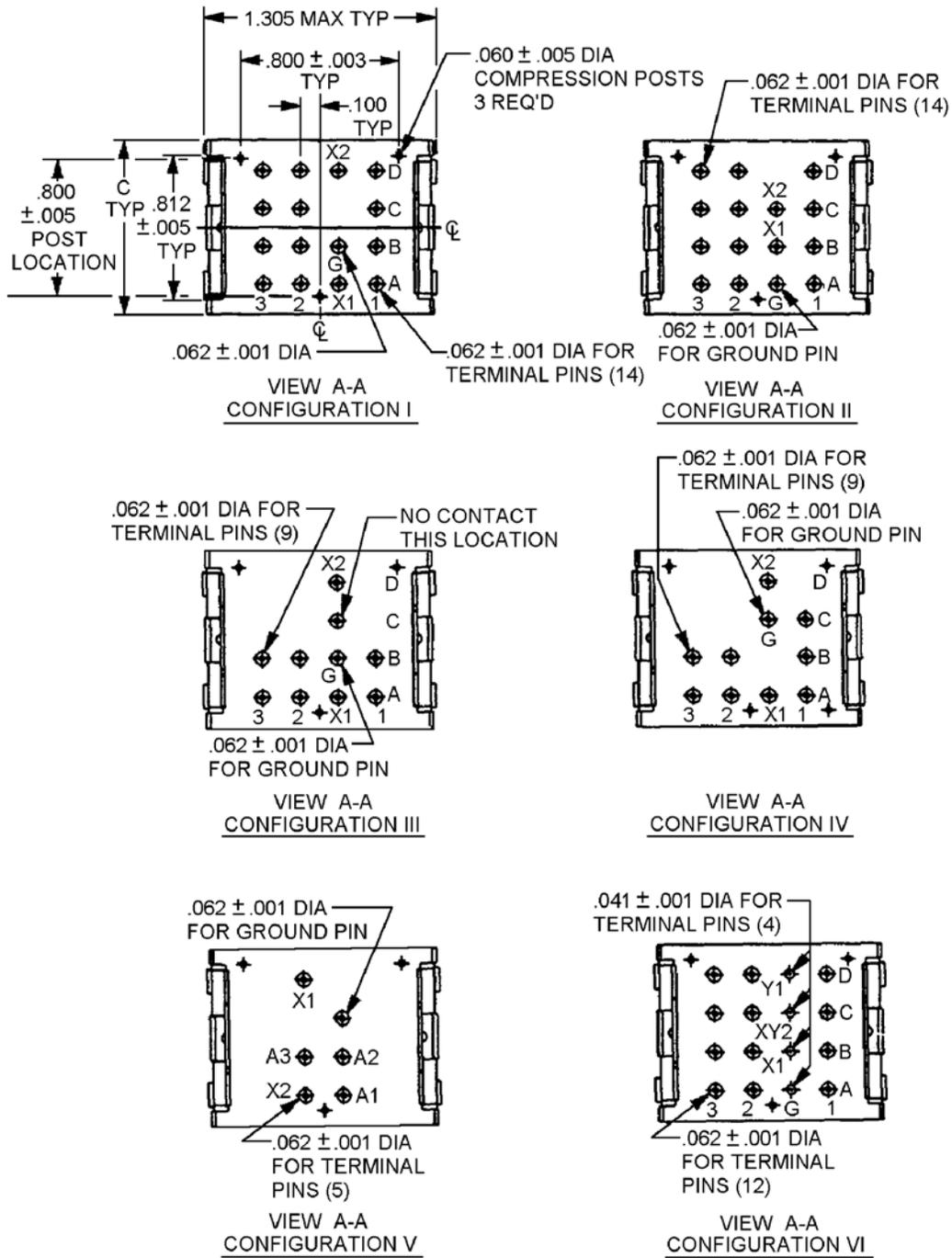


FIGURE 1. Dimensions and configurations – Continued.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.030	0.76	.062	1.57	.213	5.41
.002	0.05	.032	0.81	.069	1.75	.312	7.92
.003	0.08	.041	1.04	.100	2.54	.800	20.32
.005	0.13	.047	1.19	.171	4.34	.812	20.63
.016	0.41	.060	1.52	.179	4.55	1.006	25.54
						1.305	33.15

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are  $\pm .010$  inch (0.25 mm).
4. Terminal markings shall be of a contrasting color to the socket surface and shall appear on both the bottom and top surface per the applicable specification.
5. Color code, top surface of socket as specified in table II.

FIGURE 1. Dimensions and configurations – Continued.

REQUIREMENTS:

Dimensions and configurations: See figure 1 and table I.

TABLE I. Dimensions. 1/ 2/ 3/

Configuration	A Max	B Max	C Max	D Max
I	2.520 (64.01)	1.540 (39.12)	1.005 (25.53)	1.326 (33.68)
II	2.520 (64.01)	1.540 (39.12)	1.005 (25.53)	1.326 (33.68)
III	3.320 (84.33)	2.340 (59.44)	1.020 (25.91)	2.123 (53.92)
IV	3.320 (84.33)	2.340 (59.44)	1.020 (25.91)	2.123 (53.92)
V	3.320 (84.33)	2.340 (59.44)	1.020 (25.91)	2.123 (53.92)
VI	2.520 (64.01)	1.540 (39.12)	1.005 (25.53)	1.326 (33.68)

1/ Dimensions are in inches.

2/ Metric equivalents are given for information only.

3/ Metric equivalents are in parenthesis.

Material:

Body: Polyetherimide.

Bracket: 17-7 ph cres passivated in accordance with SAE AMS2700.

Plating: Sulfamate nickel in accordance with SAE-AMS-QQ-N-290, 100 microinches minimum.

Grommet: Silicone rubber.

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Contacts: Contacts are not supplied with the socket module use the following contacts:

- 20 gage - M39029/57-357 for (.041) terminal pins.
- 16 gage - M39029/57-358 for (.062) terminal/ground pins.

Minimum holding force: 3 lbs (13.34 Newton) when assembled to track (MIL-DTL-12883/49).

Part or Identifying Number (PIN): The PIN shall consist of the basic number of this specification sheet and the dash number from table II.

Example:

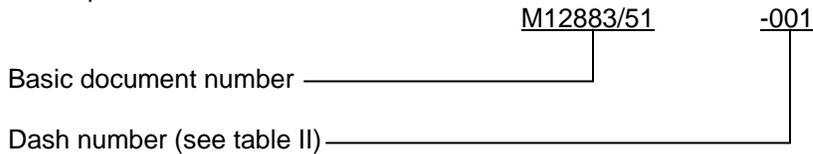


TABLE II. Dash number and characteristics. 1/

Dash number 2/	Socket configuration	Applicable relay 3/ 4/	Maximum weight pounds (grams)	Color code
001	I (dc)	MIL-PRF-83536/16-025	.045 (20.41)	FED-STD-595/37038
002	II (ac)	MIL-PRF-83536/17-010	.045 (20.41)	FED-STD-595/36231
003	III (td-op)	MIL-R-83726/19	.081 (36.70)	FED-STD-595/35240
004	IV (tr-rel)	MIL-R-83726/18	.081 (36.70)	FED-STD-595/34449
005	V (td voltage sensing)	MIL-R-83726/27	.115 (52.10)	FED-STD-595/32246
006	VI (dc latching)	MIL-PRF-83536/19-010	.045 (20.41)	FED-STD-595/30252

1/ Reference MIL-PRF-83536 for supersession data on MIL-PRF-6106 relays.

2/ To be used in conjunction with relay mounting track MIL-DTL-12883/49 and applicable relay.

3/ Each socket module delivered shall have a hole pattern that:

- a. Permits installation of the mating relay into the socket module when the relative orientation of the two is correct.
- b. Prevents installation of this mating relay into the socket module when the relative orientation of the two is not correct.
- c. Prevents installation of all other relays into the socket module regardless of the orientation of the socket module and the relay.

4/ Any hole molded into the socket module that results in a pattern that is not consistent with 3/ shall be filled. The filling means shall exhibit the following characteristics:

- a. If a nonmetal, the fill material shall be proved to comply with the reversion resistance and hydrolytic stability requirements of MIL-HDBK-454, requirement 47.
- b. Shall be restrained from motion relative to the module material into which it is inserted.
- c. Shall have hardness comparable to that of the module material into which it is inserted.

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Supersession data: See table III.

TABLE III. Supersession data. <sup>1/</sup>

Superseded dash number	Superseding PIN
M6106/5-001	M12883/51-001
M6106/5-002	M12883/51-002
M6106/5-003	M12883/51-003
M6106/5-004	M12883/51-004
M6106/5-005	M12883/51-005
M6106/5-006	M12883/51-006

<sup>1/</sup> For Government logistics support, supersession data becomes applicable when a qualified products list becomes available.

The Government PIN, specified in table IV, supersedes the following commercial PINs.

TABLE IV. Supersession and cross reference.

Active Government PIN	Superseded manufacturers PIN
	CAGE 99699
M12883/51-001	BSE410-9
M12883/51-002	BSE410-10
M12883/51-003	BSCTD210-11
M12883/51-004	BSCTD210-12
M12883/51-005	BSCVSTD410-13
M12883/51-006	BSEL410-2

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-12883, this document references the following:

MIL-HDBK-454	MIL-R-83726/18	FED-STD-595/37038
MIL-DTL-12883/49	MIL-R-83726/19	FED-STD-595/36231
MIL-PRF-6106	MIL-R-83726/27	FED-STD-595/35240
MIL-PRF-83536	SAE AMS2700	FED-STD-595/34449
MIL-PRF-83726	SAE-AMS-QQ-N-290	FED-STD-595/32246
		FED-STD-595/30252

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:  
DLA - CC

(Project 5935-2009-202)

Review activities:

Army - MI  
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.daps.dla.mil/> .