

INCH-POUND

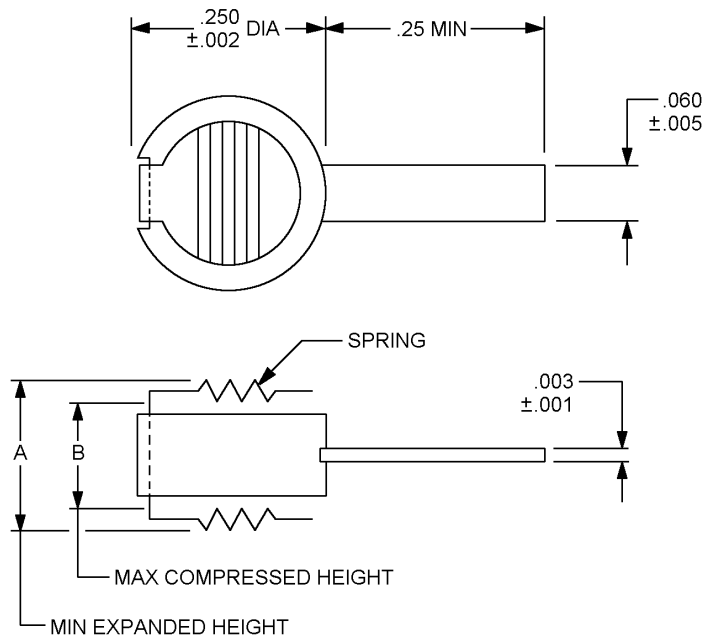
MIL-DTL-39030/20D
w/AMENDMENT 1
31 January 2023
SUPERSEDING
MIL-DTL-39030/20D
02 September 2017

DETAIL SPECIFICATION SHEET

DUMMY LOADS, ELECTRICAL,
TYPE XIV (TAB CONTACT), STRIPLINE, LOW POWER

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-39030.



Dash number	A	B
01	.265	.246
04	.140	.121

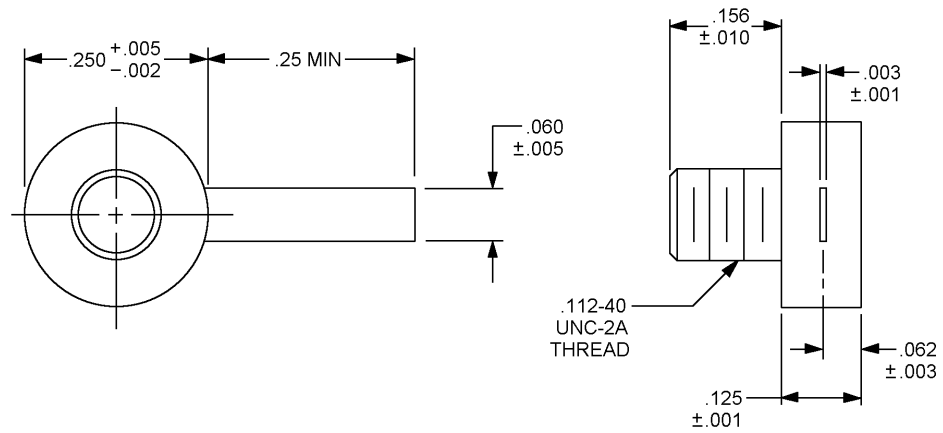
NOTES:

1. Dimensions are in inches.
2. Part or Identifying Number (PIN).

FIGURE 1. Dimensions and configuration, PINs M39030/20-01 and -04.



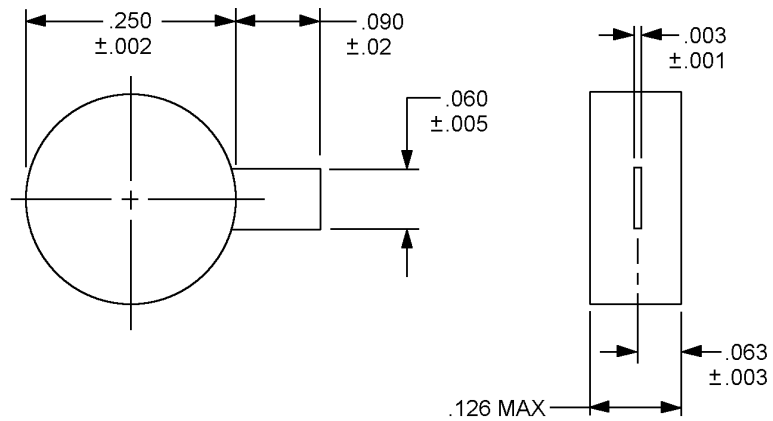
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NOTES:

1. Dimensions are in inches.

FIGURE 2. Dimensions and configuration, PIN M39030/20-02.

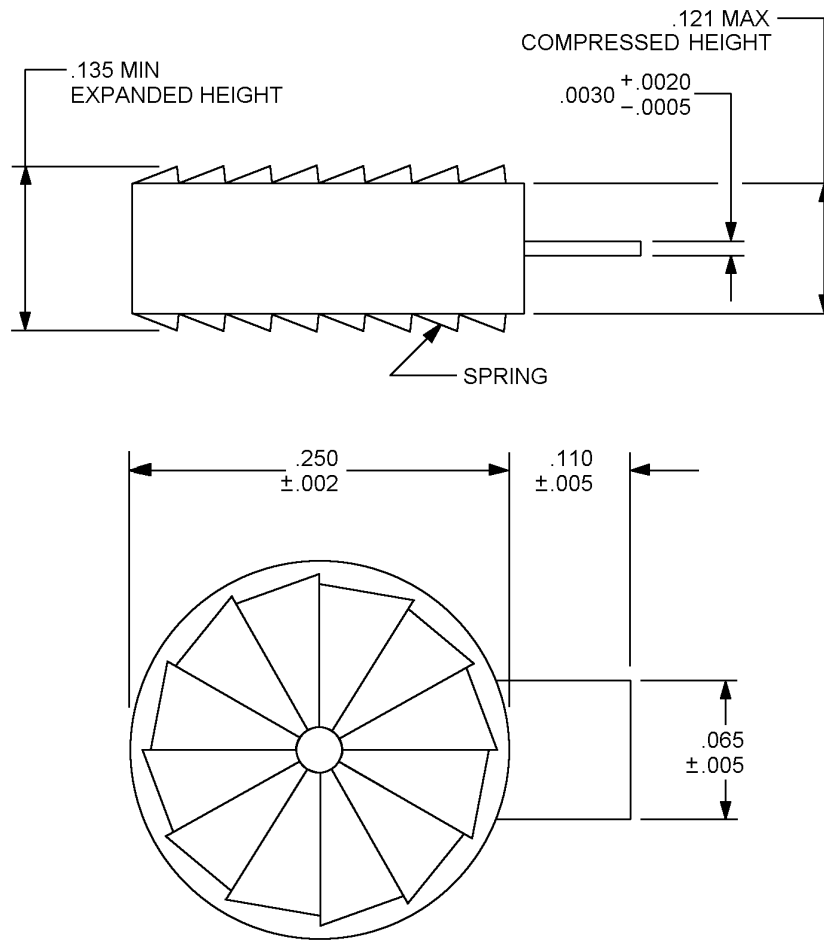


NOTES:

1. Dimensions are in inches.

FIGURE 3. Dimensions and configuration, PIN M39030/20-03.

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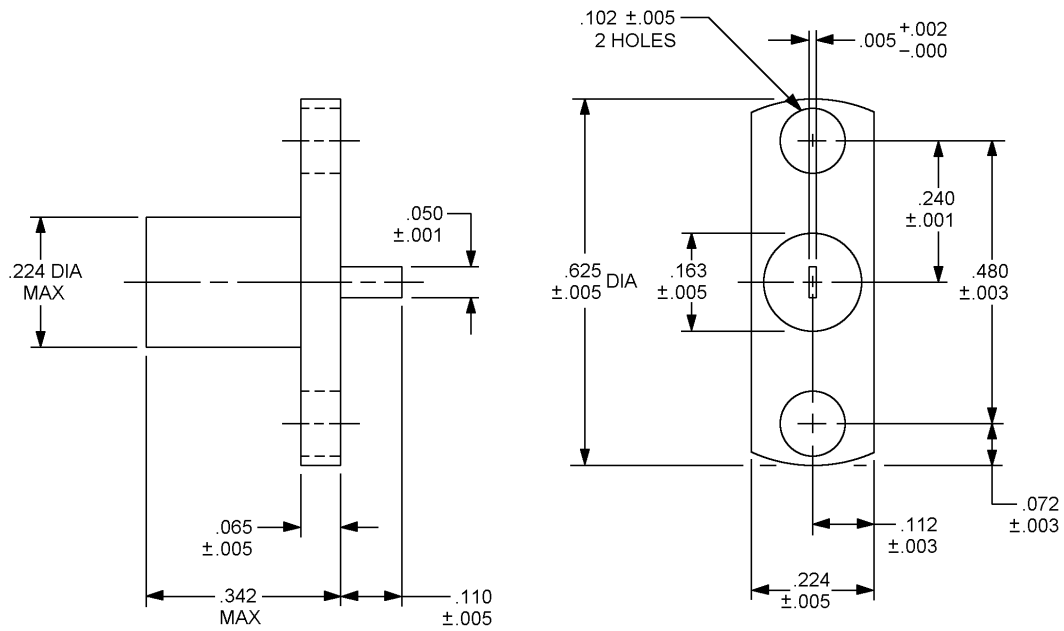


NOTES:

1. Dimensions are in inches.

FIGURE 4. Dimensions and configuration, PIN M39030/20-05.

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NOTES:

1. Dimensions are in inches.

FIGURE 5. Dimensions and configuration, PIN M39030/20-6.

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TABLE I. Dash numbers and characteristics.

Dash number	Operating frequency (GHz)	VSWR (max)	Power handling capability (max)		Duty cycle (%)	Nominal characteristic impedance (ohms)	Weight (max) (oz)	Finish	Figure number
			Average (watts)	Peak (watts)					
01	DC to 6.0	(1.20 + .025f):1 <u>1/</u>	1.0 <u>2/</u>	0.1K <u>2/</u>	1	50	.053	Body <u>5/</u>	1
02	DC to 12.0	(1.10 + .025f):1 <u>1/</u>	1.0 <u>2/</u> <u>3/</u>	0.1K <u>2/</u> <u>3/</u>	1	50	.070	Body <u>5/</u>	2
03	DC to 12.0	(1.10 + .025f):1 <u>1/</u>	1.0 <u>2/</u>	0.1K <u>2/</u>	1	50	.020	Body <u>5/</u>	3
04	DC to 12.4	1.10:1 (DC to 4.0 GHz)	1.0 <u>2/</u>	0.1K <u>2/</u>	1	50	.021	Body <u>5/</u>	1
		1.25:1 (4.0 to 8.0 GHz)							
		1.35:1 (8.0 to 12.4 GHz)							
05	DC to 12.4	1.20:1 (DC to 8.0 GHz)	0.5	0.5K	.1	50	.022	Body <u>5/</u>	4
		1.35:1 (8.0 to 12.4 GHz)							
06	DC to 18.0	1.25:1	1.0 <u>4/</u>	1.0K <u>4/</u>	.1	50	.15	Body <u>6/</u>	5

1/ Where "f" is the frequency in GHz.

2/ Power input is specified at +25°C.

3/ Power input is derated linearly to 10 percent at +125°C.

4/ Power input is specified at +71°C.

5/ Gold plating in accordance with MIL-DTL-45204, type II, grade C, class 1 over copper flash.

6/ Nickel plated in accordance with SAE-AMS-QQ-N-290.

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REQUIREMENTS:

Dimension and configurations: See figures 1 thru 5.

Electrical characteristics: See table I.

Materials:

Body: Brass in accordance with ASTM B121/B121M, ASTM B36/B36M, ASTM B16/B16M, and ASTM B124/B124M; or ASTM B21/B21M, and ASTM B283/B283M; or QQ-B-639C.

Finish: See table I.

Tab contact: Brass in accordance with ASTM B121/B121M, ASTM B36/B36M, ASTM B16/B16M, and ASTM B124/B124M; or ASTM B21/B21M, and ASTM B283/B283M; or QQ-B-639C.

Finish: The tab shall be a minimum gold thickness of 50 micro inches (1.27 μ m) in accordance with MIL-DTL-45204, type II, code C, class 1, over 50 micro inches (1.27 μ m) minimum of nickel in accordance with SAE-AMS-QQ-N-290, class 1, measured anywhere along the mating surface, for all series.

Spring: Beryllium copper in accordance with ASTM B196/B196M, ASTM B197/B197M and ASTM B194.

Finish: Gold plated in accordance with MIL-DTL-45204, type II, code C, class 1.

Weight: See table I.

Ambient temperature range:

Operating:

Dash numbers 01 thru 04: -55°C to +125°C.

Dash number 05: -55°C to +85°C.

Dash number 06: -55°C to +71°C.

Nonoperating (storage):

Dash numbers 01, 02 and 04: -65°C to +150°C.

Dash numbers 03, 05 and 06: -65°C to +125°C.

Solderability: MIL-STD-202-208, the following details and exception shall apply:

- a. Number of terminations of each part to be tested: One contact.
- b. Special preparation of terminations: No wiping, cleaning, scraping, or abrasive cleaning of the contact shall be performed.
- c. Depth of immersion: The entire surface of the contact shall be covered.
- d. Method of mounting: The dummy load shall be mounted onto a heat sink.
- e. Examination of terminations: There shall be no evidence of pinholes and blistering.

Note: This test shall be performed after the visual and mechanical inspection in qualification.

PIN: M39030/20-(dash number from table I).

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In addition to MIL-DTL-39030, this document references the following:

ASTM B121/B121M	ASTM B283/B283M
ASTM B124/B124M	ASTM B36/B36M
ASTM B16/B16M	MIL-DTL-45204
ASTM B194	MIL-STD-202-208
ASTM B196/B196M	QQ-B-639C
ASTM B197/B197M	SAE-AMS-QQ-N-290
ASTM B21/B21M	

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.

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5985-2023-002)

Review activities:

Army - AV
Navy - AS, OS
Air Force - 19

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>.