

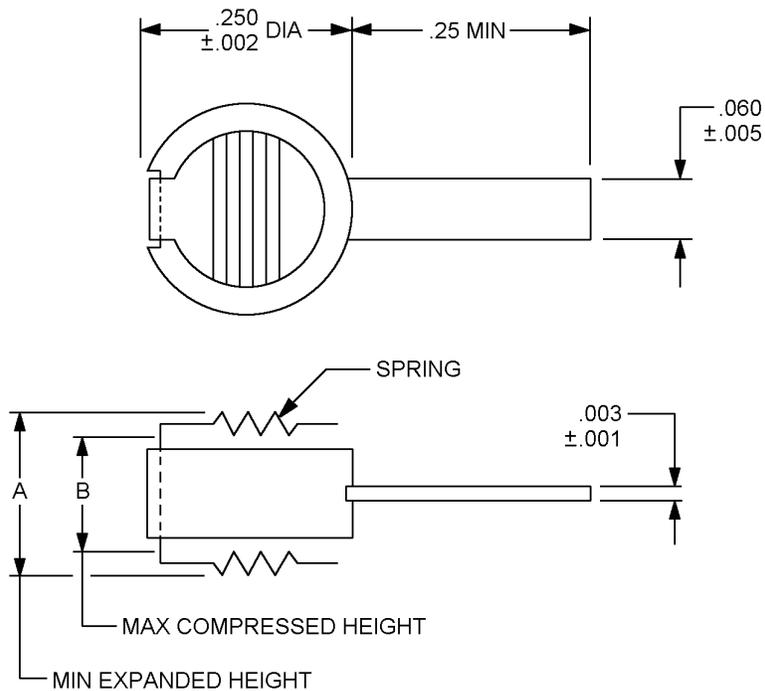
INCH-POUND
MIL-DTL-39030/20C
9 April 2004
SUPERSEDING
MIL-DTL-39030/20B
14 April 2003

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.



Inches	mm	Inches	mm
.001	0.03	.140	3.56
.002	0.05	.246	6.25
.003	0.08	.250	6.35
.005	0.13	.25	6.4
.060	1.52	.265	6.73
.121	30.7		

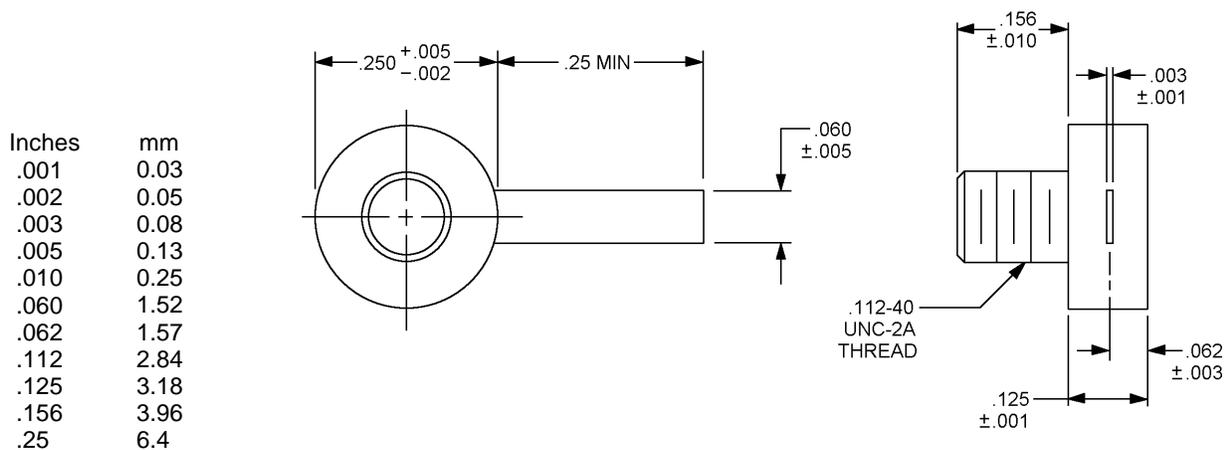
Dash number	A	B
01	.265	.246
04	.140	.121

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Part or Identifying Number (PIN).

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

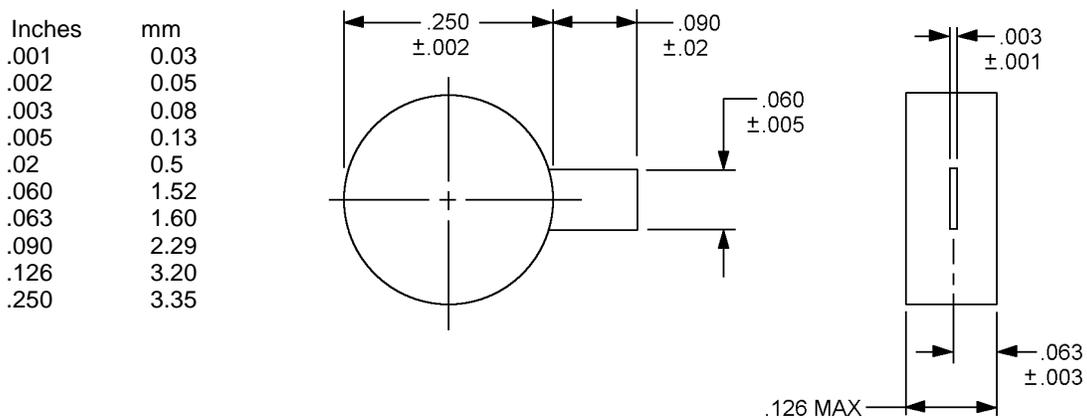
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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

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

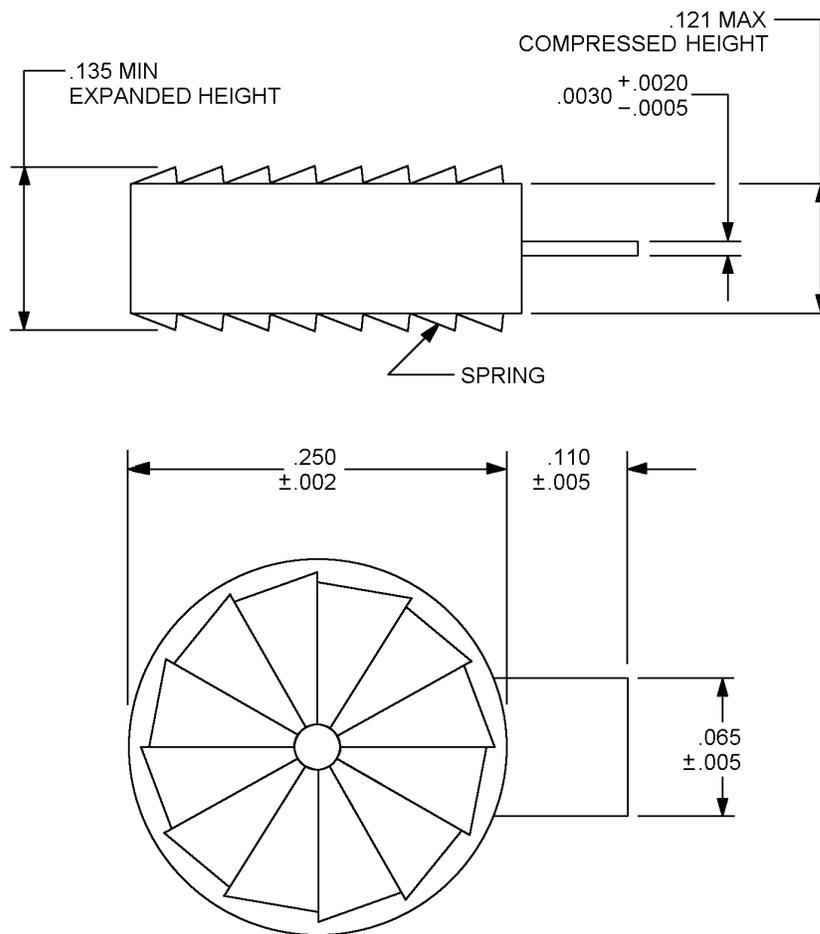


NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

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

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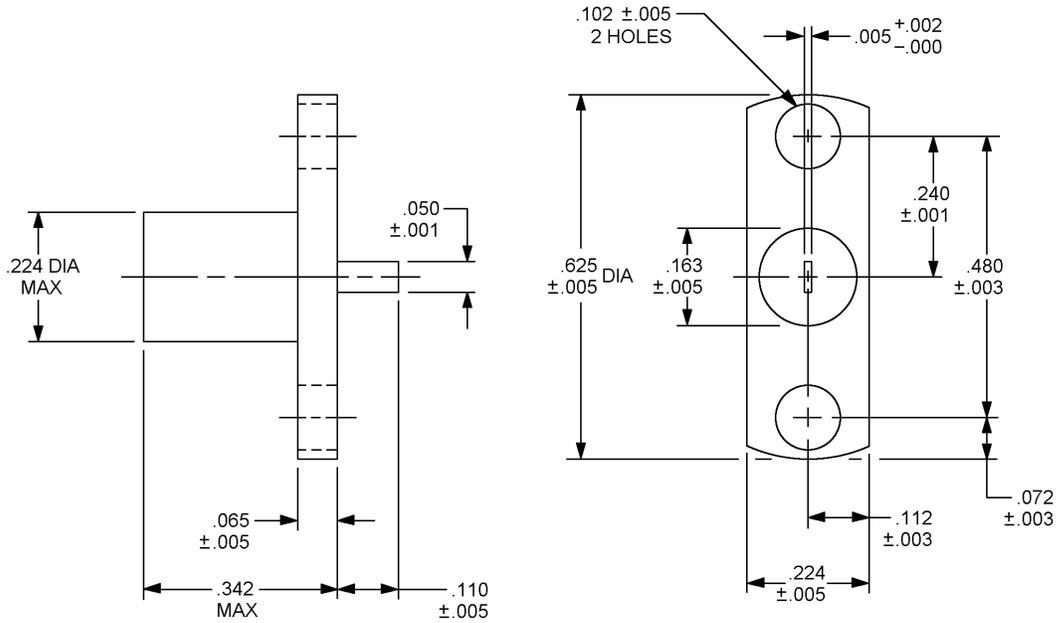
Inches	mm
.0005	0.013
.002	0.05
.0020	0.051
.0030	0.076
.005	0.13
.065	1.65
.110	2.79
.121	3.07
.135	3.43
.250	6.35

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

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

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Inches	mm
.001	0.03
.002	0.05
.003	0.08
.005	0.13
.050	1.27
.065	1.65
.072	1.83
.102	2.59
.110	2.79
.112	2.84
.163	4.14
.224	5.69
.240	6.10
.342	8.69
.480	12.19
.625	15.88

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

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

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/ 3/</u>	0.1K <u>2/ 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) 1.25:1 (4.0 to 8.0 GHz) 1.35:1 (8.0 to 12.4 GHz)	1.0 <u>2/</u>	0.1K <u>2/</u>	1	50	.021	Body <u>5/</u>	1
05	DC to 12.4	1.20:1 (DC to 8.0 GHz) 1.35:1 (8.0 to 12.4 GHz)	0.5	0.5K	.1	50	.022	Body <u>5/</u>	4
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 ASTM B488, type 3, grade C, class 1.27 over copper flash.

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

REQUIREMENTS:

Dimension and configurations: See figures 1 thru 5.

Electrical characteristics: See table I.

Materials:

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

Finish: See table I.

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

Finish: The tab shall be a minimum gold thickness of 50 micro inches (1.27 μ m) in accordance with ASTM B488, type II, code C, class 1.27, 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, ASTM B197 and ASTM B194.

Finish: Gold plated in accordance with ASTM B488, type II code C, class 1.27.

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: Method 208 of MIL-STD-202, 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	ASTM B21
ASTM B124	ASTM B21M
ASTM B16	ASTM B283
ASTM B16M	ASTM B36
ASTM B194	ASTM B488
ASTM B196	QQ-B-639
ASTM B197	SAE-AMS-QQ-N-290

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5985-1288-000)

Review activities:
Army - AV, MI
Navy - AS, OS, SH
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 <http://www.dodssp.daps.mil>.