INCH-POUND

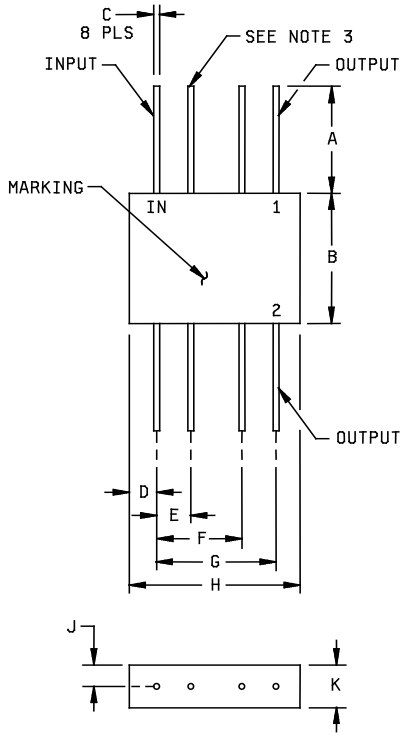
MIL-DTL-23971/5D
23 April 2013
SUPERSEDING
MIL-DTL-23971/5C
14 May 2007

DETAIL SPECIFICATION SHEET

POWER DIVIDERS, N-WAY, 0 DEGREES, FLAT PACK

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

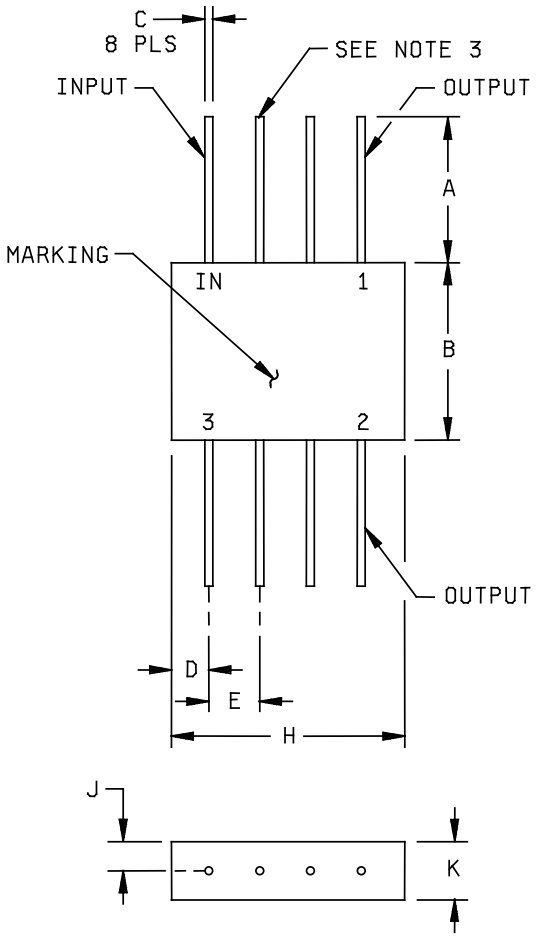
The requirements for acquiring the power divider described herein
shall consist of this specification sheet and MIL-DTL-23971.



	Dimensions			
	Inches		Millimeters	
	Max	Min	Max	Min
A	N/A	.313	N/A	7.95
B	.41	.35	10.4	8.9
C	.019 dia	.015 dia	0.48 dia	0.38 dia
D	.11	.05	2.8	1.3
E	.11	.09	2.8	2.3
F	.26	.24.	6.6	6.1
G	.36	.34	9.1	8.6
H	.53	.47	13.5	11.9
J	.072	.052	1.83	1.32
K	.125	N/A	3.18	N/A

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Pins that are marked are grounded to the internal circuit of the power divider by the manufacturer.

FIGURE 1. Dimensions and configuration, 2-way, dash numbers 01 and 03.



	Dimensions			
	Inches		Millimeters	
	Max	Min	Max	Min
A	N/A	.313	N/A	7.95
B	.41	.35	10.4	8.9
C	.019 dia	.015 dia	0.48 dia	0.38 dia
D	.11	.05	2.8	1.3
E	.119	.099	3.02	2.51
H	.53	.47	13.5	11.9
J	.072	.052	1.83	1.32
K	.125	N/A	3.18	N/A

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Pins that are marked are grounded to the internal circuit of the power divider by the manufacturer.

FIGURE 2. Dimensions and configuration 3-way, dash number 02.

TABLE I. Electrical performance characteristics and physical requirements.

M23971 /5-	Imped-ance (ohms)	Frequency range (MHz)	Average coupling (dB)	VSWR max	Insertion loss max (dB)	Isolation min (dB)	Phase balance max (degree)	Amplitude balance (dB) max	Power level		Weight pounds (grams)	Ambient temperature		Figure
									avg (W)	pk (W)		Operating	Storage	
01	50	5-25	3. +.2, -.0	1.3:1	0.3	25	±1.0	±0.1	0.5	1.0	.006 (2.83)	-35° to +105°C	-40° to +125°C	1
02	50	0.2-200	4.8 +.5 -0.0	1.3:1	0.5	25	±2.0	±0.2	0.5	.5	.006 (2.83)	-55° to +125°C	-55° to +125°C	2
03	50	10-500	3. +.2 -0.0	1.3:1	0.5	30	±1.0	±0.1	1.0	N/A	.006 (2.83)	-55° to +85°C	-55° to +85°C	1

REQUIREMENTS:

Design and construction: See figures 1 and 2.

Case: Hermetically sealed.

Material: Cold rolled steel or iron nickel alloy in accordance with SAE-AMS-I-23011, class I (KOVAR).

Finish: Gold electroplated per SAE-AMS-2422 or ASTM-B488, type III, class 2, over nickel strike .00002-.00005 thick.

Cover: Cold rolled steel or iron nickel alloy in accordance with SAE-AMS-I-23011, class I (KOVAR).

Finish: Electroless nickel per SAE-AMS2404, class I, 0.00012 inch thick.

Terminals: Iron nickel alloy in accordance with SAE-AMS-I-23011, class I (KOVAR). Gold-plated in accordance with SAE-AMS-2422 or ASTM-B488, type III, class 2, over nickel strike .00002-.00005 thick.

Nickel is to be used in this component only if specification cannot be met using alternate material means.

Electrical characteristics: See table I.

Weight: See table I.

Ambient temperature: See table I.

Environmental tests: In accordance with MIL-DTL-23971 except:

Dash No. 01:
Barometric pressure: Not applicable.
Thermal shock: In accordance with method 107 of MIL-STD-202, test condition A (but using upper temperature limit +125°C and lower temperature limit -40°C).
Vibration, High Frequency: In accordance with method 204 of MIL-STD-202, test condition D.
Shock: In accordance with method 213 of MIL-STD-202, test condition I.
Salt spray: Not applicable.
Resistance to soldering heat: In accordance with method 210 of MIL-STD-202, test condition D +600°F for 10 seconds.

Part number: M23971/5- (dash number from table I).

Referenced documents. In addition to MIL-DTL-23971, this specification sheet references the following:
MIL-STD-202
SAE-AMS-I-23011
SAE-AMS-2422
SAE-AMS2404
ASTM-B488

The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous revisions 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 last previous issue.

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Review activities:
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Air Force - 99

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