

INCH-POUND
MIL-R-83726/13G
15 January 1999
SUPERSEDING
MIL-R-83726/13F(USAF)
9 August 1991

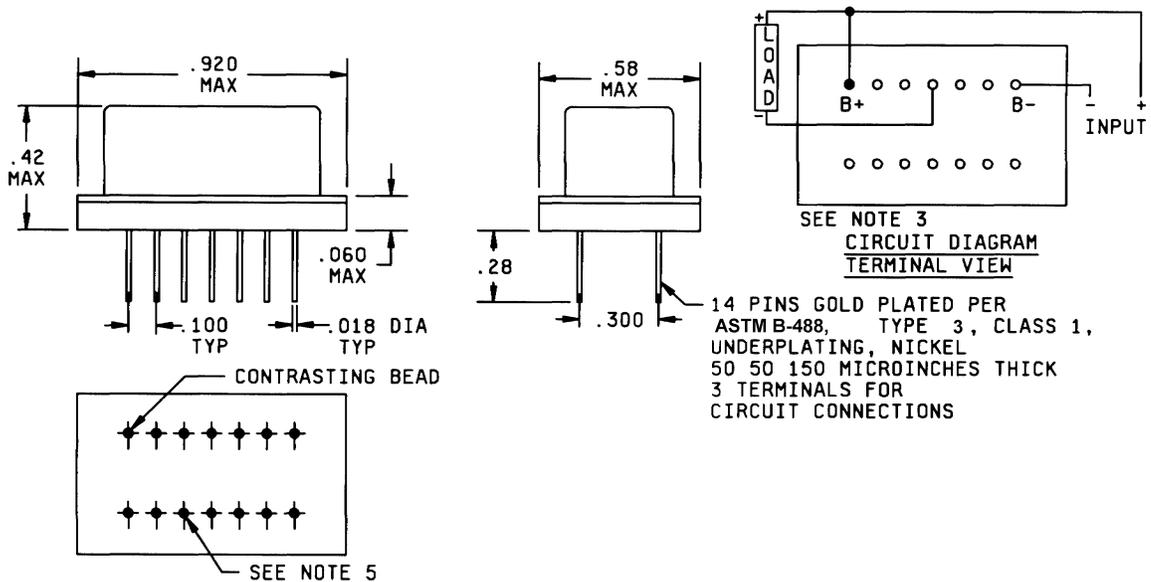
MILITARY SPECIFICATION SHEET

RELAYS, SOLID STATE, TIME DELAY, (ON OPERATE), TYPE I
CLASS C, SPSTNO, 300 MILLIAMPERES, FIXED TIME,
0.05 TO 600 SECONDS, HERMETICALLY SEALED

Inactive for new design after 15 January 1999.
No superseding document.

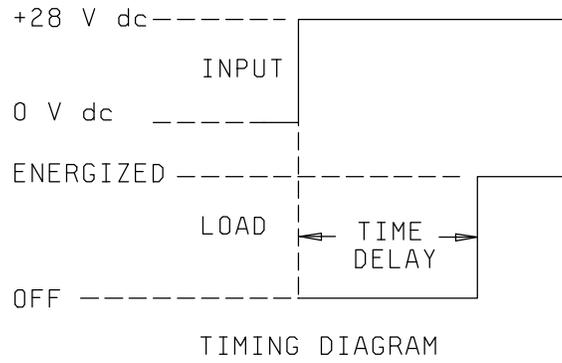
This specification is approved for use by all Departments and Agencies
of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and
MIL-R-83726.



Inches	mm	Inches	mm
.018	0.46	.300	7.62
.060	1.5	.42	10.7
.100	2.54	.58	14.7
.28	7.1	.920	23.37

FIGURE 1. Outline dimensions and configuration of relay.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Load is connected between B+ and terminal designated LOAD. Delay begins upon application of power to terminals (B+) and (B-). Upon completion of delay period, circuit from load terminal to ground is completed. (B+) and (B-) are shown for reference only; they do not appear on the relay.
4. Unless otherwise specified, tolerance is ± 0.10 (0.25 mm).
5. This is an active pin. Do not connect this pin to any portion of the circuit or ground.

FIGURE 1. Outline dimensions and configuration of relay - Continued.

REQUIREMENTS:

Operational data:

Timing action: Delay-on-operate.

Timing delay: Fixed time, 50 milliseconds to 600 seconds. See table I.

Timing accuracy: ± 10 percent of the nominal timing under all conditions of input voltage and environmental extremes.

Recycle characteristics:

Before time out: A power interruption occurring after the start but before completion of the timing cycle shall be for a duration of 0.5 percent of the nominal time delay or 10 ms, whichever is greater, to ensure a loss in timing no greater than 10 percent.

After time out: A power interruption of 0.5 percent of nominal time delay or 10 ms, whichever is greater, will initiate a new timing cycle with a loss in timing no greater than 5 percent.

TABLE I. Available time delay relays. 1/

Dash number	Time delay in seconds $\pm 10\%$	Dash number	Time delay in seconds $\pm 10\%$
-0500	.05	-1602	16
-1000	.10	-1802	18
-2000	.20	-2002	20
-3000	.30	-2202	22
-5000	.50	-2502	25
-7500	.75	-3002	30
-1001	1.0	-3502	35
-2001	2.0	-4002	40
-3001	3.0	-4502	45
-4001	4.0	-5002	50
-5001	5.0	-5502	55
-6001	6.0	-6002	60
-7001	7.0	-1003	100
-8001	8.0	-2003	200
-9001	9.0	-3003	300
-1002	10	-4003	400
-1202	12	-5003	500
-1402	14	-6003	600

1/ Additional time delay relays within the 0.05 to 600 second delay range are available. To establish Part or Identifying Numbers (PIN's) not listed in table I (see "PIN" herein).

Input data:

Input voltage: 28 Vdc nominal; range 18 Vdc to 31 Vdc.

Duty rating: Continuous.

Current drain: 10 milliamperes maximum, plus load current.

Reverse polarity protection: The timer will not be damaged or operate when input voltage polarity is reversed.

Output data:

Configuration: SPSTNO, solid state switch closure to ground.

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Load ratings:

Resistive: 300 milliamperes at 25°C, derated to 100 milliamperes at +125°C. Minimum load current of 10 milliamperes is required.

Inductive: Three MIL-PRF-39016/6 relays or equivalent with 26.5 Vdc coil voltage.

Lamp load: Two M6363/8-5 lamps in accordance with MIL-DTL-6363 or equivalent.

Motor load, dc: Not applicable.

Inductive load, ac: Three MIL-PRF-39016/6 relays or equivalent.

Resistive load, ac: Not applicable.

Motor load, ac: Not applicable.

Load suppression: Suppression for inductive loads for output protection is provided within the unit.

Voltage drop: 2.5 volts maximum at -55°C and +25°C, 2.0 volts maximum at +125°C.

Leakage current: 1 microampere maximum at 25°C, 10 microamperes maximum at +125°C.

Continuous current: Not applicable.

Overload: Not applicable.

Electrical data:

Insulation resistance: 1,000 megohms minimum at 500 V dc. 1/

Dielectric withstanding voltage: 500 V rms, 60 Hz, (sea level). 1/

Transients:

Voltage surge: In accordance with MIL-STD-704, figure 9, limit 1, for category B equipment.

Self-generated spikes: ±10V.

Spike susceptibility: Not applicable.

Radio interference: Not applicable.

1/ Measured between all terminals tied together to the case.

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Environmental data:

Temperature range: -55°C to +125°C.

Altitude: 80,000 feet.

Shock: 150 g's for 11 ±1 ms half-sine wave.

Vibration (sinusoidal): 10 Hz to 80 Hz at 0.06 inch DA. 80 Hz to 3,000 Hz at 20 g's.

Vibration scan: Not applicable.

Acceleration: Not applicable.

Seal: Method 112 of MIL-STD-202, condition C.

Solderability: Not applicable.

Physical data:

Dimensions and configuration: See figure 1.

Terminal strength: Bend test not applicable.

Weight: 12 grams maximum.

Verification:

Qualification: Group B and C are not applicable.

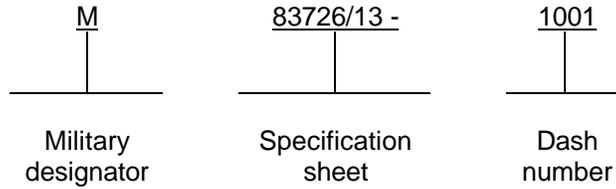
Conformance: Group A to MIL-R-83726 only.

Marking: See MIL-R-83726. In addition, relays shall be marked with the ESDS identifier as specified in MIL-STD-1285.

ESDS protection program: The manufacturer shall establish and maintain an ESD control program. Relays shall be handled, preserved, and packaged in such a manner as to ensure that the integrity of ESD sensitive relays is not diminished. ESD sensitive relays shall be handled, preserved, and packaged in accordance with the requirements of MIL-STD-1686.

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PIN: Consists of the prefix M83726/13-, a four-digit dash number expressed in milliseconds as follows:



Examples

The first three digits of the dash number are significant; the fourth digit is the number of zeros to follow the first three digits. The time delay is expressed in milliseconds and converted to seconds.

- M83726/13 - 0500 - 50 millisecond time delay
- M83726/13 - 1001 - 1 second time delay
- M83726/13 - 6003 - 600 second time delay

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

Custodian:
Army - AT

Preparing activity:
DLA - CC

(Project 5945-1042)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

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I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
MIL-R-83726/13G

2. DOCUMENT DATE (YYMMDD)

3. DOCUMENT TITLE RELAYS, SOLID STATE, TIME DELAY, (ON OPERATE), TYPE I, CLASS C, SPSTNO, 300 MILLIAMPERES, FIXED TIME, 0.05 TO 600 SECONDS, HERMETICALLY SEALED

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Incl Area Code)

7. DATE SUBMITTED
(YYMMDD)

(1) Commercial

(2) AUTOVON
(If applicable)

8. PREPARING ACTIVITY

a. NAME
Defense Supply Center, Columbus
ATTN: DSCC/VAM

b. TELEPHONE (Include Area Code)
(1) Commercial (2) AUTOVON
(614) 692-0542 850-0542

c. ADDRESS (Include Zip Code)
3990 E. Broad Street
Columbus, OH 43213-1199

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