

DETAIL SPECIFICATION SHEET

RELAYS, HYBRID, TIME DELAY, (ON OPERATE), TYPE I, CLASS B,
10 AMPERES, 4PDT, HERMETICALLY SEALED,
FIXED TIME, 0.100 TO 300 SECONDS

Inactive for new design after 25 June 1993.
For new design, use [MIL-PRF-83726/28](#).

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-PRF-83726](#).

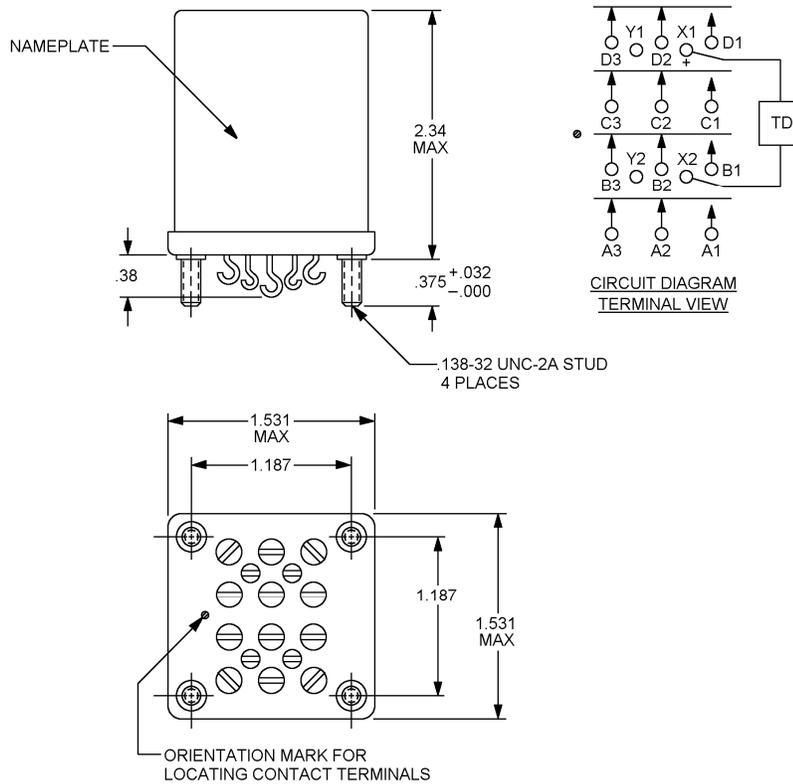
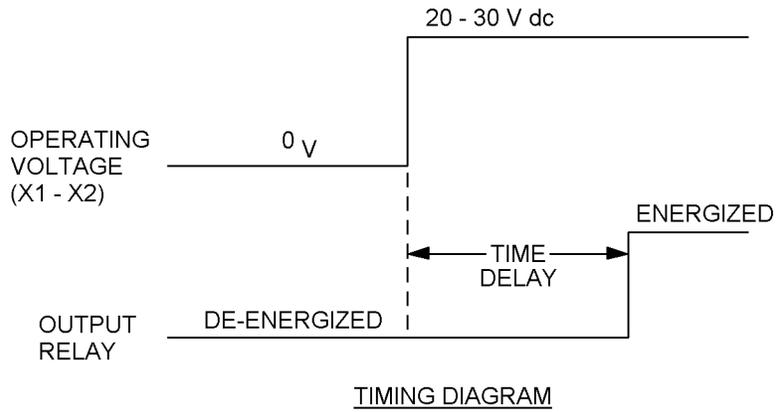


FIGURE 1. Outline dimensions and configuration of relay.



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Inches	mm
.032	0.81
.138	3.51
.375	9.53
.38	9.7
1.187	30.15
1.531	38.89
2.34	59.4

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are ± 0.010 (0.25 mm) for three place decimals and ± 0.03 (0.8 mm) for two place decimals.
3. Metric equivalents are given for general information only.
4. Terminal numbers shall not appear on the relay header and there shall be affixed to the relay a permanent legible circuit diagram that identifies each terminal location specified.

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

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REQUIREMENTS:

Contact data:

Configuration: 4PDT.

Life/load ratings (relay case grounded):

Type of load	Life (cycles)	Amperes	
		28 V dc	115/200 volts 1 and 3 phase, 400 Hz
Resistive	100,000	10	10
Inductive	20,000	8	8
Motor	100,000	4	4
Lamp	100,000	2	2
Reduced current resistive	400,000	2.5	2.5

Contact voltage drop:

Initial: 0.150 volt.

After life tests: 0.175 volt.

Minimum current: Applicable in accordance with [MIL-PRF-6106](#).

Contact bounce: 1 ms maximum.

Overload:

DC: 40 amperes.

AC: 60 amperes.

Rupture:

DC: 50 amperes.

AC: 80 amperes.

Input data:

Duty rating: Continuous.

Maximum voltage (over temperature range): 30 V dc.

Nominal voltage (over temperature range): 28 V dc.

Minimum voltage (over temperature range): 20 V dc.

Minimum voltage high-temperature test: 21 V dc.

Minimum voltage continuous current test: 23.5 V dc.

Maximum current at 25°C: 0.150 ampere.

TABLE I. Dash number and time delay characteristics. 1/

Dash number	Time delay seconds ±10%						
-1000	.100 <u>2/</u>	-1202	12	-6502	65	-1703	170
-5000	.500 <u>2/</u>	-1402	14	-7002	70	-1803	180
-7500	.750 <u>2/</u>	-1602	16	-7502	75	-1903	190
-1001	1	-1802	18	-8002	80	-2003	200
-2001	2	-2002	20	-8502	85	-2103	210
-3001	3	-2202	22	-9002	90	-2203	220
-4001	4	-2502	25	-9502	95	-2303	230
-5001	5	-3002	30	-1003	100	-2403	240
-6001	6	-3502	35	-1103	110	-2503	250
-7001	7	-4002	40	-1203	120	-2603	260
-8001	8	-4502	45	-1303	130	-2703	270
-9001	9	-5002	50	-1403	140	-2803	280
-1002	10	-5502	55	-1503	150	-2903	290
		-6002	60	-1603	160	-3003	300

1/ Dash numbers represent commonly used delay times and do not constitute a complete listing of available dash numbers. Additional time delay relays within the .100- to 300-second delay range are available. To establish Part or Identifying Numbers (PIN's) not listed in [table I](#) (see "PIN" herein.)

2/ Add ±10 milliseconds to ±10 percent tolerance.

Operate time: See [table I](#).

Release time: 25 ms maximum.

Recycle time: 50 ms maximum.

Electrical data:

Insulation resistance at 500 V dc: 1/

Initial: 1,000 megohms minimum.

After life or environmental tests: 500 megohms minimum.

Dielectric strength (sea level):

Input (X1 - X2) 1/

All other points.

Initial	After life tests
1,000 V rms	1,000 V rms
1,250 V rms	1,000 V rms

Dielectric strength (altitude) (80,000 feet): 2/

Input (X1 - X2): 350 V rms. 1/

All other points: 350 V rms.

1/ Input terminals X1 and X2 must be connected together during this test.

2/ Dielectric rating may be improved by suitable insulation of terminals and wiring after installation, 500 V rms at 80,000 feet.

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Transients: In accordance with [MIL-STD-704](#) for 28 volts dc system (figure 11).

RFI: [MIL-STD-461](#), class 1D.

Environmental data:

Temperature range (operating): -55°C to +85°C.

Maximum altitude rating: 80,000 feet.

Shock g-level: 100 g's.

Duration: 6 ms.

Maximum duration contact opening: 10 microseconds, monitor in accordance with method 310 of [MIL-STD-202](#).

Vibration (sinusoidal):

G-level: 20 g's

Frequency range: 10 Hz to 3,000 Hz.

Vibration (random): Applicable in accordance with [MIL-STD-202](#), method 214, test condition 1B.

Power spectral density: 0.4 g²/Hz.

Frequency range: 50 Hz to 2,000 Hz.

Duration: 15 minutes each plane.

Seal: Not applicable.

Humidity: 95 percent relative humidity.

Physical data:

Dimensions and configuration: See [figure 1](#).

Terminations: Solder hook.

Terminal strength: 3 ±0.5 pounds pull.

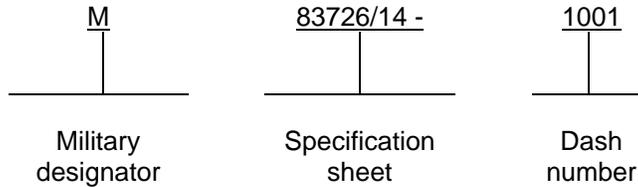
Weight: 10 ounces maximum.

Marking: See [MIL-PRF-83726](#). In addition, relays shall be marked with the Electrostatic Discharge Sensitive (ESDS) identifier as specified in [MIL-STD-1285](#).

Electrostatic discharge (ESD) control program: Applicable (see [MIL-PRF-83726](#)).

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Part or Identifying Number (PIN): Consists of the prefix M83726/14-, and 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.

M83726/14 - 1000 - 100 millisecond time delay
M83726/14 - 1001 - 1 second time delay

NOTE: As of 15 June 1999, [MIL-PRF-83726](#) no longer specifies Quality Levels, but existing order configurations may still include them. Relays with a "W" quality level indicator at the end are interchangeable with relays without a quality level letter.

Referenced documents. In addition to [MIL-PRF-83726](#), this document references the following:

- | | | | |
|------------------------------|----------------------------------|---------------------------------|---------------------------------|
| MIL-PRF-6106 | MIL-PRF-83726/28 | MIL-STD-202-214 | MIL-STD-202-310 |
| MIL-STD-461 | MIL-STD- 704 | MIL-STD-1285 | |

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

Custodians:
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

Review activity:
Air Force - 99

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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>.