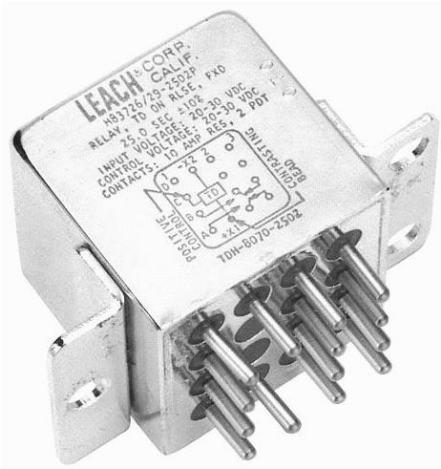
LEACH®

TDH-8070/8071

ON RELEASE-FIXED PERIOD
2 PDT / 10 AMP



FEATURES

- **Small size and weight**
- **High-reliability design**
- **Hermetically sealed**
- **High transient immunity**
- **Reverse Polarity Protection**
- **Adjustable Time Delays**

PRINCIPLE TECHNICAL CHARACTERISTICS

Seal: Hermetically Tested per MIL-STD-883, Method 1014	$1x10^{-6}$ atm, cm^3/s max leakage
Finish: per MIL-T-10727	Tin/lead Plate
Terminals: TDH 8070 (Gold Plate) **TDH 8071 (Tin Lead Plate)**	Plug-In Solder-lug
Weight	2.5 oz. MAX

APPLICATION NOTE :
101

APPLICABLE SOCKETS:
SO-1048-8308 (TDH-8070 only)

DESCRIPTION

The TDH-8070/71 Time Delay Relays have been designed with thick film hybrid microelectronics timing circuits and MIL-PRF-6106 relays, packaged in a hermetically sealed military style enclosure. The TDH-8070/71 series are qualified to MIL-R-83726/29 and designed to withstand severe environmental conditions encountered in military/aerospace applications. These relays are suited for use in power control, communication circuits and many other applications where power switching and high reliability are required over a wide temperature range.

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ELECTRICAL SPECIFICATION

Input (Control) Parameters	
Timing:	
a. Operation, Time Delay on	Release
b. Method	Fixed Period
c. Range	0.1 to 500 Seconds [6]
d. Accuracy	±10% [1]
Recycle Time	50 ms, Max [5]
Operations: (X1-X2)	
a. Input & Control Voltage	20-30 Vdc
b. Operating Current	150 mA, Max @ +25° C
c. Control Current	15 mA, Max @ 25° C
Transients:	
a. Positive, MIL-STD-704A, Figure9, Limit 1	+80 Volts Max
b. Spike, MIL-STD-704A, 0-10 µs	±600 Volts Max
c. Self-Generated	±50 Volts Max
d. Susceptibility	+80; -600 Volts Max
Electromagnetic Interference Per MIL-STD-461A	Class 1D [3]
Power Loss	500ms [2]
Output (Load) Parameters	
Contact Form	2 PDT
Contact Rating:	
a. Resistive	10A
b. Inductive	8A
c. Motor	4A
d. Lamp	2A
Dielectric Strength	
a. @ Sea Level, 60 Hz	1,000 Vrms [4]
b. @ 80,000 ft., 60 Hz	350 Vrms
Insulation Resistance @ 500 Vdc	1,000 MΩ [4]

GENERAL CHARACTERISTICS

Ambient Temperatures Range:	
a. Operating	-55 to +125° C
b. Non-Operating	-65 to +125° C
Vibration:	
a. Sinusoidal, 10-3000 Hz	30 G
b. Random: 50-2000 Hz, MIL-STD-810	0.4 G^2/Hz
Shock @ 6 ± 1 MS, 1/2 Sine, 3 Axis	100 G
Acceleration, in any Axis	15 G
Life at Rated Resistive Load; Minimum	100,000 operations

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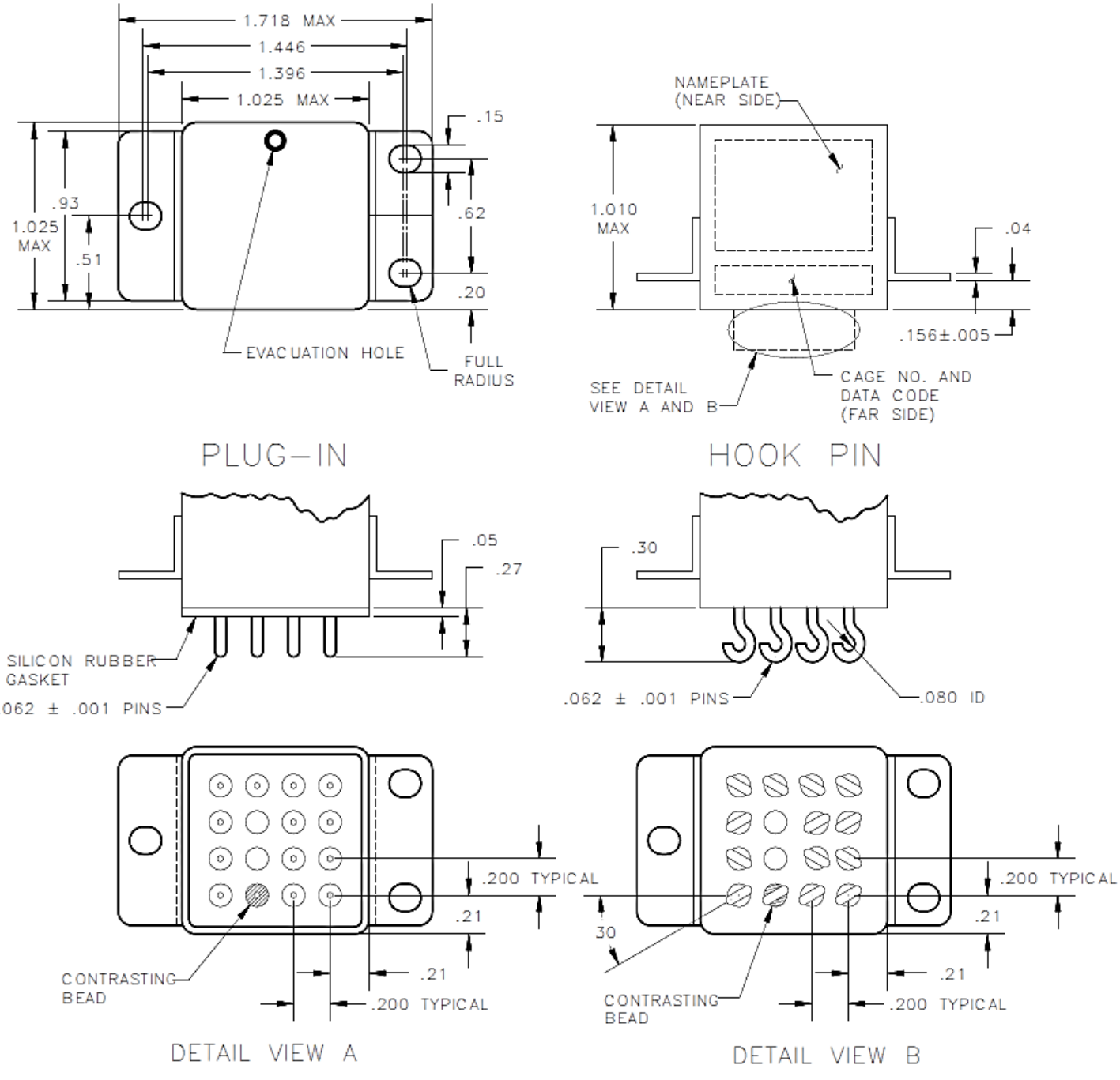
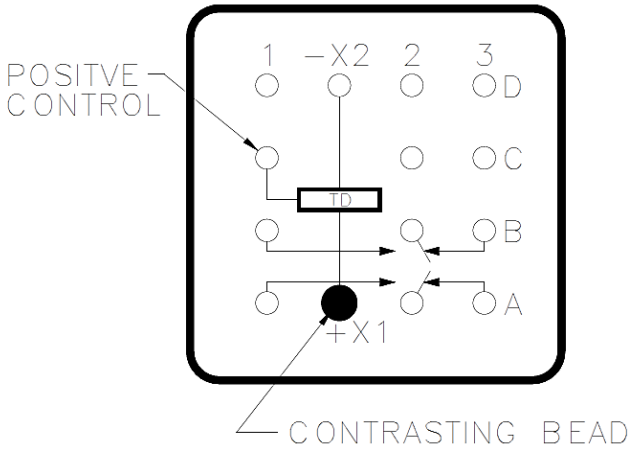
MECHANICAL SPECIFICATIONS

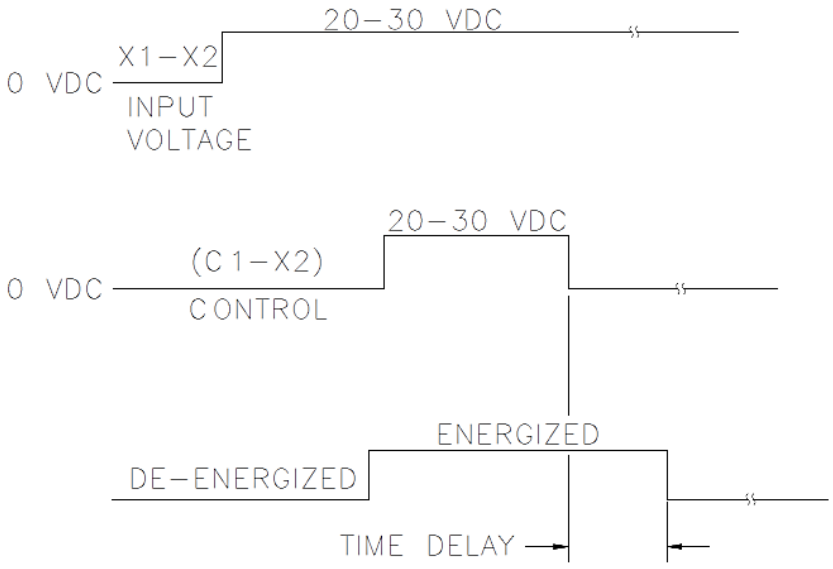


ALL DIMENSIONS SHOWN ARE IN INCHES.

DIAGRAMS



FIXED TIME DELAY



TIME DELAY ON RELEASE

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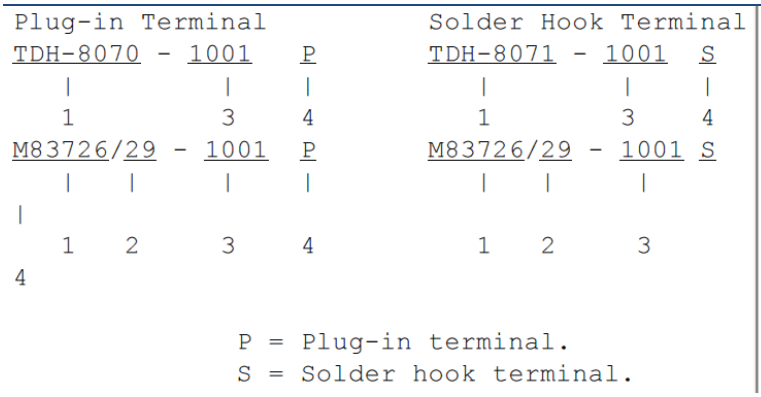
NUMBERING SYSTEM



1. Model Number or Basic "MIL-PRF" Series number.
2. Military "Slash" number.
3. Timing Range, Fixed: 100 milliseconds to 500 seconds. (See Note 6).
4. Mounting style

NOTES

1. The accuracy specification applies for any combination of operating temperature and voltage. For units with a timing range less than 1 second, add ±10 milliseconds to the ±10% tolerance.
2. Transient and power loss specification are based on a maximum duty cycle of 1/50.
3. EMI test limits will not be exceeded during the timing interval or when continuously energized under steady state conditions, per paragraph 3.23, MIL-PRF-83726C.
4. Terminals X1, X2 and C1 must be connected together during the test. Dielectric withstanding voltage and insulation resistance are measured at sea level between all mutually insulated terminals and between all terminals and case.
5. Recycle time is defined as the minimum time that power must be applied to the control terminal to assure that the next timing cycle will be completed within the specified timing tolerance. (Units can be recycled during timing or after time-out.)
6. A four digit number defines the time delay range in seconds (or milliseconds). The first three digits are significant figures, used to define the specific time delay. The fourth digit represents the number of zeros to follow the first three digits.
   Examples: - 1001 = 1 second (1,000 milliseconds)
   - 2502 = 25 seconds (25,000 milliseconds)
   - 5000 = 0.5 seconds (500 millisecons)

For any inquiries, please contact your local sales representative: leachcorp.com