

For new designs refer to T7C and T7N series.



T72 series

10 Amp Miniature PC Board Relay



File E22575



File LR15734

Features

- Type L has 240V UL spacing per UL-114, UL-478, UL-508 and UL-751.
- Class A coil insulation (Class B coil insulation available).
- 10A @ 125VAC.
- Immersion cleanable plastic case with knock-off nib for ventilation.
- Low profile package has a seated height of only .67 in. (17 mm).

Contact Data

Arrangements: 1 Form C (SPDT)

Material: Type 164: Silver cadmium oxide.

Max. Switching Rate: 20 operations per second with no contact load.
6 operations per minute for rated life at rated load.

Expected Mechanical Life: 10 million operations.

Max. Contact Ratings & Expected Electrical Life ⁽¹⁾

Mat'l. Code	Load Volts		
	28VDC	125VAC	240VAC
164	10A, res. 100K ops.	10A, res. 100K ops. N.O. 50K ops. N.C.	5A, res. 100K ops.

Initial Dielectric Strength

Relay Type	Dielectric Strength	
	Between Contacts and Coil	Between Open Contacts
L	1,500V rms	1,000V rms

Initial Insulation Resistance

Between Mutually Insulated Elements: 10⁸ ohms, min. @ 500VDC.

Coil Data

Voltage: 3 through 48VDC.

Resistance: See Coil Data table.

Nom. Power: 360mW.

Coil Temp. Rise: 70°C/W, typical.

Coil Data (@ 23°C Coil Temperature)

Rated Coil Voltage (VDC)	Coil Resistance ±10% (Ohms)	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
3	25	2.1	.3
5	70	3.5	.5
9	225	6.3	.9
12	400	8.4	1.2
24	1,600	16.8	2.4
48	6,400	33.6	4.8

Operate Data

Must Operate and Must Release Voltage: See Coil Data table.

Operate Time ⁽²⁾: 10 ms, max.

Release Time ⁽²⁾: 5 ms, max.

Environmental Data

Temperature Range: Storage: -40°C to +105°C.

Operating: -40°C to +70°C (see Fig. 2).

Vibration: 10-55 Hz., .06" (1.52 mm) double amplitude; 10g, 55-200 Hz⁽³⁾.

Shock, Operational: 10g for 11 ms, 1/2 sine wave pulse⁽³⁾.

Shock, Mechanical: 100g for 11 ms, 1/2 sine wave pulse.

Drop Test: Capable of meeting specifications after a 3.28 foot (1.0 meter) drop test⁽⁴⁾.

Flammability: UL 94-V0.

Mechanical Data

Termination: Printed circuit terminals.

Enclosure: Immersion cleanable case with knock-off nib for ventilation.

Weight: 0.4 oz. (12 gm) approximately.

Conditions

All parametric, environmental and life tests are performed according to EIA Standard RS-407-A at standard test conditions (23°C Ambient, 20-50% RH, 29.5 ± 1" Hg.) unless otherwise noted.

Notes:

(1) To achieve maximum life, ventilate relay by removing knock-off nib after board cleaning and before relay is put in service.

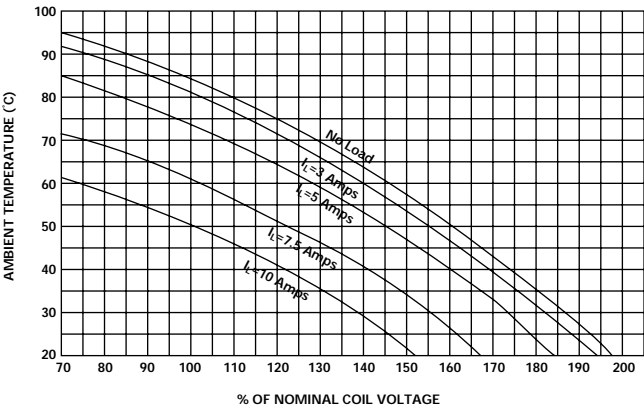
(2) At or from nominal coil voltage, excluding bounce with no suppression.

(3) No contact opening > 100µs.

(4) Characteristic changes permitted.

Figure 1 – Ambient Temperature vs. Coil Voltage for Continuous Duty

360mW Coil (Type L)



- Assumptions:**
- 1. Thermal resistance = 70°C per watt
 - 2. Still air
 - 3. Nominal coil resistance
 - 4. Maximum mean coil temperature = 105°C

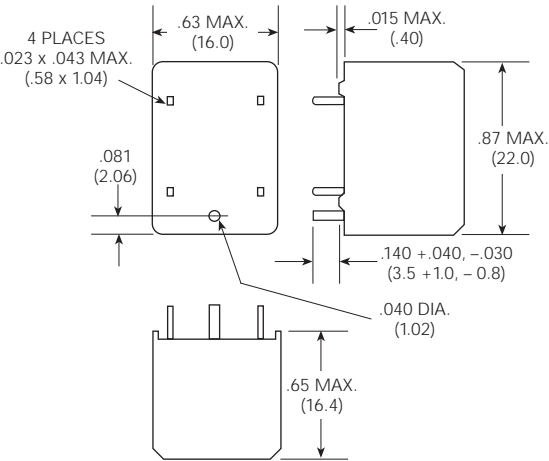
Ordering Information

Typical Part Number ▶					
T72 L 5 D 164 -24					
1. Basic Series: T72 = Miniature, low profile, printed circuit board relay.					
2. Relay Type: L = Relay with UL 240V spacing in an immersion cleanable case.					
3. Contact Arrangement: 5 = 1 Form C (SPDT)					
4. Coil Input: D = DC voltage.					
5. Contact Material: 164 = Silver cadmium oxide contacts.					
6. Coil Voltage: 03 = 3VDC 05 = 5VDC 09 = 9VDC 12 = 12VDC 24 = 24VDC 48 = 48VDC					

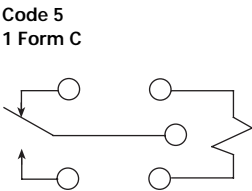
Stock Items – The following items are normally maintained in stock for immediate delivery.

Outline Dimensions

Tolerance (unless otherwise noted): 3 decimal: ±.010 (±.254); 2 decimal: ±.015 (±.381).



Wiring Diagrams (Bottom Views)



Suggested PC Board Layout (Bottom View)

