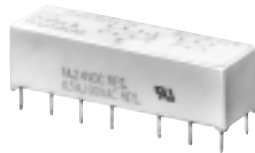# T84 series

4 Pole, High Dielectric PC Board Relay

UL File E29244
CSA File LR35579

Features

- Meets FCC Part 68 isolation.
- 4 Form C contact arrangement.
- Standard 0.1" x 0.3" grid spacing in a DIP configuration.
- Standard or sensitive DC coils through 48 volts.
- Well suited for audio communications circuits, logic and process control, vending machines and office automation applications.
- Immersion cleanable, plastic sealed case.

Contact Data

Arrangements: Bifurcated cross bar in 4 Form C (4PDT).
Material: Silver-palladium alloy (stationary contacts have gold overlay).
Ratings: Max. Switching Voltage: 120V, AC or DC.
Max. Switching Power (resistive load): 24W DC, 60VA AC.
Max. Switching Current: 1A, DC or AC.
Min. Switching Current: .01mA, 10mVDC.
Max. Carrying Current: 2A, DC or AC.
Expected Mechanical Life: 20 million operations.
Expected Electrical Life: 500,000 ops. @ 1A, 24VDC, resistive.
200,000 ops. @ 0.5A, 120VAC, resistive.
Initial Contact Resistance: 100 milliohms, max., @ 100mA, 6VDC.

Initial Dielectric Strength

Between Open Contacts: 1,000V rms, 60 Hz.
1,500V FCC Part 68 surge test.
Between Contact Sets: 1,500V rms, 60 Hz.
1,500V FCC Part 68 surge test.
Contact to Coil: 1,500V rms, 60 Hz.; 1,500V FCC Part 68 surge test.

Initial Insulation Resistance

Between Mutually Insulated Conductors : 10^9 ohms @ 500VDC (except between dual coils).

Coil Data @ 20°C

Voltage: 3 through 48VDC.
Maximum Continuous Coil Power: 800 milliwatts.
Temperature Rise: 77°C per watt, typ.

Ordering Information

Typical Part Number ▶ | T84 | S | 17 | D | 2 | 1 | 4 | -24

1. Basic Series:
T84 = High dielectric, PC board relay.
2. Construction:
S = Sealed.
3. Contact Arrangement:
17 = 4 Form C (4PDT)
4. Coil Input:
D = DC Voltage.
5. Coil Sensitivity:
2 = Sensitive.
4 = Standard (not available on single coil latch).
6. Functional Type:
1 = Single coil non-latching.   3 = Dual coil latching.
2 = Single coil latching.
7. Contact Material:
4 = Silver-palladium alloy.
8. Coil Voltage:
03 = 3VDC   05 = 5VDC 06 = 6VDC 12 = 12VDC   24 = 24VDC
48 = 48VDC

Stock Items – The following items are maintained in stock.

T84S17D214-05   T84S17D214-48   T84S17D414-12   T84S17D434-05
T84S17D214-12   T84S17D234-05   T84S17D414-24   T84S17D434-12
T84S17D214-24   T84S17D414-05   T84S17D414-48

Tyco Electronics
700 Westpark Drive
Peachtree City, GA 30269-1498

Coil Data @ 20°C

	Resistance in Ohms ± 10%					
	Standard Coils			Sensitive Coils		
	Single Coil Non-Latching	Single Coil Latching	Dual Coil Latching (either coil)	Single Coil Non-Latching	Single Coil Latching	Dual Coil Latching (either coil)
Nom. Coil Power ➡ Voltage ⬇	400mW	N/A	360mW	200mW	90mW	180mW
3	22.5	N/A	25	45	100	50
5	62.5	N/A	69	125	278	139
6	90	N/A	100	180	400	200
12	360	N/A	400	720	1,600	800
24	1,440	N/A	1,600	2,880	6,400	3,200
48	5,760	N/A	6,400	11,520	25,600	12,800

Operate Data @ 20°C

Must Operate Voltage: 70% of nominal voltage or less.
Must Release Voltage (non-latching): 10% of nominal voltage or more.
  (Latching): Must operate voltage applied to reset coil (dual) or negative voltage (single).
Operate Time (Excluding Bounce)†: 6 ms, max.
Release Time (Excluding Bounce)†: 4 ms, max.
Reset Time (Latching)†: 6 ms, max.
Bounce Time†: 1 ms, approximately.
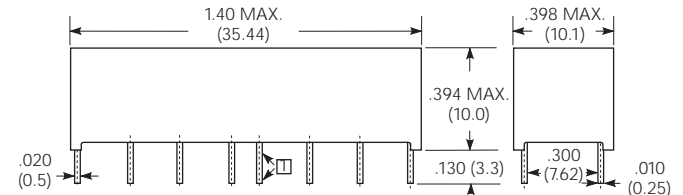† At or from Nominal Coil Voltage

Environmental Data

Temperature Range: **Standard Coil** -40°C to +70°C.
  Sensitive Coil -40°C to +80°C.
Vibration: Operational and Non-destructive: 30g from 10-500 Hz.
Shock: Operational: 50g at 11 ms 1/2 sinusoidal impulse.
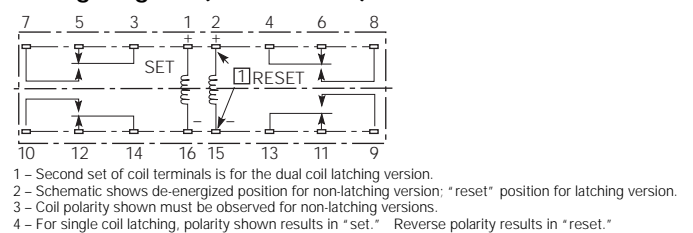 **Non-destructive:** 100g at 11 ms 1/2 sinusoidal impulse.

Mechanical Data

Termination: Printed circuit terminals on 0.1" (2.54mm) centers.
Enclosure: Sealed PBT plastic case.
Weight: 0.25 oz. (7g) approximately.

Outline Dimensions

Wiring Diagram (Bottom View)

1 – Second set of coil terminals is for the dual coil latching version.
2 – Schematic shows de-energized position for non-latching; "reset" position for latching version.
3 – Coil polarity shown must be observed for non-latching versions.
4 – For single coil latching, polarity shown results in "set." Reverse polarity results in "reset."

PC Board Layout (Bottom View)

Specifications and availability subject to change without notice.
13C8840   Printed in U.S.A.   IH/2-00