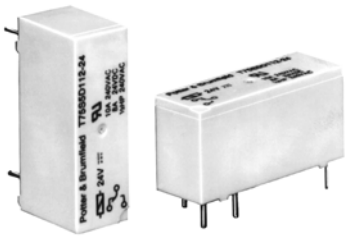
Sensitive, Low Profile, Hi-Current Relay Designed to Meet International Standards

T75 series

10 Amp, PC Board Miniature Relay



c UL us File E29244
VDE File No. 3919

RoHS Ready

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/ laboratories and review them to ensure the product meets the requirements for a given application.

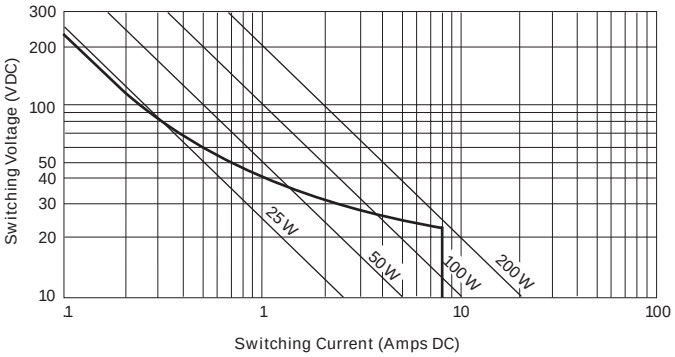
Features

- High sensitivity – nominal coil power requirement is as low as 212mW.
- Low profile, .591 in. (15mm) tall case uses only .465 in^2 ($3cm^2$) of area on the printed circuit board, permitting high density circuit design.
- Power switching capability – contacts rated 10 amps in 1 Form A (SPST-NO) or 1 Form C (SPDT) arrangements.
- Designed to meet UL, CSA, VDE, SEMKO and SEV requirements.
- Designed to meet VDE 8mm spacing, 4kV dielectric, coil to contacts.
- Designed to meet 3 mm creepage between contacts.
- Conforms to: VDE 0110 – Insulation Group C (250V)
  VDE 435 Part 201 – High current applications
  VDE 0804 – Telecommunications equipment
  VDE 0631 – Temperature controllers and limiters
  VDE 0700 – Household appliances
  VDE 0805/5.90 – Office machines
- Wash tight (washable).
- Well suited for a broad range of applications e.g. HVAC, appliances, security and industrial control.

Contact Ratings @ 25°C with relay properly vented. Remove vent nib after soldering and cleaning.

Arrangements: 1 Form A (SPST-NO) and 1 Form C (SPDT).
Material: Silver-cadmium oxide.
Expected Mechanical Life: 10 million operations.
Expected Electrical Life:
100,000 operations at 8 amps, 240VAC.
50,000 operations at 14 amps NO / 5 amps NC, 120VAC Res.
30,000 operations at 7.2 FLA, 45 LRA, 120VAC.
10,000 operations at 5 FLA, 30 LRA, 240VAC.
30,000 operations at B300 pilot duty (360VA, 240VAC; 470VA, 120VAC).
Contact Ratings (See Figure 1):
Maximum Switched Voltage: 380VAC.
Maximum Switched Current: 14/5 (N.O./N.C.) amps, AC resistive; 8 amps DC (see Fig. 1)
Maximum Switched Power: 200W, DC; 2,000VA, AC.
Minimum Required Contact Load: 12V, 100mA.
VDE Contact Ratings: 8 amps, 250VAC.
UL Contact Ratings: 10 amps, 240VAC; 8 amps 24VDC; 1/3 HP, 120VAC; 1/2 HP, 240VAC.

Figure 1 - DC Switching Load Limit Curve



Initial Dielectric Strength

Between Open Contacts: 1,000V rms.
Between Contacts and Coil: 4,000V rms, 8mm.

Coil Data

Voltage: 3 to 60VDC.
Maximum Power @ 23°C: 1W.
Nominal Power @ 23°C: 230mW, typ.
Temperature Rise: 85C° per Watt.
Duty Cycle: Continuous.

Coil Data

	Nominal Voltage	DC Resistance in Ohms ±10%	Must Operate Voltage	Nominal Coil Current (mA)
DC Coils	3	40	2.1	75.0
	5	118	3.4	42.4
	6	165	4.1	36.4
	9	365	6.1	24.7
	12	650	8.2	18.5
	18	1,455	12.3	12.4
	24	2,270	16.3	10.6
	36	5,460	24.5	6.4
	48	8,790	32.6	5.5
	60	15,265	40.8	3.9

Operate Data @ 23°C

Must Operate Voltage: 70% of nom. voltage or less.
Must Release Voltage: 10% of nom. voltage or more.
Operate Time (Excluding Bounce): 6 ms, typ., at nom. voltage.
Release Time (Excluding Bounce): 2.5 ms, typ., at nom. voltage.
Maximum Switching Rate: 20 operations/second.
Maximum Continuous Operating Voltage: 225% of nom. voltage.

Temperature Range

Storage: -40°C to +130°C.
Operating: -40°C to +85°C.

Mechanical Data

Termination: Printed circuit terminals.
Enclosures: Wash tight (washable) case.
Weight: 0.39 oz. (11.0g) approximately.

Ordering Information

Typical Part Number ▶	T75	S	5	D	1	1	2	-12

1. Basic Series:
T75 = Low profile, printed circuit board relay.

2. Enclosure:
S = Wash tight (washable).

3. Contact Arrangement:
1 = 1 Form A (SPST-NO)
5 = 1 Form C (SPDT)

4. Coil Input:
D = DC voltage

5. Coil Configuration:
1 = Single coil, non-latching (monostable)

6. Mounting and Terminals:
1 = Printed circuit terminals

7. Contact Material:
2 = Silver-cadmium oxide (AgCdO)

8. Coil Voltage:

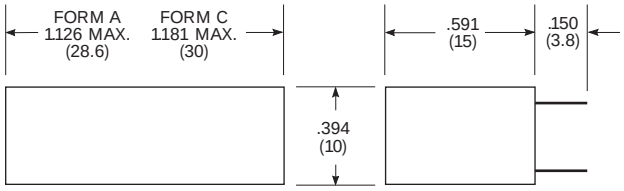
03 = 3VDC	06 = 6VDC	12 = 12VDC	24 = 24VDC	48 = 48VDC
05 = 5VDC	09 = 9VDC	18 = 18VDC	36 = 36VDC	60 = 60VDC

NOTE: All part numbers are RoHS compliant.

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

T75S5D112-05
T75S5D112-12
T75S5D112-24

Outline Dimensions



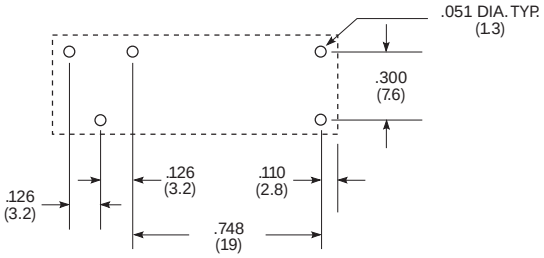
CONTACT TERMINALS: .023 x .040 (.58 x 1.02) REF.
COIL TERMINALS: .024 (.61) DIA. REF.

Wiring Diagram (Bottom View)

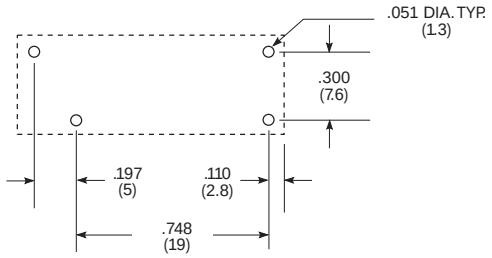
* ON SINGLE THROW MODELS, ONLY NECESSARY TERMINALS ARE PRESENT.

PC Board Layouts (Bottom Views)

1 Form C



1 Form A



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- *Входной контроль качества.*
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