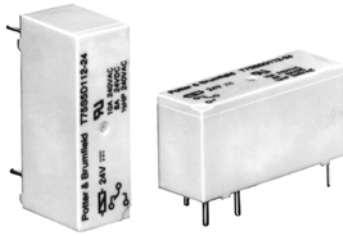


Sensitive, Low Profile, Hi-Current Relay Designed to Meet International Standards



Features

- High sensitivity – nominal coil power requirement is as low as 212mW.
- Low profile, .591 in. (15mm) tall case uses only .465 in² (3cm²) 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)

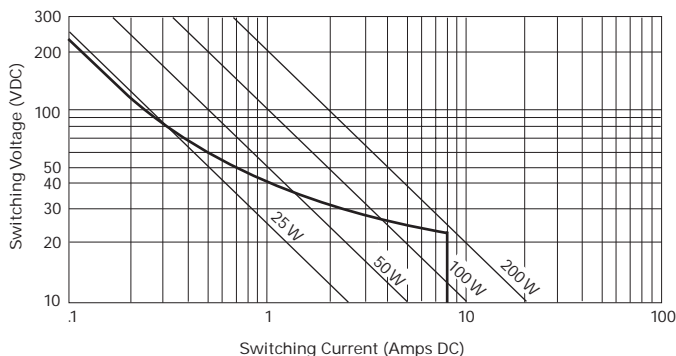
Maximum Switched Power: 200W, DC; 2,000VA, AC.

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



Dimensions are shown for
reference purposes only.

Dimensions are in inches over
(millimeters) unless otherwise
specified.

T75 series

10 Amp, PC Board Miniature Relay

UL 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.

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: 85°C° 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.

www.tycoelectronics.com
Technical support:
Refer to inside back cover.

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.

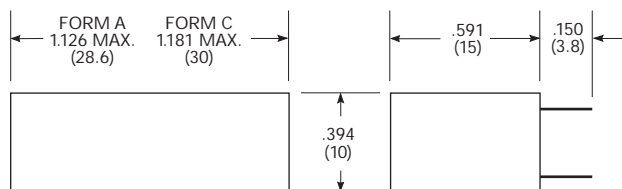
Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

T75S5D112-05

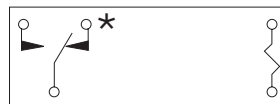
T75S5D112-12

T75S5D112-24

Outline Dimensions

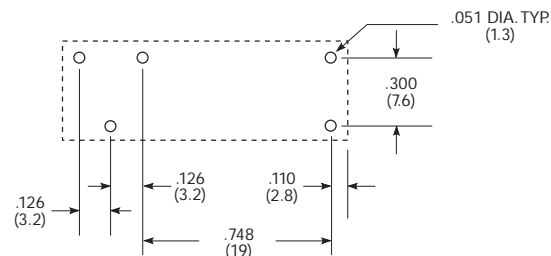
CONTACT TERMINALS: .023 x .040 (.58 x 1.02) REF.
COIL TERMINALS: .024 (.61) DIA. REF.

Wiring Diagram (Bottom View)

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

PC Board Layouts (Bottom Views)

1 Form C



1 Form A

