



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

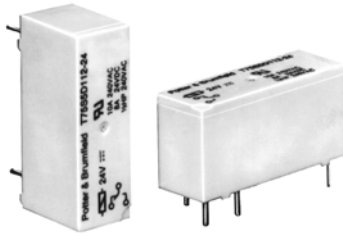
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*Sensitive, Low Profile, Hi-Current  
Relay Designed to Meet  
International Standards*



**T75 series**  
**10 Amp, PC Board  
Miniature Relay**

**UL** File E29244  
**VDE** File No. 3919



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<sup>2</sup> (3cm<sup>2</sup>) 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):**

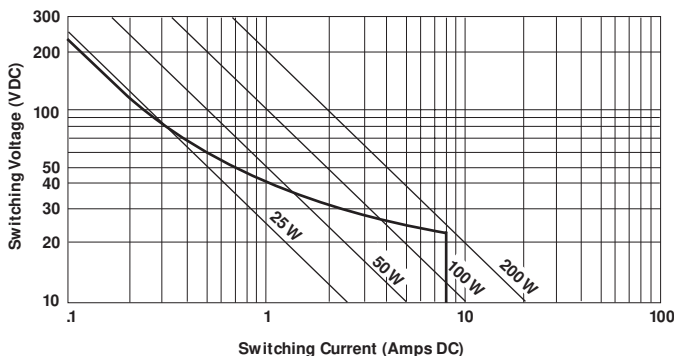
**Maximum Switched Voltage:** 380VAC.  
**Maximum Switched Current:** 14/5 (N.O./N.C.) amps, AC resistive;  
8 amps DC (see Fig. 1)

**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.

Specifications and availability subject to change.

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

**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)
<b>DC Coils</b>	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:**

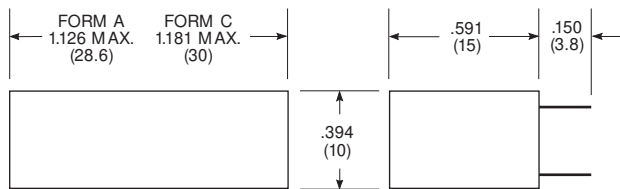
03 = 3VDC	06 = 6VDC	12 = 12VDC	24 = 24VDC	48 = 48VDC
05 = 5VDC	09 = 9VDC	18 = 18VDC	36 = 36VDC	60 = 60VDC

NOTE: All part numbers are RoHS compliant.

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

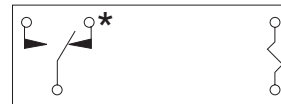
- T75S5D1 12-05
- T75S5D1 12-12
- T75S5D1 12-24

Outline Dimensions



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

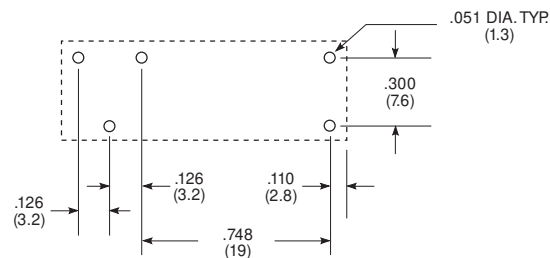
Wiring Diagram (Bottom View)



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

PC Board Layouts (Bottom Views)

1 Form C



1 Form A

