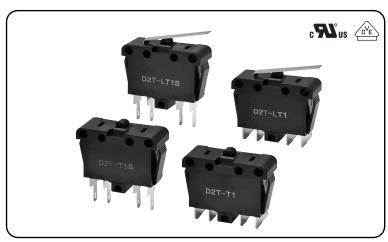
# D2T Miniature Power/Door Switch

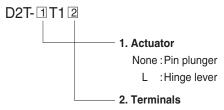


# Door Switch Incorporated with Two Circuits for Power Loads and Micro Loads.

- Compact size, with two separate circuits for power and signals.
- Panel- or screw-mounted with ease.



# **Model Number Legend**



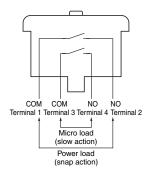
None : Solder terminals (Right-angled)
S : Solder terminals (Straight)

## **List of Models**

Actuator	Terminals	Right-angled	Straight
Pin plunger	-	D2T-T1	D2T-T1S
Hinge lever	1	D2T-LT1	D2T-LT1S

## **Contact Form**

### ●DPST-NO model



# **Contact Specifications**

Item Contact		Between terminals 1 and 2	Between terminals 3 and 4	
	Specification	Rivet	Plated	
Contact	Material	Silver		
	Gap (standard value)	1 mm	1.4 mm	
Inrush current		60 A max.	-	
Minimum applicable load (reference value)		160 mA at 5 VDC	1 mA at 5 VDC	

## **Ratings**

Terminal	Rated voltage	Resistive load
Between terminals 1 and 2	250 VAC	5 A
Between terminals 3 and 4	125 VAC	0.1 A

Note. The above rating values apply under the following test conditions.

- (1) Ambient temperature: 20±2°C
- (2) Ambient humidity: 65±5%
- (3) Operating frequency: 30 operations/min

# **Approved Safety Standards**

## UL (UL61058-1)/cUL (CSA C22.2 No.61058-1)

Rated voltage	Terminals 1 and 2	Terminals 3 and 4
125 VAC	5 A	0.1 A
250 VAC	5 A	•

#### **VDE (EN61058-1)**

· '		
Rated voltage	Terminals 1 and 2	Terminals 3 and 4
125 VAC	-	0.1 A
250 VAC	5 A	-

Testing conditions: 5E4 (50,000 operations) T85 (0°C to 85°C)

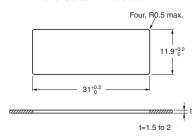
#### **Characteristics**

D 1 11 11		10 1 500 / // 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Permissible operating speed		10 mm to 500 m/s (for pin plunger models)	
Permissible operating	Mechanical	120 operations/min	
frequency	Electrical	30 operations/min	
Insulation resistance		100 M $\Omega$ min. (at 500 VDC with insulation tester)	
Contact resistance (initial value)		Between terminals: 1 and 2: 50 m $\Omega$ max. Between terminals: 3 and 4: 100 m $\Omega$ max.	
	Between terminals of the same polarity	1,000 VAC 50/60 Hz for 1 min	
Dielectric strength	Between current-carrying metal parts and ground	1,500 VAC 50/60 Hz for 1 min	
	Between each terminals and non-current-carrying metal parts	1,500 VAC 50/60 Hz for 1 min	
	Between terminals of different polarity	1,500 VAC 50/60 Hz for 1 min	
Vibration resistance *1	Malfunction	10 to 55 Hz, 1.5 mm double amplitude	
Shock resistance	Destruction	1,000 m/s <sup>2</sup> {approx. 100G} max.	
SHOCK resistance	Malfunction *1	300 m/s² {approx. 30G} max.	
Durability *2	Mechanical	100,000 operations min. (60 operations/min)	
Durability 2	Electrical	100,000 operations min. (30 operations/min)	
Degree of protection		IEC IP40	
Degree of protection against electric shock		Class I	
Proof tracking index (PTI)		175	
Ambient operating temperature		-25°C to +85°C at ambient humidity of 60% max. (with no icing or condensation)	
Ambient operating humidity		85% max. (for +5°C to +35°C)	
Weight		Approx. 10g (pin plunger models)	

# Mounting Holes (Unit: mm)



Panel Cutout Dimensions

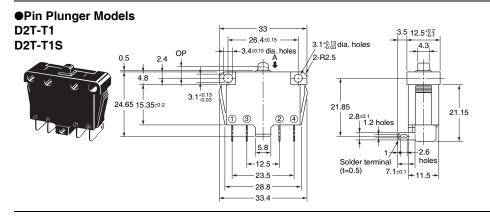


Note. The data given above are initial values.

- The values are at Free Position and Total Travel Position values for pin plunger, and Total Travel Position value for lever. Close or open circuit of the contact is 1 ms max. For testing conditions, consult your OMRON sales representative.

# Dimensions (Unit: mm) and Operating Characteristics

The illustrations and drawings are for right-angled terminals. Straight terminals are omitted.



Model	D2T-T1 D2T-T1S
OF Max. RF Min. TTF Max.	3.24 N {330 gf} 0.5 N {50 gf} 6.37 N {650 gf}
OT Min.	0.8 mm
OP *	4.4±0.6 mm*
	OF Max. RF Min. TTF Max.

Operating sequence of the circuit between terminals 1 and 2 and the circuit between terminals 3 and 4 is not specified.

●Hinge Lever Models	
D2T-LT1	3.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12
D2T-LT1S	(4.5) - 26.4±0.15 - 4.3, 4.3,
15.35:0.2 19.85	3.1±0.15 dia. t=0.5* 2-R2.5  19.45±0.2 2.8±0.1 1.2 holes 2.8±0.1 1.2 holes 7.1±0.1 holes

Operating Characteristics	ľ	Model	D2T-LT1 D2T-LT1S
Operating Force	OF	Max.	1.47 N {150 gf}
Releasing Force	RF	Min.	0.20 N {20 gf}
Total Travel Force	TTF	Max.	2.45 N {250 gf}
Overtravel	ОТ	Min.	1.6 mm
Free Position	FP	Max.	10.1 mm
Operating Position	OP	*	6.9±1.3 mm
Releasing Position	RP	Max.	9.5 mm
Total Travel Position	TTP	Мах.	3.6 mm
* 0		411-	and the second second

Operating sequence of the circuit between terminals 1 and 2 and the circuit between terminals 3 and 4 is not specified.

- Note 1. Unless otherwise specified, a tolerance of  $\pm 0.15$  mm applies to all dimensions.
- Note 2. The operating characteristics are for operation in the A direction (  $\P$  )

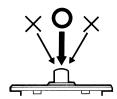
## **Precautions**

★ Please refer to "Basic Switches Common Precautions" for correct use.

#### **Correct Use**

#### Mounting

 Apply operation force to the pin plunger in the direction it operates. Applying forces laterally or from an oblique direction may damage the pin plunger.



 Use M3 mounting screw with plane washers or spring washers to securely mount the Switch. Tighten the screws to a torque of 0.39 to 0.59 N·m {4 to 6 kgf·cm}.

#### Soldering

• Terminal connectiion

When soldering the lead wire to the terminal, first insert the lead wire conductor through the terminal hole and then conduct soldering.

Complete the soldering at the iron tip temperature not exceeding 350°C within 3 seconds, and do not apply any external force for 1 minute after soldering. Soldering at a excessively high temperature or soldering for more than 3 s may deteriorate the characteristics of the Switch.

Please check each region's Terms & Conditions by region website.

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