



## MAIN FEATURE

1. Miniature size with lightweight.
2. Low power consumption with various types of coil sensitivity for design flexibility.
3. Plastic sealed type available for washing protective.
4. Wide operation coil voltage range.
5. Comply with RoHS and REACH regulations.

## CONTACT RATING

Load Type	ST (D/D1)	ST (L/L1)	ST (T/T1)
Rated Load (Resistive)	2A 120VAC	2A 120VAC	2A 120VAC
	2A 24VDC	2A 24VDC	2A 24VDC
Rated Carrying Current	2A	2A	2A
Max. Allowable Voltage	AC 120V	AC 120V	AC 120V
	DC 60V	DC 60V	DC 60V
Max. Allowable Current	2A	2A	2A
Max. Allowable Power Force	240VA	240VA	240VA
	48W	48W	48W
Min. Switching Load	DC 5V, 1mA	DC 5V, 1mA	DC 5V, 1mA
Contact Material	Ag +Au	Ag +Au	Ag +Au
Contact Form	SPDT	SPDT	SPDT

## APPLICATION

Telecommunication, Office Equipment and Industrial Control Application

## PERFORMANCE (AT INITIAL VALUE)

- Contact Resistance ..... 100mΩ max.@100mA, 6VDC
- Operate Time.....5 mSec. Max.
- Release Time .....3 mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact..... 1,000VAC at 50/60 Hz for one minute
  - Between Contacts .....400VAC at 50/60 Hz for one minute
- Surge Strength ..... 1,500V (between Coil & Contact 1.2x50μSec.)
- Insulation Resistance..... 100 MegaΩ Min. at 500VDC
- Max. On/Off Switching:
  - Electrical .....(D/L/T) 6 Cycles per Min. (D1/L1/T1) 30 Cycles per Min.
  - Mechanical.....300 Cycles per Minute
- Temperature Range ..... (D/L/T)-30~+70°C (D1/L1/T1) -30~+85°C
- Humidity Range ..... 35~85% RH.
- Coil Temperature Rise ..... 40°C Max.
- Vibration:
  - Destruction ..... 10 to 55 to 10 Hz,0.75 mm single amplitude (1.5mm double amplitude)
  - Malfunction ..... 10 to 55 to 10 Hz,0.75 mm single amplitude (1.5mm double amplitude)
- Shock:
  - Destruction ..... 1,000 m/S<sup>2</sup>
  - Malfunction ..... 100 m/S<sup>2</sup>
- Life Expectancy:
  - Mechanical ..... 10<sup>7</sup> Operations at No Load condition
  - Electrical ..... 10<sup>5</sup> Operations at Rated Resistive Load
- Weight ..... About 2g

## SAFETY STANDARD & FILE NUMBER

- UL & C-UL..... E141060
- TÜV..... R50199701 (D/L/T only)

COIL SPECIFICATION (AT 20°C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
ST-D/D1	3	120	25	Abt.0.36	75% Maximum	5% Minimum	130%
	5	71.4	70				
	6	60	100				
	9	40	225				
	12	30	400				
ST-T/T1	24	15	1,600	Abt.0.2	80% Maximum		
	3	67	45				
	5	40	125				
	6	33.3	180				
	9	22.5	400				
ST-L/L1	12	16.7	720	Abt.0.15			
	24	8.3	2,880				
	3	50	60				
	5	29.9	167				
	6	25.0	240				
	9	16.7	540				
	12	12.5	960				
	24	6.3	3,800				

ORDERING INFORMATION

ST - SH - 1 12 D 1

**Structure:** Nil: Standard  
1: New structure

**Coil Sensitivity:** D: Standard DC  
T: Medium DC  
L: High DC

**Coil Voltage:** 03: 3V, 05: 5V, 06: 6V, 09: 9V, 12: 12V, 24: 24V

**Number of Pole:** 1: One Pole

**Type of Sealing:** SS: RT II Flux Proofed  
SH: RT III Wash Tight

1 Pole **ST**

CLASSIFICATION

Model	ST		
Coil Sensitivity	Standard DC	Medium DC	High DC
Flux Proofed	ST-SS-1□□D/D1	ST-SS-1□□T/T1	ST-SS-1□□L/L1
Wash Tight	ST-SH-1□□D1D	ST-SH-1□□T/T1	ST-SH-1□□L/L1

DIMENSION ( $\leq 5\text{mm} \pm 0.2\text{mm}$ ,  $> 5\text{mm} \pm 0.3\text{mm}$ , the tolerance of PCB thru hole:  $+0.1\text{mm}$ )

ST-D/T/L



ST-D1/T1/L1 (New structure)

