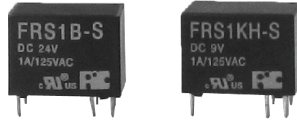


Features

Low coil power consumption
 Small size and low cost
 PCB mounting, DIL pitch terminal
 Standard and high sensitive operation use
 Dust cover or wash tight type



CEus: E141516(N)

Ordering information

FRS1 H - S 3 - DC12V
 1 2 3 4 5

| | |
|---|---|
| 1 Relay model: FRS1; FRS1K (standard 5 pins) | 4 Contact rating: NIL: 1Amp; 2: 2Amp; 3: 3Amp; 5 : 5Amp (for "B" type only) |
| 2 Power consumption: NIL: 0.36W; B : 0.45W (available with 5Amp); H : 0.2W high sensitive | 5 Rated voltage Note: RoHS : RoHS compliant relay RoHS-I : AgNi contact RoHS-N: AgSnO ₂ contact |
| 3 Construction: NIL Dust cover; S: Wash tight type | |

Coil rating

| Rated voltage (V) | Coil resistance Ω +/-10% | | | Must operate voltage | Must dropout voltage | Maximum voltage | Power consumption (W) Approx. | Operate time (ms) | Release time (ms) |
|-------------------|---------------------------------|---------|----------|----------------------|----------------------|-----------------|--|-------------------|-------------------|
| | FRS1(K)B | FRS1(K) | FRS1(K)H | | | | | | |
| 3 | 20 | 25 | 45 | 75 Max. | 10 Min. | 110 Max. | FRS1(K)B: 0.45 FRS1(K): 0.36 FRS1(K)H: 0.20 | <5 | <5 |
| 5 | 56 | 70 | 120 | | | | | | |
| 6 | 80 | 100 | 180 | | | | | | |
| 9 | 180 | 220 | 400 | | | | | | |
| 12 | 320 | 400 | 700 | | | | | | |
| 24 | 1280 | 1600 | 2800 | | | | | | |

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
 2. Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Characteristics

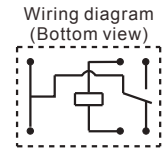
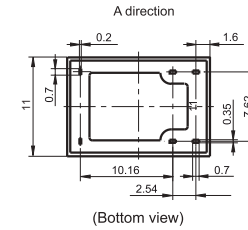
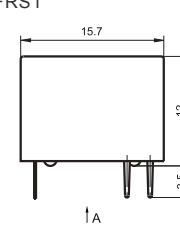
| | | |
|----------------------------|--|-----------------|
| Contact arrangement | SPST (1 Form A); SPDT (1 Form C) | |
| Contact material | Silver alloy (gold flash) | |
| Contact resistance | 50m Ω Max. | |
| Contact rating (resistive) | 1A 125VAC / 30VDC 2A 125VAC / 30VDC 3A 125VAC / 30VDC 5A 125VAC / 30VDC (only available for "B" type - 0.45W) | |
| Switching power | 625VA / 150W Max. | |
| Switching voltage | AC 220V / DC 60V Max. | |
| Insulation resistance | 100M Ω Min. (500VDC) | |
| Dielectric strength | 500VAC (50Hz/min) Between open contacts 500VAC (50Hz/min) Between coil and contact (Special: 1,000Vrms) | |
| Shock resistance | 10g Approx. | |
| Vibration resistance | 1.5mm Double amplitude 10-55Hz | |
| Ambient temperature | -25°C to +75°C | |
| Operation life | Mechanical | 10 ⁷ |
| | Electrical | 10 ⁵ |
| Weight | 4g Approx. | |

(Specifications are subject to change without notices.)

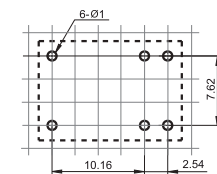
Dimensions

mm

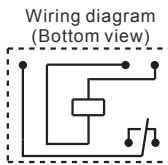
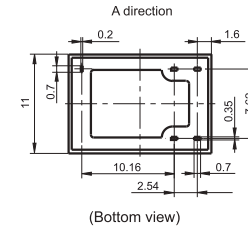
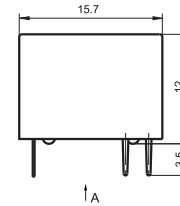
FRS1



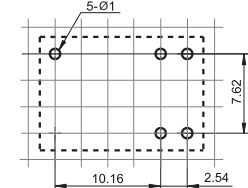
Mounting holes



FRS1K



Mounting holes



Reference data

