

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



RoHS: 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

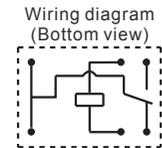
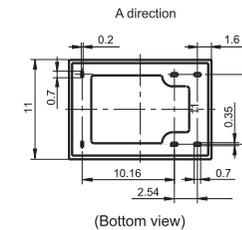
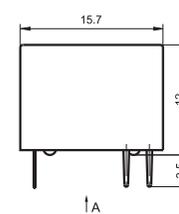
Contact arrangement	SPST (1 Form A); SPDT (1 Form C)	
Contact material	Silver alloy (gold flash)	
Contact resistance	50m Ω Max.	
Contact rating (resistive)	1A 125VAC / 30VDC 2A 125VAC / 30VDC 3A 125VAC / 30VDC 5A 125VAC / 30VDC (only available for "B" type - 0.45W)	
Switching power	625VA / 150W Max.	
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.)

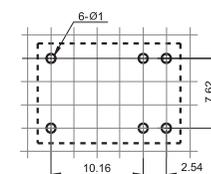
Dimensions

mm

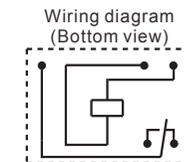
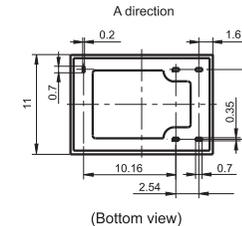
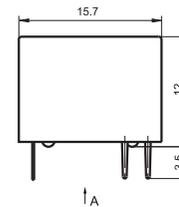
FRS1



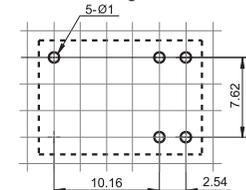
Mounting holes



FRS1K



Mounting holes



Reference data

