

Features

Subminiature light weight relay
High sensitivity
Switching capacity up to 16Amp
PCB mounting, DIL pitch terminal
Dust cover or wash tight type



US: E141516 (*Note: All approvals for 16A only)

R2034463

Ordering information

FRS5 H C - S 10 DC12V - 1

1 Relay model
2 Power consumption: NIL: 0.45W; H: 0.2W (for "1 Form A" only)
3 Contact arrangement: A: 1 Form A (NO);
C: 1 Form C (NO/NC)
4 Construction: NIL: Dust cover; S: Wash tight type
5 Contact rating: 10: 10Amp;
16: 16Amp (all approvals for 16Amp only)

6 Rated voltage
7 TÜV approved
Note: RoHS : RoHS compliant relay;
RoHS- I: AgNi contact;
RoHS-N: AgSnO₂ contact

Coil rating

Rated voltage (V)	Coil resistance Ω ±10%		Rated current (mA)		Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption (W) Approx.	Operate time (ms)	Release time (ms)
	FRS5H	FRS5	FRS5H	FRS5	% of rated voltage (at +20°C)					
5	125	55.5	40	90						
6	180	80	33	75						
9	405	180	22	50						
12	720	320	16	37.5	80 Max.	5 Min.	130 Max.	FRS5H: 0.2 (1 Form A only)		
24	2880	1280	8	18.8				FRS5: 0.45 0.8 (for 48VDC) 1.0 (for 110VDC)	<8	<5
48	—	3840	—	12.5						
110	—	12100	—	9.1						

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.

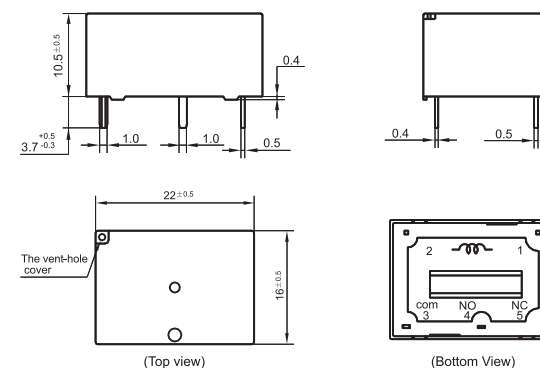
Characteristics

Contact arrangement		SPST (1 Form A); SPDT (1 Form C)
Contact material		Sliver alloy
Contact resistance		50m Ω Max.
Contact rating (resistive)		For "1 Form A": 0.2W or 0.45W Or "1 Form C": 0.45W "10": 10A/125, 250VAC 10A/30VDC "16": 16A/125, 250VAC 1/10HP 125, 277VAC
Switching power		4,000VA / 480W Max.
Switching voltage		AC 380V / DC 110V Max.
Insulation resistance		100M Ω Min. (500VDC)
Dielectric strength		750VAC (50Hz/min) Between open contacts 1,500VAC (50Hz/min) Between coil and contact
Shock resistance		10g Approx.
Vibration resistance		1.5mm Double amplitude 10-55Hz
Ambient temperature		-40°C to +85°C
Operation life	Mechanical	5 x 10 ⁶
	Electrical	10 ⁵
Weight		9g Approx.

(Specifications are subject to change without notices.)

Dimensions

mm



Mounting holes

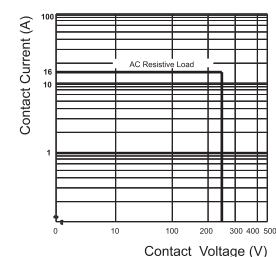
Wiring diagram
(Bottom view)

1 Form A

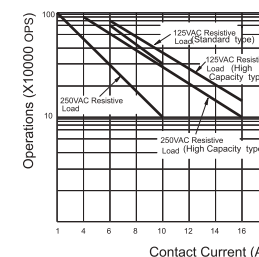
1 Form C

Reference data

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



COIL TEMPERATURE RISE

