

Automotive Relays

El.italia serie FW-FRS10M

Features

Subminiature light weight relay
 15Amp continuous contact rating 105°C
 Low coil power consumption
 20A, 16VDC switching rating
 Wash tight type is available



Ordering information

FRS10M C - S 1 - DC12V
 1 2 3 4 5

1 Relay model
 2 Contact arrangement: A: 1 Form A; C: 1 Form C
 3 Construction: NIL: Dust cover; S: Wash tight type
 4 Power consumption: NIL: 0.8W; 1: 0.64W

5 Rated voltage
 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)
	FRS10M	FRS10M-1	FRS10M	FRS10M-1						
6	45	56	133.3	107	FRS10M: 60 Max. FRS10M-1: 65 Max.	FRS10M: 10 Min. FRS10M-1: 5 Min.	130 Max.	FRS10M: 0.8 FRS10M-1: 0.64	<10	<5
12	180	225	66.6	53.5						
24	720	900	33.3	26.7						

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.

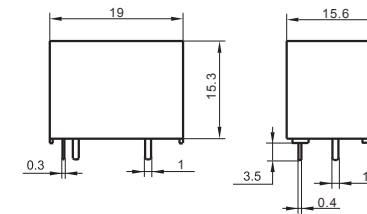
Characteristics

Contact arrangement	SPST (1 Form A); SPDT (1 Form C)	
Contact material	Silver alloy	
Contact resistance	50mΩ Max.	
Contact rating (resistive)	20A 16VDC	
Switching power	280W Max.	
Switching voltage	DC 75V Max.	
Insulation resistance	250MΩ Min. (500VDC)	
Dielectric strength	500VAC (50Hz/min) Between open contacts 500VAC (50Hz/min) Between coil and contact	
Shock resistance	10g Approx.	
Vibration resistance	1.5mm Double amplitude 10-55Hz	
Ambient temperature	-40°C to +105°C	
Humidity	85% RH, 40°C	
Operation life	Mechanical	10 ⁷
	Electrical	10 ⁵ (at rated load)
Weight	10g Approx.	

(Specifications are subject to change without notices.)

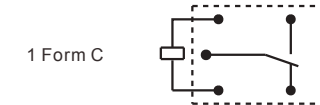
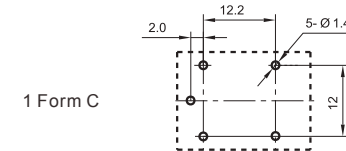
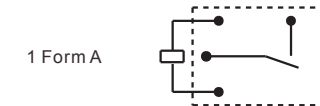
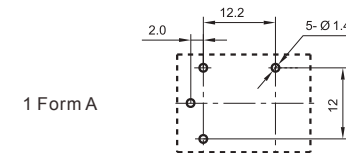
Dimensions

mm



Mounting holes

Wiring diagram (Bottom view)



Reference data

