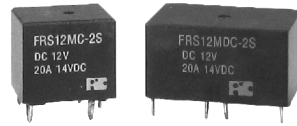


## Features

Compact light weight structure  
 High resistance to vibration and shock  
 Switching capacity up to 20A  
 Car automatic applications:  
 i.e.: alarm system, automatic door, locking system, etc.  
 Dust cover and wash tight type



## Ordering information

### FRS12M C - 1 S N DC12V

1 2 3 4 5 6

1 Relay model: FRM12M (single relay); FRM12MD (double relays)	4 Construction: NIL: Dust cover; S: Wash tight type
2 Contact arrangement: <b>FOR FRM12M:</b> A: 1 Form A; B: 1 Form B; C: 1 Form C; U: 1 Form U <b>FOR FRM12MD:</b> A: 2 x 1 Form A; B: 2 x 1 Form B; C: 2 x 1 Form C; U: 2 x 1 Form U	5 NIL: Standard; N: Special feature (please consult any special requirement with FIC) 6 Rated voltage Note: RoHS : RoHS compliant relay; RoHS- I: AgNi contact; RoHS-N: AgSnO <sub>2</sub> contact
3 Power consumption: 1: 0.8W; 2: 0.6W	

## Coil rating

Rated voltage (V)	Coil resistance $\Omega \pm 10\%$		Rated current (mA)		Must operate voltage % of rated voltage (at +20°C)	Must dropout voltage % of rated voltage (at +20°C)	Power consumption (W) Approx.	Operate time (ms)	Release time (ms)
	FRS12M-1	FRS12M-2	FRS12M-1	FRS12M-2					
5	31	42	161	119	60% at 20°C	8% at 20°C	FRS12M-1: 0.8	<10	<5
6	45	60	133	100					
9	100	135	90	66	75% at 85°C	10% at 85°C	FRS12M-2: 0.6		
12	180	240	66	50					
24	720	960	14.4	14.4					

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.

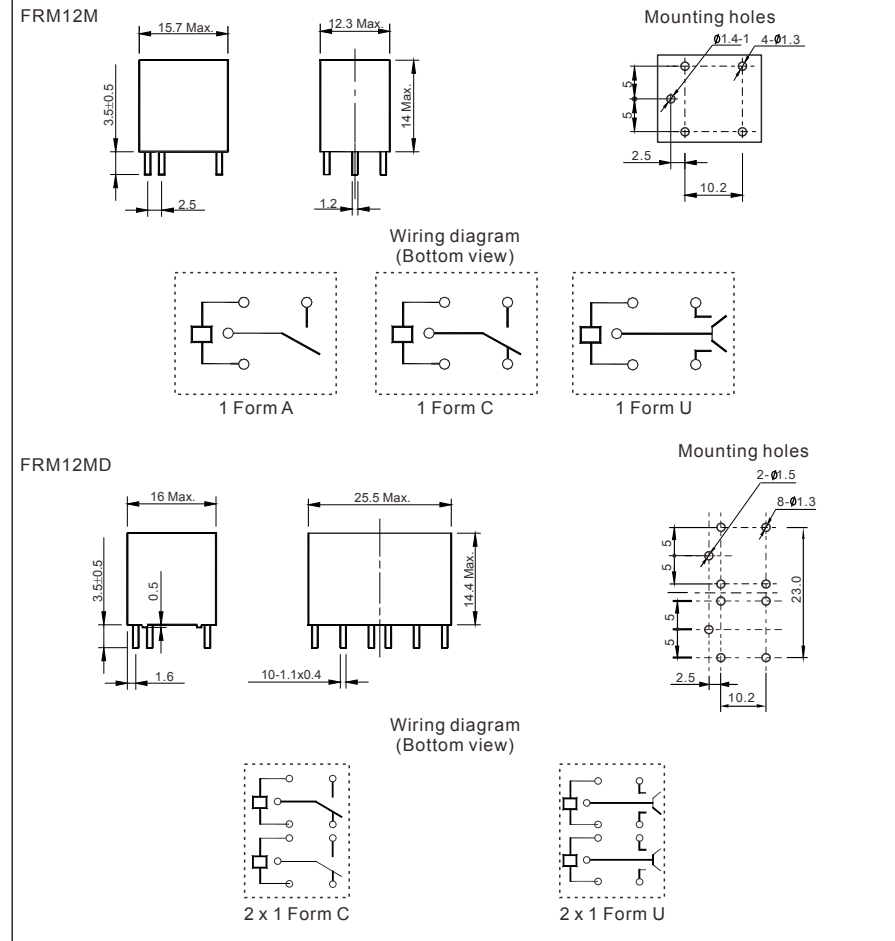
## Characteristics

Contact arrangement	For FRS12M : SPST (1 Form A or 1 Form B); SPDT (1 Form C); 1 Form U For FRS12MD: 2 x 1 Form A or 2 x 1 Form B; 2 x 1 Form C; 2 x 1 Form U	
Contact material	Silver alloy	
Contact resistance	50m $\Omega$ Max.	
Contact rating (resistive)	1A/1C: 20A 14VDC; 1U: 2 x 10A 14VDC	
Switching power	280W Max.	
Switching voltage	DC 75V Max.	
Insulation resistance	100M $\Omega$ Min. (500VDC)	
Dielectric strength	500VAC (50Hz/min)	
Shock resistance	10g Approx.	
Vibration resistance	1.5mm Double amplitude 10-55Hz	
Ambient temperature	Storage: -40°C to +100°C Operate: -40°C to +85°C	
Humidity	85% RH, 40°C	
Operation life	Mechanical	10 <sup>7</sup>
	Electrical	10 <sup>5</sup>
Weight	FRS12M: 6g Approx.; FRS12MD: 12g Approx.	

(Specifications are subject to change without notices.)

## Dimensions

mm



## Reference data

