

Features

Miniature high power design for PC board
Automobile relay with high switching power
Switching current up to 45A
Low cost and high performance
European (11mm) or USA (8mm) terminal distance
Open type, dust cover or wash tight type



Ordering information

FRA2 B C - C 1 DC12V R 1 2 3 4 5 6 7		
1 Relay model 2 Contact rating: NIL: 40A 14VDC; B: 45A 14VDC 3 Contact arrangement: A: 1 Form A; B: 1 Form B; C: 1 Form C 4 Construction: NIL: Open type; C: Dust cover; S : Wash tight type	5 Version: 1: USA(8mm); 2: European(11mm) 6 Rated voltage 7 Termination: R: Without one COM PIN Note: RoHS : RoHS compliant relay RoHS-I : AgNi contact RoHS-N: AgSnO ₂ contact	

Coil rating

Rated voltage (V)	Coil resistance $\Omega \pm 10\%$	Rated current (mA)	Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption (W) Approx.	Operate time (ms)	Release time (ms)
6	19	315	% of rated voltage (at 20°C)					
12	90	133	57.5 Max.	10 Min.	150 Max.	1.6	<5	<5
24	360	66						

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

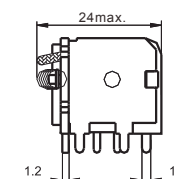
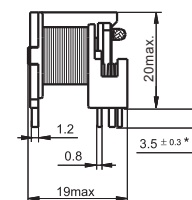
Contact arrangement		SPST (1 Form A or 1 Form B) SPDT (1 Form C)
Contact material		Silver alloy
Contact resistance		30mΩ Max.
Contact rating (resistive)		NO: 40A/14VDC NC: 30A/14VDC (Special request NO: 45A/14VDC)
Switching power		630W Max.
Switching voltage		DC 75V Max.
Insulation resistance		100MΩ Min. (500VDC)
Dielectric strength		500VAC (50Hz/min) Between open contacts 750VAC (50Hz/min) Between coil and contact
Shock resistance		20g Approx.
Vibration resistance		1.27mm Double amplitude 10-40Hz
Ambient temperature		Operation: -40°C to +105°C
Humidity		85% RH, 40°C
Operation life	Mechanical	10 ⁷
	Electrical	10 ⁵ (at rated load)
Weight	Open type: 17g Approx. Wash tight type: 21g Approx.	

(Specifications are subject to change without notices.)

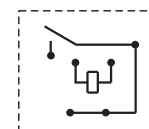
Dimensions

mm

Open type

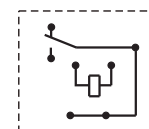
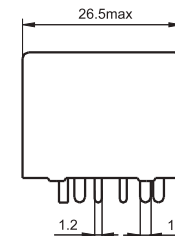
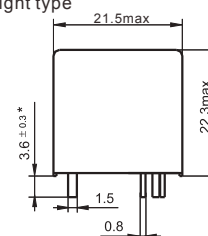


Wiring diagram
(Bottom view)



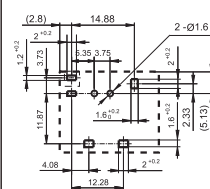
1 Form A

Dust cover /
Wash tight type

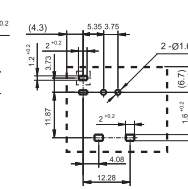


1 Form C

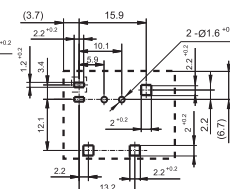
Mounting holes



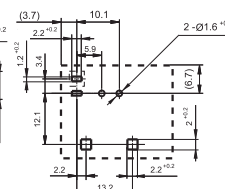
FRA2-1



FRA2-1R



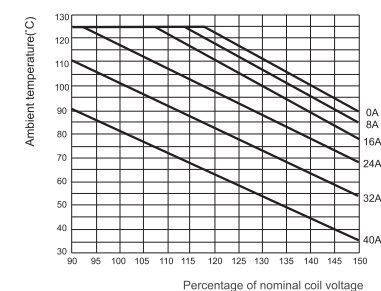
FRA2-2



FRA2-2R

Reference data

1. Coil operating voltage range



2. Load limit curve (at 23°C)

