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	5 Version: 1: USA(8mm); 2: European(11mm)
2 Contact rating: NIL: 40A 14VDC; B: 45A 14VDC	6 Rated voltage
3 Contact arrangement: A: 1 Form A; B: 1 Form B;	7 Termination: R: Without one COM PIN
C: 1 Form C	Note: RoHS : RoHS compliant relay
4 Construction: NIL: Open type; C: Dust cover;	RoHS-I : AgNi contact
S : Wash tight type	RoHS-N: AgSnO$_2$ 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)
			% of rated voltage (at 20°C)					
6	19	315						
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.
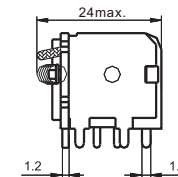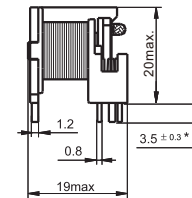
Characteristics

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.

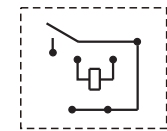(Specifications are subject to change without notices.)

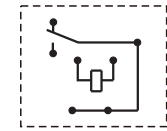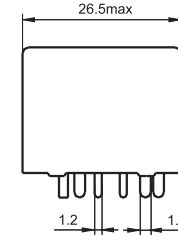## Dimensions   mm
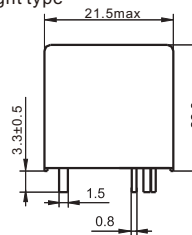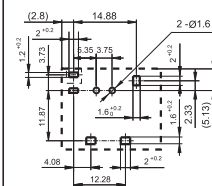
Open type

Wiring diagram (Bottom view)

1 Form A

Dust cover / Wash tight type
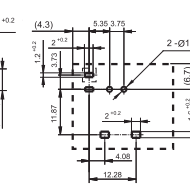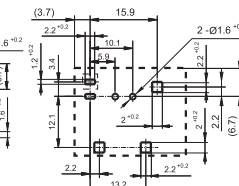
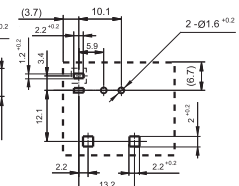1 Form C

Mounting holes

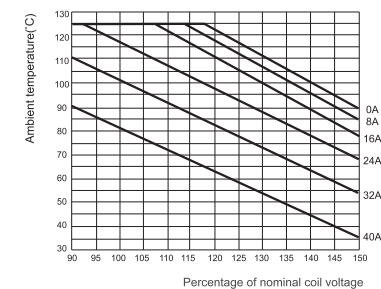FRA2-1   FRA2-1R   FRA2-2   FRA2-2R

Reference data

1. Coil operating voltage range

2. Load limit curve (at 23°C)