

Automotive Relays

El.italia serie FW-FRC2

Features

High contact rating (60A)
 High temperature design
 Ideal for use in control-car starter and light
 Plug in or PC board terminals
 Dust cover only



Ordering information

ERC2 B A - 1 B N - DC12V
 1 2 3 4 5 6 7

1 Relay model	6 Coil suppression: NIL: Standard type;
2 Contact rating: NIL: 50A(NO) 40A(NC); B: 60A(NO) 40A(NC)	N: With diode; R: Resistor; T: Transil (DB-03)
3 Contact arrangement: A: 1 Form A; C: 1 Form C; U: 1 Form U	7 Rated voltage
4 Mounting termination: NIL: Moulded bracket dust cover;	Note: RoHS : RoHS compliant relay
1: Plain dust cover; 2 : Metal bracket dust cover	RoHS-I : AgNi contact
5 Version: NIL: Plug-in type; A: PCB 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	20	300	65 Max.	10 Min.	130 Max.	1.8	<7	<5
12	80	150						
24	320	75						
48	1280	37.5						

*If use resistor:
 DC 6V with 180Ω resistor
 DC 12V with 680Ω resistor
 DC 24V with 2,702Ω resistor

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

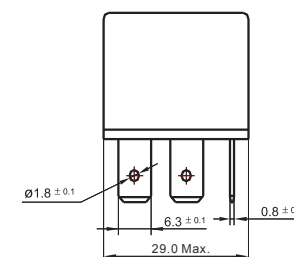
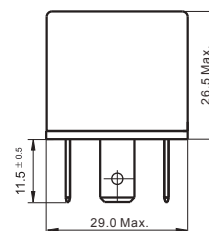
Contact arrangement	1 Form A; 1 Form C; 1 Form U	
Contact material	Silver alloy	
Contact resistance	30mΩ Max.	
Contact rating (resistive)	1A: 50A 14VDC (Special request: 60A 14VDC) 1C: (NO) 50A 14VDC; (NC) 40A 14VDC 1U (2 x 1 Form A): 2 x 25A 14VDC	
Switching power	700W Max.	
Switching voltage	DC 75V Max.	
Insulation resistance	100MΩ Min. (500VDC)	
Dielectric strength	500VAC (50Hz/min)	
Shock resistance	20g Approx.	
Vibration resistance	1.5mm Double amplitude 10-40Hz	
Ambient temperature	-40°C to +85°C (Special request up to 125°C)	
Humidity	85% RH, 40°C	
Operation life	Mechanical	10 ⁷
	Electrical	10 ⁵ (at rated load)
Weight	38g Approx.	

(Specifications are subject to change without notices.)

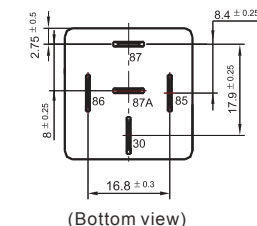
Dimensions

mm

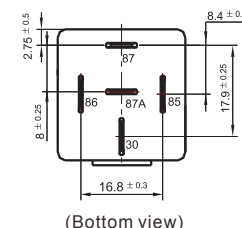
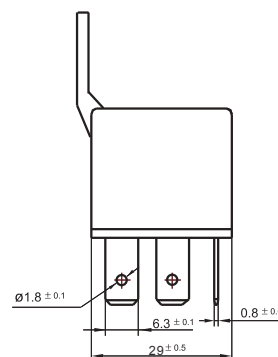
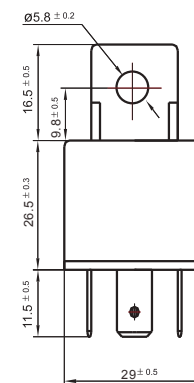
Dust cover



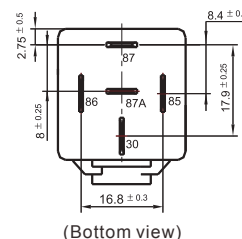
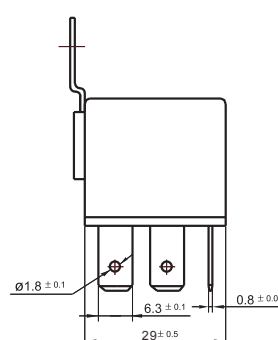
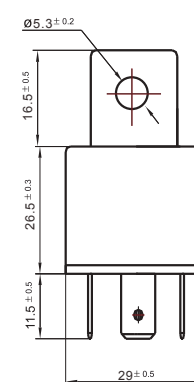
Mounting holes



Moulded bracket dust cover



Metal bracket dust cover



Dimensions mm

PCB type terminal

Mounting holes

(Bottom view)

Wiring diagram

1 Form A 1 Form C 1 Form U

With resistor With diode

Reference data

- #### 1. Coil operating voltage range
- #### 2. Load limit curve
- #### 3. Ambient temperature curve of the electrical endurance test