# Power Relays

#### **Features**

Subminiature light weight relay
Surge resistiveness of 5,000V
Employment of suitable plastic material for high temperature
and various chemical solution
Dust cover or wash tight type

Applications: home appliances, audio equipment, office machines, automobiles, etc.

c us: E141516

: R50019143 (For FRS16 only)



# Ordering information

| FRS16 | Н | Α | - <u>S</u> | 05 | -1 | DC12V | - 1 |
|-------|---|---|------------|----|----|-------|-----|
| 1     | 2 | 3 | 4          | 5  | 6  | 7     | 8   |

3 Contact arrangement: A: 1 Form A; C: 1 Form C 4 Construction: NIL: Dust cover; S: Wash tight type

5 Contact rating: 03: 3A; 05: 5A;

08: 8A (8A 250VAC for SPST only); 10: 10A (FRS16N-10 for SPST only) 6 Termination (only for "N" type): 1: FRS16N-1; 2: FRS16N-2

7 Rated voltage

8 Special high capacity (1 From A only)
Note: RoHS : RoHS compliant relay;
RoHS- I: AgNi contact;

RoHS-N: AgSnO<sub>2</sub> contact

## Coil rating

| Rated voltage                            | Coil<br>resistance<br>Ω+/-10%                     |   |   | Must<br>operate<br>voltage                             | Must<br>dropout<br>voltage | Maximum<br>voltage | Power consumption (W) | Operate time  | Release<br>time |      |
|--|---|---|---|--|----------------------------|--------------------|-----------------------|---|-----------------|------|
| (V)                                      | "B" Type  | "Н" Туре                                    | "NBA-10"  | "NA-10"  | % of rate                  | ed voltage (a      | t +20°C)              | Approx.   | (ms)            | (ms) |
| 3<br>5<br>6<br>9<br>12<br>18<br>24<br>48 | 20<br>55<br>80<br>180<br>320<br>-<br>1280<br>5100 | 45<br>125<br>180<br>400<br>720<br>-<br>2800 | 20<br>55<br>80<br>180<br>320<br>720<br>1280<br>5120 | 38<br>108<br>155<br>350<br>620<br>1390<br>2480<br>9920 | 75 Max.                    | 5 Min.             | 130 Max.              | "B" Type:<br>0.45<br>"H" Type:<br>0.20<br>(Special:<br>0.23)<br>(for SPST only) | <8              | <5   |

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.

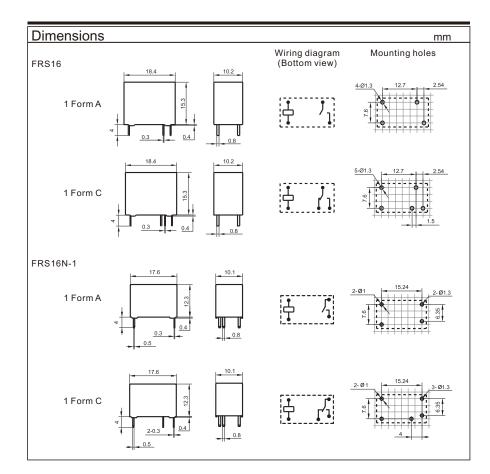
### Characteristics

| Contact arrangement        | SPST (1 Form A); SPDT (1 Form C)  |
|----------------------------|---|
| Contact material           | Silver alloy  |
| Contact resistance         | 100mΩ Max.  |
| Contact rating (resistive) | FRS16BA: 03: 10A 120VAC (Special request) 5A 250VAC/28VDC   |
| Switching power            | 1,250VA / 150W Max.   |
| Switching voltage          | AC 250V / DC 30V Max.   |
| Insulation resistance      | 100MΩ Min. (500VDC)   |
| Dielectric strength        | 1,000VAC (50Hz/min) Between open contacts FRS16 : 2,500VAC (50Hz/min) Between coil and contact FRS16N: 5,000VAC (50Hz/min) Between coil and contact |
| Shock resistance           | 10g Min.  |
| Vibration resistance       | 1.5mm Double amplitude 10-55Hz  |

## El.italia serie FW-FR\$16

| Ambient temperature |            | FRS16: -40°C to +70°C; FRS16N: -40°C to +85°C |  |  |  |  |  |
|---------------------|------------|---|--|--|--|--|--|
| Humidity            |            | 95% RH, 35°C                                  |  |  |  |  |  |
| Operation life      | Mechanical | 10 <sup>7</sup>                               |  |  |  |  |  |
|                     | Electrical | 10 <sup>5</sup> (at rated load)               |  |  |  |  |  |
| Weight              |            | FRS16: 6g Approx.; FRS16N: 5g Approx.         |  |  |  |  |  |

(Specifications are subject to change without notices.)









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