## Features

Small size \& high contact rating 150
High temperature design
Ideal for using in automobile
Plug in terminal


## 7 Rated voltage

7R: RHS : Rows RoHS-I : AgNi contact
-6 6.3 mm (for pins \#30, 87 \& 87a) [only RoHS-N: AgSnO contac available for 50 A 24 VDC$]$

| Ordering information |  |
| :---: | :---: |
| FRC6 B A - 1 - 1 N DC12V |  |
|  |  |
| 1 Relay model <br> 2 Contact rating: NIL: 100A 12VDC; B: 150A 12VDC <br> 3 Contact arrangement: A: 1 Form A; C: 1 Form C <br> 4 Mounting termination: 1: Plain dust cover <br> 5 Termination: NIL: 9.5 mm (for pins\#30, 87 \& 87a); | 6 Coil suppression: NIL: Standard type; |
|  | N : With diode; R: Resistor; |
|  | T : With transil (DB-03) |
|  | 7 Rated voltage |
|  | Note: RoHS : RoHS compliant relay |
| $1: 6.3 \mathrm{~mm}$ (for pins \#30, 87 \& 87a) [only | RoHS-I : AgNi contact |

Coil rating

| Rated voltage | Coil resistance | Rated current | Must operate voltage | Must dropout voltage | Maximum voltage | Power consumption (W) Approx | Operate time (ms) | Release time (ms) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (V) | ת+/-10\% | (mA) | $\%$ of rated voltage (at $20^{\circ} \mathrm{C}$ ) |  |  |  |  |  |
| $12$ | $50$ | 240 123 | 65 Max. | 10 Min . | 130 Max . | 2.9 | <10 | <5 |

*If with resistor:
12VDC with $680 \Omega+/-10 \%$
24VDC with $2,700 \Omega+$ - $10 \%$
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 |  | $30 \mathrm{~m} \Omega$ Max. |  |
| Contact rating (resistive) |  | FRC6 : N.O.: 100A 12VDC, 50A 24VDC; N.C.: 80A 12VDC, 40A 24VDC FRC6B: N.O.: 150A 12VDC, 70A 24VDC; N.C.: 100A 12VDC, 50A 24VDC |  |
| Switching power |  | 1,800W Max. |  |
| Switching voltage |  | DC 75 V Max. |  |
| Switching current |  | 150A Max. |  |
| Voltage drop |  | $\leq 200 \mathrm{mV}$ (at contact rating) |  |
| Insulation resistance |  | $100 \mathrm{M} \Omega$ Min. ( 500 VDC ) |  |
| Dielectric strength |  | $500 \mathrm{VAC}(50 \mathrm{~Hz} / \mathrm{min})$ |  |
| Shock resistance |  | $147 \mathrm{~m} / \mathrm{s}^{2} 11 \mathrm{~ms}$ |  |
| Vibration resistance |  | 1.5 mm Double amplitude $10-40 \mathrm{~Hz}$ |  |
| Ambient temperature |  | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ (Special request up to $125^{\circ} \mathrm{C}$ ) |  |
| Humidity |  | $85 \% \mathrm{RH}, 40^{\circ} \mathrm{C}$ |  |
| Operation life | Mechanical Electrical | $\begin{array}{\|l\|} \hline 10^{7} \\ 10^{5} \text { (at rated load) } \\ \hline \end{array}$ |  |
| Weight |  | 60 g Approx. |  |

(Specifications are subject to change without notices.)

## Dimensions

$<5$


Mounting holes


Wiring diagram


1 Form A


1 Form C


With resistor


