

# REED SWITCH

## ORD2210V

Vacuum High Power

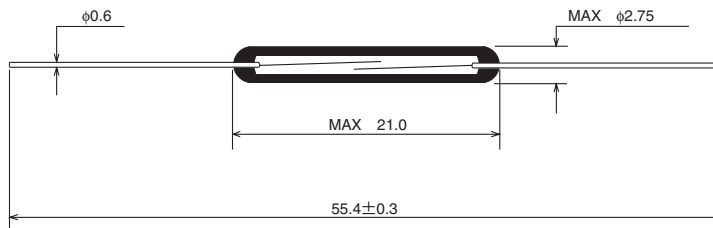
### ■ GENERAL DESCRIPTION

The ORD2210V is a small single-contact reed switch of a vacuum type designed for ultra high breakdown voltages 1000 V DC between the reed contacts.

### ■ FEATURES

- (1) Reed contacts are hermetically sealed within a glass tube with inert gas and do not receive any influence from the external atmospheric environment.
- (2) Quick response
- (3) The structure comprises the operating parts and electrical circuits arranged coaxially. Reed switches are suited to applications in radio frequency operation.
- (4) Reed switches are compact and light weight.
- (5) Superior corrosion resistance and wear resistance of the contacts assures stable switching operation and long life.
- (6) With a permanent magnet installed, reed switches economically and easily become proximity switches.

### ■ EXTERNAL DIMENSIONS (Unit: mm)



### ■ APPLICATIONS

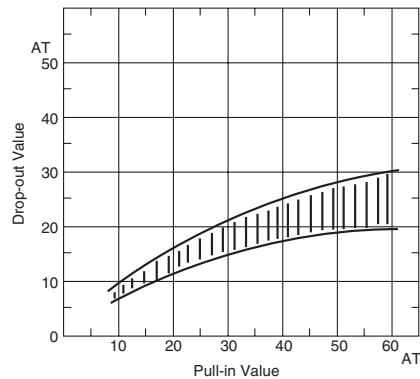
- Automotive electronic devices
- Control equipment
- Communication equipment
- Measurement equipment
- Household appliances

■ ELECTRICAL CHARACTERISTICS

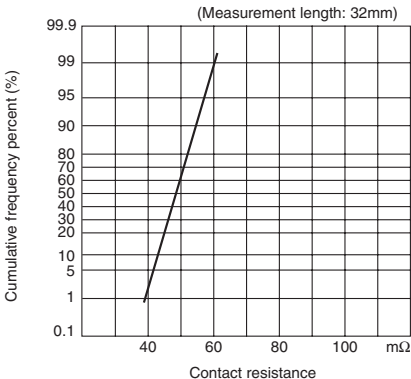
| Parameter                 | Rated value          | Unit |
|---------------------------|----------------------|------|
| Pull-in Value (PI)        | 20~60                | AT   |
| Drop-out Value (DO)       | 7min                 | AT   |
| Contact resistance (CR)   | 100                  | mΩ   |
| Breakdown voltage         | 1000                 | VDC  |
| Insulation resistance     | 10 <sup>10</sup> min | Ω    |
| Electrostatic capacitance | 0.5max               | pF   |
|                           | 100                  | VA   |
| Maximum switching voltage | 350DC                | V    |
|                           | 300AC                | V    |
| Maximum switching current | 1.0                  | A    |
| Maximum carry current     | 2.5                  | A    |

3

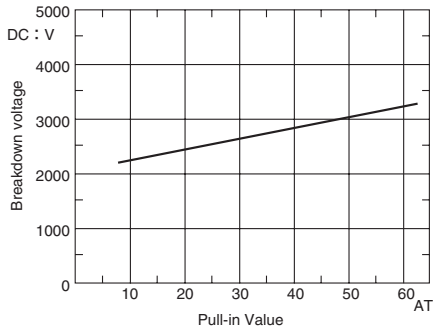
(1) Drop-out Value vs. Pull-in Value



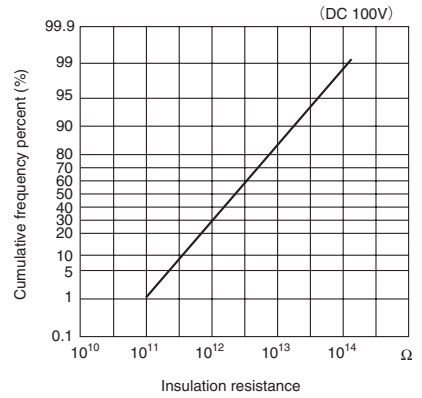
(2) Contact resistance



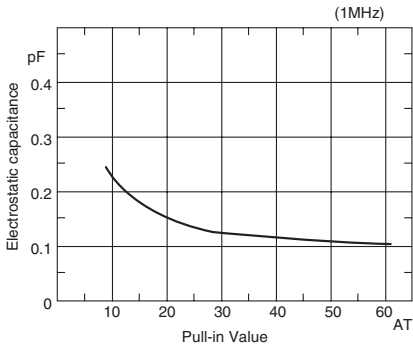
(3) Breakdown voltage



(4) Insulation resistance



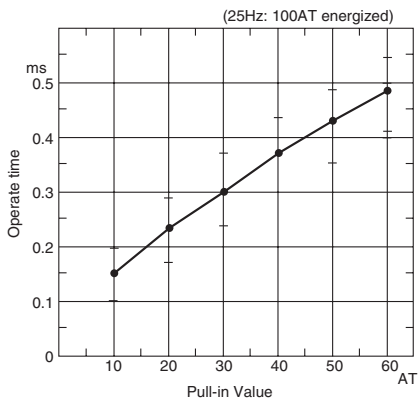
(5) Electrostatic capacitance



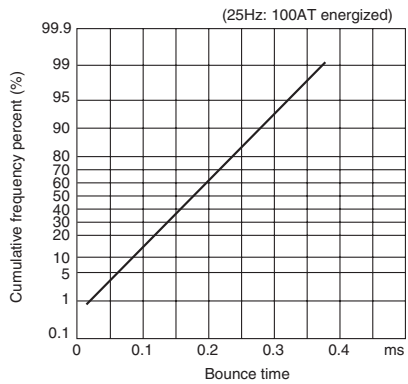
■ OPERATING CHARACTERISTICS

| Parameter                   | Rated value | Unit |
|-----------------------------|-------------|------|
| Operate time                | 0.6max      | ms   |
| Bounce time                 | 0.5max      | ms   |
| Release time                | 0.05max     | ms   |
| Resonant frequency          | 2500±250    | Hz   |
| Maximum operating frequency | 500         | Hz   |

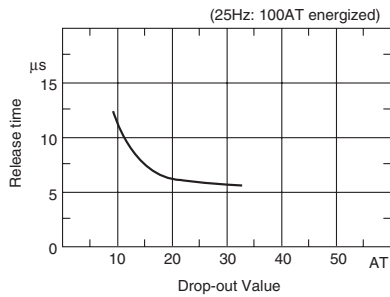
(1) Operate time



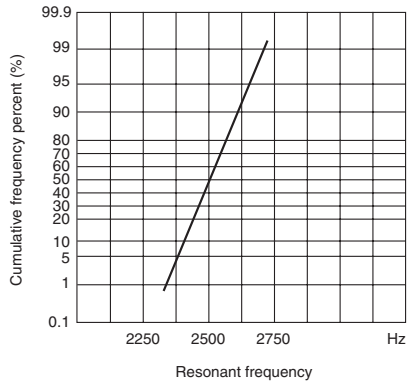
(2) Bounce time



(3) Release time

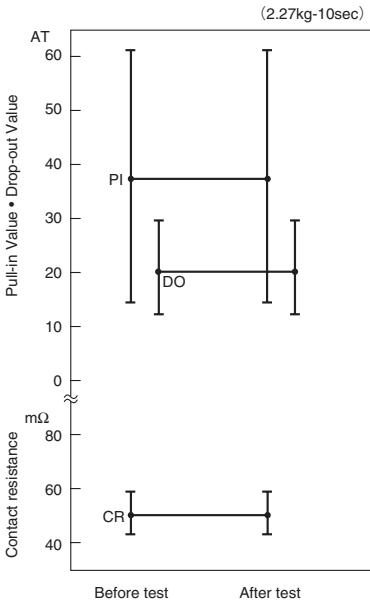


(4) Resonant frequency

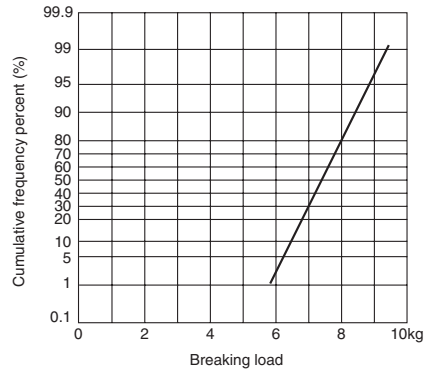


## MECHANICAL CHARACTERISTICS

### (1) Lead tensile test (static load)

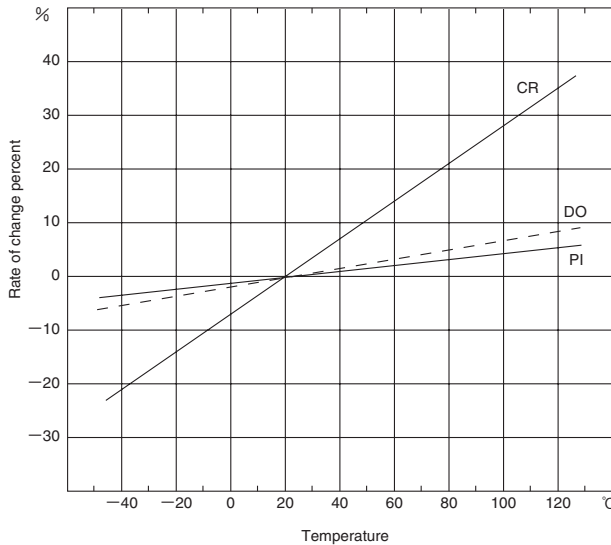


### (2) Lead tensile strength

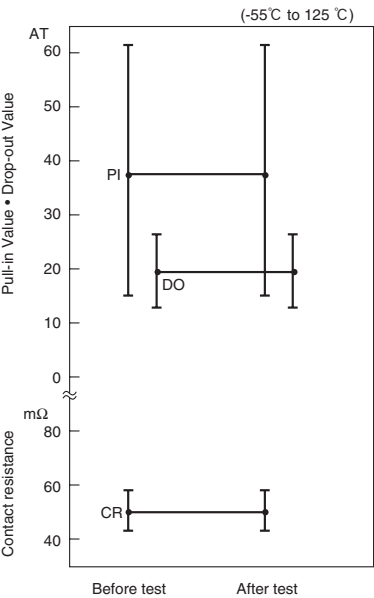


## ENVIRONMENTAL CHARACTERISTICS

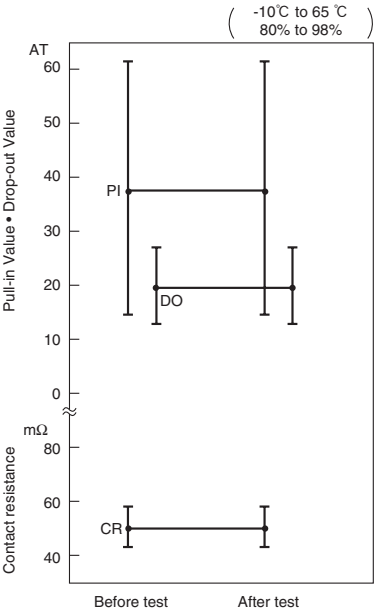
### (1) Temperature characteristics



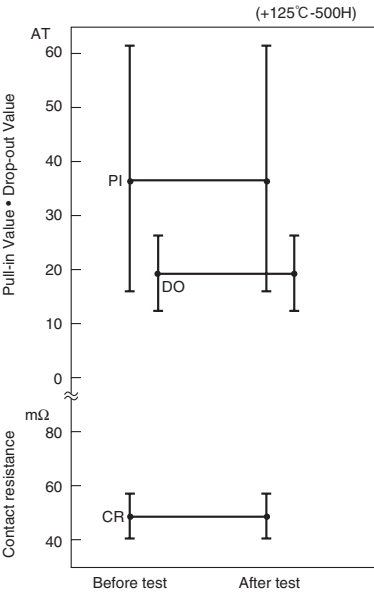
(2) Temperature cycle



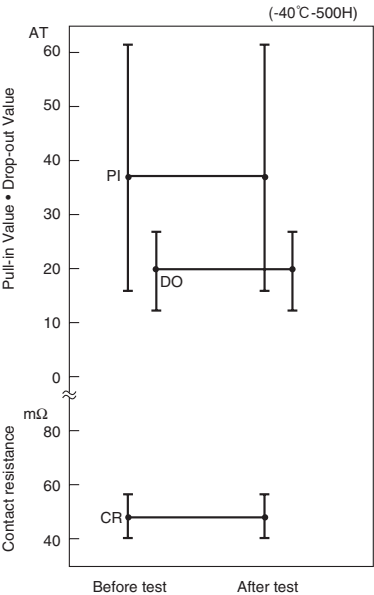
(3) Temperature and humidity cycle



(4) High temperature storage test

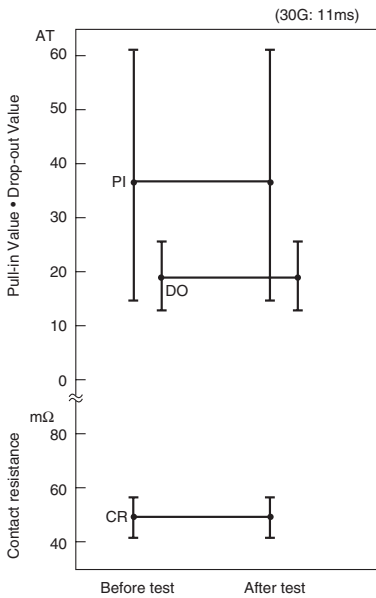


(5) Low temperature storage test

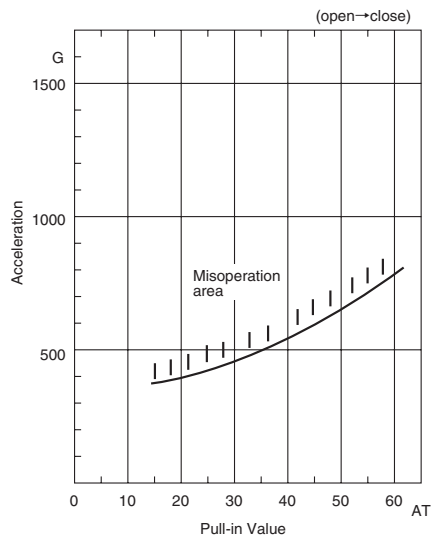


(6) Shock test

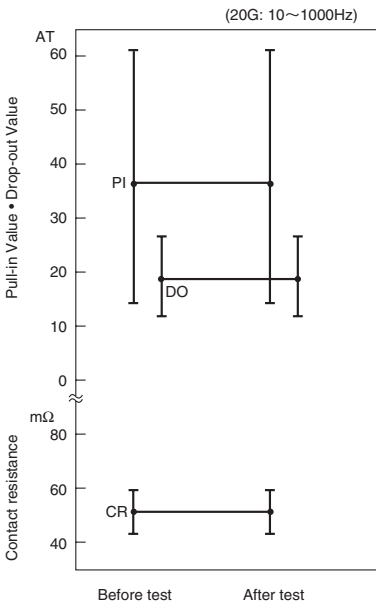
1) Electrical characteristics



2) Misoperation area

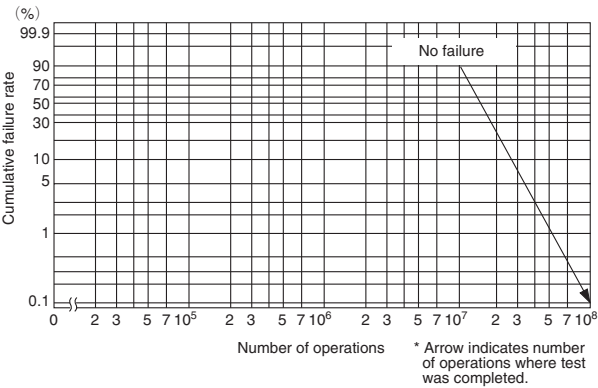


(7) Vibration test

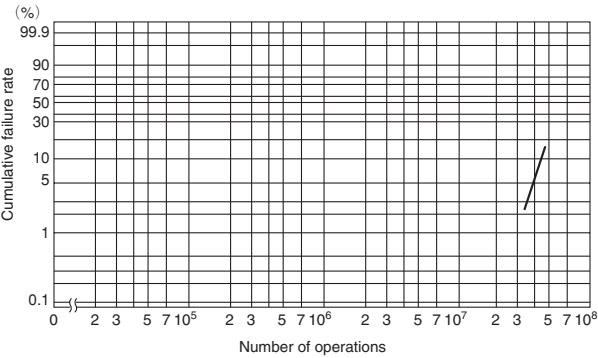


■ LIFE EXPECTANCY DATA: ORD2210V

Load conditions  
Voltage: 200VDC  
Current: 1mA  
Load: Resistive load



Load conditions  
Voltage: 500VDC  
Current: 1mA  
Load: Resistive load



Load conditions  
Voltage: 1kVDC  
Current: 1mA  
Load: Resistive load

