

# REED SWITCH

## ORD2210V

Vacuum Ultra High Breakdown Voltage High Power Reed Switch

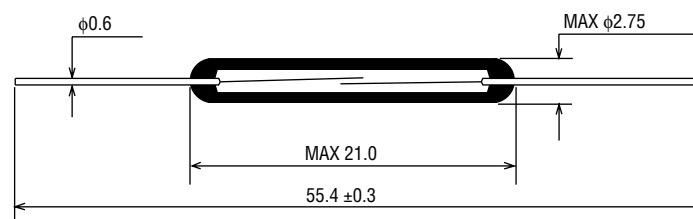
### GENERAL DESCRIPTION

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) The reed contacts are hermetically sealed within a glass tube and do not receive any influence from the external atmospheric environment.
- (2) Quick response
- (3) The operating system and electrical circuits are coaxially composed and the ORD2210V is suited to the applications for high frequency transmission.
- (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)



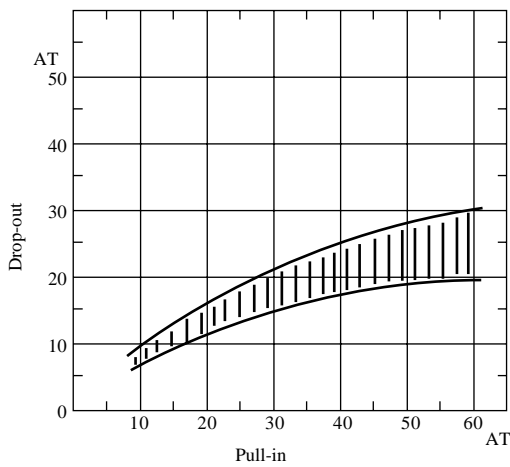
### APPLICATIONS OF REED SWITCHES

1. Automotive electronic devices
2. Control equipment
3. Communication equipment
4. Measurement equipment
5. Household appliances

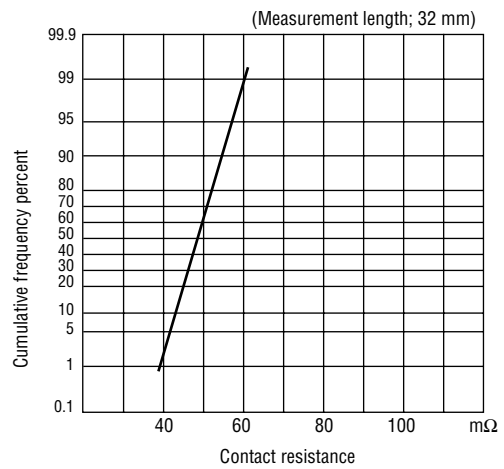
**ELECTRICAL CHARACTERISTICS**

Parameter	Symbol	Condition	Rated Value			Unit
			Min.	Typ.	Max.	
Pull-in Value	PI	—	20	—	60	AT
Drop-out Value	DO	—	7	—	—	AT
Contact Resistance	CR	—	—	—	100	mΩ
Breakdown Voltage	—	—	1000	—	—	VDC
Insulation Resistance	—	—	10 <sup>10</sup>	—	—	Ω
Electrostatic Capacitance	—	—	—	—	0.5	pF
Contact Rating	—	—	—	—	100	VA
Maximum Switching Voltage	—	—	—	—	350 DC	V
Maximum Switching Voltage	—	—	—	—	300 AC	V
Maximum Switching Current	—	—	—	—	1.0	A
Maximum Carry Current	—	—	—	—	2.5	A

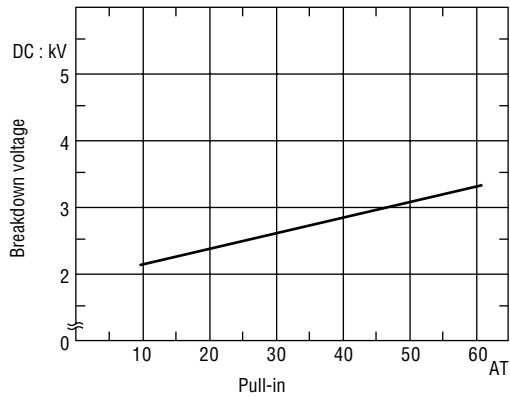
(1) Drop-out vs. Pull-in



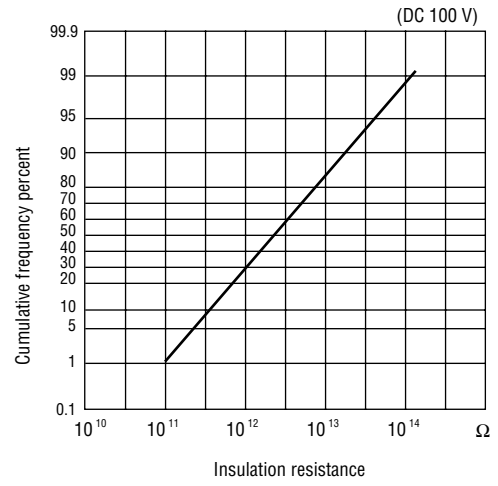
(2) Contact resistance



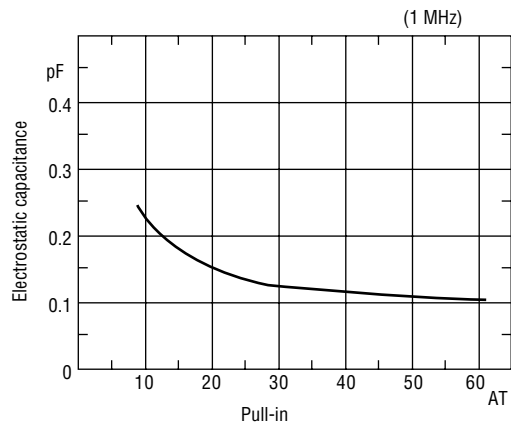
(3) Breakdown voltage



(4) Insulation resistance



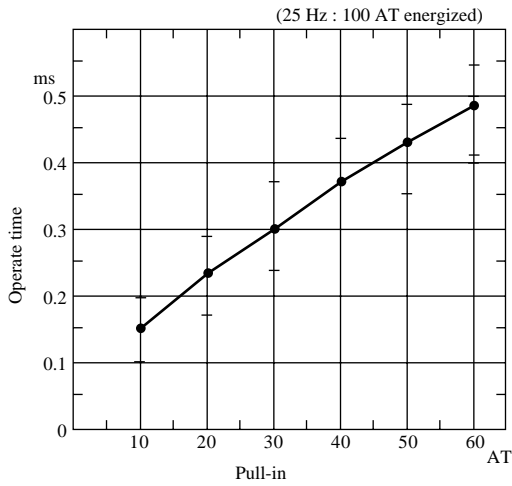
(5) Electrostatic capacitance



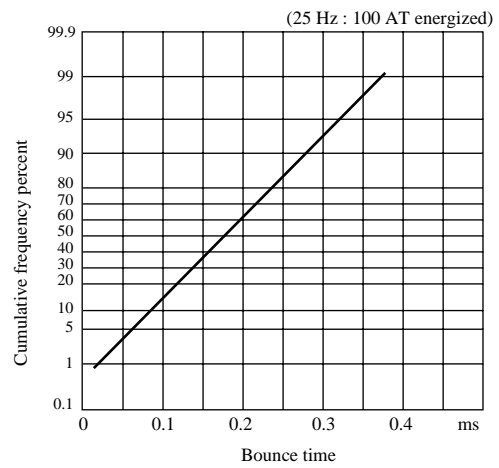
**OPERATING CHARACTERISTICS**

Parameter	Rated Value			Unit
	Min.	Typ.	Max.	
Operate Time	—	—	0.6	ms
Bounce Time	—	—	0.5	ms
Release Time	—	—	0.05	ms
Resonant Frequency	2250	2500	2750	Hz
Maximum Operating Frequency	—	—	500	Hz

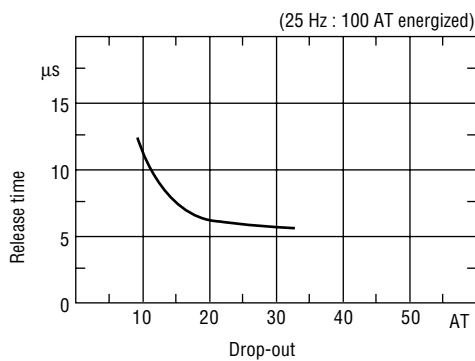
(1) Operate time



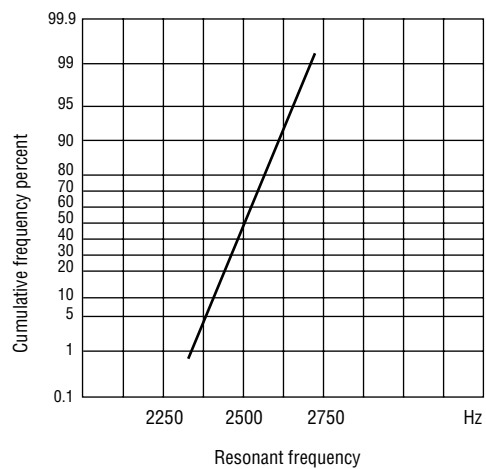
(2) Bounce time



(3) Release time

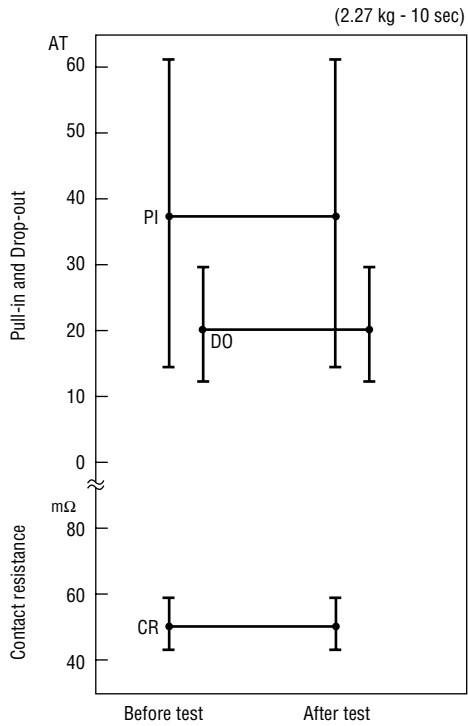


(4) Resonant frequency

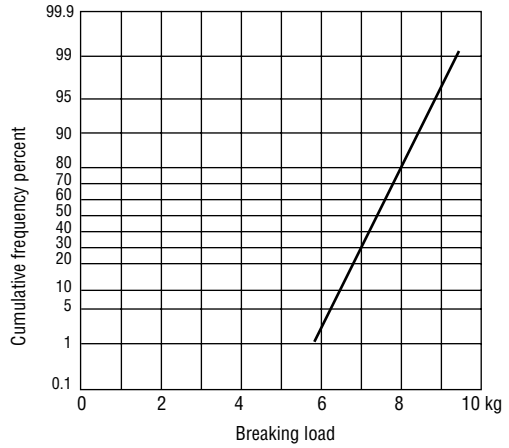


**MECHANICAL CHARACTERISTICS**

(1) Lead tensile test (static load)

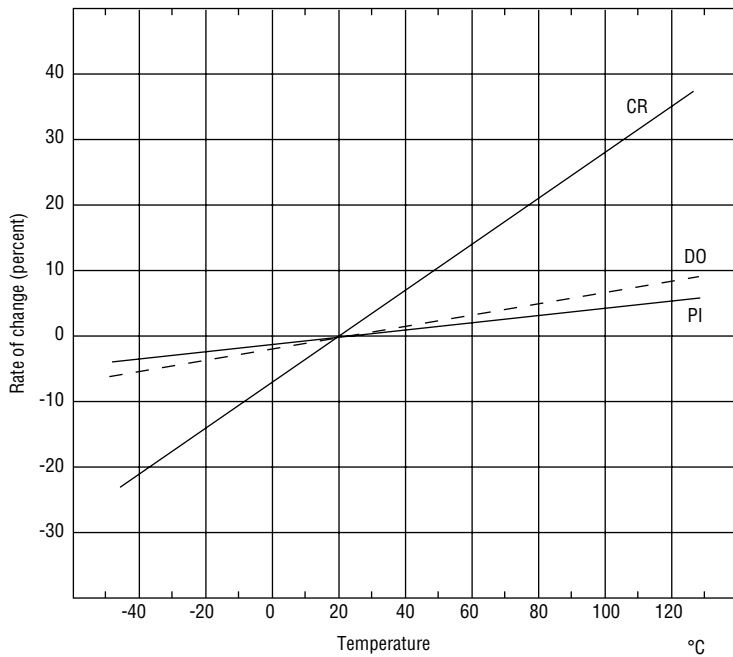


(2) Lead tensile strength

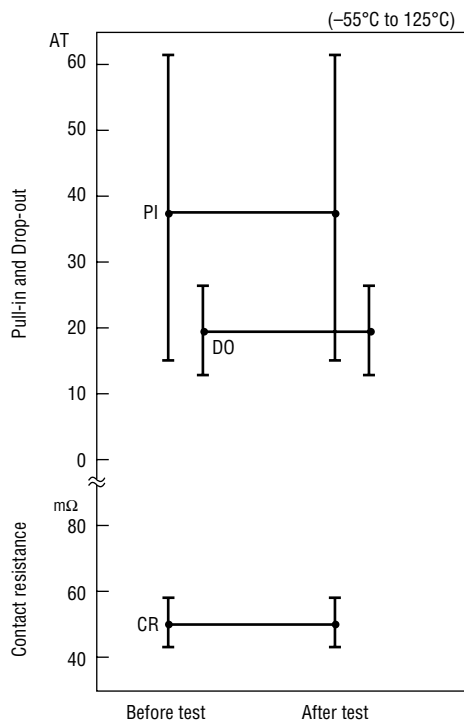


**ENVIRONMENTAL CHARACTERISTICS**

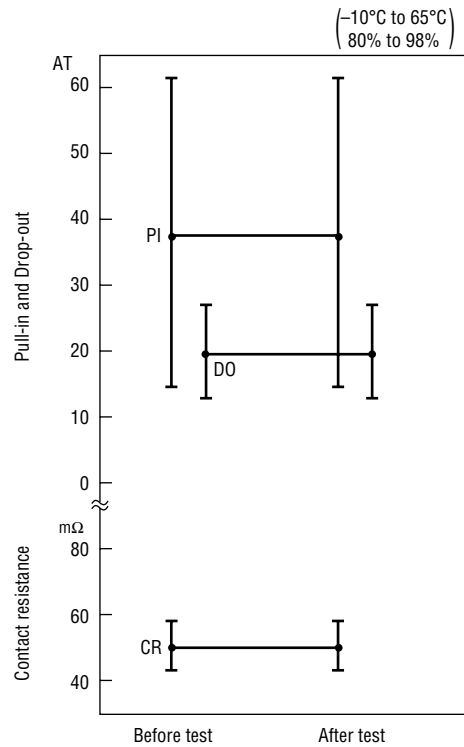
(1) Temperature characteristics



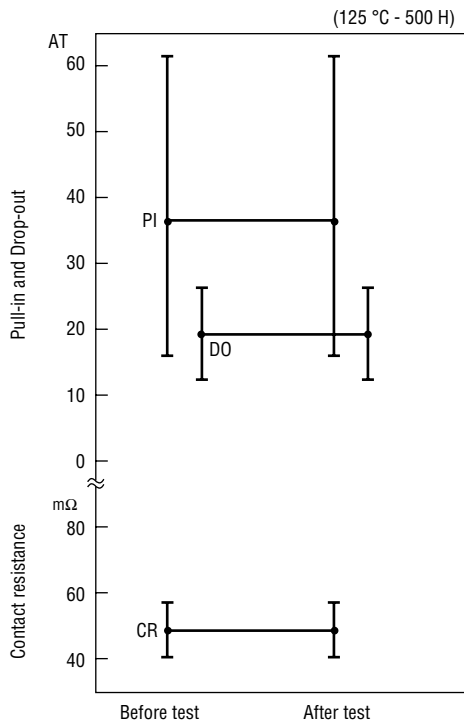
(2) Temperature cycle



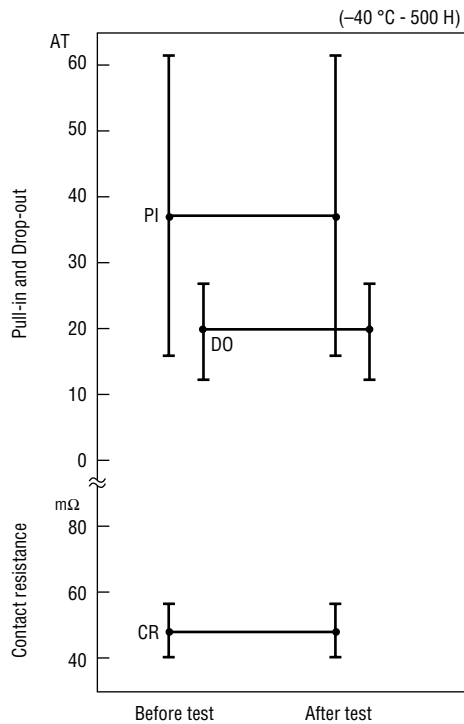
(3) Temperature and humidity cycle



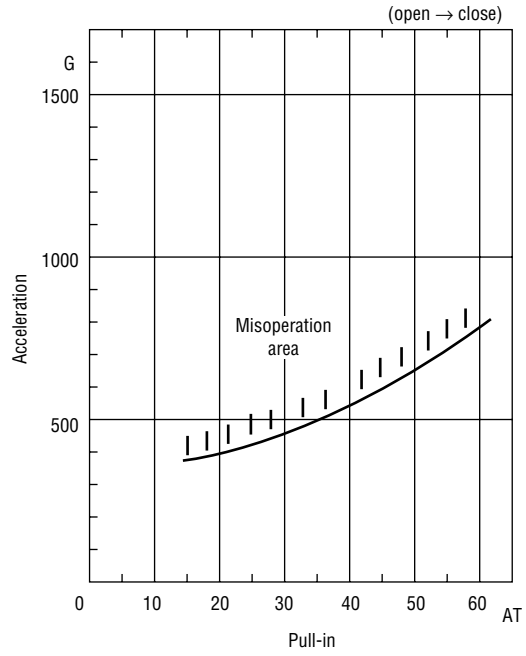
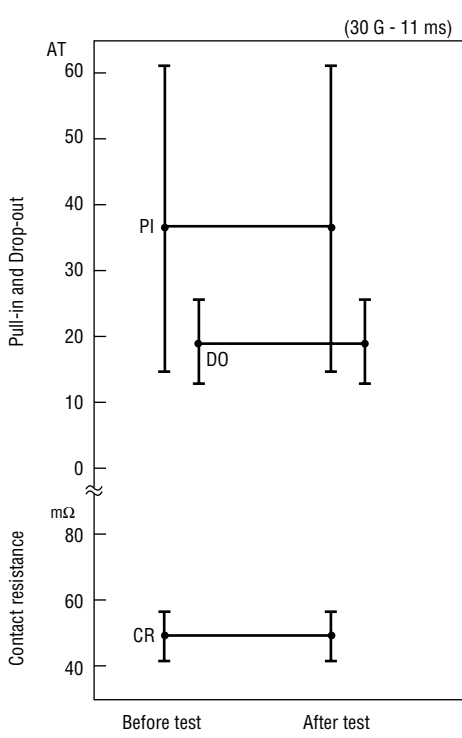
(4) High temperature storage test



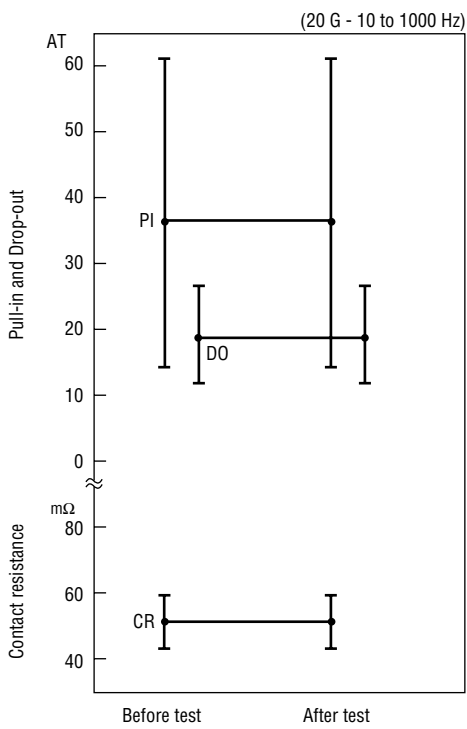
(5) Low temperature storage test



(6) Shock test



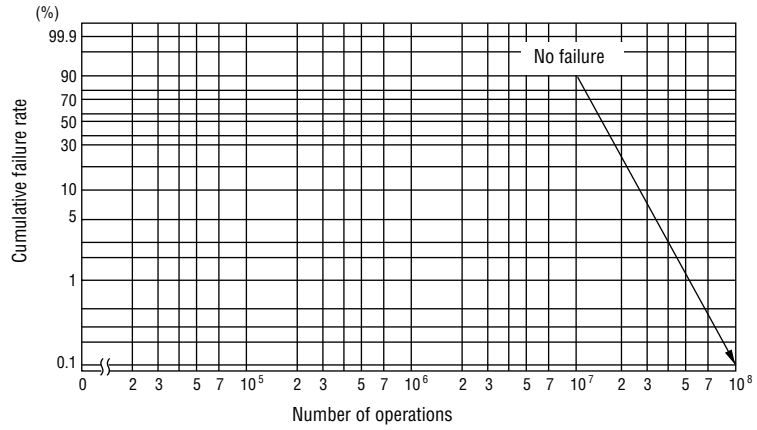
(7) Vibration test



**LIFE EXPECTANCY DATA: ORD2210V**

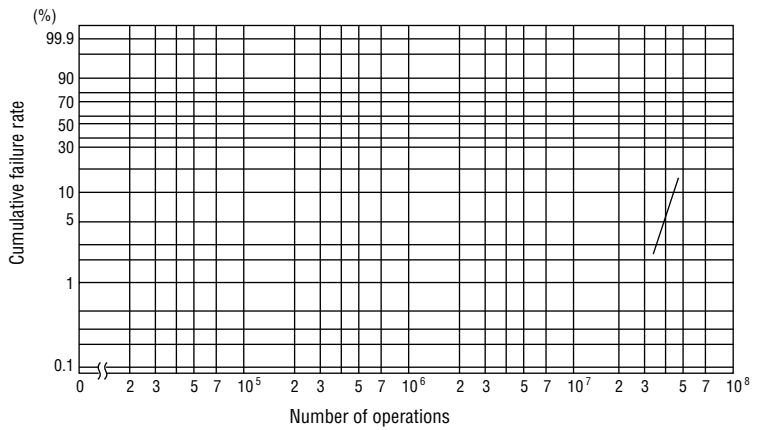
Load conditions

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



Load conditions

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



Load conditions

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

