REED SWITCH

ORD2210V

Vacuum Ultra High Breakdown Voltage High Power Reed Switch

GENERAL DESCRIPTION

The ORD2210V is a small single-contact reed swtich 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 galss tube and do not receive any influence from the external atomospheric environment.

(2) Quick response

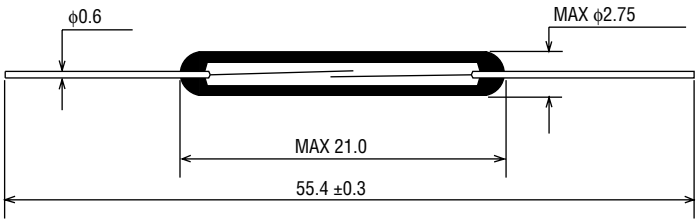
(3) The operating system and electrical circuits are coaxially composed and the ORD2210V is suited to the applications for high frequency transmission.

(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)



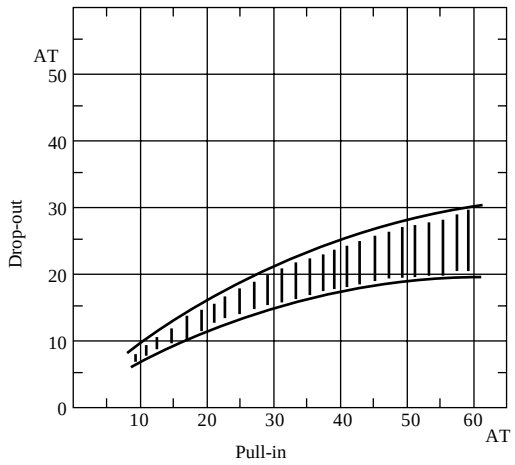
APPLICATIONS OF REED SWITCHES

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

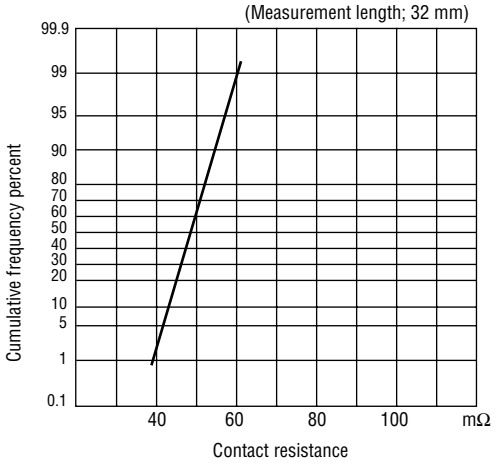
ELECTRICAL CHARACTERISTICS

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^{10}	—	—	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

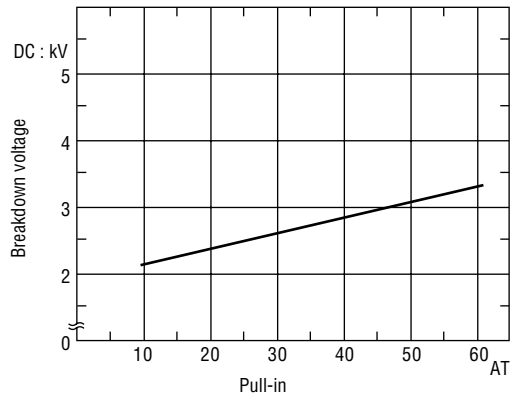
(1) Drop-out vs. Pull-in



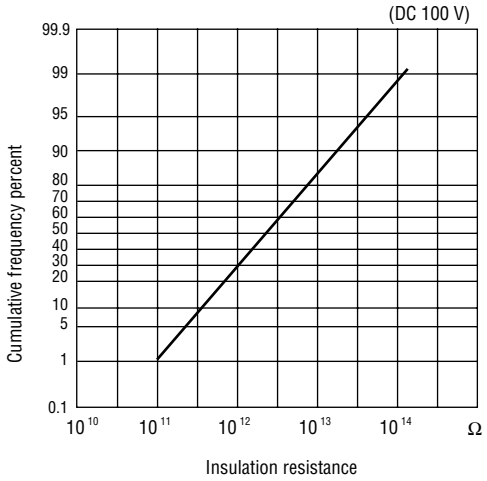
(2) Contact resistance



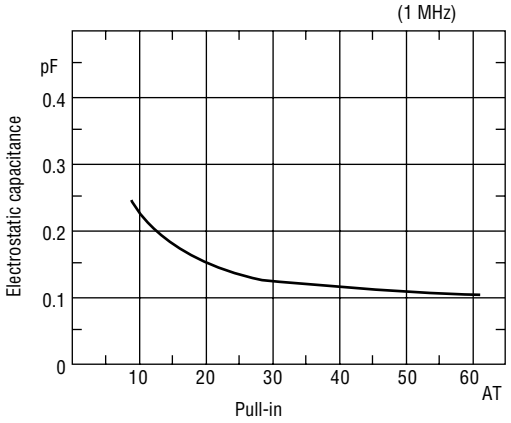
(3) Breakdown voltage



(4) Insulation resistance



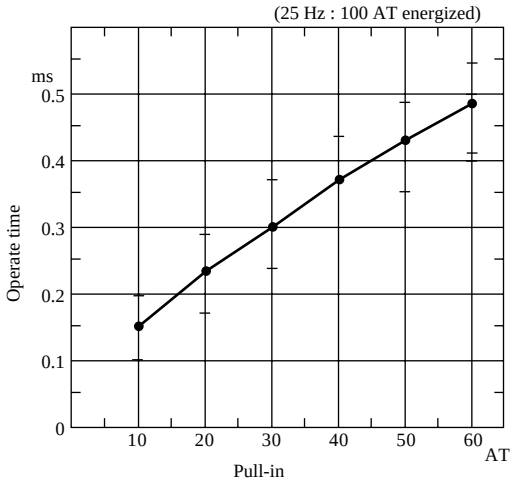
(5) Electrostatic capacitance



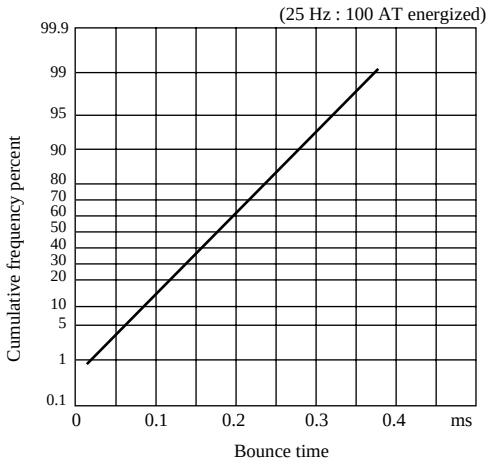
OPERATING CHARACTERISTICS

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

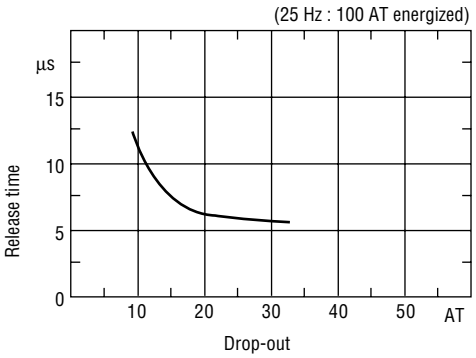
(1) Operate time



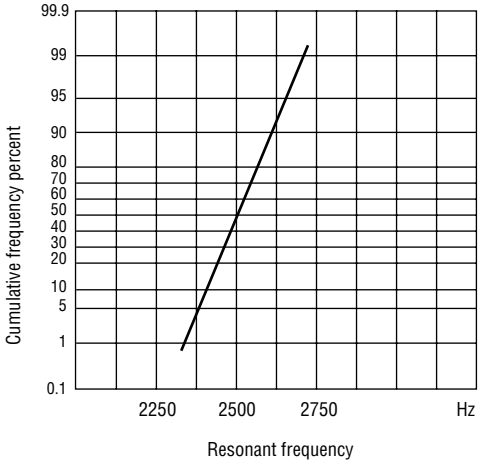
(2) Bounce time



(3) Release time

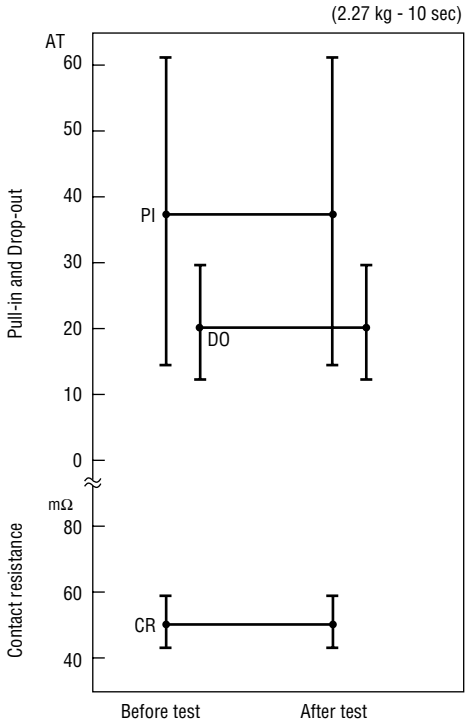


(4) Resonant frequency

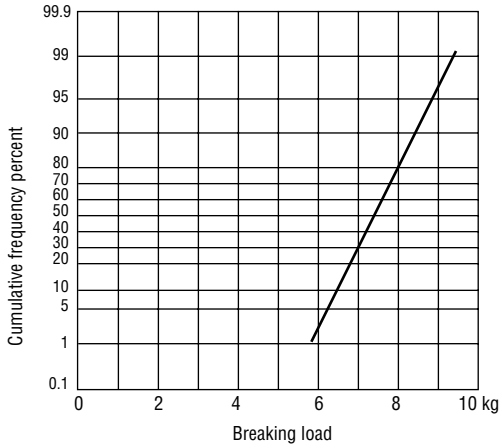


MECHANICAL CHARACTERISTICS

(1) Lead tensile test (static load)

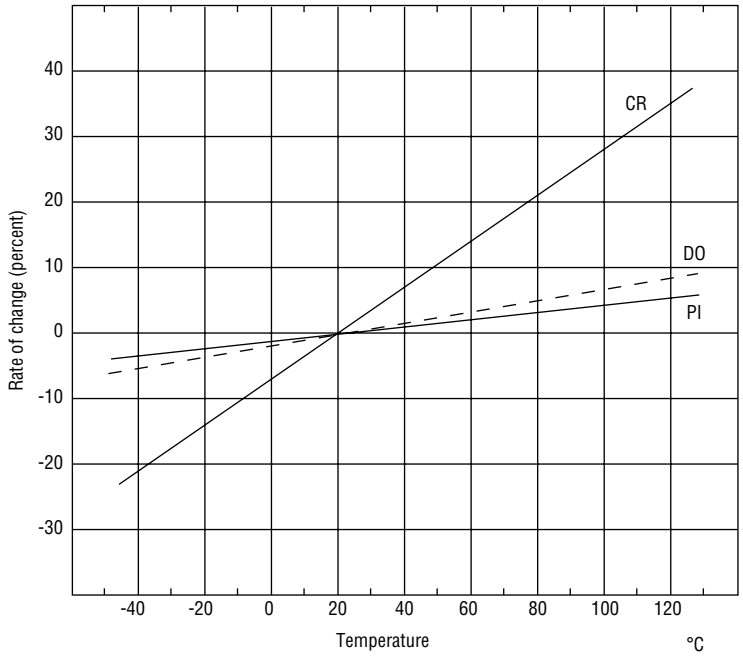


(2) Lead tensile strength

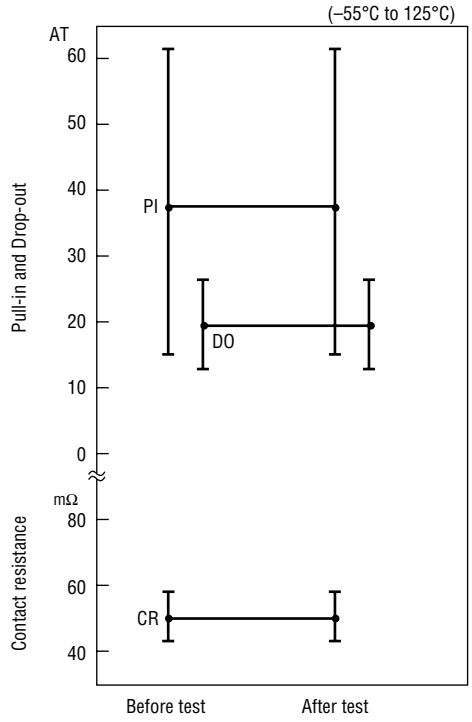


ENVIRONMENTAL CHARACTERISTICS

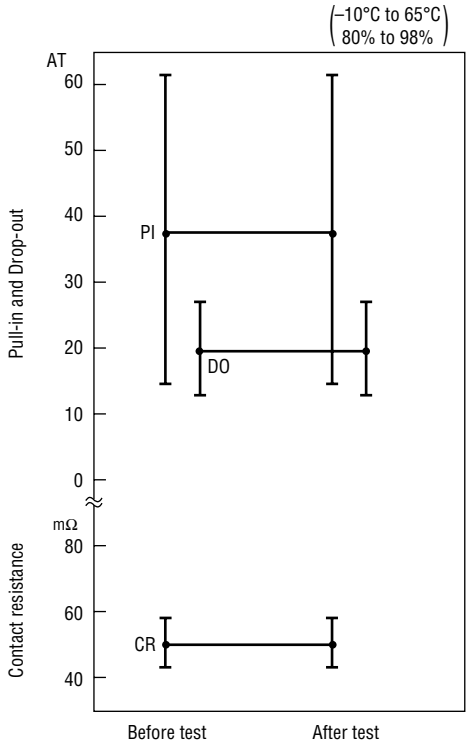
(1) Temperature characteristics



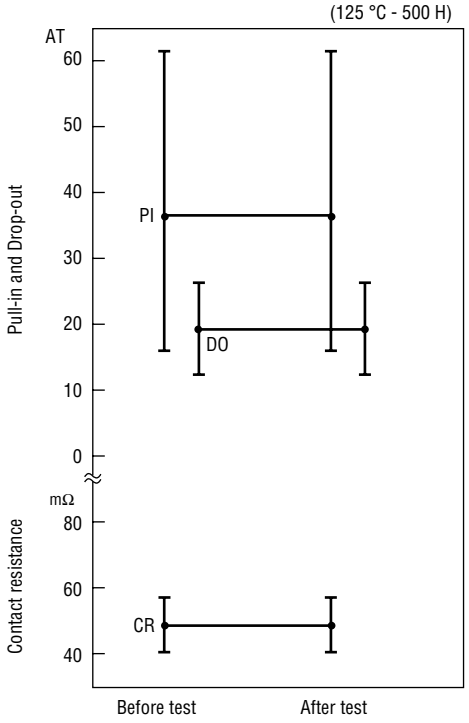
(2) Temperature cycle



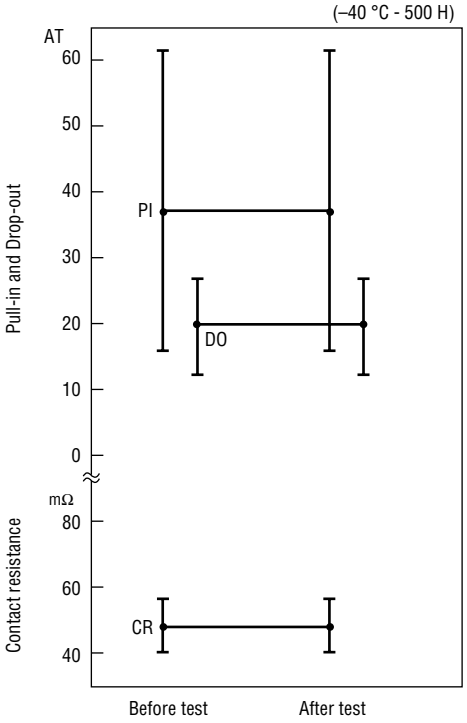
(3) Temperature and humidity cycle



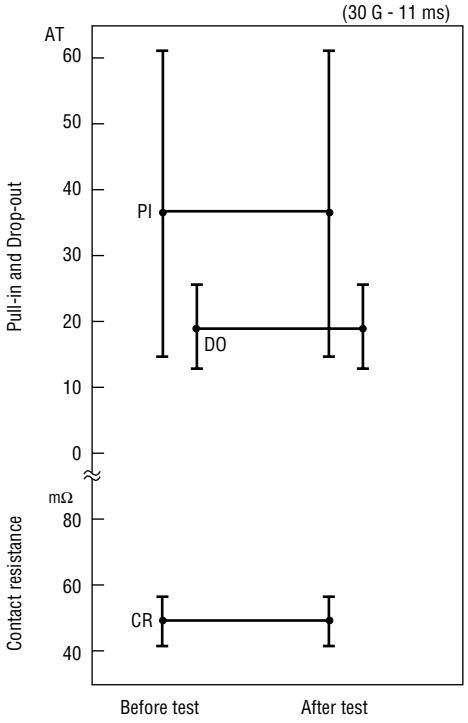
(4) High temperature storage test

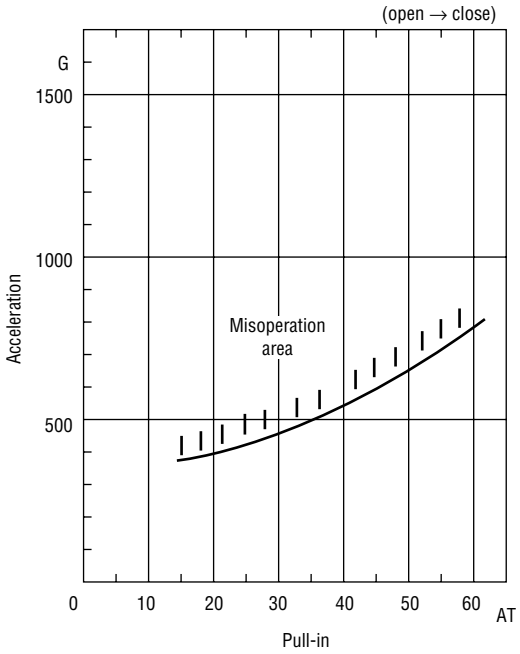


(5) Low temperature storage test

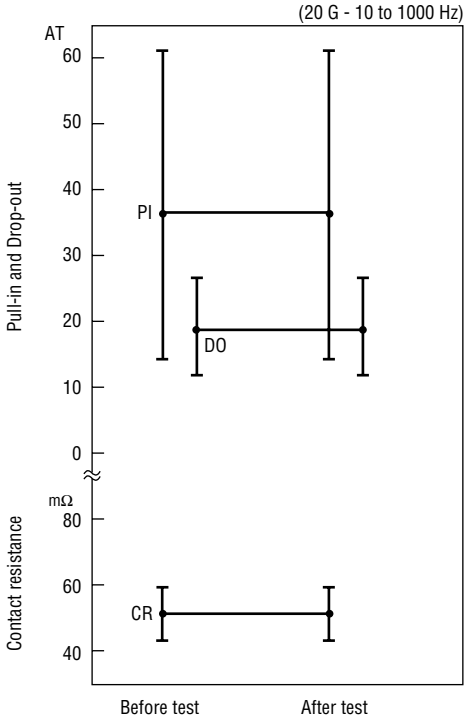


(6) Shock test





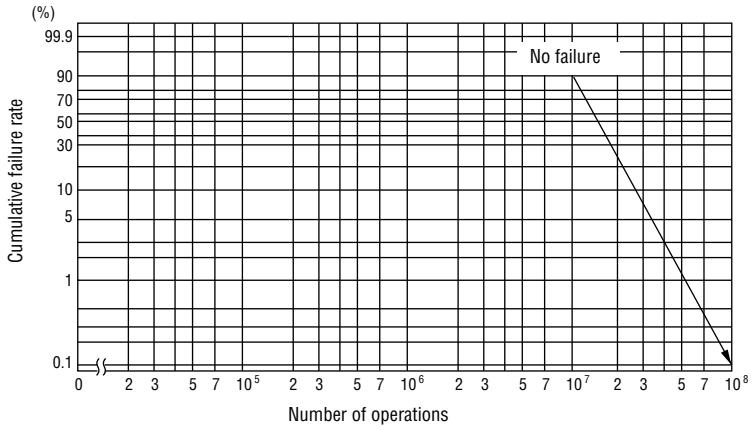
(7) Vibration test



LIFE EXPECTANCY DATA: ORD2210V

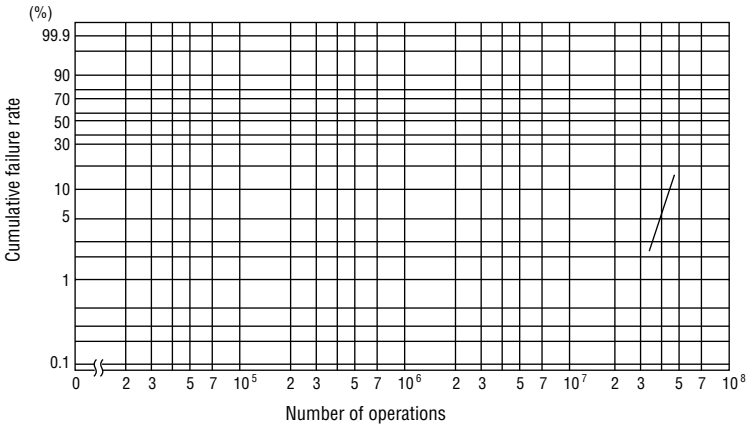
Load conditions

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