

# REED SWITCH

## ORD9216

General Purpose Miniature

### ■ GENERAL DESCRIPTION

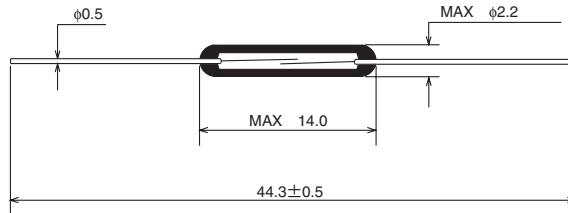
The ORD9216 is a small single-contact reed switch designed for general control of medium-level loads less than 100 V. The contacts are sealed within the glass tube with inert gas to maintain contact reliability.

### ■ 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.

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### ■ EXTERNAL DIMENSIONS (Unit: mm)



### ■ APPLICATIONS

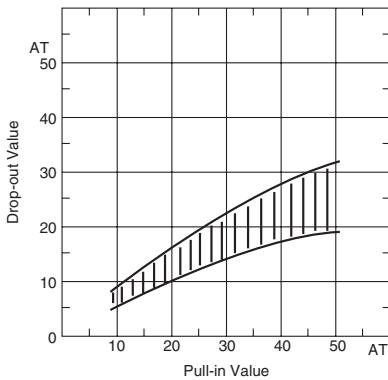
- Control equipment
- Communication equipment
- Measurement equipment
- Household appliances

## ■ ELECTRICAL CHARACTERISTICS

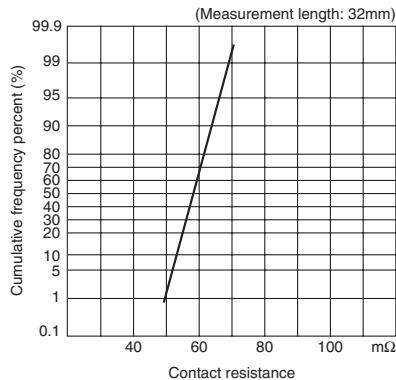
Parameter	Rated value	Unit
Pull-in Value (PI)	10~50	AT
Drop-out Value (DO)	5min	AT
Contact resistance (CR)	100max	mΩ
Breakdown voltage	150min	VDC
Insulation resistance	$10^9$ min	Ω
Electrostatic capacitance	0.3max	pF
Contact rating	10	VA
Maximum switching voltage	100 (DC/AC)	V
Maximum switching current	0.5	A
Maximum carry current	1.0	A

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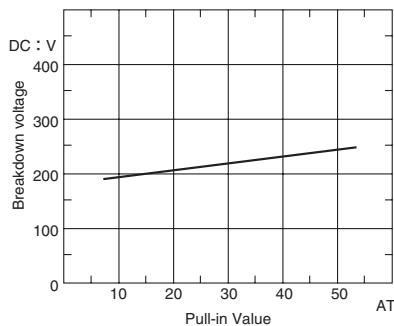
(1) Drop-out Value vs. Pull-in Value



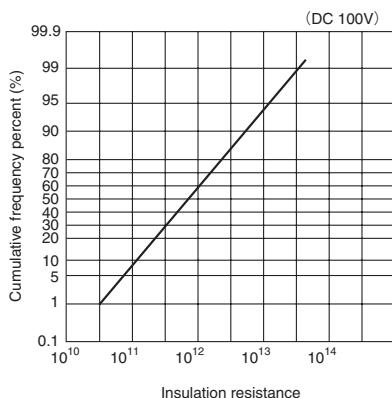
(2) Contact resistance



(3) Breakdown voltage

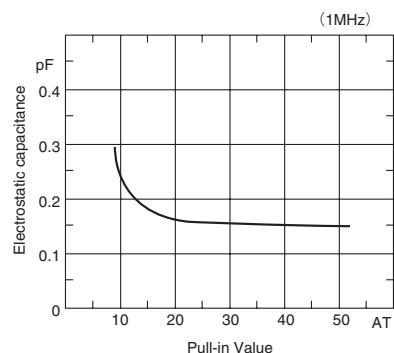


(4) Insulation resistance



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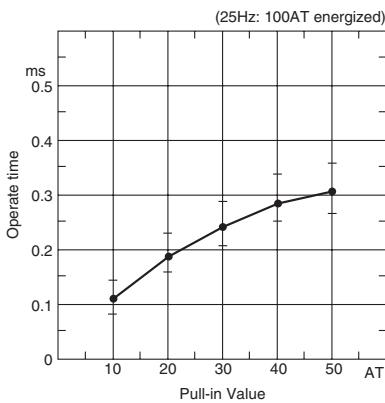
(5) Electrostatic capacitance



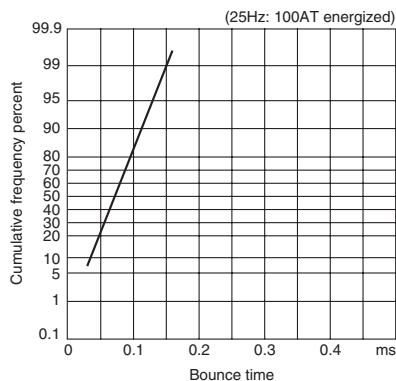
## ■ OPERATING CHARACTERISTICS

Parameter	Rated value	Unit
Operate time	0.4max	ms
Bounce time	0.3max	ms
Release time	0.05max	ms
Resonant frequency	5000±400	Hz
Maximum operating frequency	500	Hz

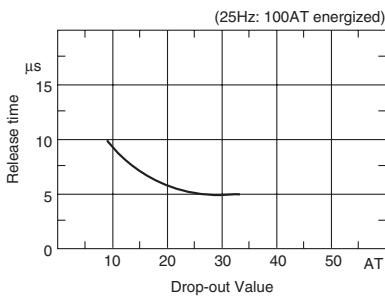
(1) Operate time



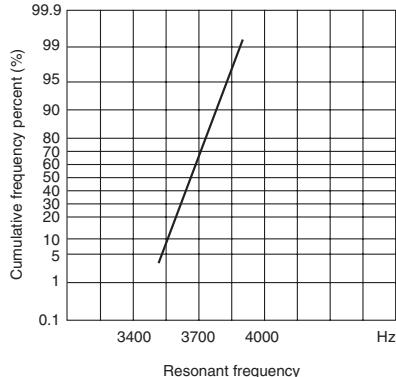
(2) Bounce time



(3) Release time

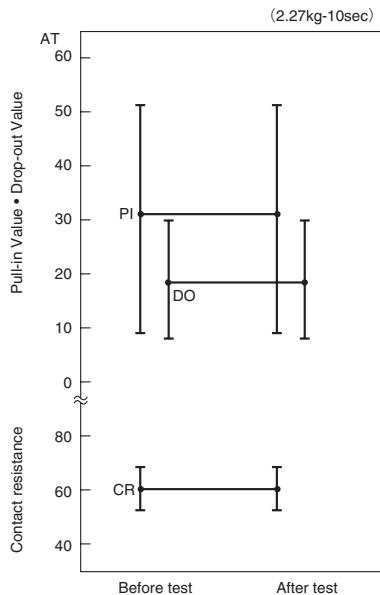


(4) Resonant frequency

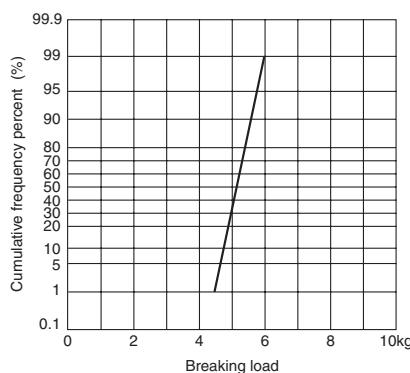


## ■ MECHANICAL CHARACTERISTICS

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



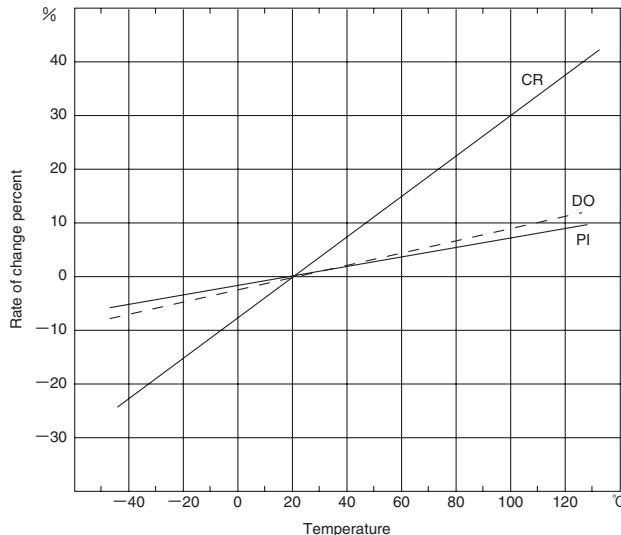
### (2) Lead tensile strength



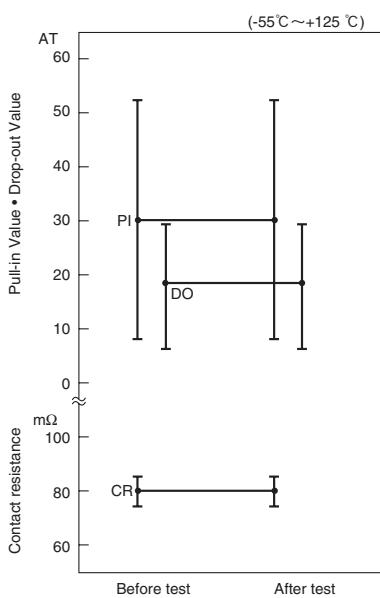
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## ■ ENVIRONMENTAL CHARACTERISTICS

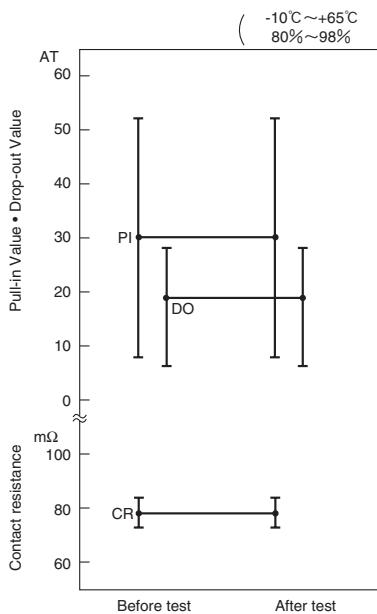
### (1) Temperature characteristics



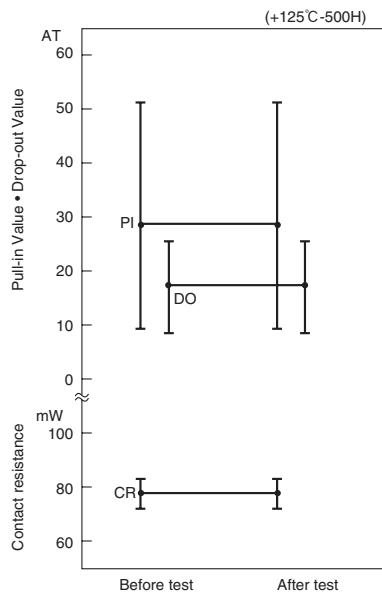
(2) Temperature cycle



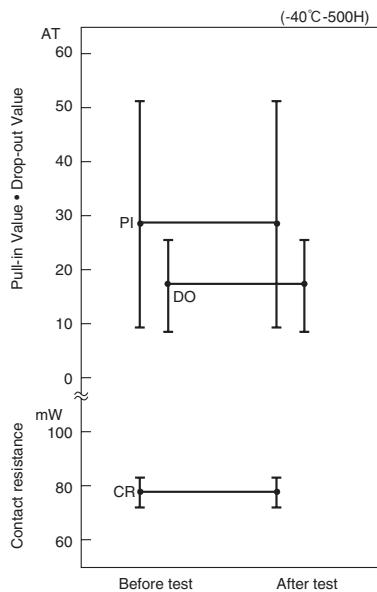
(3) Temperature and humidity cycle



(4) High temperature storage test

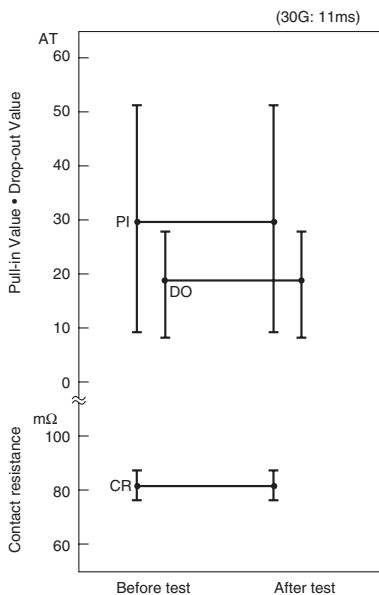


(5) Low temperature storage test

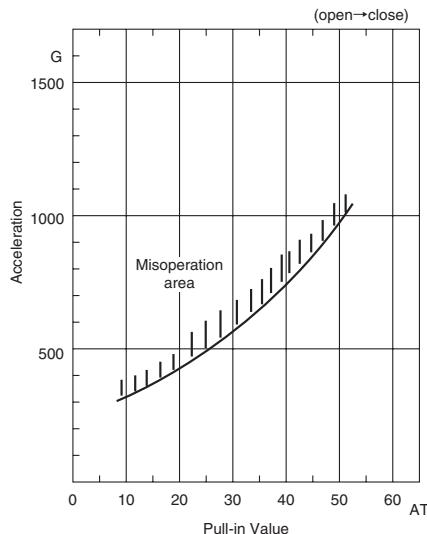


## (6) Shock test

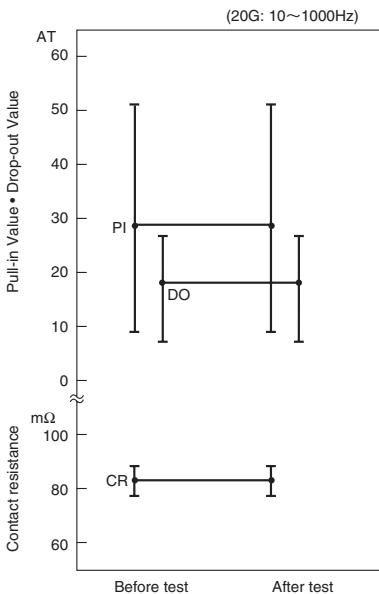
## 1) Electrical characteristics



## 2) Misoperation area

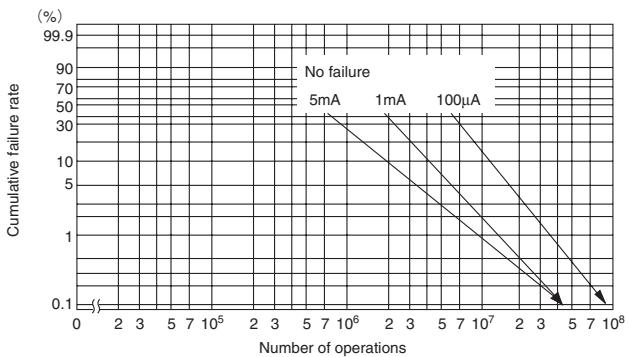


## (7) Vibration test

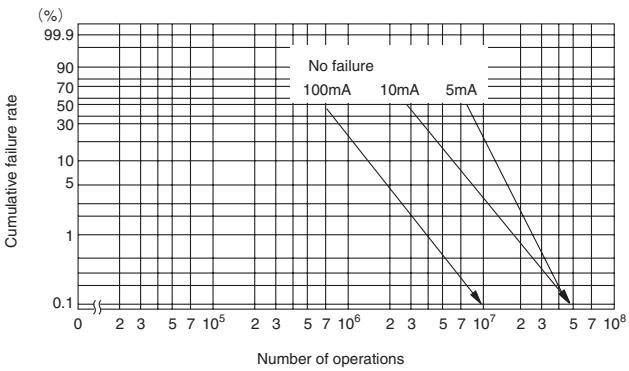


## ■ LIFE EXPECTANCY DATA: ORD9216

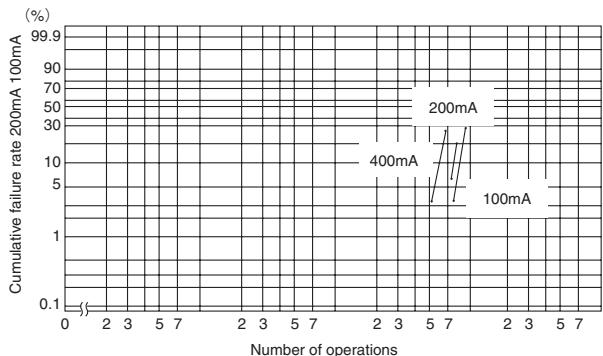
Load conditions  
 Voltage: 5VDC  
 Current: 100µA 1mA , 5mA  
 Load: Resistive load



Load conditions  
 Voltage: 12 VDC  
 Current: 5mA, 10mA, 100mA  
 Load: Resistive load



Load conditions  
 Voltage: 24 VDC  
 Current: 100mA, 200mA, 400mA  
 Load: Resistive load



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