# REED SWITCH

# **ORD9215**

## General Purpose Miniature

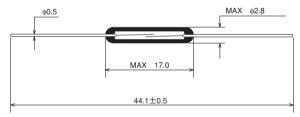
#### ■ GENERAL DESCRIPTION

The ORD9215 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

- 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)



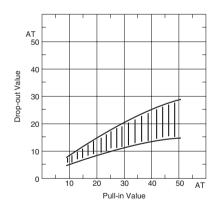
## ■ APPLICATIONS

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

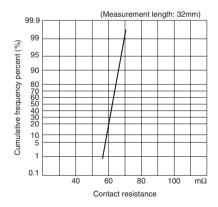
# ■ ELECTRICAL CHARACTERISTICS

Parameter	Rated value	Unit
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Pull-in Value (PI)	10~50	AT
Drop-out Value (DO)	4min	AT
Contact resistance (CR)	100max	mΩ
Breakdown voltage	150min	VDC
Insulation resistance	10 <sup>9</sup> min	Ω
Electrostatic capacitance	0.3max	pF
Contact rating	10	VA
Maximum switching voltage	100 (DC)	V
Maximum switching current	0.5	A
Maximum carry current	1.0	A

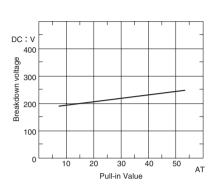
## (1) Drop-out Value vs. Pull-in Value



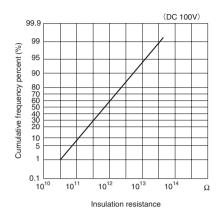
## (2) Contact resistance



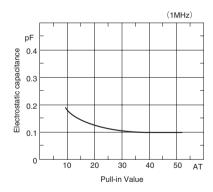
## (3) Breakdown voltage



## (4) Insulation resistance



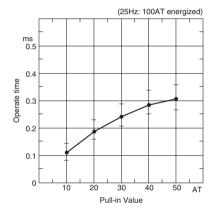
## (5) Electrostatic capacitance



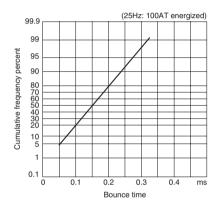
## ■ OPERATING CHARACTERISTICS

Parameter	Rated value	Unit
Operate time	0.4max	ms
Bounce time	0.4max	ms
Release time	0.05max	ms
Resonant frequency	3700±400	Hz
Maximum operating frequency	500	Hz

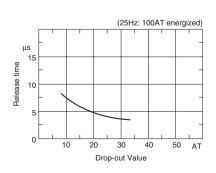
## (1) Operate time



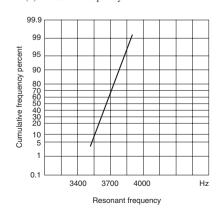
#### (2) Bounce time



#### (3) Release time

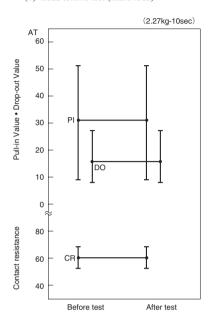


## (4) Resonant frequency

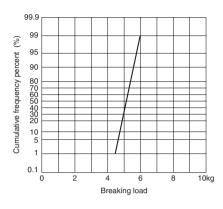


## ■ MECHANICAL CHARACTERISTICS

(1) Lead tensile test (static load)

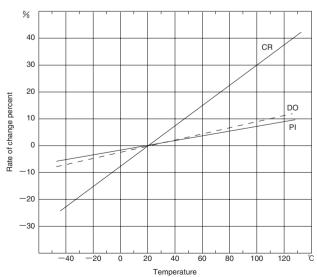


(2) Lead tensile strength

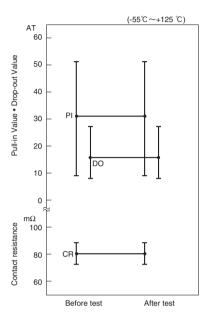


# ■ ENVIRONMENTAL CHARACTERISTICS

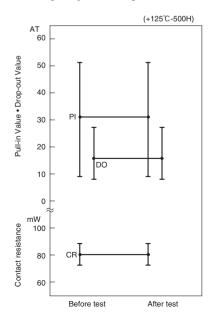
(1) Temperature characteristics



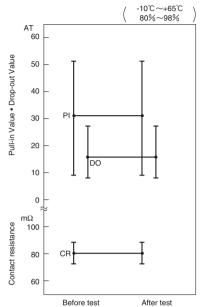
## (2) Temperature cycle



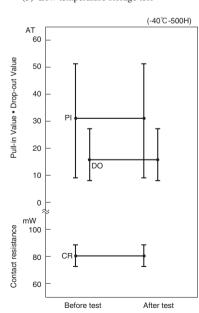
#### (4) High temperature storage test



## (3) Temperature and humidity cycle

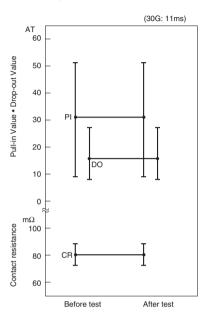


#### (5) Low temperature storage test

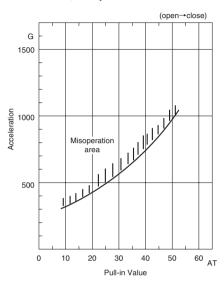


## (6) Shock test

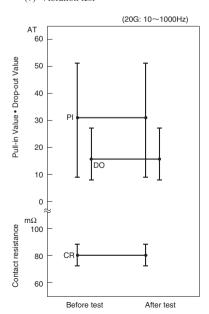
#### 1) Electrical characteristics



## 2) Misoperation area



#### (7) Vibration test



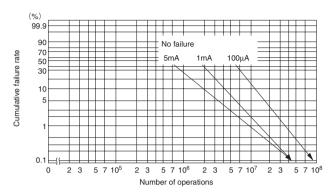
#### ■ LIFE EXPECTANCY DATA: ORD9215

Load conditions

Voltage: 5VDC

Current:  $100\mu A\ 1mA$  , 5mA

Load: Resistive load



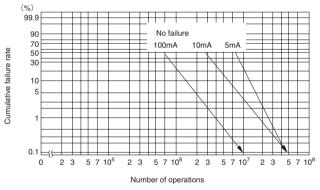
<sup>\*</sup> Arrow indicates number of operations where test was completed.

Load conditions

Voltage: 12 VDC

Current: 5mA, 10mA, 100mA

Load: Resistive load



\* Arrow indicates number of operations where test was completed.

Load conditions

Voltage: 24 VDC

Current: 100mA, 200mA, 400mA

Load: Resistive load

