

# REED SWITCH

## ORD221

Miniature offset-type

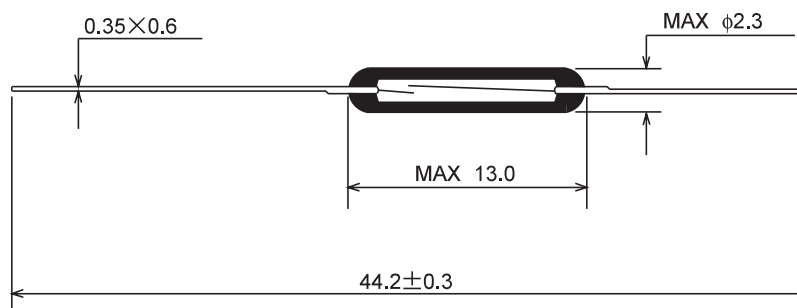
### ■ GENERAL DESCRIPTION

The ORD221 is a small single-contact reed switch designed for general control of medium-level loads less than 100V. The contacts are sealed within the glass tube with inert gas to maintain contact reliability.

### ■ FEATURES

- (1) Hermetically sealed within a glass tube with inert gas, reed contacts are not influenced by the external atmospheric environment.
- (2) Quick response
- (3) Comprising of operating parts and electrical parts arranged coaxially, reed switches are suited to high-frequency applications.
- (4) Compact and light weight.
- (5) Superior corrosion resistance and wear resistance of the contacts assures stable switching operation and long life.
- (6) Economically and easily becomes a proximity switch when paired with a magnet.

### ■ EXTERNAL DIMENSIONS (Unit: mm)



### ■ APPLICATIONS

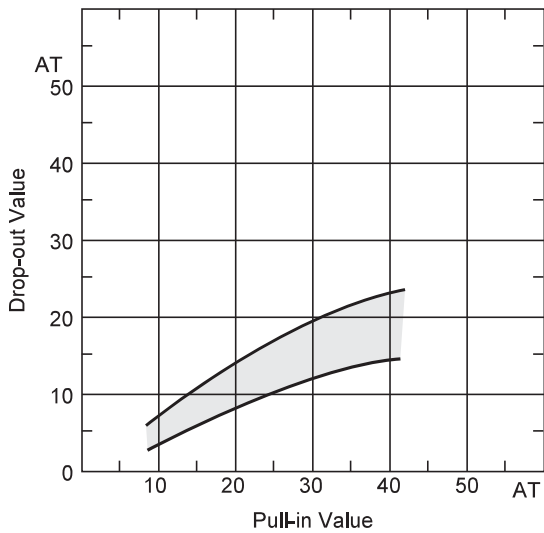
- Automotive electronic devices
- Control equipment
- Communication equipment
- Measurement equipment
- Household appliances

■ ELECTRICAL CHARACTERISTICS

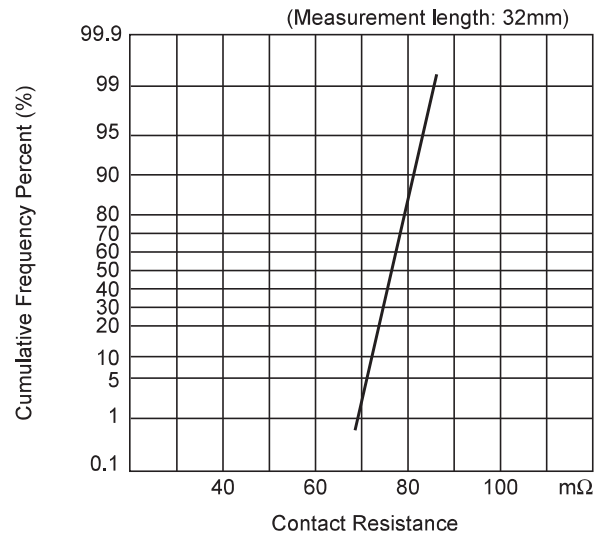
Parameter	Rated Value	Unit
Pull-in Value (PI)	10~30	AT
Drop-out Value (DO)	5min	AT
Contact Resistance (CR)	100max	mΩ
Breakdown Voltage	200 min (PI ≥ 20)	VDC
	150min (10 ≤ PI < 20)	VDC
Insulation Resistance	10 <sup>9</sup> min	Ω
Electrostatic Capacitance	0.3max	pF
Contact Rating	10	VA
Maximum Switching Voltage	100 (DC/AC)	V
Maximum Switching Current	0.3	A
Maximum Carry Current	1.0	A

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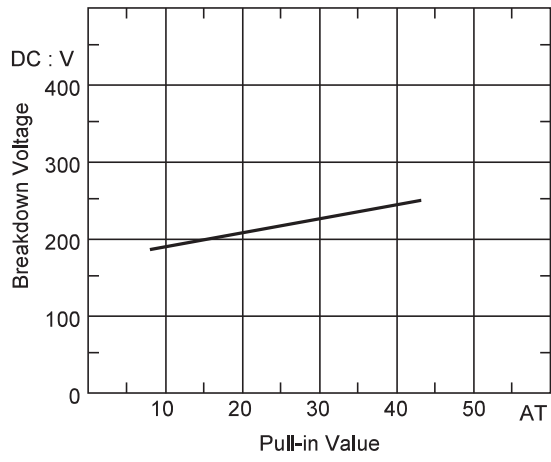
(1) Pull-in Value vs. Drop-out Value



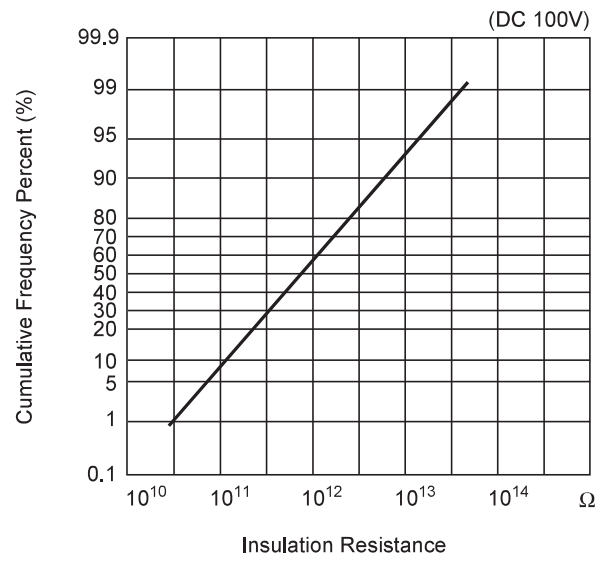
(2) Contact Resistance



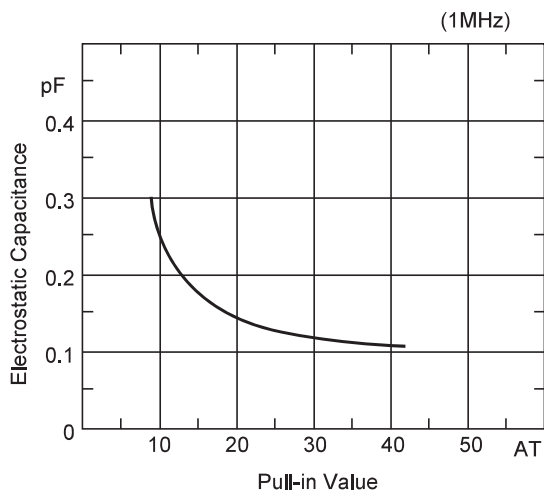
(3) Breakdown Voltage



(4) Insulation Resistance



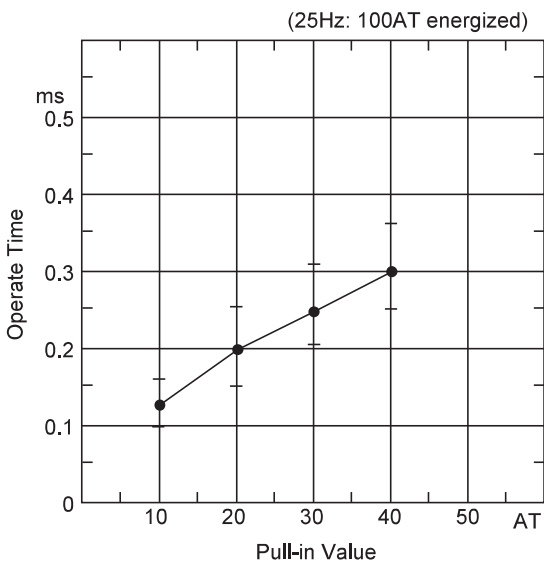
(5) Electrostatic Capacitance



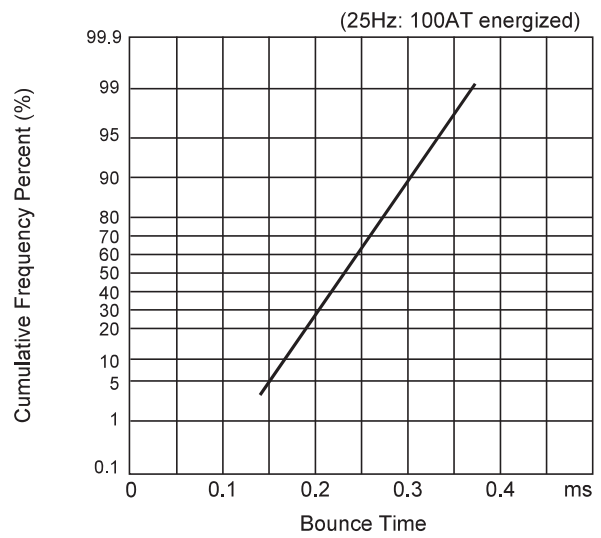
■ OPERATING CHARACTERISTICS

Parameter	Rated Value	Unit
Operate Time	0.4max	ms
Bounce Time	0.5max	ms
Release Time	0.05max	ms
Resonant Frequency	2750±250	Hz
Maximum Operating Frequency	500	Hz

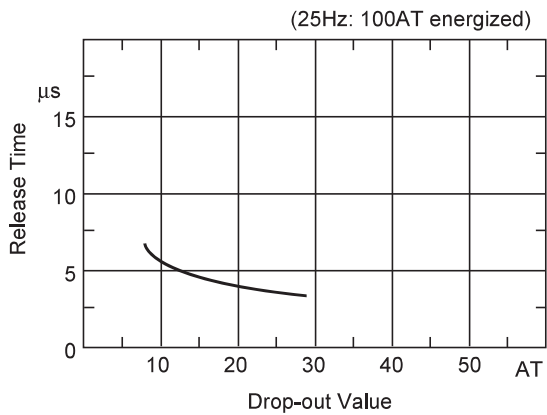
(1) Operate Time



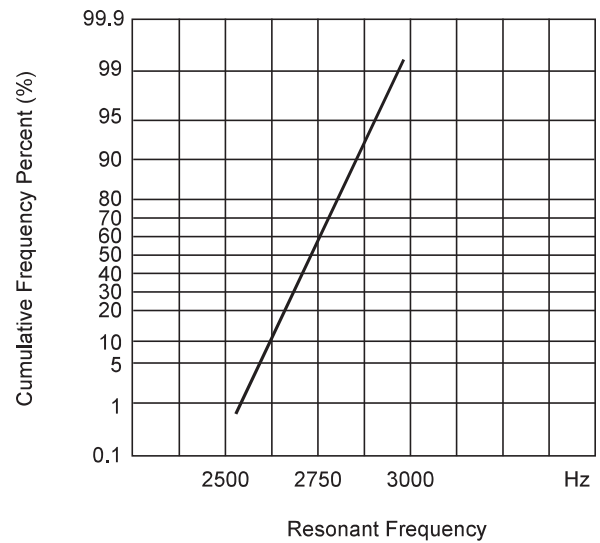
(2) Bounce Time



(3) Release Time



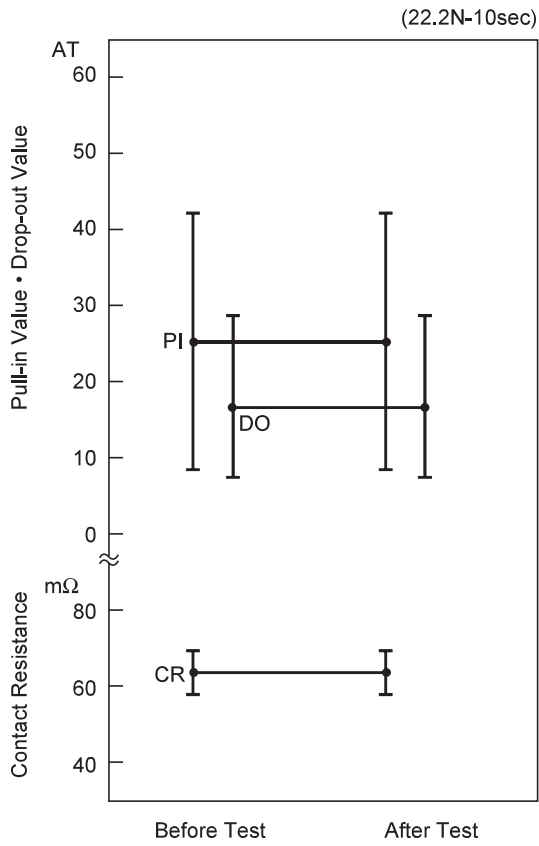
(4) Resonant Frequency



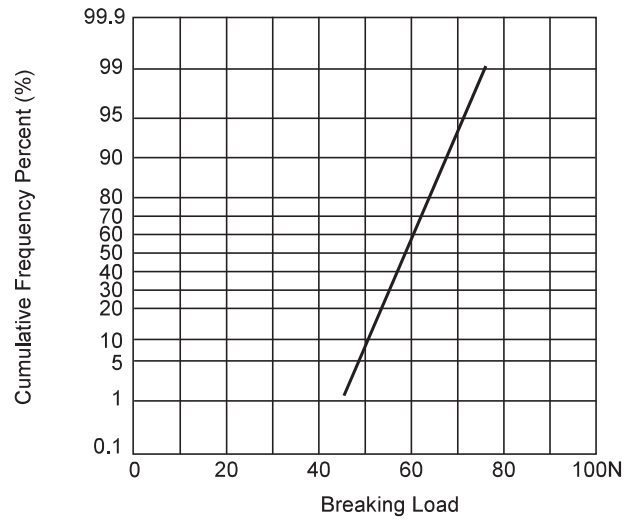
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■ MECHANICAL CHARACTERISTICS

(1) Lead Tensile Test (Static Load)



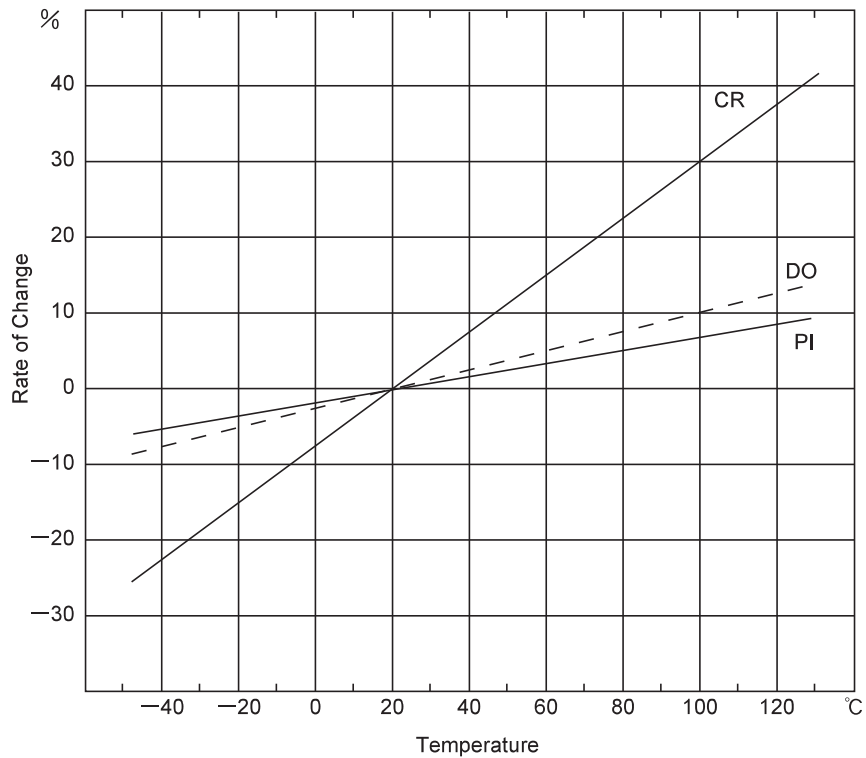
(2) Lead Tensile Strength



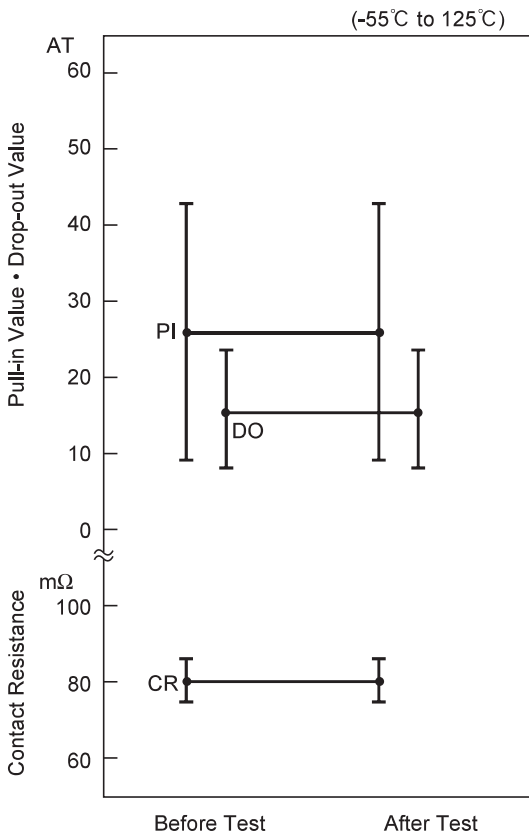
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■ ENVIRONMENTAL CHARACTERISTICS

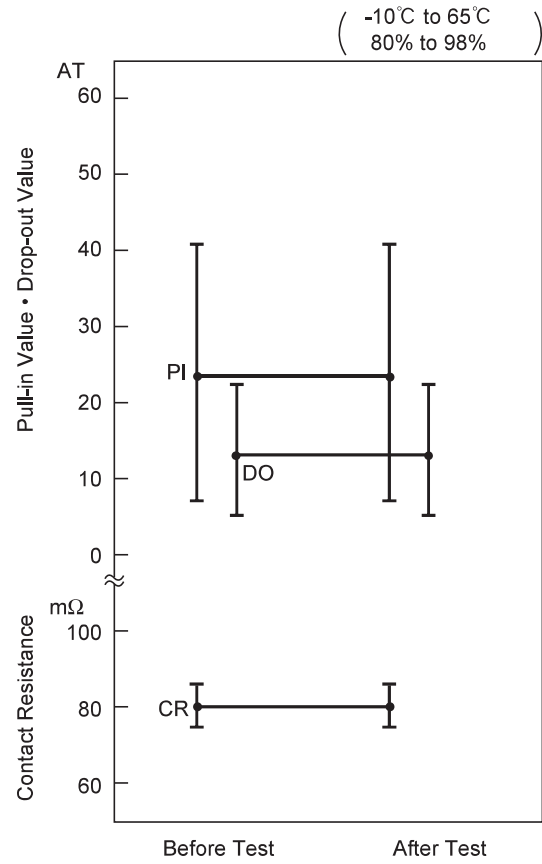
(1) Temperature Characteristics



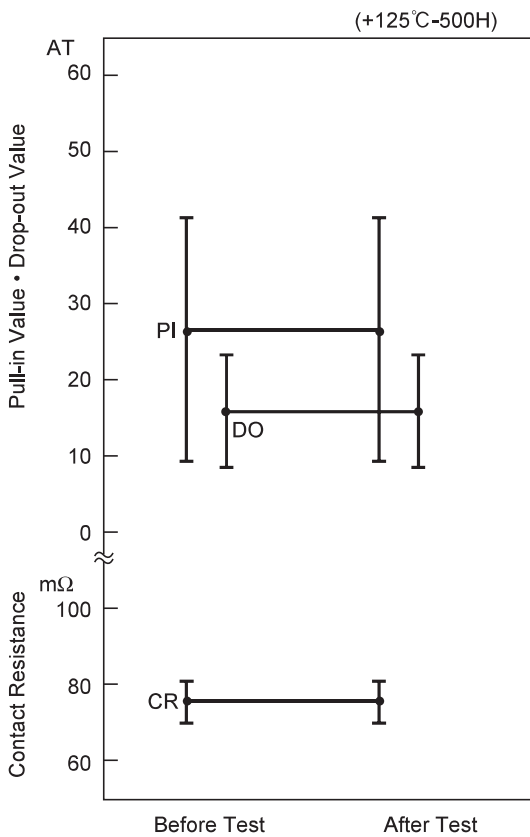
(2) Temperature Cycle



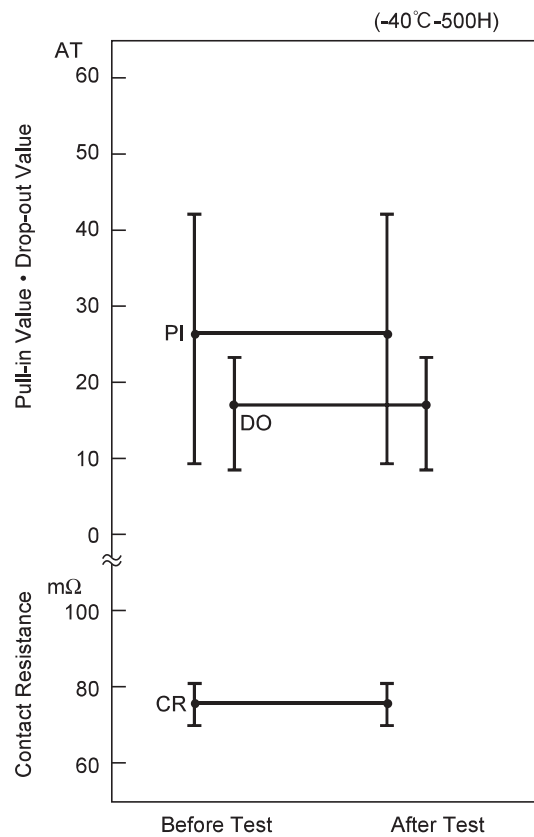
(3) Temperature and Humidity Cycle



(4) High Temperature Storage Test



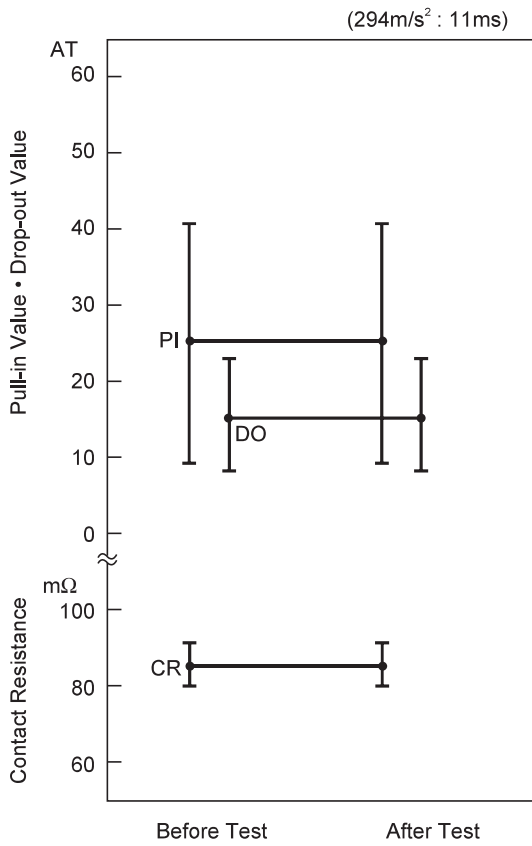
(5) Low Temperature Storage Test



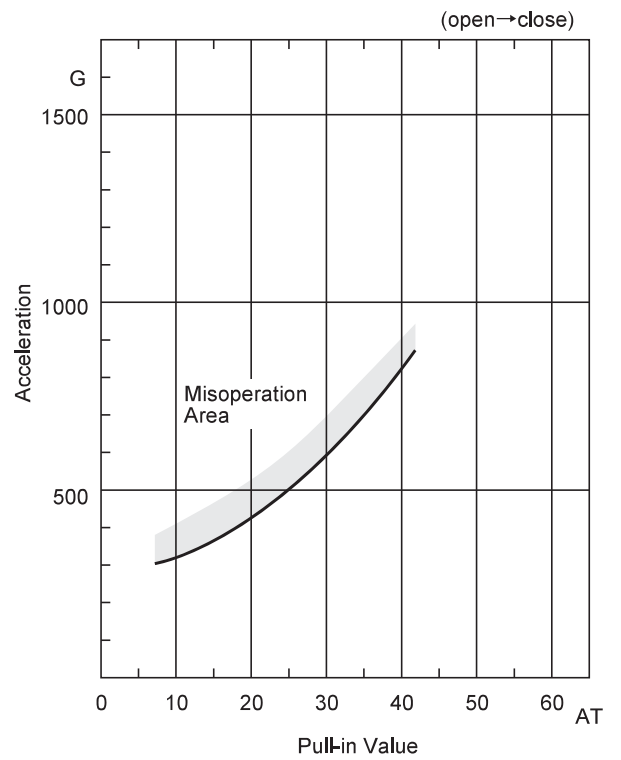
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(6) Shock Test

1) Electrical Characteristics



2) Misoperation Area



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(7) Vibration Test

