

# ZC-N2255



## Ratings

Shape / Structure	Enclosed Limit switches	
service life	General type	
Operating mechanism	Snap action	
Actuator	Sealed roller plunger	
Frequency	50/60 Hz	
Switching mechanism	Self-reset mechanism	
Contact configuration	Single-Pole, Double-Throw type	
Contact form	1c	
Load	General load	
Ratings (AC): Non-Inductive load	Rated voltage: 125 VAC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 3 A (NC) 1.5 A (NO) (NO) Rated voltage: 250 VAC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 2.5 A (NC) 1.25 A (NO)	

	Rated voltage: 125 VAC, Inductive load: 10 A (NC) 10 A (NO), Motor load: 5 A (NC) 2.5 A (NO)	
Ratings (AC): Inductive load	Rated voltage: 250 VAC, Inductive load: 10 A (NC) 10 A (NO), Motor load: 3 A (NC) 1.5 A (NO)	
Ratings (DC): Non-Inductive load	Rated voltage: 8 VDC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 3 A (NC) 1.5 A (NO)	
	Rated voltage: 14 VDC, Resistive load: 10 A (NC) 10 A (NO), Lamp load: 3 A (NC) 1.5 A (NO) (NO)	
	Rated voltage: 30 VDC, Resistive load: 6 A (NC) 6 A (NO), Lamp load: 3 A (NC) 1.5 A (NO) Rated voltage: 125 VDC, Resistive load: 0.5 A (NC) 0.5 A (NO), Lamp load: 0.4 A (NC) 0.4 A (NO)	
	Rated voltage: 250 VDC, Resistive load: 0.25 A (NC) 0.25 A (NO), Lamp load: 0.2 A (NC) 0.2 A (NO)	
Ratings (DC): Inductive load	Rated voltage: 8 VDC, Inductive load: 6 A (NC) 6 A (NO), Motor load: 5 A (NC) 2.5 A (NO) Rated voltage: 14 VDC, Inductive load: 6 A (NC) 6 A (NO), Motor load: 5 A (NC) 2.5 A (NO) Rated voltage: 30 VDC, Inductive load: 5 A (NC) 5 A (NO), Motor load: 5 A (NC) 2.5 A (NO) Rated voltage: 125 VDC, Inductive load: 0.05 A (NC) 0.05 A (NO), Motor load: 0.05 A (NC) 0.05 A (NO) Rated voltage: 250 VDC, Inductive load: 0.03 A (NC) 0.03 A (NO), Motor load: 0.03 A (NC) 0.03 A (NO)	
Explanation	The above values indicate the steady-state current. Lamp load has an inrush current of 10 times the steady-state current. Inductive load has a power factor of 0.4 Min. (AC) and a time constant of 7 ms Max. (DC). Motor load has an inrush current of 6 times the steady-state current.	
Inrush current	NC: 30 A NO: 15 A	
Protective circuit	Classification of protection against electric shock: Class II Short-circuit protective device: 10 A fuse type gG (IEC269) Switch category: D (IEC335)	
Ambient temperature	Operating: -10 CEL to 80 CEL (with no icing or condensation)	
Ambient humidity	Operating: 35%RH to 95%RH (with no icing or condensation)	

## Characteristics

Permissible operating speed	0.05 mm/s to 0.5 m/s
Permissible operating frequency (Mechanically)	120 operations / 1 minute Max.
Permissible operating frequency (Electrically)	20 operations / 1 minute Max.
Contact resistance	15 m Ohm Max. (Initial value) (Measuring method is contact resistance meter.)
Insulation resistance	Between each terminal of the same polarities: 100 M Ohm Min. Between live-metallic part and ground: 100 M Ohm Min. Between each terminal and non-live-metallic part: 100 M Ohm Min. (at 500 VDC Megger)
Dielectric strength	Between each terminal of the same polarities: 1,000 VAC Between live-metallic part and ground: 2,000 VAC Between each terminal and non-live-metallic part: 2,000 VAC (50/60 Hz for 1 min)
Durability (Mechanically)	10,000,000 operations Min. * When operate the actuator with the specified value of the Over Travel. (No load) (Temperature, Humidityconditions: 5 CEL to 35 CEL, 40 %RH to 70 % RH)
Durability (Electrically)	500,000 operations Min. * When operate the actuator with the specified value of the Over Travel. (Resistive load 10 A at 125 VAC) (Temperature, Humidityconditions: 5 CEL to 35 CEL, 40 %RH to 70 % RH)
Pollution degree	3 (EN60947-5-1)
Vibration resistance (Malfunction)	Vibration frequency range: 10 to 55 Hz, Double amplitude: 1.5 mm, Contact opening: 1 ms Max. at the free position and the total travel position.
Shock resistance (Destruction)	1,000 m/s2
Shock resistance (Malfunction)	Contact opening is 1 ms Max. at the free position and the total travel position at 300 m/s2.
Degree of protection	IEC60529 (JEM): IP67

Applicable standard (UL)	Standard No.: UL508 File number: E76675
Applicable standard (CSA)	Standard No.: C22.2 NO.14 File number: LR45746
Applicable standard (TUV)	Standard No.: EN60947-5-1 File number: J50041904
Applicable standard (CCC(CQC))	Standard No.: GB14048.5 File number: 2003010303077620
Applicable standard (EC Directive (Low Voltage Directive))	2006/95/EC
Mounting specification	Side mounting

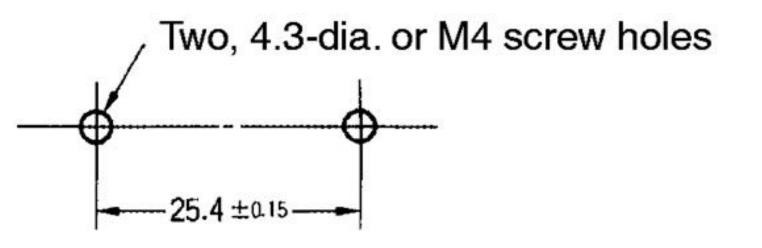
#### **Operating characteristics**

Operating Force (OF)	Standard value 6.86 N Max.
Release Force (RF)	Standard value 1.67 N Min.
Pre-Travel (PT)	Standard value 1.5 mm Max.
Over-Travel (OT)	Standard value 2.5 mm Min.
Movement Differential (MD)	Standard value 0.2 mm Max.
Operating Position (OP)	Standard value 47.4 +/- 0.8 mm

#### Precautions for correct use:

To attach the protective cover to the case, hold the cover in almost parallel to the case and then push it to the case. If the cover is pushed diagonally, the rubber packing may slip off and degrading the seal ability of the switch. **Note:** 

Rubber material is oil-proof rubber(NBR). Cap-rubber is made from weather-proof rubber(Chloroprene rubber).



Caution: All units are in millimeters unless otherwise indicated.

