






## Stable Operation at an Ambient Temperature of 400°C

- Incorporates a ceramic insulator, cobalt-alloy spring, and special-alloy contact, thus ensuring high contact reliability at high ambient temperature.
- Smoothly operates at an ambient temperature of 400°C.

 Be sure to read *Safety Precautions* on page 3 and *Safety Precautions for All Basic Switches*.



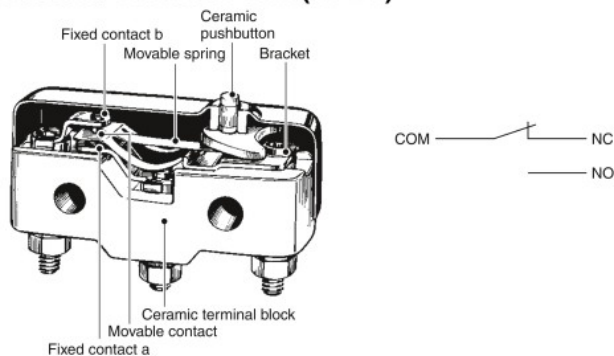
## Ordering Information

| Actuator                 |  | Model    |
|--------------------------|--|----------|
| Pin plunger              |   | TZ-1G    |
| Hinge lever              |   | TZ-1GV   |
| Short hinge roller lever |   | TZ-1GV22 |
| Hinge roller lever       |  | TZ-1GV2  |

Note: The levers and rollers are made of stainless steel.

## Structure

### Structure/Contact Form (SPDT)



## Specifications

### Ratings

| Rated voltage (V) | Non-inductive load (A) |    |           |      | Inductive load (A) |    |            |      |
|-------------------|------------------------|----|-----------|------|--------------------|----|------------|------|
|                   | Resistive load         |    | Lamp load |      | Inductive load     |    | Motor load |      |
|                   | NC                     | NO | NC        | NO   | NC                 | NO | NC         | NO   |
| 125 VAC           | 1                      |    | 0.9       | 0.45 | 1                  |    | 1.5        | 0.75 |
| 250 VAC           | 1                      |    | 0.45      | 0.3  | 1                  |    | 0.45       | 0.3  |
| 8 VDC             | 1                      |    | 0.9       | 0.45 | 1                  |    | 1.5        | 1.5  |
| 14 VDC            | 1                      |    | 0.9       | 0.45 | 1                  |    | 1.5        | 1.5  |
| 30 VDC            | 1                      |    | 0.9       | 0.45 | 1                  |    | 1.5        | 1.5  |
| 125 VDC           | 0.4                    |    | 0.05      | 0.05 | 0.4                |    | 0.05       | 0.05 |

- Note: 1. The above current ratings are the values of the steady-state current.  
 2. Inductive load has a power factor of 0.4 min. (AC) and a time constant of 7 ms max. (DC).  
 3. Lamp load has an inrush current of 10 times the steady-state current.  
 4. Motor load has an inrush current of 6 times the steady-state current.  
 5. The above ratings are tested under the following conditions.  
 Ambient temperature: 20±2°C  
 Ambient humidity: 65±5%RH  
 Switching frequency: 20 times/min

### Characteristics

|                                      |                    |  |
|--------------------------------------|--------------------|--|
| <b>Operating speed</b>               |                    | 0.05 mm to 1 m/s *1  |
| <b>Operating frequency</b>           | <b>Mechanical</b>  | 60 operations/min  |
|                                      | <b>Electrical</b>  | 20 operations/min  |
| <b>Insulation resistance</b>         |                    | 100 MΩ min. (at 500 VDC)   |
| <b>Contact resistance</b>            |                    | 100 mΩ max. (initial value)  |
| <b>Dielectric strength</b>           |                    | 1,000 VAC, 50/60 Hz for 1 min between terminals of same polarity<br>1,500 VAC, 50/60 Hz for 1 min between current-carrying metal parts and ground and between each terminal and non-current-carrying metal parts |
| <b>Vibration resistance</b>          | <b>Malfunction</b> | 10 to 55 Hz, 1.5-mm double amplitude *2  |
| <b>Shock resistance</b>              | <b>Destruction</b> | 500 m/s <sup>2</sup> max.  |
|                                      | <b>Malfunction</b> | 300 m/s <sup>2</sup> max. *1 *2  |
| <b>Durability</b>                    | <b>Mechanical</b>  | 100,000 operations min.  |
|                                      | <b>Electrical</b>  | 50,000 operations min.   |
| <b>Degree of protection</b>          |                    | IP00   |
| <b>Electric shock protection</b>     |                    | Class I  |
| <b>Ambient operating temperature</b> |                    | -65°C to 400°C (with no icing)   |
| <b>Ambient operating humidity</b>    |                    | 35% to 85%RH   |
| <b>Weight</b>                        |                    | Approx. 45 to 54 g   |

- \*1. This operating speed applies to switches with pin-type pushbuttons.  
 \*2. This refers to a malfunction period of 1 ms max.

### Contact Specifications

|                       |                             |                |
|-----------------------|-----------------------------|----------------|
| <b>Contact</b>        | <b>Specification</b>        | Rivet          |
|                       | <b>Material</b>             | Platinum alloy |
|                       | <b>Gap (standard value)</b> | 0.5 mm         |
| <b>Inrush current</b> | <b>NC</b>                   | 9 A max.       |
|                       | <b>NO</b>                   | 4.5 A max.     |