


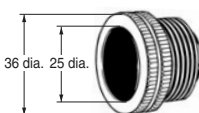
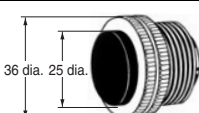

## Long Service Life with Built-in Z-series Basic Switch

- Using a Basic Switch enables direct switching of large-capacity loads
- Shock-absorbing construction of Operation Unit protects the Switch
- Drip-proof Pushbutton construction enables use in locations subject to splashing water and oil and scattering dust.
- Pushbuttons are available in three shapes and six colors.



 Refer to *Safety Precautions for All Pushbutton Switches/Indicators* and *Safety Precautions* on page 3.

## Ordering Information

Classification	Shape of Operation Unit	Output	Operation Unit color					
			Blue (-A)	Black (-B)	Green (-G)	Red (-R)	White (-W)	Yellow (-Y)
Momentary operation		1	ZAP-A	ZAP-B	ZAP-G	ZAP-R	ZAP-W	ZAP-Y
		2	2ZAP-A	2ZAP-B	2ZAP-G	2ZAP-R	2ZAP-W	2ZAP-Y
		1	ZAP-1A	ZAP-1B	ZAP-1G	ZAP-1R	ZAP-1W	ZAP-1Y
		2	2ZAP-1A	2ZAP-1B	2ZAP-1G	2ZAP-1R	2ZAP-1W	2ZAP-1Y
		1	ZAP-2A	ZAP-2B	ZAP-2G	ZAP-2R	ZAP-2W	ZAP-2Y
		2	2ZAP-2A	2ZAP-2B	2ZAP-2G	2ZAP-2R	2ZAP-2W	2ZAP-2Y

Note: Models with special specifications are available for use in environments with high humidity or outdoors.  
Contact your OMRON representative for information.

## Specifications

### Ratings

Item	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
Built-in Switch	125 VAC	15	3	1.5	1.5	15	5	2.5	
	200 VAC	15	2.5	1.25	1.25	15	3	1.5	
	500 VAC	10	1.5	0.75	0.75	6	1.5	0.75	
	8 VDC	15	3	1.5	1.5	15	5	2.5	
	14 VDC	15	3	1.5	1.5	10	5	2.5	
	30 VDC	6	3	1.5	1.5	5	5	2.5	
	125 VDC	0.5	0.5	0.5	0.5	0.05	0.05	0.05	
	250 VDC	0.25	0.25	0.25	0.25	0.03	0.03	0.03	

- Note: 1. The above values are for steady-state currents.  
 2. Inductive load: Power factor = 0.4 (AC); time constant = 7 ms (DC).  
 3. The lamp load has an inrush current of 10 times the steady-state current.  
 4. The motor load has an inrush current of 6 times the steady-state current.  
 5. Standard testing condition.  
 (1) Ambient temperature: 20 ±2°C  
 (2) Ambient humidity: 65% ±5%RH  
 (3) Operating frequency: 20 times/min

## Specifications

### Characteristics

Operating frequency	Mechanical	60 operations/min
	Electrical	20 operations/min
Insulation resistance		100 MΩ min. (at 500 VDC)
Contact resistance		30 mΩ max. (initial value)
Dielectric strength	Between terminals of same polarity	1,000 VAC, 50/60 Hz for 1 min
	Between current-carrying metal part and ground, and between each terminal and non-current-carrying metal part	2,000 VAC, 50/60 Hz for 1 minute
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude (1 ms max.)
Shock resistance	Destruction	500 m/s <sup>2</sup>
	Malfunction	200 m/s <sup>2</sup> max. (1 ms max.)
Durability	Mechanical	1,000,000 operations min.
	Electrical	500,000 operations min.
Weight		Approx. 130 to 210 g
Inrush current	NC	30 A max.
	NO	15 A max.
Ambient operating temperature		–25 to 80°C (with no icing or condensation)
Ambient operating humidity		35% to 85%RH
Ambient storage temperature		–25 to 80°C (with no icing or condensation)
Degree of protection		IP65 (Operation Unit only)
Electric shock protection class		Class II
PTI (proof tracking index)		175
Pollution degree		3 (IEC947-5-1)

### Operating Characteristics

Model	ZAP-□□	2ZAP-□□
Operating characteristics		
Operating force OF	Approx. 5.88 to 14.71 N	Approx. 9.81 to 17.70 N

Note: Operating force may vary depending on thickness of mounting panel.

### Contact Form

Name	Contact form
Double-throw contacts	

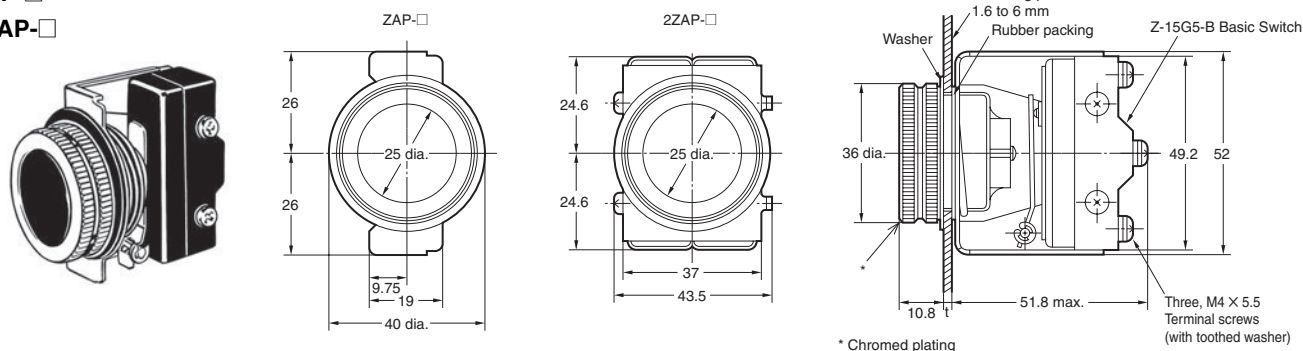
### Approved Safety Standards

- The built-in Z-15G5-B Switch is approved for UL and CSA.

**Dimensions** Insert one of the following letters into the box (□) at the end of the model number. Refer to Ordering Information for color symbols. (Unit: mm)

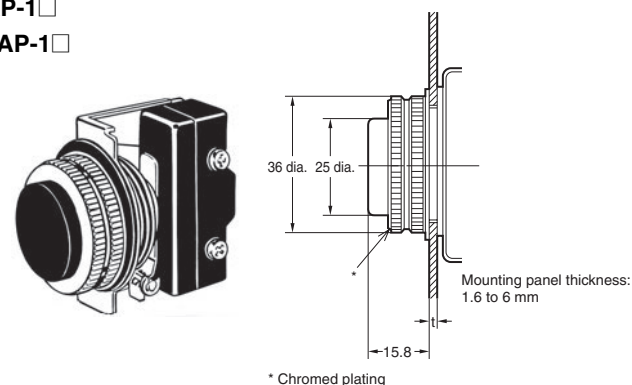
ZAP-□

2ZAP-□



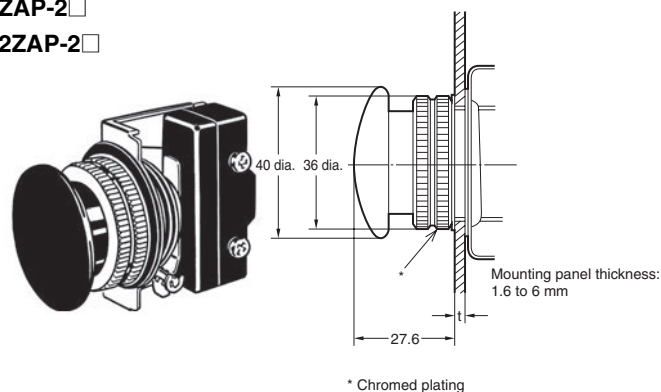
ZAP-1□

2ZAP-1□



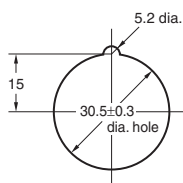
ZAP-2□

2ZAP-2□



## Dimensions

### Panel Cutouts



### Accessories

#### Rubber Cap

- Use the special rubber cap to use the Switch in locations subject to significant splashing water and oil or scattering dust. Cannot be used, however, with the (2) ZAP-2.

Color	Model
Blue (-A)	<b>ZB-A</b>
Black (-B)	<b>ZB-B</b>
Green (-G)	<b>ZB-G</b>
Red (-R)	<b>ZB-R</b>
White (-W)	<b>ZB-W</b>
Yellow (-Y)	<b>ZB-Y</b>

## Safety Precautions

Refer to *Safety Precautions for All Pushbutton Switches/Indicators*.

### Precautions for Correct Use

#### Insulation

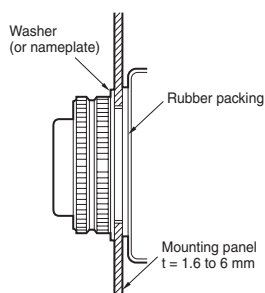
- After wiring the Switch, ensure an appropriate insulating distance.

#### Wiring

- Tighten the terminal screws to a torque of 0.78 to 1.18 N·m.

#### Mounting

- Tighten the face nut to a torque of 0.98 to 1.76 N·m.
- For panel mounting, always use a washer (or a nameplate) and rubber packing.



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