


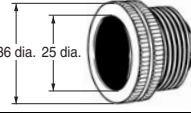
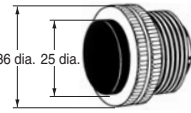

Long Service Life with Built-in Z-series Basic Switch

- 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	15	5	2.5		
	200 VAC	15	2.5	1.25	15	3	1.5		
Z-15G5-B	500 VAC	10	1.5	0.75	6	1.5	0.75		
	8 VDC	15	3	1.5	15	5	2.5		
	14 VDC	15	3	1.5	10	5	2.5		
	30 VDC	6	3	1.5	5	5	2.5		
	125 VDC	0.5	0.5	0.5	0.05	0.05	0.05		
	250 VDC	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 ²
	Malfunction	200 m/s ² 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

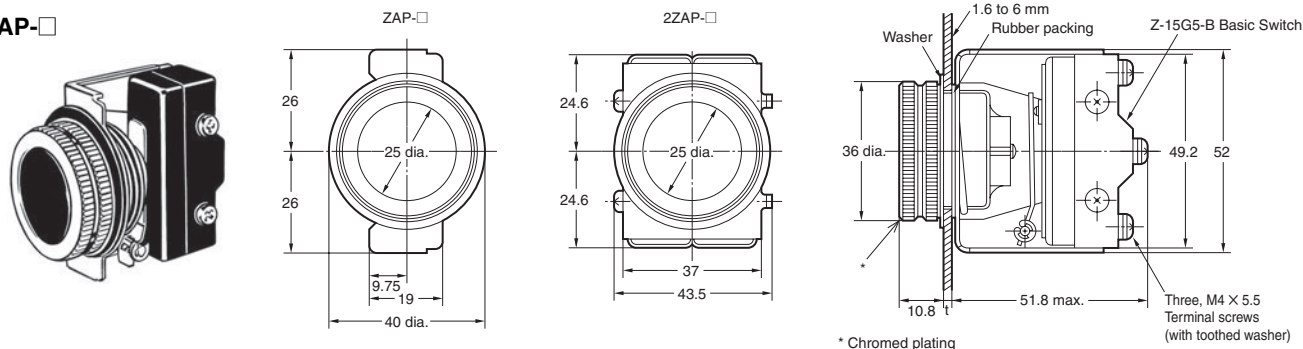
- The built-in Z-15G5-B Switch is approved for UL and CSA.

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)

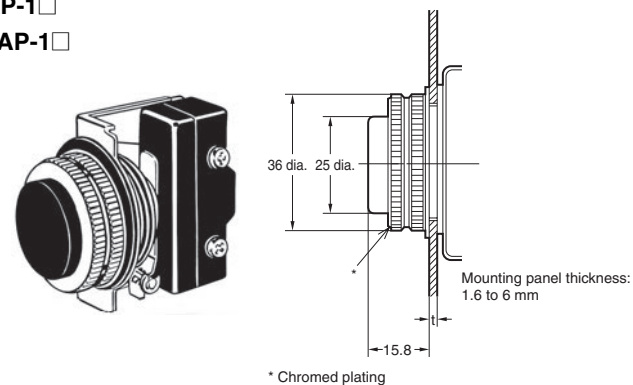
ZAP-□

2ZAP-□



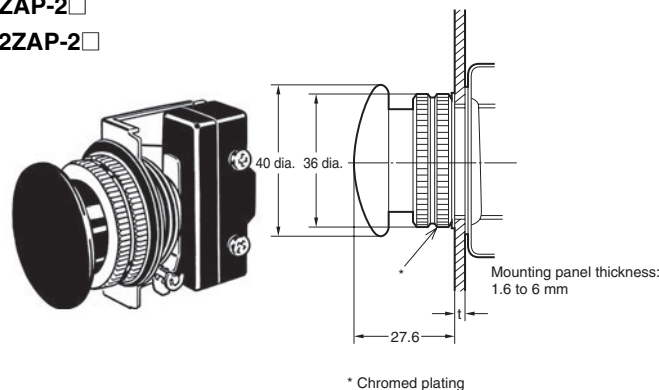
ZAP-1□

2ZAP-1□



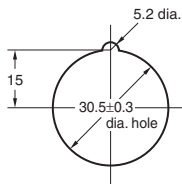
ZAP-2□

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)	ZB-A
Black (-B)	ZB-B
Green (-G)	ZB-G
Red (-R)	ZB-R
White (-W)	ZB-W
Yellow (-Y)	ZB-Y

Safety Precautions

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

Precautions for Correct Use

Insulation

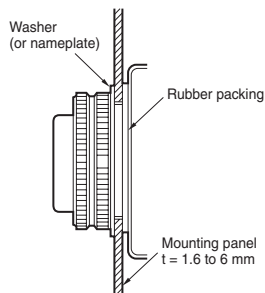
- After wiring the Switch, ensure an appropriate insulating distance.

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.



Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

(a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.

(b) Limitations. OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right. (c) Buyer Remedy. Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty.

See <http://www.omron.com/global/> or contact your Omron representative for published information.

Limitation on Liability; Etc.

OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

Programmable Products.

Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.

Performance Data.

Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.

Change in Specifications.

Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.

Errors and Omissions.

Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.

2013.7

In the interest of product improvement, specifications are subject to change without notice.

OMRON Corporation
Industrial Automation Company

<http://www.ia.omron.com/>

(c)Copyright OMRON Corporation 2013 All Right Reserved.