


High-performance Pushbutton Switch with Built-in Subminiature Basic Switch

- Wide selection of pushbutton colors and types.
- Using a Basic Switch enables greater reliability.



 Refer to *Safety Precautions for All Pushbutton Switches/Indicators* and *Safety Precautions* on page 2.

Ordering Information

| Pushbutton color | Blue | Black | Green | Red | White | Yellow |
|------------------|--------|--------|--------|--------|--------|--------|
| Model | A2A-4A | A2A-4B | A2A-4G | A2A-4R | A2A-4W | A2A-4Y |

Note: The face nut, lock washer, and operation unit are shipped separately from the body of the Switch. The A2A has solder terminals, SPDT contacts, and momentary operation.

Specifications

Characteristics

| | | |
|--|--|--|
| Rating | | 5 A, 125 V (resistive load) 3 A, 250 V (resistive load) |
| Inrush current | | NC: 20 A max. NO: 10 A max. |
| Contact resistance | | 50 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 | 1,500 VAC, 50/60 Hz for 1 min |
| Durability | Mechanical | 200,000 operations min. |
| | Electrical | 200,000 operations min. |
| Ambient operating temperature | | -25 to 80°C (with no icing or condensation) |
| Ambient operating humidity | | 45% to 85%RH |
| Degree of protection | | IP00 |
| Electric shock protection class | | Class II |
| PTI (proof tracking index) | | 175 |
| Pollution degree | | 3 (IEC 947-5-1) |

Note: The rated values are from testing conducted under the following conditions:


- 1) Ambient temperature: $20 \pm 2^\circ\text{C}$
- 2) Ambient humidity: $65\% \pm 5\%\text{RH}$
- 3) Operating frequency: 20 operations/minute

Operating Characteristics

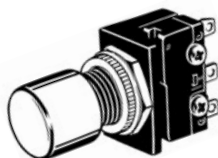
| Operating Characteristics | Model A2A |
|----------------------------|--------------|
| Operating force (OF), max. | 1.47 N |
| Releasing force (RF), min. | 0.10 N |
| Pretravel (PT), max. | 0.8 mm |
| Total travel (TT), max. | 1.4 mm |

- A D2S-5 is used for the built-in switch.

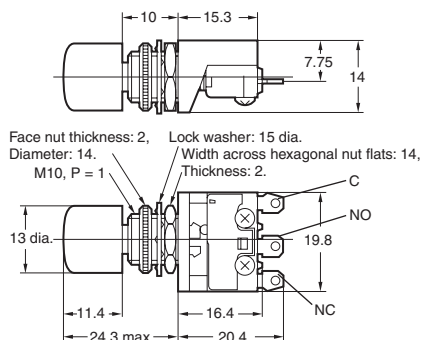
Contact Form

| Name | Contact form |
|-----------------------|---|
| Double-throw contacts |  |

Dimensions



- Note: 1. The Operation Unit can be inserted and removed.
2. Unless specified, a tolerance of ± 0.8 mm applies for all dimensions.



Panel Cutouts



Note: Use a mounting panel thickness of 1 to 4 mm.

Safety Precautions

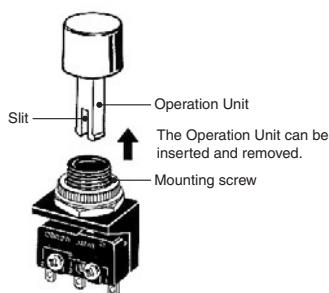
Refer to **Safety Precautions for All Pushbutton Switches/Indicators**.

Precautions for Correct Use

- Twist the conductors through the terminal holes before soldering.
- To perform soldering on solder terminals, use a soldering iron with a capacity of 60 W maximum and complete soldering within 5 seconds. Wait for one minute after soldering before exerting any external force on the solder.
- The Switch does not have a ground terminal.
- Do not perform wiring while power is being supplied to the Switch. Do not touch the terminals or other charged parts of the Switch while power is being supplied. Doing so may result in electric shock.
- After wiring the Switch, make sure that there is a suitable isolation distance.

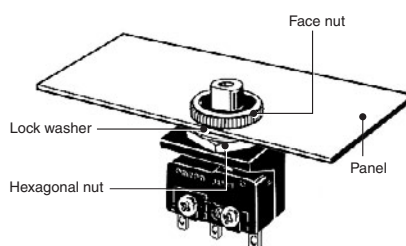
Mounting the Operation Unit

- The Operation Unit can be inserted and removed.
- Mounting can be performed by inserting the slit of the Operation Unit into the mounting screw of the Switch.
- Mounting force: 39.2 N max.
- Removing strength: 24.5 N min.



Panel Mounting

Tighten the hexagonal nut while securing the Switch by holding it with your fingers. Tighten the hexagonal nut with a torque of 0.49 to 0.98 N·m.



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.

Warranty and Limitations of Liability

WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, REGARDING NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR PARTICULAR PURPOSE OF THE PRODUCTS. ANY BUYER OR USER ACKNOWLEDGES THAT THE BUYER OR USER ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. OMRON DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

LIMITATIONS OF LIABILITY

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

In no event shall the responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

IN NO EVENT SHALL OMRON BE RESPONSIBLE FOR WARRANTY, REPAIR, OR OTHER CLAIMS 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 OR REPAIR.

Application Considerations

SUITABILITY FOR USE

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of products in the customer's application or use of the products.

At the customer's request, OMRON will provide applicable third party certification documents identifying ratings and limitations of use that apply to the products. This information by itself is not sufficient for a complete determination of the suitability of the products in combination with the end product, machine, system, or other application or use.

The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this catalog.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

Disclaimers

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 model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the products may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

PERFORMANCE DATA

Performance data given in this catalog 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 users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

ERRORS AND OMISSIONS

The information in this document has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical, or proofreading errors, or omissions.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Omron:

[A2A-4B](#) [A2A-4A](#) [A2A-4R](#) [A2A-4Y](#)