

## Miniature Rocker Switch

## A8N

### 2 Push Button Switch for High Current Switching

- Miniature Rocker Switch can be switching 16A.
- Easy to mount by snap fitting.
- Dust & waterproof construction. Panel seal (IP67).
- UL, cUL and TV-8 standard approved. Conforms to EN standards.

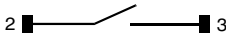
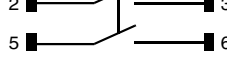
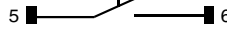
**RoHS Compliant** (Refer to page 3 for details)

**Caution**  
Refer to Precautions



**NEW**

### Ordering Information

| Contact configuration |  | SPST                                                                                                                                                                    | DPST                                                                                                                                                                             | Quantity per package |
|-----------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|                       |  | 2  3                                                                                   | 2  3<br>5  6 |                      |
| Color of button       |  | White/Red                                                                                                                                                               | White/Red                                                                                                                                                                        |                      |
| Color of cases        |  | Black                                                                                                                                                                   | Black                                                                                                                                                                            | 100                  |
| Marking on caps       |  |   | A8NS-3162                                                                                                                                                                        |                      |
|                       |  |                                                                                                                                                                         | A8ND-3162                                                                                                                                                                        |                      |

### Ratings

| Rated load | Non-inductive  | Inductive      |                      |
|------------|----------------|----------------|----------------------|
|            | Resistive load | Inductive load | Inductive motor load |
| 125 VAC    | 16A            | 16A            | 10A                  |
| 250 VAC    | 16A            | 16A            | 10A                  |

**Note:** 1. The inductive load has a power factor of 0.7 minimum (AC).  
 2. The motor load has an impulse current 6 times the normal current.  
 3. The above ratings were tested under the following conditions:  
 (1) Ambient temperature: 20±2 °C  
 (2) Ambient humidity: 65±5 %RH  
 (3) Switching frequency: 7 times/min.

### Operating Characteristics

| No. of poles         | 1        | 2         |
|----------------------|----------|-----------|
| OF (operating force) | 9 N max. | 22 N max. |

### Specifications

| Permissible operating frequency | Mechanical  | 20 Operations / min max.                                                                                                          |
|---------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------|
|                                 | Electrical  | 7 Operations / min max.                                                                                                           |
| Insulation resistance           |             | 100 MΩ min. (500 VDC)                                                                                                             |
| Dielectric strength             |             | 2000 VAC 50/60Hz, for 1min between terminals of the same polarity<br>4000 VAC 50/60Hz, for 1min between terminal and case ground. |
| Vibration resistance            | Malfunction | 10 to 55 Hz, 1.5-mm double amplitude                                                                                              |
| Shock resistance                | Malfunction | 1000 m/s <sup>2</sup> max.                                                                                                        |
| Life expectancy                 | Mechanical  | 50,000 Operations min.                                                                                                            |
|                                 | Electrical  | 10,000 Operations min.                                                                                                            |
| Ambient operating temperature   |             | - 25 to 55 °C humidity 60 %RH max. (With no icing or dewing)                                                                      |
| Ambient operating humidity      |             | 25 to 85 %RH (for 15 to 35 °C)                                                                                                    |
| Ambient storage temperature     |             | - 40 to 85 °C (With no icing or dewing)                                                                                           |
| Ambient storage humidity        |             | 25 to 85 %RH                                                                                                                      |
| Weight                          |             | 9.6 g (1 pole), 11.1 g (2 poles)                                                                                                  |

## Approved Safety Standards

### ■UL (UL1054/CSA C22.2 No. 55)

16A 125 VAC, 16A 250 VAC, TV-8

### ■DEMKO (EN61058-1)

16A 125 VAC, 16A 250 VAC

**Note:** Quick-connect Terminals are not in compliance with IEC standards.

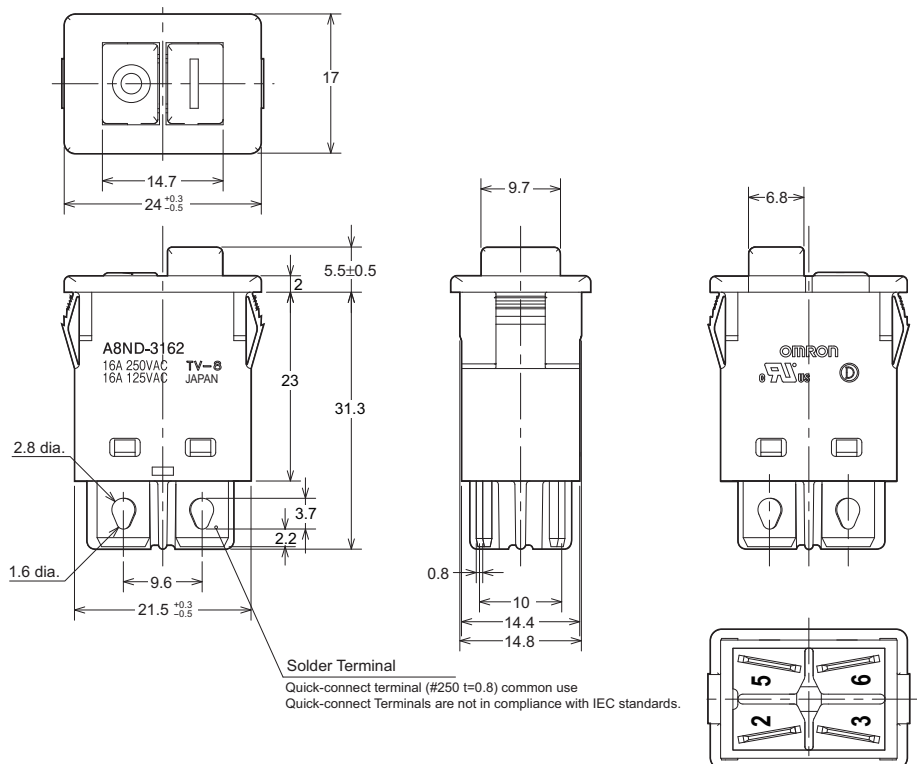
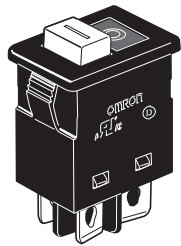
## Dimensions

(unit: mm)

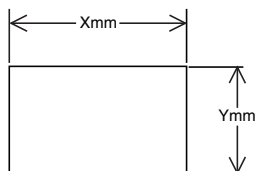
### A8NS-3162

### A8ND-3162

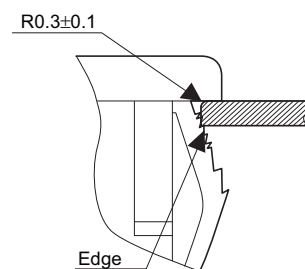
**Note:** Unless otherwise specified, a tolerance of  $\pm 0.3$  mm applies to all dimensions.



## Panel Cutout



| Panel thickness (mm) | X (mm)             | Y (mm)             |
|----------------------|--------------------|--------------------|
| 1.0 to 1.9           | 22.3 $^{0}_{-0.1}$ | 14.8 $^{+0.1}_{0}$ |
| 2.0 to 2.8           | 23.2 $^{+0.1}_{0}$ |                    |



Be sure that play R or above-mentioned R is the operation side.

# Precautions

## ⚠ Caution

Do not wire the Switch or touch any terminal of the Switch While power is being supplied. Doing so may result in electric shock.

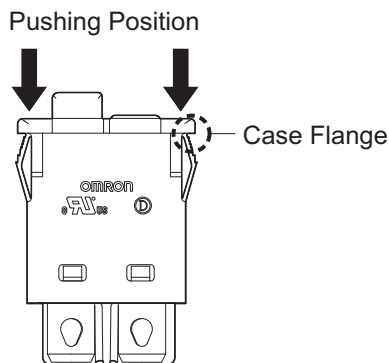


To increase the reliability of operation, test the Switch before actual operation.

Be sure that there is an enough insulation distance between any Switch terminal and metal part.

## Mounting

- Turn OFF the power supply before mounting, removing or wiring the Switch, or before performing maintenance inspections. Failure to do so may result in electric shock.
- Easy to mount by snap fitting.
- Do not use panels other than ones with the designated thickness and dimensions. Remove all burrs from the cutout before installing the Switch. Otherwise, the Switch may malfunction.
- Do not impose excessive force on the Switch at the time of panelmounting. Otherwise the Switch may be damaged or deformed, and the Switch mechanism may malfunction as a result.



## Wiring

- When soldering terminals manually, perform soldering within 4 s using a soldering iron (temperature at the tip of the soldering iron: 360 °C max). Do not apply excessive force to the terminals during soldering.
- Quick-connect Terminals (#250 t=0.8) are not in compliance with IEC standards. Suitable for use as solder connection.
- Be sure that the wires are thick enough for the load (current) to be applied.
- The performance of the Switch may be affected if the Switch is used for switching micro loads. Test the Switch under the actual operating conditions.

## Environment for Storage and Use

- Do not use the Switch in places with sulfide gas, corrosive gas, sea breeze, oil spray, or direct sunlight. Otherwise, the Switch may malfunction.
- Do not use the Switch in places that are visibly dusty. Otherwise, the contacts may fail to operate correctly.

## Handling

- Do not drop the Switch. Otherwise, the Switch may malfunction.
- Do not impose excessive force on the Switch. Otherwise, the Switch may deform.
- Use the Switch within the rated voltage and current ranges, otherwise the Switch may have a shortened life expectancy, radiate heat, burn out or malfunction.
- Do not impose force to operating part from an angle, otherwise the Switch may be damaged or deformed.

## Dust & waterproof construction

Though panel sealed (IP67) at front, be caution the following points for actual use.

- Do not use Sealed Switches while submersed in water or in locations exposed to water.
- Do not use Sealed Switches in places that are visibly dusty. Otherwise, the Switch may malfunction.
- The seal is changed depending on the processing accuracy and the panel thickness, and it is in the panel the fear of the invasion of water. Test the Switch under the actual operating conditions.

## RoHS Compliant

The "RoHS Compliant" designation indicates that the listed models do not contain the six hazardous substances covered by the RoHS Directive.

Reference: The following standards are used to determine compliance for the six substances.

|                     |                 |
|---------------------|-----------------|
| Lead                | : 1000 ppm max. |
| Mercury             | : 1000 ppm max. |
| Cadmium             | : 100 ppm max.  |
| Hexavalent chromium | : 1000 ppm max. |
| PBB                 | : 1000 ppm max. |
| PBDE                | : 1000 ppm max. |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. A176-E1-01      In the interest of product improvement, specifications are subject to change without notice.

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