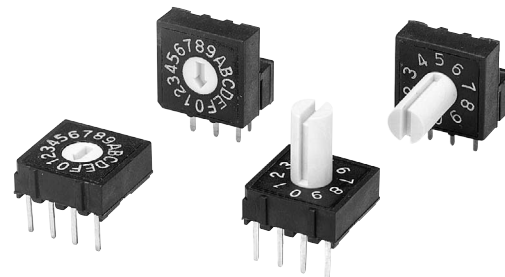


## Rotary DIP Switch

## A6R/A6RV

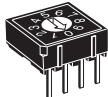
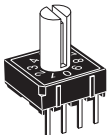
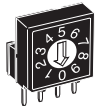
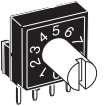
### Through-hole mounting Rotary DIP Switches

- Top/Side-actuated, and Flat/Extended-actuator models available.
- Actuator with an O-ring sealed structure prevents the ingress of dirt and dust.
- Two different terminal arrangements allow the flexibility of circuit design.



RoHS Compliant

### List of Models

| Type (actuator color) |                   |                      |                 | Top-actuated, flat (white)                                                        | Top-actuated, extended actuator (white)                                            | Side-actuated, flat (white)                                                         | Side-actuated, extended actuator (white)                                            |
|-----------------------|-------------------|----------------------|-----------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Number of positions   | Quantity per tube | Terminal arrangement | Output code     |  |  |  |  |
| 10                    | 48                | 4 × 1                | BCD Decimal     | A6R-101RF                                                                         | A6R-101RS                                                                          | A6RV-101RF                                                                          | A6RV-101RS                                                                          |
|                       |                   | 3 × 3                |                 | A6R-102RF                                                                         | A6R-102RS                                                                          | A6RV-102RF                                                                          | A6RV-102RS                                                                          |
| 16                    | 48                | 4 × 1                | BCD Hexadecimal | A6R-161RF                                                                         | A6R-161RS                                                                          | A6RV-161RF                                                                          | A6RV-161RS                                                                          |
|                       |                   | 3 × 3                |                 | A6R-162RF                                                                         | A6R-162RS                                                                          | A6RV-162RF                                                                          | A6RV-162RS                                                                          |

Note: Order in multiples of the package quantity.

### Ratings/Characteristics

|                                      |                                                                                                                           |                                      |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Ratings</b>                       | 25 mA at 24 VDC, 10 $\mu$ A (minimum current) at 3.5 VDC                                                                  |                                      |
| <b>Ambient operating temperature</b> | -25 to +80°C 60%RH max. (with no icing or condensation)                                                                   |                                      |
| <b>Ambient operating humidity</b>    | 35% to 95% (at +5 to +35°C)                                                                                               |                                      |
| <b>Insulation resistance</b>         | 100 M $\Omega$ min. (at 250 VDC)                                                                                          |                                      |
| <b>Contact resistance</b>            | 200 m $\Omega$ max. (initial value)                                                                                       |                                      |
| <b>Dielectric strength</b>           | Between terminals                                                                                                         | 250 VAC for 1 min                    |
| <b>Vibration resistance</b>          | Malfunction                                                                                                               | 10 to 55 Hz, 1.5-mm double amplitude |
| <b>Shock resistance</b>              | Malfunction                                                                                                               | 300 m/s <sup>2</sup> min.            |
| <b>Durability</b>                    | Electrical                                                                                                                | 5,000 steps min.                     |
| <b>Operating torque</b>              | 1.96 × 10 <sup>-2</sup> N·m {2 gf·m} max.                                                                                 |                                      |
| <b>Weight</b>                        | Top-actuated: Approx. 0.6 g<br>Side-actuated: Approx. 0.8 g<br>(Add 0.13 g for the extended-actuator type of each model.) |                                      |

### Output Codes

#### 10-position Models

| Code<br>Position | BCD Decimal code |   |   |   |
|------------------|------------------|---|---|---|
|                  | 1                | 2 | 4 | 8 |
| 0                |                  |   |   |   |
| 1                | ●                |   |   |   |
| 2                |                  | ● |   |   |
| 3                | ●                | ● |   |   |
| 4                |                  |   | ● |   |
| 5                | ●                |   | ● |   |
| 6                |                  | ● | ● |   |
| 7                | ●                | ● | ● |   |
| 8                |                  |   |   | ● |
| 9                | ●                |   |   | ● |

#### 16-position Models

| Code<br>Position | BCD Hexadecimal code |   |   |   |
|------------------|----------------------|---|---|---|
|                  | 1                    | 2 | 4 | 8 |
| 0                |                      |   |   |   |
| 1                | ●                    |   |   |   |
| 2                |                      | ● |   |   |
| 3                | ●                    | ● |   |   |
| 4                |                      |   | ● |   |
| 5                | ●                    |   | ● |   |
| 6                |                      | ● | ● |   |
| 7                | ●                    | ● | ● |   |
| 8                |                      |   |   | ● |
| 9                | ●                    |   |   | ● |
| A                |                      | ● |   | ● |
| B                | ●                    | ● |   | ● |
| C                |                      |   | ● | ● |
| D                | ●                    |   | ● | ● |
| E                |                      | ● | ● | ● |
| F                | ●                    | ● | ● | ● |

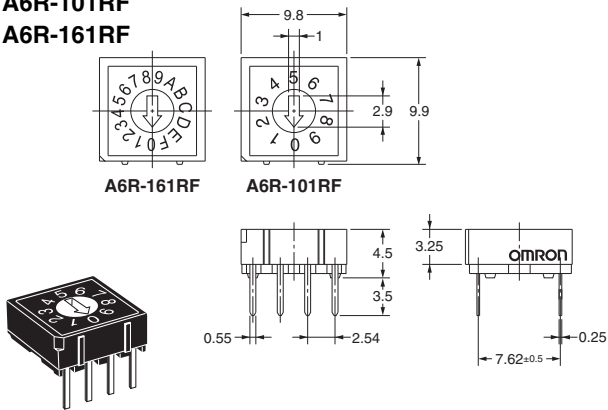
Note: "●" indicates that the internal switch is ON.

## ■ Dimensions (Unit: mm)

### ● Top-actuated Flat Models with 4×1 Terminal Arrangement

A6R-101RF

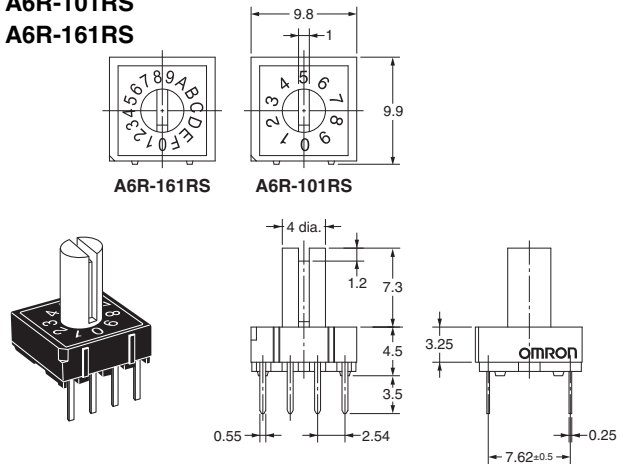
A6R-161RF



### ● Top-actuated Extended-actuator Models with 4×1 Terminal Arrangement

A6R-101RS

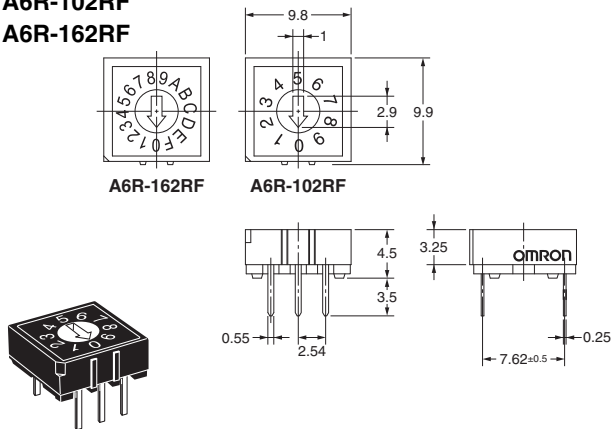
A6R-161RS



### ● Top-actuated Flat Models with 3×3 Terminal Arrangement

A6R-102RF

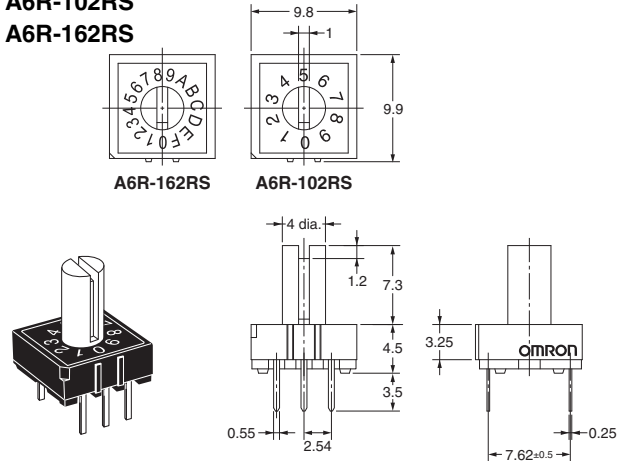
A6R-162RF



### ● Top-actuated Extended-actuator Models with 3×3 Terminal Arrangement

A6R-102RS

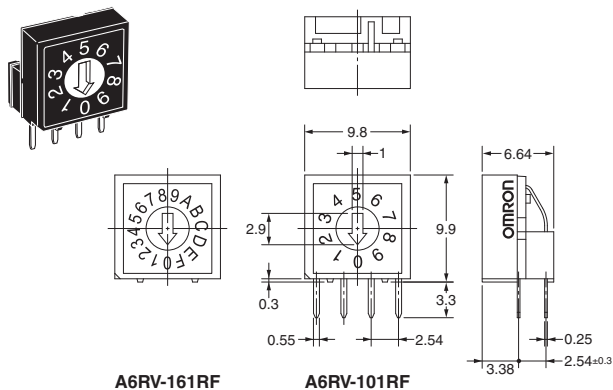
A6R-162RS



### ● Side-actuated Flat Models with 4×1 Terminal Arrangement

A6RV-101RF

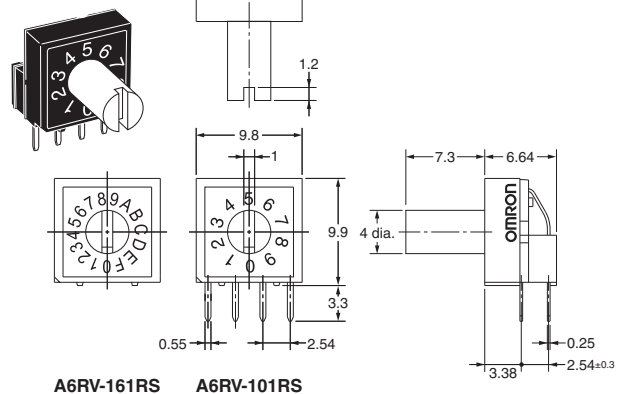
A6RV-161RF



### ● Side-actuated Extended-actuator Models with 4×1 Terminal Arrangement

A6RV-101RS

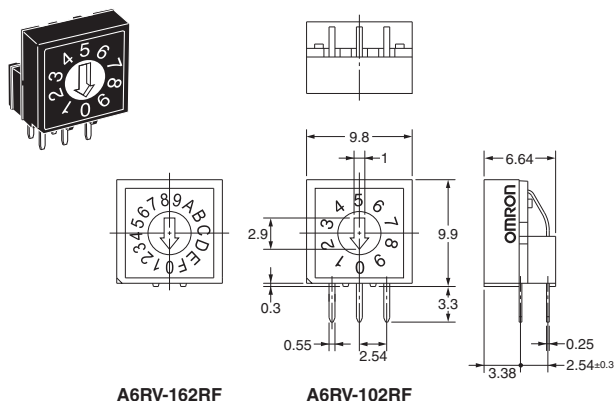
A6RV-161RS



Note: Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

# ● Side-actuated Flat Models with 3×3 Terminal Arrangement

A6RV-102RF  
A6RV-162RF

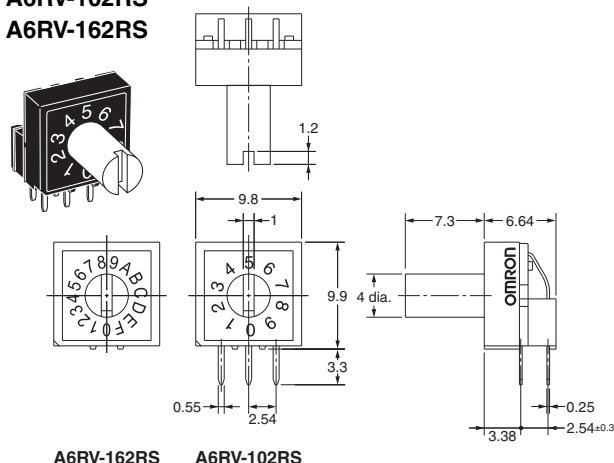


A6RV-162RF

A6RV-102RF

# ● Side-actuated Extended-actuator Models with 3×3 Terminal Arrangement

A6RV-102RS  
A6RV-162RS

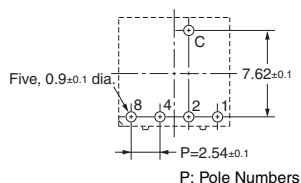


A6RV-162RS

A6RV-102RS

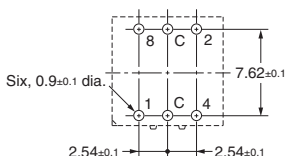
## ■PCB Dimensions

### ● Top-actuated Models 4×1 Terminal Arrangement

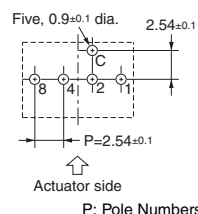


P: Pole Numbers

### 3×3 Terminal Arrangement

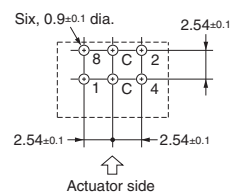


### ● Side-actuated Models 4×1 Terminal Arrangement



P: Pole Numbers

### 3×3 Terminal Arrangement

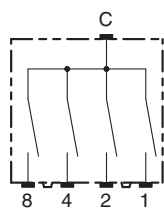


**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

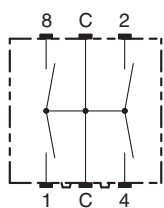
## ■Internal Connections

### Contact Form (Top View)

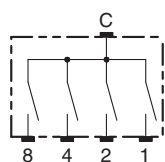
### ● Top-actuated Models 4×1 Terminal Arrangement



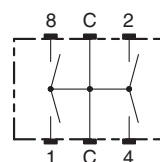
### 3×3 Terminal Arrangement



### ● Side-actuated Models 4×1 Terminal Arrangement



### 3×3 Terminal Arrangement



## ■Precautions

Be sure to read the Safety precautions common to all DIP Switches for correct use.

- Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
- Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

**Note: Do not use this document to operate the Unit.**

---

**OMRON Corporation**

**ELECTRONIC AND MECHANICAL COMPONENTS COMPANY**

**Contact: [www.omron.com/ecb](http://www.omron.com/ecb)**

**Cat. No. A212-E1-01**  
0812(0207)(O)

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9