

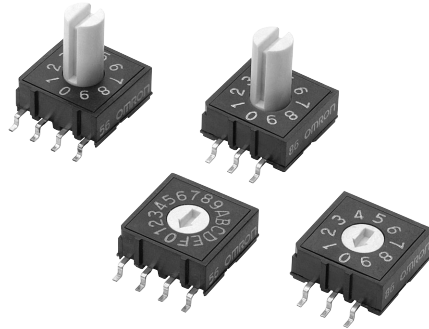
## Rotary DIP Switch

## A6RS

### Surface Mounting Rotary DIP Switches

- Flat/Extended-actuator models are available.
- Terminal arrangement of 4 × 1 and 3 × 3 allow high flexibility in the PCB design
- Embossed 100 pcs reel type is recommended for flexible demand.

RoHS Compliant



### List of Models

			Type	Top-actuated, Flat					
Number of positions	Terminal arrangement	Output code	Quantity per tube	Tube packaging	Embossed taping				
					Quantity per reel	Quantity per reel	Quantity per reel	100 pcs reel	
10	4 × 1	BCD Decimal	48	A6RS-101RF	750	100	A6RS-101RF-P	A6RS-101RF-R100	
	3 × 3			A6RS-102RF			A6RS-102RF-P		A6RS-102RF-R100
16	4 × 1	BCD Hexadecimal		A6RS-161RF			A6RS-161RF-P		A6RS-161RF-R100
	3 × 3			A6RS-162RF			A6RS-162RF-P		A6RS-162RF-R100

			Type	Top-actuated, Extended-actuator					
Number of positions	Terminal arrangement	Output code	Quantity per tube	Tube packaging	Embossed taping				
					Quantity per reel	Embossed taping	Quantity per reel	100 pcs reel	
10	4 × 1	BCD Decimal	48	A6RS-101RS	250	100	A6RS-101RS-P	A6RS-101RS-R100	
	3 × 3			A6RS-102RS			A6RS-102RS-P		A6RS-102RS-R100
16	4 × 1	BCD Hexadecimal		A6RS-161RS			A6RS-161RS-P		A6RS-161RS-R100
	3 × 3			A6RS-162RS			A6RS-162RS-P		A6RS-162RS-R100

**Note:** Order in multiples of the package quantity.

## ■ Ratings/Characteristics

<b>Rating (resistive load)</b>		25 mA at 24 VDC 10 $\mu$ A (minimum current) at 3.5 VDC
<b>Ambient operating temperature</b>		-25 to +80°C at 60% 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 with insulation tester)
<b>Contact resistance (initial value)</b>		200 m $\Omega$ max.
<b>Dielectric strength</b>	<b>Between terminals</b>	250 VAC for 1 min
<b>Vibration resistance</b>	<b>Malfunction</b>	10 to 55 Hz, 1.5-mm double amplitude
<b>Shock resistance</b>	<b>Malfunction</b>	300 m/s <sup>2</sup> min.
<b>Durability</b>	<b>Electrical</b>	5,000 steps min.
<b>Washing</b>		Not possible
<b>Degree of protection</b>		IEC IP60
<b>Operating torque</b>		$1.96 \times 10^{-2}$ N·m {2 gf·m} max.
<b>Weight</b>		Flat: Approx. 0.6 g Extended-actuator: Approx. 0.73 g

## ■ Output Codes

### 10-position Models

Code Position	BCD Decimal code			
	1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●

### 16-position Models

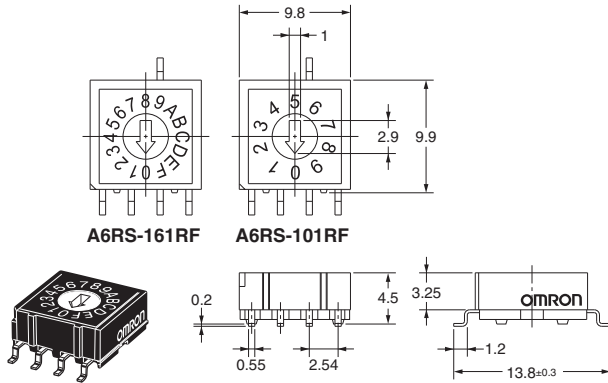
Code Position	BCD Hexadecimal code			
	1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●
A		●		●
B	●	●		●
C			●	●
D	●		●	●
E		●	●	●
F	●	●	●	●

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

**■Dimensions** (Unit: mm)

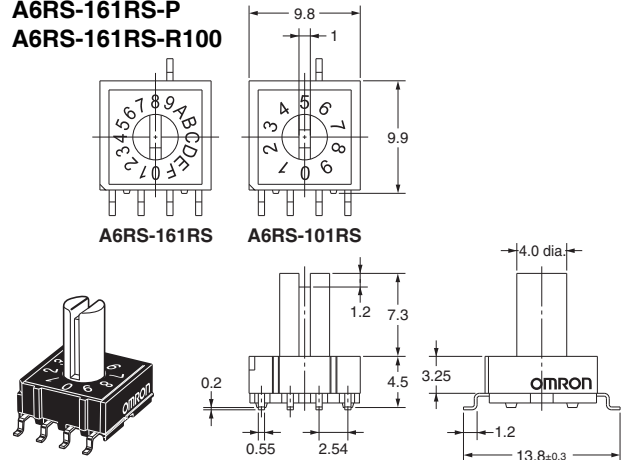
● **Top-actuated Flat Models with 4 × 1 Terminal Arrangement**

- A6RS-101RF
- A6RS-101RF-P
- A6RS-101RF-R100
- A6RS-161RF
- A6RS-161RF-P
- A6RS-161RF-R100



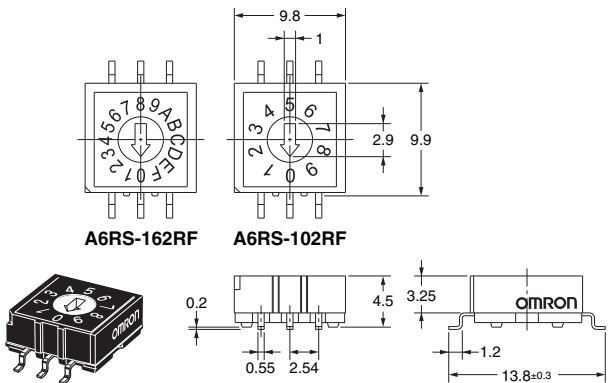
● **Top-actuated Extended-actuator Models with 4 × 1 Terminal Arrangement**

- A6RS-101RS
- A6RS-101RS-P
- A6RS-101RS-R100
- A6RS-161RS
- A6RS-161RS-P
- A6RS-161RS-R100



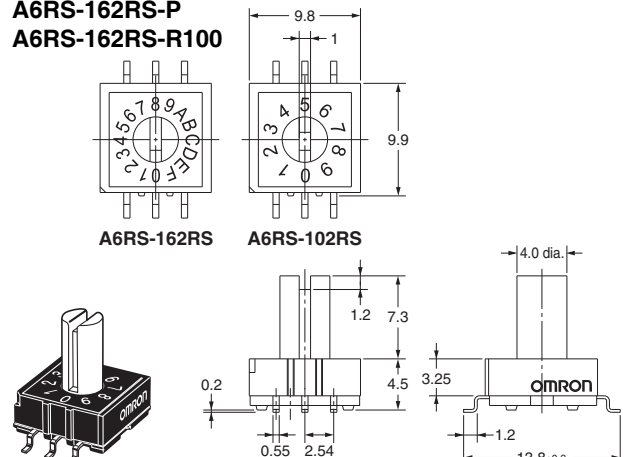
● **Top-actuated Flat Models with 3 × 3 Terminal Arrangement**

- A6RS-102RF
- A6RS-102RF-P
- A6RS-102RF-R100
- A6RS-162RF
- A6RS-162RF-P
- A6RS-162RF-R100



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

- A6RS-102RS
- A6RS-102RS-P
- A6RS-102RS-R100
- A6RS-162RS
- A6RS-162RS-P
- A6RS-162RS-R100

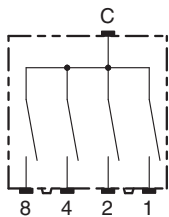


Note: Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.

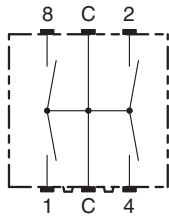
**■Internal Connections**

**Contact Form (Top View)**

**4 × 1 Terminal Arrangement**



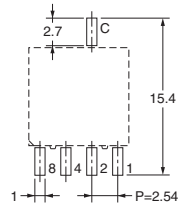
**3 × 3 Terminal Arrangement**



**■PCB Dimensions (Reference)** (Unit: mm)

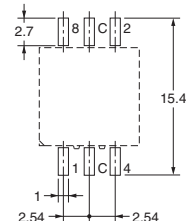
**(Top View)**

**4 × 1 Terminal Arrangement**



P: Pole numbers

**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

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