OMRON

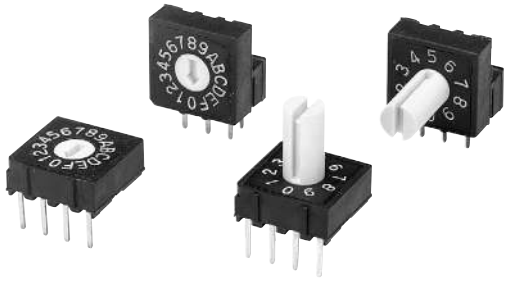
Rotary DIP Switch

A6R/A6RV

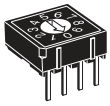
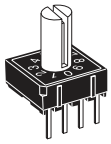
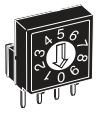
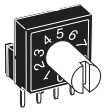
Through-hole mounting Rotary DIP Switches

- 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

Number of positions	Quantity per tube	Terminal arrangement	Output code	Type (actuator color) Top-actuated, flat (white)	Top-actuated, extended actuator (white)	Side-actuated, flat (white)	Side-actuated, extended actuator (white)
							
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

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

■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

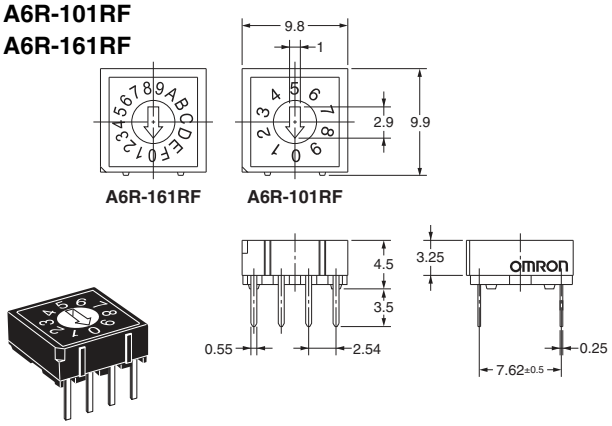
Code / Position	BCD Hexadecimal code 1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●
A		●		●
B	●	●		●
C			●	●
D	●		●	●
E		●	●	●
F	●	●	●	●

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

■Dimensions (Unit: mm)

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

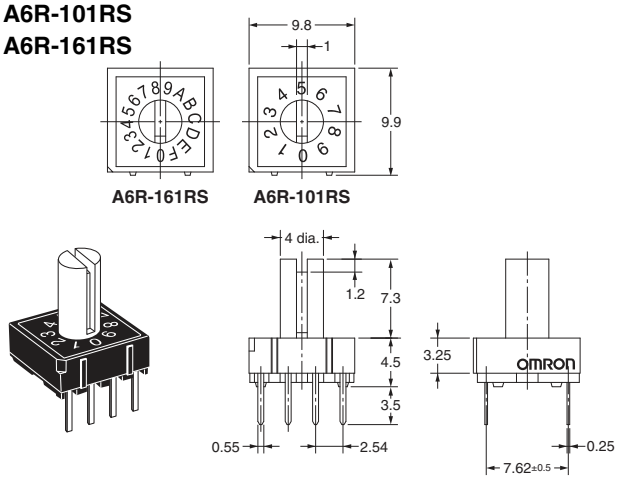
A6R-101RF
A6R-161RF



A6R-161RF A6R-101RF

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

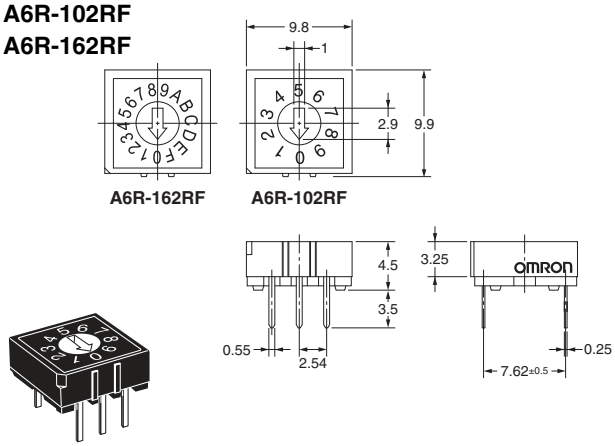
A6R-101RS
A6R-161RS



A6R-161RS A6R-101RS

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

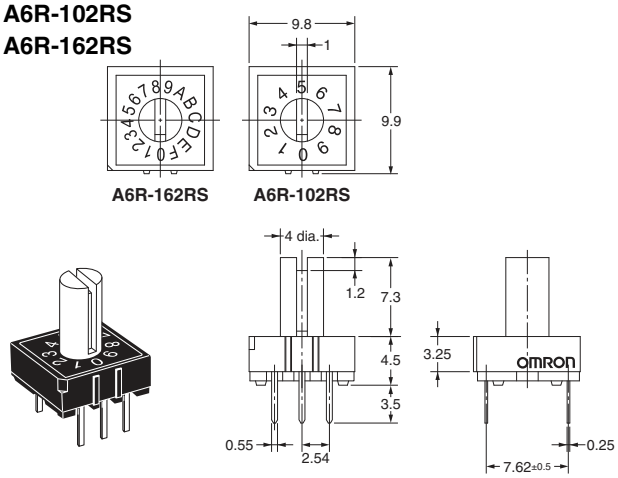
A6R-102RF
A6R-162RF



A6R-162RF A6R-102RF

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

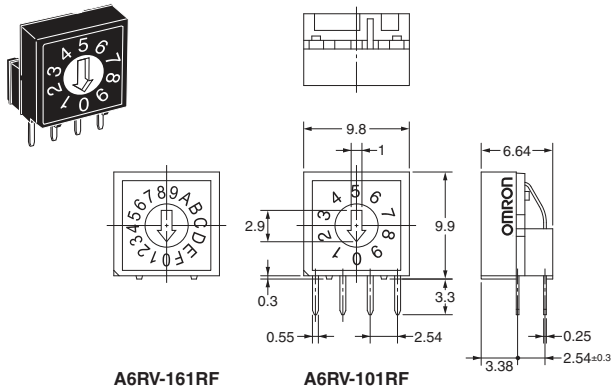
A6R-102RS
A6R-162RS



A6R-162RS A6R-102RS

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

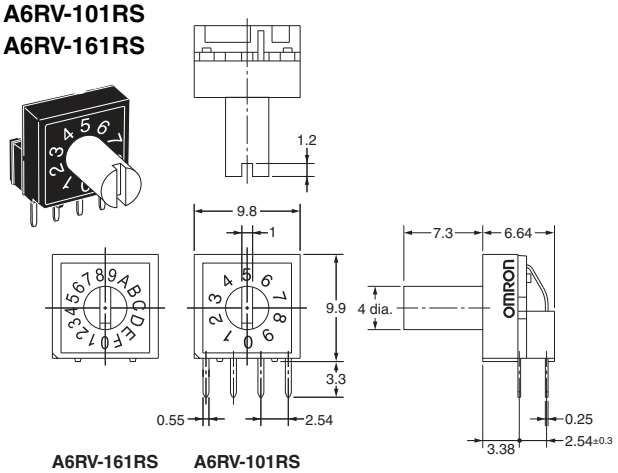
A6RV-101RF
A6RV-161RF



A6RV-161RF A6RV-101RF

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

A6RV-101RS
A6RV-161RS

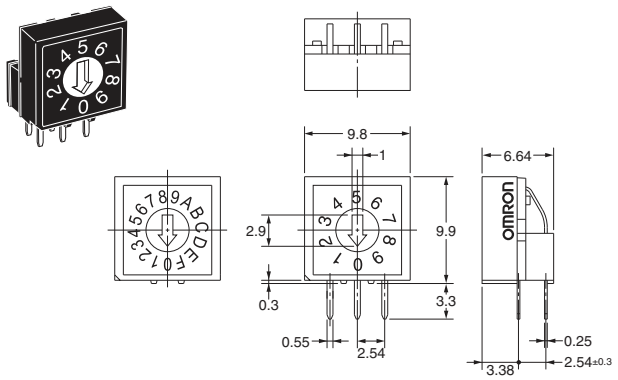


A6RV-161RS A6RV-101RS

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

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

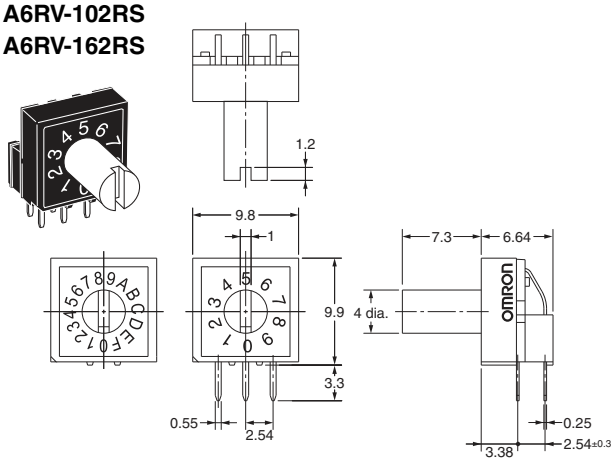
A6RV-102RF
A6RV-162RF



A6RV-162RF **A6RV-102RF**

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

A6RV-102RS
A6RV-162RS

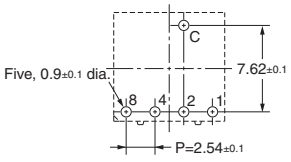


A6RV-162RS **A6RV-102RS**

■PCB Dimensions

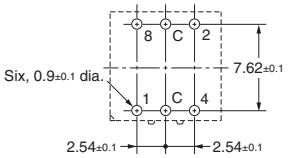
● **Top-actuated Models**

4×1 Terminal Arrangement



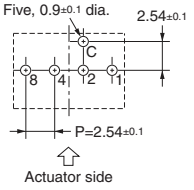
P: Pole Numbers

3×3 Terminal Arrangement



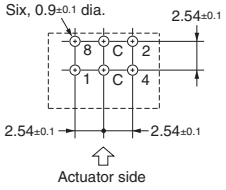
● **Side-actuated Models**

4×1 Terminal Arrangement



P: Pole Numbers

3×3 Terminal Arrangement



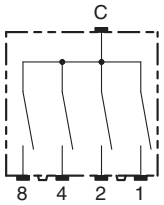
Note: Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.

■Internal Connections

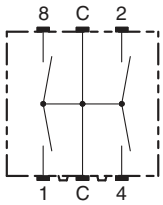
Contact Form (Top View)

● **Top-actuated Models**

4×1 Terminal Arrangement

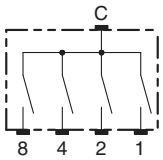


3×3 Terminal Arrangement

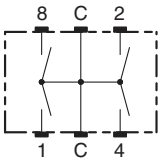


● **Side-actuated Models**

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**

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