OMRON

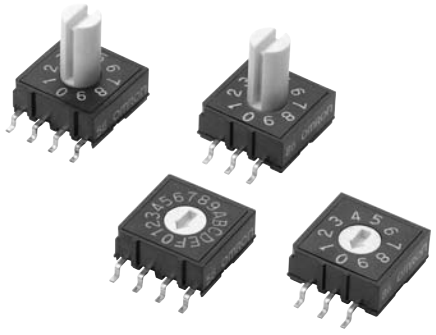
Rotary DIP Switch

A6RS

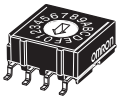
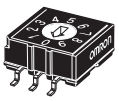
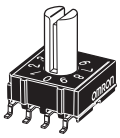
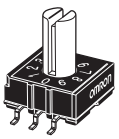
Surface-mounting Rotary DIP Switches

- Improved solder heat resistance (reflow peak solder temperature: 260 °C).
- Flat/Extended-actuator models available.
- Two different terminal arrangements allow the flexibility.

RoHS Compliant



■List of Models

Number of positions	Terminal arrangement	Output code	Type (actuator color)	Top-actuated, flat (white)				Top-actuated, extended actuator (white)			
				Tube packaging		Embossed taping		Tube packaging		Embossed taping	
				Quantity per tube		Quantity per reel		Quantity per tube		Quantity per reel	
10	4 × 1	BCD Decimal		48	A6RS-101RF	750	A6RS-101RF-P	48	A6RS-101RS	250	A6RS-101RS-P
	3 × 3				A6RS-102RF		A6RS-102RF-P		A6RS-102RS		A6RS-102RS-P
16	4 × 1	BCD Hexadecimal			A6RS-161RF		A6RS-161RF-P		A6RS-161RS		A6RS-161RS-P
	3 × 3				A6RS-162RF		A6RS-162RF-P		A6RS-162RS		A6RS-162RS-P

Note: Order in multiples of the package quantity.

■Ratings/Characteristics

Rating (resistive load)		25 mA at 24 VDC 10 μA (minimum current) at 3.5 VDC
Ambient operating temperature		–25 to +80°C at 60% 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 with insulation tester)
Contact resistance (initial value)		200 mΩ max.
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.
Washing		Not possible
Degree of protection		IEC IP60
Operating torque		1.96×10^{-2} N·m {2 gf·m} max.
Weight		Top-actuated: Approx. 0.6 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

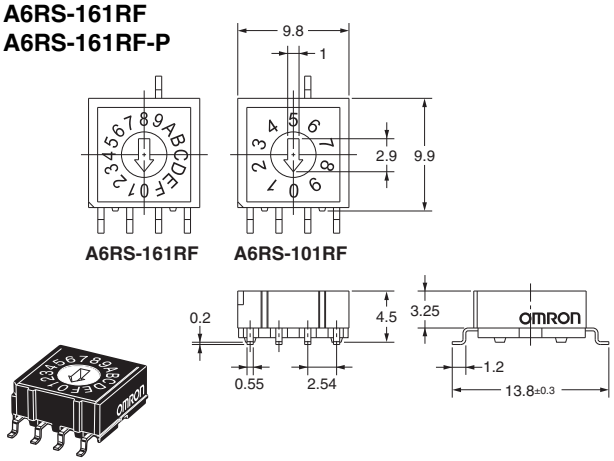
Code / Position	BCD Hexadecimal code 1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●
A		●		●
B	●	●		●
C			●	●
D	●		●	●
E		●	●	●
F	●	●	●	●

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

■Dimensions (Unit: mm)

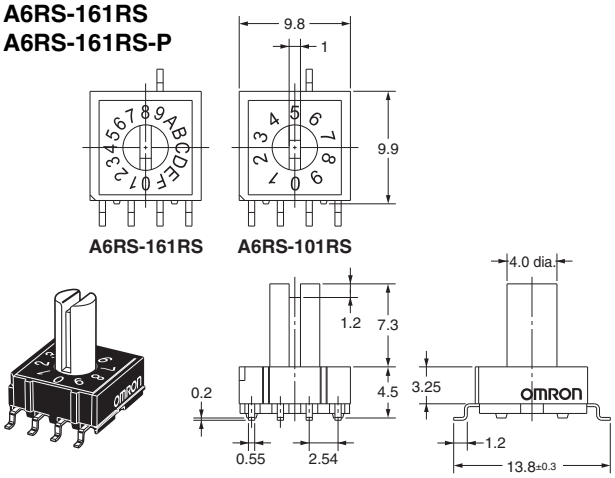
● Top-actuated Flat Models with 4×1 Terminal Arrangement

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



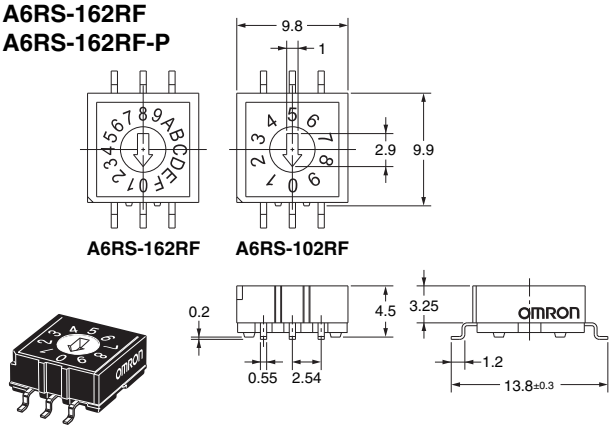
● Top-actuated Extended-actuator Models with 4×1 Terminal Arrangement

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



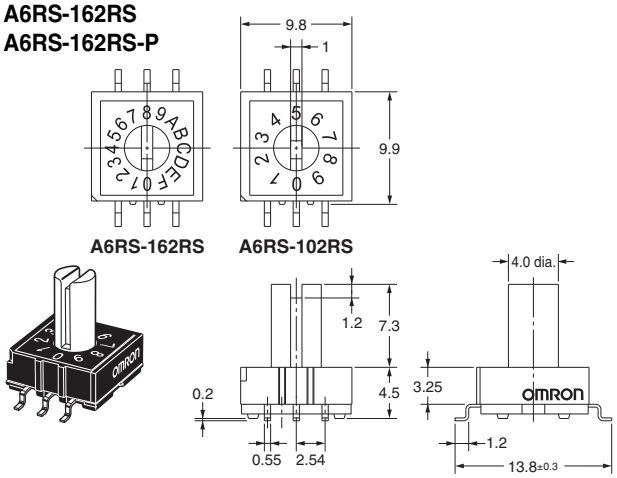
● Top-actuated Flat Models with 3×3 Terminal Arrangement

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



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

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

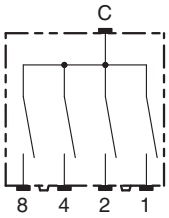


Note: Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.

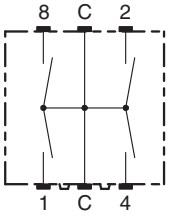
■Internal Connections

Contact Form (Top View)

4×1 Terminal Arrangement

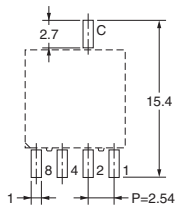


3×3 Terminal Arrangement



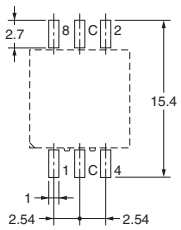
■PCB Dimensions (Top View)

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 **Contact: www.omron.com/ecb**

Cat. No. A165-E1-03
1014(0207)(O)