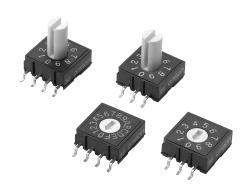
# **Surface-mounting Rotary DIP**

### **Surface-mounting Rotary DIP Switches**

- Temperature-resistant resin allows use in peak reflow temperatures of 260°C.
- Series includes flat and extended-shaft models.
- Two different types of terminal arrangement are available to allow flexibility in the circuit design.
- RoHS Compliant.



### **Ordering Information**

			Top-actuated, flat			Top-actuated, extended shaft				
			Tube pack	aging	Embossed tape packaging		Tube packaging		Embossed tape packaging	
						mod .				
Output code	Number of positions	Terminal arrangement		Quantity per tube		Quantity per reel		Quantity per tube		Quantity per reel
BCD	10	4 × 1	A6RS-101RF		A6RS-101RF-P	750	A6RS-101RS	48	A6RS-101RS-P	250
1-2-4-8		3 × 3	A6RS-102RF	48	A6RS-102RF-P		A6RS-102RS		A6RS-102RS-P	
BCD Hexadecimal	16	4 × 1	A6RS-161RF	40	A6RS-161RF-P		A6RS-161RS		A6RS-161RS-P	
1-2-4-8		3 × 3	A6RS-162RF		A6RS-162RF-P		A6RS-162RS		A6RS-162RS-P	

Note: Order in multiples of the quantities given for each package (tube: 48, embossed taping: 250 or 750).

### **Specifications**

### **■** Ratings/Characteristics

Switching Capacity	25 mA at 24 VDC
Min. Permissible Load	10 μA at 3.5 VDC
Contact resistance	200 m $\Omega$ max.
Insulation resistance	100 MΩ min. (at 250 VDC)
Dielectric strength	250 VAC for 1 minute between terminals
Operating torque	200 g-cm max. (1.96 x 10 <sup>-2</sup> N⋅m max.)
Vibration resistance	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Malfunction: 300 m/s² (30G) min.
Ambient operating temperature	-25 to 80°C at 60% RH max. (with no icing or condensation)
Ambient operating humidity	35% to 95% (at 5 to 35°C)
Electrical service life	5,000 steps min.
Weight (See note 2)	Top-actuated: Approx. 0.6 g

- Note: 1. Data shown are of initial value.
  - 2. Add 0.13 g for the extended-shaft version of each model
  - 3. Switches cannot be water washed

### **■** Output Codes

#### 10-position Models

Туре	BCD 1-2-4-8				
Terminal No.	1	2	4	8	
Position	•	_	7	,	
0					
1	•				
2		•			
3	•	•			
4			•		
5	•		•		
6		•	•		
7	•	•	•		
8				•	
9	•			•	
		•		•	

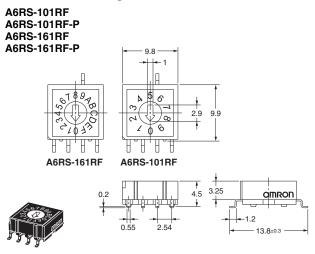
Note: "O" indicates that the internal switch is ON.

16-position Models					
Туре	BCD/hexadeci 1-2-4-8			imal	
Terminal No.	1	2	4	8	
Position					
0					
1	•				
2		•			
3	•	•			
4			•		
5	•		•		
6		•	•		
7	•	•	•		
8				•	
9	•			•	
Α		•		•	
В	•	•		•	
С			•	•	
D	•		•	•	
E		•	•	•	
F	•	•	•	•	

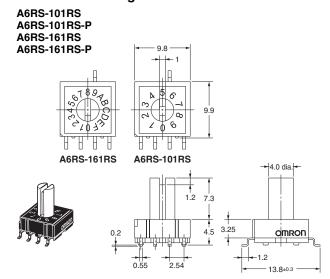
### **Dimensions**

- Note: 1. All units are in millimeters unless otherwise indicated.
  - 2. A tolerance of  $\pm 0.4$  mm applies to the above dimensions unless otherwise specified.

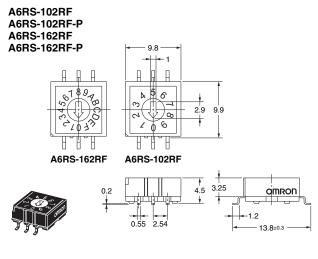
# Top-actuated Flat Models with 4x1 Terminal Arrangement



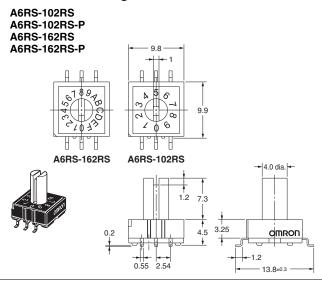
### Top-actuated Extended-shaft Models with 4x1 Terminal Arrangement



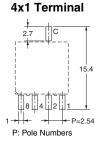
# Top-actuated Flat Models with 3x3 Terminal Arrangement



### Top-actuated Extended-shaft Models with 3x3 Terminal Arrangement



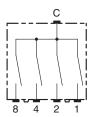
### Mounting pads (Top view)



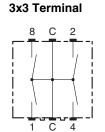
3x3 Terminal

2.7 | 8 | C | 2 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4

Internal connections (Top view)



4x1 Terminal



### **Omron Electronic Components, LLC**

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11/09

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