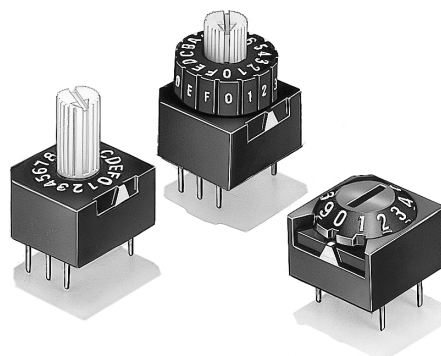


# Sealed Rotary DIP Switch



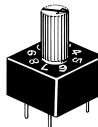

## A6A

### Subminiature DIP Switch for High-Density Packaging

- Series includes a Cone type that can be operated from the top or side, an extended shaft type that can be operated while mounted on a panel, and a flat type.
- A slider lock and rotating PCB system achieve stable contact reliability.
- Sealed construction equivalent to IP64 (IEC 60529) prevents flux penetration and provides high contact reliability even in dusty locations and locations where water is used
- RoHS Compliant



### Ordering Information

		Part Numbers			
		Standard (Cone)	Flat	Extended shaft	Thumbwheel
					
Output code	No. of positions				
BCD 1-2-4-8	10	<b>A6A-10R</b>	<b>A6A-10RF</b>	<b>A6A-10RS</b>	<b>A6A-10RW</b>
BCD 1-2-4-8 complement		<b>A6A-10C</b>	<b>A6A-10CF</b>	<b>A6A-10CS</b>	<b>A6A-10CW</b>
BCD Hexadecimal 1-2-4-8	16	<b>A6A-16R</b>	<b>A6A-16RF</b>	<b>A6A-16RS</b>	<b>A6A-16RW</b>
BCD Hexadecimal 1-2-4-8 complement		<b>A6A-16C</b>	<b>A6A-16CF</b>	<b>A6A-16CS</b>	<b>A6A-16CW</b>

**Important Note:** Switches cannot be water-washed.

### Specifications

#### ■ Characteristics

<b>Switching capacity</b>		100 mA at 28 VDC, 1 mA at 5 VDC (minimum load)
<b>Contact resistance</b>		200 MΩ max.
<b>Insulation resistance</b>		10 MΩ min. (at 250 VDC)
<b>Dielectric strength</b>		500 VAC for 1 minute between current-carrying metal part and ground 250 VAC for 1 minute between terminals
<b>Operating torque</b>		120 to 250 g-cm (1.18 to 2.45 x 10 <sup>-2</sup> N-m) max.
<b>Vibration resistance</b>	<b>Malfunction durability</b>	10 to 55 Hz, 1.5 mm double amplitude
<b>Shock resistance</b>	<b>Malfunction durability</b>	300 m/s <sup>2</sup> (30 G) min.
<b>Ambient operating temperature</b>		-10° to 70°C at 60% RH max. (with no icing or condensation)
<b>Ambient operating humidity</b>		45% to 85% RH (at 5 to 35°C)
<b>Service life</b>	<b>Mechanical</b>	10,000 detent operations min.
	<b>Electrical</b>	2,000 detent operations min.
<b>Weight</b>		Cone: Approx. 0.8 g Flat: Approx. 0.7 g Extended shaft: Approx. 0.8g Thumbwheel: Approx. 1.0g

**Note:** Data shown are of initial value.

# Output Codes

## 10-position Models

Type Terminal No. Position	BCD 1-2-4-8				BCD 1-2-4-8 complement			
	1	2	4	8	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$
0					●	●	●	●
1	●					●	●	●
2		●			●		●	●
3	●	●					●	●
4			●		●	●		●
5	●		●			●		●
6		●	●		●			●
7	●	●	●					●
8				●	●	●	●	
9	●			●		●	●	

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

## 16-position Models

Type Terminal No. Position	BCD/hexadecimal 1-2-4-8				BCD/hexadecimal 1-2-4-8 complement			
	1	2	4	8	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$
0					●	●	●	●
1	●					●	●	●
2		●			●		●	●
3	●	●					●	●
4			●		●	●		●
5	●		●			●		●
6		●	●		●			●
7	●	●	●					●
8				●	●	●	●	
9	●			●		●	●	
A		●		●	●		●	
B	●	●		●			●	
C			●	●	●	●		
D	●		●	●		●		
E		●	●	●	●			
F	●	●	●	●				

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

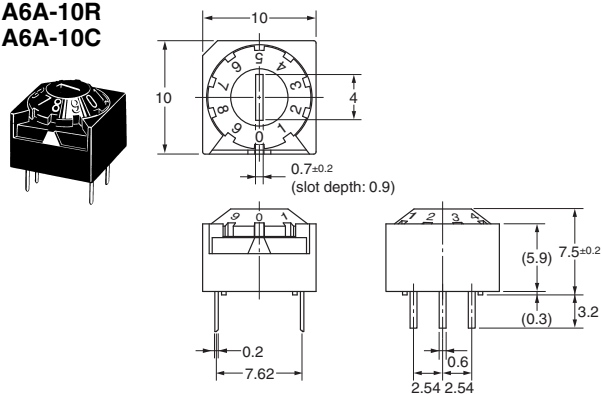
# Dimensions

Note: 1. All units are in millimeters unless otherwise indicated.

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

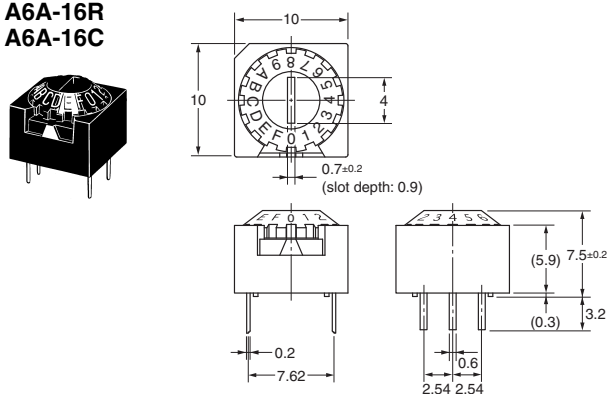
## Standard (Cone) Type, 10 Positions

A6A-10R  
A6A-10C



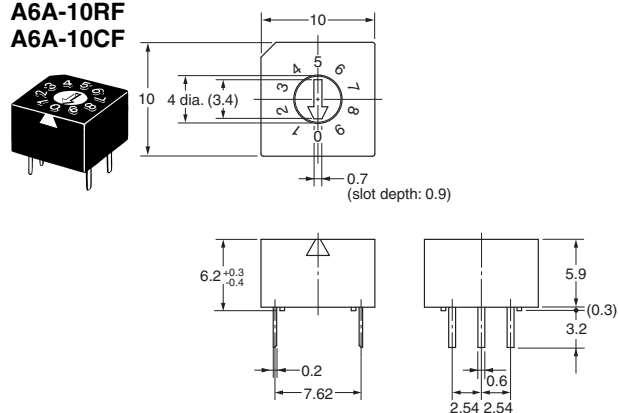
## Standard (Cone) Type, 16 Positions

A6A-16R  
A6A-16C



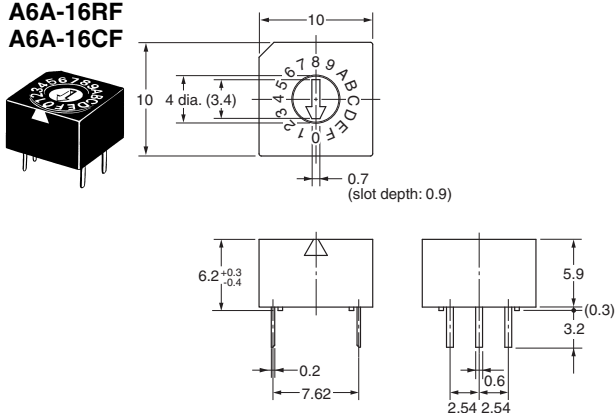
## Flat Type, 10 Positions

A6A-10RF  
A6A-10CF



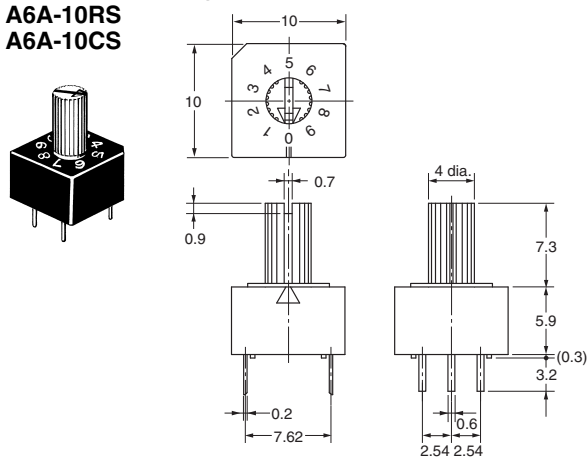
## Flat Type, 16 Positions

A6A-16RF  
A6A-16CF



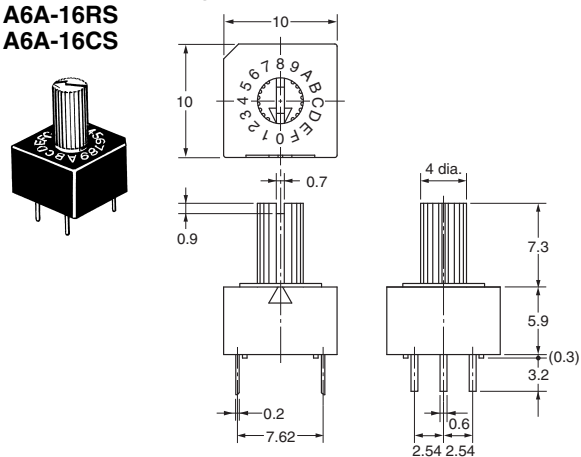
■ Extended Shaft Type, 10 Positions

A6A-10RS  
A6A-10CS



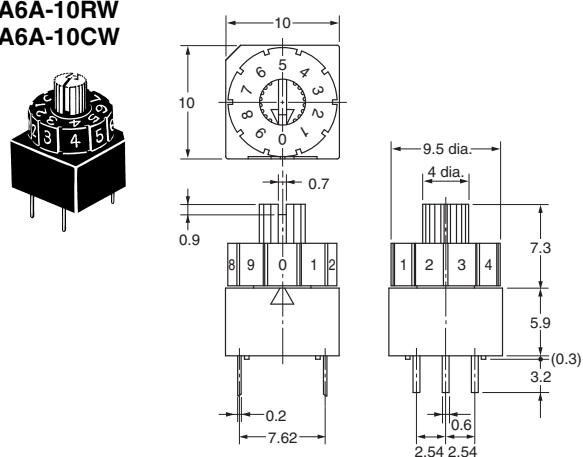
■ Extended Shaft Type, 16 Positions

A6A-16RS  
A6A-16CS



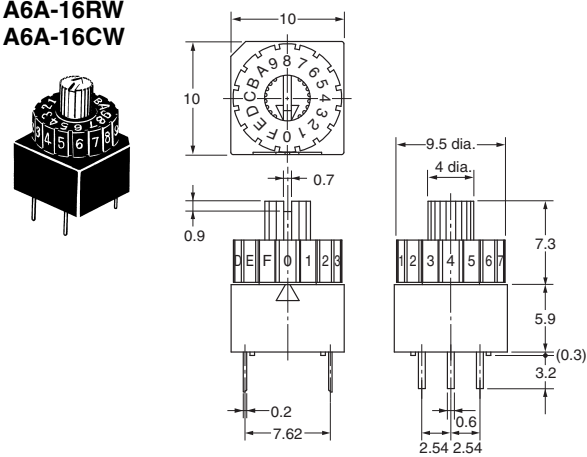
■ Thumbwheel Type, 10 Positions

A6A-10RW  
A6A-10CW

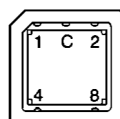


■ Thumbwheel Type, 16 Positions

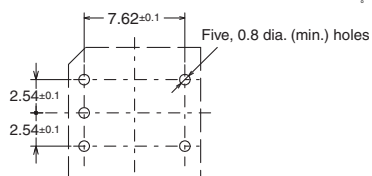
A6A-16RW  
A6A-16CW



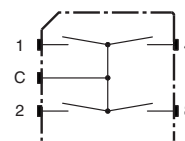
Terminal arrangement  
(bottom view)



Mounting holes  
(Top view)



Internal connections  
(top view)



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