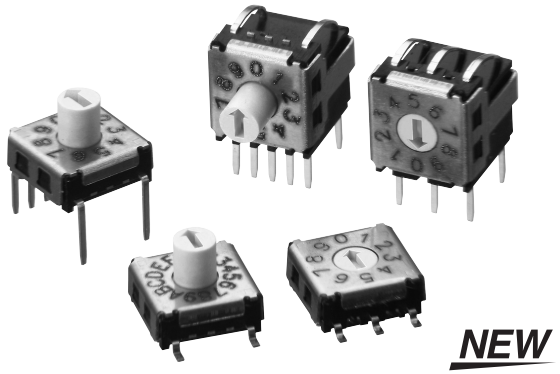
Miniature Rotary DIP Switch
A6K/A6KS

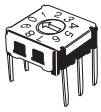
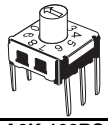
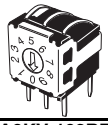
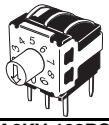
Miniature (7.2 × 7.2mm size) Rotary DIP Switch

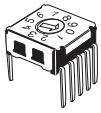
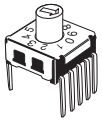
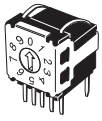
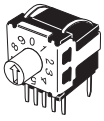
- Mounting space reduced by 50%. (compared with conventional models)
- SMT and through hole type Available. Side-actuated type available.
- Gold-plated contacts ensure high reliability.
- RoHS Compliant



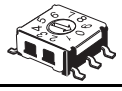
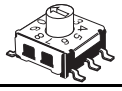
Ordering Information

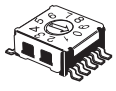
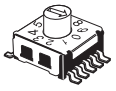
■ Through hole type

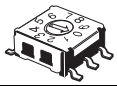
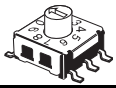
3 × 3 Terminal, tube packaging			Top-actuated flat	Top-actuated extended shaft	Side-actuated flat	Side-actuated extended shaft
Output code	No. of positions	Quantity per tube				
BCD 1-2-4-8	10	Top: 63 Side: 60	A6K-102RF	A6K-102RS	A6KV-102RF	A6KV-102RS
BCD Hexadecimal 1-2-4-8	16		A6K-162RF	A6K-162RS	A6KV-162RF	A6KV-162RS

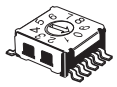
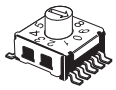
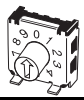
5 × 2 Terminal, tube packaging			Top-actuated flat	Top-actuated extended shaft	Side-actuated flat	Side-actuated extended shaft
Output code	No. of positions	Quantity per tube				
BCD 1-2-4-8	10	Top: 63 Side: 60	A6K-104RF	A6K-104RS	A6KV-104RF	A6KV-104RS
BCD Hexadecimal 1-2-4-8	16		A6K-164RF	A6K-164RS	A6KV-164RF	A6KV-164RS

■ SMT type

3 × 3 Terminal, tube packaging			Top-actuated flat	Top-actuated extended shaft
Output code	No. of positions	Quantity per tube		
BCD 1-2-4-8	10	63	A6KS-102RF	A6KS-102RS
BCD Hexadecimal 1-2-4-8	16		A6KS-162RF	A6KS-162RS

5 × 2 Terminal, tube packaging			Top-actuated flat	Top-actuated extended shaft	Side-actuated flat	Side-actuated extended shaft
Output code	No. of positions	Quantity per tube				
BCD 1-2-4-8	10	63	A6KS-104RF	A6KS-104RS	A6KSV-104RF	A6KSV-104RS
BCD Hexadecimal 1-2-4-8	16		A6KS-164RF	A6KS-164RS	A6KSV-164RF	A6KSV-164RS

3 × 3 Terminal Embossed taping Packages		Top-actuated flat		Top-actuated extended shaft	
Output code	No. of positions	Quantity per reel		Quantity per reel	
BCD 1-2-4-8	10	1450	**A6KS-102RF-P**	850	**A6KS-102RS-P**
BCD Hexadecimal 1-2-4-8	16		**A6KS-162RF-P**		**A6KS-162RS-P**

5 × 2 Terminal Embossed taping Packages		Top-actuated flat		Top-actuated extended shaft		Side-actuated flat		Side-actuated extended shaft	
Output code	No. of positions	Quantity per reel		Quantity per reel		Quantity per reel		Quantity per reel	
BCD 1-2-4-8	10	1450	**A6KS-104RF-P**	850	**A6KS-104RS-P**	750	**A6KSV-104RF-P**	750	**A6KSV-104RS-P**
BCD Hexadecimal 1-2-4-8	16		**A6KS-164RF-P**		**A6KS-164RS-P**		**A6KSV-164RF-P**		**A6KSV-164RS-P**

Specifications

■ Characteristics

Switching capacity		25 mA at 24 VDC
Minimum permissible load		10 μA at 3.5 VDC
Contact resistance		200 mΩ max.
Insulation resistance		100 MΩ min. (at 250 VDC)
Dielectric strength		250 VAC for 1 min between terminals
Operating torque		200 g-cm max. (1.96×10^{-2} N·m max.)
Vibration resistance	**Malfunction durability**	10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	**Malfunction durability**	300 m/s^2 min.
Ambient operating temperature		–30 to 80°C at 60% max. (with no icing or condensation)
Ambient operating humidity		35% to 95% (at 5 to 35°C)
Electrical service life		20,000 steps min.
Weight (See note 2.)	**Through hole terminal**	Top-actuated, flat: Approx. 0.4 g, Side-actuated, flat: Approx. 0.7 g
	SMT terminal	Top-actuated, flat: Approx. 0.4 g, Side-actuated, flat: Approx. 0.4 g

Note: **1.** Data shown are of initial value.
2. Add 0.03 g for the extended-shaft version of each model.

■Output Codes

10-position Models

Type	BCD 1-2-4-8			
Terminal No. / Position	1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●

16-position Models

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

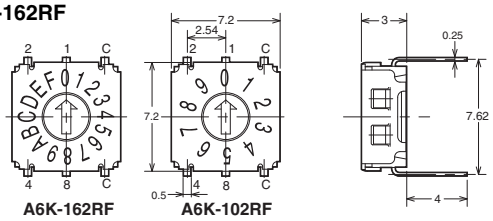
Note: "●" indicates that the internal switch is ON.

Dimensions

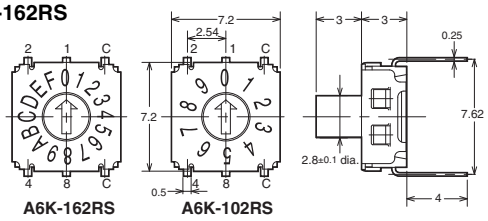
Note: 1. All units are in millimeters unless otherwise indicated.
2. Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.

■ Through hole type

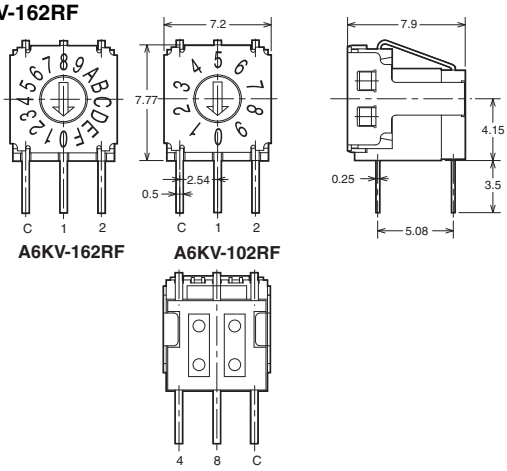
Top-actuated Flat Models with 3×3 Terminal Arrangement
A6K-102RF
A6K-162RF



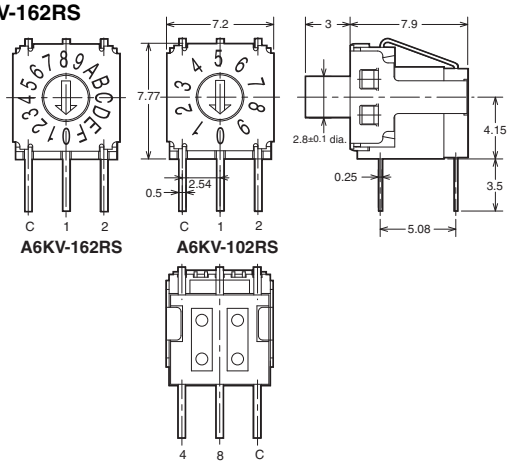
Top-actuated Extended shaft Models with 3×3 Terminal Arrangement
A6K-102RS
A6K-162RS



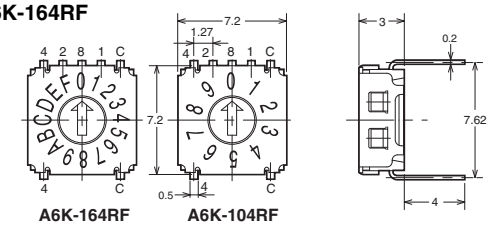
Side-actuated Flat Models with 3×3 Terminal Arrangement
A6KV-102RF
A6KV-162RF



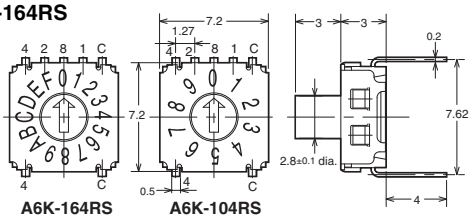
Side-actuated Extended-shaft Models with 3×3 Terminal Arrangement
A6KV-102RS
A6KV-162RS



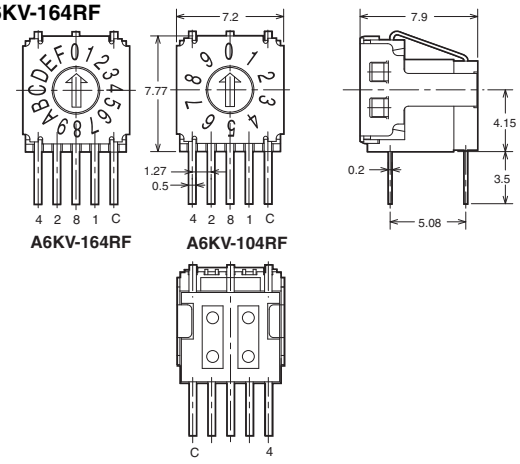
Top-actuated Flat Models with 5×2 Terminal Arrangement
A6K-104RF
A6K-164RF



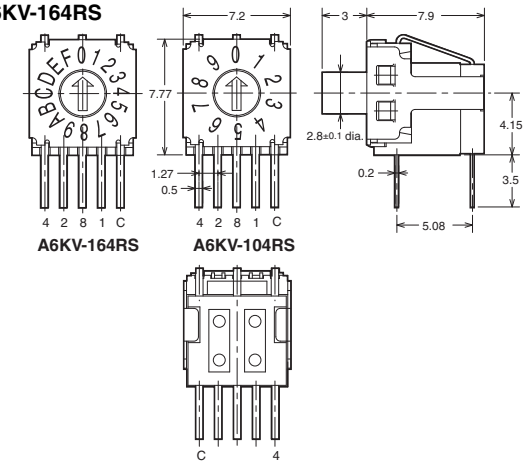
Top-actuated Extended shaft Models with 5×2 Terminal Arrangement
A6K-104RS
A6K-164RS



Side-actuated Flat Models with 5×2 Terminal Arrangement
A6KV-104RF
A6KV-164RF

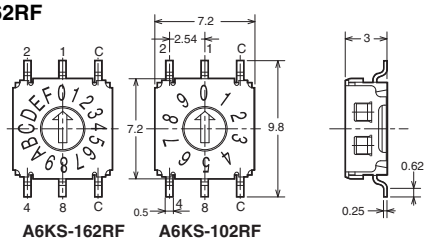


Side-actuated Extended-shaft Models with 5×2 Terminal Arrangement
A6KV-104RS
A6KV-164RS

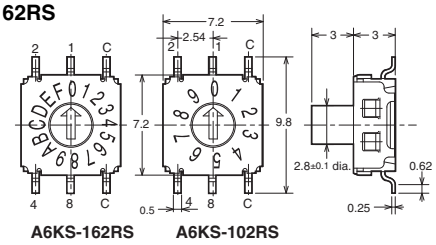


■ SMT type

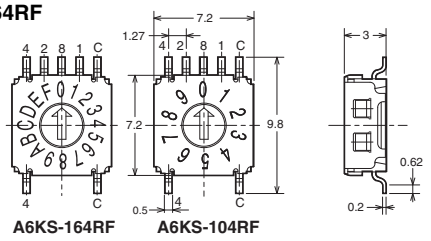
Top-actuated Flat Models with 3×3 Terminal Arrangement
A6KS-102RF
A6KS-162RF



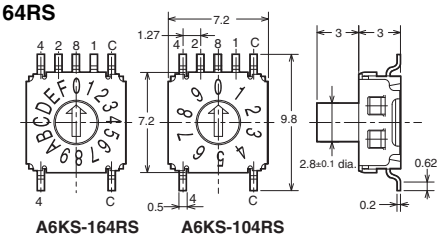
Top-actuated Extended shaft Models with 3×3 Terminal Arrangement
A6KS-102RS
A6KS-162RS



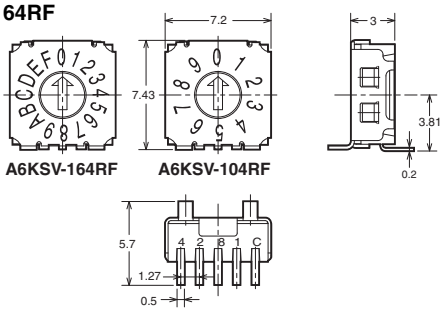
Top-actuated Flat Models With 5×2 Terminal Arrangement
A6KS-104RF
A6KS-164RF



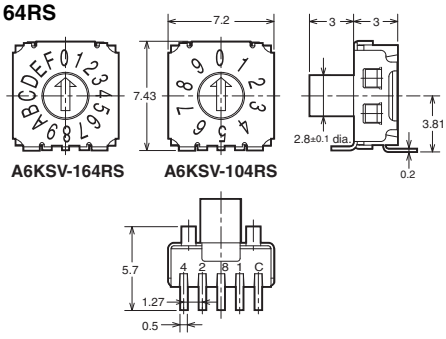
Top-actuated Extended shaft Models with 5×2 Terminal Arrangement
A6KS-104RS
A6KS-164RS



Side-actuated Flat Models with 5×2 Terminal Arrangement
A6KSV-104RF
A6KSV-164RF



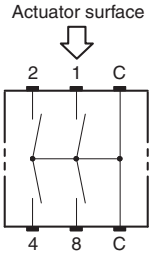
Side-actuated Extended-shaft Models with 5×2 Terminal Arrangement
A6KSV-104RS
A6KSV-164RS



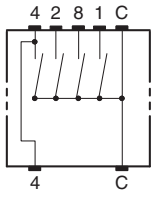
■ Internal Connections

Top-actuated

3x3 Terminal Arrangement
Through hole type and SMT type



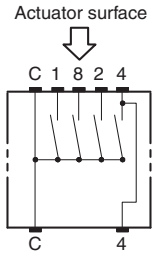
5x2 Terminal Arrangement
Through hole type and SMT type



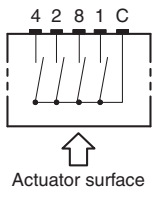
Note: 3x3 internal diagram applies to both top and side actuated models

Side-actuated

5x2 Terminal Arrangement
Through hole type



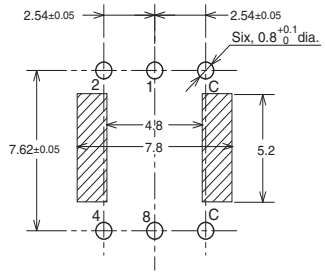
5x2 Terminal Arrangement
SMT type



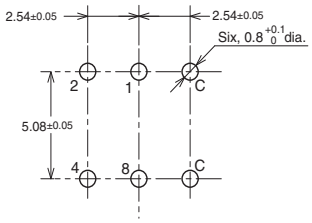
■ PCB Cutout Dimensions (Top View)

3×3 Terminal Arrangement

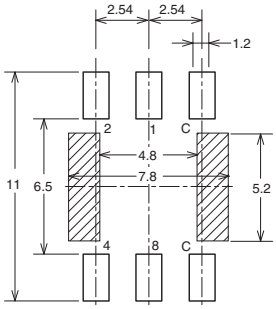
Through hole (Top-actuated Models)



Through hole (Side-actuated Models)

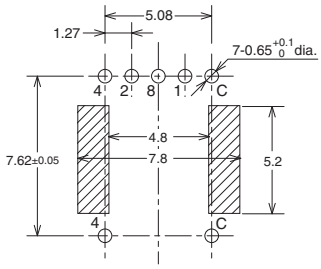


SMT (Top-actuated Models)

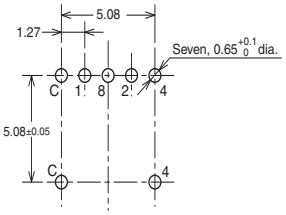


5×2 Terminal Arrangement

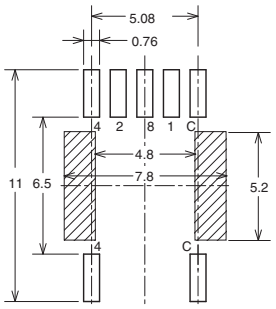
Through hole (Top-actuated Models)



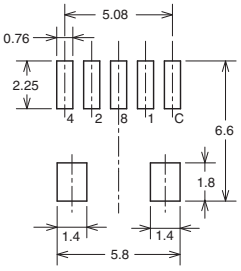
Through hole (Side-actuated Models)



SMT (Top-actuated Models)



SMT (Side-actuated Models)



Through hole: Pattern prohibited area

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