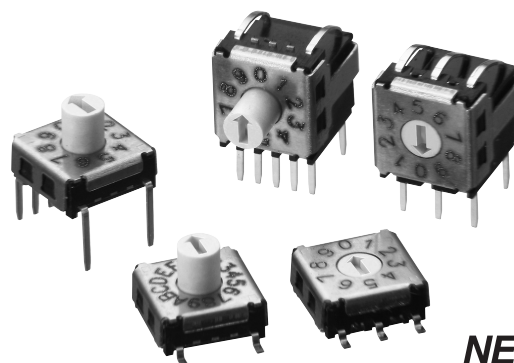


Miniature Rotary DIP Switch A6K/A6KS

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


NEW

Ordering Information

■ Through hole type

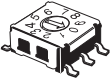
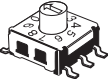
3 × 3 Terminal, tube packaging			Top-actuated flat	Top-actuated extended shaft	Side-actuated flat	Side-actuated extended shaft
Output code	No. of positions	Quantity per tube				
BCD 1-2-4-8	10	Top: 63 Side: 60	A6K-102RF	A6K-102RS	A6KV-102RF	A6KV-102RS
BCD Hexadecimal 1-2-4-8	16		A6K-162RF	A6K-162RS	A6KV-162RF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

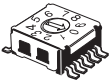
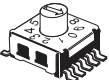
5 × 2 Terminal, tube packaging			Top-actuated flat	Top-actuated extended shaft	Side-actuated flat	Side-actuated extended shaft
Output code	No. of positions	Quantity per tube				
BCD 1-2-4-8	10	Top: 63 Side: 60	A6K-104RF	A6K-104RS	A6KV-104RF	A6KV-104RS
BCD Hexadecimal 1-2-4-8	16		A6K-164RF	A6K-164RS	A6KV-164RF	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 μ A at 3.5 VDC
Contact resistance		200 m Ω max.
Insulation resistance		100 M Ω 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			
	1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●

16-position Models

Type	BCD/hexadecimal 1-2-4-8			
	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.

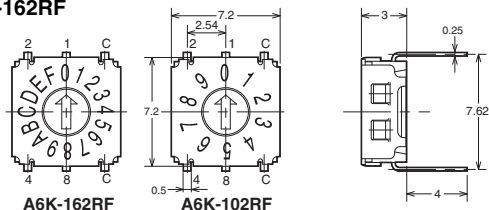
2. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

Through hole type

Top-actuated Flat Models with 3x3 Terminal Arrangement

A6K-102RF

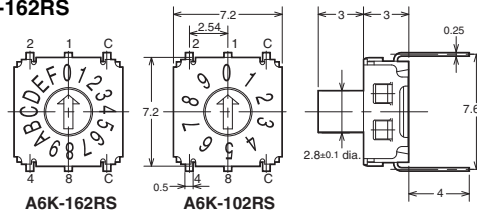
A6K-162RF



Top-actuated Extended shaft Models with 3x3 Terminal Arrangement

A6K-102RS

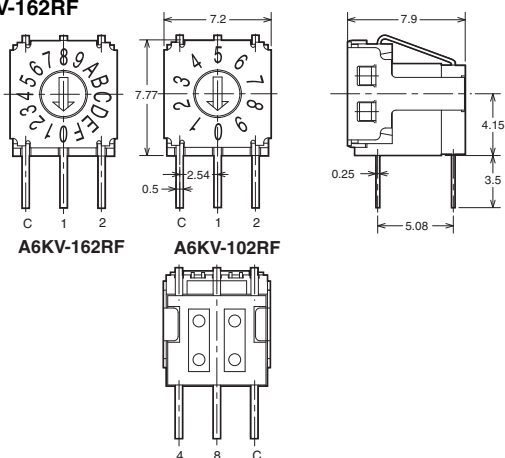
A6K-162RS



Side-actuated Flat Models with 3x3 Terminal Arrangement

A6KV-102RF

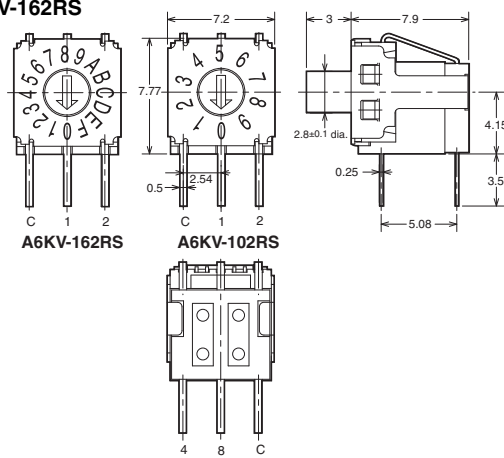
A6KV-162RF



Side-actuated Extended-shaft Models with 3x3 Terminal Arrangement

A6KV-102RS

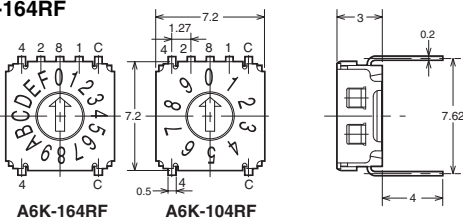
A6KV-162RS



Top-actuated Flat Models with 5x2 Terminal Arrangement

A6K-104RF

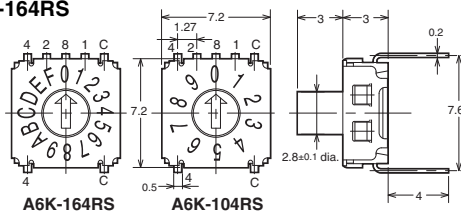
A6K-164RF



Top-actuated Extended shaft Models with 5x2 Terminal Arrangement

A6K-104RS

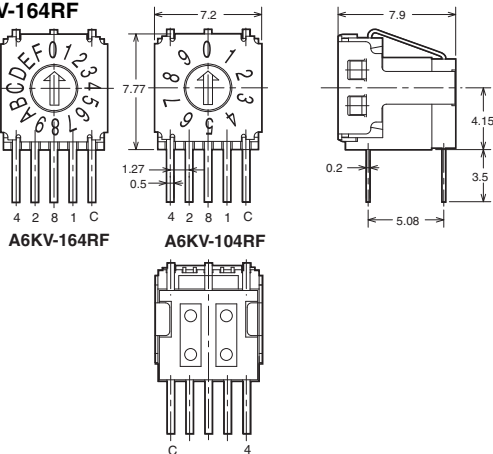
A6K-164RS



Side-actuated Flat Models with 5x2 Terminal Arrangement

A6KV-104RF

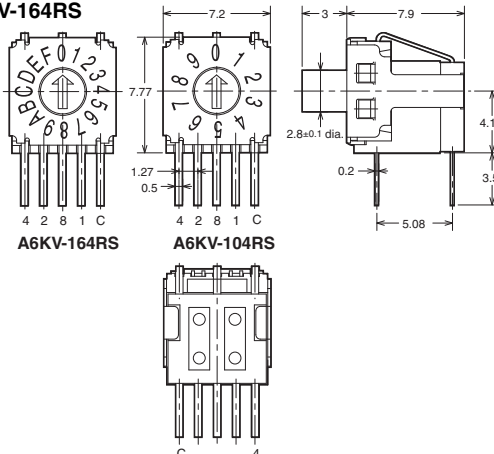
A6KV-164RF



Side-actuated Extended-shaft Models with 5x2 Terminal Arrangement

A6KV-104RS

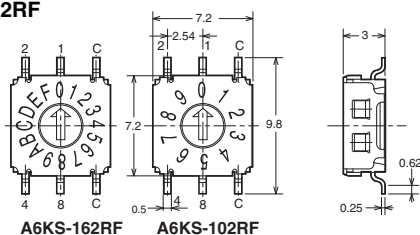
A6KV-164RS



■ SMT type

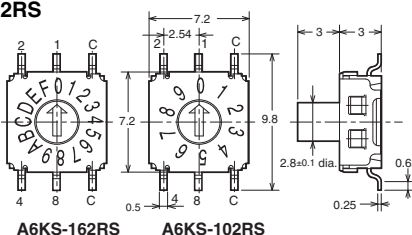
Top-actuated Flat Models with 3x3 Terminal Arrangement

A6KS-102RF
A6KS-162RF



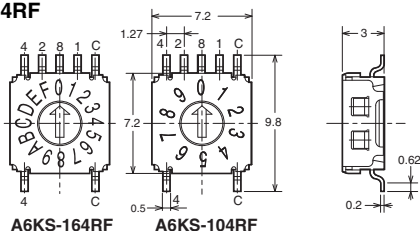
Top-actuated Extended shaft Models with 3x3 Terminal Arrangement

A6KS-102RS
A6KS-162RS



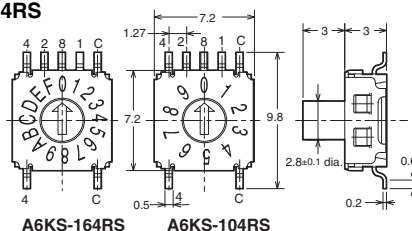
Top-actuated Flat Models With 5x2 Terminal Arrangement

A6KS-104RF
A6KS-164RF



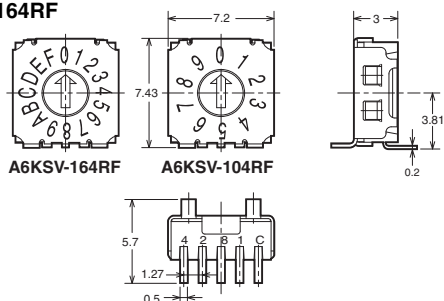
Top-actuated Extended shaft Models with 5x2 Terminal Arrangement

A6KS-104RS
A6KS-164RS



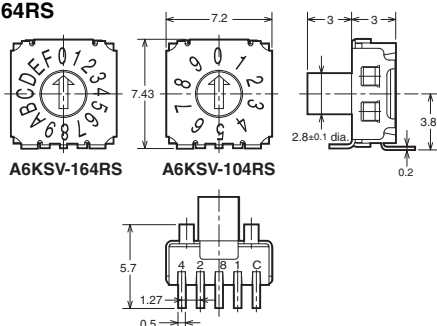
Side-actuated Flat Models with 5x2 Terminal Arrangement

A6KSV-104RF
A6KSV-164RF



Side-actuated Extended-shaft Models with 5x2 Terminal Arrangement

A6KSV-104RS
A6KSV-164RS

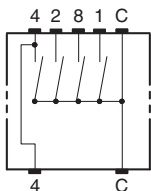
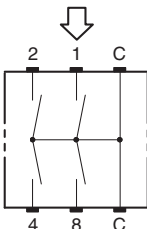


■ Internal Connections

Top-actuated

3x3 Terminal Arrangement 5x2 Terminal Arrangement
Through hole type and SMT type Through hole type and SMT type

Actuator surface

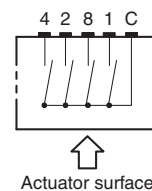
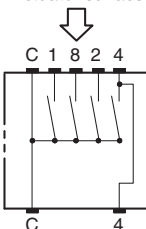


Note: 3x3 internal diagram applies to both top and side actuated models

Side-actuated

5x2 Terminal Arrangement 5x2 Terminal Arrangement
Through hole type SMT type

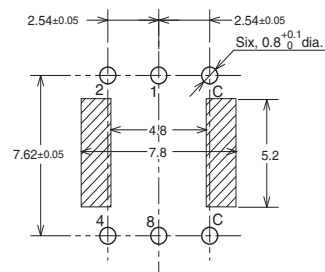
Actuator surface



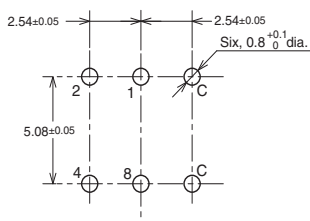
■ PCB Cutout Dimensions (Top View)

3×3 Terminal Arrangement

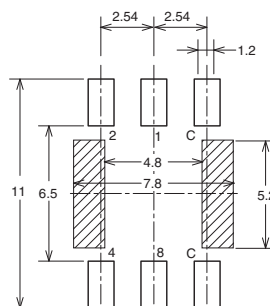
Through hole
(Top-actuated Models)



Through hole
(Side-actuated Models)

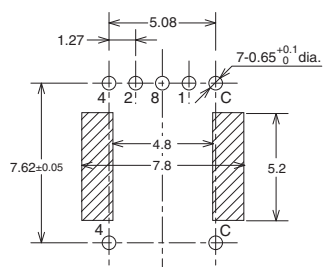


SMT
(Top-actuated Models)

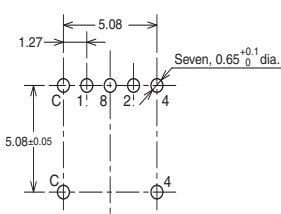


5×2 Terminal Arrangement

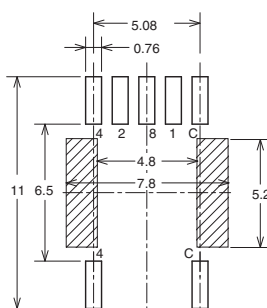
Through hole
(Top-actuated Models)



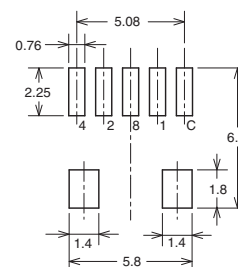
Through hole
(Side-actuated Models)



SMT
(Top-actuated Models)



SMT
(Side-actuated Models)



 Through hole: Pattern prohibited area

MEMO

Omron Electronic Components, LLC

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 - Terms:** These terms and conditions
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 - Delivery and shipping dates are estimates only; and
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- Claims:** Any claim by Buyer against Seller for shortage or damage to the Products occurring before delivery to the carrier or any claim related to pricing or other charges must be presented in detail in writing to Seller within 30 days of receipt of shipment.

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 - Systems, machines, and equipment that could present a risk to life or property.
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1. **Suitability for Use.** Seller shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in Buyer's application or use of the Product. At Buyer's request, Seller will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases but the following is a non-exhaustive list of applications for which particular attention must be given:
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 - (ii) Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
 - (iii) Use in consumer products or any use in significant quantities.
 - (iv) Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this product.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.
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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

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