## Surface Mounting Rotary DIP Switches

- Flat/Extended-actuator models are available.
- Terminal arrangement of $4 \times 1$ and $3 \times 3$ allow high flexibility in the PCB design
- Embossed 100 pcs reel type is recommended for flexible demand.


## RoHS Compliant



## List of Models

| Number of positions | Terminal arrangement | Type | Top-actuated, Flat |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Emboss | taping |  |
|  |  |  | Quantity per tube | Tube packaging | Quantity per reel | Quantity per reel | Quantity per reel | 100 pcs reel |
| 10 | $4 \times 1$ | BCD Decimal | 48 | A6RS-101RF | 750 | A6RS-101RF-P | 100 | A6RS-101RF-R100 |
|  | $3 \times 3$ |  |  | A6RS-102RF |  | A6RS-102RF-P |  | A6RS-102RF-R100 |
| 16 | $4 \times 1$ | BCD Hexadecimal |  | A6RS-161RF |  | A6RS-161RF-P |  | A6RS-161RF-R100 |
|  | $3 \times 3$ |  |  | A6RS-162RF |  | A6RS-162RF-P |  | A6RS-162RF-R100 |


| Number of positions | Terminal arrangement | Type | Top-actuated, Extended-actuator |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | Embo | taping |  |
|  |  |  | Quantity per tube | Tube packaging | Quantity per reel | Embossed taping | Quantity per reel | 100 pcs reel |
| 10 | $4 \times 1$ | BCD Decimal | 48 | A6RS-101RS | 250 | A6RS-101RS-P | 100 | A6RS-101RS-R100 |
| 10 | $3 \times 3$ |  |  | A6RS-102RS |  | A6RS-102RS-P |  | A6RS-102RS-R100 |
| 16 | $4 \times 1$ | BCD Hexadecimal |  | A6RS-161RS |  | A6RS-161RS-P |  | A6RS-161RS-R100 |
|  | $3 \times 3$ |  |  | A6RS-162RS |  | A6RS-162RS-P |  | A6RS-162RS-R100 |

[^0]
## Ratings/Characteristics

| Rating (resistive load) |  | 25 mA at 24 VDC <br> $10 \mu \mathrm{~A}$ (minimum current) at 3.5 VDC |
| :---: | :---: | :---: |
| Ambient operating temperature |  | $\begin{array}{\|l} \hline-25 \text { to }+80^{\circ} \mathrm{C} \text { at } 60 \% \text { max. } \\ \text { (with no icing or condensation) } \end{array}$ |
| Ambient operating humidity |  | $35 \%$ to $95 \%$ (at +5 to $+35^{\circ} \mathrm{C}$ ) |
| Insulation resistance |  | $100 \mathrm{M} \Omega \mathrm{min}$. <br> (at 250 VDC with insulation tester) |
| Contact resistance (initial value) |  | $200 \mathrm{~m} \Omega$ max. |
| Dielectric strength | Between terminals | 250 VAC for 1 min |
| Vibration resistance | Malfunction | 10 to $55 \mathrm{~Hz}, 1.5-\mathrm{mm}$ double amplitude |
| Shock resistance | Malfunction | $300 \mathrm{~m} / \mathrm{s}^{2} \mathrm{~min}$. |
| Durability | Electrical | 5,000 steps min. |
| Washing |  | Not possible |
| Degree of protection |  | IEC IP60 |
| Operating torque |  | $1.96 \times 10^{-2} \mathrm{~N} \cdot \mathrm{~m}\{2 \mathrm{gf} \cdot \mathrm{m}\}$ max. |
| Weight |  | Flat: Approx. 0.6 g Extended-actuator: Approx. 0.73 g |

## OOutput Codes

## 10-position Models



16-position Models

| Code <br> Position | BCD Hexadecimal code |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 4 | 8 |
| 0 |  |  |  |  |
| 1 | $\bullet$ |  |  |  |
| 2 |  | $\bullet$ |  |  |
| 3 | $\bullet$ | $\bullet$ |  |  |
| 4 |  |  | $\bullet$ |  |
| 5 | $\bullet$ |  | $\bullet$ |  |
| 6 |  | $\bullet$ | $\bullet$ |  |
| 7 | $\bullet$ | $\bullet$ | $\bullet$ |  |
| 8 |  |  |  | $\bullet$ |
| 9 | $\bullet$ |  |  | $\bullet$ |
| A |  | $\bullet$ |  | $\bullet$ |
| B | $\bullet$ | $\bullet$ |  | $\bullet$ |
| C |  |  | $\bullet$ | $\bullet$ |
| D | $\bullet$ |  | $\bullet$ | $\bullet$ |
| E |  | $\bullet$ | $\bullet$ | $\bullet$ |
| F | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |

Note: " $\bullet$ " indicates that the internal switch is ON.

## Dimensions (Unit: mm)

- Top-actuated Flat Models with $4 \times 1$ Terminal Arrangement
A6RS-101RF
A6RS-101RF-P
A6RS-101RF-R100
A6RS-161RF
A6RS-161RF-P
A6RS-161RF-R100

- Top-actuated Flat Models with $3 \times 3$ Terminal Arrangement
A6RS-102RF
A6RS-102RF-P
A6RS-102RF-R100
A6RS-162RF
A6RS-162RF-P
A6RS-162RF-R100


Top-actuated Extended-actuator Models with $4 \times 1$ Terminal Arrangement
A6RS-101RS
A6RS-101RS-P
A6RS-101RS-R100
A6RS-161RS
A6RS-161RS-P
A6RS-161RS-R100


- Top-actuated Extended-actuator Models with $3 \times 3$ Terminal Arrangement
A6RS-102RS
A6RS-102RS-P
A6RS-102RS-R100
A6RS-162RS
A6RS-162RS-P
A6RS-162RS-R100


A6RS-162RS


Note: Unless otherwise specified, a tolerance of $\pm 0.4 \mathrm{~mm}$ applies to all dimensions.

## Internal Connections

Contact Form (Top View)
$4 \times 1$ Terminal
Arrangement

$3 \times 3$ Terminal Arrangement


IPCB Dimensions (Reference)
(Unit: mm)
(Top View)
$4 \times 1$ Terminal
Arrangement


P: Pole numbers
$3 \times 3$ Terminal Arrangement


## Precautions

Be sure to read the Safety precautions common to all DIP Switches for correct use.

[^1]Note: Do not use this document to operate the Unit.

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E2FMX2D1M1TGJ03M NDI10H 219-9MSTP 204-6ES EPM02FV 701521596 NDS08V 76SB05 79A10 TD06H0SK1 Z7.255.9027.0 1-1825058-3 1825428-4 219-10LPSTF E3ZG6111D03M G4D212PUSTV2DC5 NDI05H EPG301BT06 206S0117


[^0]:    Note: Order in multiples of the package quantity.

[^1]:    - 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.

