

# KHS SERIES

## HALF PITCH DIP SWITCHES

### FEATURES

- These super-miniature (a terminal pitch of 0.05 inch) multi-contact switches are designed for use inside a very space saving and high technical electronic equipment.
- Reliability maintained with a size reduction of 41.9% (compared with our 8 poles standard DIP switches).
- The plastic case is designed for better heat resistance.
- Gold-plated electrical contacts are the standard specification.
- SMT units are compatible with an automatic assembling equipment, reflow (tape sealing) mounting and washable. (Compatible with automatic handling methods; such as a tape and cartridge).

300mil SOP Standard

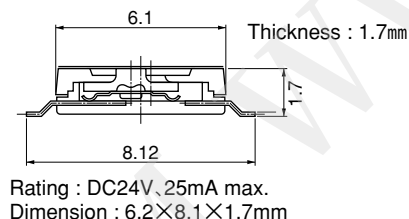
### HOW TO ORDER

|        |  |          |  |      |  |       |  |      |  |                      |  |
|--------|--|----------|--|------|--|-------|--|------|--|----------------------|--|
| K      |  | H        |  | S    |  | 8     |  | 2    |  | E                    |  |
| Series |  |          |  |      |  |       |  |      |  |                      |  |
| Code   |  | Actuator |  | Code |  | Poles |  | Code |  | Auto-Insertable      |  |
| S      |  | Slide    |  | 22   |  | 2     |  | E    |  | Embossed Taping type |  |
|        |  |          |  | 42   |  | 4     |  | C    |  | Cartridge type       |  |
|        |  |          |  | 62   |  | 6     |  |      |  |                      |  |
|        |  |          |  | 82   |  | 8     |  |      |  |                      |  |
|        |  |          |  | 102  |  | 10    |  |      |  |                      |  |

### LOW PROFILE TYPE



KHU04



## NEW PRODUCTS

# KHT SERIES

## ULTRA LOW PROFILE HALF-PITCH SLIDE TYPE SMT DIP SWITCHES RoHS Compliance Product

### FEATURES

- Ultra-miniaturization by reducing internal structure: (1.27mm pitch and 1.45mm height).
- Further high density mounting (space saving: approx. 1/2 of our standard KHS82 type).
- Higher heat-resistance by making use of engineering plastic.
- Reliable contact stability by twin gold-plated contact available as standard specifications.
- Auto-mountable, reflow and washable Both tube-packaging and tape & reel packaging are available.

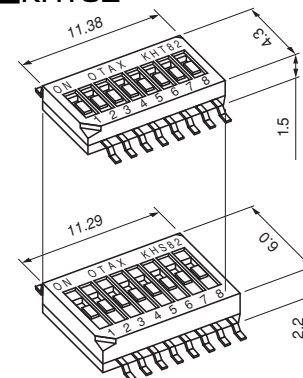
### HOW TO ORDER

|        |             |      |       |      |                      |      |  |
|--------|-------------|------|-------|------|----------------------|------|--|
| Series |             | Code |       | Code |                      | Code |  |
| K H T  |             | 8 2  |       | E    |                      |      |  |
| Code   | Actuator    | Code | Poles | E    | Embossed Taping type |      |  |
| T      | Low Profile | 22   | 2     | C    | Cartridge type       |      |  |
|        |             | 42   | 4     |      |                      |      |  |
|        |             | 62   | 6     |      |                      |      |  |
|        |             | 82   | 8     |      |                      |      |  |
|        |             | 102  | 10    |      |                      |      |  |

To be marketed at a later date.

### COMPARISON WITH CONVENTIONAL TYPE

#### ■KHT82



#### ■KHS82

## NEW PRODUCTS

# KHP SERIES

## ULTRA MINIATURE HALF-PITCH PIANO TYPE SMT DIP SWITCHES RoHS Compliance Product

### FEATURES

- Ultra-miniaturization by reducing internal structure: (1.27mm terminal pitch).
- Further high density mounting (space saving: approx. 1/4 of our standard KSP82 type).
- Higher heat-resistance by making use of engineering plastic.
- Reliable contact stability by twin gold-plated contact available as standard specifications.
- Auto-mountable, reflow and washable Both tube-packaging and tape & reel packaging are available.

### HOW TO ORDER

K

H

P

8

2

Series

Code

Actuator

P

Piano

Code

Poles

22

2

42

4

62

6

82

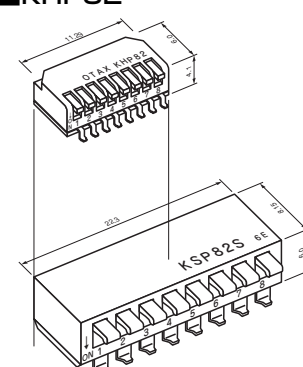
8

102

10

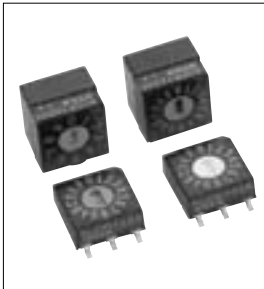
### COMPARISON WITH CONVENTIONAL TYPE

#### ■KHP82



#### ■KSP82S

# KU SERIES

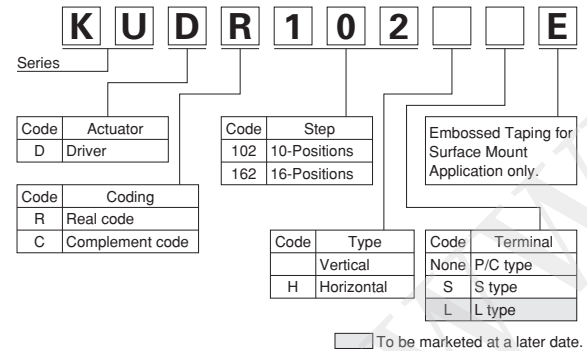


## LOW PROFILE ROTARY DIP SWITCHES

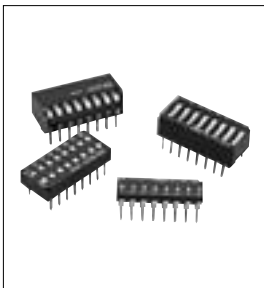
### FEATURES

- Low profile of 7mm square and 3mm high provides to increase a capacity of surface mounting P.C.B.
- Beryllium copper of spring using and high grade stainless steel are used, and gained a fine click touch of stepping.
- Terminal pitch is 0.1 inch as same as series K.
- By employing an engineering plastic, heat resisting is much improved.
- Horizontal(H) type is newly available(7mm square and 6mm high).
- SMT units are compatible with an automatic assembling equipment, reflow mounting and washable. (Compatible with automatic handling methods; such as a tape and cartridge).

### HOW TO ORDER



# KY SERIES

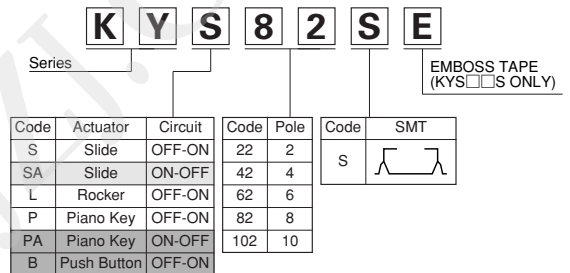


## "END TO END STACKABLE" LOW PROFILE DIP SWITCHES

### FEATURES

- KY Series DIP SWITCHES are mountable on P/C boards in a standard 0.1 inch pitch and allows them to be ganged end-to-end KYS type only.
- By employing an engineering plastic, the KY Series has an excellent heat and chemical resistance.
- KYS type is a very low profile switch and is not more than 2.6mm high above a P/C board (minus 1.6mm high compared with our previous models).
- Standard GOLD plated contact points for reliability and long service life.
- Compatible for automatic cleaning. High pressure wiping contacts allows aqueous or solvent cleaning.

### HOW TO ORDER

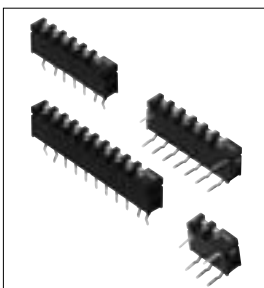


\*KYP is not available with SMT terminals.

☐ To be marketed at a later date.  
☒ Made to order basis.

## NEW PRODUCTS

# SX SERIES

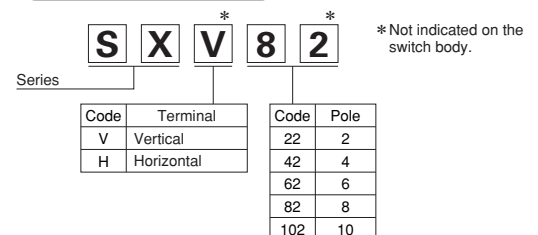


## AUTO-CLEANING TYPE SIP SWITCHES

### FEATURES

- High-density design is achieved by employing SIP configuration.
- The most stable and reliable contact because of an extremely high pressure contact mechanism(200kg/mm<sup>2</sup>).
- Washable without tape sealing SIP switches on the P/C board.
- Gas tight contacts(280,000 psi)

### HOW TO ORDER



# K SERIES

## DUAL IN-LINE PACKAGE SWITCHES

### FEATURES

- The heat resistance was greatly improved by employing ceramic substrates.
- The exclusive knife-edge contact method always ensures stable contact regardless of solder flux or any other environmental hazards.
- Contact pressure is as big as 200kg/mm<sup>2</sup> and immune to accidental operation by shock or vibration.
- Identical to ICs in terminal dimensions and configurations, making switches automatically mountable onto PC boards by the use of parts insertion machine for assembly work efficiency.
- High pressure "knife-edge" contact is capable enough to break possibly formed film by oxidation or sulfurization, ensuring long life expectancy.
- The cleaning solution can be used for a longer and is not necessary to change as often as for the conventional ones.

### HOW TO ORDER

| Series |                   | K        |  | S                       |  | D                         |  | A    |  | 8        |  | 2    |  | S        |  |
|--------|-------------------|----------|--|-------------------------|--|---------------------------|--|------|--|----------|--|------|--|----------|--|
| Code   |                   | Actuator |  | Slide & Flat Knob Slide |  | Piano ON down Piano ON up |  | Code |  | Terminal |  | None |  | P/C type |  |
| D      | Slide             | Poles    |  | Code                    |  | Code                      |  | S    |  | S type   |  | L    |  | L type   |  |
| S      | Flat Knob Slide   | 1        |  | 12                      |  | —                         |  | S    |  | S type   |  | L    |  | L type   |  |
| P      | Piano Key ON down | 2        |  | 22                      |  | 22                        |  | S    |  | S type   |  | L    |  | L type   |  |
| PA     | Piano Key ON up   | 3        |  | 32                      |  | 32                        |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 4        |  | 42                      |  | 42                        |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 5        |  | 52                      |  | 52                        |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 6        |  | 62                      |  | 62                        |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 7        |  | 72                      |  | 72                        |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 8        |  | 82                      |  | 82                        |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 9        |  | 92                      |  | 92                        |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 10       |  | 102                     |  | 102                       |  | S    |  | S type   |  | L    |  | L type   |  |
|        |                   | 12       |  | 122                     |  | —                         |  | S    |  | S type   |  | L    |  | L type   |  |

| Blank | ON down |
|-------|---------|
| A     | ON up   |

Made to order basis.

## ROTARY DIGITAL CODED DIP SWITCHES

### FEATURES

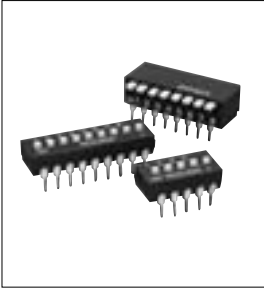
- Exclusive knife-edge high contact pressure(100kg/mm<sup>2</sup>) ensures stable contact, giving immunity to accidental operation by shock or vibration.
- High pressure 'edge' or 'point' contact is capable enough to break possibly formed film by oxidation or sulfurization, ensuring long life expectancy of 20,000 cycles or more.
- Moulded-in terminals and fully sealed construction offer flux-free flow-soldering and automatic cleaning capabilities.
- Low profile and ruggedly constructed.
- 2.54mm terminal spacing allows direct PCB mounting and also fits into standard IC sockets.
- Miniaturized size allows high density mounting.

### HOW TO ORDER

| Series |                  | K            |  | D               |  | R                                                     |  | 1                           |  | 0    |  | 2          |  | S    |  | H          |  | S    |  |
|--------|------------------|--------------|--|-----------------|--|-------------------------------------------------------|--|-----------------------------|--|------|--|------------|--|------|--|------------|--|------|--|
| Code   |                  | Actuator     |  | Step            |  | Terminal                                              |  | Supporter (Shaft type only) |  | Code |  | Type       |  | None |  | Vertical   |  | None |  |
| S      | Shaft            | 102          |  | 10-Positions    |  | S                                                     |  | S type                      |  | H    |  | Horizontal |  | H    |  | Horizontal |  | H    |  |
| D      | Driver           | 162          |  | 16-Positions    |  | S                                                     |  | S type                      |  | H    |  | Horizontal |  | H    |  | Horizontal |  | H    |  |
| W      | Wheel            |              |  |                 |  |                                                       |  |                             |  |      |  |            |  |      |  |            |  |      |  |
| M      | Mini Shaft       |              |  |                 |  |                                                       |  |                             |  |      |  |            |  |      |  |            |  |      |  |
| E      | Shaft Panel Seal |              |  |                 |  |                                                       |  |                             |  |      |  |            |  |      |  |            |  |      |  |
| Code   |                  | Rotor colour |  | Coding          |  | Number of Stopper Position (In case of special order) |  |                             |  |      |  |            |  |      |  |            |  |      |  |
| R10    | Red              | R            |  | Real code       |  |                                                       |  |                             |  |      |  |            |  |      |  |            |  |      |  |
| C10    | Orange           | C            |  | Complement code |  |                                                       |  |                             |  |      |  |            |  |      |  |            |  |      |  |
| R16    | Black            |              |  |                 |  |                                                       |  |                             |  |      |  |            |  |      |  |            |  |      |  |
| C16    | White            |              |  |                 |  |                                                       |  |                             |  |      |  |            |  |      |  |            |  |      |  |

► Special length shaft and D-cut shaft are available on a custom basis.

# W SERIES

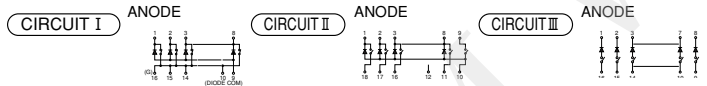
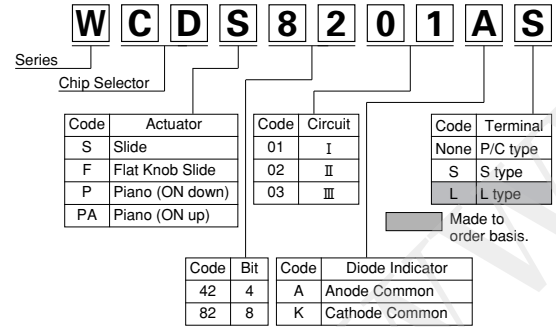


## DIP-DIODE SWITCHES (HYBRID)

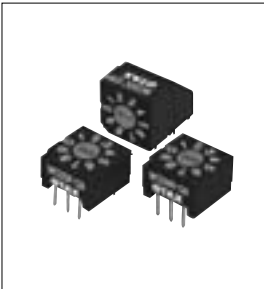
### FEATURES

- Tremendous production cost saving because of diode network incorporated inside the housing, which greatly contributes to VA/VE.
- Tremendous time and cost saving in component part procurement and inventory control.
- Space saving because of the same size as IC.
- Auto-insertion, Auto-soldering and Auto-cleaning.
- Environmentally sealed.
- Most stable and reliable contact because of extremely high contact pressure mechanism(200kg/mm<sup>2</sup>).

### HOW TO ORDER



# W SERIES

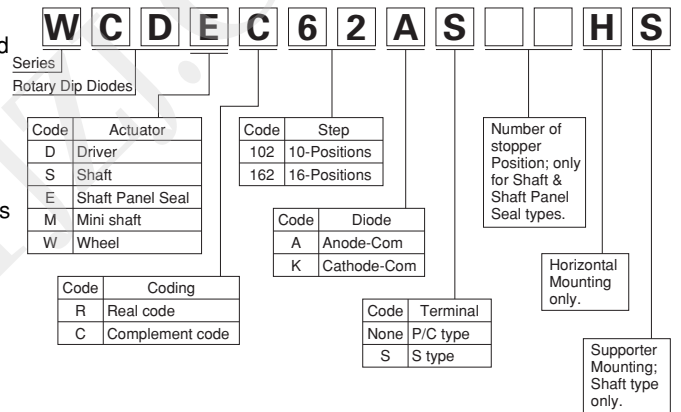


## ROTARY DIP-DIODE SWITCHES (HYBRID)

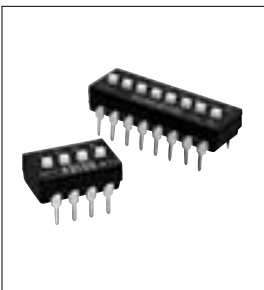
### FEATURES

- Tremendous production cost saving because of the diode network incorporated inside the housing, which greatly contributes to VA/VE.
- Tremendous time and cost saving in component part procurement and inventory control.
- Space saving because of the same size as standard Rotary Dip Switches w/o diode.
- Auto-soldering and Auto-cleaning.
- Environmentally sealed.
- Most stable and reliable contact because of extremely high contact pressure mechanism(100kg/mm<sup>2</sup>).

### HOW TO ORDER



# W SERIES

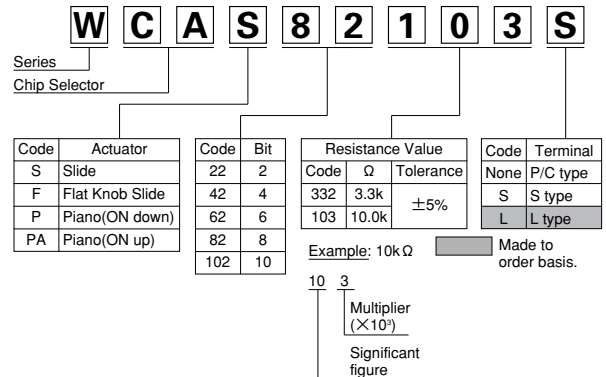


## DIP-RESISTOR SWITCHES (HYBRID)

### FEATURES

- Tremendous production cost saving because of resistor network incorporated inside the housing, which greatly contributes to VA/VE.
- Tremendous time and cost saving in component part procurement and inventory control.
- Space saving because of the same size as IC.
- Auto-insertion, Auto-soldering and Auto-cleaning.
- Environmentally sealed.
- Most stable and reliable contact because of extremely high contact pressure mechanism(200kg/mm<sup>2</sup>).

### HOW TO ORDER



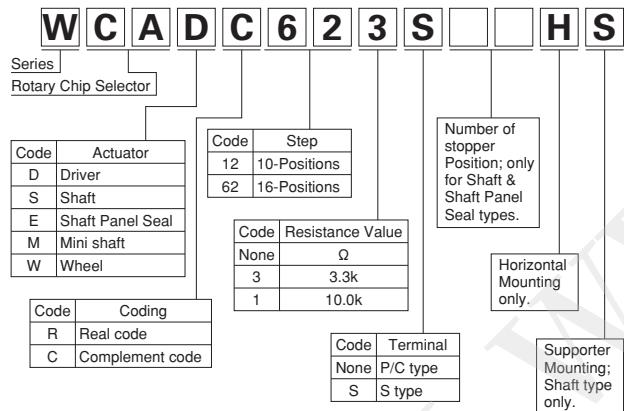
# W SERIES

## ROTARY DIP-RESISTOR SWITCHES (HYBRID)

### FEATURES

- Tremendous production cost saving because of resistor network incorporated inside the housing, which greatly contributes to VA/VE.
- Tremendous time and cost saving in component part procurement and inventory control.
- Space saving because of the same size as standard Rotary-Dip-Switches w/o resistor.
- Environmentally sealed.
- Most stable and reliable contact because of extremely high contact pressure mechanism(100kg/mm<sup>2</sup>).

### HOW TO ORDER



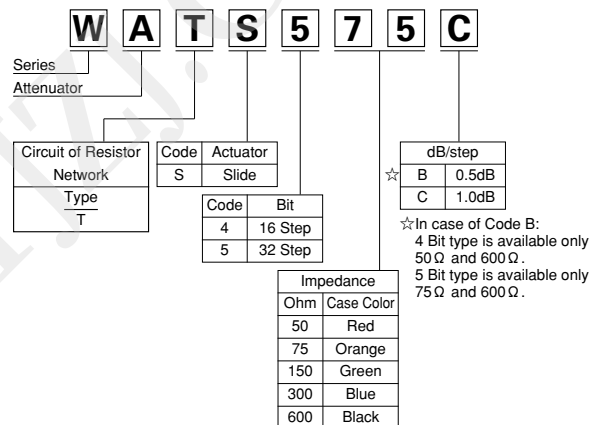
# W SERIES

## DIGITAL ATTENUATOR DIP SWITCHES (HYBRID)

### FEATURES

- Tremendous production cost saving because of resistor network incorporated inside the housing, which greatly contributes to VA/VE.
- Tremendous time and cost saving in component part procurement and inventory control.
- Space saving because of the same size as IC.
- Auto-insertion, Auto-soldering and Auto-cleaning.
- Environmentally sealed.
- Most stable and reliable contact because of extremely high contact pressure mechanism(200kg/mm<sup>2</sup>).

### HOW TO ORDER



# KR SERIES

## SPLASHPROOF ROTARY DIP DIGITAL CODE SWITCHES

### FEATURES

- Series KR Splashproof rotary switches are the smallest panel mounted code switches available.
- Rigid and stable with a Zinc die-casting body.
- Gold plated contacts with a high pressure knife edge contact provide excellent reliability.
- Life expectancy, 100,000 steps minimum.
- Completely sealed with inserted-in terminals.

### HOW TO ORDER

