**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 stick).

**HOW TO ORDER**

**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 stick).

**HOW TO ORDER**

**SUPER LOW PROFILE DIP SWITCH**

**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 stick).

**DIMENSION**

300mil SOP Standard
**SERIES**

**AUTO-CLEANING TYPE SIP SWITCHES**

- **FEATURES**
  - High-density design is achieved by employing SIP configuration.
  - Stability at high soldering temperatures is increased by the incorporation of a ceramic substrate (excluding the SSV & the SSH).
  - The most stable and reliable contact because of an extremely high pressure contact mechanism (200kg/mm²).
  - Washable without tape sealing SIP switches on the P/C board.
  - Gas tight contacts (280,000 psi)

**FEATURES**

- **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**

**DIP SWITCHES**

- **KY Series**
  - Code: S
  - Model: Ultra Mini
  - Substrate: Ultra Mini Ceramic
  - Terminal: Vertical
  - Pole: 2, 4, 6, 8, 10

**SMT**

- Code: S

**HOW TO ORDER**

**SIP SWITCHES**

- **S Series**
  - Code: S
  - Model: Ultra Mini
  - Terminal: Vertical
  - Pole: 2, 4, 6, 8, 10

**SERIES**

- **AUTOMATICAL CLEANING TYPE SIP SWITCHES**

**FEATURES**

- **FEATURES**
  - High-density design is achieved by employing SIP configuration.
  - Stability at high soldering temperatures is increased by the incorporation of a ceramic substrate (excluding the SSV & the SSH).
  - The most stable and reliable contact because of an extremely high pressure contact mechanism (200kg/mm²).
  - Washable without tape sealing SIP switches on the P/C board.
  - Gas tight contacts (280,000 psi)

**HOW TO ORDER**

**DIP SWITCHES**

- **KY Series**
  - Code: S
  - Model: Ultra Mini
  - Substrate: Ultra Mini Ceramic
  - Terminal: Vertical
  - Pole: 2, 4, 6, 8, 10

**SMT**

- Code: S

**HOW TO ORDER**

**SIP SWITCHES**

- **S Series**
  - Code: S
  - Model: Ultra Mini
  - Terminal: Vertical
  - Pole: 2, 4, 6, 8, 10
SMT TYPE (K SERIES)

**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/mm² 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.

**HOW TO ORDER**

```
K S D B 8 2 S
```

<table>
<thead>
<tr>
<th>Code</th>
<th>SMT Shape</th>
<th>Code</th>
<th>SMT Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>S type</td>
<td>S</td>
<td>S type</td>
</tr>
</tbody>
</table>

```
K D R I 0 2 S
```

<table>
<thead>
<tr>
<th>Code</th>
<th>SMT Shape</th>
<th>Code</th>
<th>SMT Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>S type</td>
<td>I</td>
<td>S type</td>
</tr>
</tbody>
</table>

SMT TYPE (W SERIES)

**FEATURES**
- Knife-edge high pressure contact mechanism of 200kg/mm² (100kg/mm²) for rotary ensures stable contact.
- Pin-point contact breaks possibly formed by oxidation or sulfurization and ensures long life expectancy.
- Molded-in terminals prevent flux from flowing into the switch during soldering process.
- Environmentally sealed type provides washable feature and does not require any tape seal.

**HOW TO ORDER**

```
W C A S B 1 0 3 S
```

<table>
<thead>
<tr>
<th>Code</th>
<th>SMT Shape</th>
<th>Code</th>
<th>SMT Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>S type</td>
<td>L</td>
<td>L type</td>
</tr>
</tbody>
</table>

```
W C A D C 6 3 S
```

<table>
<thead>
<tr>
<th>Code</th>
<th>SMT Shape</th>
<th>Code</th>
<th>SMT Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>S type</td>
<td>L</td>
<td>L type</td>
</tr>
</tbody>
</table>

```
W C D S B 0 1 A S
```

<table>
<thead>
<tr>
<th>Code</th>
<th>SMT Shape</th>
<th>Code</th>
<th>SMT Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>S type</td>
<td>L</td>
<td>L type</td>
</tr>
</tbody>
</table>

```
W C D D C 6 A S
```

<table>
<thead>
<tr>
<th>Code</th>
<th>SMT Shape</th>
<th>Code</th>
<th>SMT Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>S type</td>
<td>L</td>
<td>L type</td>
</tr>
</tbody>
</table>

**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/mm²).

**HOW TO ORDER**

```
W C D S B 0 1 A
```

<table>
<thead>
<tr>
<th>Code</th>
<th>Actuator</th>
<th>Code</th>
<th>Bit</th>
<th>Code</th>
<th>Circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Slide</td>
<td>4</td>
<td>4</td>
<td>01</td>
<td>I</td>
</tr>
<tr>
<td>E</td>
<td>Flat Knob Slide</td>
<td>8</td>
<td>8</td>
<td>02</td>
<td>II</td>
</tr>
<tr>
<td>PA</td>
<td>Piano (ON down)</td>
<td>50</td>
<td>50</td>
<td>03</td>
<td>III</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Diode Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Anode Common (Brown Case)</td>
</tr>
<tr>
<td>K</td>
<td>Cathode Common (Orange Case)</td>
</tr>
</tbody>
</table>
## 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 (100kgs/mm²).

### HOW TO ORDER

<table>
<thead>
<tr>
<th>Code</th>
<th>Actuator</th>
<th>Code</th>
<th>Step</th>
<th>Number of stopper Position: only for Shaft &amp; Shaft Panel Seal types.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Driver</td>
<td>A</td>
<td>10-Positions</td>
<td>Supporter Mounting: Shaft type only.</td>
</tr>
<tr>
<td>S</td>
<td>Shaft</td>
<td>B</td>
<td>16-Positions</td>
<td>Supporter Mounting: Shaft type only.</td>
</tr>
<tr>
<td>E</td>
<td>Shaft Panel Seal</td>
<td>C</td>
<td></td>
<td>Supporter Mounting: Shaft type only.</td>
</tr>
<tr>
<td>M</td>
<td>Mini Shaft</td>
<td>D</td>
<td></td>
<td>Supporter Mounting: Shaft type only.</td>
</tr>
<tr>
<td>W</td>
<td>Wheel</td>
<td>E</td>
<td></td>
<td>Supporter Mounting: Shaft type only.</td>
</tr>
</tbody>
</table>

### DIP-RESISTOR SWITCHES (HYBRID)

### FEATURES
- Tremendous production cost saving because of the 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 (200kgs/mm²).

### HOW TO ORDER

<table>
<thead>
<tr>
<th>Code</th>
<th>Actuator</th>
<th>Code</th>
<th>Step</th>
<th>Resistance Value</th>
<th>Case/Cover Color</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Slide</td>
<td>A</td>
<td>2</td>
<td>332 3.3kΩ</td>
<td>Brown</td>
<td>±5%</td>
</tr>
<tr>
<td>F</td>
<td>Flat Knob Slide</td>
<td>B</td>
<td>4</td>
<td>103 10kΩ</td>
<td>Orange</td>
<td>±5%</td>
</tr>
<tr>
<td>P</td>
<td>Piano(ON down)</td>
<td>C</td>
<td>6</td>
<td></td>
<td></td>
<td>±5%</td>
</tr>
<tr>
<td>PA</td>
<td>Piano(ON up)</td>
<td>D</td>
<td>8</td>
<td></td>
<td></td>
<td>±5%</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>E</td>
<td>10</td>
<td></td>
<td></td>
<td>±5%</td>
</tr>
</tbody>
</table>

Example: 10kΩ

### ROTARY DIP-RESISTOR SWITCHES (HYBRID)

### FEATURES
- Tremendous production cost saving because of the 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 (100kgs/mm²).

### HOW TO ORDER

<table>
<thead>
<tr>
<th>Code</th>
<th>Actuator</th>
<th>Code</th>
<th>Step</th>
<th>Resistance Value</th>
<th>Case/Cover Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Driver</td>
<td>A</td>
<td>10-Positions</td>
<td>332 3.3kΩ</td>
<td>Brown</td>
</tr>
<tr>
<td>S</td>
<td>Shaft</td>
<td>B</td>
<td>16-Positions</td>
<td>103 10kΩ</td>
<td>Orange</td>
</tr>
<tr>
<td>E</td>
<td>Shaft Panel Seal</td>
<td>C</td>
<td>6-16-Positions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Mini Shaft</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Wheel</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example: 10kΩ

<table>
<thead>
<tr>
<th>Code</th>
<th>Resistance Value</th>
<th>Case/Cover Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3.3kΩ</td>
<td>Brown</td>
</tr>
<tr>
<td>1</td>
<td>10kΩ</td>
<td>Grey</td>
</tr>
</tbody>
</table>
## 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/mm²).

## HOW TO ORDER

<table>
<thead>
<tr>
<th>Series</th>
<th>Attenuator</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>A</td>
</tr>
</tbody>
</table>

- **Impedance (Ohm):**
  - 50
  - 75
  - 150
  - 300
  - 600

- **Case Color:**
  - Red
  - Orange
  - Green
  - Blue
  - Black

### Circuit of Resistor Network

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
<th>Actuator</th>
<th>Slide</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>4</td>
<td>16 Step</td>
<td>5</td>
</tr>
</tbody>
</table>

### dB/step

- **In case of Code B:**
  - 4 Bit type is available only 50Ω and 600Ω.
  - 5 Bit type is available only 75Ω and 600Ω.

## ROTARY DIGITAL CODED DIP SWITCHES

**FEATURES**

- Exclusive knife-edge high contact pressure (100kg/mm²) 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 oxidization 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

<table>
<thead>
<tr>
<th>Series</th>
<th>Code</th>
<th>Actuator</th>
<th>Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>DR</td>
<td>10</td>
<td>18-Positions</td>
</tr>
</tbody>
</table>

### Code

- **Rotor colour:**
  - Red
  - Orange
  - Black
  - White

- **Type:**
  - Vertical
  - Horizontal

### Supporter (Shaft type only)

- **Number of Stopper Position (in case of special order):**

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

---

**OTAX CO., LTD.**
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**

```
KR S R 16-15
```

**Features**
- 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/mm² 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 oxidization or sulfurization, ensuring long life expectancy.
- The cleaning solution can be used for a longer time and is not necessary to change as often as for the conventional ones.

**HOW TO ORDER**

```
K S D A 8 2 S
```

**Features**
- 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/mm² 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 oxidization or sulfurization, ensuring long life expectancy.
- The cleaning solution can be used for a longer time and is not necessary to change as often as for the conventional ones.