# P36 & P36S SERIES ROTARY DIP SWITCHES

**Outside the U.S. and the UK, this series is sold as the CR36 series.**

## FEATURES

- **3 + 3 terminal layout.**
- **Completely sealed for process compatibility.**
- **Ultra-compact size with 10 or 16 positions.**
- **Precision designed detent action.**
- **Thru-hole (P36 Series) & SMT (P36S Series) models.**
- **High reliability & long life.**
- **Clockwise or counterclockwise settable.**
- **Solder coated terminals.**



## GENERAL SPECIFICATIONS

### ELECTRICALS

| | |
|---|---|
| Operating voltage | 24 VDC max. |
| Contact rating, static | 400 mA max. |
| Contact rating, dynamic | 100 mA max. |
| Test voltage | 250V 50Hz/1 min. |
| Initial contact resistance | < 100 milliohms |
| Insulation resistance | > 100 megohms |

### MECHANICALS, THERMALS

| | |
|---|---|
| Torque | 0.98 inch-oz. min. (0.7 Ncm min.) |
| Expected life | 10,000 switching operations |
| Contact force | 15 grams min. |
| Operating temperature range | -50°C to 125°C |

### SOLDERING RECOMMENDATIONS

| | |
|---|---|
| Hand soldering | 350°C max. for 4 seconds max. (40 watt iron max.) |
| Wave soldering | 280°C max. for 5 seconds max. |
| Reflow soldering (SMT) | 260°C max. for 10 seconds max. |
| Solvent washing | Freons or alcohol. (Do not use chlorinated solvents) |
| Aqueous cleaning | Deionized water preferred |

## MATERIALS

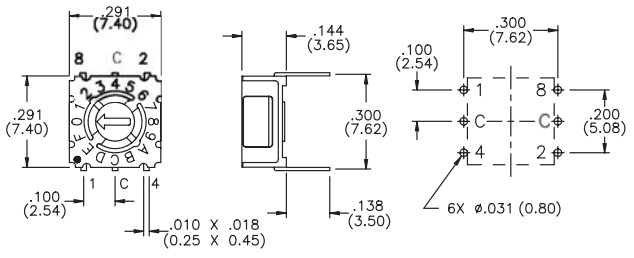
| | |
|---|---|
| Base | UL94V-O, high temperature thermoplastic |
| Cover | Stainless steel |
| Actuator | UL94V-O, high temperature thermoplastic |
| Contacts | Gold over nickel plated stainless steel |
| Terminals | Solder coated brass |
| Terminal sealing | Molded-in |
| Actuator seal | 'O'-ring |

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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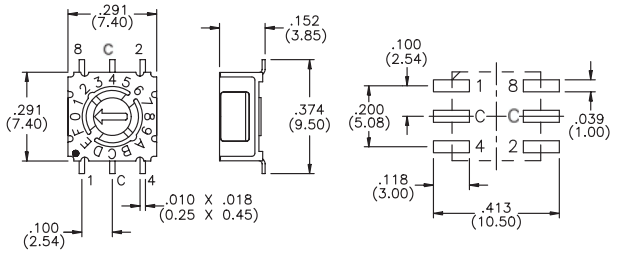
| Thru-hole and SMT Printed Circuit Models | | Model No. Thru-hole Mounting (see fig. 1) | Model No. Surface Mounting (see fig. 2) |
|---|---|---|---|
| **Code (see truth tables pg. G16)** | **Positions** | | |
| Binary Coded Decimal | 10 | **P36101** | **P36S101** |
| Complement of BCD | 10 | **P36102** | **P36S102** |
| Binary Coded Hexadecimal | 16 | **P36103** | **P36S103** |
| Complement of BCH | 16 | **P36106** | **P36S106** |

Figure 1




Mechanical outline P.C. hole pattern

Figure 2




Mechanical outline P.C. pad layout

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# P36 & P36S SERIES

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## STANDARD OPTIONS BY SERIES:

| Series | | P36 | P36S |
|---|---|---|---|
| **Actuators** | | | |
| 1 | Arrow shaped slot | X | X |
| 3 | Spindle | X | X |
| 8 | Slotted spindle | X | X |
| **Codes** | | | |
| 01 | BCD | X | X |
| 02 | BCD complement | X | X |
| 03 | Hexadecimal | X | X |
| 06 | Hexadecimal Comp. | X | X |
| **Terminals** | | | |
| None | Straight | X | |
| V | Crimped | X | |
| L254 | Rt. angle 2.54 (.100") | X | |
| None | SMT | | X |

## ORDER GUIDE:

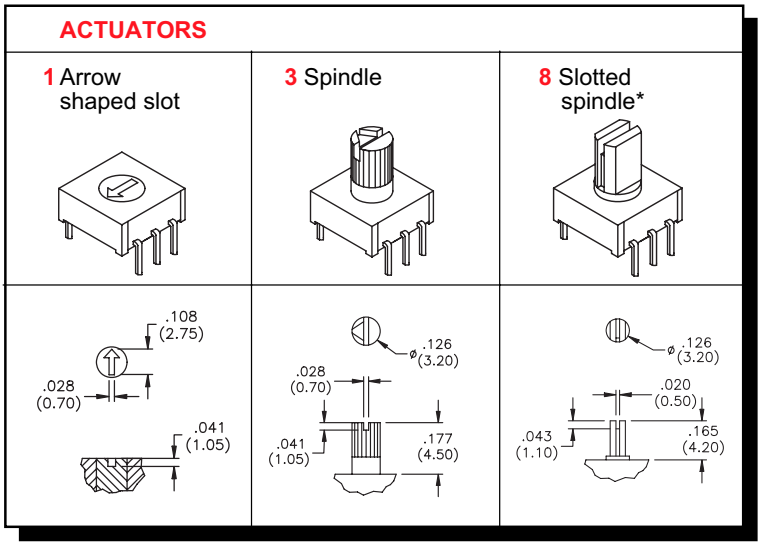
Make selections from the above table in sequence to specify a complete model number.

Note that 'None' indicates that no option suffix is required.

Example;

P36101V
Series — Actuator
Terminals — Code

## ACTUATORS




* Slotted spindle actuator is color coded to truth table code selection as follows: BCD - red, BCD complement - Orange, Hexadecimal - gray, Hexadecimal complement - white.

Tape and reel packaging available for SMT models - consult factory.

## CODES

NOTE: For each dial position in tables, Common terminals (C) are connected to terminal number(s) indicated - i.e. - none or combinations of 1, 2, 4 or 8. Each model in this series has 2 Common terminals.

**BINARY CODED DECIMAL (01)**
**10 Positions**

| Dial No. | 1 | 2 | 4 | 8 |
|---|---|---|---|---|
| 0 | | | | |
| 1 | ● | | | |
| 2 | | ● | | |
| 3 | ● | ● | | |
| 4 | | | ● | |
| 5 | ● | | ● | |
| 6 | | ● | ● | |
| 7 | ● | ● | ● | |
| 8 | | | | ● |
| 9 | ● | | | ● |

**COMP. OF BINARY CODED DECIMAL (02)**
**10 Positions**

| Dial No. | 1 | 2 | 4 | 8 |
|---|---|---|---|---|
| 0 | ● | ● | ● | ● |
| 1 | | ● | ● | ● |
| 2 | ● | | ● | ● |
| 3 | | | ● | ● |
| 4 | ● | ● | | ● |
| 5 | | ● | | ● |
| 6 | ● | | | ● |
| 7 | | | | ● |
| 8 | ● | ● | ● | |
| 9 | | ● | ● | |

**BINARY CODED HEXADECIMAL (03)**
**16 Positions**

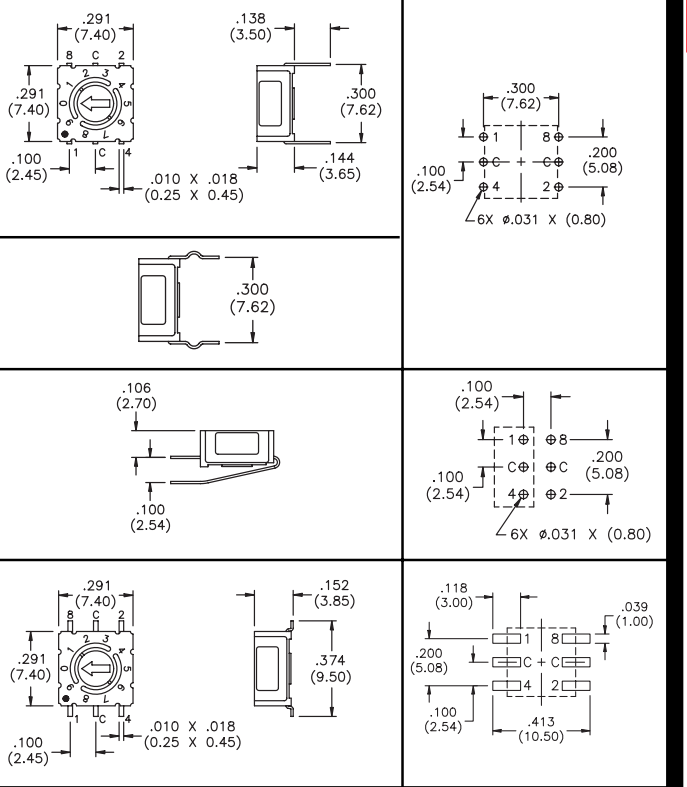
| Dial No. | 1 | 2 | 4 | 8 |
|---|---|---|---|---|
| 0 | | | | |
| 1 | ● | | | |
| 2 | | ● | | |
| 3 | ● | ● | | |
| 4 | | | ● | |
| 5 | ● | | ● | |
| 6 | | ● | ● | |
| 7 | ● | ● | ● | |
| 8 | | | | ● |
| 9 | ● | | | ● |
| A | | ● | | ● |
| B | ● | ● | | ● |
| C | | | ● | ● |
| D | ● | | ● | ● |
| E | | ● | ● | ● |
| F | ● | ● | ● | ● |

**COMP. OF BINARY CODED HEXADEC. (06)**
**16 Positions**

| Dial No. | 1 | 2 | 4 | 8 |
|---|---|---|---|---|
| 0 | ● | ● | ● | ● |
| 1 | | ● | ● | ● |
| 2 | ● | | ● | ● |
| 3 | | | ● | ● |
| 4 | ● | ● | | ● |
| 5 | | ● | | ● |
| 6 | ● | | | ● |
| 7 | | | | ● |
| 8 | ● | ● | ● | |
| 9 | | ● | ● | |
| A | ● | | ● | |
| B | | | ● | |
| C | ● | ● | | |
| D | | ● | | |
| E | ● | | | |
| F | | | | |

## MECHANICAL OUTLINES

**Terminal option suffix*:** | **Mtg. hole pattern:**




* 'None' indicates no option suffix is required.

P

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P36S101 P36S103 P36102 P36S102