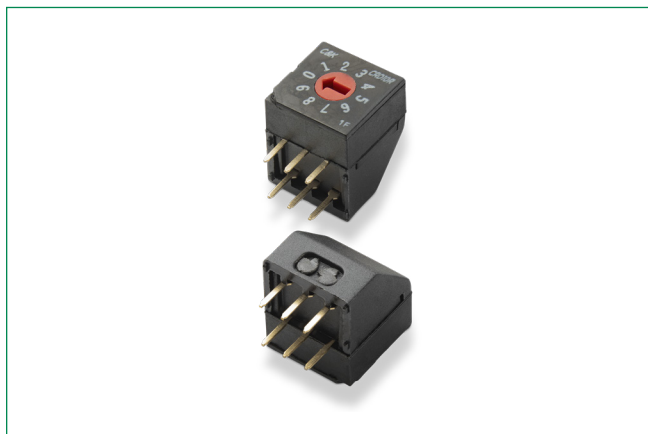


CRD Series

10mm Coded Rotary DIP Switches



Description

The CRD series 10mm Coded Rotary DIP Switches is process sealed to withstand soldering and cleaning, making them perfect for use in harsh environments. CRD switches are used in address switching applications, data storage devices computer and peripherals and instrumentation and have a compact size to save space – in fact, they're 36% smaller than traditional 10mm DIP switches.

Features & Benefits

- Process sealed – withstands soldering and cleaning
- Thru-hole and surface mount models
- Crisp, positive detent ensures actuation
- RoHS compliant
- IP65

Specifications

Contact Rating	0.4 V AC, DC 20 V max.
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Mechanical and Electrical Characteristics

Electrical Life	20,000 steps min. @ 5 V DC 10 mA
Mechanical Life	30,000 steps min.
Contact Resistance	100 milliohms max. Initial @ 2 V DC 10mA
Insulation Resistance	1000 megohms min. @ 100 V DC
Dielectric Strength	300 V AC for 1 minute.
Operating Force	1000 grams max.

Environmental Characteristics

Operating Temperature	-20°C to 85°C
Storage Temperature	-40°C to 85°C

Process

Packaging	Switches supplied in anti-static tubes in full quantities only. This may affect order quantity. Surface mount models with MO actuators available in tape and reel, 500 pieces per reel.
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Applications

- Address switching applications
- Data storage devices
- Computer and peripherals
- Instrumentation

Materials

Cover	PPS (Black)
Housing	
Actuator	PA 6T M0 actuator option; PBT L1 and W1 actuator option.
Contacts	Beryllium Copper with Gold over Nickel plate
Terminals	Brass with Gold Nickel plate

Note: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

CRD Series

10mm Coded Rotary DIP Switches



Ordering Number

The Build-A Switch concept allows you to mix and match options to create the switch you need. Below is a complete listing of options shown in catalog. To order, simply select desired option from each category and place in the appropriate box.

CRDxxx - xx - x - B - x

Switch Function

CRD10R: 10 position, BCD
CRD10C: 10 position, BCD complement
CRD16R: 16 position, Hexadecimal
CRD16C: 16 position, Hexadecimal complement

Actuator

M0: Flush, screwdriver slot
L1: Extended, screwdriver slot
W1: Wheel

Packaging

None: Tube
R: Tape & Reel (M0 actuator only)

Contact Material

B: Gold/Gold

Terminations

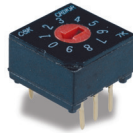
A: Right angle, PC thru-hole
C: PC Thru-hole
S: Gull wing

Note:

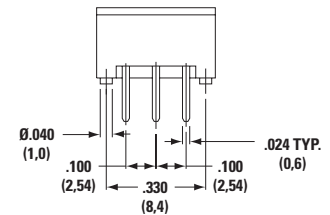
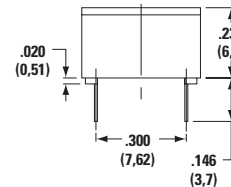
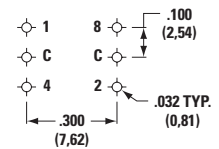
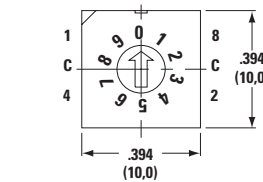
1. L1 & W1 actuators are not available for switch functions CRD10R and CRD10C. L1 & W1 actuators are available for terminations A & C and switch functions CRD16R & CRD16C.

Switches with Standard Options

PC Mount (in mm)



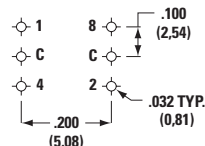
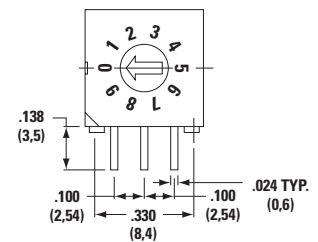
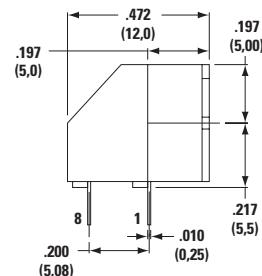
Part #	No. Pos.	Quantity per Tube
CRD10RM0CB	10	45
CRD16RM0CB	16	45



Right Angle Mount (in mm)



Part #	No. Pos.	Quantity per Tube
CRD10RM0AB	10	45
CRD16RM0AB	16	45



CRD Series

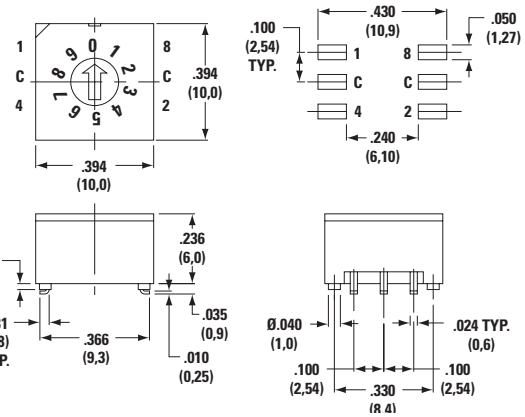
10mm Coded Rotary DIP Switches



Surface Mount (mm)



Part #	No. Pos.	Quantity per Tube
CRD10RM0SB	10	45
CRD16RM0SB	16	45



Switch Function (mm)

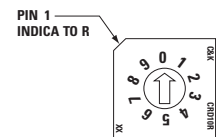
CRD10R - 10 Position, BCD Actuator Color: Red

POS.	0	1	2	3	4	5	6	7	8	9
C	●	●	●	●	●	●	●	●	●	●
1		●								
2			●							
4				●						
8					●					

Switches ship and to be solder processed in position "0"

CRD10C - 10 Position, BCD Complement Actuator Color: Orange

POS.	0	1	2	3	4	5	6	7	8	9
C	●	●	●	●	●	●	●	●	●	●
1	●									
2	●									
4	●									
8	●									



Switches ship and to be solder processed in position "7"

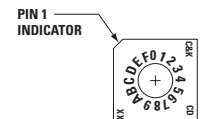
CRD16R - 16 Position, Hexadecimal Actuator Color: Black

POS.	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1		●														
2			●													
4				●												
8					●											

Switches ship and to be solder processed in position "0"

CRD16C - 16 Position, Hexadecimal Complement Actuator Color: White

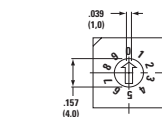
POS.	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1	●															
2	●															
4	●															
8	●															



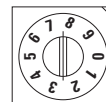
Switches ship and to be solder processed in position "F"

Actuator inches (mm)

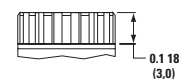
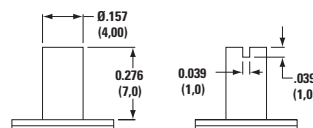
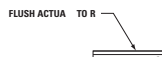
M0 (STD.) Flush with Screwdriver Slot



L1' Extended with Screwdriver Slot



W1' Wheel



Notes: Designed for #0 Phillips screwdriver.

1: L1 & W1 actuators are not available for switch functions CRD10R and CRD10C. L1 & W1 actuators are available for terminations A & C and switch functions CRD16R & CRD16C.

Technical drawings of a 1/2 inch diameter, 1/2 inch long pin. The drawings include a top view, a side view, and a detail view of the pin's end. The top view shows a square with rounded corners, with dimensions .394 (10,0) for the side length and .020 (0,51) for the corner radius. The side view shows a rectangular pin with a height of .236 (6,0) and a base width of .146 (3,7). The detail view shows the pin's end with a diameter of .100 (2,54) and a thickness of .032 TYP. (0,81). The pin is labeled with '1' and '2' on the top view, 'C' and 'C' on the side view, and '1' and '2' on the detail view.

The figure consists of three separate dimensional drawings of a printed circuit board (PCB) component.

- Top View:** A square board with overall dimensions of .394 (10,0) by .394 (10,0). It features eight mounting pads numbered 1 through 8 around the perimeter. Pad 1 is at the top-left corner, pad 8 at the top-right, pad 2 at the bottom-right, and pad 4 at the bottom-left. Pads 3, 5, 6, and 7 are located along the inner edges. A central circular feature contains a crosshair and the number 0. Dimensions include .394 (10,0) for the total width and height, and .100 (2,54) TYP. for the distance from the outer edge to the center of the pads.
- Bottom View:** Shows the reverse side of the board. It has four mounting pads labeled 1, C, C, and 4. The overall width is .394 (10,0). The distance between the centers of the two central pads (C) is .240 (6,10). The distance from the left edge to the center of pad 1 is .100 (2,54) TYP., and from the right edge to the center of pad 4 is .100 (2,54) TYP.
- Side View:** A cross-sectional view showing the thickness of the board and the profile of the mounting pads. The total thickness is .020 (0,51) TYP. The height of the mounting pads is .035 (0,9). The distance between the centers of the pads is .366 (9,3). The distance from the bottom surface of the board to the top of the pads is .010 (0,25). The distance from the top surface of the board to the top of the pads is .236 (6,0).

Option Code	RoHS Compliant ¹	RoHS Compatible ¹	Contact Material	Terminal Plating	Rating	
B	Yes	Yes	Gold	Gold	Low Level / Dry Circuit	0.4 VC max. @ 20 V AC or DC max

Tape and Reel inches (mm)

