



# 2300 SERIES MICRO-DIP® PRINTED CIRCUIT BOARD SWITCHES

*An EECO innovation, the 2300 Series MICRO-DIP® family includes the industry's only double pole rotary DIP switch.*

Ideal for CMOS applications, the **2300 Series** double pole switch offers a unique output arrangement in which all four bits are always connected to one of the two commons, allowing the use of a single pull-up resistor instead of 4 as required by conventional DIP switches. The **2300 Series** includes 10 and 16 position double pole models, plus a 10 single pole right angle version. The double pole switches are available with process seals for wave soldering, and all **2300 Series** are color coded for easy identification. The **2300 Series** is covered by EECO's exclusive **Lifetime Warranty**.

All **2300 Series** products are **Lead-Free** and fully **RoHS compliant**.



## SPECIFICATIONS

### MECHANICAL

No. of Switching Positions	10 & 16
Life	10,000 Detents at +25°C
Rotational Torque (Initial)	1.0 - 2.5 Inch/Ounces
Terminal Strength	Pull 3 Pounds, Push 3 Pounds, for 15 Seconds
Weight	0.03 Oz (.85 Gr.).

### ELECTRICAL

Maximum Electrical Current, Non-Switching	1A
Maximum Rated Load, Switching	100 mA at 5 VDC Resistive
Contact Resistance (Initial)	100 mΩ Maximum
Insulation Resistance	1,000 MΩ Minimum At 100 VDC
Dielectric Withstanding Voltage	250 VAC (RMS)

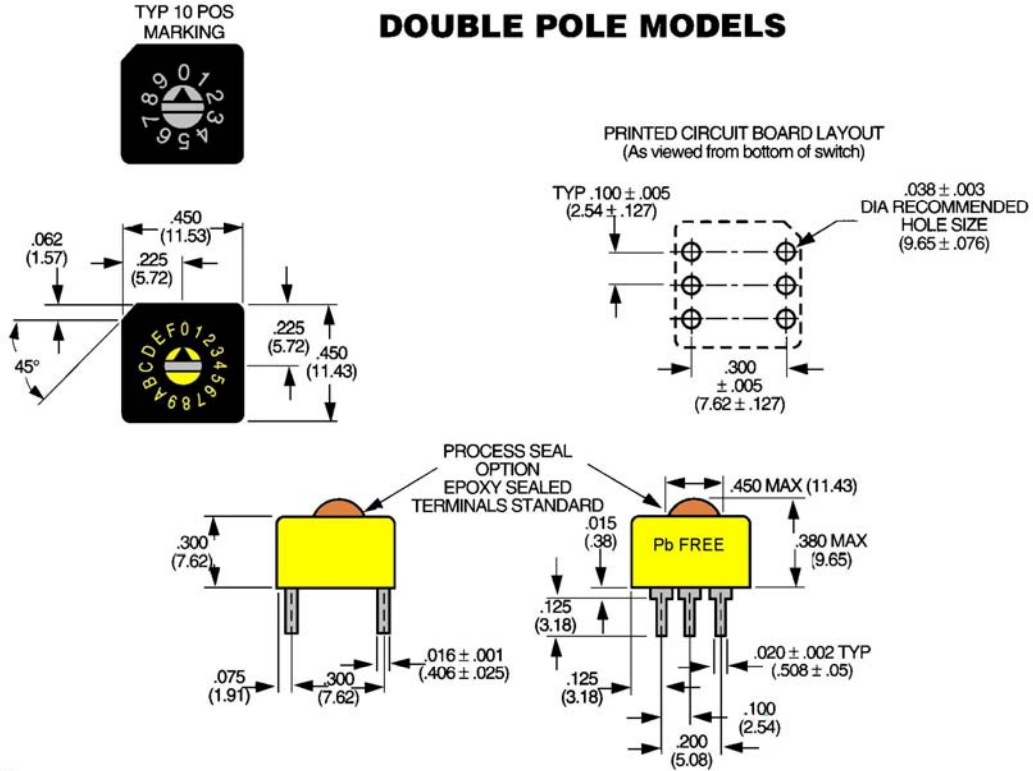
### ENVIRONMENTAL

Operating Temperature	-25°C To +85°C
Storage Temperature	-55°C To +100°C
Seal (DP Models)	Top: Removable Plastic Bottom: Epoxy

### MATERIALS

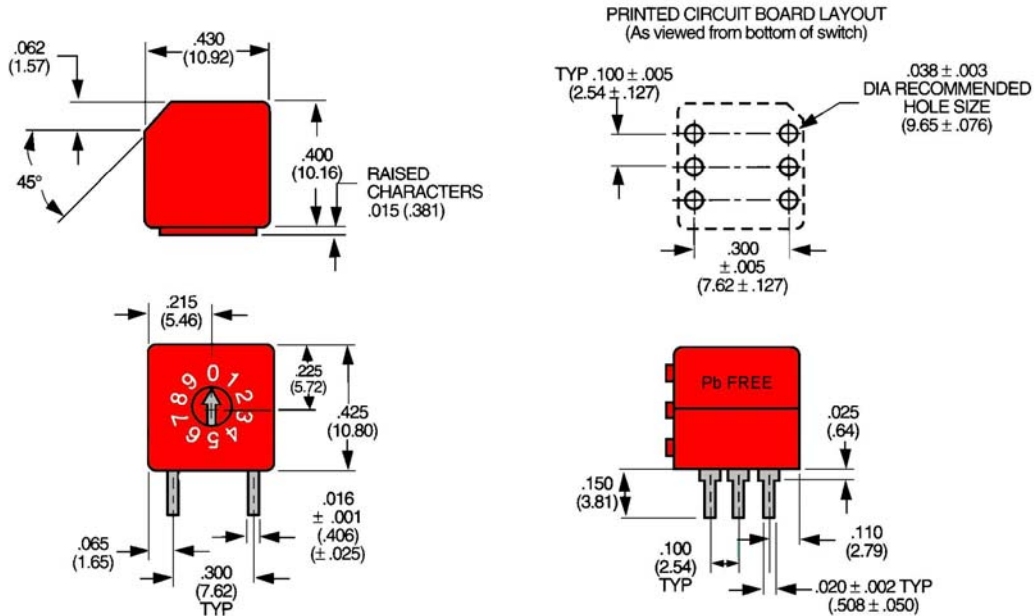
Housing and Base	Glass Reinforced 6/6 Nylon, UL 94 V0
Contact	Copper Alloy Base, Gold Over Nickel Plate
Terminal	Matte Tin With Whisker Inhibitors Over Nickel Plate

## DOUBLE POLE MODELS



NOTES:  
TOLERANCE ON ALL DIMENSIONS  
± .010 UNLESS OTHERWISE SPECIFIED  
( ) METRIC DIMENSIONS IN MM

## SINGLE POLE, 10 POSITION SIDE ADJUST MODEL



# TRUTH TABLES

**B02**

BCD 1 Pole 10 Position					
D I A L	Common (C) connected to terminals indicated	1	2	4	8
		0			
1	●				
2		●			
3	●	●			
4			●		
5	●		●		
6		●	●		
7	●	●	●		
8				●	
9	●			●	

**231002G**

**D02**

BCD 2 Pole 10 Position Sep Com to NT Bits					
D I A L	Common C (●) and C (★) connected to terminals indicated	1	2	4	8
		0	★	★	★
1	●	★	★	★	
2	★	●	★	★	
3	●	●	★	★	
4	★	★	●	★	
5	●	★	●	★	
6	★	●	●	★	
7	●	●	●	★	
8	★	★	★	●	
9	●	★	★	●	

**230056GB  
230056GP**

**D06**

2 Pole Binary with Sep Com to NT Bits					
D I A L	Common C (●) and C (★) connected to terminals indicated	1	2	4	8
		0 0	★	★	★
1 1	●	★	★	★	
2 2	★	●	★	★	
3 3	●	●	★	★	
4 4	★	★	●	★	
5 5	●	★	●	★	
6 6	★	●	●	★	
7 7	●	●	●	★	
8 8	★	★	★	●	
9 9	●	★	★	●	
A 10	★	●	★	●	
B 11	●	●	★	●	
C 12	★	★	●	●	
D 13	●	★	●	●	
E 14	★	●	●	●	
F 15	●	●	●	●	

**230057GB  
230057GP**

# TERMINAL IDENTIFICATION

MODEL NUMBER	231002G	230056GB	230057GB																		
CODE	B02	D02	D06																		
COLOR	RED	GRAY	YELLOW																		
TERMINAL I.D. AS VIEWED FROM BOTTOM OF SWITCH	<table border="1" style="width: 100%;"> <tr><td>18</td><td>11</td></tr> <tr><td>1C</td><td>1C</td></tr> <tr><td>12</td><td>14</td></tr> </table>	18	11	1C	1C	12	14	<table border="1" style="width: 100%;"> <tr><td>18</td><td>11</td></tr> <tr><td>1★C</td><td>1●C</td></tr> <tr><td>12</td><td>14</td></tr> </table>	18	11	1★C	1●C	12	14	<table border="1" style="width: 100%;"> <tr><td>18</td><td>11</td></tr> <tr><td>1★C</td><td>1●C</td></tr> <tr><td>12</td><td>14</td></tr> </table>	18	11	1★C	1●C	12	14
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12	14																				
18	11																				
1★C	1●C																				
12	14																				
HOUSING MARKING	0 THRU 9	0 THRU 9	0 THRU 9 A THRU F																		
NO. OF POSITIONS	10 POSITION	10 POSITION	16 POSITION																		

**NOTES:**

1. Views shown are of bottom (Terminal side) of switch.
2. For all single pole codes only. "C" terminals must be connected together external to switch.
3. ● C True Common
4. ★ C Complement Common

## PART NUMBERS AND FEATURES

PART NUMBER	SWITCH DESCRIPTION	NUMBER OF POSITIONS	TRUTH TABLE	COLOR CODE
<b>SINGLE POLE BINARY</b>				
231002G	Right Angle Mount BCD	10	B02	Red
<b>DOUBLE POLE BINARY</b>				
230056GB 230056GP	Double Pole Binary With Separate Common To Not True Bits	10	D02	Gray
230057GB 230057GP	Double Pole Binary With Separate Common To Not True Bits	16	D06	Yellow

## SEALING PROVISIONS

PART NUMBER	DUST SEAL	BOTTOM EPOXY SEAL	REMOVABLE TOP PROCESS SEAL
231002G	●		
230056GB		●	
230056GP		●	●
230056GB		●	
230056GP		●	●

Refer to EECO Switch document "Soldering and Cleaning Specifications" for additional processing information.

## RoHS COMPLIANCE

EECO Switch is fully committed to complying with the European Lead-Free and RoHS directives. All EECO 2300 Series switches marked the "Pb-Free" logo on the body of the part are Lead-Free and RoHS compliant.