



# 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

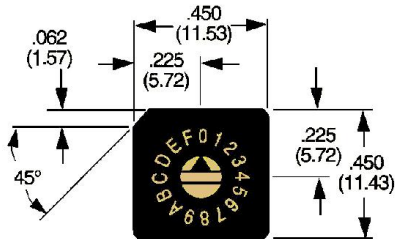
Operating Temperature	-25°C To +85°C
Storage Temperature	-55°C To +100°C
Seal (DP Models)	Top: Removable Plastic Bottom: Epoxy

### MATERIALS

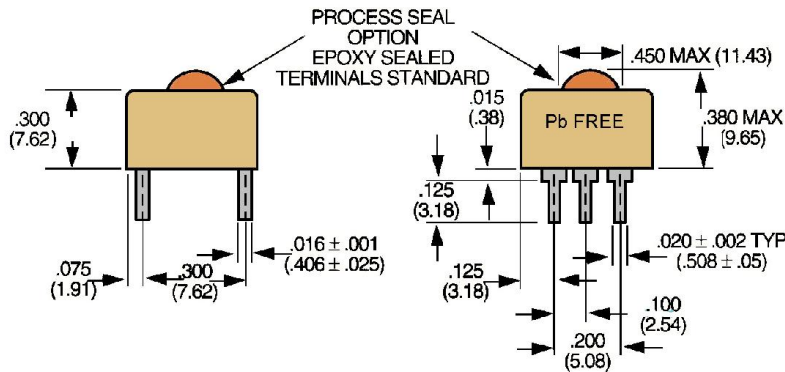
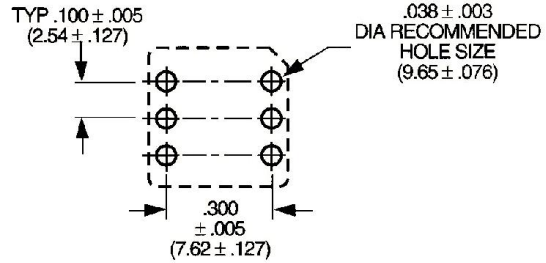
Housing and Base	Glass Reinforced 6/6 Nylon, UL 94 V0
Contact	Copper Alloy Base, Gold Over Nickel Plate
Terminal	Matte Tin With Whisker Inhibitors Over Nickel Plate

## DOUBLE POLE MODELS

TYP 10 POS MARKING

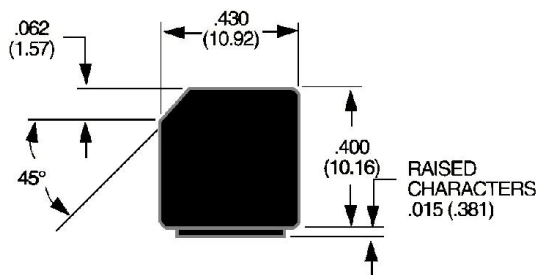


PRINTED CIRCUIT BOARD LAYOUT  
(As viewed from bottom of switch)

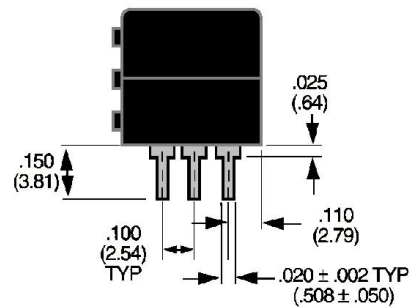
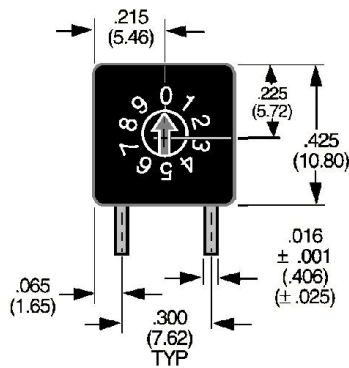
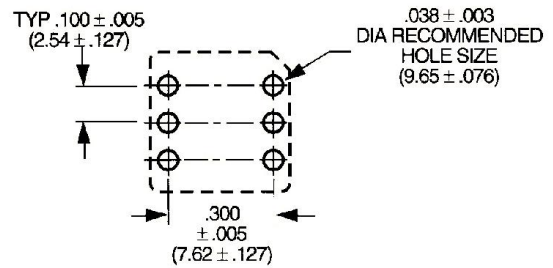


NOTES:  
TOLERANCE ON ALL DIMENSIONS  
± .010 UNLESS OTHERWISE SPECIFIED  
( ) METRIC DIMENSIONS IN MM

## SINGLE POLE, 10 POSITION SIDE ADJUST MODEL



PRINTED CIRCUIT BOARD LAYOUT  
(As viewed from bottom of switch)



# 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	●	★	★	●	

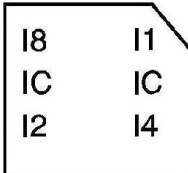
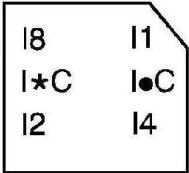
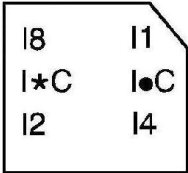
230056GB  
230056GP

**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/GP	230057GB/GP	Notes 1. Views shown are of bottom (terminal side) of switch. 2. 231002G connect both "C" terminals external to switch. 3. ● True Common 4. ★ Not True Common
CODE	B02	D02	D06	
TERMINAL I.D. AS VIEWED FROM BOTTOM OF SWITCH				
HOUSING MARKING	0-9	0-9	0-9, A-F	
NO. OF POSITIONS	10 SINGLE POLE	10 DOUBLE POLE	16 DOUBLE POLE	

## 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	Black
<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	Almond

## SEALING PROVISIONS

PART NUMBER	DUST SEAL	BOTTOM EPOXY SEAL	REMOVABLE TOP PROCESS SEAL
231002G	●		
230056GB		●	
230056GP		●	●
230057GB		●	
230057GP		●	●

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.

### EECO SWITCH

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