



## 3500 SERIES

# MICRO-DIP® PRINTED CIRCUIT BOARD SWITCHES

*The 3500 Series MICRO-DIP® is a low profile, fully sealed rotary DIP switch designed for today's automated soldering and cleaning processes!*

Featuring direct decimal to binary conversion, the 3500 Series Micro-DIP is a user friendly means of addressing PROM's or setting micro-processor controlled devices. The 3500 Series is offered in six binary and decimal codes, with extended shafts and right angle orientations for maximum design flexibility. The 3500 Series is covered by EECO's exclusive **Lifetime Warranty**. All 3500 Series products are **Lead-Free** and fully **RoHS compliant**.



## SPECIFICATIONS

### MECHANICAL

No. of Switching Positions	8, 10 16
Life	20,000 Detents at +25°C
Rotational Torque (Initial)	1.0-4.5 Inch/Ounces
Terminal Strength	Pull 3 Pounds, Push 3 Pounds, for 15 Seconds

### ELECTRICAL

Minimum Switching Current	1µA
Minimum Switching Voltage	30 mVDC
Maximum Electrical Current, Non-Switching	1A
Maximum Rated Load, Switching	100 mA at 28 VDC Resistive
Contact Resistance (Initial)	100 mΩ Maximum
Insulation Resistance	1,000 MΩ Minimum At 100 VDC
Dielectric Withstanding Voltage	250 VAC (RMS)

### ENVIRONMENTAL

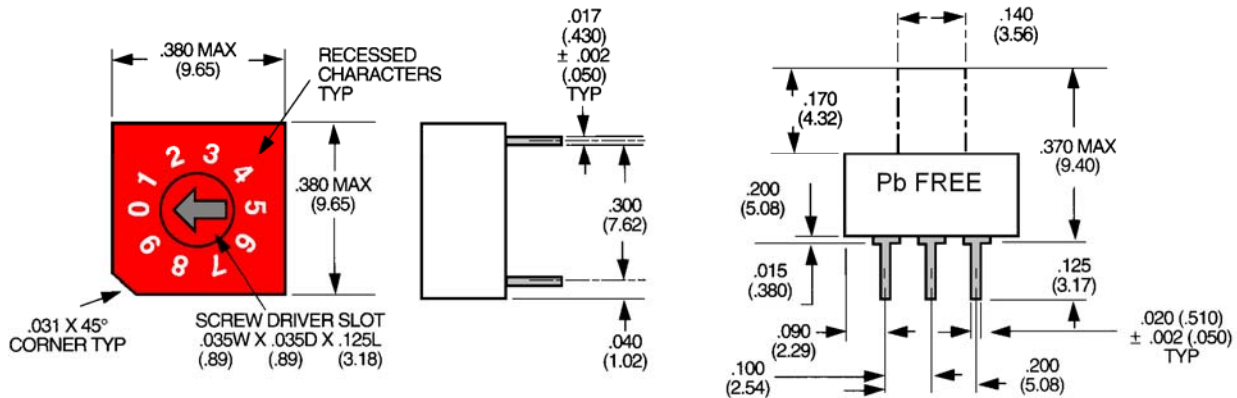
Operating Temperature	-65°C To +85°C
Storage Temperature	-65°C To +125°C
Vibration	15g, 10 to 2,000 Hz, Method 204, Condition B of Mil-Std 202
Moisture Resistance	Method 106, Mil-Std 202, 50 VDC Polarizing Voltage
Seal	Top: O-Ring Bottom: Epoxy
Solderability	Method 208 of Mil-Std 202, 95% Coverage
Solvent Resistance	Method 215 of Mil-Std 202
Humidity	Method 103B of Mil-Std 202, Test Condition A 50 VDC Polarizing Voltage

### MATERIALS

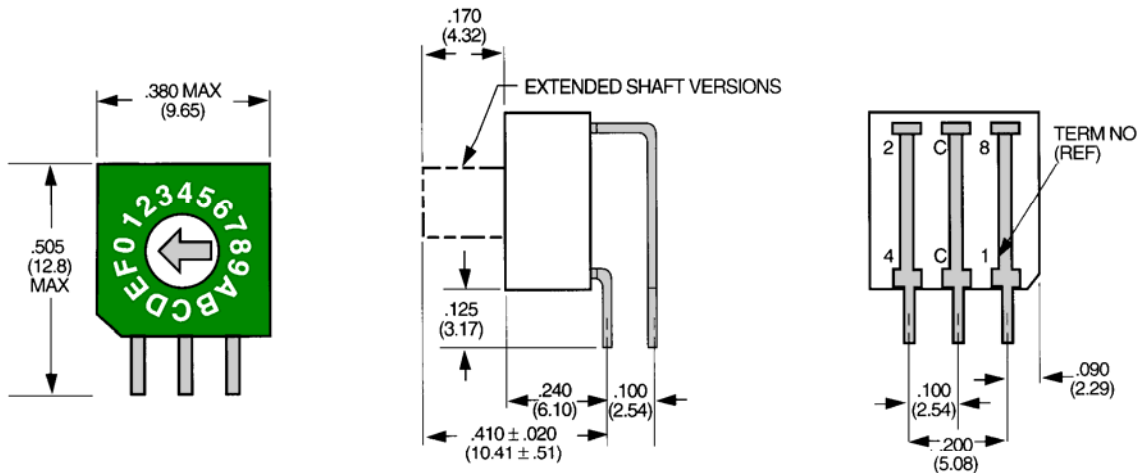
Housing and Base	Glass Reinforced High Temperature 4/6 Nylon, UL 94 V0
Rotor	Glass Reinforced 6/6 Nylon UL 94 V0
O-Ring	Silicon Rubber
Contact	Copper Alloy Base, Gold Over Nickel Plate
Terminal	Matte Tin With Whisker Inhibitors Over Nickel Plate
Weight	0.03 Oz (.86G)
Knobs	
Type B	ABS, UL 94 V0
Type K	Glass Reinforced Polyester, 94 V0
Type V	Glass Reinforced 6/6 Nylon, 94 V0

## STANDARD MODELS AND OPTIONS

### TOP ADJUST MODEL

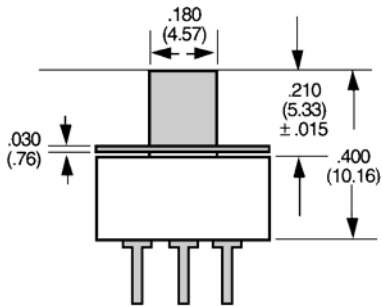
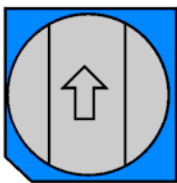


### SIDE ADJUST MODEL



### KNOB OPTION B

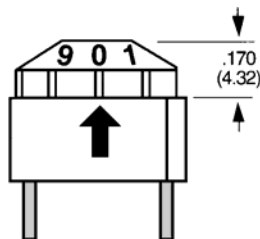
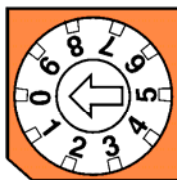
Available with Extended Shaft Models only



NOTE: Tolerances on all dimensions ± .010 unless otherwise specified.

### KNOB OPTION K

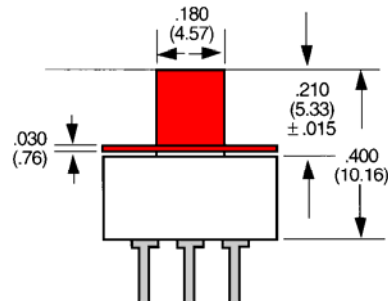
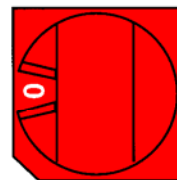
Available with Extended Shaft Models only



All switches set to 0 position.  
Consult factory for custom knobs.

### KNOB OPTION V

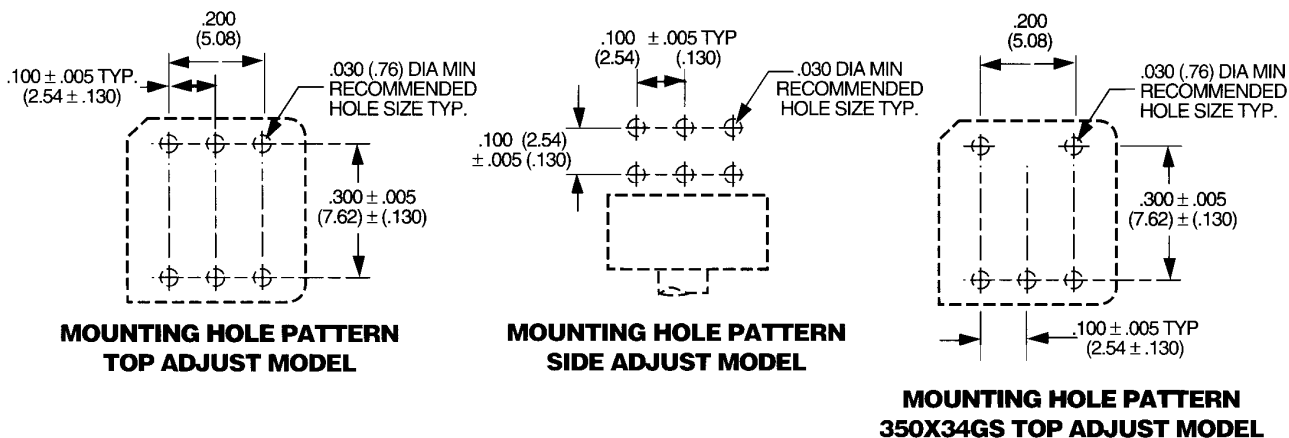
Available with Extended Shaft Models only



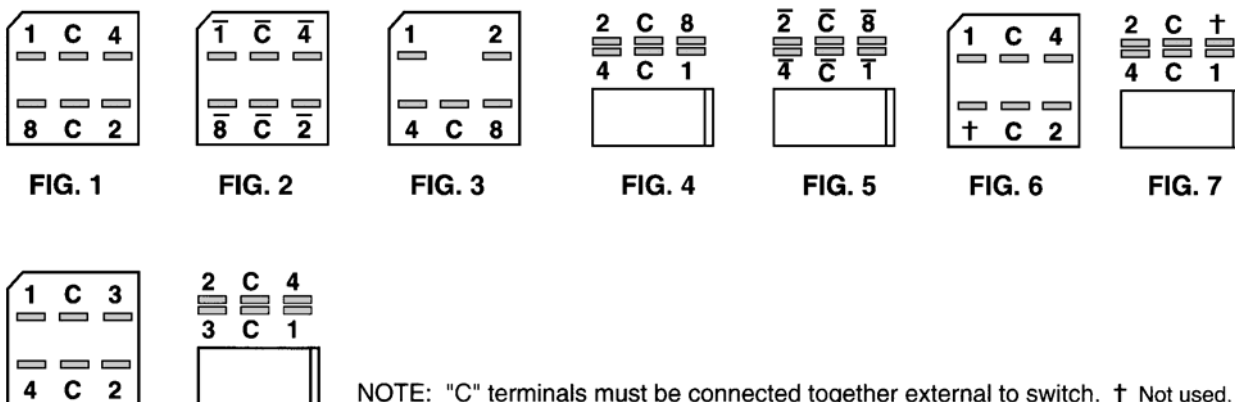
NOTE: "B" Knob is Black, "K" Knob is White, "V" Knob matches color code of switch.

# PCB DESIGN INFORMATION

## PRINTED CIRCUIT BOARD LAYOUT As viewed from bottom of switch



## TERMINAL I.D. AS VIEWED FROM BOTTOM OF SWITCH

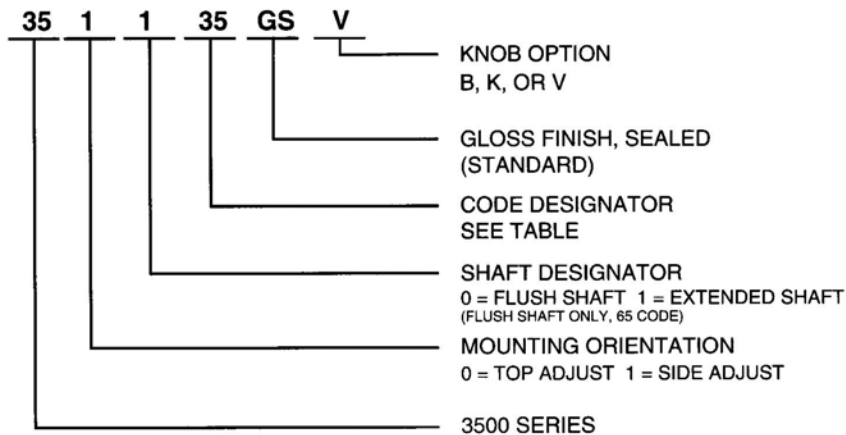


Refer to EECO Switch document "Soldering and Cleaning Specifications" for processing information.

## RoHS COMPLIANCE

EECO Switch is fully committed to complying with the European Lead-Free and RoHS directives. All EECO 3500 Series switches marked with the "Pb-Free" logo on the body of the part are Lead-Free and RoHS compliant.

# ORDERING INFORMATION



Code Number	Truth Table	Color Code	No. of Positions	Top Adjust	Side Adjust	Terminal I.D. Fig.
02	B02	Red	10	X		1
02	B02	Red	10		X	4
08	B01	Brown	8	X		6
08	B01	Brown	8		X	7
12	C12	Orange	10	X		2
12	C12	Orange	10		X	5
34	B07	Black	16	X		3
35	B07	Green	16	X		1
35	B07	Green	16		X	4
41	C16	Blue	16	X		2
41	C16	Blue	16		X	5
65	S24	Turquoise	10	X		8
65	S24	Turquoise	10		X	9

## TRUTH TABLES

**B01**

BCD 1 Pole 8 Position

D	Common (C) connected to terminals indicated							
I								
A								
L	1	2	4					
0								
1	●							
2		●						
3			●					
4				●				
5					●			
6						●		
7							●	

**B02**

BCD 1 Pole 10 Position

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

**B07**

Binary Code 1 Pole 16 Position

D	Common (C) connected to terminals indicated															
I																
A																
L	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														●	

**C12**

BCD Complement Only 1 Pole 10 Position

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

**C16**

Binary Complement Only 1-Pole 16-Position

D	Common (C) connected to terminals indicated															
I																
A																
L	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							●		●		●		●		

**S24**

1 Pole 5 Position repeating no output on 0

D	Common (C) connected to terminals indicated				
I					
A					
L	1	2	3	4	
0					
1	●				
2		●			
3			●		
4				●	
0					
1	●				
2		●			
3			●		
4				●	