EECO®

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^{0}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

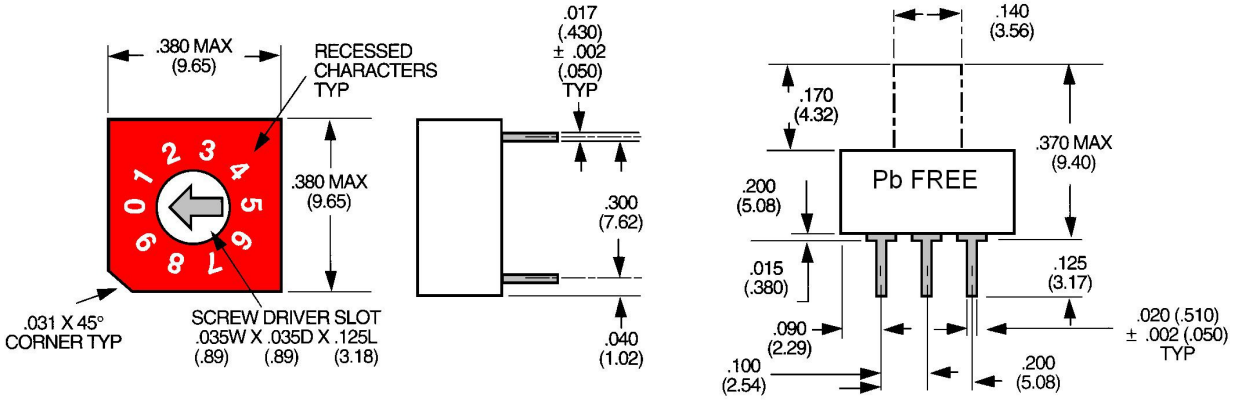
Operating Temperature	-65^{0}C To +85^{0}C
Storage Temperature	-65^{0}C To +125^{0}C
Vibration	15g, 10 to 2,000 Hz, Method 204, Condition B of Mil-Std 202
Moisture Resistance	Method 106, Mil-Std 202, 50 VDC Polarizing Voltage
Seal	Top: O-Ring Bottom: Epoxy
Solderability	Method 208 of Mil-Std 202, 95% Coverage
Solvent Resistance	Method 215 of Mil-Std 202
Humidity	Method 103B of Mil-Std 202, Test Condition A 50 VDC Polarizing Voltage

MATERIALS

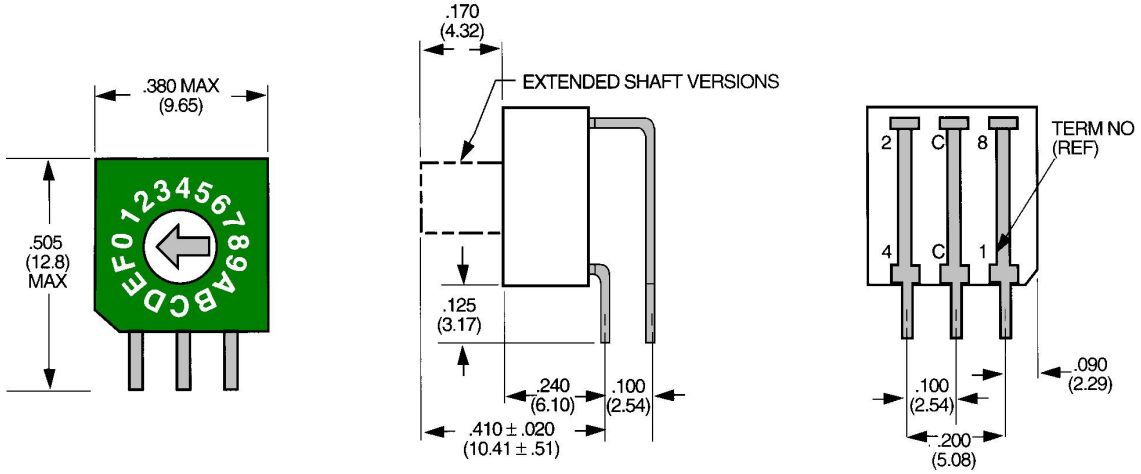
Housing and Base	Glass Reinforced High Temperature 4/6 Nylon, UL 94 V0
Rotor	Glass Reinforced 6/6 Nylon UL 94 V0
O-Ring	Silicon Rubber
Contact	Copper Alloy Base, Gold Over Nickel Plate
Terminal	Matte Tin With Whisker Inhibitors Over Nickel Plate
Weight	0.03 Oz (.86G)
Knobs	
Type B	ABS, UL 94 V0 (Black)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

STANDARD MODELS AND OPTIONS

TOP ADJUST MODEL

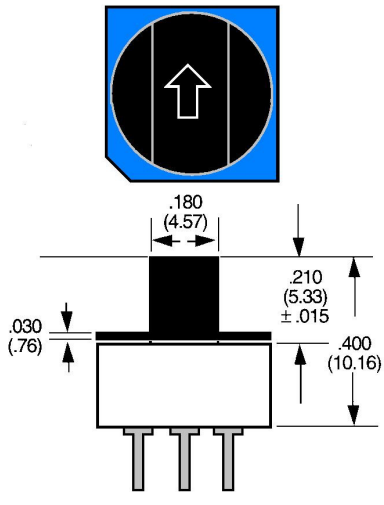


SIDE ADJUST MODEL



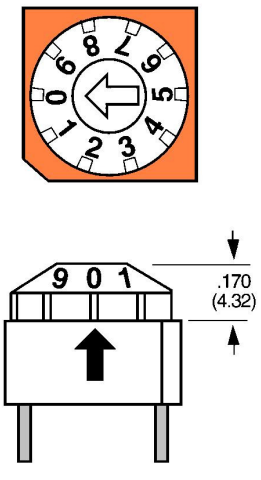
KNOB OPTION B

Available with Extended Shaft Models only



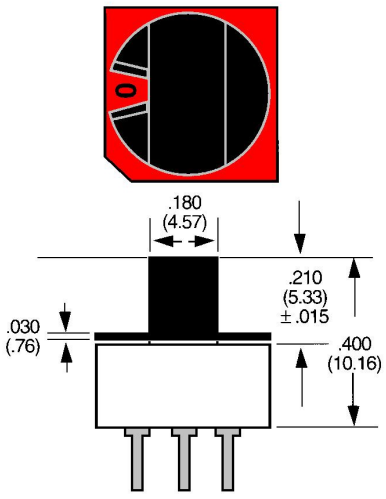
KNOB OPTION K

Available with Extended Shaft Models only



KNOB OPTION V

Available with Extended Shaft Models only



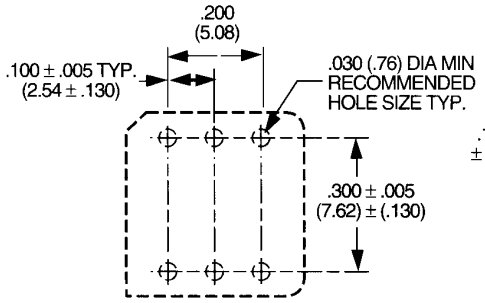
NOTE: Tolerances on all dimensions ± .010 unless otherwise specified.

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

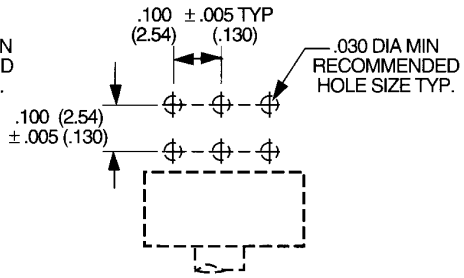
NOTE: "B" and "V" Knobs are Black, "K" Knob is White

PCB DESIGN INFORMATION

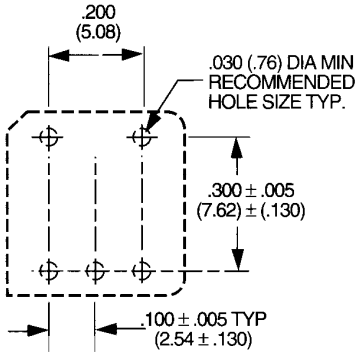
PRINTED CIRCUIT BOARD LAYOUT
As viewed from bottom of switch



MOUNTING HOLE PATTERN
TOP ADJUST MODEL



MOUNTING HOLE PATTERN
SIDE ADJUST MODEL



MOUNTING HOLE PATTERN
350X34GS TOP ADJUST MODEL

TERMINAL I.D. AS VIEWED FROM BOTTOM OF SWITCH

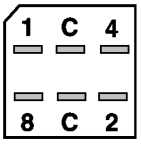


FIG. 1

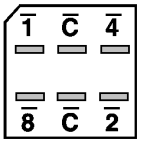


FIG. 2

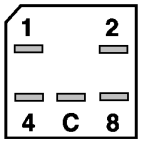


FIG. 3

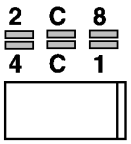


FIG. 4

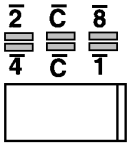


FIG. 5

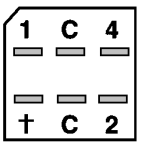


FIG. 6

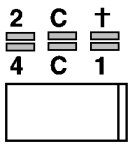
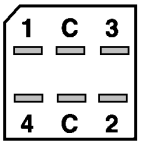
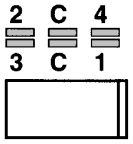


FIG. 7





NOTE: "C" terminals must be connected together external to switch. † Not used.

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

35 1 1 35 GS V

- V — KNOB OPTION B, K, OR V
- GS — GLOSS FINISH, SEALED (STANDARD)
- 35 — CODE DESIGNATOR SEE TABLE
- 1 — SHAFT DESIGNATOR 0 = FLUSH SHAFT 1 = EXTENDED SHAFT (FLUSH SHAFT ONLY, 65 CODE)
- 1 — MOUNTING ORIENTATION 0 = TOP ADJUST 1 = SIDE ADJUST
- 35 — 3500 SERIES

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

DIAL	Common (C) connected to terminals indicated							
	1	2	4					
0								
1	●							
2		●						
3	●	●						
4			●					
5	●		●					
6		●	●					
7	●	●	●					

B02

BCD 1 Pole 10 Position

DIAL	Common (C) connected to terminals indicated							
	1	2	4	8				
0								
1	●							
2		●						
3	●	●						
4			●					
5	●		●					
6		●	●					
7	●	●	●					
8				●				
9	●			●				

B07

Binary Code 1 Pole 16 Position

DIAL		Common (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	●	●	●	●

C12

BCD Complement Only 1 Pole 10 Position

DIAL	Common (C) connected to terminals indicated			
	$\overline{1}$	$\overline{2}$	$\overline{4}$	$\overline{8}$
0	●	●	●	●
1		●	●	●
2	●		●	●
3			●	●
4	●	●		●
5		●		●
6	●			●
7				●
8	●	●	●	
9		●	●	

C16

Binary Complement Only 1-Pole 16-Position

DIAL		Common (C) connected to terminals indicated			
		$\overline{1}$	$\overline{2}$	$\overline{4}$	$\overline{8}$
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

DIAL	Common (C) connected to terminals indicated			
	1	2	3	4
0				
1	●			
2		●		
3			●	
4				●
0				
1	●			
2		●		
3			●	
4				●

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