

The 4500 Series has a one-year warranty.

Specifications and Information

Download the 4500 Series Data Sheet (PDF format)

Solder and Cleaning Specification (PDF Format)

Truth Table (PDF Format)

### 3500 Series



The 3500 series MICRO-DIP® is a low profile, fully sealed rotary DIP switch designed for use with today's automatic soldering and cleaning processes. Featuring direct decimal to binary conversion, the 3500 MICRO-DIP is a non-volatile means of addressing PROMs and other memory devices. The 3500 series offers six binary and decimal codes, with extended shaft and right angle orientations for maximum design flexibility. The 3500 series also includes the first rotary DIP switch designed specifically for SCSI bus control.

The 3500 series is covered by **EECO's EXCLUSIVE LIFETIME WARRANTY.** 

## 2300 Series



An EECO innovation, the 2300 series MICRO-DIP® family includes the industry's only double pole rotary DIP switch. Ideal for CMOS logic applications, the 2300 series double pole switch offers a unique output arrangement in which all four outputs bits are always connected to one of two independent commons. This allows the use of a single pull-up resistor instead of four, as would be required by a conventional DIP switch. The 2300 series includes 10 and 16 position double pole models, and a 10 position right angle version. The double pole switches are available with optional process seals for wave soldering, and all are color coded for easy identification.

The 2300 series is series is covered by **EECO's EXCLUSIVE LIFETIME WARRANTY.** 



# *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**

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| 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                 | 1μΑ                         |
|---|-----------------------------|
| 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

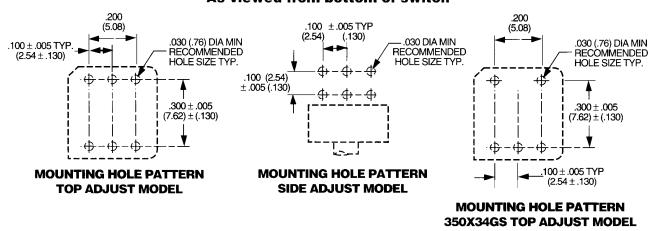
| Housing and Base | Glass Reinforced High Temperature 4/6 Nylon, UL 94 V0 |
|------------------|---|
| Rotor            | Glass Reinforced 6/6 Nylon UL 94 V0                   |
| O-Ring           | Silicon Rubber  |
| Contact          | Copper Alloy Base, Gold Over Nickel Plate             |
| Terminal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

#### STANDARD MODELS AND OPTIONS **TOP ADJUST MODEL** .140 (3.56) (.430) ± .002 (.050) TYP .380 MAX RECESSED CHARACTERS TYP (9.65).170 (4.32).370 MAX (9.40) Pb FREE .380 MAX .200 (5.08) (9.65)(7.62).125 (3.17) .015 (.380)SCREW DRIVER SLOT .035W X .035D X .125L .020 (.510) ± .002 (.050) TYP .031 X 45° CORNER TYP .040 (2.29)(.89)(1.02).200 (5.08) SIDE ADJUST MODEL .170 (4.32) .380 MAX \_ **EXTENDED SHAFT VERSIONS** (9.65)TERM NO (REF) .505 (12.8) MAX .125 (3.17).090 (2.29) .100 (6.10) (2.54).410 ± .020 (10.41 ± .51) -.200 (5.08)**KNOB OPTION B KNOB OPTION K KNOB OPTION V** Available with Extended Shaft Models only Available with Extended Shaft Models only Available with Extended Shaft Models only .180 (4.57) (4.57) .210 (5.33) .210 .170 (4.32)± .015 .030 (.76) £.015 .030 👤 (.76)(10.16)(10.16) All switches set to 0 position. NOTE: Tolerances on all dimensions ± .010 unless otherwise specified. Consult factory for custom knobs.

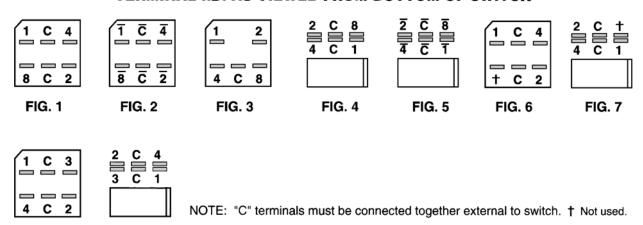
NOTE: "B" Knob is Black, "K" Knob is White, "V" Knob matches color code of switch.

# PCB DESIGN INFORMATION

# PRINTED CIRCUIT BOARD LAYOUT As viewed from bottom of switch



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

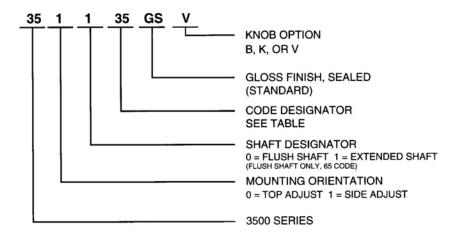


Refer to EECO Switch document "Soldering and Cleaning Specifications" for processing information.

# **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<br>Number | Truth<br>Table | Color<br>Code | No. of<br>Positions | Top<br>Adjust | Side<br>Adjust | Terminal<br>I.D. Fig. |
|----------------|----------------|---------------|---------------------|---------------|----------------|-----------------------|
| 02             | B02            | Red           | 10                  | x             |                | 1                     |
| 02<br>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                  |               | Х              | 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   | B02  | B07                               | C12  | C16   | S24  |
|---|--|-----------------------------------|--|---|--|
| BCD 1 Pole 8 Position  D Common (C) connected to terminals indicated  A L 1 2 4 | BCD 1 Pole 10 Position  D Common (C) I connected to terminats indicated  1 2 4 8 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 2 0 0 0 3 0 0 0 0 7 0 0 0 0 8 0 0 0 0 9 0 0 0 0 9 0 0 0 0 9 0 0 0 0 9 0 0 0 0 | Binary Code 1 Pole 16 Position  D | BCD Complement Only 1 Pole 10 Position    Common (C)   Common (C)   Connected to terminals indicated   Common (C)   Connected to terminals indicated   Common (C)   Connected to terminals indicated   Connected to terminals indi | Binary Complement Only 1-Pole 16-Position  D Common (C) connected to terminals indicated L  1 2 4 8  0 0 • • • • 1  1 1 • • • 2  2 2 • • • 3  3 3 • • 4  4 4 • • • 5  5 5 • • 6  6 6 • • 7  7 7  8 8 • • 9  9 9 • • • 1  A 10 • • B  B 11 • C 12 • 5  D 13 • E 14 • E | 1 Pole 5 Position repeating no output on 0  D Common (C) connected I to terminals indicated  A L 1 2 3 4 |

