# ZL series

Subminiature toggle switches • metal bushing



## DISTINCTIVE FEATURES

**Ø 4.83 mm threaded bushing**
**Solder lug and straight PC terminals**



## ENVIRONMENTAL SPECIFICATIONS

- Operating temperature : -30 °C to +85 °C (-22 °F to +185 °F)
- Moisture : 21 days 95 % (NFC 20-603 - IEC 8-2-3)

## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - gold plated contacts : 0.4 VA 20 V max. AC or DC
  - silver plated contacts : 0.5 A 48 V max. AC or DC
- Minimum load : 10 mA 50 mV - 10 µA 5 VDC
- Contact resistance : 20 mΩ max.
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- Dielectric strength: 1,000 Vrms 50 Hz min. between terminals and frame, 500 Vrms 50 Hz min. between terminals
- Electrical life at full load :

| Contacts | Number of cycles | |
|---|---|---|
| | 2 positions | 3 positions |
| Gold plated | 60,000 | 30,000 |
| Silver plated | 20,000 | 10,000 |

## GENERAL SPECIFICATIONS

- Strength of terminals : pull-out force 10 N max.
- Torque : 1 Nm max. applied between the 2 nuts
- Max. panel thickness : 1.5 mm (.059) with 2 nuts

The company reserves the right to change specifications without notice.

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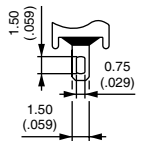
## MATERIALS

- Case : thermoplastic UL94-V0
- Actuator : brass, nickel plated
- Bushing : zamac, tin plated
- Contacts and terminals :
  **0** : brass, gold plated (standard)
  **1** : brass, silver plated
  **3** : brass, gold plated (1.27 micron gold)
- Terminal seal : epoxy

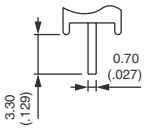
## SOLDERING

- Hand soldering : 280 °C (536 °F) max. for 5 seconds max.
- Wave soldering : 260 °C (500 °F) max. for 5 seconds max.

## TERMINALS

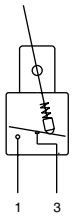



Solder lug **S0**

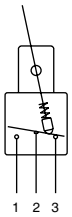



Straight **P0**

## ELECTRICAL FUNCTIONS



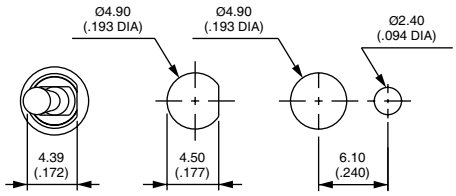

Function **1**



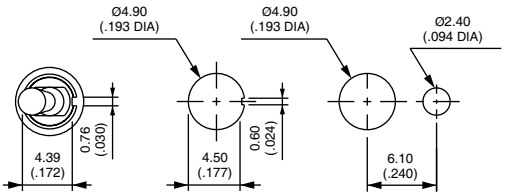

Other function

## PANEL CUT-OUT

WITH FLAT




WITH KEYWAY



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## BUILD YOUR PART NUMBER

### BASIC PART NUMBER

**ZL** — — — —

**SERIES**

**NUMBER OF POLES**

| | |
|---|---|
| 3 | Single pole |

**ELECTRICAL FUNCTIONS**

| | | | |
|---|---|---|---|
| 1 | ON | - | OFF |
| 6 | ON | - | ON |
| 9 | ON | OFF | ON |
| 7 | MOM | OFF | MOM |
| 8 | ON | OFF | MOM |
| 2 | ON | - | MOM |

**TERMINALS**

| | |
|---|---|
| S0 | Solder lug |
| P0 | Straight PC |

### OPTIONS

— — —

**CONTACT AND TERMINAL MATERIALS**

| | |
|---|---|
| 0 | Brass, gold plated |
| 1 | Brass, silver plated |
| 3 | Brass, gold plated (1.27 micron gold) |

**BUSHINGS**

| | |
|---|---|
| 01 | Threaded, with flat |
| 02 | Threaded, with keyway |

**MODELS**

| | |
|---|---|
| 00 | Standard model |

## ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

**Mounting accessories :** Standard hardware supplied with all models : 2 hex nuts 7 mm (.275) across flats P/N U5731, 1 locking ring P/N U5821 (with keyway) or U5831 (with flat) and 1 lockwasher P/N U5841.

# ZL series

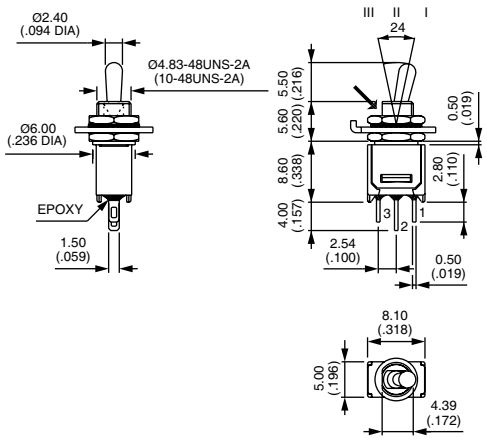
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## SOLDER LUG TERMINALS



| | III | II | I |
|---|---|---|---|
| ZL31S0 | ON | - | OFF |
| ZL36S0 | ON | - | ON |
| ZL39S0 | ON | OFF | ON |
| ZL37S0 | MOM | OFF | MOM |
| ZL38S0 | MOM | OFF | ON |
| ZL32S0 | MOM | - | ON |

→ FLAT

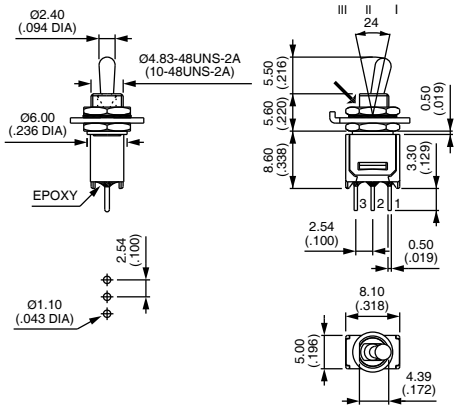



## STRAIGHT PC TERMINALS



| | III | II | I |
|---|---|---|---|
| ZL31P0 | ON | - | OFF |
| ZL36P0 | ON | - | ON |
| ZL39P0 | ON | OFF | ON |
| ZL37P0 | MOM | OFF | MOM |
| ZL38P0 | MOM | OFF | ON |
| ZL32P0 | MOM | - | ON |

→ FLAT




Shown with threaded bushing code **01**

### CONTACT & TERMINAL MATERIALS

BASIC P/N ..... ☐ ..... ☐ ..... 00

| | |
|---|---|
| 0 | Brass, gold plated (standard) |
| 1 | Brass, silver plated |
| 3 | Brass, gold plated (1.27 micron gold) |

### BUSHINGS

BASIC P/N ..... ☐ ..... ☐ ..... 00

| | |
|---|---|
| 01 | Threaded, with flat |
| 02 | Threaded, with keyway |