

ATE4/ATLE4

Washable

RoHS Compliant

Subminiature Toggle Switches With Locking Lever



UL

Features

1. Twin-contact clip mechanism for high reliability.
2. Process sealed structure

Specifications

| | | |
|-----------------------------|--|---------------------|
| Rating | Max. | 50mA 60VAC/DC |
| | Min. | 1 μ A 20mVAC/DC |
| | UL | 48VAC/DC 50mA |
| Initial contact resistance | 100m Ω max. (1.5mA 200 μ VAC) | |
| Dielectric strength | 500VAC 1 minute | |
| Insulation resistance | 500M Ω min. (500VDC) | |
| Electrical life | 10,000 cycles at max. rating | |
| Operating temperature range | -20 $^{\circ}$ C ~ +85 $^{\circ}$ C | |
| Storage temperature range | -40 $^{\circ}$ C ~ +85 $^{\circ}$ C | |

Part Numbering

A **TLE** **4** **2** **D** - **2** **M** **3** - **Z**

Series code Actuator shape Type of box Number of poles Switching function Terminal style Actuator shape Bracket style

| Code | Type | Fig. | Type of box | Fig. | Number of poles | Code | Switching function | Fig. | Terminal style | Code | Actuator shape | Fig. | Bracket |
|------|--------------------|------|-------------|------|-----------------|------|--------------------|------|------------------------------|------|----------------|------|-----------------|
| TE | Standard type | 4 | 4 pole box | 2 | 2 poles | D | ON - ON | 2 | PC Straight | M | Standard | 3 | Without bracket |
| TLE | Locking lever type | None | Low profile | 4 | 4 poles | E | ON - OFF - ON | 6 | Right angle (0.3 inch pitch) | | | 4 | With bracket |

PC Hole Layouts

| Type | Terminal style | PC Straight (Without bracket) |
|--------------|----------------|-------------------------------|
| ATE42□-2M3-Z | 2-poles | |
| ATE44□-2M3-Z | 4-poles | |

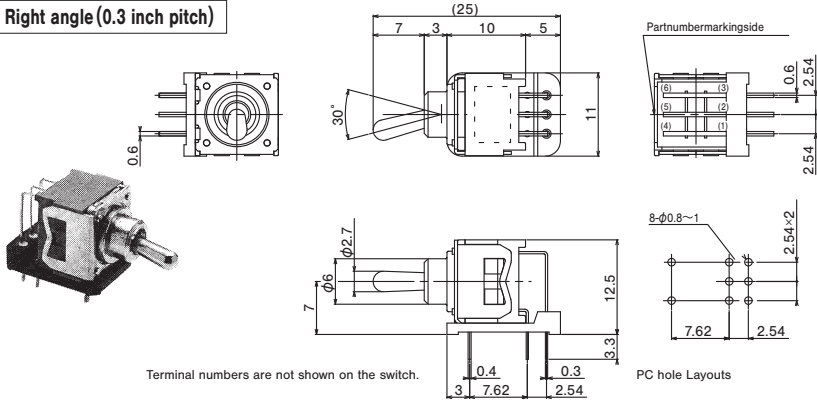
| Type | Terminal style | PC Straight (With bracket) |
|--------------|----------------|----------------------------|
| ATE42□-2M4-Z | 2-poles | |
| ATE44□-2M4-Z | 4-poles | |

ATE (Subminiature Toggle Switch)

DPDT

(Mounting height : 7mm)

Right angle (0.3 inch pitch)



Terminal numbers are not shown on the switch.

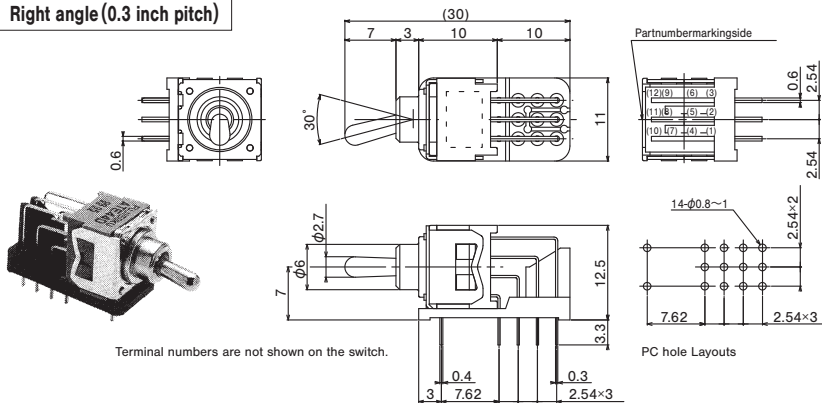
PC hole Layouts

| Switching function | Viewed from part No. marking side | | |
|----------------------|-----------------------------------|---|------------|
| | | | |
| Part No. | | | |
| ★ATE42D-6M3-Z | ON | - | ON |
| Connecting terminals | 2-3 5-6 | - | 2-1 5-4 |

4PDT

(Mounting height : 7mm)

Right angle (0.3 inch pitch)



Terminal numbers are not shown on the switch.

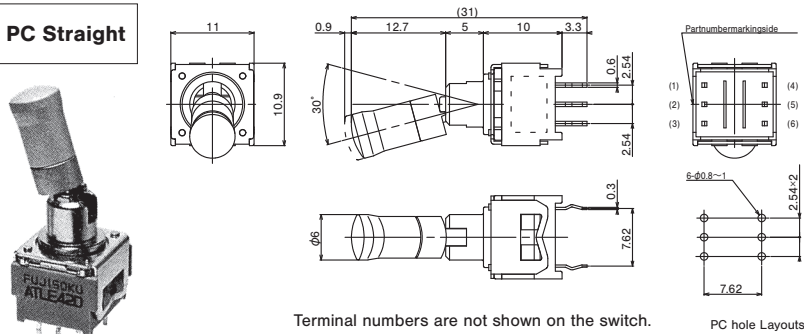
PC hole Layouts

| Switching function | Viewed from part No. marking side | | |
|----------------------|-----------------------------------|---|----------------------------|
| | | | |
| Part No. | | | |
| ★ATE44D-6M3-Z | ON | - | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 | - | 2-1 5-4 8-7 11-10 |

ATLE (Locking Lever Toggle Switch)

DPDT

PC Straight



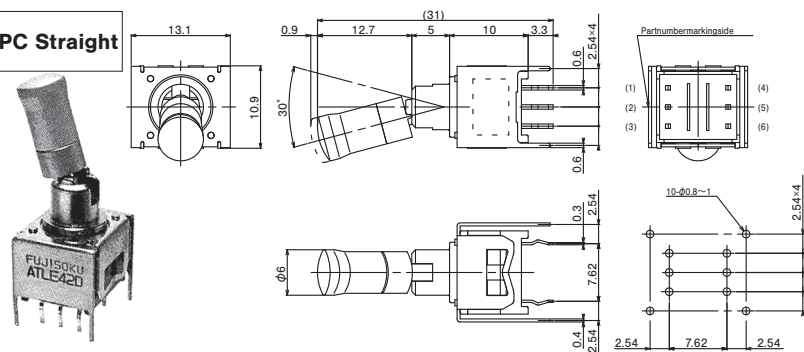
Terminal numbers are not shown on the switch.

PC hole Layouts

| Switching function | Viewed from part No. marking side | | |
|----------------------|-----------------------------------|---|------------|
| | | | |
| Part No. | | | |
| ★ATE42D-2M3-Z | ON | - | ON |
| Connecting terminals | 2-1 5-4 | - | 2-3 5-6 |

DPDT

PC Straight



Terminal numbers are not shown on the switch.

PC hole Layouts

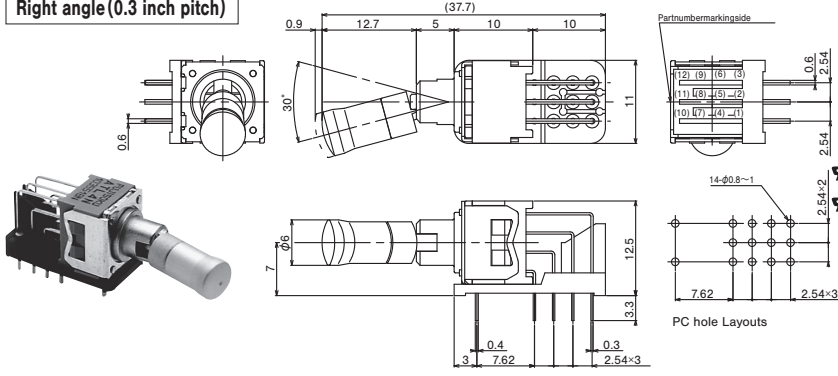
| Switching function | Viewed from part No. marking side | | |
|----------------------|-----------------------------------|-----|------------|
| | | | |
| Part No. | | | |
| ☆ATE42D-2M4-Z | ON | - | ON |
| ☆ATE42E-2M4-Z | ON | OFF | ON |
| Connecting terminals | 2-1 5-4 | - | 2-3 5-6 |

(With bracket)

4PDT

(Mounting height : 7mm)

Right angle (0.3 inch pitch)



| Switching function | Viewed from part No. marking side | | |
|----------------------|-----------------------------------|-----|----------------------------|
| | | | |
| Part No. | | | |
| ★ATLE44D-6M3-Z | ON | — | ON |
| ★ATLE44E-6M3-Z | ON | OFF | ON |
| Connecting terminals | 2-3 5-6 8-9 11-12 | — | 2-1 5-4 8-7 11-10 |

Standard Accessories

For Locking Lever Type

《Supplied separately》

| Color Cap | | |
|------------|--------|--------------|
| Dimensions | Color | Part No. |
| | Silver | 140000470225 |

A Silver cap is attached to the switch.

Flux Cleaning

- (1) Solvent : Fluorine or Alcohol type.
- (2) Cleaning after soldering should be done after the terminal temperature falls to 90°C or below, or after leaving the switch for five minutes or longer at room temperature.

Soldering Specifications

- (1) Manual Soldering
 - Device : Soldering iron
 - 380°C, Max.; 3 seconds, Max.
- (2) Auto Soldering
 - Device : Jet wave type or dip type
 - 275°C, Max.; 6 seconds, Max.
- Pre-heating should be done at temperatures ranging from 80°C to 120°C and within 120 sec.

Mounting of Switch

- Do not bend the terminals before mounting the switch on the PC board.
- After mounting the switch, do not place the device in such a way that the device weight will be applied on to the actuator of the switch.
- Do not apply load exceeding 12.74 N to the knob.