

# ATE4/ATLE4

Washable

## Subminiature Toggle Switch With Locking Lever



UL

RoHS Compliant

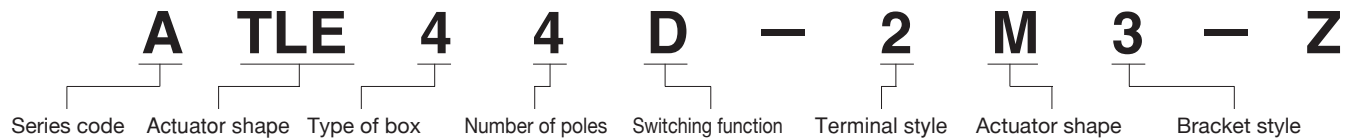
### Features

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

### Specifications

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

### Part Numbering



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	Type of 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	5	Right angle (0.2 inch pitch)			4	With bracket
						N	ON - ON	6	Right angle (0.3 inch pitch)				

### 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□-2M3-Z	2-poles	
ATE44□-2M4-Z	4-poles	

■ PC Hole Layouts

Type	Terminal style	Right angle
ATE42□-6M3-Z	2-poles	
ATE44□-6M3-Z ATLE44□-6M3-Z	4-poles	

■ Packaging Specification

<p><b>Plastick Pack</b></p>	<p>Standard type 50 pcs/pack</p>
<p><b>ATE-2M</b></p> <p><b>Plastick Pack</b></p>	<p>Right-angle type 50 pcs/pack</p>
<p><b>ATE-6M</b> <b>ATLE-2M</b> <b>ATLE-5M</b> <b>ATLE-6M</b></p>	

■ Type of Actuator

Standard type	Locking lever type

ATE (Subminiature Toggle Switch)

4PDT

**PC Straight**

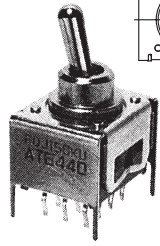
Terminal numbers are not shown on the switch. (Topview) PC hole Layouts

Switching function	Viewed from part No. marking side			
Part No.	☆ATE44E-2M3-Z	ON	OFF	ON
Connecting terminals	2-1 5-4 8-7 11-10	-	2-3 5-6 8-9 11-12	

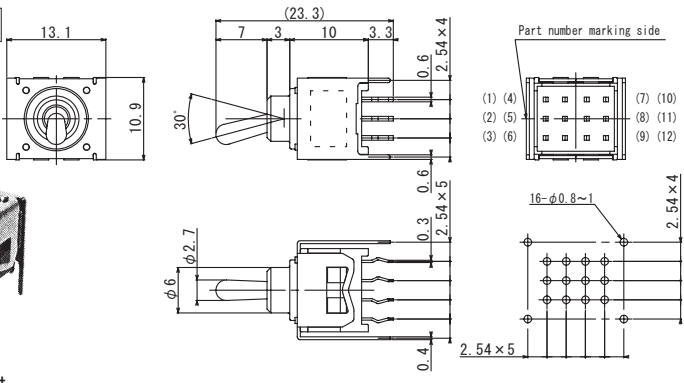
# ATE (Subminiature Toggle Switch)

## 4PDT

### PC Straight



With bracket



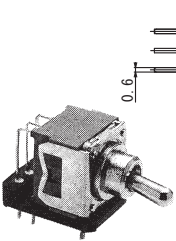
Terminal numbers are not shown on the switch. (Topview) PC hole Layouts

Switching function	Viewed from part No. marking side		
Part No.			
★ATE44D-2M4-Z	ON	—	ON
Connecting terminals	2-1		2-3
	5-4		5-6
	8-7	—	8-9
	11-10		11-12

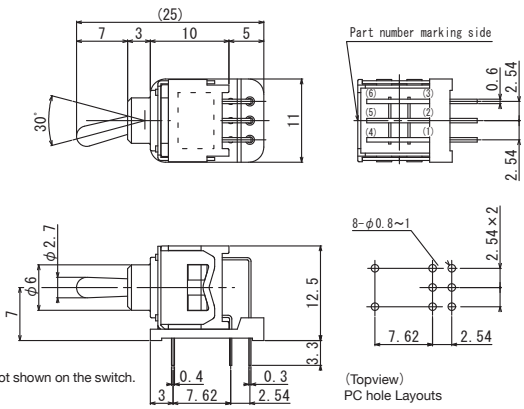
## DPDT

(Mounting height : 7mm)

### Right angle (0.3 inch pitch)



Terminal numbers are not shown on the switch.



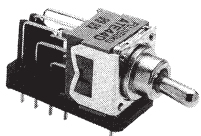
(Topview) PC hole Layouts

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

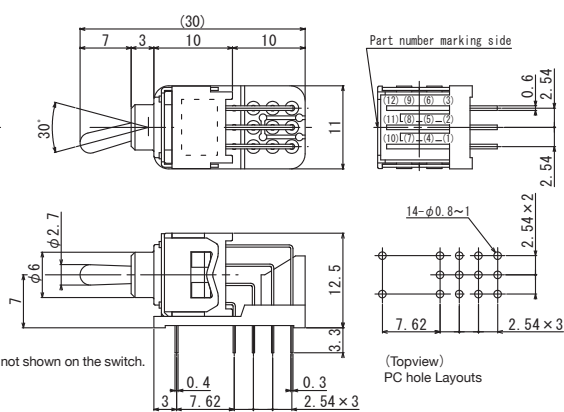
## 4PDT

(Mounting height : 7mm)

### Right angle (0.3 inch pitch)



Terminal numbers are not shown on the switch.

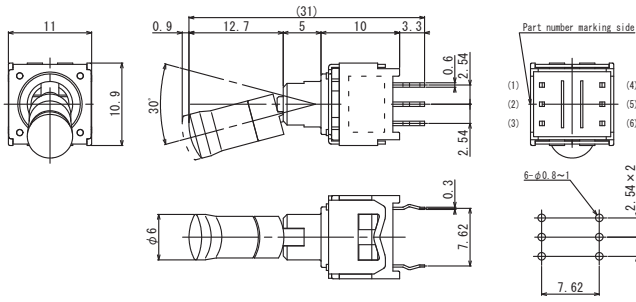
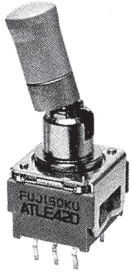


(Topview) PC hole Layouts

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

# ATLE (Locking Lever Toggle Switch)

## DPDT PC Straight



(Topview)  
PC hole Layouts

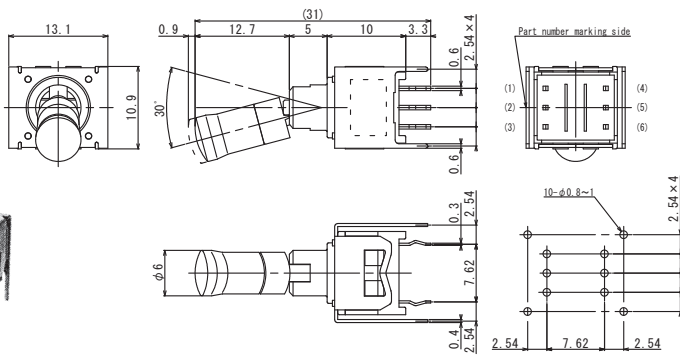
Terminal numbers are not shown on the switch.

Switching function	Viewed from part No. marking side		
Part No.			
★ATLE42D-2M3-Z	ON	—	ON
Connecting terminals	2-1 5-4	—	2-3 5-6

## DPDT PC Straight



With bracket



(Topview)  
PC hole Layouts

Terminal numbers are not shown on the switch.

Switching function	Viewed from part No. marking side		
Part No.			
☆ATLE42D-2M4-Z	ON	—	ON
☆ATLE42E-2M4-Z	ON	OFF	ON
Connecting terminals	2-1 5-4	—	2-3 5-6

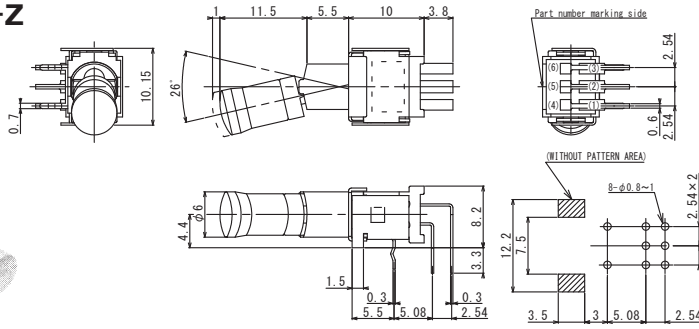
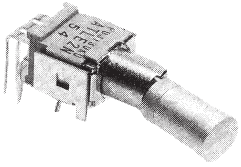
# ATLE (Locking Lever Toggle Switch)

## DPDT

(Mounting height : 4.4mm)

### ATLE2N-5M3-Z

Low profile



Switching function	Viewed from part No. marking side	
Part No.	ON	ON
★ATLE2N-5M3-Z	ON	ON
Connecting terminals	2-3 5-6	2-1 5-4

Right angle (0.2 inch pitch)

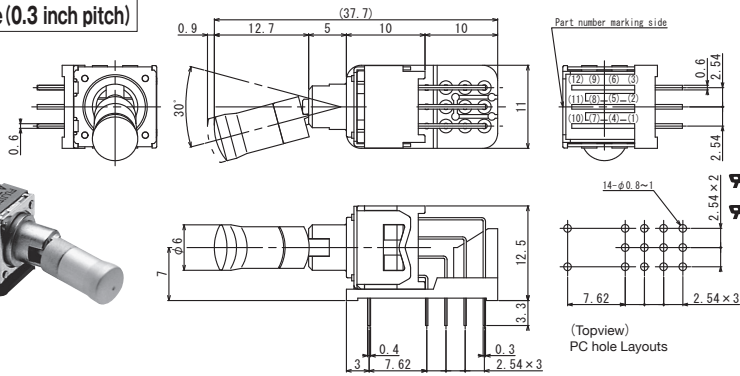
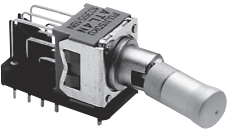
Terminal numbers are not shown on the switch.

(Topview)  
PC hole Layouts

## 4PDT

(Mounting height : 7mm)

Right angle (0.3 inch pitch)



Switching function	Viewed from part No. marking side		
Part No.	ON	—	ON
★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

Terminal numbers are not shown on the switch.

(Topview)  
PC hole Layouts

■ **Standard Accessories**

**For Locking Lever Type**

《Supplied separately》

Color Cap		
Dimensions	Color	Part No.
	Silver	140000470225
	Red	140000470234

A Silver cap is attached to the switch. Red, Blue, and Black caps are also available (sold separately).

■ **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.