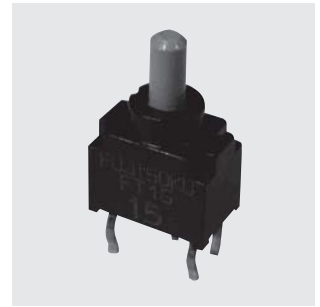# FT

■ **Terminal Pins : Kinked**
■ **Actuator Color : Yellow**

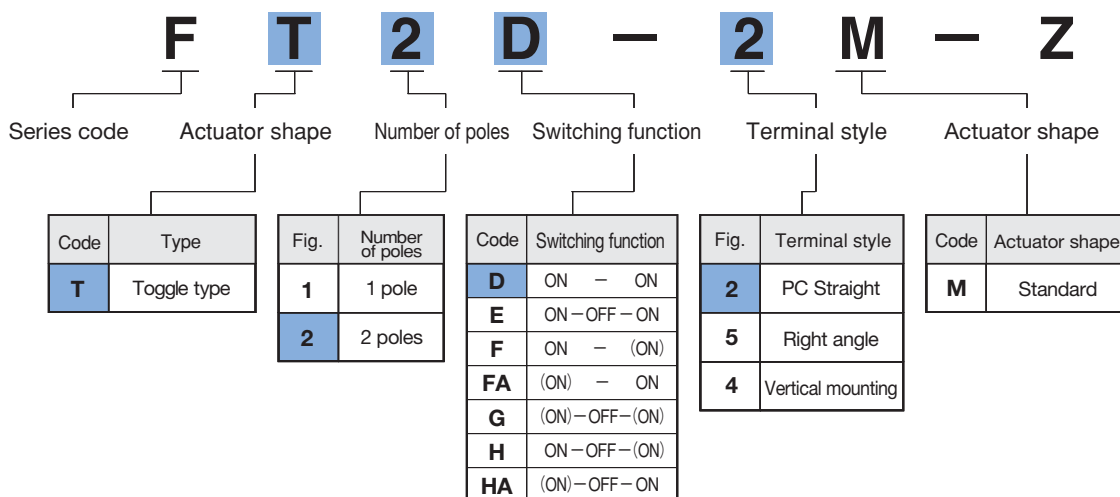**Washable**

Ultra-Miniature Toggle Switch

RoHS Compliant

■ Features

1. Ultra-miniature toggle switch for high density mounting.
2. Washable.
3. Terminal pin pitch : 2.54 mm.
4. Independent detent mechanism ensures light operational feel.
5. Clip contact mechanism for long-term contact reliability.
6. Gold-plated contacts.

■ Specifications

Rating	Max.	28VDC 0.4VA max.
	Min.	1μ A 20mVDC
Initial contact resistance		100mΩ max.　　（1.5mA 200μ VAC）
Dielectric strength		250VAC 1 minute
Insulation resistance		500MΩ min.　　　（250VDC）
Electrical life		10,000 cycles at max. rating 50,000 cycles at min. rating（**D,E** type） 30,000 cycles at min. rating（**F,G,H** type）
Operating temperature range		−40℃〜+85℃
Storage temperature range		−40℃〜+85℃

■ Part Numbering

| F | T | 2 | D | − | 2 | M | − | Z |

Series code　Actuator shape　Number of poles　Switching function　Terminal style　Actuator shape

Code	Type
T	Toggle type

Fig.	Number of poles
1	1 pole
2	2 poles

Code	Switching function
D	ON − ON
E	ON−OFF−ON
F	ON − (ON)
FA	(ON) − ON
G	(ON)−OFF−(ON)
H	ON−OFF−(ON)
HA	(ON)−OFF−ON

Fig.	Terminal style
2	PC Straight
5	Right angle
4	Vertical mounting

Code	Actuator shape
M	Standard

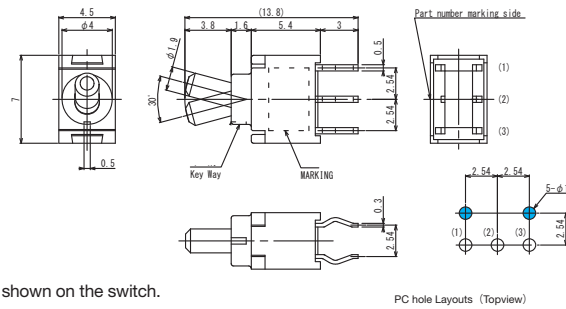| Terminal style of 「2」 (Style : PC Terminal)	Terminal style of 「4」 (Style : V/M Terminal)	Terminal style of 「5」 (Style : R/A Terminal)
0.3　2.54　　0.5　2.54 2.54　3	0.5　2.54 2.54　3　0.3　2.54	0.3　2.54　3.5　0.5　2.54 2.54

（ON）：Momentary.

FT

SPDT
PC Straight

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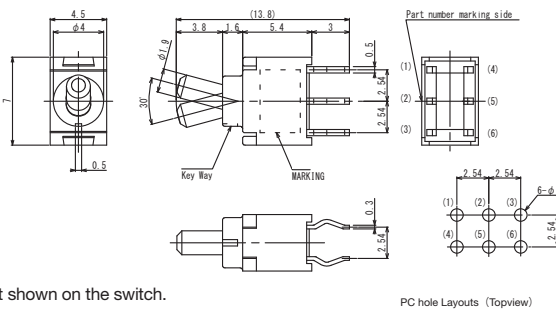
PC hole Layouts (Topview)

Switching function Part No.	Key	Key	Key
FT1D-2M-Z	ON	—	ON
☆FT1E-2M-Z	ON	OFF	ON
☆FT1F-2M-Z	ON	—	(ON)
★FT1G-2M-Z	(ON)	OFF	(ON)
▲FT1H-2M-Z	ON	OFF	(ON)
Connecting terminals	2−3	—	2−1

DPDT
PC Straight

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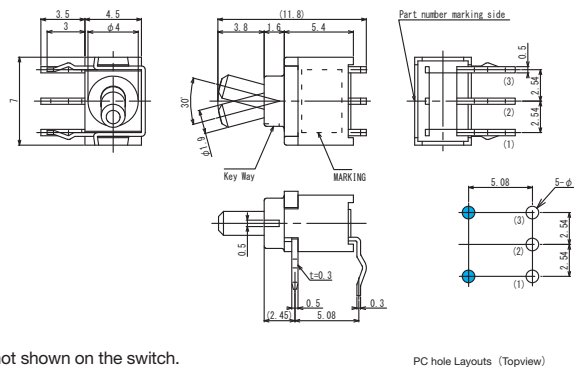
PC hole Layouts (Topview)

Switching function Part No.	Key	Key	Key
FT2D-2M-Z	ON	—	ON
☆FT2E-2M-Z	ON	OFF	ON
★FT2F-2M-Z	ON	—	(ON)
★FT2G-2M-Z	(ON)	OFF	(ON)
★FT2H-2M-Z	ON	OFF	(ON)
Connecting terminals	2−3 5−6	—	2−1 5−4

SPDT
Right Angle Terminal

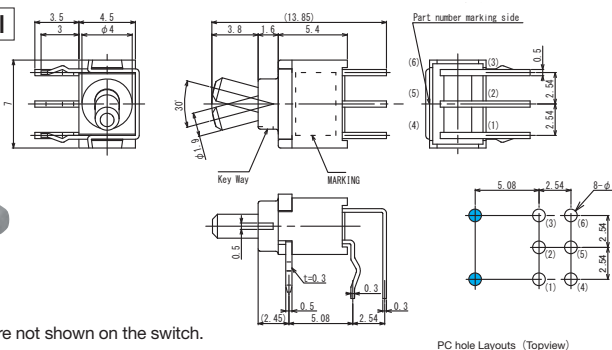Terminal numbers are not shown on the switch.

PC hole Layouts (Topview)

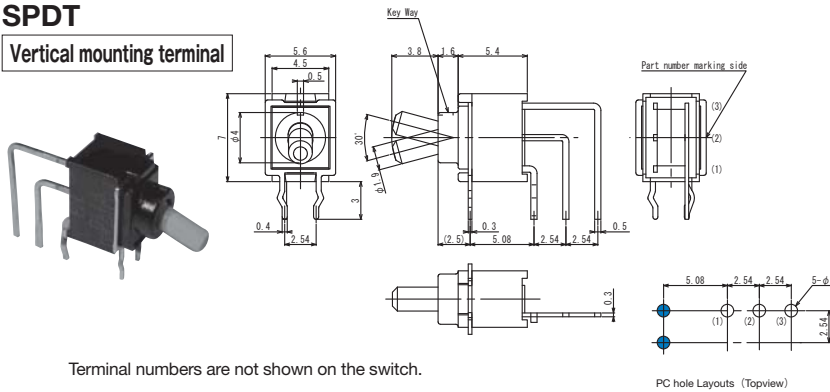| Switching function Part No.	Key	Key	Key
FT1D-5M-Z	ON	—	ON
FT1E-5M-Z	ON	OFF	ON
☆FT1F-5M-Z	(ON)	—	ON
★FT1FA-5M-Z	ON	—	(ON)
☆FT1G-5M-Z	(ON)	OFF	(ON)
★FT1H-5M-Z	(ON)	OFF	ON
▲FT1HA-5M-Z	ON	OFF	(ON)
Connecting terminals	2−1	—	2−3

DPDT
Right Angle Terminal

Terminal numbers are not shown on the switch.

PC hole Layouts (Topview)

Switching function Part No.	Key	Key	Key
☆FT2D-5M-Z	ON	—	ON
★FT2E-5M-Z	ON	OFF	ON
★FT2F-5M-Z	(ON)	—	ON
▲FT2FA-5M-Z	ON	—	(ON)
▲FT2G-5M-Z	(ON)	OFF	(ON)
▲FT2H-5M-Z	(ON)	OFF	ON
▲FT2HA-5M-Z	ON	OFF	(ON)
Connecting terminals	2−1 5−4	—	2−3 5−6

(ON): Momentary.   ☆ : Semi-standard products. ★ : Made to order products.

FT

SPDT

Vertical mounting terminal

Key Way

Part number marking side

Terminal numbers are not shown on the switch.

PC hole Layouts（Topview）

Switching function / Part No.	Key (ON)	Key ⊥	Key (ON)
☆FT1D-4M-Z	ON	—	ON
★FT1E-4M-Z	ON	OFF	ON
★FT1F-4M-Z	ON	—	(ON)
▲FT1FA-4M-Z	(ON)	—	ON
▲FT1G-4M-Z	(ON)	OFF	(ON)
▲FT1H-4M-Z	ON	OFF	(ON)
▲FT1HA-4M-Z	(ON)	OFF	ON
Connecting terminals	2－3	—	2－1

DPDT

Vertical mounting terminal

Key Way

Part number marking side

Terminal numbers are not shown on the switch.

PC hole Layouts（Topview）

| Switching function / Part No.	Key (ON)	Key ⊥	Key (ON)
FT2D-4M-Z	ON	—	ON
★FT2E-4M-Z	ON	OFF	ON
★FT2F-4M-Z	ON	—	(ON)
▲FT2FA-4M-Z	(ON)	—	ON
▲FT2G-4M-Z	(ON)	OFF	(ON)
▲FT2H-4M-Z	ON	OFF	(ON)
▲FT2HA-4M-Z	(ON)	OFF	ON
Connecting terminals	2－3 5－6	—	2－1 5－4

■**Soldering Specifications**

（1）Manual Soldering
　　Device：Soldering iron
　　380℃, Max.; 3 seconds, Max.
（2）Auto Soldering
　　Device：Jet wave type or dip type
　　275℃, Max.; 6 seconds, Max.
　・Pre-heating should be done at temperatures from
　　80 to 120℃ and within 120 sec.
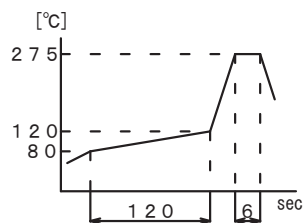
（3）When soldering two or more terminals to a common
　　land, use solder resist to separate them.

■**Flux Cleaning**

（1）Solvent : Fluorine or Alcohol type.
（2）Cleaning after soldering should be done after the
　　PC board is exposed to room temperature (30℃ or
　　below) for 1 to 2 hours.
（3）Do not use ultrasonic cleaning.

■**Packaging Specifications**

Plastick Pack

100 pcs/pack

▲：Inquiry products.　　★：Made to order products.　　☆：Semi-standard products.　　（ON）：Momentary.