

Quick Reference Guide
F Series Switches

The F Series switches offer high performance industrial toggles, rockers, and paddles with high current and high voltage rating in a small case. The F Series encompasses many circuit configurations ranging from single pole through four poles, in two and three positions with a choice of momentary or maintained circuits. This toggle series is UL, CSA recognized for 6A at 250 VAC, 6A at 125VAC with silver contacts and 0.4 VA max. at 20 V AC/DC with optional gold plated contacts, typically used for low energy switching. Electrical life is rated from 25,000 to 50,000 cycles at full load. Other electrical parameters include contact resistance of 10 milliohms max., insulation resistance of 1,000 megohms and actuation force of 19.6 N max.

All F Series switches are panel mounted with 6.0 mm threaded bushing conforming to standard panel cut outs and are constructed of brass with chrome plating. Design engineers are given the option of three toggle styles: standard toggle, locking lever to avoid unwanted switching and long flat toggle.

FEATURES

- Wide choice of toggles, rockers, and paddles
- Wide range of switch functions
- Terminals are gold-flashed to prevent oxidation and for ease of soldering

Applications

These devices are designed to meet requirements of light to medium-duty applications including:

- Industrial
- Instrumentation
- Medical equipment

Typical Performance Characteristics

Number of Poles : 1 to 4

Switch Functions : ON-ON, ON-(ON), ON-OFF-ON, ON-ON-ON, ON-OFF-(ON), (ON)-OFF-(ON)

Contact Rating : 6 A @250 VAC, 6 A @125 VAC,
Gold Contact : 0.4 VA max. 20 V AC/DC

Electrical Life : 25,000 to 50,000 cycles

Mechanical Life : 50,000 to 100,000 cycles

Contact Resistance : Max. 10 mOhm
0.4 VA Max. at 2–4 VDC 100 mA
125/250 VAC at 2–4 VDC 1 A

Insulation Resistance : Min. 1,000 MOhm

Dielectric Strength : 1,000 VAC for 1 min.

Actuation Force : Max. 19.6 N

Panel Cut-out : 6.2 mm

Standards and Specs : UL, CSA

Material Specifications

Contacts : Brass silver alloy finish
Toggle : Brass chromium plated
Terminals : Brass plate
Case : Phenol resin
Cover : Steel zinc plated
Seal : Rubber seal, insert molded rubber

Other Characteristics

Contact Timing : Break before Make
Right Angle Versions : No
Standard Number of Positions : 2 or 3
Terminals / Mounting Style : Leadwire hooking
Actuator Style : Standard, long locking; rocker
Dimensions Case (LxWxH) : 14.8 x 8 ... 23 x 10.5 mm
Packaging : Bulk
Choice of momentary or maintained circuits

Environmental Specification

Operating Temperature : -20 to +70°C

Storage Temperature : -20 to +70°C

Vibration Resistance : 1.5 mm 10-55 Hz

Shock Resistance : 50 g for 11±1 msec

Terminal Strength : 24.5 N

F Series Toggle Switches Product Key

Typical Product Key **F** **T** **D** **0** **9** **04**

Type

F	F Series power toggle switch

Number of Poles

Blank	1 & 2 pole	**3**	3 poles
		4	4 poles

Model

T	Toggle

Switch Function & Poles

	1 & 3 pole		**2 & 4 pole**
D	ON-ON	**N**	ON-ON
E	ON-OFF-ON	**P**	ON-OFF-ON
F	ON-(ON)	**R**	ON-(ON)
G	(ON)-OFF-(ON)	**S**	(ON)-OFF-(ON)
H	ON-OFF-(ON)	**T**	ON-OFF-(ON)
		PA	ON-ON-ON

Actuator

0	Standard toggle	**7**	Long flat toggle
5	Locking lever		

Terminal Type

9	Leadwire hooking type

Contact Material

Blank	Silver	**G**	Gold

Material

04	RoHS Compliant

Actuator



Code 0 — Standard Toggle

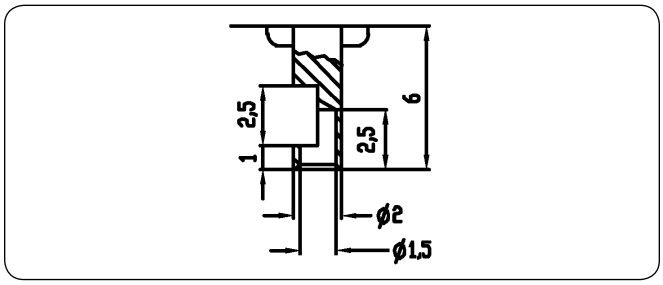


Code 7 — Long Flat Toggle



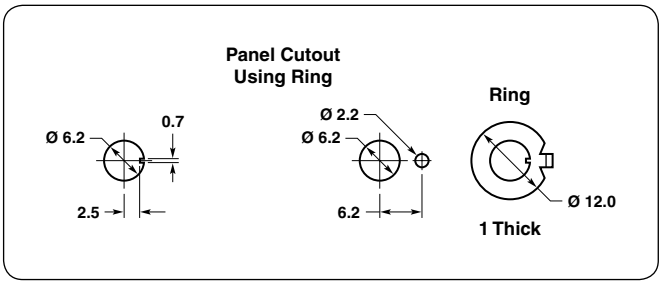
Code 5 — Locking Lever

Terminal



Code 9 — Leadwire Hooking Type

Mounting — F Series Toggles

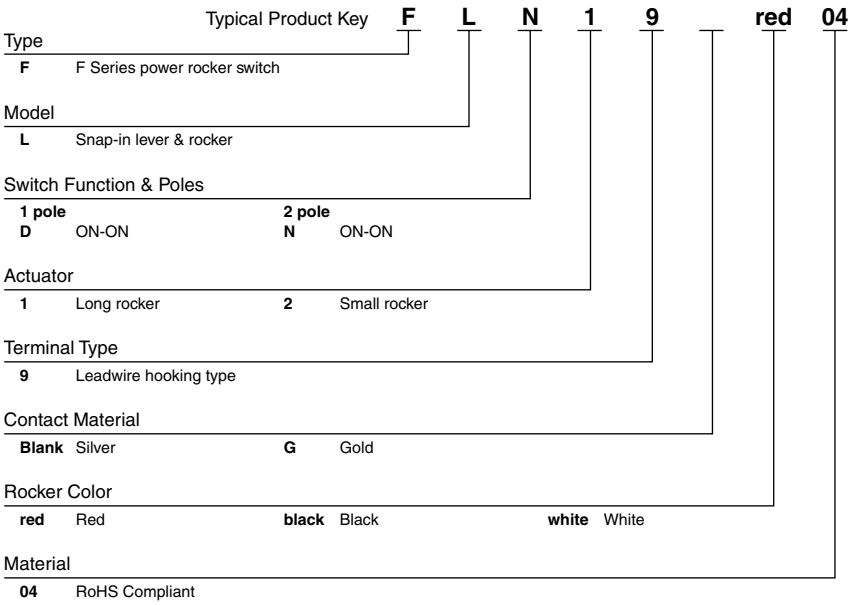


Recommended Hole Layout to Prevent Rotation

GOLD CONTACTS 0.4 VA MAX. AT 20 V AC/DC						
Product Key	**Poles**	**Switch Function**	**Actuator**	**Terminal**	**Contacts**	**Part Number**
FTD09G04	1 pole	ON-ON	Standard	Leadwire Hooking Type	Gold	3-6437630-4
FTD59G04	1 pole	ON-ON	Locking Lever	Leadwire Hooking Type	Gold	4-6437630-0
FTD79G04	1 pole	ON-ON	Flat Toggle	Leadwire Hooking Type	Gold	5-6437630-4
FTE09G04	1 pole	ON-OFF-ON	Standard	Leadwire Hooking Type	Gold	5-6437630-1
FTE79G04	1 pole	ON-OFF-ON	Flat Toggle	Leadwire Hooking Type	Gold	5-6437630-8
FTF09G04	1 pole	ON-(ON)	Standard	Leadwire Hooking Type	Gold	6-6437630-3
FTG09G04	1 pole	(ON)-OFF-(ON)	Standard	Leadwire Hooking Type	Gold	3-6437630-8
FTH09G04	1 pole	ON-OFF-(ON)	Standard	Leadwire Hooking Type	Gold	6-6437630-4
FTN09G04	2 poles	ON-ON	Standard	Leadwire Hooking Type	Gold	6-6437630-8
FTN59G04	2 poles	ON-ON	Locking Lever	Leadwire Hooking Type	Gold	6-6437630-1
FTN79G04	2 poles	ON-ON	Flat Toggle	Leadwire Hooking Type	Gold	5-6437630-9

SILVER CONTACTS 6A AT 250/125 VAC						
Product Key	**Poles**	**Switch Function**	**Actuator**	**Terminal**	**Contacts**	**Part Number**
F3TD0904	3 Poles	ON-ON	Standard	Leadwire Hooking Type	Silver	2-6437630-8
F4TD0904	4 Poles	ON-ON	Standard	Leadwire Hooking Type	Silver	3-6437630-5
F4TPA0904	4 Poles	ON-ON-ON	Standard	Leadwire Hooking Type	Silver	3-6437630-6
FTD0904	1 Pole	ON-ON	Standard	Leadwire Hooking Type	Silver	2-6437630-0
FTD5904	1 Pole	ON-ON	Locking Lever	Leadwire Hooking Type	Silver	1-6437630-5
FTD7904	1 Pole	ON-ON	Flat Toggle	Leadwire Hooking Type	Silver	5-6437630-3
FTE0904	1 Pole	ON-OFF-ON	Standard	Leadwire Hooking Type	Silver	6-6437630-2
FTF0904	1 Pole	ON-(ON)	Standard	Leadwire Hooking Type	Silver	5-6437630-7
FTG0904	1 Pole	(ON)-OFF-(ON)	Standard	Leadwire Hooking Type	Silver	5-6437630-5
FTH0904	1 Pole	ON-OFF-(ON)	Standard	Leadwire Hooking Type	Silver	4-6437630-8
FTN0904	2 Poles	ON-ON	Standard	Leadwire Hooking Type	Silver	4-6437630-2
FTN5904	2 Poles	ON-ON	Locking Lever	Leadwire Hooking Type	Silver	3-6437630-9
FTN7904	2 Poles	ON-ON	Flat Toggle	Leadwire Hooking Type	Silver	5-6437630-2
FTP0904	2 Poles	ON-OFF-ON	Standard	Leadwire Hooking Type	Silver	4-6437630-6
FTPA0904	2 Poles	ON-OFF-ON	Standard	Leadwire Hooking Type	Silver	4-6437630-5
FTR0904	2 Poles	ON-(ON)	Standard	Leadwire Hooking Type	Silver	4-6437630-4
FTS0904	2 Poles	(ON)-OFF-(ON)	Standard	Leadwire Hooking Type	Silver	4-6437630-3
FTT0904	2 Poles	ON-OFF-(ON)	Standard	Leadwire Hooking Type	Silver	4-6437630-1

F Series Rocker Switches Product Key



Actuator

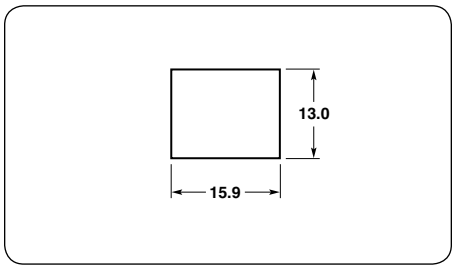


Code 1 — Long Rocker



Code 2 — Small Rocker

Mounting — F Series Rocker



Panel Cutout
Thickness 1 to 2.5 mm

ROCKER							
Product Key	Poles	Switch Function	Actuator	Actuator Color	Terminal	Contacts	Part Number
FLD19black04	1 Pole	ON-ON	Long Rocker	Black	Leadwire Hooking Type	Silver	3-6437630-2
FLD29black04	1 Pole	ON-ON	Small Rocker	Black	Leadwire Hooking Type	Silver	2-6437630-9
FLN19black04	2 Poles	ON-ON	Long Rocker	Black	Leadwire Hooking Type	Silver	3-6437630-7
FLN29red04	2 Poles	ON-ON	Long Rocker	Red	Leadwire Hooking Type	Silver	2-6437630-7
FLN19white04	2 Poles	ON-ON	Long Rocker	White	Leadwire Hooking Type	Silver	2-6437630-6
FLN29black04	2 Poles	ON-ON	Small Rocker	Black	Leadwire Hooking Type	Silver	2-6437630-5
FLN29red04	2 Poles	ON-ON	Small Rocker	Red	Leadwire Hooking Type	Silver	4-6437630-7
FLN29white04	2 Poles	ON-ON	Small Rocker	White	Leadwire Hooking Type	Silver	2-6437630-3

ACCESSORIES			
Product Key	Switch Compatibility	Color	Part Number
Bezel	FL Series	Black	9-6437631-0
Bezel	FL Series	Red	9-6437631-1
Cap04	F Series Toggles	Black	9-6437630-0

How to Specify in a Switch

Electrical Considerations

Voltage of Applications: _____ Current of Application: _____

Circuitry Configuration: Number of Poles: _____ Number of Throws: _____

Number of Operations anticipated: _____

Agency Approvals or Listings Desired: _____

Mechanical Considerations

Type of Switch (Actuator Type): _____ Toggle _____ Pushbutton _____ Rotary _____ Rocker _____ Other

Switch Function (On/Off/On): _____ On/Off: _____ Momentary: _____

Termination: _____ .Thru-Hole (PC) _____ Surface Mount _____ Wire Lug _____ Quick Connect _____ Other

Sealing Contamination Requirements: _____

Product Processing Considerations

Anticipated Soldering Process: _____ Hand _____ Wave _____ SMT _____ Other

FOR MORE INFORMATION

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