

# Snap-action Microswitches – Ultraminiature F4

## F4

Characteristics	<ul style="list-style-type: none"> <li>■ High electrical rating from a very small switch</li> <li>■ Long mechanical and electrical life</li> <li>■ Gold-plated contact option</li> </ul>
Rating	Up to 250 VAC, 5 A
Dimensions (mm)	12.8 x 10 x 5
Actuator	Plunger, plain lever, simulated roller (cam follower) lever
Approvals	UL and CSA



A

## Preferred Product Range

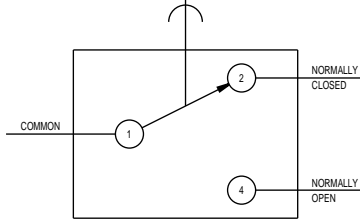
Ordering Reference	Actuating Force (N) (oz)		Sealing	Operating position (mm) (in)		Terminal	Circuit	Actuator	Contacts	Electrical rating
F4T7UL	1.4	5.0	IP40	8.1	0.32	Solder	C0	Plunger	Silver	Up to 250 VAC, 5 A
F4T7GPUL	1.4	5.0	IP40	8.1	0.32	Solder	C0	Plunger	Gold plate	Up to 250 VAC, 5 A
F4T7Y1UL	0.6	2.2	IP40	8.2	0.32	Solder	C0	Plain lever	Silver	Up to 250 VAC, 5 A
F4T7Y1GPUL	0.6	2.2	IP40	8.2	0.32	Solder	C0	Plain lever	Gold plate	Up to 250 VAC, 5 A
F4T7YCUL	0.7	2.5	IP40	10.3	0.41	Solder	C0	Simulated roller	Silver	Up to 250 VAC, 5 A
F4T7YCGPUL	0.7	2.5	IP40	10.3	0.41	Solder	C0	Simulated roller	Gold plate	Up to 250 VAC, 5 A

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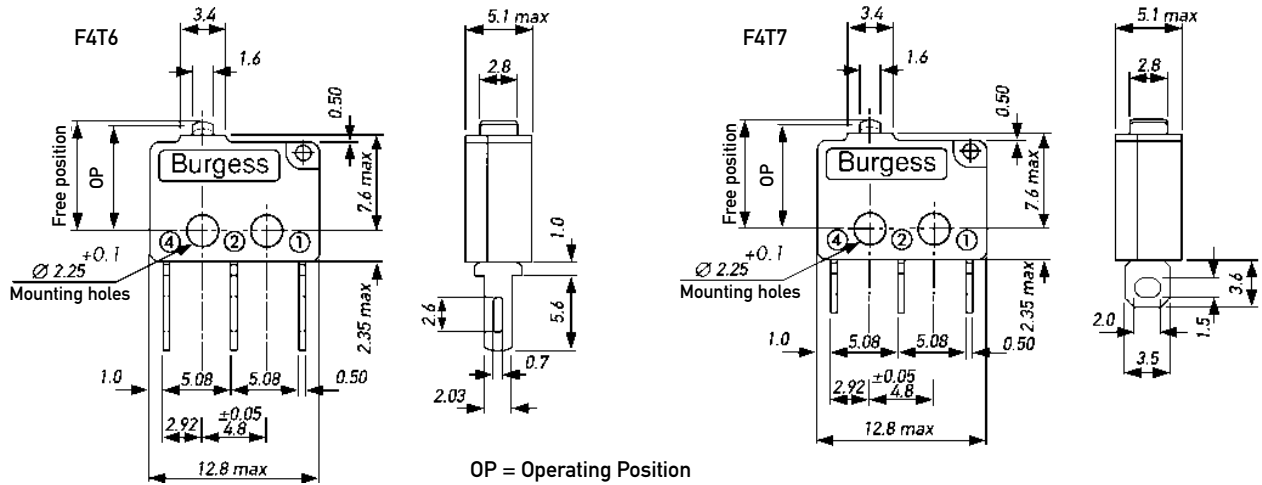
## Specifications

Housing	Glass fiber reinforced nylon
Plunger	Nylon
Mechanism	Snap-action, single pole
Functions	Change-over, Normally open, Normally closed
Contacts	Fixed, Moving – Silver or Gold plate on silver
Terminals	2.0 mm (0.08 in) faston and solder - brass, gold flashed
Temperature range °C	-40°C to +85°C
Mechanical life	10 <sup>7</sup> cycles minimum (impact free actuation)
Protection	IP 40 (enclosure)
Mounting	Side mounting
Actuators	Plain lever; simulated roller (cam follower) lever
Accessories	Lug mounting frame, insulating sheet, spring-leaf actuator

Circuit diagram



Dimensions (mm)



## Recommended Maximum Electrical Ratings

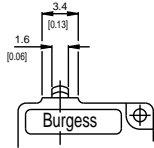
Voltage (max)	Load (A)	Approval
250 VAC	5 (0.75 pf)	UL 1054/CSA 22.2 No. 55 - 6,000 operations
125 VAC	5 (0.75 pf)	UL 1054/CSA 22.2 No. 55 - 6,000 operations
0 - 15 VDC	5	General rating - 50,000 operations
15 - 30 VDC	3	General rating - 50,000 operations

F4 switches are available with either silver or gold-plated silver contacts. Switches with gold-plated contacts are intended for use in circuits where switching is at milliwatt levels. In this case, the power being switched must be limited to avoid the erosion of gold plate from the contact area. However, as the underlying contacts are silver, the same power ratings apply.

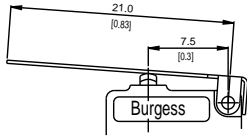
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## Operating Characteristics

Actuator	Reference	Actuating Force Maximum		Release Force Minimum		Free Position Maximum		Operating Position		Movement Differential Maximum		Over travel
		(N)	(oz)	(N)	(oz)	(mm)	(in)	(mm)	(in)	(mm)	(in)	
Plunger mm [in]	F4T6 F4T7	1.4	5.0	0.25	0.90	8.8	0.35	8.1 <sup>+0.3</sup> -0.2	0.32 <sup>+0.01</sup> -0.008	0.13	0.005	*

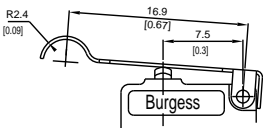


Y1-Lever mm [in]	F4T6Y1 F4T7Y1	0.6	2.2	0.07	0.25	10.0	0.39	8.2 <sup>+1.0</sup> -0.7	0.32 <sup>+0.04</sup> -0.03	0.70	0.030	*
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Width of lever 3.0 mm/0.12 in

YC-Lever mm [in]	F4T6YC F4T7YC	0.7	2.5	0.09	0.32	11.7	0.46	10.3 <sup>+0.8</sup> -0.55	0.41 <sup>+0.03</sup> -0.02	0.45	0.020	*
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Width of lever 3.0 mm/0.12 in

Operating characteristics are specified from the mounting holes.

\* Plunger can be depressed flush with housing. The housing should not be used as an end stop.

## Ordering Reference – How to Build a Part Number

	F4	
Terminals	T6	Faston
	T7	Solder
Circuit	No digit	Change-over
	C2	Normally closed
	C4	Normally open
Actuators	No digit	Plunger
	Y1	Plain lever 21.0 mm (0.83 in)
	YC	Simulated roller 16.9 mm (0.67 in)
Contacts	No digit	Silver
	GP	Gold plate on silver
Approvals	UL	UL and CSA