

# **Snap-action Microswitches**

### Ultraminiature

### F4

Characteristics ■ High electrical rating from a very small switch

■ Long mechanical and electrical life

■ Gold-plated contact option

Rating Up to 250 VAC, 5 A

Dimensions (mm)  $12.8 \times 10 \times 5$ 

Actuator Plunger, plain lever, simulated roller (cam follower) lever

Approvals UL and CSA



## **Preferred Range**

Ordering Reference	Actuating (N)	g Force (ozf)	Sealing	Operating pos (mm)	s. (in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
F4T7UL	1.4	5.00	IP40	8.1	0.32	Solder	CO	Plunger	Silver	Up to 250 VAC, 5 A
F4T7GPUL	1.4	5.00	IP40	8.1	0.32	Solder	CO	Plunger	Gold plate	Up to 250 VAC, 5 A
F4T7Y1UL	0.6	2.20	IP40	8.2	0.32	Solder	CO	Plain lever	Silver	Up to 250 VAC, 5 A
F4T7Y1GPUL	0.6	2.20	IP40	8.2	0.32	Solder	CO	Plain lever	Gold plate	Up to 250 VAC, 5 A
F4T7YCUL	0.7	2.50	IP40	10.3	0.41	Solder	CO	Simulated roller	Silver	Up to 250 VAC, 5 A
F4T7YCGPUL	0.7	2.50	IP40	10.3	0.41	Solder	CO	Simulated roller	Gold plate	Up to 250 VAC, 5 A

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### **Specifications**

Housing Glass fibre 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

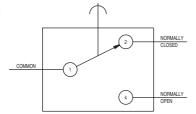
Mechanical life 10<sup>7</sup> cycles minimum (impact free actuation)

Protection IP 40 (enclosure)
Mounting Side mounting

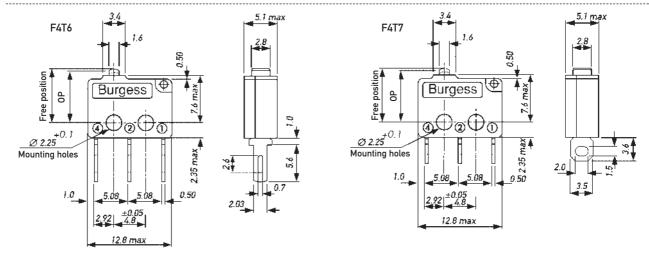
Actuators Plain lever; simulated roller (cam follower) lever

Accessories Lug mounting frame, insulating sheet, spring-leaf actuator

Circuit diagram



**Dimensions** 



### 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

 ${\sf F4}\ {\sf switches}\ {\sf are}\ {\sf available}\ {\sf with}\ {\sf either}\ {\sf silver}\ {\sf or}\ {\sf gold-plated}\ {\sf silver}\ {\sf contacts}.$ 

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.

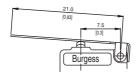
**26** | 27 www.saia-burgess.com saia-burgess Switches

# **Operating Characteristics**

	Actuator	Reference	Actuating Force Maximum		Release Force Minimum		Free Position Maximum		Operating Position		Movement Differential Maximum		Over travel
			(N)	(ozf)	(N)	(ozf)	(mm)	(in)	(mm)	(in)	(mm)	(in)	
Plunger		F4T6 F4T7	1,4	5,00	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	*
	2.4												

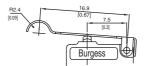


Y1-Lever  $F476Y1 \\ F477Y1 \\ 0.6 \\ 2.20 \\ 0.07 \\ 0.25 \\ 10.0 \\ 0.39 \\ 8.2 \\ -0.7 \\ 0.32 \\ +0.04 \\ -0.03 \\ 0.70 \\ 0.030 \\ *$ 



Width of lever 3.0 mm/0.12 in

YC-Lever F4T6YC 0.7 2.50 0.09 0.32 11.7 0.46 10.3 +0.8 0.41 +0.03 -0.02 \*



Width of lever 3.0 mm/0.12 in

Operating characteristics are specified from the mounting holes.

## **Ordering Reference**

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

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 $<sup>^{</sup>st}$  Plunger can be depressed flush with housing. The housing should not be used as an end stop.