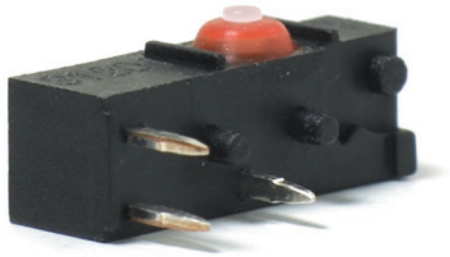
F1NS

Characteristics	■ small size ■ low current ■ long mechanical life ■ PCB mounting ■ sealed IP54 (option)
Rating	Up to 250 VAC, 1 A
Dimensions (mm)	14.6 × 6.5 × 6
Actuator	■ plunger ■ plain lever ■ simulated roller lever/cam follower
Approvals	none



Preferred Range

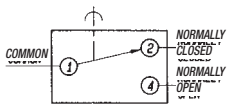
Ordering Reference	Actuating Force (N)	(ozf)	Sealing	Operating pos. (mm)	Terminal	Circuit	Actuator	Contacts	Electrical rating
F1NST8	2,0	7,2	IP5K4	5,9	PCB	CO	Plunger	Ag	250 VAC, 1 A
F1NST8A1	0,6	2,2	IP5K4	7,6	PCB	CO	Plain lever	Ag	250 VAC, 1 A
F1NST8AC	0,6	2,2	IP5K4	10,1	PCB	CO	Cam follower	Ag	250 VAC, 1 A

F1NS

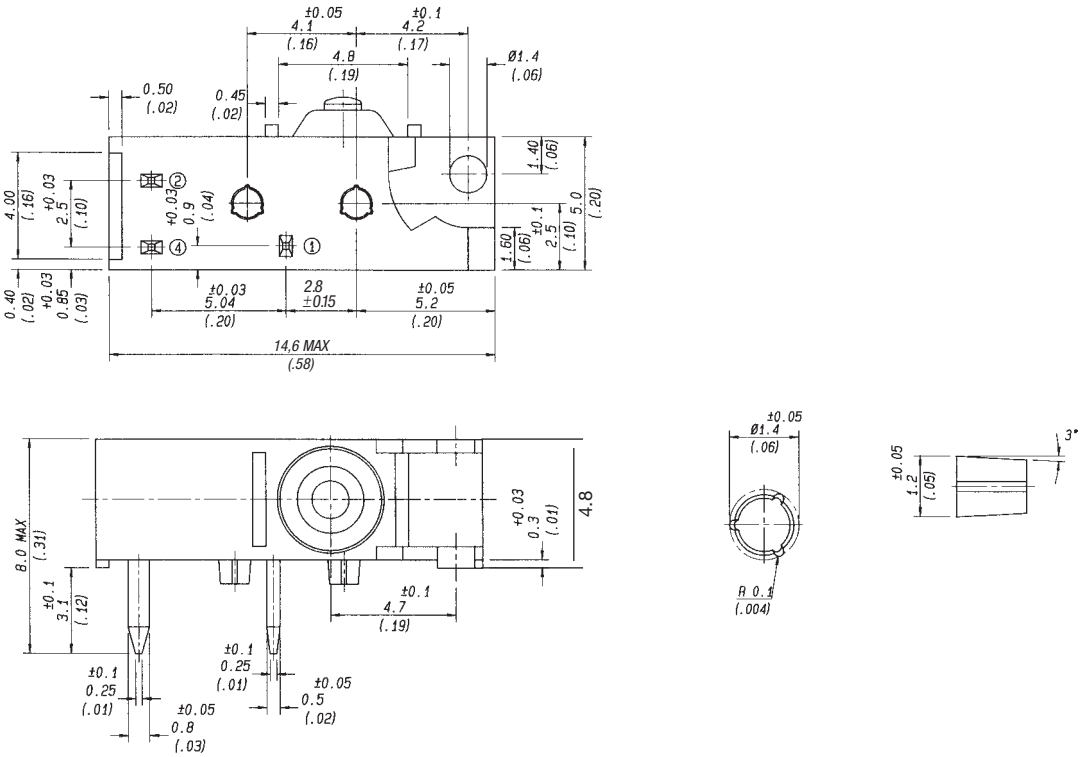
Specifications

Housing	Base: PA 6.6; Cowl: Silicon; Lid: PA 6.6
Plunger	POM
Mechanism	Snap-action, coil spring mechanism with stainless steel spring. Single-pole change-over contact
Contacts	Fine silver, Gold plate on silver
Terminals	PCB - Phosphor Bronze silver plated
Temperature range °C	–40°C bis +85°C
Mechanical life	10^7 cycles minimum (impact-free actuation)
Protection	Enclosure IP40 (F1N), IP54 (F1NS)
Mounting	PCB. Locating pins on housing

Circuit diagram



Dimensions

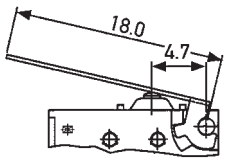


Recommended maximum electrical ratings

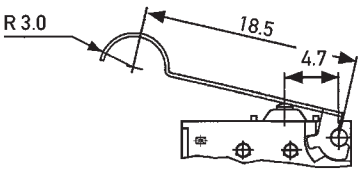
Voltage (VAC)	Resistive load (A)	Inductive load (A)	Voltage (VDC)	Resistive load (A)	Inductive load (A)
125	1	1	up to		
250	1	1	30	2	2
			50	0,5	0,5
			75	0,25	0,25
			125	0,2	0,03

Operating Characteristics

	Actuator	Reference	Actuating Force Maximum (N)	(ozf)	Release Force Minimum (N)	(ozf)	Free Position (mm)	(in)	Operating Position Maximum (mm)	(in)	Movement Differential Maximum (mm)	(in)	Total travelled position Maximum (mm)	(in)
Plunger		F1NST8	2	7,20	0,2	0,72	6,5	0,26	5,9 ± 0,2	0,23 ± 0,008	0,2	0,008	*	
A1-Lever		F1NST8A1	0,6	2,20	0,09	0,32	10,5	0,41	7,6 ± 1,2	0,3 ± 0,05	0,7	0,03	*	
AC-Lever		F1NST8AC	0,6	2,20	0,09	0,32	13,3	0,52	10,1 ± 1,2	0,4 ± 0,05	0,7	0,03	*	



Width of lever 3 mm/0,12 in



Width of lever 3 mm/0,12 in

Datum for Free Position and Operating Position: base of switch opposite plunger.

* Flush with case. The case should not be used as an end stop.

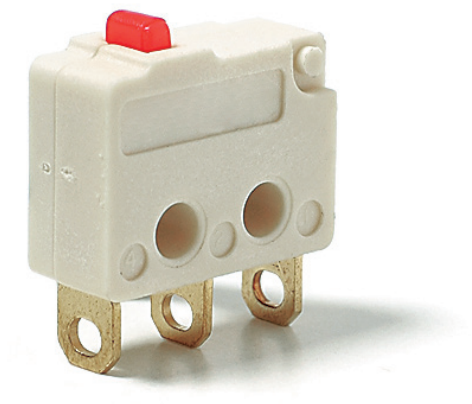
Ordering Reference

Example: F1N | S | T8 | | A | AU

Basic type	F1N	
Type of sealing		No symbol, unsealed
	S	Sealed IP5K4
Terminals	T8	PCB 0.8 × 0.5 × 3.45 long
Circuit		No symbol, change-over
Actuators		No symbol, without lever
	A	Special lever A type (see specification)
	A1	Plain lever 18.0 mm
	AC	Cam follower lever 18.5 mm
Contact Material		No symbol, Ag
	AU	Gold on nickel
	GP	Gold plate on Ag (GP)
Special Features	/□□□□	Burgess specialise in customer specific solutions. Additional product variants are available or can be provided. If your requirements cannot be satisfied from the options listed, please contact us.

F4

Characteristics	■ small size ■ long mechanical and electrical life ■ solder terminals
Rating	250 VAC, 5 A
Dimensions (mm)	12.8 × 10 × 5
Actuator	■ plunger ■ plain lever ■ simulated roller lever/cam follower
Approvals	UL, CSA



Preferred Range

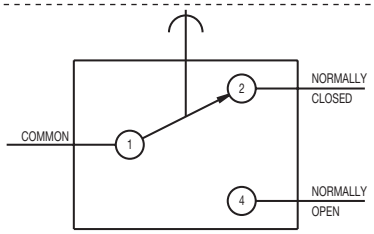
Ordering Reference	Actuating Force (N)	(ozf)	Sealing	Operating pos. (mm)	(in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
F4T7UL	1.4	5.00	IP40	8.1	0.32	Solder	CO	Plunger	Ag	Up to 250 VAC, 5 A
F4T7GPUL	1.4	5.00	IP40	8.1	0.32	Solder	CO	Plunger	Gold plate	Up to 250 VAC, 5 A
F4T7Y1UL	0.6	2.20	IP40	8.2	0.32	Solder	CO	Plain lever	Ag	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	Ag	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

F4

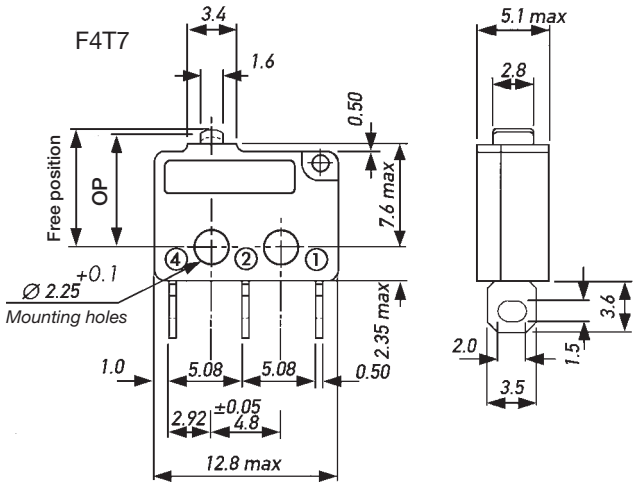
Specifications

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

Circuit diagram



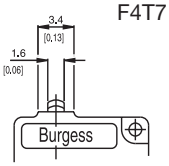
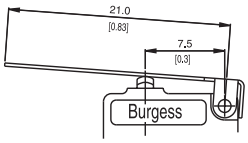
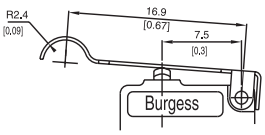
Dimensions



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

Operating Characteristics

	Actuator	Reference	Actuating Force Maximum (N)	(ozf)	Release Force Minimum (N)	(ozf)	Free Position Maximum (mm)	(in)	Operating Position (mm)	(in)	Movement Differential Maximum (mm)	(in)	Over travel
Plunger		F4T7	1,4	5,00	0,25	0,90	8,8	0,35	8,1 +0.3 –0.2	0,32 +0.01 –0.008	0,13	0,005	*
Y1-Lever	 Width of lever 3.0 mm/0.12 in	F4T7Y1	0,6	2,20	0,07	0,25	10,0	0,39	8,2 +1.0 –0.7	0,32 +0.04 –0.03	0,70	0,030	*
YC-Lever	 Width of lever 3.0 mm/0.12 in	F4T7YC	0,7	2,50	0,09	0,32	11,7	0,46	10,3 +0.8 –0.55	0,41 +0.03 –0.02	0,45	0,020	*

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.

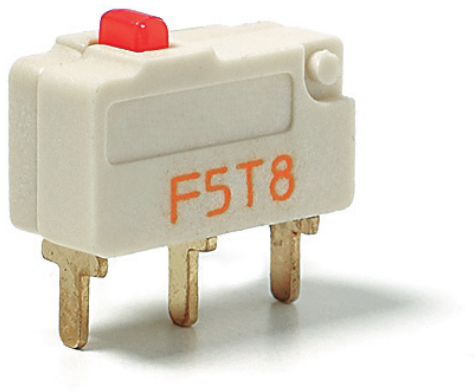
Ordering Reference

			Example: F4	T7		Y1	GP	UL
Basic type	F4							
Terminals	T7	Solder	3.50 × 0.5 × 3.6 long					
Circuit		No symbol, change-over						
Actuators		No symbol, without lever						
	Y1	Plain lever 21.0 mm						
	YC	Cam follower lever 16.9 mm						
Contacts Material		No symbol, Ag						
	GP	Gold plate on Ag (GP)						
Approvals		No symbol, without approval						
	UL	UL and CSA approval						
Special Features	/□□□□	**Burgess specialise in customer specific solutions.** Additional product variants are available or can be provided. If your requirements cannot be satisfied from the options listed, please contact us.						

F5

F5

Characteristics	■ small size ■ long mechanical and electrical life ■ PCB mounting
Rating	250 VAC, 5 A
Dimensions (mm)	12.8 × 7 × 5
Actuator	■ plunger ■ plain lever ■ simulated roller lever/cam follower
Approvals	UL, CSA



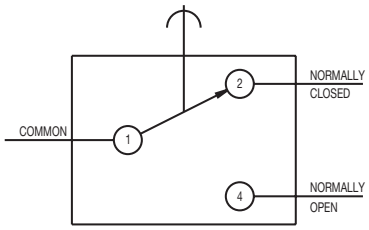
Preferred Range

Ordering Reference	Actuating Force (N)	(ozf)	Sealing	Operating pos. (mm)	(in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
F5T8UL	1.4	5.00	IP40	8.75	0.34	PCB	CO	Plunger	Ag	Up to 250 VAC, 5 A
F5T8GPUL	1.4	5.00	IP40	8.75	0.34	PCB	CO	Plunger	Gold plate	Up to 250 VAC, 5 A
F5T8Y1UL	0.6	2.20	IP40	8.80	0.35	PCB	CO	Plain lever	Ag	Up to 250 VAC, 5 A
F5T8Y1GPUL	0.6	2.20	IP40	8.80	0.35	PCB	CO	Plain lever	Gold plate	Up to 250 VAC, 5 A
F5T8YCUL	0.7	2.50	IP40	10.90	0.43	PCB	CO	Simulated roller	Ag	Up to 250 VAC, 5 A
F5T8YCGPUL	0.7	2.50	IP40	10.90	0.43	PCB	CO	Simulated roller	Gold plate	Up to 250 VAC, 5 A

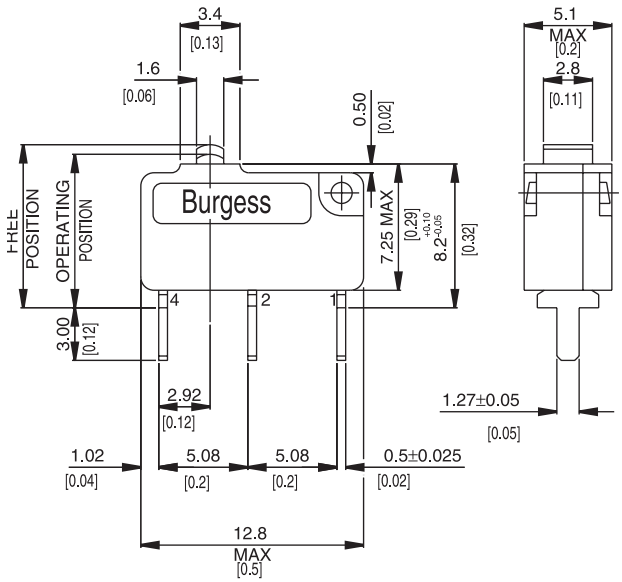
Specifications

Housing	Glass fibre reinforced flame retardent 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	PCB - Brass, gold flashed
Temperature range °C	-40°C to +85°C
Mechanical life	10^7 cycles minimum (impact free actuation)
Protection	IP 40 (enclosure)
Mounting	PCB
Actuators	Plain lever, simulated roller lever/cam follower, stainless steel

Circuit diagram



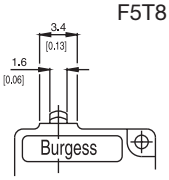
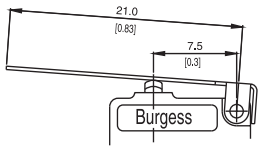
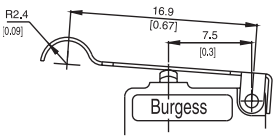
Dimensions



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	1	General rating - 50,000 operations

Operating Characteristics

	Actuator	Reference	Actuating Force Maximum (N)	(ozf)	Release Force Minimum (N)	(ozf)	Free Position Maximum (mm)	(in)	Operating Position (mm)	(in)	Movement Differential Maximum (mm)	(in)	Over travel
Plunger		F5T8	1,4	5,00	0,25	0,90	9.5	0,37	8,75 ± 0,3	0,34 ± 0,012	0,13	0,005	*
Y1-Lever	 Width of lever 3.0 mm/0.12 in	F5T8Y1	0,6	2,20	0,07	0,25	10,7	0,42	8,8 ± 1,1	0,35 ± 0,04	0,70	0,030	*
YC-Lever	 Width of lever 3.0 mm/0.12 in	F5T8YC	0,7	2,50	0,09	0,32	12.4	0,49	10,9 ± 0.85	0,43 ± 0,03	0,45	0,020	*

Operating characteristics are specified from the terminal shoulder.

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

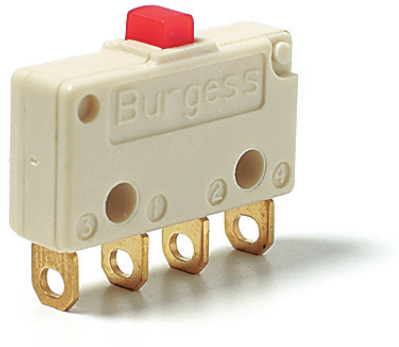
Ordering Reference

Example: F5 T8 Y1 GP UL

Basic type	F5	
Terminals	T8	PCB 1.27 × 0.5 × 3.0 long
Circuit		No symbol, change-over
Actuators		No symbol, without lever
	Y1	Plain lever 21.0 mm
	YC	Cam follower lever 16.9 mm
Contact Material		No symbol, Ag
	GP	Gold plate on Ag (GP)
Approvals		No symbol, without approval
	UL	UL and CSA approval
Special Features	/□□□□	Burgess specialise in customer specific solutions. Additional product variants are available or can be provided. If your requirements cannot be satisfied from the options listed, please contact us.

FK4

Characteristics	■ double break switching ■ long mechanical and electrical life ■ solder
Rating	250 VAC, 5 A
Dimensions (mm)	18 × 8 × 5
Actuator	■ plunger ■ plain lever ■ simulated roller lever/cam follower
Approvals	UL and CSA



Preferred Range

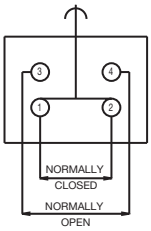
Ordering Reference	Actuating Force (N)	(ozf)	Sealing	Operating pos. (mm)	(in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
FK4T7UL	1,8	6,5	IP40	8,25	0,32	Solder	SPDT	Plunger	Ag	Up to 250 VAC, 5 A
FK4T7Y1UL	0,8	2,9	IP40	8,25	0,32	Solder	SPDT	Plain lever	Ag	Up to 250 VAC, 5 A
FK4T7YCUL	1,0	3,6	IP40	10,40	0,41	Solder	SPDT	Simulated roller	Ag	Up to 250 VAC, 5 A

FK4

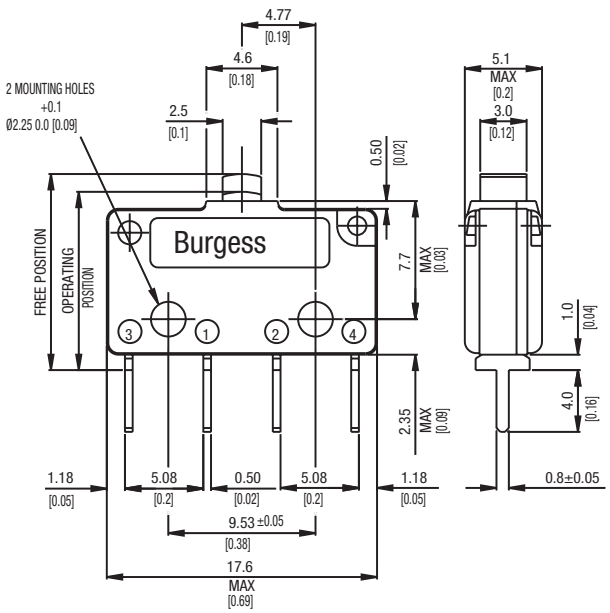
Specifications

Housing	Glass fibre reinforced flame retardent nylon
Plunger	Nylon
Mechanism	Double pole, single throw snap-action coil spring mechanism with stainless steel springs
Functions	Change-over, NO, NC
Contacts	Silver
Terminals	Solder, PCB - brass, gold flashed
Temperature range °C	–40°C to +85°C
Mechanical life	10^7 cycles minimum (impact free actuation)
Protection	IP40 (enclosure)
Mounting	Side mounting or PCB mounting (T8 only)
Actuators	Plain lever, simulated roller lever/cam follower, stainless steel

Circuit diagram



Dimensions

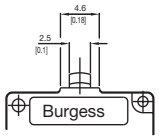
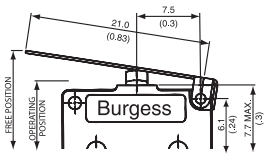
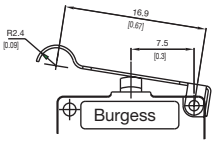


Recommended maximum electrical ratings

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

Values shown are recommended maximum ratings for single circuit switching

Operating Characteristics

	Actuator	Reference	Actuating Force Maximum (N)	Actuating Force Maximum (ozf)	Release Position Minimum (N)	Release Position Minimum (ozf)	Free Position Maximum (mm)	Operating Differential Maximum (in)	Movement (mm)	Movement (in)		
Plunger		FK4T7*	1,8	6,50	0,25	0,9	9,4	0,37	8,25 ± 0.25	0,32 ± 0.01	0,50	0,02
Y1 Lever		FK4T7Y1	0,8	2,90	0,09	0,3	12,1	0,48	8,25 ± 0.9	0,32 ± 0.04	1,85	0,07
	Width of lever 3.0 mm/0.12 in											
YC Lever		FK4T7YC	1,0	3,60	0,1	0,4	13,5	0,53	10,40 ± 0.6	0,41 ± 0.02	1,30	0,05
	Width of lever 3.0 mm/0.12 in											

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

Datum for free position and operating position

* FK4T7 – Center of fixing hole

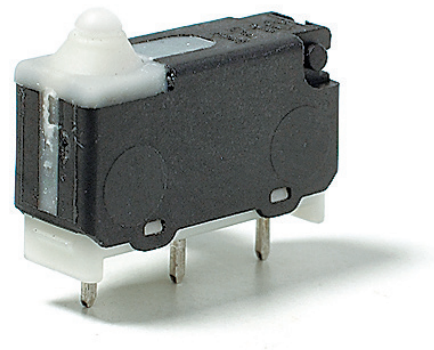
Ordering Reference

			Example: FK4	T7	Y1	UL
Basic type	FK4					
Terminals	T7	Solder 0,5 × 3,5 × 3,6 long				
Actuators		No symbol, plunger				
	Y1	Plain lever				
	YC	Simulated roller lever/cam follower				
Approvals	UL	UL and CSA				

L16

L16

Characteristics	■ small size ■ sealed (IP6K7) ■ PCB mounting
Rating	12–30 VDC, 1–300 mA
Dimensions (mm)	14.7 × 9 × 5.4
Actuator	■ plunger ■ plain lever ■ cam follow lever
Approvals	Automotive standard



Preferred Range

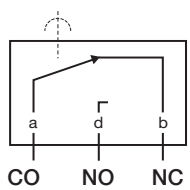
Ordering Reference	Actuating Force (N)	Sealing	Operating pos. (mm)	Terminal	Circuit	Actuator	Contacts	Electrical rating
L16T8	1,6	IP6K7	10,9	PCB	CO	Plunger	Gold plated	30 VDC, 300 mA

L16

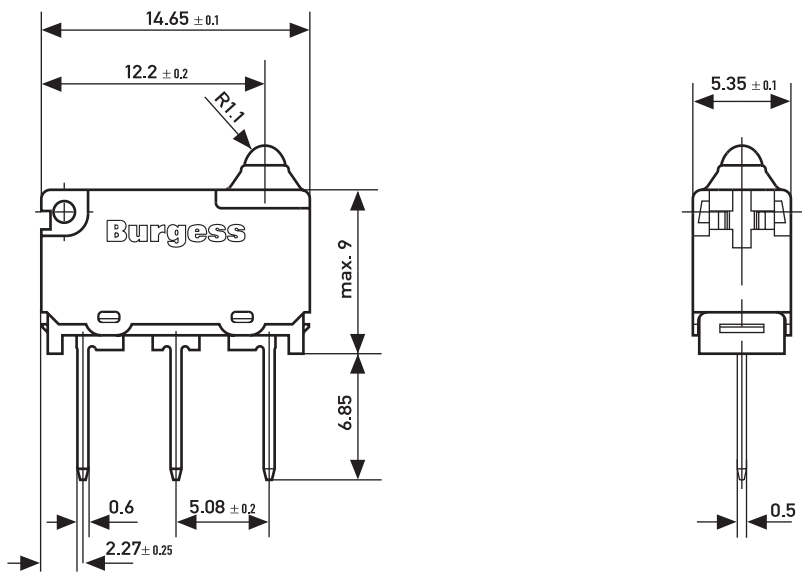
Specifications

Base	PBT
Lid	PP6 with glass fibre
Plunger	POM
Mechanism	Snap-action, single pole
Contacts	Gold plated
Terminals	CuZn
Temperature range °C	-40°C up to +85°C
Mechanical life	1 × 10^6
Protection	IP67
Actuators	Plain plunger, lever, cam follower stainless steel
Cowl	Thermoplastic elastomer

Circuit diagram



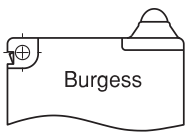
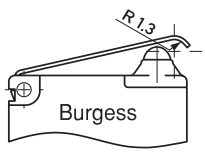
Dimensions L16T85



Recommended maximum electrical ratings

	Voltage (VDC)	Resistive load (A)	Cycles
L16	12 to 30	0,001 – 0,3	200.000

Operating Characteristics

	Actuator	Reference	Actuating Force Maximum (N)	Release Force Minimum (N)	Free Position Maximum (mm)	Operating Position (mm)	Movement Differential Maximum (mm)	Total travelled positions Minimum (mm)
Plunger		L16T85	1,6	0,3	11,35	10,8 ± 2	0,3	9,5
								
H-Lever		L16T85H	2,5	0,5	12,9	11,3 ± 0,55	0,45	10
								

Width of lever 3.0 mm/0.12 in

Datum for free position and operating position is button edge of base (stand-off's).
The case should not be used as an end stop.

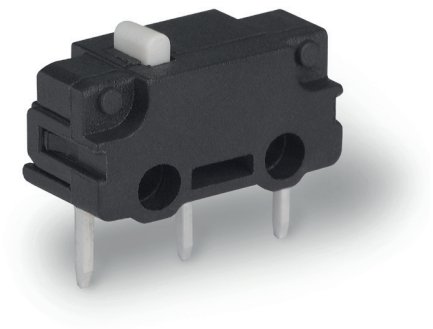
Ordering Reference

Example: F6 T8 H

Basic type	L16		
Terminals	T8	PCB	0.6 × 0.5 × 4.0 long
	T81	Formed PCB	0.6 × 0.5 × 2.85 long (Side mount L.H. plunger end)
	T82	Formed PCB	0.6 × 0.5 × 2.85 long (Side mount R.H. plunger end)
	T84	Short PCB	0.6 × 0.5 × 2.0 long
	T85	Long PCB	0.6 × 0.5 × 6.85 long
Circuit		No symbol, change-over	
		C2 Normally closed	
		C4 Normally open	
Actuators		No symbol, without lever	
	H	Formed. lever 0.3 mm thickness	
	Y1	Plain lever 21 mm	
	YC	Cam follower lever 16.9 mm	
Contact Material		No symbol, gold plated	
Special Features	/□□□□	Burgess specialise in customer specific solutions. Additional product variants are available or can be provided. If your requirements cannot be satisfied from the options listed, please contact us.	

X6

Characteristics	▪ small size ▪ high current ▪ PCB mounting ▪ compliant to glow wire test IEC 60335-1, 4.ed.
Rating	Up to 250 VAC, 3 A
Dimensions (mm)	12.8 × 6.5 × 5.8
Actuator	▪ plunger ▪ plain lever ▪ simulated roller lever/cam follower
Approvals	cULus, ENEC



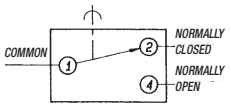
Preferred Range

Ordering Reference	Actuating Force (N)	(ozf)	Sealing	Operating pos. (mm	(in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
X6G303K1AA	1,50	5,40	IP40	5,5	0,22	PCB	CO	Plunger	AgNi	250 VAC, 3 A
X6G303K1AAJ1	0,50	1,80	IP40	7,2	0,28	PCB	CO	Plain lever	AgNi	250 VAC, 3 A
X6G303K1AAL0	0,65	2,34	IP40	9,6	0,38	PCB	CO	Cam follower	AgNi	250 VAC, 3 A

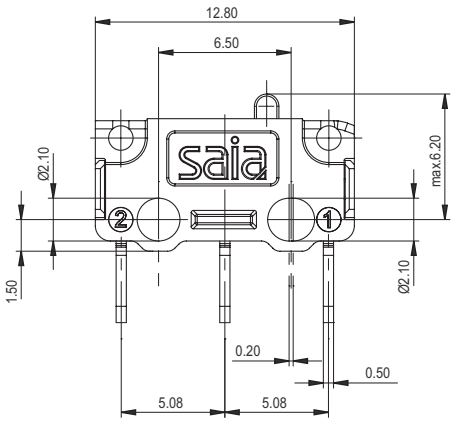
Specifications

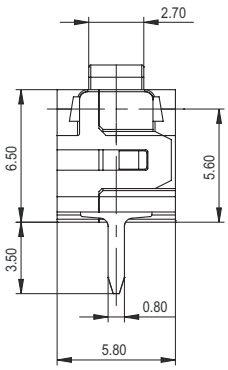
Housing	Frame-retardant glass-fibre reinforced nylon
Plunger	Polyacetal (POM)
Mechanism	Snap-action, coil spring mechanism with stainless steel spring. Single-pole change-over contact
Contacts	AgNi
Terminals	Brass, silver flashed
Temperature range °C	–40°C bis +85°C
Mechanical life	10^6 cycles minimum (impact-free actuation)
Protection	Enclosure IP40
Mounting	PCB, through hole mounting

Circuit diagram

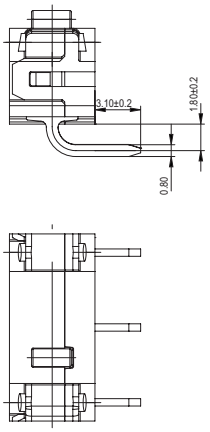


Dimensions

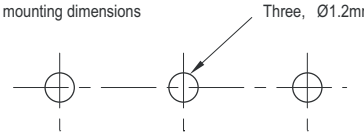




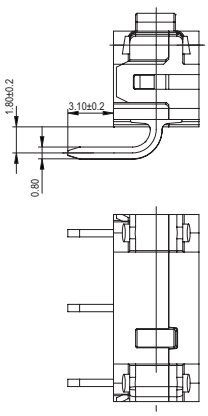
formed to the right



PCB mounting dimensions



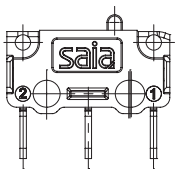
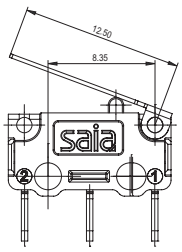
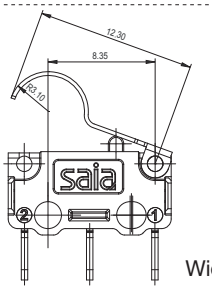
formed to the left



Recommended maximum electrical ratings

Voltage (max)	Resistive load (A)	Approvals
250 VAC	3	UL1054/CSA22.2 No. 55, 6,000 operations 60° C
250 VAC	2	EN61058.1 T55 10,000 operations (Normally open or normally closed only)
250 VAC	0,5	EN61058.1 T55 50,000 operations (Change-over)
0-15 VDC	to be advised	General rating, 50,000 operations
15-30 VDC	to be advised	General rating, 50,000 operations
5 VDC	0,01	General rating, 1 million operations

Operating Characteristics

Actuator	Actuating Force Maximum (N)	(ozf)	Release Force Minimum (N)	(ozf)	Free Position (mm)	(in)	Operating Position Maximum (mm)	(in)	Movement Differential Maximum (mm)	(in)	Total travel Position * (mm)	(in)
Plunger 	1,5	5,4	0,2	0,72	6,2	0,24	5,5 ± 0,3	0,22 ± 0,012	0,2	0,01	5	0,02
J1-Lever  Width of lever 2,7	0,5	1,8	0,05	0,18	9,6	0,38	7,2 ± 1,5	0,28 ± 0,06	0,8	0,03	5,3	0,21
L0-Lever  Width of lever 2,7	0,65	2,34	0,1	0,36	11,2	0,44	9,6 ± 1,5	0,38 ± 0,06	0,8	0,03	8,1	0,32

Datum for Free Position and Operating Position: mounting holes.
* Flush with case. The case should not be used as an end stop.

Ordering Reference

Basic type	X6		Example: X6 G 3 03 K 1 AA J1 1
Operating Force	G	Standard 1,5 N	
Circuit	3	Change-over	
	4	Normally closed	
	5	Normally open	
Terminals	03	PCB	0.8 x 0.5 x 3.5
	09	PCB	0.8 x 0.5 x 7.1
	10	PCB	formed to the left
	11	PCB	formed to the right
Case/Lid	K	Flame-retardant glass-fibre reinforced nylon	
Contact	1	AgNi	
Approvals	A	cULus	
	A	ENEC	
Actuators		No symbol, without lever	
	J1	Plain lever 12.3 mm	
	L0	Cam follower lever 12.3 mm	
Actuator position		Lever above terminal 1	
	2	Lever above terminal 2	
Special Features	/□□□□	Saia specialise in customer specific solutions. Additional product variants are available or can be provided. If your requirements cannot be satisfied from the options listed, please contact us.	