

# V4L

## Snap-action Microswitches

Subminiature

### V4L

Characteristics	<ul style="list-style-type: none"> <li>■ long overtravel of 2.2 mm minimum</li> <li>■ sealed to (IP6K7) option</li> <li>■ pre-wired option</li> <li>■ solder terminals</li> </ul>
Rating	250 VAC, 5 A
Dimensions (mm)	20 × 11 × 6.4
Actuator	<ul style="list-style-type: none"> <li>■ plunger</li> <li>■ plain lever</li> <li>■ ice break lever</li> </ul>
Approvals	ENEC, UL, CSA



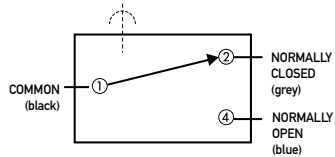
### Preferred Range

Ordering Reference	Actuating Force (N)	Actuating Force (ozf)	Sealing	Operating pos. (mm)	Terminal	Circuit	Actuator	Contacts	Electrical rating
V4LS	2.5	9.0	IP6K7	11,7 ± 0,4	Cable 500 mm	CO	Plunger	Ag	250 VAC, 5 A
V4LSA1	2.5	9.0	IP6K7	14,5 ± 0,8	Cable 500 mm	CO	Plain lever	Ag	250 VAC, 5 A
V4LSA2	2.0		IP6K7	16,5 ± 1,0	Cable 500 mm	CO	Plain lever	Ag	250 VAC, 5 A
V4LST7	2.5	9.0	IP6K7	11,7 ± 0,4	Solder	CO	Plunger	Ag	250 VAC, 5 A
V4LST7A1	2.5		IP6K7	14,5 ± 0,8	Solder	CO	Plain lever	Ag	250 VAC, 5 A
V4LST7A2	2.0		IP6K7	14,6 ± 1,0	Solder	CO	Plain lever	Ag	250 VAC, 5 A
V4LT7	2,4	8,6	no symbol	11,7 ± 0,4	Solder	CO	Plunger	Ag	250 VAC, 5 A

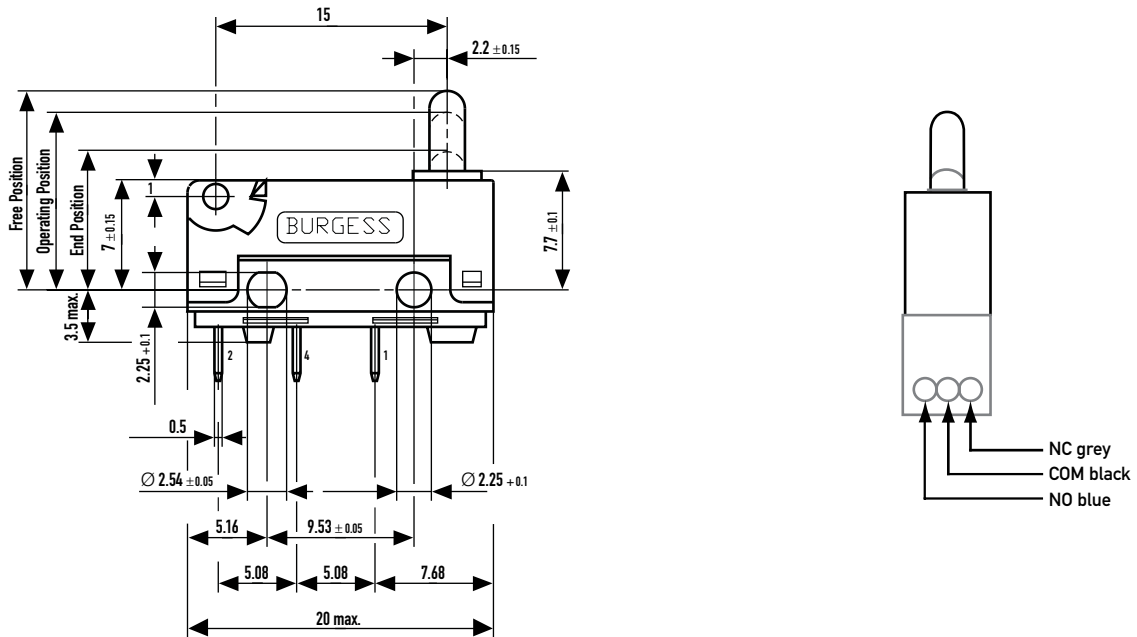
### Specifications

Housing	Glass fibre reinforced polyamide (PA 6.6)
Plunger	Polyacetal (POM)
Mechanism	Snap-action coil spring mechanism with stainless steel spring. Change-over, normally closed or normally open
Contact carrier	Brass. Moving contact beryllium-copper
Contacts	Fine silver or gold crosspoint
Terminals	V4L – solder tags V4LS – PVC covered leads 0.5 m long
Temperature range °C	-40°C to +85°C
Mechanical life	V4L $2 \times 10^6$ cycles/min., V4LS $2 \times 10^5$ cycles/min. (impact free actuation)
Protection	V4L series IP40, V4LS series IP6K7, with encapsulated terminals
Mounting	Side mounting to a flat surface
Actuators	Plain lever, Ice break lever
Cowl	Silicon elastomer

Circuit diagram



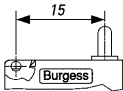
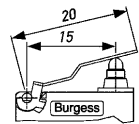
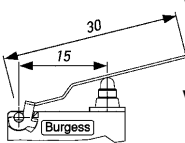
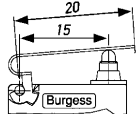
Dimensions



### Recommended maximum electrical ratings

Voltage (VAC)	Resistive load (A) (Ag Contact)	Incandescent lamp load (A) (Ni1 Contact)	Inductive load (A) (Ag Contact)	Voltage (VDC) up to	Resistive load (A) (Ag Contact)	Incandescent lamp load (A) (Ni1 Contact)	Inductive load (A) (Ag Contact)
125	5	2	2	30	5	2	3
250	5	2	2	50	1	0,4	1
				75	0,75	0,3	0,75
				125	0,5	0,2	0,03
				250	0,25	0,1	0,03

Operating Characteristics

Actuator	Reference	Actuating Force Maximum		Release Force Minimum		Free Position Maximum		Operating Position		Movement Differential Maximum		Total overtravel Position		Overtravel Minimum	
		(N)	(ozf)	(N)	(ozf)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Plunger 	V4LT7	2,4	8,60	0,4	1,44	12,9	0,507	11,7 ± 0,4	0,46 ± 0,012	0,9	0,023	9,2	0,36	2,2	0,09
	V4LST7	2,5	9,00	0,5	1,78	12,9	0,507	11,7 ± 0,4	0,46 ± 0,012	0,9	0,023	9,2	0,36	2,2	0,09
A1 Lever 	V4L...	2,4	8,60	0,4	1,44	14,5	0,57	12,6 ± 0,8	0,59 ± 0,03	1,0	0,04	9,6	0,38	2,2	0,09
	V4LS...	2,5	9,00	0,5	1,78	14,5	0,57	12,6 ± 0,8	0,59 ± 0,03	1,0	0,04	9,6	0,38	2,2	0,09
Width of lever 4.0 mm/0.16 in															
A2 Lever 	V4L...	1,5	5,70	0,3	1,08	16,5	0,65	13,5 ± 1,0	0,53 ± 0,04	1,3	0,05	9,6	0,38	2,9	1,1
	V4LS...	2	7,20	0,3	1,08	16,5	0,65	13,5 ± 1,0	0,53 ± 0,04	1,3	0,05	9,6	0,38	2,9	1,1
Width of lever 4.0 mm/0.16 in															
F Lever 	V4L...	For positions and forces of this actuator please contact Saia-Burgess													
	V4LS...														
Width of lever 4.0 mm/0.16 in															

### Type coding key for standard products

Basic type	V4L	Example: V4L	S	T7	C2	A1	G	UL
Type of sealing	S	No symbol, unsealed Sealed IP6K7						
Terminals	T7 T8	No symbol, pre-wired 500 mm with cable FLRY 0.5 mm <sup>2</sup> and cable box (V4LS only) Solder 2.95 × 0.5 × 3.55 long PCB 0.8 × 0.5 × 4.0 long						
Circuit	C2 C4	No symbol, change over Normally closed Normally open						
Actuators	A1 A2 F	No symbol, without lever Plain lever 20.0 mm, fitted at the end opposite to plunger Plain lever 30.0 mm, fitted at the end opposite to plunger Special lever F type 20.0 mm, fitted at the end opposite to plunger						
Contact Material	G X	No symbol, Ag Gold plate on silver (GP) Gold alloy on silver palladium crosspoint (AUX)						
		Other contact materials on special request						
Approvals	UL EN UN	No symbol, without approval UL and CSA approval ENEC approval only UL, CSA and ENEC approval						
Special Features	/ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Saia-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 <a href="http://www.saia-burgess.com">www.saia-burgess.com</a> or your local SB outlet.						