

Snap-action Microswitches – Subminiature V4L

V4L

Characteristics

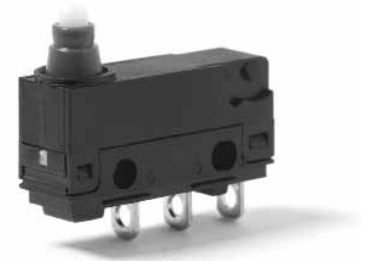
- Long overtravel of 2.2 mm minimum
- Available sealed to IEC 1167
- Prewired option available

Rating 250 VAC, 5 A

Dimensions (mm) 20 x 6.4 x 16.4

Actuator Plain lever, Ice break lever

Approvals VDE (EN)



Preferred Product Range

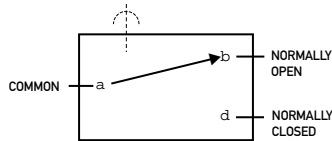
Ordering Reference	Actuating Force (N)	Actuating Force (oz)	Sealing	Operating position (mm)	Operating position (in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
V4LSK2	2.5	9.0	IP6K7	11.7 ± 0.4	0.46 ± 0.02	Cable 500 mm	CO	Plunger	Fine silver	250 VAC, 5 A
V4LSK2A1	2.5	9.0	IP6K7	14.5 ± 0.8	0.57 ± 0.04	Cable 500 mm	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LSK2A2	2.0	7.2	IP6K7	16.5 ± 1.0	0.64 ± 0.04	Cable 500 mm	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LST7	2.5	9.0	IP6K7	11.7 ± 0.4	0.46 ± 0.02	Solder	CO	Plunger	Fine silver	250 VAC, 5 A
V4LST7A1	2.5	9.0	IP6K7	14.5 ± 0.8	0.57 ± 0.04	Solder	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LST7A2	2.0	7.2	IP6K7	14.6 ± 1.0	0.57 ± 0.04	Solder	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LT7	2.4	8.6	No digit	11.7 ± 0.4	0.46 ± 0.02	Solder	CO	Plunger	Fine silver	250 VAC, 5 A

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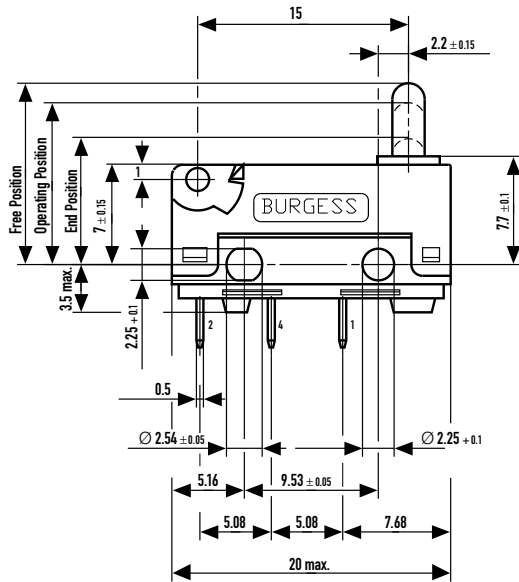
Specifications

Housing	Glass fiber 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 (gold flashed), V4LS – PVC covered leads 0.5 m long
Temperature range °C	-40°C to +85°C
Mechanical life	V4L 2 x 10 ⁶ cycles/min., V4LS 2 x 10 ⁵ cycles/min. (impact free actuation)
Protection	V4L series IP40, V4LS series IP67, with encapsulated terminals
Mounting	Side mounting to a flat surface. Versions with molded mounting pegs of 2.25 mm or 3.2 mm diameter are also available.
Actuators	Plain lever, Simulated roller, Cam follower, Roller lever, Ice break lever, Spring (ice break) lever
Cowl	Silicon elastomer

Circuit diagram



Dimensions (mm)



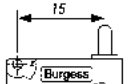
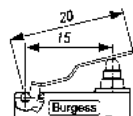
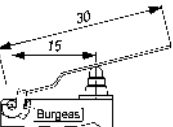
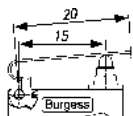
Recommended Maximum Electrical Ratings

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

Circuit, breaking capacities quoted refer to the switch. The loading of the leads and cable depends on the heat dissipation and has to be checked by testing. Gold-plated contacts are intended for use in signal circuits where the energy being switched is at the milliwatt level. Power being switched must be limited in order to avoid overheating and possible dispersal of the gold from the contact area.

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Operating Characteristics

Actuator	Reference	Actuating Force		Release Force		Free Position Maximum		Operating Position		Movement Differential Maximum		Total overtravel Position Minimum		Overtravel	
		(N)	(oz)	(N)	(oz)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Plunger (mm) 	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 (mm) 	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				
	V4LS...	max. 2.5		0.5	1.78	14.5	0.57	12.6 ± 0.8	0.59 ± 0.03	1.0	0.04				
Width of lever 4.0 mm/0.16 in															
A2 Lever (mm) 	V4L...	1.5	5.40	0.3	1.08	16.5	0.65	13.5 ± 1.0	0.53 ± 0.04	1.3	0.05			2.9	1.1
	V4LS...	2	7.19	0.3	1.08	16.5	0.65	13.5 ± 1.0	0.53 ± 0.04	1.3	0.05			2.9	1.1
Width of lever 4.0 mm/0.16 in															
F Lever (mm) 	V4L...	For positions and forces of this actuator please contact Saia-Burgess													
	V4LS...	Width of lever 4.0 mm/0.16 in													

Ordering Reference – How to Build a Part Number

Type	V4L	
Environmental Protection	No digit S	IP40 IP67
Terminals	T7 Solder T8 Solder	0.5 x 2.95 0.8 x 0.5
All other terminals on special request.		
Sealed switch cover	K2 K3	8.7 mm max. 10.7 mm max.
Unsealed switch terminal cover	TC34892	
Circuit	No digit C2 C4	Change-over Normally closed Normally open
Mounting	No digit	Mounting holes Please request dimensional drawing
Actuators	No digit A1 A2 AC1 F	Plunger Plain lever 20.0 mm (0.79 in) Plain lever 30.0 mm (1.18 in) Cam follower 23.0 mm (0.9 in) Spring lever 20.0 mm (0.79 in)
Contacts	No digit AUX AgNi1	Silver Gold alloy on silver palladium crosspoint Silver nickel