

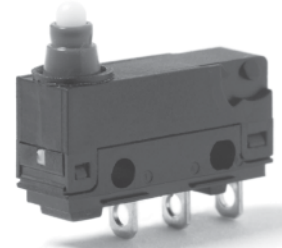
# V4L

## Snap-action Microswitches

Subminiature

### V4L

Characteristics	<ul style="list-style-type: none"><li>■ Long overtravel of 2.2 mm minimum</li><li>■ Available sealed to IEC 1167</li><li>■ Prewired option available</li></ul>
Rating	250 VAC, 5 A
Dimensions (mm)	20 × 6,4 × 16,4
Actuator	Plain lever, Ice break lever
Approvals	VDE (EN)



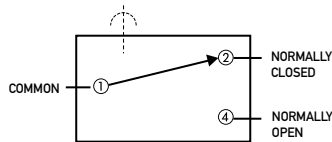
### Preferred Range

Ordering Reference	Actuating Force (N) (ozf)		Sealing	Operating pos. (mm)	Terminal	Circuit	Actuator	Contacts	Electrical rating
V4LSK2	2.5	9.0	IP6K7	11,7 ± 0,4	Cable 500 mm	CO	Plunger	Fine silver	250 VAC, 5 A
V4LSK2A1	2.5	9.0	IP6K7	14,5 ± 0,8	Cable 500 mm	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LSK2A2	2.0		IP6K7	16,5 ± 1,0	Cable 500 mm	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LST7	2.5	9.0	IP6K7	11,7 ± 0,4	Solder	CO	Plunger	Fine silver	250 VAC, 5 A
V4LST7A1	2.5		IP6K7	14,5 ± 0,8	Solder	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LST7A2	2.0		IP6K7	14,6 ± 1,0	Solder	CO	Plain lever	Fine silver	250 VAC, 5 A
V4LT7	2,4	8,6	No digit	11,7 ± 0,4	Solder	CO	Plunger	Fine silver	250 VAC, 5 A

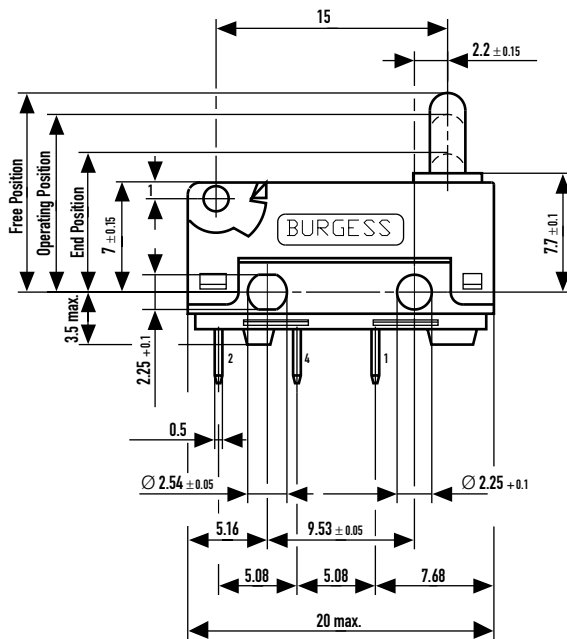
## Specifications

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 (gold flashed), 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 IP67, with encapsulated terminals
Mounting	Side mounting to a flat surface.
Actuators	Plain lever, Simulated roller, Cam follower, Roller lever, Ice break lever, Spring (ice break) lever
Cowl	Silicon elastomer

Circuit diagram



Dimensions



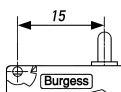
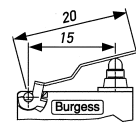
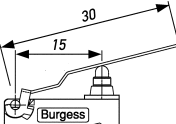
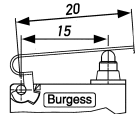
## Recommended maximum electrical ratings

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

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.

# V4L

## Operating Characteristics

Actuator	Reference	Actuating Force		Release Force		Free Position		Operating Position		Movement Differential		Total overtravel		Overtravel	
		Maximum (N)	(ozf)	Minimum (N)	(ozf)	Maximum (mm)	(in)	(mm)	(in)	Maximum (mm)	(in)	Minimum (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 max. 2,5	0,4	1,44	14,5	0,57	12,6 ± 0,8	0,59 ± 0,03	1,0	0,04				
	V4LS...			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	V4L...	1,5		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		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	V4L...	For positions and forces of this actuator please contact Saia-Burgess													
	V4LS...														
Width of lever 4.0 mm/0.16 in															

## Ordering Reference

Type	V4L	
Environmental Protection	No digit S	IP40 IP67
Terminals	T7 Solder T8 Solder	0,5 × 2,95 0,8 × 0,5
	All other terminals on special request.	
Cover	K2 K3	8,7 mm max. 10,7 mm max.
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

# Switches

---

Snap-action Microswitches, Miniature	Type	Preferred Products	Preferred Products	Page
	XG	XGG2-88Z1 XGG2-88-J23Z1 XGG2-88-J26Z1 XGG2-88-J27Z1 XGG2-88-S20Z1 XGG2-88-S21Z1 XGG3-88Z1 XGG6-88Z1 XGC2-88Z1 XGC2-88-J23Z1 XGC2-88-S20Z1 XGC6-88Z1	XGK2-88Z1 XGK2-88-J26Z1 XGK2-88-S21Z1 XGK3-88Z1 XGK6-88Z1 XG02-88Z1 XG02-88-J27Z1 XG02-88-S20Z1 XG06-88Z1	56
	X3	X3M302K2KA X3M302K2KA X3M302K2KAJ32 X3M302K2KAJ62 X3M302K2KAT02 X3M303K2KA X3M306K2KA	X3C302K2LB X3C302K2LBJ32 X3C303K2LB X3C306K2LB X3L302K6DD X3L303K6DD	60
	G3	G3M1T1RULAU G3M1T1PULAU G3M1T1RUL G3M1T1PUL G3M1T2RUL G3M1T2PUL	G3M1T3RUL G3M1T3PUL G3M1T4RUL G3M1T4PUL G3G4T1RUL G3G4T1PUL	64
	V3S	V3SUL V3SYRUL V3SYR1UL V3SY1UL		67
	V9N	V9N V9NLR V9NLR1 V9NL V9NML V9NV	V9NLRV V9NLR1V V9NLV V9NMLV V9NMRV V9NMLRV	70