

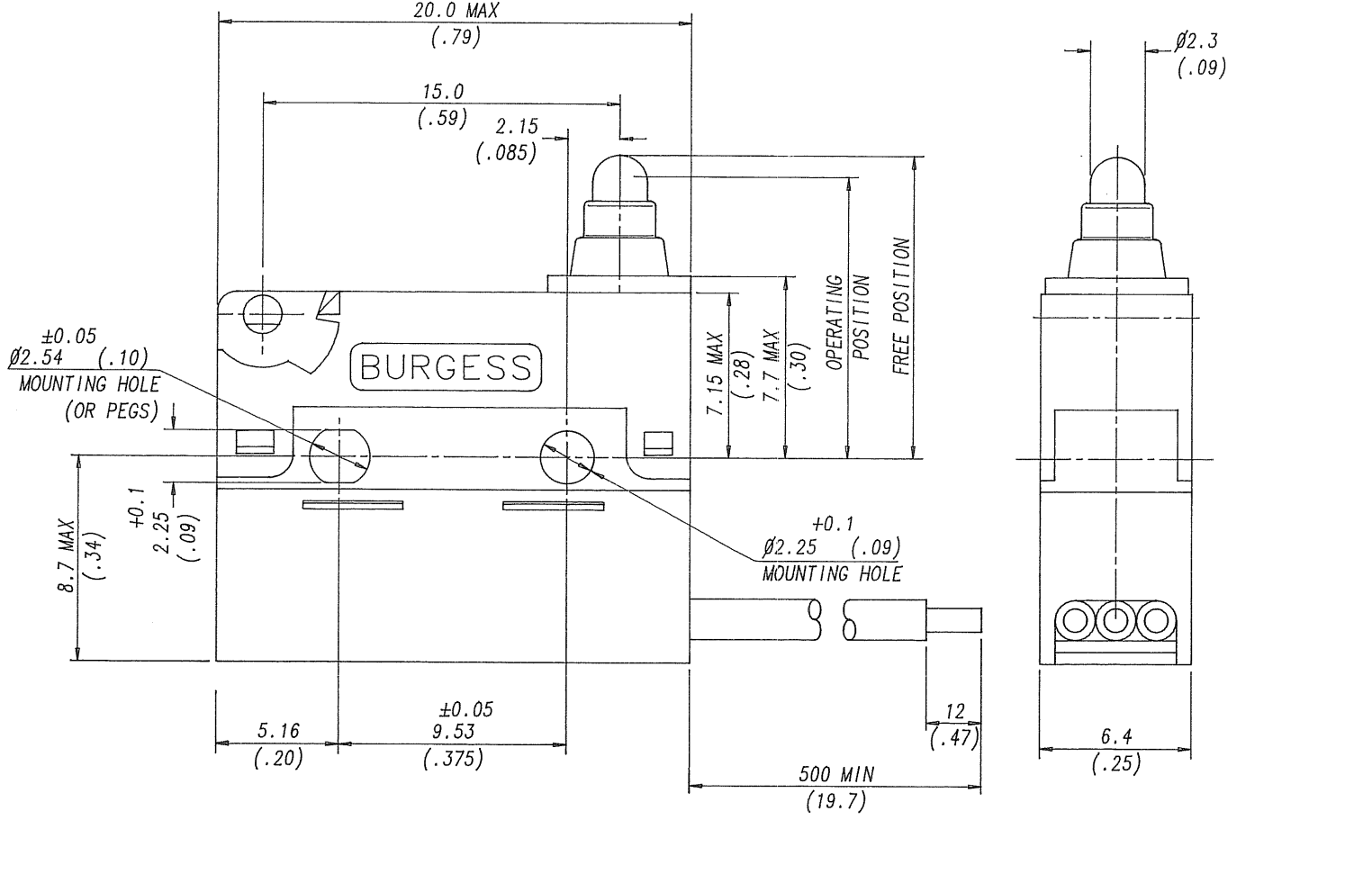
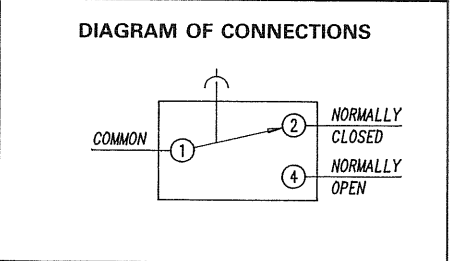
DRG. No. C 42651		SWITCH V4LS	
SHEET OF SHEETS			
DRAWN J.B.	DATE 20.9.93	APPROVED	
TRACED	SCALE 5:1	DRAWING OFFICE	SALES DEPT.
		P. Vinnenga.	

**DO NOT SCALE**      **INSTALLATION DRAWING**      **THIRD ANGLE PROJECTION**

© THIS DRAWING IS THE PROPERTY OF BURGESS MICRO SWITCH CO. LTD. AND MUST NOT BE USED OR COPIED, ENTIRELY OR IN PART, WITHOUT THE PERMISSION OF BURGESS MICRO SWITCH CO. LTD.

**SPECIFICATION**

ACTUATING FORCE :- 2.5N (9.0ozf) MAX  
RELEASE FORCE :- 0.5N (1.8ozf) MIN  
FREE POSITION :- 12.9 (0.5) MAX  
OPERATING POSITION :- 11.7 ±0.4 (0.46)  
MOVEMENT DIFFERENTIAL :- 0.6 (0.02) MAX  
OVERTRAVEL :- 2.2 (.09) MIN  
TOTAL TRAVEL :- 9.2 (.36) MIN



BURGESS MICRO SWITCH COMPANY LTD.  
DUKES WAY, TEAM VALLEY, GATESHEAD,  
TYNE & WEAR NE11 0UB  
Tel. 091 4877171 Telex: 53229 Fax: (3) 091 4871610

ISSUE No.					
& DATE					
1	20.09.93				
2					

THIS DRAWING MUST ONLY BE AMENDED ON CAD SYSTEM

ALL DIMENSIONS SPECIFIED IN MILLIMETRES.  
TOLERANCES UNLESS STATED:- NO DECIMAL PLACE ± 0.5  
1 DECIMAL PLACE ± 0.25    2 DECIMAL PLACES ± 0.15  
ANGULAR ± 1°    INCH-OUNCE UNITS (IN BRACKETS)

DEGREE OF PROTECTION:-  
WEIGHT:-

SWITCH V4LS	DRG. No. C 42651
SHEET OF SHEETS	

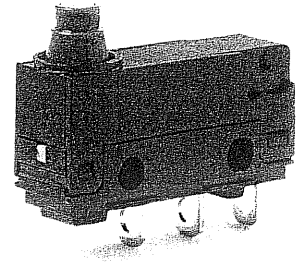
# V4L

## 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



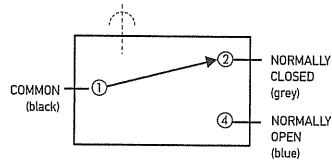
### Preferred Range

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

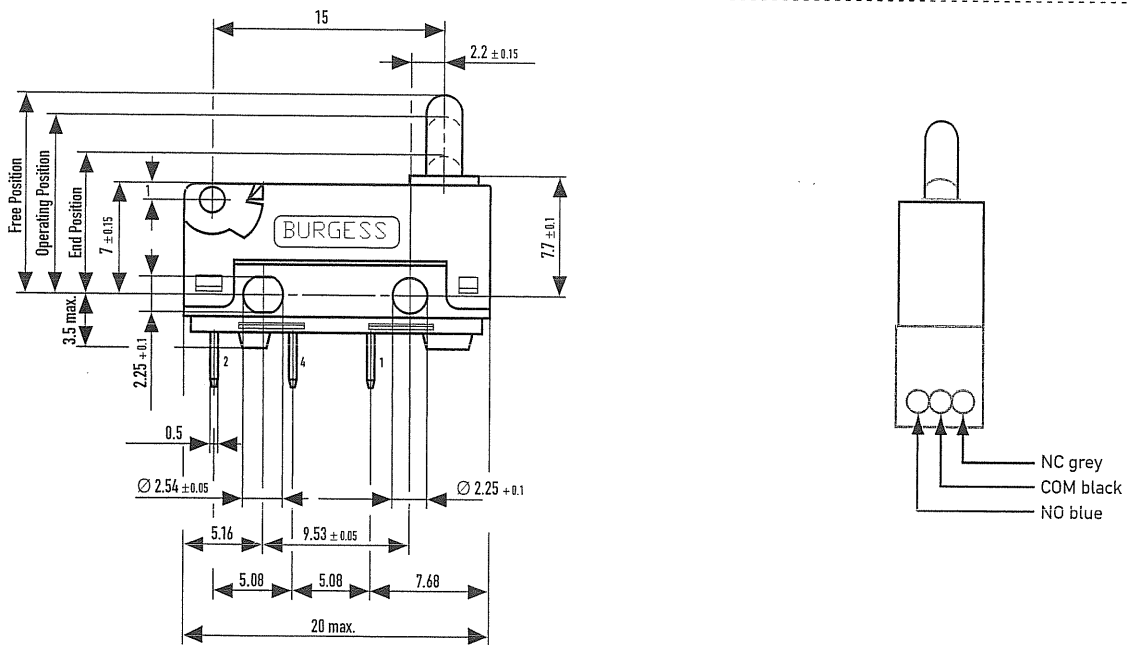
## Specifications

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



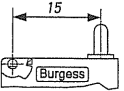
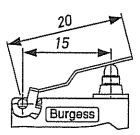
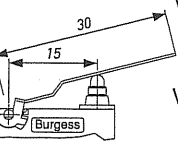
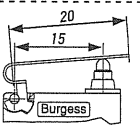
Dimensions



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