

V4N

Snap-action Microswitches

Subminiature

V4N

Characteristics ■ sealed (IP67)
 ■ solder, 2.8 mm faston and PCB terminals
 ■ pre-wired option

Rating 250 VAC, 5 A

Dimensions (mm) 20 × 10.3 × 6.4

Actuator ■ plunger
 ■ plain levers
 ■ roller levers
 ■ simulated roller lever/cam follower

Approvals UL, CSA, ENEC



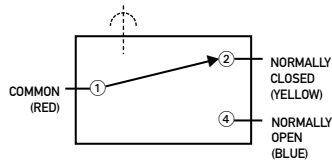
Preferred Range

Ordering Reference	Actuating Force (N)	Actuating Force (ozf)	Sealing	Operating pos. (mm)	Operating pos. (in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
V4NT7UL	1.40	5.0	IP40	8.40	0.33	Solder	CO	Plain plunger	Ag	250 VAC, 5 A
V4NST7UL	2.50	9.0	IP67	8.40	0.33	Solder	CO	Plain plunger	Ag	250 VAC, 5 A
V4NSUL	2.50	9.0	IP67	8.40	0.33	Pre-wired	CO	Plain plunger	Ag	250 VAC, 5 A
V4NT7Y1UL	0.50	1.8	IP40	10.7	0.42	Solder	CO	Straight lever	Ag	250 VAC, 5 A
V4NST7Y1UL	0.90	3.2	IP67	10.6	0.42	Solder	CO	Straight lever	Ag	250 VAC, 5 A
V4NSY1UL	0.90	3.2	IP67	10.6	0.42	Pre-wired	CO	Straight lever	Ag	250 VAC, 5 A
V4NT7YRUL	0.50	1.8	IP40	15.7	0.62	Solder	CO	Roller lever	Ag	250 VAC, 5 A
V4NST7YRUL	0.90	3.2	IP67	15.6	0.62	Solder	CO	Roller lever	Ag	250 VAC, 5 A
V4NSYRUL	0.90	3.2	IP67	15.6	0.62	Pre-wired	CO	Roller lever	Ag	250 VAC, 5 A

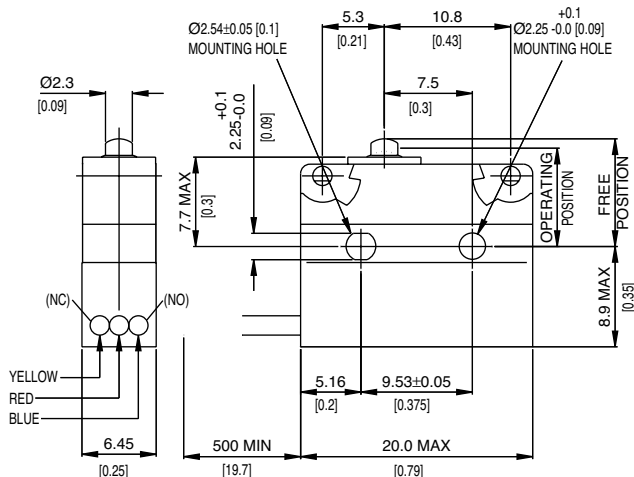
Specifications

Housing	Flame-retardant glass-fibre reinforced nylon
Plunger	Polyacetal (POM)
Mechanism	Snap-action coil spring mechanism with stainless steel spring
Functions	Change-over, normally closed or normally open
Contacts	Silver
Terminals	Gold flashed
Temperature range °C	-40°C to +85°C
Mechanical life	5 × 10 ⁶ cycles minimum (impact free actuation) for the cowl 3 × 10 ⁶
Protection	IP40 (V4N - enclosure), IP67 (V4NS - enclosure)
Mounting	Side mounting
Actuators	Plain lever, cam follower, Roller lever
Accessories	Insulating sheet - N04619, Clip-on terminal cover - TC102, Long overtravel actuator - QA4

Circuit diagram



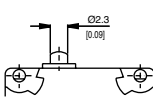
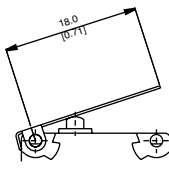
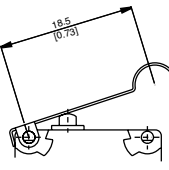
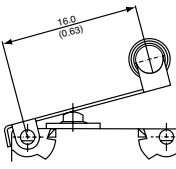
Dimensions



Recommended maximum electrical ratings

	Voltage (max)	Load (A)	Inductive load (A)	Approval
V4NT7UL/ V4NST7UL	250 VAC	5 (0.75 pf)	2	UL 1054/CSA 22.2 No. 55 - 6,000 operations - 65°C EN61058-1, T85, 10,000 operations
	250 VAC	5	3	
	0 - 15 VDC	5	3	General rating - 50,000 operations (85°C)
V4NSUL	15 - 30 VDC	5	3	General rating - 50,000 operations (85°C)
	250 VAC	3 (0.75 pf)	2	UL 1054/CSA 22.2 No. 55 - 6,000 operations - 65°C EN61058-1, T85, 10,000 operations
	250 VAC	5	2	
	0 - 15 VDC	3	3	General rating - 50,000 operations (85°C)
	15 - 30 VDC	3	3	General rating - 50,000 operations (85°C)

Operating Characteristics

Actuator	Reference	Actuating Force Maximum		Release Force Minimum		Free Position Maximum		Operating Position		Movement Differential Maximum	
		(N)	(ozf)	(N)	(ozf)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Plunger 	V4NT7UL	1,4	5,00	0,28	1,00	9,2	0,36	8,4 ± 0,3	0,33 ± 0,012	0,1	0,004
	V4NST7UL	2,5	9,00	0,30	1,00	9,2	0,36	8,4 ± 0,3	0,33 ± 0,012	0,1	0,004
	V4NSUL	2,5	9,00	0,3	1,00	9,2	0,36	8,4 ± 0,3	0,33 ± 0,012	0,1	0,004
Y1 lever 	V4NT7Y1UL	0,5	1,80	0,07	0,25	13,2	0,52	10,7 ± 1,0	0,42 ± 0,04	0,4	0,016
	V4NST7Y1UL	0,9	3,20	0,07	0,25	13,2	0,52	10,6 ± 1,2	0,42 ± 0,05	0,4	0,016
	V4NSY1UL	0,9	3,20	0,07	0,25	13,2	0,52	10,6 ± 1,2	0,42 ± 0,05	0,4	0,016
Width of lever 4.0 mm/0.16 in											
YC lever 	V4NT7YCUL	0,5	1,80	0,07	0,25	17,8	0,70	15,7 ± 1,0	0,62 ± 0,04	0,4	0,016
	V4NST7YCUL	0,9	3,20	0,07	0,25	17,8	0,70	15,6 ± 1,2	0,61 ± 0,05	0,4	0,016
	V4NSYCUL	0,9	3,20	0,07	0,25	17,8	0,70	15,6 ± 1,2	0,61 ± 0,05	0,4	0,016
Width of lever 4.0 mm/0.16 in											
YR lever 	V4NT7YRUL	0,5	1,80	0,07	0,25	17,8	0,70	15,7 ± 1,0	0,62 ± 0,04	0,4	0,016
	V4NST7YRUL	0,9	3,20	0,07	0,25	17,8	0,70	15,6 ± 1,2	0,61 ± 0,05	0,4	0,016
	V4NSYRUL	0,9	3,20	0,07	0,25	17,8	0,70	15,6 ± 1,2	0,61 ± 0,05	0,4	0,016
Width of lever 4.0 mm/0.16 in											

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

Type coding key for standard products

Basic type	V4N	Example: V4N	E	T6	C2	Y1	0	G	UL
Type of sealing/ Overtravel	No symbol, unsealed, standard travel								
	E	Unsealed with extended overtravel (0.5 mm)							
	S	Sealed IP67 standard travel							
	B	Sealed IP67 with extended overtravel (0.5 mm)							
Terminals	No symbol, pre-wired 500 mm with cable box K2 (V4NS/B only)								
	T6	Faston	2.03 × 0.5 × 6.6 long						
	T7	Solder	2.95 × 0.5 × 3.6 long						
	T8	PCB	0.8 × 0.5 × 4.0 long						
	T9	Faston	2.8 × 0.5 × 8.1 long						
	T81	Formed PCB	0.8 × 0.5 × 3.8 long						
	T82	Formed PCB	0.8 × 0.5 × 3.8 long						
	T83	Formed PCB	8.8 × 0.5 × Surface mount						
	T84	Short PCB	0.8 × 0.5 × 2.0 long						
	T85	Long PCB	0.8 × 0.5 × 6.85 long						
	T86	PCB	0.8 × 0.5 × 4.0 long (equi-spaced)						
	T11	Solder	2.95 × 0.5 × 3.6 long						
Circuit	No symbol, change-over								
	C2	Normally closed							
	C4	Normally open							
Actuators	No symbol, without lever								
	Y1	Plain lever	18.0 mm						
	Y2	Plain lever	25.0 mm						
	Y3	Plain lever	32.0 mm						
	YC	Cam follower lever	18.5 mm						
	YR	Roller lever	16.0 mm						
	PB	Push Button	(see specification PBA4/QA4)						
	QA	Push Button	(see specification PBA4/QA4)						
	Other actuators on special request								
Actuator Position	No symbol, without lever, or lever fitted at the end nearest to the Plunger								
	0	With lever fitted at end opposite to plunger							
Contact Material	No symbol, Fine silver								
	G	Gold plate on silver							
	X	Gold alloy on silver palladium crosspoint							
Approvals	No symbol, without approval								
	UL	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 www.saia-burgess.com or your local SB outlet.								