

V4N

Snap-action Microswitches

Subminiature

V4N

- Characteristics
- Peg mounting option
 - Solder terminals
 - 2.8 mm faston (quick connect) terminals
 - PCB terminals
 - Sealed (IP 67) / unsealed (IP 40)
 - Pre-wired option
 - Snap-on terminal covers

Dimensions (mm)

V4N 20 × 10,3 × 6,4
 V4NS 20 × 16,6 × 6,4

Actuator Plunger, plain lever, roller lever

Approvals UL, CSA and ENEC



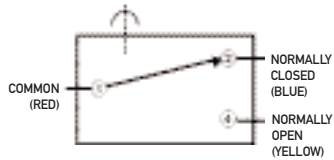
Preferred Range

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	Silver	250 VAC, 5 A
V4NST7UL	2,50	9,0	IP67	8,40	0,33	Solder	CO	Plain plunger	Silver	250 VAC, 5 A
V4NSUL	2,50	9,0	IP67	8,40	0,33	Pre-wired	CO	Plain plunger	Silver	250 VAC, 5 A
V4NT7Y1UL	0,50	1,8	IP40	10,7	0,42	Solder	CO	Straight lever	Silver	250 VAC, 5 A
V4NST7Y1UL	0,90	3,2	IP67	10,6	0,42	Solder	CO	Straight lever	Silver	250 VAC, 5 A
V4NSY1UL	0,90	3,2	IP67	10,6	0,42	Pre-wired	CO	Straight lever	Silver	250 VAC, 5 A
V4NT7YRUL	0,50	1,8	IP40	15,7	0,62	Solder	CO	Roller lever	Silver	250 VAC, 5 A
V4NST7YRUL	0,90	3,2	IP67	15,6	0,62	Solder	CO	Roller lever	Silver	250 VAC, 5 A
V4NSYRUL	0,90	3,2	IP67	15,6	0,62	Pre-wired	CO	Roller lever	Silver	250 VAC, 5 A

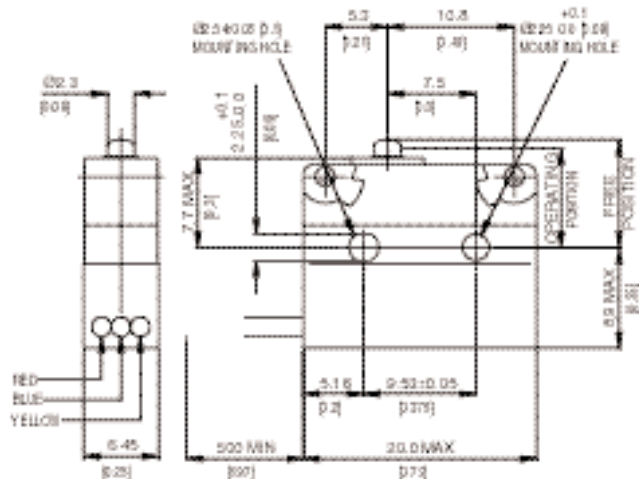
Specifications

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, Roller lever
Accessories	Insulating sheet - N04619. Clip-on terminal cover - TC102. Long overtravel actuator - QA4

Circuit diagram



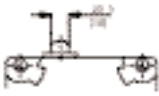
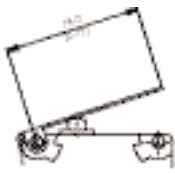

Dimensions



Recommended maximum electrical ratings

	Voltage (max)	Load (A)	Inductive load (A)	Approval
V4NT7UL/ V4NST7-UL	250 VAC	5 (0.75 pf)		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	5	3	General rating - 50,000 operations (85°C) General rating - 50,000 operations (85°C)
	15 - 30 VDC	5	3	
V4NS-UL	250 VAC	3 (0.75 pf)		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) General rating - 50,000 operations (85°C)
	15 - 30 VDC	3	3	

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											
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.

Ordering Reference

Type	V4N	
Type of sealing	No symbol E Unsealed S Sealed IP67 B Sealed IP67	Unsealed standard travel with extended overtravel (0,5 mm) standard travel with extended overtravel (0,5 mm)
Terminals	No symbol T6 Faston T7 Solder T8 PCB T9 Faston T81 Bent PCB T82 Bent PCB T84 Short PCB T85 Long PCB T11 Solder	Pre-wired 500 mm with cable box (V4NS/B only) 2.03 × 0.5 × 6.6 long 2.95 × 0.5 × 3.6 long 0.8 × 0.5 × 4.0 long 2.8 × 0.5 × 8.1 long 0.8 × 0.5 × 3.8 long 0.8 × 0.5 × 3.8 long 0.8 × 0.5 × 2.0 long 0.8 × 0.5 × 6.85 long 2.95 × 0.5 × 3.6 long
Circuit	No symbol C2 Normally closed C4 Normally open	Change-over
Actuators	No symbol Y1 Plain lever Y2 Plain lever Y3 Plain lever YC Cam follower lever YR Roller lever A1 Plain lever A2 Plain lever A3 Plain lever AC Cam follower lever AR Roller lever	Without lever 18.0 mm 25.0 mm 32.0 mm 18.5 mm 16.0 mm 18.0 mm 25.0 mm 32.0 mm 18.5 mm 16.0 mm
Actuator Position	No symbol 0	Without lever, or lever fitted at the end nearest to the Plunger With lever fitted at end opposite to plunger
Contact Material	No symbol G X	Fine silver Gold plate on silver Gold alloy on silver palladium crosspoint
Approvals	No symbol UL	Without approval UL, CSA and ENEC approval

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