

V9N

Snap-action

Metal housed

V9N

Characteristics	■ sealed (IP67) ■ metal housed ■ screw terminals or flying leads
Rating	250 VAC, 10 A max.
Dimensions (mm)	42 × 24.5 × 16
Actuator	■ plunger ■ plain levers ■ reverse action levers ■ roller levers
Approvals	UL and CSA



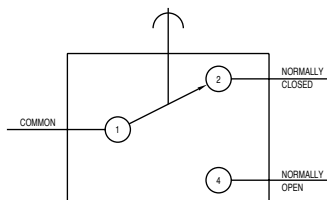
Preferred Range

Ordering Reference	Actuating Force (N)	Actuating Force (ozf)	Sealing	Operating pos. (mm)	Operating pos. (in)	Terminal	Circuit	Actuator	Contacts	Electrical rating
V9N	5.5	19.80	IP67	21.3	0.840	M3 screw	CO	Plunger	Ag	Up to 250 VAC, 10 A
V9NLR	6.0	21.60	IP67	27.5	1.080	M3 screw	CO	Roller lever - short	Ag	Up to 250 VAC, 10 A
V9NLR1	4.5	16.20	IP67	34.5	1.360	M3 screw	CO	Roller lever - long	Ag	Up to 250 VAC, 10 A
V9NL	3.0	10.80	IP67	24.7	0.970	M3 screw	CO	Plain lever	Ag	Up to 250 VAC, 10 A
V9NML	4.5	16.20	IP67	23.6	0.930	M3 screw	CO	Reverse action lever - long	Ag	Up to 250 VAC, 10 A
V9NV	5.5	19.80	IP67	21.3	0.840	Pre-wired	CO	Plain plunger	Ag	Up to 250 VAC, 10 A
V9NLRV	6.0	21.60	IP67	27.5	1.080	Pre-wired	CO	Roller lever - short	Ag	Up to 250 VAC, 10 A
V9NLR1V	4.5	16.20	IP67	34.5	1.360	Pre-wired	CO	Roller lever - long	Ag	Up to 250 VAC, 10 A
V9NLV	3.0	10.80	IP67	24.7	0.970	Pre-wired	CO	Plain lever	Ag	Up to 250 VAC, 10 A
V9NMLV	4.5	16.20	IP67	23.6	0.930	Pre-wired	CO	Reverse action lever - long	Ag	Up to 250 VAC, 10 A
V9NMRV	9.5	34.20	IP67	32.9	1.295	Pre-wired	CO	Reverse action roller lever - short	Ag	Up to 250 VAC, 10 A
V9NMLRV	5.0	18.00	IP67	34.0	1.340	Pre-wired	CO	Reverse action roller lever - long	Ag	Up to 250 VAC, 10 A

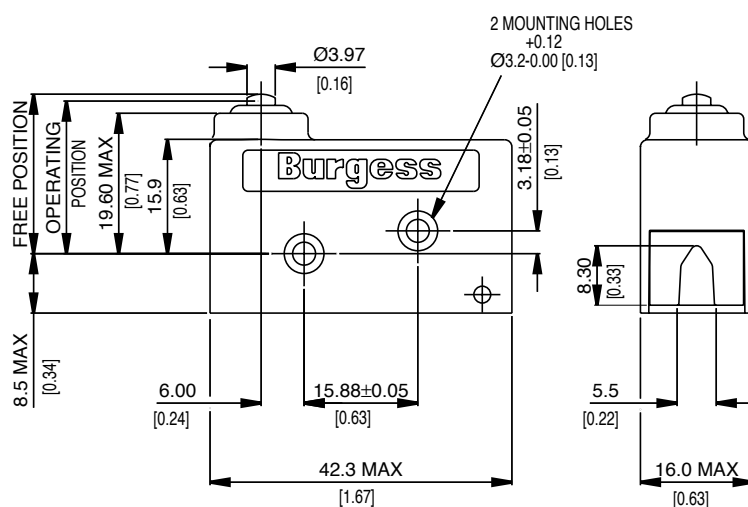
Specifications

Housing	Zinc diecasting
Plunger	Acetal
Mechanism	Snap-action, single pole
Functions	Change-over
Cowl	Silicon rubber
Contacts	Silver
Terminals	M3 screws with captive washers or pre-wired
Temperature range	-40°C to +125°C, switch only -10°C to +85°C pre-wired
Mechanical life	10 ⁶ cycles minimum, impact-free actuation
Protection	IP67 (enclosure)
Mounting	Side mounting
Actuators	Plain levers - stainless steel, roller levers - stainless steel, nylon roller

Circuit diagram



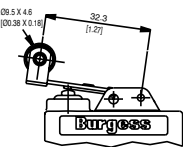
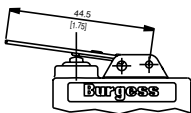
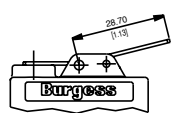
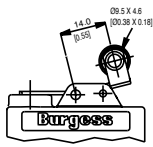
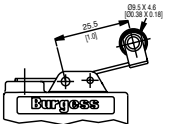
Dimensions



Recommended maximum electrical ratings

Voltage (max)	Load (A)	Approval
250 VAC	10 (0.75 pf)	UL 1054/CSA 22.2 No. 55 - 6,000 operations (85°C)
0 - 15 VDC	10	General rating - 50,000 operations (85°C)
15 - 30 VDC	10	General rating - 50,000 operations (85°C)

Operating Characteristics

Actuator	Reference	Actuating Force Maximum		Release Force Minimum		Free Position Maximum		Operating Position		Movement Differential		Over travel Maximum	
		(N)	(ozf)	(N)	(ozf)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Plunger 	V9N	5,5	19,8	1,0	3,6	22,6	0,89	21,3 ± 0,3	0,84 ± 0,012	0,35	0,014	*	
Roller lever - short 	V9NLR	6,0	21,6	1,3	4,7	31,0	1,22	27,5 ± 0,5	1,08 ± 0,02	0,35	0,014	*	
Roller lever - long 	V9NLR1	4,5	16,2	0,8	2,9	39,0	1,54	34,5 ± 0,7	1,36 ± 0,028	0,60	0,024	*	
Plain lever 	V9NL	3,0	10,8	0,6	2,1	31,0	1,22	24,7 ± 0,10	0,97 ± 0,039	0,70	0,028	*	
Reverse action lever - short 	V9NM	7,5	27,0	1,5	5,4	26,0	1,02	22,4 ± 0,5	0,88 ± 0,02	0,50	0,020	3,50	0,137
Reverse action lever - long 	V9NML	4,5	16,2	1,0	3,6	29,0	1,14	23,6 ± 0,10	0,93 ± 0,039	1,20	0,047	6,00	0,236
Reverse action roller lever - short 	V9NMR	9,5	34,2	1,5	5,4	36,0	1,42	32,9 ± 0,5	1,295 ± 0,02	0,45	0,018	2,00	0,079
Reverse action roller lever - long 	V9NMLR	5,0	18,0	1,0	3,6	39,5	1,56	34,0 ± 0,10	1,34 ± 0,039	1,00	0,039	5,50	0,216

Operating characteristics are specified from lower mounting hole

* 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	V9N	Example: V9N	L	H
Actuators	No symbol, without lever L Plain lever 44.5 mm LE Reverse-action lever with uni-directional roller 32.3 mm LR Roller lever 22.2 mm LR1 Roller lever 32.3 mm M Reverse action lever 187.2 mm ML Reverse action lever 28.7 mm MR Reverse action roller lever 14.0 mm MLR Reverse action roller lever 25.5 mm			
Terminals	No symbol, unwired H Horizontal pre-wired cable V Vertical pre-wired cable			
Pre-wired with Terminals H + V	No symbol, 1 m cable			
Special Features	/ ☐ ☐ ☐ ☐ 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.			