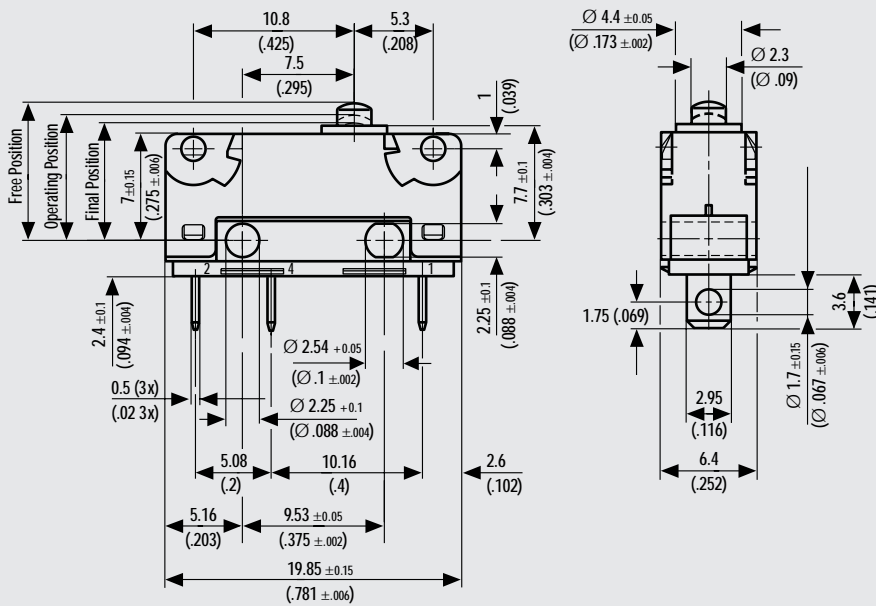


## V4NC-Series



V4NCT7

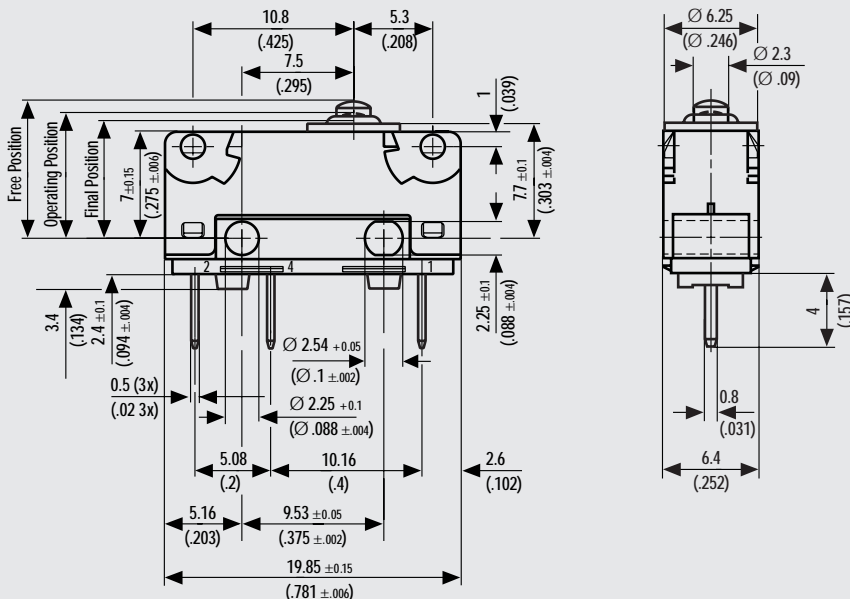


An exciting new range of sub-miniature switches embracing a host of innovative design features:

- Seven terminal options all sealed
- Mounting holes or moulded pegs
- Standard and low force models
- Wide range of clip on levers – two styles
- Choice of lever position
- Silver contacts for power switching; gold on silver for logic circuits
- Long overtravel versions
- Snap-on terminal covers

The ultimate in versatility.

V4NSCT8



# Specifications

# V4NC

**Housing:**

Glass fibre reinforced Polyamide (PA 6.6)

**Plunger:**

Polyacetal (POM)

**Mechanism:**

Snap-action coil spring mechanism with stainless steel spring. Changeover, normally-closed or normally-open

**Contacts:**

Fine silver

Gold plate on silver

Gold alloy on silver palladium (crosspoint)

**Terminals:**

All terminals are gold flashed

Refer to page 39

**Temperature Range:**

-40°C to +85°C

**Mechanical Life:**

5 x 10<sup>6</sup> cycles minimum (impact free actuation)

**Type of Protection:**

V4NC – Enclosure IP 40

V4NCS – Enclosure IP 6K7

Flux-proof terminal entries

**Mounting:**

Side mounting

Versions with moulded mounting pegs of 2.25 mm or 3.2 mm diameter are also available. Please consult Burgess.

**Actuators:**

Plain lever

Cam follower

Roller lever

} Choice of two styles

**Accessories:**

Lug mounting frame

Clip-on terminal covers

Insulating sheet

Recom. Max. El. Ratings V4NC(S)-series		
Voltage	Resistive load	Inductive load
<b>VAC</b>	A	A
125	5	2
250	5	2

Recom. Max. El. Ratings V4NC(S)4-series		
Voltage	Resistive load	Inductive load
<b>VAC</b>	A	A
125	10	5
250	10	5

Recom. Max. El. Ratings V4NC(S)-series		
Voltage	Resistive load	Inductive load
<b>VDC</b>	A	A
up to		
30	5	3
50	1	1
75	0.75	0.75
125	0.5	0.03
250	0.25	0.03

Recom. Max. El. Ratings V4NC(S)4-series		
Voltage	Resistive load	Inductive load
<b>VDC</b>	A	A
up to		
30	10	3
50	1	1
75	0.75	0.75
125	0.5	0.03
250	0.25	0.03

Recom. Max. El. Ratings V4NCS-series		
Voltage	Resistive load	Inductive load
<b>VDC/VAC</b>	mA	mA
12 to 30	10	10

Recom. Max. El. Ratings V4NCS4-series		
Voltage	Resistive load	Inductive load
<b>VDC/VAC</b>	mA	mA
12 to 30	10	10

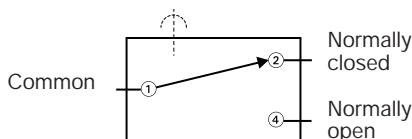
Recom. Max. El. Ratings V4NC-series		
Voltage	Resistive load	Inductive load
<b>VDC/VAC</b>	mA	mA
12 to 30	100	100

Recom. Max. El. Ratings V4NC4-series		
Voltage	Resistive load	Inductive load
<b>VDC/VAC</b>	mA	mA
12 to 30	100	100

The breaking capacities in the tables refer to silver contacts. For gold contacts see the text on right.

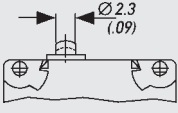
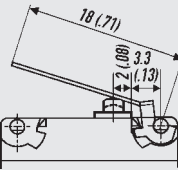
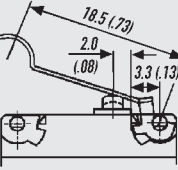
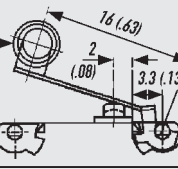
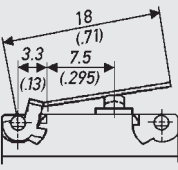
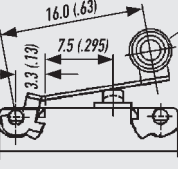
Gold-plated contacts are intended for use in signal circuits where the energy being switched is at the milliwatt level. Power being switched must be limited in order to avoid overheating and possible dispersal of the gold from the contact area.

Circuit diagram V4NC



# Product Range Operating Characteristics

# V4NC

Actuator	Reference	Actuating Force	Release Force	Free Position	Operating Position	Movement Differential	Over Travel
		Maximum N (ozf)	Minimum N (ozf)	Maximum mm (in)	mm (in)	Maximum mm (in)	
Plunger 	V4NC..	1.7 (6.114)	0.3 (1.079)	9.2 (.362)	8.4 (.331)	} (±0.3 mm/±.012 in)	Flush with case. The case should not be used as an end stop.
	V4NC4..	2.5 (8.992)	0.5 (1.798)	9.2 (.362)	8.4 (.331)		
	V4NCE..	1.7 (6.114)	0.3 (1.079)	9.7 (.382)	8.9 (.350)		
	V4NC4E..	2.5 (8.992)	0.5 (1.798)	9.7 (.382)	8.9 (.350)		
	V4NCS..	2.5 (8.992)	0.5 (1.798)	9.2 (.362)	8.4 (.331)		
	V4NC4S..	2.8 (10.071)	0.7 (2.517)	9.2 (.362)	8.4 (.331)		
	V4NCSE..	2.5 (8.992)	0.5 (1.798)	9.7 (.382)	8.9 (.350)		
V4NC4SE..	2.8 (10.071)	0.7 (2.517)	9.7 (.382)	8.9 (.350)			
A1 Lever Width of lever: 4.0 mm (.16) 	V4NC..	0.8 (2.877)	0.07 (0.251)	13.4 (.527)	10.85 (.427)	} (±1.3 mm/±.051 in)	Flush with case. The case should not be used as an end stop.
	V4NC4..	1.1 (3.956)	0.1 (0.359)	13.4 (.527)	10.85 (.427)		
	V4NCE..	0.8 (2.877)	0.07 (0.251)	14.8 (.582)	12.4 (.488)		
	V4NC4E..	1.1 (3.956)	0.1 (0.359)	14.8 (.582)	12.4 (.488)		
	V4NCS..	0.9 (3.237)	0.1 (0.359)	13.4 (.527)	10.8 (.425)		
	V4NC4S..	1.1 (3.956)	0.15 (0.539)	13.4 (.527)	10.8 (.425)		
	V4NCSE..	0.9 (3.237)	0.1 (0.359)	14.8 (.582)	12.4 (.488)		
V4NC4SE..	1.1 (3.956)	0.15 (0.539)	14.8 (.582)	12.4 (.488)			
AC1 Lever Width of lever: 4.0 mm (.16) 	V4NC..	0.8 (2.877)	0.07 (0.251)	16.1 (.634)	13.5 (.531)	} (±1.3 mm/±.051 in)	Flush with case. The case should not be used as an end stop.
	V4NC4..	1.1 (3.956)	0.1 (0.359)	16.1 (.634)	13.5 (.531)		
	V4NCE..	0.8 (2.877)	0.07 (0.251)	17.6 (.693)	15.1 (.594)		
	V4NC4E..	1.1 (3.956)	0.1 (0.359)	17.6 (.693)	15.1 (.594)		
	V4NCS..	0.9 (3.237)	0.1 (0.359)	16.1 (.634)	13.4 (.527)		
	V4NC4S..	1.1 (3.956)	0.15 (0.539)	16.1 (.634)	13.4 (.527)		
	V4NCSE..	0.9 (3.237)	0.1 (0.359)	17.6 (.693)	15.1 (.594)		
V4NC4SE..	1.1 (3.956)	0.15 (0.539)	17.6 (.693)	15.1 (.594)			
AR1 Lever Roller Ø 4.8 x 3.2 (.19) (.13) Width of roller: 4.0 mm (.16) 	V4NC..	0.8 (2.877)	0.07 (0.251)	18.1 (.712)	16.0 (.630)	} (±1.2 mm/±.047 in)	Flush with case. The case should not be used as an end stop.
	V4NC4..	1.2 (4.316)	0.1 (0.359)	18.1 (.712)	16.0 (.630)		
	V4NCE..	0.8 (2.877)	0.07 (0.251)	19.2 (.756)	17.3 (.681)		
	V4NC4E..	1.2 (4.316)	0.1 (0.359)	19.2 (.756)	17.3 (.681)		
	V4NCS..	0.9 (3.237)	0.1 (0.359)	18.1 (.712)	15.9 (.626)		
	V4NC4S..	1.2 (4.316)	0.15 (0.539)	18.1 (.712)	15.9 (.626)		
	V4NCSE..	0.9 (3.237)	0.1 (0.359)	19.2 (.756)	17.3 (.681)		
V4NC4SE..	1.2 (4.316)	0.15 (0.539)	19.2 (.756)	17.3 (.681)			
A10 Lever Width of lever: 4.0 mm (.16) 	V4NC..	1.3 (4.676)	0.13 (0.467)	10.7 (.421)	9.4 (.370)	} (±0.7 mm/±.027 in)	Flush with case. The case should not be used as an end stop.
	V4NC4..	1.7 (6.114)	0.2 (0.719)	10.7 (.421)	9.4 (.370)		
	V4NCE..	1.3 (4.676)	0.13 (0.467)	11.5 (.453)	10.2 (.401)		
	V4NC4E..	1.7 (6.114)	0.2 (0.719)	11.5 (.453)	10.2 (.401)		
	V4NCS..	1.8 (6.474)	0.2 (0.719)	10.7 (.421)	9.3 (.366)		
	V4NC4S..	2.0 (7.193)	0.3 (1.079)	10.7 (.421)	9.3 (.366)		
	V4NCSE..	1.8 (6.474)	0.2 (0.719)	11.5 (.453)	10.1 (.397)		
V4NC4SE..	2.0 (7.193)	0.3 (1.079)	11.5 (.453)	10.1 (.397)			
AR10 Lever Roller Ø 4.8 x 3.2 (.19) (.13) Width of roller: 4.0 mm (.16) 	V4NC..	1.3 (4.676)	0.13 (0.467)	15.8 (.622)	14.7 (.579)	} (±0.6 mm/±.023 in)	Flush with case. The case should not be used as an end stop.
	V4NC4..	1.9 (6.834)	0.2 (0.719)	15.8 (.622)	14.7 (.579)		
	V4NCE..	1.3 (4.676)	0.13 (0.467)	16.5 (.649)	15.4 (.606)		
	V4NC4E..	1.9 (6.834)	0.2 (0.719)	16.5 (.649)	15.4 (.606)		
	V4NCS..	1.8 (6.474)	0.2 (0.719)	15.8 (.622)	14.7 (.579)		
	V4NC4S..	2.1 (7.553)	0.3 (1.079)	15.8 (.622)	14.7 (.579)		
	V4NCSE..	1.8 (6.474)	0.2 (0.719)	16.5 (.649)	15.4 (.606)		
V4NC4SE..	2.1 (7.553)	0.3 (1.079)	16.5 (.649)	15.4 (.606)			

## Operating characteristics

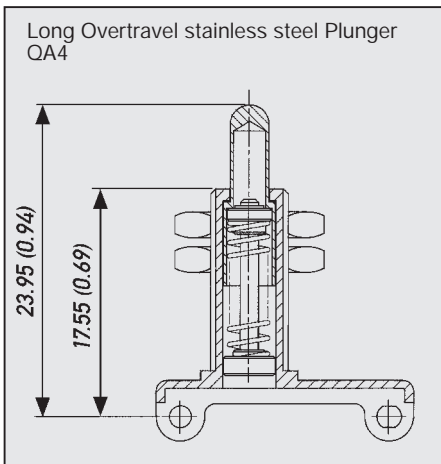
Operating characteristics shown above are specified from mounting hole centres.

# Ordering References

# V4NC

<b>Switch range:</b>	V4NC
<b>Actuating Force</b> No symbol = Standard force 4 High force	
<b>Type of Sealing</b> No symbol = Unsealed S Sealed IP 6K7	
<b>Overtravel</b> No symbol = Standard E With extended over travel	
<b>Terminal types</b>	
<b>Circuit</b> No symbol = Changeover C2 Normally closed C4 Normally open	
<b>Actuators</b> No symbol = Plunger A1 Plain lever 18.0 mm (.71 in)    A7 Plain lever 60.0 mm (2.36 in) A2 Plain lever 25.0 mm (.98 in)    AC1 Cam follower 18.5 mm (.73 in) A3 Plain lever 32.0 mm (1.26 in)    AR1 Roller lever 16.0 mm (.63 in) Levers fitted at end nearest to Plunger. an attached "0" such as A10, AR10 specifies fixing at end of the opposite to plunger.	
<b>Mounting</b> No symbol = Mounting holes B... several mounting pegs on request	
<b>Contacts</b> No symbol = Fine silver AUX Gold alloy on silver palladium crosspoint GP Gold plate on silver Ni1 Silver-Nickel contact	

## Panel-mounted Actuators for use with the V4NC Series



### Long Overtravel stainless steel Plunger

QA4 Moulded frame,  
Stainless steel plunger  
Overtravel actuator,  
2 locknuts

The sleeve is threaded M6 fine

### Clip-on frame:

Glass fibre reinforced Polyamide (PA 6.6)

### Bezel:

ABS polymer – black

### Cowl:

Synthetic Rubber

### "O"-Ring:

Nitrile

### Locknut:

Brass Nickel plate

### Button:

ABS Polymer

### Basic switches:

V4NC

(see pages 36–39)

### Temperature Range:

-10°C to +85°C.

### Mechanical Life:

10<sup>7</sup> cycles minimum

Mechanism: 2 · 10<sup>6</sup> cycles minimum  
(Impact free actuation).

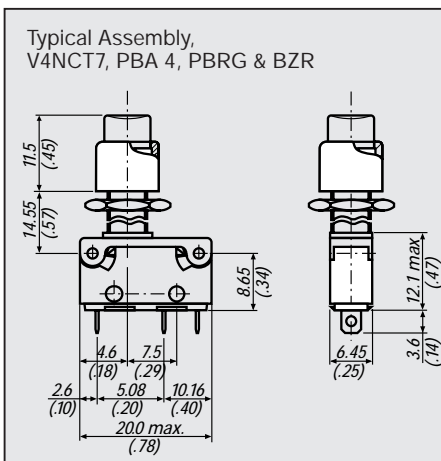
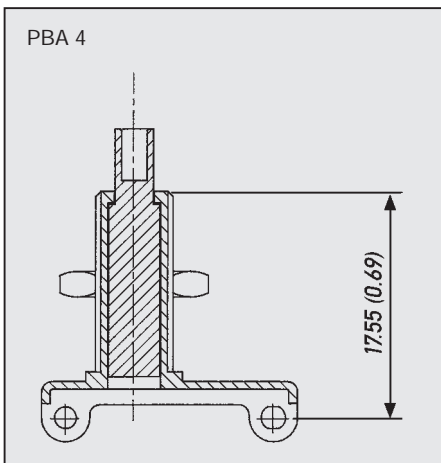
### Mounting:

Single hole  $\varnothing$  6.4 mm (0.25) suitable for panels  
up to 8.0 mm (0.3) thick

Maximum torque to be applied to lock-  
nut 0.4 Nm

A comprehensive new range of panel-mounted  
actuators with the following features:

- Can be fitted to all standard travel V4NC switches.
- Simple clip-on attachment.
- Choice of either round or square push buttons and bezels.
- Single hole mounting ( $\varnothing$  6.35 mm) or via switch mounting holes.
- Panel sealing if required.
- Long overtravel stainless steel actuator version with 5 mm min. overtravel.

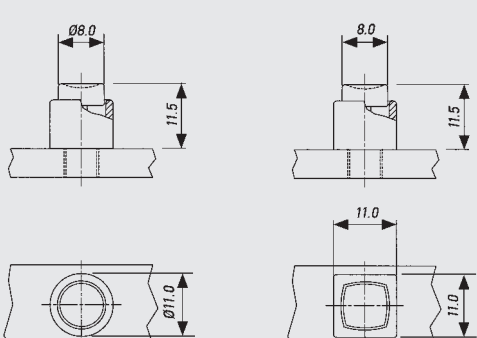
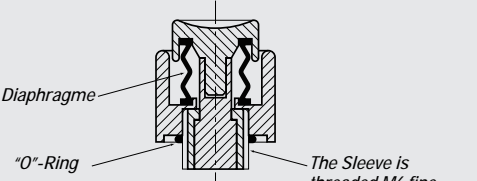


Recom. max. El. Ratings V4NC(S)		
Voltage	Resistive Load	Inductive load
<b>VAC</b>	A	A
max.		
250	5	2

Recom. max. El. Ratings V4NC(S)		
Voltage	Resistive Load	Inductive load
<b>VDC</b>	A	A
max.		
30	5	3
50	1	1
75	0,75	0,75

## Ordering References

# Panel-mounted Actuators

<b>Switch range:</b> <b>QV4NCT7</b>	QA4 Steel plunger for assembly with V4NT7 switches																												
<b>Basic Switches</b> V4NC..	See pages 36–39																												
<p><b>Standard Button Forms</b></p> <p>Round button Round bezel</p> <p>Square button Square bezel</p>  <p><b>Ordering References</b></p> <table border="1"> <thead> <tr> <th>Button Colour</th> <th>Button Form</th> <th>Round</th> <th>Square</th> </tr> </thead> <tbody> <tr> <td>Red</td> <td>PBRR</td> <td>PBRR</td> <td>PBSR</td> </tr> <tr> <td>Yellow</td> <td>PBRY</td> <td>PBRY</td> <td>PBSY</td> </tr> <tr> <td>Green</td> <td>PBRG</td> <td>PBRG</td> <td>PBSG</td> </tr> <tr> <td>Blue</td> <td>PBRBU</td> <td>PBRBU</td> <td>PBSBU</td> </tr> <tr> <td>White</td> <td>PBRW</td> <td>PBRW</td> <td>PBSW</td> </tr> <tr> <td>Black</td> <td>PBRB</td> <td>PBRB</td> <td>PBSB</td> </tr> </tbody> </table>		Button Colour	Button Form	Round	Square	Red	PBRR	PBRR	PBSR	Yellow	PBRY	PBRY	PBSY	Green	PBRG	PBRG	PBSG	Blue	PBRBU	PBRBU	PBSBU	White	PBRW	PBRW	PBSW	Black	PBRB	PBRB	PBSB
Button Colour	Button Form	Round	Square																										
Red	PBRR	PBRR	PBSR																										
Yellow	PBRY	PBRY	PBSY																										
Green	PBRG	PBRG	PBSG																										
Blue	PBRBU	PBRBU	PBSBU																										
White	PBRW	PBRW	PBSW																										
Black	PBRB	PBRB	PBSB																										
<b>Bezel</b> Round BZR	(black) Square BZS																												
<p><b>Assembly of Sealing Kit PBSLK</b></p>  <p>PBSLK Sealing Kit (O'-Ring and Diaphragm), suitable for both the square or the round versions.</p>																													
<p><b>Actuator Kit</b></p> PBA 4 QA 4																													