

# V4NCS

## V4NCS

- Characteristics
- wide variety of levers
  - peg mounting option
  - pre-wired option
  - sealed (IP6K7)
  - solder and faston terminals
  - PCB terminals

Rating 250 VAC, 5 A

Dimensions (mm) 20 × 10,3 × 6,4

- Actuator
- plunger
  - plain levers
  - roller levers
  - simulated roller levers

Approvals Automotive standard



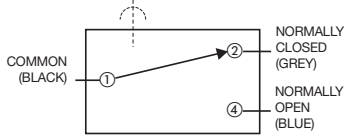
## Preferred Range

| Ordering Reference | Actuating Force<br>(N) (ozf) |       | Sealing      | Operating pos.<br>(mm) (in) |       | Terminal     | Circuit | Actuator     | Contacts | Electrical rating |
|--------------------|------------------------------|-------|--------------|-----------------------------|-------|--------------|---------|--------------|----------|-------------------|
| V4NCS              | 2,5                          | 8,992 | Sealed IP6K7 | 8,40                        | 0,331 | Cable 500 mm | CO      | Plunger      | Ag       | 250 VAC, 5 A      |
| V4NCSA1            | 0,9                          | 3,237 | Sealed IP6K7 | 10,80                       | 0,425 | Cable 500 mm | CO      | Plain lever  | Ag       | 250 VAC, 5 A      |
| V4NCSAR            | 0,9                          | 3,237 | Sealed IP6K7 | 15,90                       | 0,626 | Cable 500 mm | CO      | Roller lever | Ag       | 250 VAC, 5 A      |

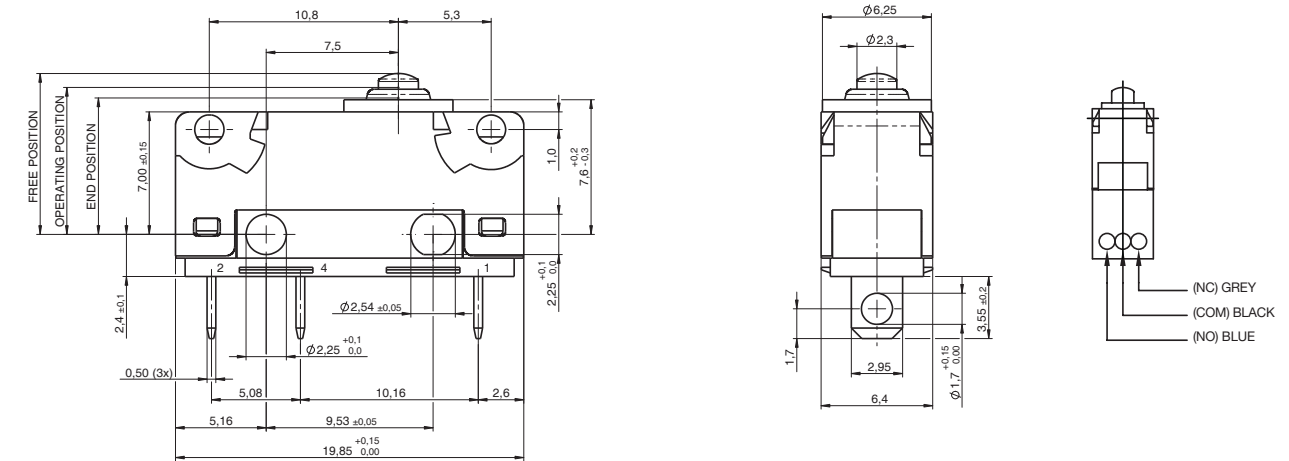
## Specifications

|                      |  |
|----------------------|--|
| Housing              | Glass fibre reinforced Polyamide (PA 6.6)                                      |
| Plunger              | Polyacetal POM/(PA 4,6)  |
| Mechanism            | Snap-action coil spring mechanism with stainless steel spring                  |
| Functions            | Change-over, normally closed or normally open                                  |
| Contacts             | Fine Silver, Gold plate on silver, Gold alloy on silver palladium (crosspoint) |
| Terminals            | Gold flashed   |
| Temperature range °C | -40°C to +85°C (120°C option)  |
| Mechanical life      | 3 × 10 <sup>6</sup> cycles minimum (impact free actuation)                     |
| Protection           | IP67 enclosure, IP40 Flux proof terminal entries                               |
| Mounting             | Side mounting (moulded mounting pegs on request)                               |
| Actuators            | Plain lever, cam follower, roller lever, simulated roller (cam follower) lever |
| Accessories          | Lug mounting frame, clip-on terminals cover, insulating sheet                  |

Circuit diagram

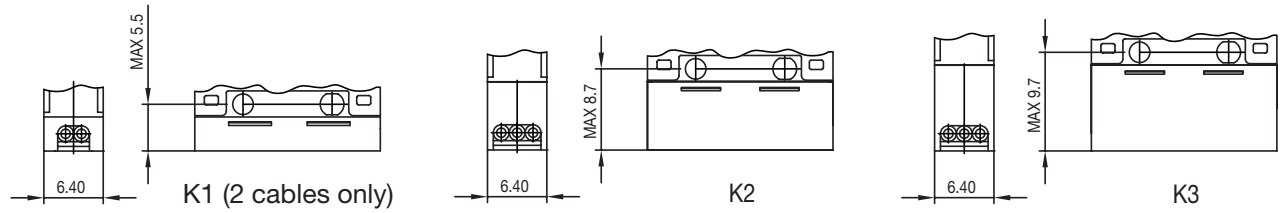


Dimensions



Prewired version with cable box  
For type coding key please contact Saia

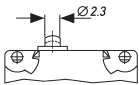
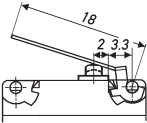
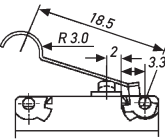
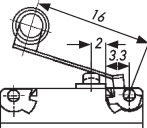
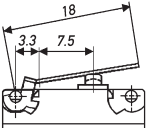
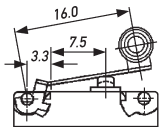
Standard cable FLY 0,5 mm<sup>2</sup> with max. outside diameter 1.8 mm  
Standard cable box is K2



## Recommended maximum electrical ratings

|       | Voltage (max) | Resistive load (A) | Motor load (A) | Approval               |
|-------|---------------|--------------------|----------------|------------------------|
| V4NCS | 250 VAC       | 5                  | 2              | General rating (85° C) |
|       | 0 - 15 VDC    | 5                  | 3              | General rating (85° C) |
|       | 15 - 30 VDC   | 5                  | 3              | General rating (85° C) |
| V4NCS | 250 VAC       | 5                  | 2              | General rating (85° C) |
|       | 0 - 15 VDC    | 3                  | 3              | General rating (85° C) |
|       | 15 - 30 VDC   | 3                  | 3              | General rating (85° C) |

## Operating Characteristics

| Actuator   | Reference | Actuating Force |       | Release Force |       | Free Position Maximum |       | Operating Position |       | Movement Differential Maximum |         |     |       |
|--|-----------|-----------------|-------|---------------|-------|-----------------------|-------|--------------------|-------|-------------------------------|---------|-----|-------|
|  |           | (N)             | (ozf) | (N)           | (ozf) | (mm)                  | (in)  | (mm)               | (in)  | (mm)                          | (in)    |     |       |
| Plunger<br>     | V4NCS..   | 2,5             | 8,992 | 0,5           | 1,798 | 9,2                   | 0,362 | 8,4                | ± 0,3 | 0,331                         | ± 0,012 | 0,1 | 0,004 |
|  | V4NCSB..  | 2,5             | 8,992 | 0,5           | 1,798 | 9,7                   | 0,382 | 8,9                |       |                               |         |     |       |
| A1 Lever<br>    | V4NCS..   | 0,9             | 3,237 | 0,1           | 0,359 | 13,4                  | 0,527 | 10,8               | ± 1,3 | 0,425                         | ± 0,051 | 0,4 | 0,016 |
|  | V4NCSB..  | 0,9             | 3,237 | 0,1           | 0,359 | 14,8                  | 0,582 | 12,4               |       |                               |         |     |       |
| Width of lever 4,0 (mm)/0,16 (in)  |           |                 |       |               |       |                       |       |                    |       |                               |         |     |       |
| AC Lever<br>    | V4NCS..   | 0,9             | 3,237 | 0,1           | 0,359 | 16,1                  | 0,634 | 13,4               | ± 1,3 | 0,527                         | ± 0,051 | 0,4 | 0,016 |
|  | V4NCSB..  | 0,9             | 3,237 | 0,1           | 0,359 | 17,6                  | 0,693 | 15,1               |       |                               |         |     |       |
| Width of lever 4,0 (mm)/0,16 (in)  |           |                 |       |               |       |                       |       |                    |       |                               |         |     |       |
| AR Lever<br>   | V4NCS..   | 0,9             | 3,237 | 0,1           | 0,359 | 18,1                  | 0,712 | 15,9               | ± 1,2 | 0,626                         | ± 0,047 | 0,4 | 0,016 |
|  | V4NCSB..  | 0,9             | 3,237 | 0,1           | 0,359 | 19,2                  | 0,756 | 17,3               |       |                               |         |     |       |
| Width of lever 4,0 (mm)/0,16 (in)  |           |                 |       |               |       |                       |       |                    |       |                               |         |     |       |
| A10 Lever<br> | V4NCS..   | 1,8             | 6,474 | 0,2           | 0,719 | 10,7                  | 0,421 | 9,3                | ± 0,7 | 0,366                         | ± 0,027 | 0,2 | 0,008 |
|  | V4NCSB..  | 1,8             | 6,474 | 0,2           | 0,719 | 11,5                  | 0,453 | 10,1               |       |                               |         |     |       |
| Width of lever 4,0 (mm)/0,16 (in)  |           |                 |       |               |       |                       |       |                    |       |                               |         |     |       |
| ARO Lever<br> | V4NCS..   | 1,8             | 6,474 | 0,2           | 0,719 | 15,8                  | 0,622 | 14,7               | ± 0,6 | 0,579                         | ± 0,023 | 0,2 | 0,008 |
|  | V4NCSB..  | 1,8             | 6,474 | 0,2           | 0,719 | 16,5                  | 0,649 | 15,4               |       |                               |         |     |       |
| Width of lever 4,0 (mm)/0,16 (in)  |           |                 |       |               |       |                       |       |                    |       |                               |         |     |       |

Operating characteristics shown above are specified from mounting hole centres.

Over travel: Flush with case. (7,8 mm min) The case should not be used as an end stop.

## Ordering Reference

|                   |  |   |                                   |    |    |    |   |   |
|-------------------|--|---|-----------------------------------|----|----|----|---|---|
| Basic type        | V4NC   | Example: V4NC                                   | S                                 | T7 | C4 | A1 | 0 | G |
| Type of sealing   | S  | Sealed IP6K7                                    | standard travel                   |    |    |    |   |   |
|                   | B  | Sealed IP6K7                                    | with extended overtravel (0,5 mm) |    |    |    |   |   |
| Terminals         | No symbol, pre-wired 500 mm with cable box (V4NCS/B only)  |   |                                   |    |    |    |   |   |
|                   | T7   | Solder  | 2,95 × 0,5 × 3,55 long            |    |    |    |   |   |
|                   | T8   | PCB   | 0,8 × 0,5 × 4,0 long              |    |    |    |   |   |
|                   | T9   | Faston  | 2,8 × 0,5 × 9,5 long              |    |    |    |   |   |
|                   | T81  | Formed PCB                                      | 0,8 × 0,5 × 3,8 long              |    |    |    |   |   |
|                   | T82  | Formed PCB                                      | 0,8 × 0,5 × 3,8 long              |    |    |    |   |   |
| Circuit           | No symbol, change-over   |   |                                   |    |    |    |   |   |
|                   | C2   | Normally closed                                 |                                   |    |    |    |   |   |
|                   | C4   | Normally open                                   |                                   |    |    |    |   |   |
| Actuators         | No symbol, without lever   |   |                                   |    |    |    |   |   |
|                   | A1   | Plain lever                                     | 18,0 mm                           |    |    |    |   |   |
|                   | A2   | Plain lever                                     | 25,0 mm                           |    |    |    |   |   |
|                   | A3   | Plain lever                                     | 32,0 mm                           |    |    |    |   |   |
|                   | A7   | Plain lever                                     | 60,0 mm                           |    |    |    |   |   |
|                   | AC   | Cam follower lever                              | 18,5 mm (AC1)                     |    |    |    |   |   |
|                   | AR   | Roller lever                                    | 16,0 mm (AR1)                     |    |    |    |   |   |
|                   | AP   | Roller lever                                    | 17,9 mm (AR2)                     |    |    |    |   |   |
|                   | 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, Ag  |   |                                   |    |    |    |   |   |
|                   | X  | Gold alloy on silver palladium crosspoint (AUX) |                                   |    |    |    |   |   |
| Special Features  | /□□□□ Saia 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. |   |                                   |    |    |    |   |   |