

## Electromotoric actuators

SSC..



### For globe/control valves VVP45.., VXP45.., VMP45.. in zone and room applications

- SSC131.09.. operating voltage AC 24 V, 3-position control signal
- SSC331.09.. operating voltage AC 230 V, 3-position control signal
- SSC161.05.. Operating voltage AC/DC 24 V, positioning signal DC 0...10 V
- Nominal force 300 N
- Automatic identification of valve stroke
- Direct mounting with 3/4" plastic threaded coupling nut, no tools required
- Manual override
- Position and actuator motion indication (LED)
- Parallel operation of multiple actuators possible
- SSC161.35HF with electrical fail-safe function
  - Fail-up, the normally closed V..P45.. valve is fully closed
- SSC..H with integrated removable 1.5 m cable length
- SSC..H/00 with no cable and cover for direct cable kit plug-in connection
  - Accessories: PVC and halogen-free 1.5 m, 3 m and 6 m cable length kits
- SSC131.09UT and SSC331.09UT with 3-pin terminal block with M16x1.5 threaded integrated conduit adapter cover, no cable
- SSC161.05UT with 5-pin terminals block with M16x1.5 threaded integrated conduit adapter cover, no cable
- Load-dependent switch-off in the event of overload and in stroke end positions

## Use



For water-side control of hot and chilled water in heating, ventilation and air conditioning systems with:

- Siemens VVP45.., VXP45.. and VMP45.. valve series

## Technical design

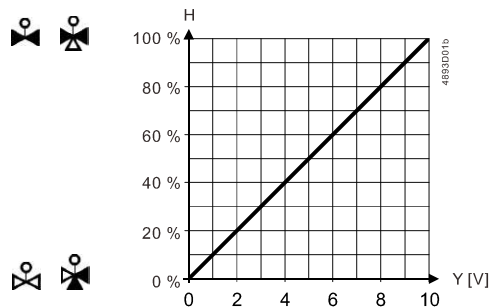
When the actuator is driven by a 3-position or DC 0...10 V control signal, it produces a stroke which is transmitted to the valve spindle.

### 3-position control signal

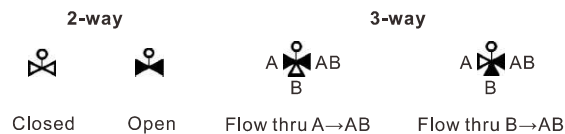
|  |   |   |
|--|---|---|
| Voltage at Y1: ↓  | Stem extends                            | Normally open valve closes, normally closed valve opens |
| Voltage at Y2: ↑  | Stem retracts                           | Normally open valve opens, normally closed valve closes |
| No voltage at Y1 or Y2:  | Actuator maintains its current position |   |


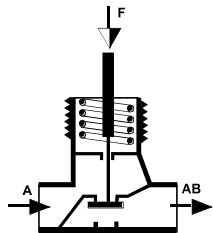

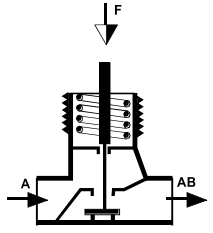
### DC 0...10 V positioning signal

- The valve opens / closes in proportion to the positioning signal at Y.
- At DC 0 V, actuator spindle is retracted, the normally closed valve is fully closed.
- When there is no operating voltage, the actuator maintains its current position.
- The actuator provides a position feedback signal U of DC 0...10 V proportional to the calibrated valve stroke\*.





Y = Positioning signal Y [V]  
H = Percentage of calibrated valve stroke  
U = Position feedback signal



| Positioning Signal | SSC161.. Actuator's spindle  | VVP45..., VXP45.. and VMP45.. Normally Closed Valves' stem |   |
|--------------------|--|--|---|
| 0 V                | Retracted<br> | Extended (valve closed)                                    | <br>4884201b |
| 10 V               | Extended<br>  | Retracted (valve open)                                     | <br>4884201c |

## LED indications

### SSC131..., SSC331..

| Variants              | LED   | Color | Pattern  | Description  |
|-----------------------|-------|-------|----------|--|
| SSC331.. and SSC131.. | LED 1 | Green | Constant | Actuator spindle is fully extended.     |
|                       | LED 2 | Green | Constant | Actuator spindle is moving in-between.   |
|                       | LED 3 | Green | Constant | Actuator spindle is fully retracted.  |



## SSC161..

| Variants | Status                              | LED indication patterns   |
|----------|-------------------------------------|---|
| SSC161.. | Stroke movement: spindle retracting | Flashing green in sequence: LED1-->LED2-->LED3 (500 ms each)  |
|          | Stroke movement: spindle extending  | Flashing green in sequence: LED3-->LED2-->LED1 (500 ms each)  |
|          | Spindle stays in position           | At H0 - H40: Constant green (LED3)<br>At H40 - H60: Constant green (LED2)<br>At H60 - H100: Constant green (LED1) |
|          | Fail-safe*                          | Flashing red (LED2): 500 ms on, 500 ms off  |
|          | Calibration                         | Flashing green (LED2): 100 ms on, 100 ms off  |
|          | Error**                             | Constant red (LED2)   |
|          | Manual operation                    | Flashing green/red alternatively (LED2): Green 500 ms, red 500 ms   |
|          | Super-cap initial charging*         | Constant green & red simultaneously (LED2): Constant orange   |



\* Only available for SSC161.35HF.

\*\* Error caused by mechanical jam or calibration failure. Calibration through resetting the operating voltage required.

## Type summary

| Type           | Stock number | Operating voltage | Control signal | Force | Feedback    | Fail-safe | Running speed at 50 Hz | Actuator characteristic | Cable length | Cable cover                                 |
|----------------|--------------|-------------------|----------------|-------|-------------|-----------|------------------------|-------------------------|--------------|---|
| SSC331.09H     | S55155-A100  | AC 230 V          | 3-position     | 300 N | -           | -         | 16 s/mm                | -                       | 1.5 m        | Removable with integrated cable             |
| SSC331.09H/00  | S55180-A178  |                   |                |       |             |           |                        |                         | -            | No cover                                    |
| SSC331.09UT    | S55180-A179  |                   |                |       |             |           |                        |                         |              | M16x1.5 threaded integrated conduit adapter |
| SSC131.09H     | S55155-A103  | AC 24 V           |                |       |             |           |                        |                         | 1.5 m        | Removable with integrated cable             |
| SSC131.09H/00  | S55180-A174  |                   |                |       |             |           |                        |                         | -            | No cover                                    |
| SSC131.09UT    | S55180-A171  |                   |                |       |             |           |                        |                         |              | M16x1.5 threaded integrated conduit adapter |
| SSC161.05HF    | S55155-A101  | AC/DC 24 V        | DC 0...10 V    |       | DC 0...10 V |           | 5 s/mm                 | Linear                  | 1.5 m        | Removable with integrated cable             |
| SSC161.05HF/00 | S55180-A147  |                   |                |       |             |           |                        |                         | -            | No cover                                    |
| SSC161.05UT    | S55180-A149  |                   |                |       |             |           |                        |                         |              | M16x1.5 threaded integrated conduit adapter |
| SSC161.35HF    | S55155-A102  |                   |                |       |             | Yes       |                        |                         | 1.5 m        | Removable with integrated cable             |

## Accessories

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| Type        | Stock number | Wires and cross section [mm <sup>2</sup> ] | Voltage [V] | Cable length [m] |
|-------------|--------------|--|-------------|------------------|
| ASY331L15   | S55845-Z307  | 3x0.75 PVC                                 | 230         | 1.5              |
| ASY331L30   | S55845-Z308  | 3x0.75 PVC                                 | 230         | 3                |
| ASY331L60   | S55845-Z309  | 3x0.75 PVC                                 | 230         | 6                |
| ASY331L15HF | S55845-Z310  | 3x0.75 halogen-free                        | 230         | 1.5              |
| ASY331L30HF | S55845-Z311  | 3x0.75 halogen-free                        | 230         | 3                |
| ASY331L60HF | S55845-Z312  | 3x0.75 halogen-free                        | 230         | 6                |
| ASY131L15   | S55845-Z313  | 3x0.34 PVC                                 | 24          | 1.5              |
| ASY131L30   | S55845-Z314  | 3x0.34 PVC                                 | 24          | 3                |
| ASY131L60   | S55845-Z315  | 3x0.34 PVC                                 | 24          | 6                |
| ASY131L15HF | S55845-Z316  | 3x0.34 halogen-free                        | 24          | 1.5              |
| ASY131L30HF | S55845-Z317  | 3x0.34 halogen-free                        | 24          | 3                |
| ASY131L60HF | S55845-Z318  | 3x0.34 halogen-free                        | 24          | 6                |
| ASY161L15   | S55845-Z266  | 5x0.34                                     | 24          | 1.5              |
| ASY161L30   | S55845-Z267  | 5x0.34                                     | 24          | 3                |
| ASY161L60   | S55845-Z268  | 5x0.34                                     | 24          | 6                |
| ASY161L15HF | S55845-Z269  | 5x0.34 halogen-free                        | 24          | 1.5              |
| ASY161L30HF | S55845-Z270  | 5x0.34 halogen-free                        | 24          | 3                |
| ASY161L60HF | S55845-Z271  | 5x0.34 halogen-free                        | 24          | 6                |

## Ordering

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When ordering, specify both type and quantity.

Example:

| Type       | Stock number | Designation   | Quantity |
|------------|--------------|---------------|----------|
| SSC331.09H | S55155-A100  | 300N Actuator | 1        |

## Delivery

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Valves and actuators must be ordered separately. For easier valve assembly, actuators ordered separately have the actuator spindle fully retracted.

The cable gland is not within the scope of delivery and needs to be ordered separately (supplied by thirds).

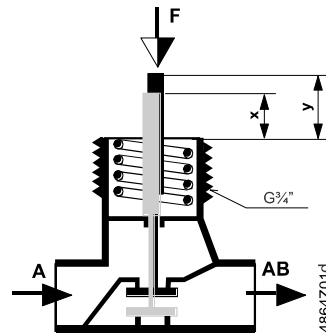
SSC.. combinable with the following valves

| Type reference        | Valve type  | K <sub>vs</sub> [m <sup>3</sup> /h] | PN class | Data sheet                              |
|-----------------------|---|-------------------------------------|----------|---|
| VVP45..               | 2-port valves   | 0.25...25                           | PN 16    | N4845                                   |
| VVP45..N              | 2-port valves   | 2.5...6.3                           |          | N4840                                   |
| VXP45..               | 3-port valves   | 0.25...25                           |          | N4845                                   |
| VMP45..               | 3-port valves with T-bypass                           | 0.25...4.0                          |          | N4845                                   |
| VVG45.. <sup>1)</sup> | 2-port valves   | 0.63...25                           |          | Retrofitting former Landis & Gyr valves |
| VXG45.. <sup>1)</sup> | 3-port valves   | 0.63...25                           |          |   |
| X3i.. <sup>1)</sup>   | 3-port valves   | 0.7...14                            |          |   |
| Others                | Valves (¾") from other manufacturers, without adapter | -                                   | -        | -                                       |

<sup>1)</sup> With assembly adapter ASK30

**Note:** To ensure trouble-free operation of third-party valves with the actuators, the valves must satisfy the following requirements:

- Threaded connections with coupling nut:
  - SSC...: ¾"; open dimension X ≥ 8.5 mm; closed dimension Y ≤ 14.6 mm
- Nominal force F ≤ 300 N
  - SSC...: 300 N



Controllers

| Type                 | SSC131..   | SSC331..   | SSC161..  |
|----------------------|--|------------|---|
|                      | AC 24 V  | AC 230 V   | AC/DC 24 V  |
|                      | 3-position   | 3-position | DC 0...10V  |
| DXR2                 | DXR2..09T.., DXR2..10.., DXR2..11.., DXR2..12P.., DXR2..18.., DXR2..10PL.. | -          | DXR2..  |
| RXB..                | RXB21.1.., RXB24.1..   | -          | RXB39.1..   |
| Synco 700, Synco 200 | RMH760B-1, RMK770-1, RLU202, RLU222  | -          | RMU7...0B-1, RMS705B-1, RMH760B-1, RMK770-1, RLU220, RLU222, RLU232, RLU236 |

## Room thermostats

| Type  | SSC131..                              | SSC331..   | SSC161..   |
|-------|---------------------------------------|--|--|
|       | AC 24 V                               | AC 230 V   | AC/DC 24 V   |
|       | 3-position                            | 3-position   | DC 0...10V   |
| RDG.. | RDG200T, RDG200KN, RDG204KN, RDG405KN | RDG200T, RDG200KN, RDG100KN, RDG100, RDG100T                     | RDG260T, RDG260KN, RDG264KN, RDG160T, RDG160KN, RDG405KN |
| RDF.. | -                                     | RDF800KN, RDF800/NF, RDF302, RDF600, RDF600T, RDF600KN, RDF660.. | -  |
| RDU.. | -                                     | -  | RDU340..   |
| RCU.. | -                                     | -  | RCU50..  |

## Product documentation

| Topic                       | Title                               | Document ID   |
|-----------------------------|-------------------------------------|---|
| Mounting and installation   | Mounting instructions <sup>1)</sup> | A6V15343703   |
| Standards and directives    | CE declarations                     | SSC131.09H, SSC131.09H/00, SSC131.09UT, SSC161.05HF, SSC161.05HF/00, SSC161.05UT: A5W00254962A<br>SSC331.09H, SSC331.09H/00, SSC331.09UT: A5W00750101A                                  |
|                             | RCM conformity                      | SSC131.09H, SSC131.09H/00, SSC131.09UT, SSC161.05HF, SSC161.05HF/00, SSC161.05UT: A5W00254983A<br>SSC331.09H, SSC331.09H/00, SSC331.09UT: A5W00750104A                                  |
|                             | UKCA conformity declarations        | SSC131.09H, SSC131.09H/00, SSC131.09UT, SSC161.05HF, SSC161.05HF/00, SSC161.05UT: A5W00257055A<br>SSC331.09H, SSC331.09H/00, SSC331.09UT: A5W00750103A                                  |
| Environmental compatibility | Environmental declarations          | SSC131.09H, SSC131.09H/00, SSC131.09UT: A5W00734981A<br>SSC331.09H, SSC331.09H/00, SSC331.09UT: A5W00734983A<br>SSC161.05UT, SSC161.05HF/00 : A5W00266709A<br>SSC161.05HF: A5W00242127A |

<sup>1)</sup> The mounting instructions are enclosed with the product.

Related documents such as the environmental declarations, declarations of conformity, etc., can be downloaded from the following Internet address:

[www.siemens.com/bt/download](http://www.siemens.com/bt/download)

**Engineering**

The actuators must be electrically connected in accordance with local regulations (see "Connection diagrams [► 20]").

**⚠ CAUTION****National safety regulations**

Failure to comply with national safety regulations may result in personal injury and property damage.

- Observe national regulations and comply with the appropriate safety regulations.

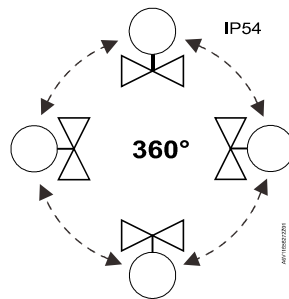
Observe permissible temperatures (see "Technical data [► 16]"). The connecting cable of the actuator may come into contact with the hot valve body, provided the temperature of the valve body does not exceed 80 °C.

**Mounting****⚠ WARNING**

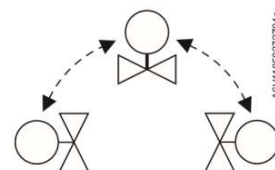
- Do not use pipe wrenches, spanners or similar tools.
- Before mounting, fit the actuator in a position where the actuator spindle is fully retracted (see "Manual operation").
- Avoid lateral pressure or (cable) tension on the mounted actuator!

Valve and actuator are easy to assemble on site before commissioning:

- Remove protective cover from the valve body.
- Position the actuator and tighten the union nut manually.
- See [Mounting instructions](#) enclosed with the product package for graphical instructions.

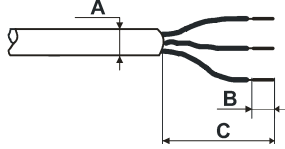
**Orientation**

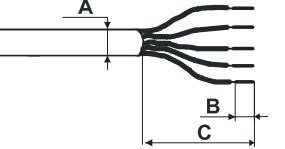
SSC..H, SSC..H/00+ ASY..




SSC..UT


## Installation

|   |          | A [mm] | B [mm] | C [mm] |
|---|----------|--------|--------|--------|
|  | SSC131.. | 4.5    | 6.0    | 60     |
|   | SSC331.. | 6.9    | 6.0    | 60     |
| Crimp ferrule on stripped wire of connecting cable.                               |          |        |        |        |

|   |          | A [mm] | B [mm] | C [mm] |
|---|----------|--------|--------|--------|
|  | SSC161.. | 5.5    | 6.0    | 60     |
| Crimp ferrule on stripped wire of connecting cable.                               |          |        |        |        |

- Observe all admissible temperatures (see “Technical data [► 16]”).
- Operate the actuator only with alternating current for SSC131.. and SSC331.. (see “Technical data [► 16]”).
- Do not twist the cable.
- Magnets can damage the actuator.
- Provide a means for isolation from the power supply, e.g., connecting a circuit breaker or switch fuse upstream of the control unit.

| <b>⚠ CAUTION</b>  |  |
|---|--|
|  | <b>National safety regulations</b><br>Failure to comply with national safety regulations may result in personal injury and property damage. <ul style="list-style-type: none"> <li>• Observe national regulations and comply with the appropriate safety regulations.</li> </ul> |

| <b>⚠ CAUTION</b>  |   |
|---|---|
|  | <b>Phase cut and pulse-duration-modulated (PDM) signals are not suitable.</b><br><b>Regulations and requirements to ensure the safety of people and property must be observed at all times!</b> |

## Commissioning

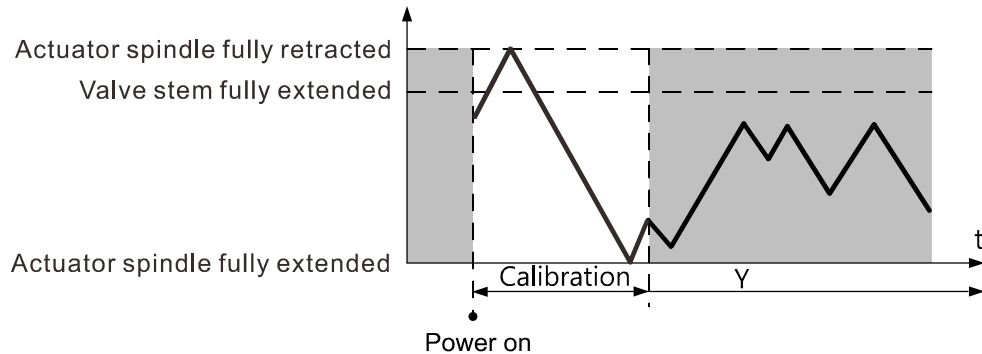
When commissioning, check both wiring and functioning of the actuator.

- Actuator spindle extends      Normally open valve closes, normally closed valve opens
- Actuator spindle retracts      Normally open valve opens, normally closed valve closes

|               |   |
|---------------|---|
| <b>NOTICE</b> |   |
| <b>!</b>      | The actuator must be commissioned only with a correctly mounted valve in place! |

### Self-calibration

When operating voltage is applied, the actuator self-calibrates (fully retracted → fully extended → setpoint).



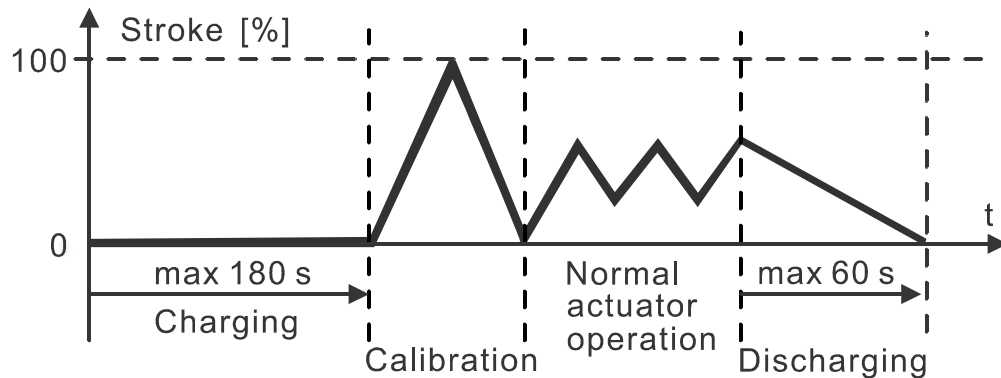
Note (Rev B & C models only): If the actuator spindle reaches the valve stem fully extended position five times or remains in that position for 5 minutes during normal operation, a synchronization is automatically triggered. During this process, the actuator moves to the actuator spindle fully retracted and then returns to the valve stem fully extended position. The actuator does not follow the control signal during this synchronization sequence. Once the synchronization is complete, the actuator resumes normal operation and moves according to the control signal setpoint.

|                  |   |
|------------------|---|
| <b>⚠ CAUTION</b> |   |
| <b>⚠</b>         | Never intervene manually during self-calibration. |

|               |  |
|---------------|--|
| <b>NOTICE</b> |  |
| <b>!</b>      | <ul style="list-style-type: none"> <li>• Correct calibration is only possible with valve stroke &gt; 1.2 mm. Valve stroke &lt; 1.2 mm results in calibration failure.</li> <li>• If calibration fails, the actuator performs another calibration automatically after 10 seconds.</li> <li>• After three failed calibration attempts, the actuator spindle remains in the extended position and the valves are closed. The state of the LED then changes to "stays red".</li> </ul> |

## Electrical fail-safe function (for SSC161.35HF)

When first connected to power, or after a power failure, the capacitor which stores energy for the fail-safe function will be charged. This process takes up to 180 seconds. While the capacitor is being charged, the actuator cannot respond to any control signals. In the event of a power failure of more than 5 seconds, the actuator will return to its fail-safe position within 60 seconds.

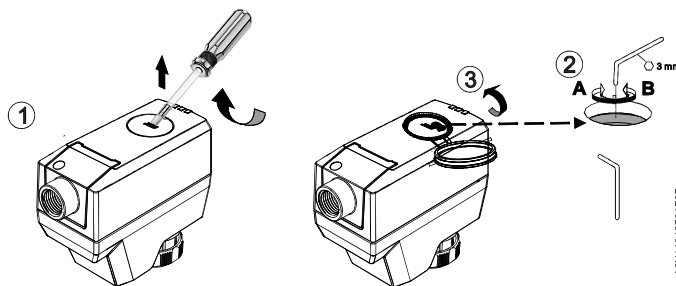


## Manual operation

A 3-mm hexagonal wrench can be used to move the actuator to any position.

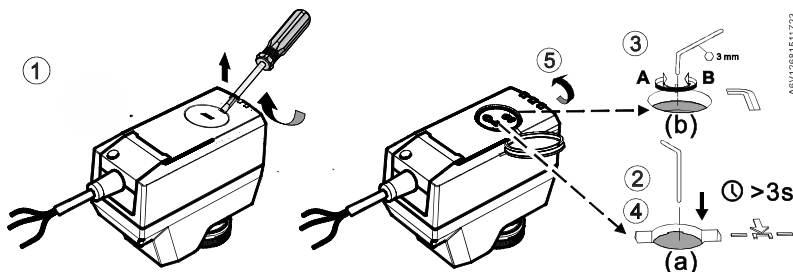
### To move the actuator spindle manually (3-position control, SSC131.. and SSC331..)

1. Open the cover using a proper screwdriver. Note that IP54 protection does not apply if the cover is open.
2. Adjust the position of the actuator spindle by rotating Allen wrench illustrated below clockwise or counter-clockwise.
  - The actuator spindle moves down if you rotate clockwise; it moves up if you rotate counter-clockwise. The manually set position is retained.
3. Close the cover to ensure IP54 protection.



**To move the actuator spindle manually (DC 0...10 V control, SSC161..)**

1. Open the cover using a proper screwdriver. Note that IP54 protection does not apply if the cover is open.
2. Press and hold down button (a) illustrated below for at least three seconds.
  - The actuator ignores any positioning signal from the controller.
3. Adjust the position of the actuator spindle by rotating Allen wrench (b) illustrated below clockwise or anti-clockwise.
  - The actuator spindle moves down if you rotate clockwise; it moves up if you rotate anti-clockwise. The manually set position is retained.
4. To exit manual operation mode, press and hold down button (a) illustrated below again for at least three seconds.
  - The actuator runs a self-calibration automatically. Positioning signal sent from the controller takes effect.
5. Close the cover to ensure IP54 protection.

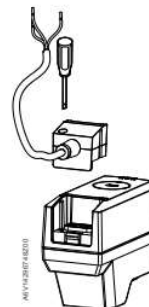


| <b>NOTICE</b> |  |
|---------------|--|
| <b>!</b>      | <p><b>If operating voltage is applied to actuator, press button (a) before and after manually adjusting the position of the actuator spindle so that the actuators ignores the positioning signal.</b> If no operating voltage and positioning signal are applied, manual operation can be done without pressing button (a). If the actuator position is manually adjusted in automatic operation (without carrying out point b), this can lead to errors (see LED indication)</p> |

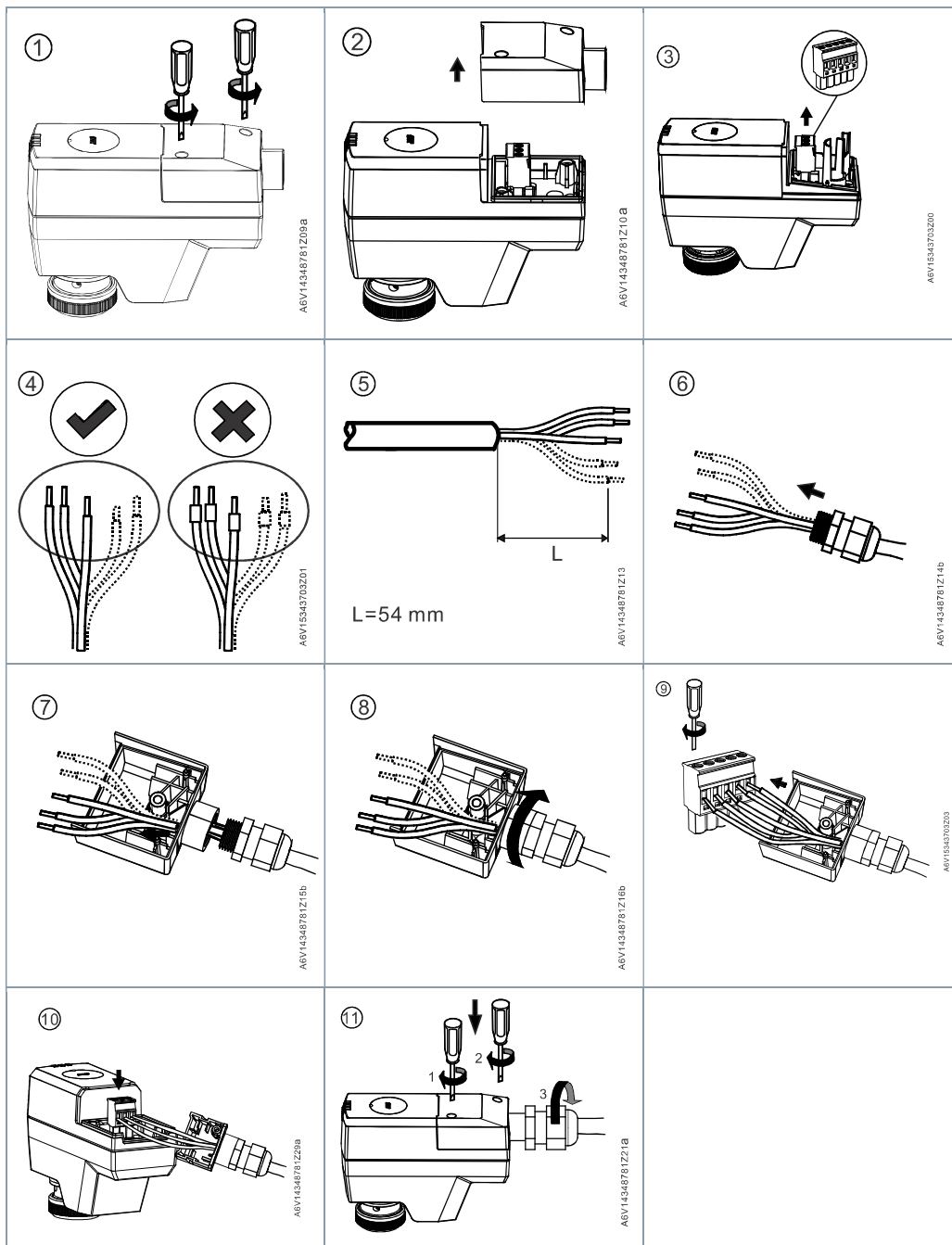
**Cabling operation**

**SSC..H, SSC..H/00**

1. Unscrew cover screw\*
2. Remove cover\*
3. Select the desired ASY.. cable kit to be plugged-in
4. Install the cover
5. Screw in the cover screw



\* Not applicable for SSC..H/00



**Maintenance**

The actuators require no maintenance.

|                  |   |
|------------------|---|
| <b>⚠ WARNING</b> |   |
|                  | <b>Operating voltage must be switched off during any maintenance!</b> |

## NOTICE



When carrying out service work on the plant, note the following:

- Switch off operating voltage.
- If necessary, disconnect electrical connections from the terminals.
- The actuator must be commissioned only with a correctly mounted valve in place!

### Repair

The actuators cannot be repaired; the complete unit must be replaced.

### Disposal



The device is considered an electronic device for disposal in accordance with European guidelines and may not be disposed of as domestic waste.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

### Warranty

Technical data on specific applications are only valid together with Siemens products listed under "Equipment combinations". Siemens rejects any and all warranties in the event that third-party products are used.

### Open Source Software (OSS) (SSC161..)

#### Software license overview

These devices use Open Source Software (OSS). All Open Source Software components used in the product (to include copyrights and licensing agreement) are available at <http://siemens.com/bt/download>.

| Firmware version | OSS document |  | Device |
|------------------|--------------|--|--------|
|                  | Document ID  | Title  |        |
| 2.10.0 or above  | A6V13503690  | Readme OSS for Modulating Room Actuator 200 N, 300 N | All    |

## Technical data

| Power supply                   |         | SSC131..                 | SSC331..            | SSC161..                                       |
|--------------------------------|---------|--------------------------|---------------------|--|
| Operating voltage              |         | AC 24 V $\pm$ 20 %       | AC 230 V $\pm$ 15 % | AC 24 V ( $\pm$ 15 %) or DC 24 V ( $\pm$ 20 %) |
| Frequency                      |         | 50/60 Hz                 |                     |  |
| Power consumption              | Running | 1 VA                     | 11 VA               | 3.5 VA<br>Peak (SSC161.35HF only): 8 VA        |
|                                | Holding | 0.2 VA                   | 0.4 VA              | 2 VA   |
| Primary fuse or breaker rating |         | External, 2 A quick blow |                     |  |

| Signal input   | SSC131..   | SSC331..   | SSC161..       |
|--|------------|------------|----------------|
| Control signal   | 3-position | 3-position | DC 0...10 V    |
| Input impedance  | -          |            | 100 k $\Omega$ |
| Parallel operation (number of actuators) <sup>1)</sup> | Max. 10    | Max. 6     | Max. 10        |

<sup>1)</sup> Provided that the controller output is sufficient.

| Signal output (SSC161.05UT, SSC161.05HF, SSC161.05HF/00) |             |
|--|-------------|
| Feedback signal U  | DC 0...10 V |
| Max. output current                                      | 1 mA        |
| Resolution   | 1:100       |

| Operating data   | SSC131..                     | SSC331.. | SSC161.. |
|--|------------------------------|----------|----------|
| Position with de-energized contact Y/Y1/Y2               | See "Technical design [► 2]" |          | 0 %      |
| Running speed at 50 Hz                                   | 16 s/mm                      |          | 5 s/mm   |
| Positioning force  | 300 N                        |          |          |
| Stroke   | 6.1 mm                       |          |          |
| Permissible temperature of medium in the connected valve | 1...120 °C                   |          |          |
| Sound level  | < 30 dB(A)                   |          |          |

| Electrical connection (connecting cable integral) | SSC131..                     | SSC331..                        | SSC161..                     |
|---|------------------------------|---------------------------------|------------------------------|
| Cable length                                      | 1.5 m, according to VDE 0207 | 1.5 m, according to IEC 60227-5 | 1.5 m, according to VDE 0207 |
| Cross section of prewired connection cables       | 0.34 mm <sup>2</sup> (3 ×)   | 0.75 mm <sup>2</sup> (3 ×)      | 0.34 mm <sup>2</sup> (5 ×)   |
| Permissible length for signal lines               | < 20 m                       |                                 |                              |

| Electrical connection (connecting cable integral) (SSC..UT) |                           |
|---|---------------------------|
| Cable length  | <20 m                     |
| Cross section of prewired connection cables                 | 0.5...1.5 mm <sup>2</sup> |
| Cable diameter  | <5.5 mm                   |

| Mounting        | SSC..H                         | SSC..UT          |
|-----------------|--------------------------------|------------------|
| Fixing on valve | ¾" steel threaded coupling nut |                  |
| Orientation     | 360°                           | 270°, cable down |

| Standards                              | SSC161..   | SSC131..H    | SSC331..H    | SSC..UT      |
|--|--|--------------|--------------|--------------|
| EU conformity (CE)                     | A5W00254962A   | A5W00254962A | A5W00750101A | A5W00254962A |
| RCM conformity                         | A5W00254983A   | A5W00254983A | A5W00750104A | A5W00254983A |
| UKCA                                   | A5W00257055A   | A5W00257055A | A5W00750103A | A5W00257055A |
| Housing protection degree              | IP 54  | IP 54        | IP 54        | IP 20        |
| Protection class according to EN 60730 | III  | III          | II           | III          |
| Pollution degree                       | 2  |              |              |              |
| Overvoltage category                   | I  |              | II           | I            |
| Environmental compatibility            | The product environmental declaration (A5W00242127A for SSC161.., A5W00734983A for SSC331.., A5W00734981A for SSC131..) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal). |              |              |              |
| UL Approval                            | UL as per UL60730-1, UL60730-2-14<br><a href="http://ul.com/database">http://ul.com/database</a><br>cUL as per CSA – CAN E60730-1, E730-2-14   |              |              |              |
| Federal Communications Commission      | FCC CFR 47 Part 15 Class B   |              |              |              |
| ICES003                                | CAN ICES-3 (B)/NMB-3(B)  |              |              |              |

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation

**FCC Caution:** Changes or modifications not expressly approved by Siemens Switzerland Ltd. could void user authority to operate the equipment. United States representative <https://new.siemens.com/us/en/products/buildingtechnologies/home.html>

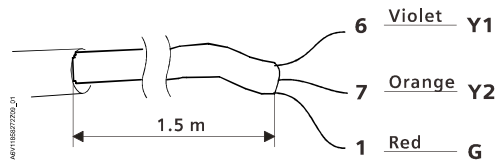
| Housing color |               |
|---------------|---------------|
| Cover/base    | 2003, Ti-Gray |
| Coupling nut  | Steel         |

| General ambient conditions |   |                              |                                 |
|----------------------------|---|------------------------------|---------------------------------|
|                            | Operation   | Transport                    | Storage                         |
| Temperature                | 1...50 °C   | -25...70 °C                  | -25...70 °C                     |
| Humidity                   | 5...95 % r.h.<br>non condensing                             | <95 % r.h.<br>non condensing | 5...95 % r.h.<br>non condensing |
| Atmospheric pressure       | Min. 700 hPa, corresponding to max. 3,000 m above sea level |                              |                                 |

| Product        | Weight | Product       | Weight |
|----------------|--------|---------------|--------|
| SSC331.09H     | 351 g  | SSC131.09H    | 301 g  |
| SSC331.09H/00  | 246 g  | SSC131.09H/00 | 236 g  |
| SSC131.09UT    | 280 g  | SSC161.05HF   | 316 g  |
| SSC161.05HF/00 | 230 g  | SSC161.05UT   | 276 g  |
| SSC331.09UT    | 267 g  |               |        |

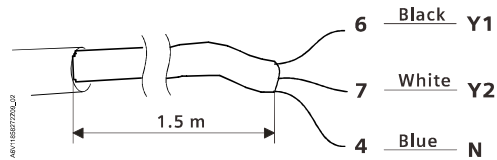
Connection terminals

**SSC131.09H, SSC131.09H/00**



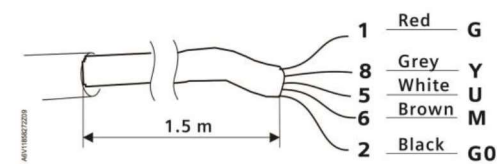
**Y1** = Control signal OPEN (AC 24 V)  
**Y2** = Control signal CLOSE (AC 24 V)  
**G** = System potential AC 24 V

**SSC331.09H, SSC331.09H/00**



**Y1** = Control signal OPEN (AC 230 V)  
**Y2** = Control signal CLOSE (AC 230 V)  
**N** = Neutral

**SSC161.05HF, SSC161.05HF/00**



**G** = System potential (AC/DC 24 V)  
**Y** = Positioning signal DC 0...10 V  
**U** = Positioning feedback signal  
**M** = Measurement reference  
**G0** = System neutral

**SSC161.05UT**



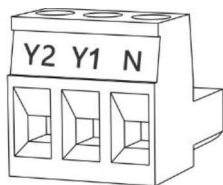
**G0** = System neutral  
**Y** = Positioning signal DC 0...10 V  
**G** = System potential AC/DC 24 V

**SSC131.09UT**



**G** = System potential (AC 24 V)  
**Y1** = Control signal OPEN (AC 24 V)  
**Y2** = Control signal CLOSE (AC 24 V)

**SSC331.09UT**



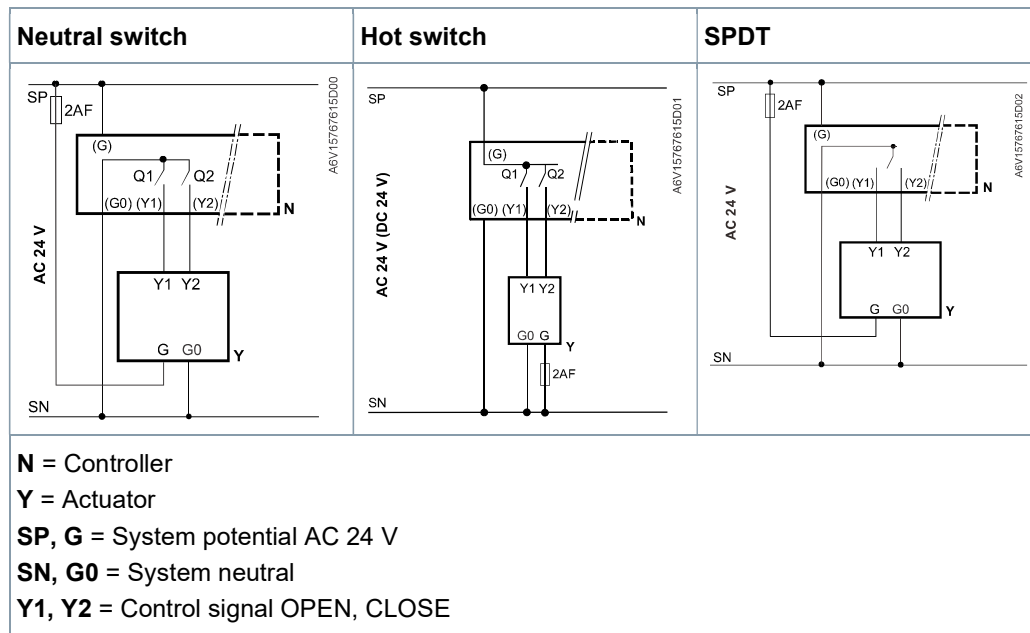
**Y2** = Control signal CLOSE (230 V)

**Y1** = Control signal OPEN (230 V)

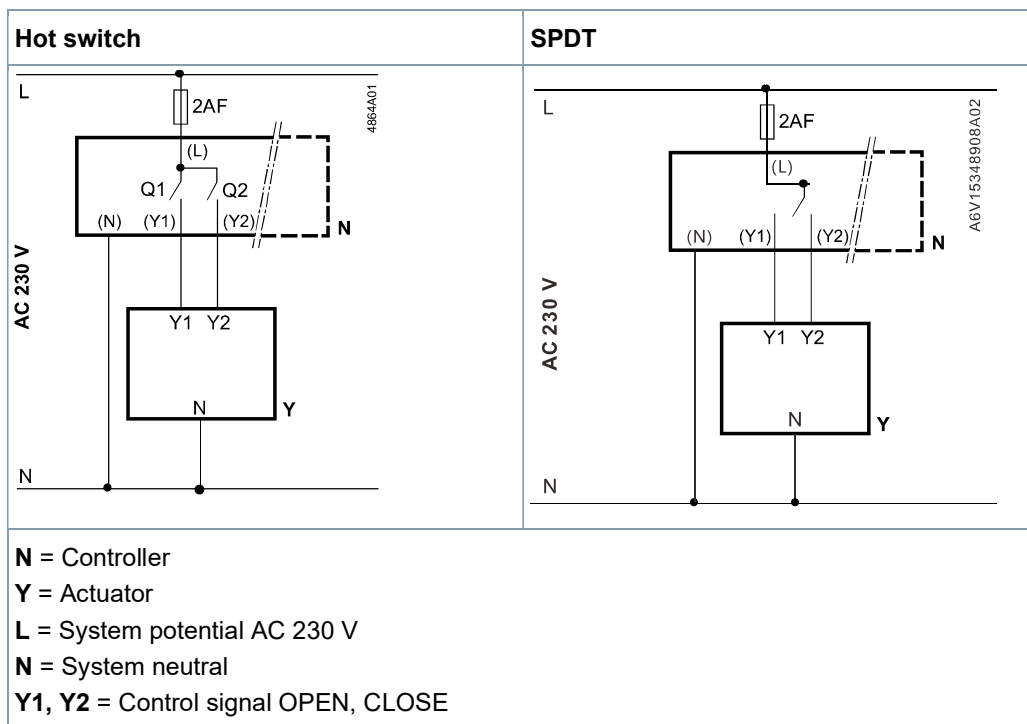
**N** = Neutral

**Connection diagrams**

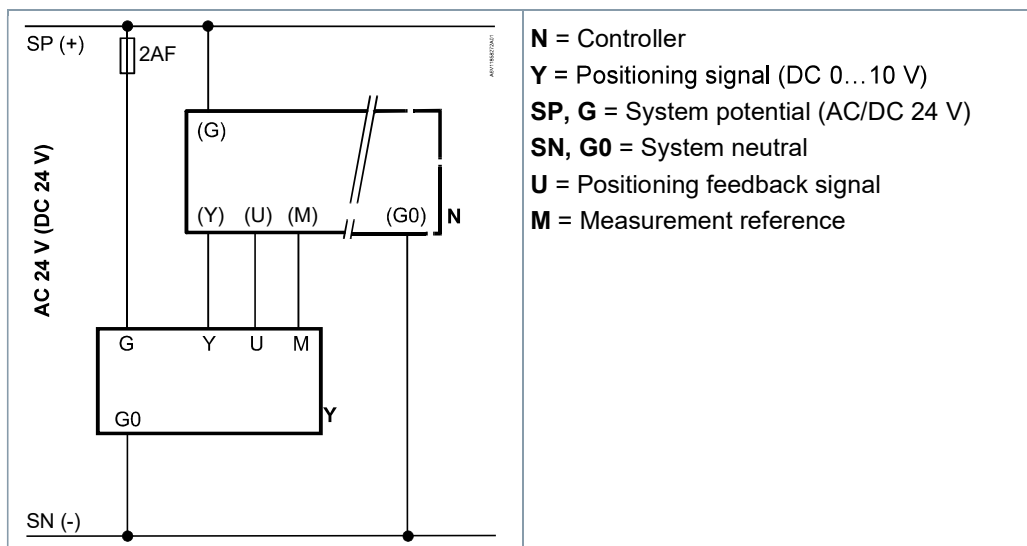
**SSC131..**



SSC331..



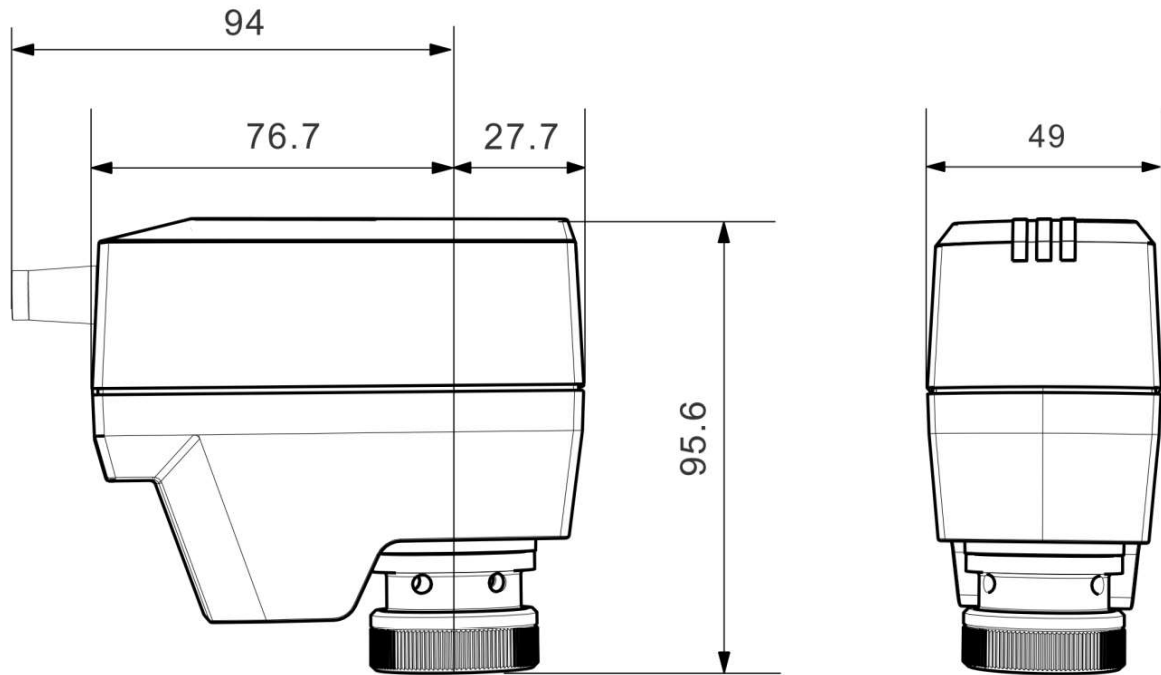
SSC161..



## Dimensions

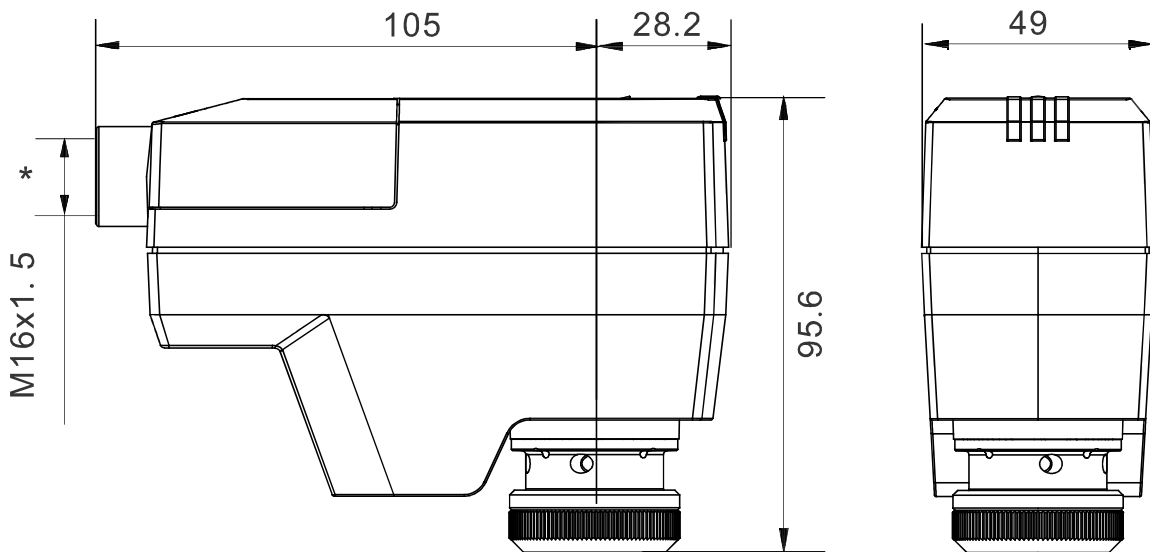
mm

**SSC331.09H, SSC131.09H, SSC331.09H/00, SSC131.09H/00, SSC161.05HF,  
SSC161.05HF/00, SSC161.35HF**



A6V1268151Z00

**SSC..UT**



A6V1346337Z00b

\*: The maximum cable gland thread length is 11 mm.

## Revision numbers

| Type          | Valid from rev. no. | Type           | Valid from rev. no. |
|---------------|---------------------|----------------|---------------------|
| SSC331.09H    | ..A                 | SSC131.09H     | ..A                 |
| SSC331.09H/00 | ..A                 | SSC131.09H/00  | ..A                 |
| SSC331.09UT   | ..C                 | SSC161.05HF    | ..C                 |
| SSC131.09UT   | ..C                 | SSC161.05HF/00 | ..C                 |
| SSC161.05UT   | ..C                 | SSC161.35HF    | ..C                 |

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