



## Electrical Actuators

## SSY319...

for valves VXG48..., VXB489R..., VXI48...  
VVP459..., VXP459..., VMP459..., VVG549...

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- AC 230 V operating voltage, 3-position control signal
  - Positioning force 300 N
  - Manual override with indication of current position and direction of travel
  - Force-dependent switch-off in both end positions and in the event of overload
  - For direct mounting with coupling nut, no tools required
  - Plug-in connecting cable
  - Anti-locking, maintenance-free gear train

### Use

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For operation of Siemens 2-port and 3-port valves with a nominal stroke of 5.5 mm for water-side control of hot water and cooling water in heating, ventilation and air conditioning systems.

## Type summary

Type reference	Operating voltage	Positioning time at 50 Hz	Positioning signal	Connecting cable
SSY319	AC 230 V	150 s	3-position	1.5 m
SSY319/30				3.0 m

## Accessories

Type reference	Description
ASY98	Retaining screw for cable connector

## Ordering

When ordering, please give quantity, product name and type reference.

*Example:* 10 actuators, type SSY319

The minimum order quantity is 10 actuators.

## Delivery

The actuators are delivered in multipacks of 10 together with the associated cables. Mounting Instructions are enclosed.

## Equipment combinations

Type reference	Valve type	$k_{vs}$	PN class	Data Sheet
		[m <sup>3</sup> /h]		
VXG48...	3-port valves	6.3...20	PN16	N4467
VXB489R...		1.6...16		Q4491
VXI48...		4...16		Q4849
VVP459...	2-port valves	0.63...25		Q4845
VXP459...	2-port valves	0.63...25		
VMP459...	3-port valves with T-bypass	0.63...4		
VVG549...	2-port valves	0.25...6.3	PN25	Q4380

$k_{vs}$  = nominal flow rate of cold water (5...30 °C) through the fully open valve ( $H_{100}$ ), at a differential pressure of 100 kPa (1 bar).

Other combinations are available on request.

## Technical design / mechanical design

When the actuator is driven by a 3-position signal, it produces a stroke which is transmitted to the valve stem.

The description of operation in this document applies to those versions of the valve which close when deenergized (NC).

### 3-position signal

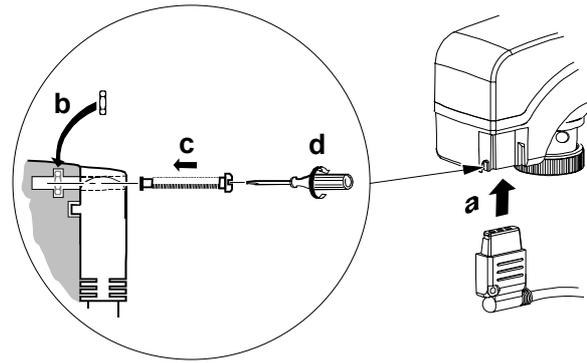
- Voltage at Y1: Stem extends: Valve opens
- Voltage at Y2: Stem retracts: Valve closes
- No voltage at Y1 or Y2: Actuator maintains its current position

**Accessories**

**Retaining screw**



Type ASY98 to secure cable connector.



The cable connector snaps into position, but can be additionally secured with the retaining screw.

**Notes**

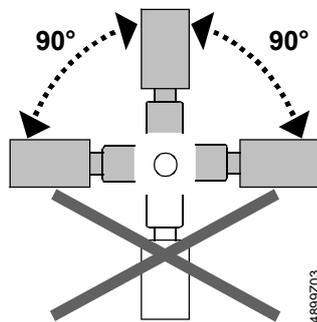
**Engineering**

The admissible temperatures (refer to «Technical data») must be observed. The connecting cable of the actuator may come into contact with the hot valve body without harm, provided the temperature of the valve body does not exceed 90 °C.

**Mounting**

Mounting Instructions 4 319 5623 0 are enclosed with each multipack.  
 Assembly is made with the coupling nut; no adjustments are required.  
 The actuator should be installed so that it is initially in position 0 (also refer to « Manual override»):  
 Position the actuator and tighten the coupling nut manually.

**Orientation**



**Commissioning**

- Check wiring
- Check functioning of the actuator:
  - Actuator stem extends (position indicator from position 0 to 1): Valve opens
  - Actuator stem retracts (position indicator from position 1 to 0): Valve closes
- The actuator must only be operated in conjunction with a correctly mounted valve!



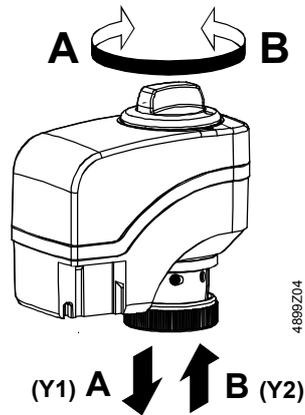
**Caution**

**Owing to the stroke / force-dependent switch-off feature, the correct operation of the actuator is only assured when mounted on the valve.**

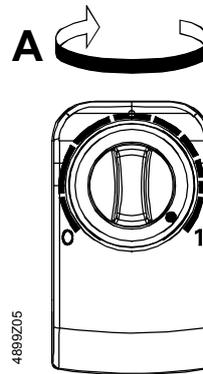
## Manual override

The actuator can be adjusted manually to any position between 0 and 1. However, if the actuator receives a positioning signal from the controller, this will take precedence in determining the position.

*Note* To retain the manually set position, unplug the connecting cable or disable the positioning signal.

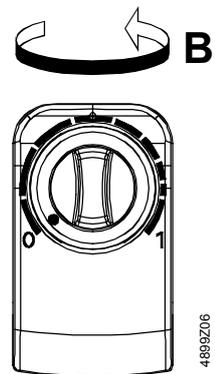


4889Z04



4889Z05

Position indicator in position 1:  
Valve fully open



4889Z06

Position indicator in position 0:  
Valve fully closed

## Maintenance

⚠ When servicing the SSY319... actuator, make sure that power is disconnected (e.g. remove the plug).

## Repairs

The SSY319... actuators cannot be repaired; they must be replaced as complete units.

## Disposal



The actuators include electrical and electronic components and must not be disposed of together with domestic waste.

**Current local legislation must be observed.**

## Warranty

The technical data relating to specific applications is valid only in conjunction with the Siemens valves listed in this Data Sheet under «Equipment combinations».

**The use of these SSY319... actuators with third-party valves invalidates any warranty offered by Siemens Building Technologies / HVAC Products.**

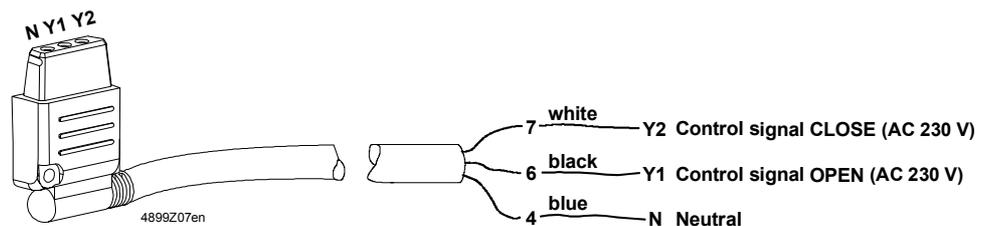
## Technical data

Power supply	Rated voltage	AC 230 V ± 15 %
	Rated frequency	50 / 60 Hz
	Power consumption	6 VA
	Fuse protection for incoming cable (fast)	2 A
Control	Positioning signal	3-position
Operating data	Positioning time for 5.5 mm stroke	150 s
	Nominal stroke	5.5 mm
	Nominal force	300 N
	Perm. temperature of medium in the connected valve	1...+110 °C
Electrical connections	Connecting cable SSY319	1.5 m 3-core to EN 60320 / IEC 60227
	SSY319/30	3.0 m 3-core to EN 60320 / IEC 60227
Industry standards	Meets the requirements for CE marking:	
	EMC directive	89/336/EEC Emissions EN 50081-1 Immunity EN 61000-6-2
	Low voltage directive	73/23/EEC EN 60730-1
	Protection class	II to EN 60730
Dimensions / weight	Housing protection standard	IP40 to EN 60529
	Dimensions	refer to «Dimensions»
	Coupling thread to valve	coupling nut, G 3/4"
	Weight	0.3 kg
Housing	Cover	plastic / anthracite, RAL 9011
	Base	plastic / light gray, RAL 7035

### General ambient conditions

	Operation IEC 721-3-3	Transport IEC 721-3-2	Storage IEC 721-3-1
Environmental conditions	Class 3K3	Class 2K3	Class 1K3
Temperature	+1...+50 °C	-25...+70 °C	-5...+50 °C
Humidity	5...85 % r.h.	< 95 % r.h.	5...95 % r.h.

## Connecting cable



## Dimensions

All dimensions in mm

