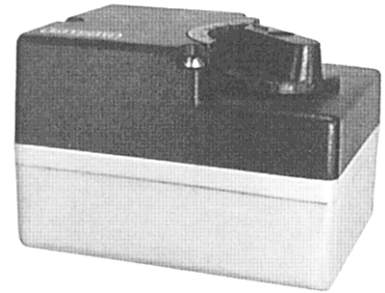


Actuator for L&S Slipper Valves up to DN50 AC 230 V

SQK34...



AC 230 V actuator of the SQK34... range:

- Three-position control
- Reversible
- Nominal angular rotation 90°
- Can be equipped with one auxiliary switch
- For the motorization of Landis & Gyr slipper valves up to DN50
- For direct assembly with no need for an assembly kit
- Selector for «AUTO» and «MAN» operation
- With manual adjuster and position indicator

Use

In heating, ventilating and air conditioning plants for the motorization of three-port and four-port slipper valves (mixing valves) of the Landis & Gyr ranges VB... and VC... up to DN50.

Functions

When the actuator receives a control signal from the respective controller, it produces a rotational movement which is transferred to the valve via the coupling mechanism.

The actuator is supplied as follows:

Control signal: Y1 = anticlockwise rotation
 0 = no rotation, the respective position is maintained
 Y2 = clockwise rotation

The direction of rotation resulting from a certain control signal can be reversed, if required, depending on the hydraulic circuit used. For details, refer to «Commissioning notes» and to the instructions given under the cover of the actuator.

Type summary

Name	Type reference
Actuator	SQK34.00
Auxiliary switch (not fitted)	ASC9.7

Ordering

When ordering, please give name and type reference, e.g. **actuator SQK34.00** and **auxiliary switch ASC9.7**.

Actuator and auxiliary switch must be ordered as separate items. They are also packed separately. The actuator's installation instructions are printed on the packing. Those of the auxiliary switch are enclosed in the packing.

Equipment combinations

Slipper valves

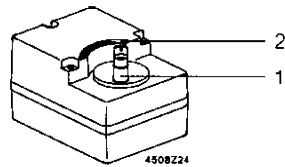
The following types of Landis & Gyr slipper valves (mixing valves) can be directly motorized by the SQK34.00:

Type reference	Nominal size	Nominal pressure	Data sheet
Three-port slipper valves			
VBI31... series 02	DN20...40	PN10	4232
VBG31... series 02	DN20...40	PN10	4233
VBF21... series 02	DN40 and 50	PN6	4241
Four-port slipper valves			
VCI31... series 02	DN20...40	PN10	4252

Mechanical design

Maintenance-free electric actuator with reversible synchronous motor. The angular rotation of 90° is electrically limited by two limit switches.

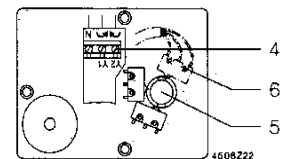
A manual setting knob is used for setting the required valve position manually. Manual operation is preselected with a selector having the positions «AUTO» and «MAN». After manual operation, the selector must be reset to «AUTO».



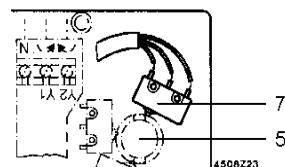
- 1 Manual setting knob
- 2 Position indicator, can be changed manually, depending on the required direction of rotation



- 3 Selector for automatic or manual operation



- 4 Connecting terminals
- 5 Coupling and cam shaft
- 6 Space for auxiliary switch



- 7 Auxiliary switch ASC9.7. For on/off or changeover operation. The switching point is adjustable. Factory-wired with a three-wire cable of 1.5m.

Engineering notes

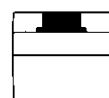
For three-port and four-port slipper valves (mixing valves), refer to data sheets 4200-4299. The permissible ambient temperatures given under «Technical data» must be observed.

If auxiliary functions are required, the actuator must be equipped with an auxiliary switch. In that case, its switching points must be entered in the plant's documentation.

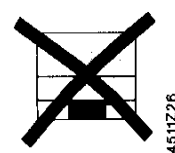
Fitting notes

The permissible position of the slipper valve must be observed. Details are given in the respective data sheets of the slipper valves.

Actuator positions:



Permitted



Not permitted

Commissioning notes

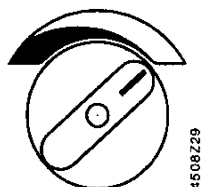
When commissioning the plant, check the wiring and carry out a functional test. For automatic operation, the selector must be set to «AUTO».



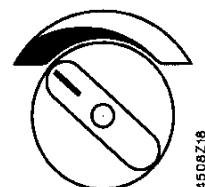
AUTO = automatic operation



MAN = manual operation



Manual setting «FULLY CLOSED» *)
= no supply of heat

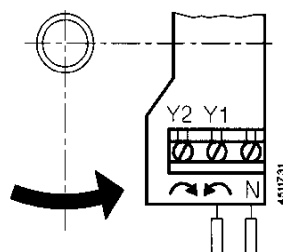


Manual setting «FULLY OPEN»
= maximum supply of heat

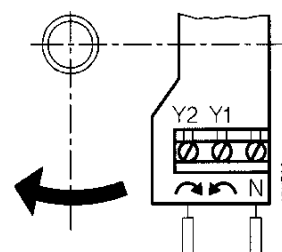
*) If the hydraulic circuit is reverse, the removable scale for the position indication must be turned

Direction of rotation

The direction of rotation of the actuator or the slipper valve is determined by the
– boiler flow (from left or right)
– position of the slipper valve (hydraulic circuit)



Control signal supplied to terminal Y1
= anticlockwise rotation *)



Control signal supplied to terminal Y2 = clockwise rotation

*) The direction of rotation given above is the «as supplied» condition of actuator and three-port slipper valve (mixing valve) for boiler flow from left

The wiring connecting to terminals Y1 and Y2 must be interchanged if the direction of rotation is to be reversed. If an auxiliary switch is fitted, this aspect must also be taken into consideration when making the electrical connections.

Technical data

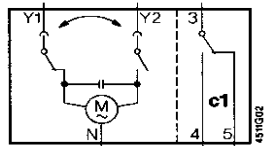
Actuator

Operating voltage	AC 230 V ± 15%
Frequency	50 Hz or 60 Hz
Mode of control	3-position
Power consumption	3 VA
Running time	approx. 135 s for 90° rotation
Angular rotation	90° ± 3° (non-adjustable)
Starting torque	10 Nm
Nominal torque	5 Nm
Perm. ambient temperatures	
Operation	-15° ... +50°C
Transport and storage	-30° ... +65°C
Perm. ambient humidity	class D IEC 721/DIN 40040
Protection standard of housing	IP42 IEC 529/DIN 40050
Insulation class	II IEC 730/VDE 0631
Cable entry glands	Pg11 (2x)
Weight	0.5 kg

Auxiliary switch

Switching capacity of ASC9.7	AC 250 V, 6 A (res.), 2 A (ind.)
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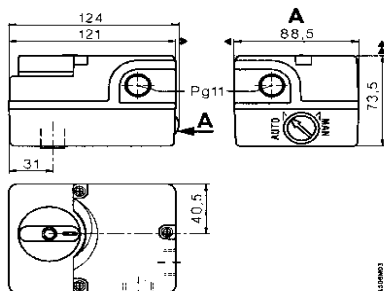
Internal diagram



SQK34.00 (AC 230 V)

c1 = auxiliary switch ASC9.7

Dimensions



▲ = > 100 mm
 ▲▲ = > 200 mm

Total height of motorized valve: = connection dimension of slipper valve
 + connection dimension of actuator
 + min. clearance to the ceiling or wall for installation, electrical connections and operation

Dimensions in mm Also refer to data sheets 4200...4299 covering the slipper valves, in section 4 of the catalog.