

MOUNTING AND OPERATING INSTRUCTIONS



EB 5827-1 EN

Translation of original instructions



Type 5827 Electric Actuator
Three-step version

Edition November 2023



Note on these mounting and operating instructions

These mounting and operating instructions assist you in mounting and operating the device safely. The instructions are binding for handling SAMSON devices. The images shown in these instructions are for illustration purposes only. The actual product may vary.

- For the safe and proper use of these instructions, read them carefully and keep them for later reference.
- If you have any questions about these instructions, contact SAMSON's After-sales Service (aftersaleservice@samsongroup.com).



The mounting and operating instructions for the devices are included in the scope of delivery. The latest documentation is available on our website at www.samsongroup.com > **Downloads** > **Documentation**.

Definition of signal words

DANGER

Hazardous situations which, if not avoided, will result in death or serious injury

WARNING

Hazardous situations which, if not avoided, could result in death or serious injury

NOTICE

Property damage message or malfunction

Note

Additional information

Tip

Recommended action

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1 Safety instructions and measures

Intended use

The Type 5827 Electric Actuator is designed to operate a mounted globe valve used in heating, ventilation and air-conditioning systems as well as in process engineering and industrial energy transfer systems. The actuator is designed to operate under exactly defined conditions (e.g. thrust, travel). Therefore, operators must ensure that an actuator is only used in operating conditions that meet the specifications used for sizing the actuator at the ordering stage. In case operators intend to use an actuator in applications or conditions other than those specified, contact SAMSON.

SAMSON does not assume any liability for damage resulting from the failure to use the device for its intended purpose or for damage caused by external forces or any other external factors.

➔ Refer to the technical data for limits and fields of application as well as possible uses. See the 'Design and principle of operation' section.

Reasonably foreseeable misuse

The actuator is not suitable for the following applications:

- Use outside the limits defined during sizing and by the technical data
- Outdoor use

Furthermore, the following activities do not comply with the intended use:

- Use of non-original spare parts
- Performing service and repair work not described

Qualifications of operating personnel

The actuator must be mounted, started up, serviced and repaired by fully trained and qualified personnel only; the accepted industry codes and practices must be observed. According to these mounting and operating instructions, trained personnel refers to individuals who are able to judge the work they are assigned to and recognize possible hazards due to their specialized training, their knowledge and experience as well as their knowledge of the applicable standards.

Safety instructions and measures

Personal protective equipment

No personal protective equipment is required for the direct handling of the electric actuator. Work on the control valve may be necessary when mounting or removing the device.

- ➔ Observe the requirements for personal protective equipment specified in the valve documentation.
- ➔ Check with the plant operator for details on further protective equipment.

Revisions and other modifications

Revisions, conversions or other modifications of the product are not authorized by SAMSON. They are performed at the user's own risk and may lead to safety hazards, for example. Furthermore, the product may no longer meet the requirements for its intended use.

Safety features

Upon supply voltage failure, a valve, which has an electric actuator with fail-safe action mounted on it, moves to a certain fail-safe position. The direction of the fail-safe action is specified on the nameplate of SAMSON actuators.

Warning against residual hazards

To avoid personal injury or property damage, plant operators and operating personnel must prevent hazards that could be caused in the control valve by the process medium, the operating pressure, the signal pressure or by moving parts by taking appropriate precautions. Plant operators and operating personnel must observe all hazard statements, warnings and caution notes in these mounting and operating instructions, especially for installation, start-up and service work.

Responsibilities of the operator

Operators are responsible for proper use and compliance with the safety regulations. Operators are obliged to provide these mounting and operating instructions to the operating personnel and to instruct them in proper operation. Furthermore, operators must ensure that operating personnel or third parties are not exposed to any danger.

Responsibilities of operating personnel

Operating personnel must read and understand these mounting and operating instructions as well as the specified hazard statements, warnings and caution notes. Furthermore, operating personnel must be familiar with the applicable health, safety and accident prevention regulations and comply with them.

Referenced standards, directives and regulations

Devices with a CE marking fulfill the requirements of the following Directives:

- 2014/30/EU
- 2014/35/EU
- 2011/65/EU

Devices with a UKCA marking fulfill the requirements of the following Regulations:

- SI 2016 No. 1091 (The Electromagnetic Compatibility Regulations 2016)
- SI 2016 No. 1101 (The Electrical Equipment (Safety) Regulations 2016)
- SI 2012 No. 3032 (The Restriction of the Use of Hazardous Substances in Electrical and Electronic Equipment Regulations 2012)

Devices with an EAC marking fulfill the requirements of the following Regulations:

- TR CU 004/2011
- TR CU 020/2011

The 'Certificates' section contains these declarations of conformity and TR CU certificate.

The Type 5827 Electric Actuator is designed for use in low-voltage installations.

➔ For wiring, maintenance and repair, observe the relevant safety regulations.

Referenced documentation

The following documents apply in addition to these mounting and operating instructions:

- Mounting and operating instructions of the valve on which the electric actuator is mounted, e.g. for SAMSON valves:
 - ▶ EB 5861 for Type 3260 Three-way Valve
 - ▶ EB 5863 for Type 3226 Three-way Valve
 - ▶ EB 5866 for Type 3222 Globe Valve
 - ▶ EB 5868 for Type 3213 and Type 3214 Globe Valves
 - ▶ EB 8111 for Type 3321 Globe Valve
 - ▶ EB 8113 for Type 3323 Three-way Valve
 - ▶ EB 8131 for Type 3531 Globe Valve for Heat Transfer Oil
 - ▶ EB 8135 for Type 3535 Three-way Valve for Heat Transfer Oil

1.1 Notes on possible severe personal injury

DANGER

Risk of fatal injury due to electric shock.

- Before connecting wiring, performing any work on the device or opening the device, disconnect the supply voltage and protect it against unintentional reconnection.
- Only use power interruption devices that can be protected against unintentional reconnection of the power supply.
- Do not remove any covers to perform adjustment work on live parts.
- Do not open the back housing cover.

The electric actuator is protected against spray water (IP 54).

- Avoid jets of water.

1.2 Notes on possible personal injury

WARNING

Crush hazard arising from moving parts.

The form-fit version of the electric actuator contains moving parts (actuator and plug stems), which can injure hands or fingers if inserted into the actuator.

- Do not insert hands or finger into the yoke while the valve is in operation.
- Disconnect the supply voltage and protect it against unintentional reconnection before performing any work on the control valve.
- Do not impede the movement of the actuator or plug stem by inserting objects into their path.

⚠ WARNING

Risk of personal injury through incorrect operation, use or installation as a result of information on the actuator being illegible.

Over time, markings, labels and nameplates on the actuator may become covered with dirt or become illegible in some other way. As a result, hazards may go unnoticed and the necessary instructions not followed. There is a risk of personal injury.

- Keep all relevant markings and inscriptions on the device in a constantly legible state.
- Immediately renew damaged, missing or incorrect nameplates or labels.

1.3 Notes on possible property damage

ⓘ NOTICE

Risk of damage to the electric actuator due to the supply voltage exceeding the permissible tolerances.

The Type 5827 Electric Actuator is designed for use according to regulations for low-voltage installations.

- Observe the permissible tolerances of the supply voltage.

Risk of actuator damage due to excessively high tightening torques.

The connection of the Type 5827 Electric Actuator must be tightened with certain torques. Excessive tightening torques lead to parts wearing out more quickly.

- Observe the specified tightening torques.

Risk of damage to the electric actuator by moving the actuator stem too far.

The actuator stem of the electric actuator can be adjusted manually.



- Move the actuator stem only as far as the bottom or top end position.

Risk of damage to the electric actuator due to incorrect connection of the voltage.

The electric actuator has terminals to retract the stem (eL terminal) and to extend the stem (aL terminal).

- Do not apply a voltage to eL and aL at the same time.

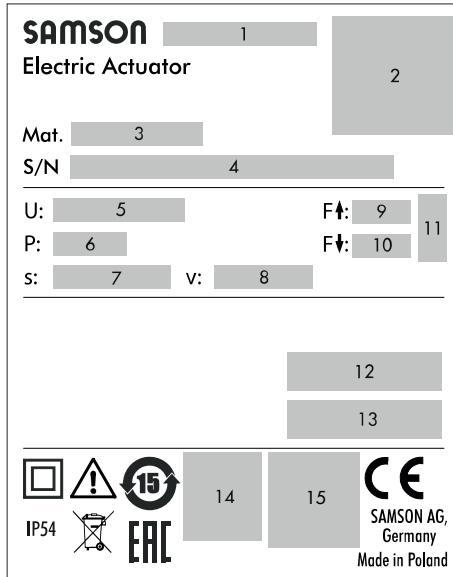
1.4 Warnings on the device

Warning symbols	Meaning	Location on the device
	General warning → Refer to the mounting and operating instructions.	Actuator housing
	Class of protection 2, only effective when the housing cover is closed and locked → Refer to the mounting and operating instructions.	Actuator housing

2 Markings on the device

2.1 Nameplate

The nameplate shown was up to date at the time of publication of this document. The nameplate on the device may differ from the one shown.




- 1 Type designation
- 2 Data Matrix code
- 3 Material number
- 4 Serial number, date of manufacture
- 5 Supply voltage; power line frequency
- 6 Power consumption
- 7 Rated travel
- 8 Stroking speed
- 9 Thrust (actuator stem retracts)
- 10 Thrust (actuator stem extends)

- 11 Fail-safe action



- 12  Resistance transmitters

- 13  Limit contact

- 14 DIN test with register number (only version with "actuator stem extends" fail-safe action)

- 15 Other mark of conformity

Markings on the device

2.2 Device code

Electric actuator	Type 5827 –	x	x	x
Fail-safe action				
Without	N			
Actuator stem extends	A			
Actuator stem retracts	E			
Rated travel/adaptation				
6 mm/force locking			1	
12 mm/force locking			2	
15 mm/form-fit			3	
Control/supply voltage				
Three-step control/230 V				1
Three-step control/24 V				2

3 Design and principle of operation

The actuator contains a reversible synchronous motor and a maintenance-free gear. The motor is switched off by torque switches or in case of overload.

The force of the motor is transmitted to the actuator stem (3) via gear and crank disk. When the actuator stem extends, the actuator piston (3) pushes against the valve's plug stem.

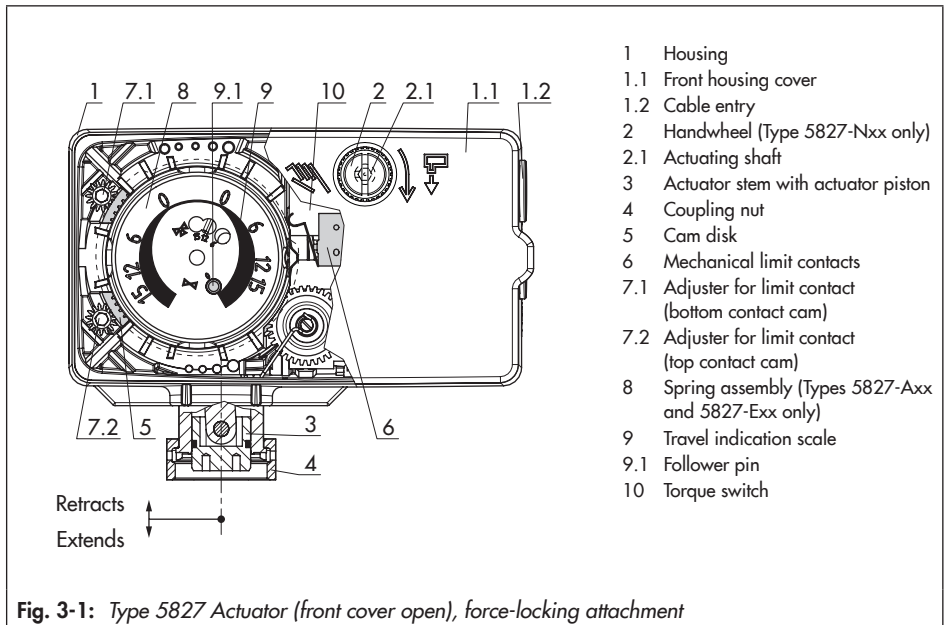
When the actuator stem retracts (force-locking attachment), the plug stem follows the

movement of the actuator stem as a result of the return spring in the valve.

When the actuator stem retracts (form-fit attachment), the plug stem is connected to the actuator stem and follows its movement.

Version without fail-safe action

This actuator without fail-safe action has a handwheel (2) used to manually position the valve. Travel and direction of action can be read off the travel indication scale (9).



3.1 Fail-safe action

The actuator version with fail-safe action contains a spring assembly (8, see Fig. 3-1) and an electromagnet. The actuator is moved by the force of the spring to the fail-safe position when the electromagnet (terminals L and N) is de-energized. The direction of action depends on the actuator version and cannot be reversed.

The actuator is available with the following fail-safe actions:

Actuator stem extends: upon supply voltage failure, the actuator stem extends.

Actuator stem retracts: upon supply voltage failure, the actuator stem retracts.

NOTICE

Increased wear and shortened service life of the actuator.

→ *Do not use the fail-safe action to control the valve position.*

The actuator version with fail-safe action does not have a handwheel (2) on the front housing cover. Manual override is possible, after removing the front cover, using a 4 mm Allen key. The actuator returns to its original position as soon as the Allen key is released.

Testing according to DIN EN 14597

The Type 5827 Electric Actuator with fail-safe action "actuator stem extends" is tested by the German technical surveillance association TÜV according to DIN EN 14597 in combination with different SAMSON valves (the register number is available on request).

3.2 Versions

Actuator with faster motor

The actuator version with a faster motor has a more powerful motor in a housing at the back of the actuator.

Version with non-floating torque switches

The version with non-floating torque switches is fitted with additional terminals. The control signal is applied to these terminals as soon as the actuator reaches either end position to allow a second actuator to be controlled.

3.3 Additional equipment

Limit contacts

Optionally, the actuator can be equipped with two limit contacts. They consist of two changeover switches. Their switching positions are changed independently from one another by continuously adjustable cam disks.

Limit contacts are not suitable for retrofitting.

Resistance transmitter

Optionally, the actuator can be equipped with a resistance transmitter. It is linked to the gear and produces a resistance signal between approx. 0 and 1000 Ω (usable range 0 to 800 Ω) proportional to the valve travel. It can be used to assess the process of the actuator stem.

The resistance transmitter is not suitable for retrofitting.

3.1 Technical data

Table 3-1: *Technical data · Type 5827-Nxx, version without fail-safe action*

Type 5827-N			11	12	21	22	31	32
Rated travel	mm		6 ¹⁾	6 ¹⁾	12	12	15	15
Thrust	Extends	N	700	700	700	700	700	700
	Retracts	N	–	–	–	–	700	700
Manual override			Yes					
Stroking speed	Slow	mm/s	–	–	–	–	–	–
	Standard	mm/s	0.18	0.18	0.18	0.18	0.18	0.18
	Fast	mm/s	0.36	–	0.36	–	0.36	–
Transit time for rated travel	Slow	s	–	–	–	–	–	–
	Standard	s	35	35	70	70	90	90
	Fast	s	18	–	35	–	45	–
Attachment	Force-locking		•	•	•	•	–	–
	Form-fit		–	–	–	–	•	•
Supply voltage								
24 V (±10 %), 50 Hz			–	•	–	•	–	•
230 V (±10 %), 50 Hz/60 Hz ²⁾			•	–	•	–	•	–
Protection provided by electrical installation in the building			•	–	•	–	•	–
Power consumption	VA		3 ³⁾	3	3 ³⁾	3	3 ³⁾	3
Torque switch, active switching output			230 V, max. 1 A					
Weight	kg		0.75 ⁴⁾	0.75	0.75 ⁴⁾	0.75	0.75 ⁴⁾	0.75
Additional equipment ⁵⁾								
Two limit contacts, max. 230 V, max. 1 A			•	•	•	•	•	•
One resistance transmitter ⁶⁾ , 0 to 1000 Ω ±15 %, max. 200 mW (90 % of final value at rated travel)			•	•	•	•	•	•

1) Actuators with 6 mm travel can also be used for valves with 7.5 mm travel (45 s transit time, 22.5 s for actuator with faster motor).

2) 60 Hz as special version

3) Double power consumption for version with faster motor

4) The weight of the version with faster motor is 0.25 kg heavier.

5) Cannot be retrofitted

6) Not possible in actuator with faster motor

Table 3-2: Technical data · Type 5827-Axx, version with "stem extends" fail-safe action

Type 5827-A			11	12	21	22	31	32
Rated travel	mm		6 ¹⁾	6 ¹⁾	12	12	15	15
Thrust	Extends	N	500	500	500	500	280	280
	Retracts	N	–	–	–	–	280	280
Thrust in the event of fail-safe action	N		500	500	500	500	280	280
Manual override			Possible ²⁾					
Stroking speed	Slow	mm/s	–	–	–	–	–	–
	Standard	mm/s	0.18	0.18	0.18	0.18	0.18	0.18
	Fast	mm/s	0.36	–	0.36	–	0.36	–
Transit time for rated travel	Slow	s	–	–	–	–	–	–
	Standard	s	35	35	70	70	90	90
	Fast	s	18	–	35	–	45	–
Transit time for rated travel in the event of fail-safe action	s		4	4	6	6	7	7
Attachment	Force-locking		•	•	•	•	–	–
	Form-fit		–	–	–	–	•	•
Supply voltage								
24 V (±10 %), 50 Hz			–	• ³⁾	–	• ³⁾	–	•
230 V (±10 %), 50 Hz/60 Hz ⁴⁾ Protection provided by electrical installation in the building			• ³⁾	–	• ³⁾	–	•	–
Power consumption	VA		5 ⁵⁾	5	5 ⁵⁾	5	5 ⁵⁾	5
Torque switch, active switching output			230 V, max. 1 A					
Weight	kg		1 ⁶⁾	1	1 ⁶⁾	1	1 ⁶⁾	1
Additional equipment ⁷⁾								
Two limit contacts, max. 230 V, max. 1 A			•	•	•	•	•	•
One resistance transmitter, 0 to 1000 Ω ±15 %, max. 200 mW (90 % of final value at rated travel)			•	•	•	•	•	•
Testing according to DIN EN 14597			•	•	•	•	–	–

- 1) Actuators with 6 mm travel can also be used for valves with 7.5 mm travel (45 s transit time, 22.5 s for actuator with faster motor).
- 2) Manual override with a 4 mm Allen key
- 3) Voltage tolerance for actuators tested according to DIN EN 14597: –15%/+10 %
- 4) 60 Hz as special version
- 5) Double power consumption for version with faster motor
- 6) The weight of the version with faster motor is 0.25 kg heavier.
- 7) Cannot be retrofitted

Design and principle of operation

Table 3-3: Technical data · Type 5827-Exx, version with "stem retracts" fail-safe action

Type 5827-E			11	12	21	22	31	32
Rated travel	mm		6 ¹⁾	6 ¹⁾	12	12	15	15
Thrust	Extends	N	500	500	500	500	280	280
	Retracts	N	–	–	–	–	280	280
Thrust in the event of fail-safe action	N		–	–	–	–	280	280
Manual override			Possible ²⁾					
Stroking speed	Slow	mm/s	–	–	–	–	–	–
	Standard	mm/s	0.18	0.18	0.18	0.18	0.18	0.18
	Fast	mm/s	–	–	–	–	–	–
Transit time for rated travel	Slow	s	–	–	–	–	–	–
	Standard	s	35	35	70	70	90	90
	Fast	s	–	–	–	–	–	–
Transit time for rated travel in the event of fail-safe action	s		4	4	6	6	7	7
Attachment	Force-locking		•	•	•	•	–	–
	Form-fit		–	–	–	–	•	•
Supply voltage								
24 V (±10 %), 50 Hz			–	•	–	•	–	•
230 V (±10 %), 50 Hz/60 Hz ³⁾								
Protection provided by electrical installation in the building			•	–	•	–	•	–
Power consumption	VA		5	5	5	5	5	5
Torque switch, active switching output			230 V, max. 1 A					
Weight	kg		1	1	1	1	1	1
Additional equipment ⁴⁾								
Two limit contacts, max. 230 V, max. 1 A			•	•	•	•	•	•
One resistance transmitter, 0 to 1000 Ω ±15 %, max. 200 mW (90 % of final value at rated travel)			•	•	•	•	•	•


¹⁾ Actuators with 6 mm travel can also be used for valves with 7.5 mm travel (45 s transit time, 22.5 s for actuator with faster motor).

²⁾ Manual override with a 4 mm Allen key

³⁾ 60 Hz as special version

⁴⁾ Cannot be retrofitted

Table 3-4: *Technical data for all versions*

Type 5827-N/-A/-E	All versions
Safety	
Degree of protection	IP54 according to EN 60529 ¹⁾
Class of protection	II according to EN 61140 ¹⁾
Degree of contamination	2 according to EN 60664-1
Noise immunity	According to EN 61000-6-2 and EN 61326-1
Noise emission	According to EN 61000-6-3 and EN 61326-1
Electrical safety	According to EN 60730-1 and EN 60730-2-14
Rated surge voltage	2.5 kV according to EN 60730-1
Vibration	According to EN 60068-2-64 and EN 60068-2-27
Conformity	
Materials	
Housing, housing cover	Plastic (PPO with glass fiber reinforcement)
Coupling nut M32x1.5	Brass
Ambient conditions	
Permissible temperature ranges ²⁾	
Ambient	0 to 50 °C
Storage	-20 to +70 °C
Humidity	5 to 95 % moisture, no dew formation
Max. altitude above sea level	2000 m

¹⁾ Only with closed and locked housing cover

²⁾ The permissible medium temperature depends on the valve on which the actuator is mounted. The limits in the valve documentation apply.

Dimensions

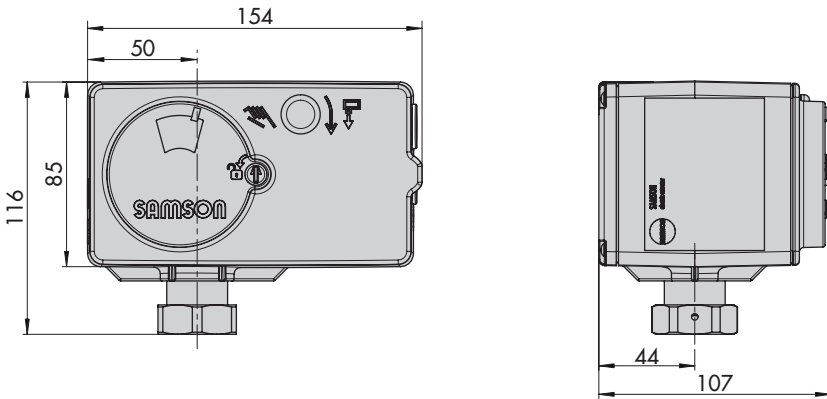
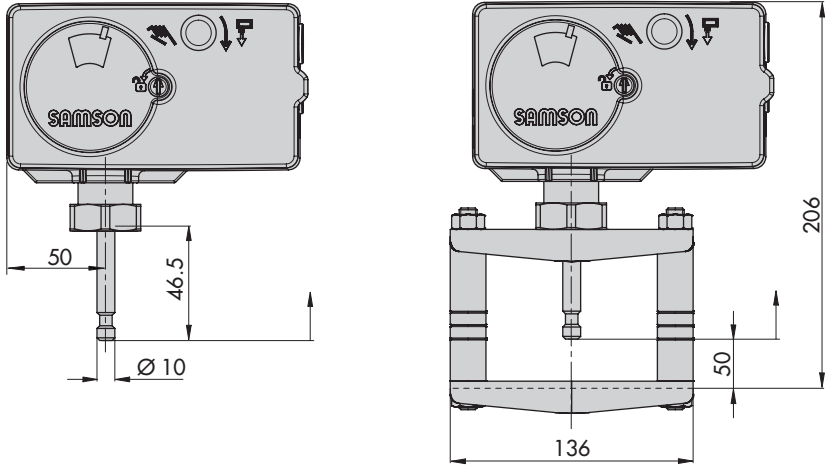


Fig. 3-2: Dimensions in mm · Force-locking attachment

Form-fit attachment



Force-locking attachment · With faster motor

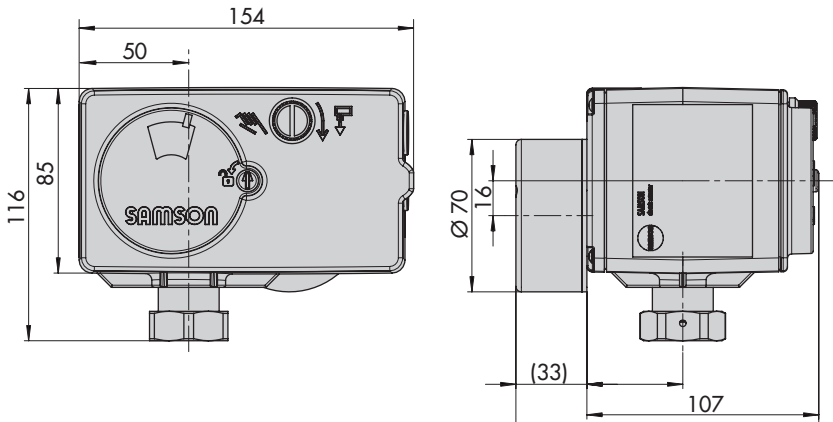


Fig. 3-3: Dimensions in mm · Form-fit attachment, with faster motor

4 Shipment and on-site transport

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

4.1 Accepting the delivered goods

After receiving the shipment, proceed as follows:

1. Compare the shipment received with the delivery note.
2. Check the shipment for transportation damage. Report any damage to SAMSON and the forwarding agent (refer to delivery note).

4.2 Removing the packaging from the actuator

i Note

Do not remove the packaging until immediately before mounting and start-up.

1. Remove the packaging from the electric actuator.
2. Check scope of delivery (see Fig. 4-1).
3. Dispose and recycle the packaging in accordance with the local regulations.

1x	Type 5827-xxx Electric Actuator
1x	Document IP 5827-1 (Important Product Information)

Fig. 4-1: Scope of delivery

4.3 Transporting the actuator

- Protect the actuator against external influences (e.g. impact).
- Protect the actuator against moisture and dirt.
- Observe the permissible transportation temperature of -20 to $+70$ °C.

4.4 Lifting the actuator

Due to the low service weight, lifting equipment is not required to lift the electric actuator.

4.5 Storing the actuator

! NOTICE

Risk of electric actuator damage due to improper storage.

- Observe the storage instructions.
- Avoid long storage times.
- Contact SAMSON in case of different storage conditions or longer storage times.

i Note

We recommend regularly checking the electric actuator and the prevailing storage conditions during long storage periods.

Shipment and on-site transport

Storage instructions

- Protect the electric actuator against external influences (e.g. impact).
- Protect the electric actuator against moisture and dirt.
- Make sure that the ambient air is free of acids or other corrosive media.
- Observe the permissible storage temperature from -20 to $+70$ °C.
- Do not place any objects on the electric actuator.

5 Installation

5.1 Installation conditions

Work position

If not described otherwise in the valve documentation, the work position for the control valve is the front view looking onto the operating controls.

Point of installation

The actuator is designed for installation in enclosed spaces.

Mounting orientation

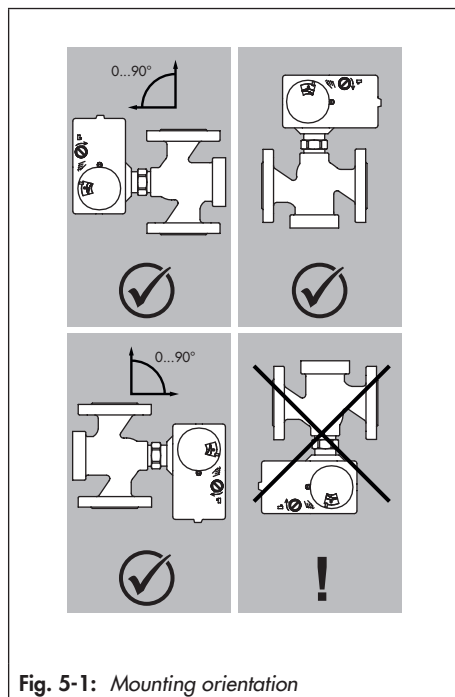


Fig. 5-1: Mounting orientation

The control valve can be installed in the pipeline in any desired position. However, a suspended mounting position of the actuator is not permissible (see Fig. 5-1).

NOTICE

Risk of actuator damage due to adverse weather conditions.

→ Do not use the actuator outdoors.

5.2 Preparation for installation

Before installation, make sure the following conditions are met:

- The actuator is not damaged.

Proceed as follows:

Lay out the necessary material and tools to have them ready during installation work.

- Flat-blade screwdriver with 0.8 mm blade thickness and 4.0 mm blade width
- Open-end wrench with width AF 32

Opening the front housing cover

The front housing cover of the actuator is secured by a quarter-turn fastener (see Fig. 5-2).

- Use a screwdriver to turn the quarter-turn fastener to the unlock symbol.
- Lift off the cover at the tab on the side of housing cover.

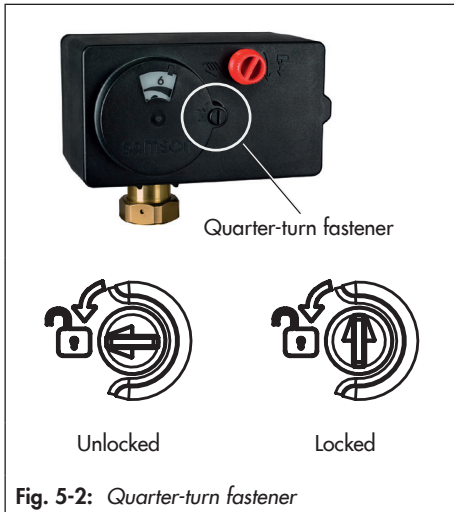


Fig. 5-2: Quarter-turn fastener

NOTICE

Risk of actuator damage due to unauthorized opening of the back housing cover.
 → Do not open the back housing cover.

5.3 Aligning the travel indication scale

The travel indication scale has two opposed scales. Which scale is to be used depends on the valve version. In the delivered state, the scale alignment applies to globe valves and three-way diverting valves.

→ Change the alignment when a three-way mixing valve is used.

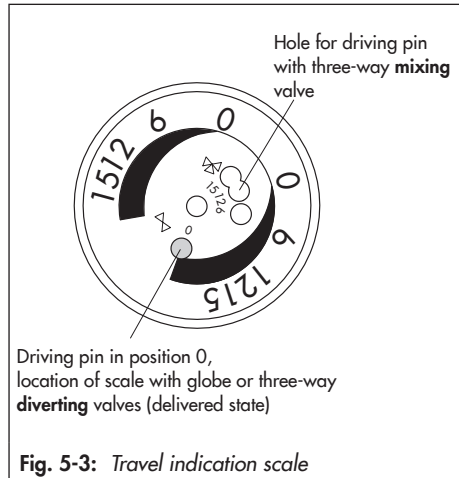


Fig. 5-3: Travel indication scale

Globe and three-way diverting valves:

The driving pin is in position 0 (delivered state).

Three-way mixing valve:

Change the alignment of the scale:

- Carefully open the front housing cover.
- Remove scale, turn it and replace it so that the pin is positioned over the appropriate hole (6, 12 or 15) corresponding to the rated travel (6, 12 or 15 mm travel).

Closing the front housing cover

1. Position the housing cover correctly and place it on the housing.
 → Make sure that the quarter-turn fastener is turned to the unlocked position (see Fig. 5-2) and the handwheel (actuators without fail-safe action) engages in the actuating shaft.
2. Turn the quarter-turn fastener to the locked position.

5.4 Mounting the actuator

The actuator is mounted either directly onto the valve or using a yoke depending on the valve version used (see Fig. 5-4).

5.4.1 Actuator without fail-safe action

5.4.1.1 Force-locking attachment

1. Turn the handwheel (2) counterclockwise to retract the actuator stem.
2. Place the actuator on the valve connection and fasten with the coupling nut (4).

Tightening torque	20 Nm
-------------------	-------

5.4.1.2 Form-fit attachment

1. Place the actuator on the yoke and fasten with the coupling nut (4).
2. Place actuator with yoke (15) on the valve and fasten with the nut (17).

Tightening torque	150 Nm
-------------------	--------

i Note

A spacer (see Fig. 5-4) is required to mount a Type 3323 Three-way Valve (DN 65 to 80).

3. Pull plug stem until it reaches the actuator stem or extend actuator stem using the handwheel (2).

4. Position the clamps of the stem connector (16) included in the accessories on the ends of the actuator stem and plug stem and screw tight.

5.4.2 Actuator with fail-safe action

5.4.2.1 Force-locking attachment

"Actuator stem extends" fail-safe action

The actuator stem must be retracted before the actuator can be mounted onto the valve. The stem can be retracted either mechanically or electrically. Both methods are described below.

Retracting the actuator stem mechanically

1. Unfasten the front housing cover and place a 4 mm Allen key on the red actuating shaft.
2. Retract the actuator stem: turn Allen key **counterclockwise** and **only as far as** the top end position which is at the point where the torque switch is activated.

! NOTICE

Risk of damage to the actuator by moving the actuator stem too far.

➔ Move the actuator stem only as far as the top end position.

Installation

3. Hold Allen key in place and fasten valve and actuator together using the coupling nut.

Tightening torque	20 Nm
-------------------	-------

Remove Allen key and carefully replace the front housing cover.

Retracting the actuator stem electrically

1. Remove the front housing cover.
2. Perform electrical wiring as described in section 5.6 and carefully replace the front housing cover.
3. Retract actuator stem:
 - Switch on the supply voltage and retract the actuator stem electrically until it reaches the end position (voltage applied to eL and N or using controller).

NOTICE

Risk of damage to the actuator due to incorrect connection of the voltage.

- Do not apply a voltage to eL and aL at the same time.

4. Fasten valve and actuator together using the coupling nut.

Tightening torque	20 Nm
-------------------	-------

"Actuator stem retracts" fail-safe action

- Place the actuator on the valve connection and fasten with the coupling nut.

Tightening torque	20 Nm
-------------------	-------

5.4.2.2 Form-fit attachment

- Install as described in section 5.4.1.2.

5.5 Installing the control valve into the pipeline

NOTICE

Degree of protection not achieved due to incorrect mounting position.

- Install the control valve according to section 5.1.

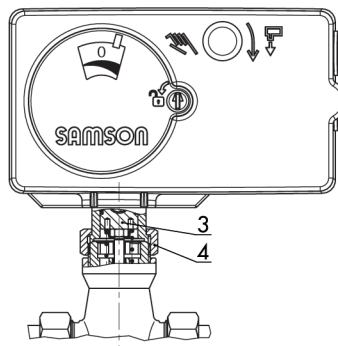
-
- Install the valve into the pipeline according to the specifications in the mounting and operating instructions of the valve.

NOTICE

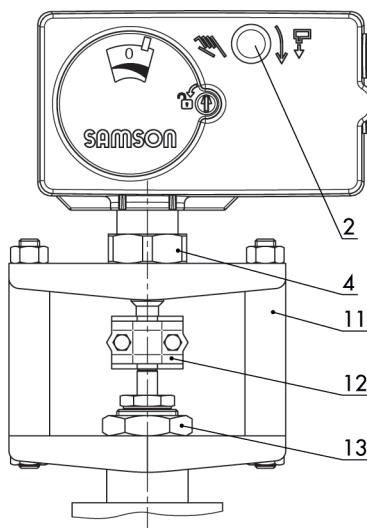
Risk of actuator damage due to direct contact with steam.

- During mounting, make sure that the actuator cannot come into contact with a jet of steam during operation.
-

Force-locking attachment with coupling nut, e.g. to Type 3222 Valve



Form-fit attachment with stem connector, e.g. with yoke on Series V2001 Valve



1) A spacer (see Annex) is required to mount a Type 3323 Three-way Valve (DN 65 to 80).

- 2 Handwheel
- 3 Actuator stem with actuator piston
- 4 Coupling nut
- 11 Yoke
- 12 Stem connector
- 13 Nut

Fig. 5-4: Attaching actuator and valve

5.6 Electrical connection

⚠ DANGER

Risk of fatal injury due to electric shock.

- Upon installation of the electric cables, you are required to observe the regulations concerning low-voltage installations according to DIN VDE 0100 as well as the regulations of your local power supplier.
- Use a suitable voltage supply which guarantees that no dangerous voltages reach the device in normal operation or in the event of a fault in the system or any other system parts.
- Only perform the electrical connection after switching off the supply voltage. Make sure the supply voltage cannot be switched on again unintentionally.
- Use a plastic cable gland with cable grip at the cable entry.
- Keep the housing cover closed in the energized state.

- Voltage applied to **eL** causes the actuator motor to retract the actuator stem.
- Voltage applied to **aL** causes the actuator motor to extend the actuator stem.

⚠ NOTICE

Risk of damage to the actuator due to incorrect connection of the voltage.

- Do not apply a voltage to **eL** and **aL** at the same time.
- Make sure that the single wires of multi-wire cables do not touch neighboring terminals.

i Note

The interference suppression capacitors in the output circuit of the connected controller must not exceed a value of 2.5 nF to ensure the proper functioning of the actuator.

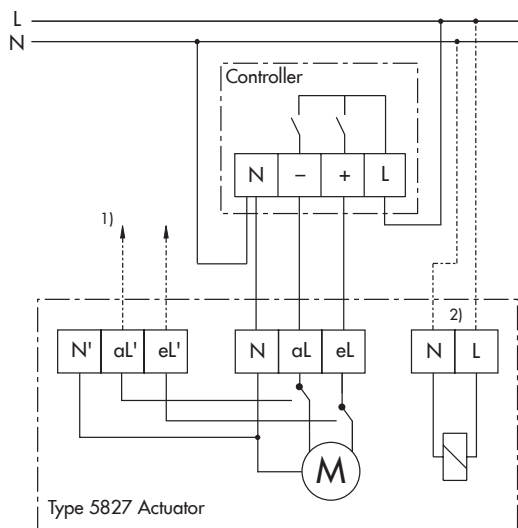
⚠ NOTICE

Hunting of actuators connected in parallel due to a shared OPEN and CLOSED contact.

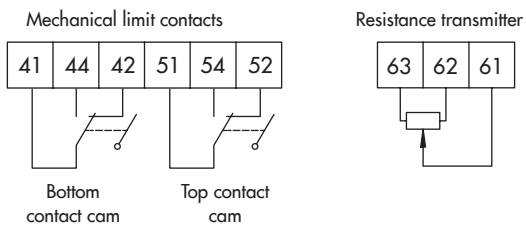
- Connect actuators operated in parallel over separate contacts.

Wiring

- Mount the cable gland with cable grip.
- Guide the wires through the cable gland into the housing and connect as shown in Fig. 5-5.
- Additionally connect the supply voltage to terminals L and N in version with fail-safe action.



Additional electrical equipment



- 1) Signal feedforward for cascade control of several actuators after an actuator reaches its end position; "torque switch wired to terminals" version only
- 2) Types 5827-A and 5827-E Actuators with fail-safe action only;
The 'N' connection is not connected to the N terminals for actuator control. As a result, it is possible to connect an external supply for 'L' and 'N' connections of the safety circuit.

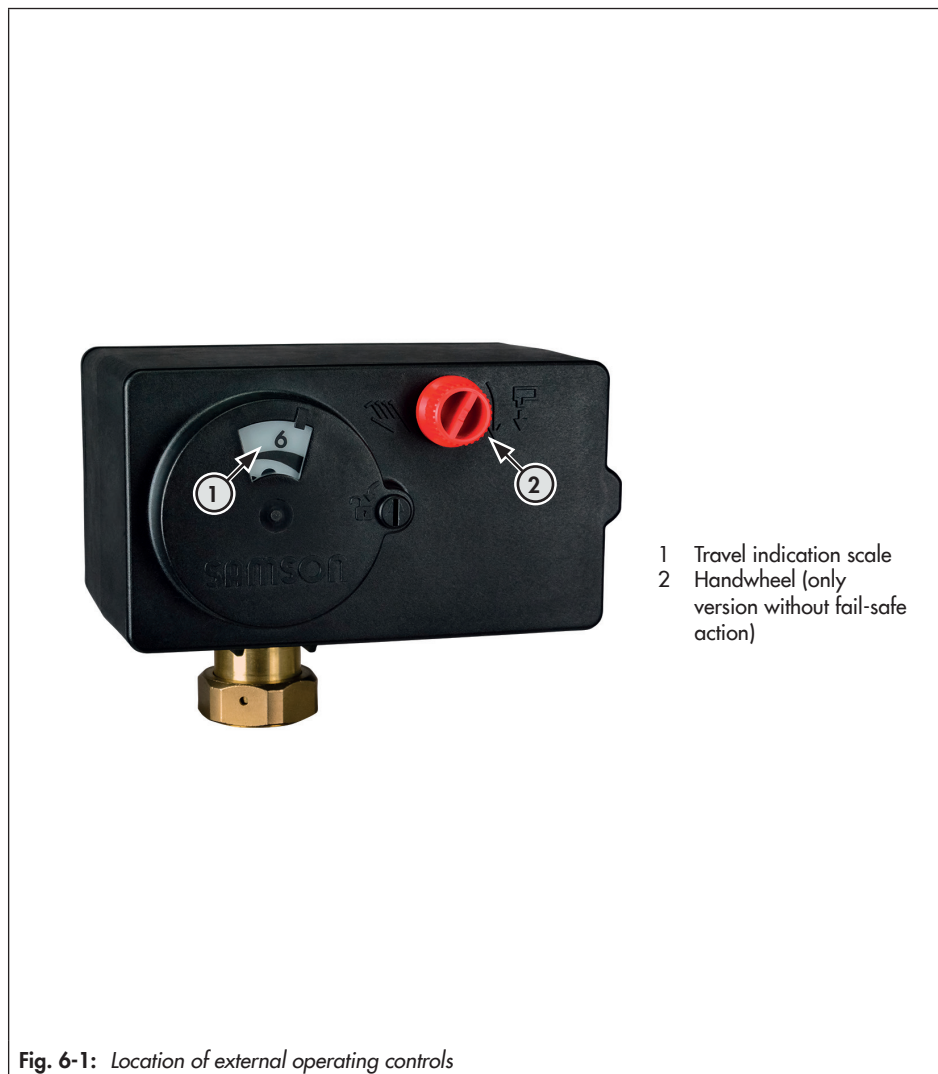
Fig. 5-5: *Electrical connection*

Table 5-1: *Cables and stranded wires that can be used*

Cable	Wire cross-section
With terminals for control and supply	
Single-wire H05(07) V-U	0.5 to 1.5 mm ²
Fine-wire H05(07) V-K	0.5 to 1.5 mm ²
Length of insulation to be stripped off wire ends: 6 mm (±0.5 mm)	
With terminals for limit contacts	
Single-wire H05(07) V-U	0.2 to 1.5 mm ²
Fine-wire H05(07) V-K	0.2 to 1.5 mm ²
With wire ferrule acc. to DIN 46228-1	0.25 to 1.5 mm ²
With wire ferrule and sleeve acc. to DIN 46228-4	0.25 to 0.75 mm ²
Length of insulation to be stripped off wire ends: 8 mm	
With terminals for resistance transmitter	
Single-wire H05(07) V-U	0.14 to 1.5 mm ²
Fine-wire H05(07) V-K	0.14 to 1.5 mm ²
Length of insulation to be stripped off wire ends: 6 mm (±0.5 mm)	

6 Operation

6.1 Device overview and operating controls



6.1.1 Actuating shaft (opened front housing cover)

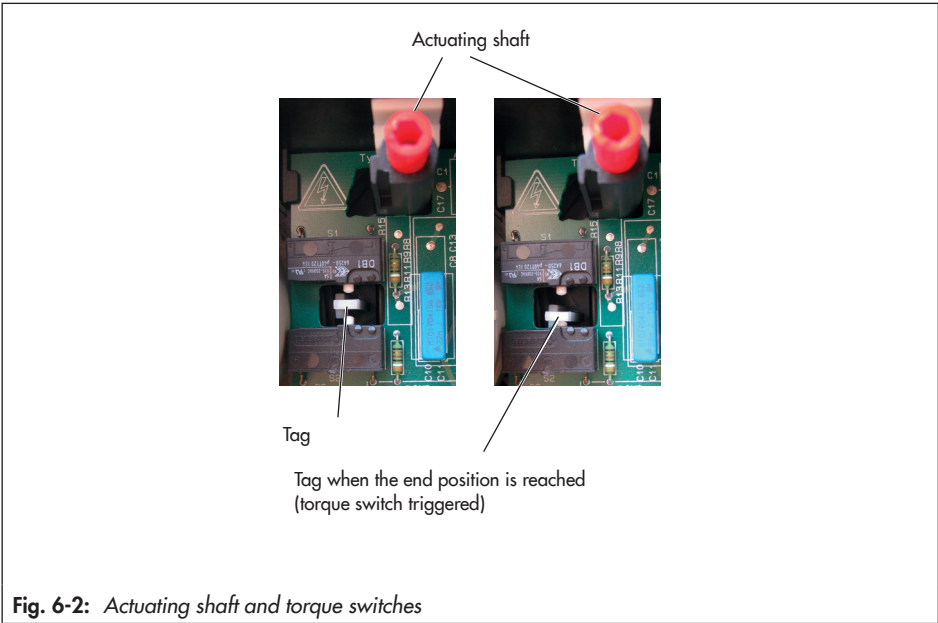


Fig. 6-2: Actuating shaft and torque switches

7 Start-up

Once the actuator has been mounted correctly and the wiring has been performed as described in the 'Installation' section, the electric actuator is ready for use and can be controlled by a three-step signal (see specifications in technical data).

7.1 Adjusting the limit contacts

⚠ DANGER

Risk of fatal injury due to electric shock.

- Before opening the housing cover, switch off the supply voltage and protect it against unintentional reconnection.
- Disconnect the signal line.

The limit contacts (see the 'Design and principle of operation' section) can optionally be used as make or break contacts.

Terminal assignment (see the 'Installation' section and Fig. 7-1):

- Terminals 41, 44, 42:
 - Bottom cam disk, adjuster 7.1
 - Terminals 51, 54, 52:
 - Top cam disk, adjuster 7.2
1. Switch off the supply voltage.
 2. Remove the front housing cover.
 3. Move the actuator stem to the position at which switching point is to be activated.
 4. Use a 4 mm Allen key to turn the adjusters (see the 'Design and principle of operation' section) up to the point where the contact is triggered.

💡 Tip

The angle of rotation of the cam disks is limited. Therefore, use preferably the adjuster (7.1) for the lower travel range and the adjuster (7.2) for the upper travel range (see Fig. 7-1).

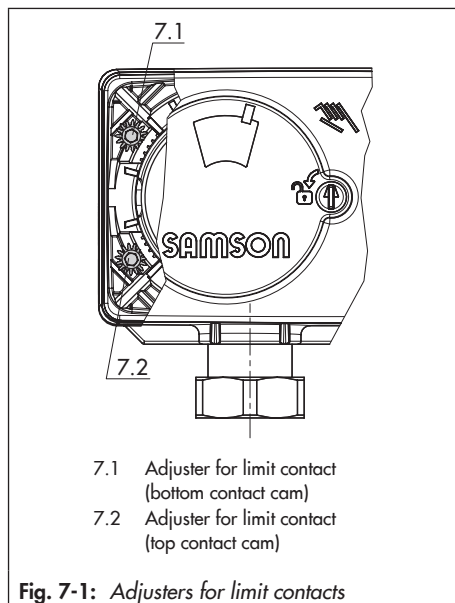
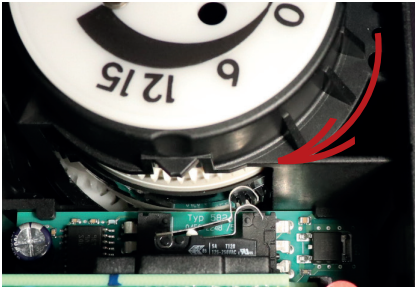


Fig. 7-1: Adjusters for limit contacts

i Note

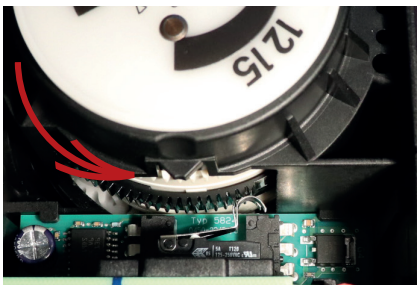
The limit contacts are not suitable for retrofitting.

Switching point of the lower limit contact



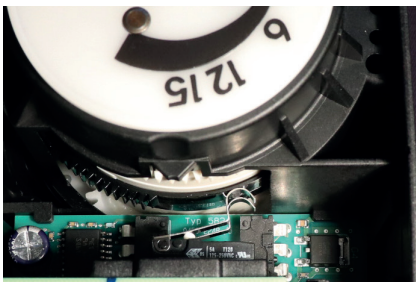
- Activated by the bottom cam disk at 0 % travel when moving in the direction indicated by the arrow
- Lower limit contact is active when the actuator stem is extended.
- Adjustable with adjuster 7.1
- Contacts 41/44 closed when the switch is active

Switching point of the upper limit contact



- Activated by the top cam disk at 100 % travel when moving in the direction indicated by the arrow
- Upper limit contact is active when the actuator stem is retracted.
- Adjustable with adjuster 7.2
- Contacts 51/54 closed when the switch is active

Limit contacts inactive



- Not activated by the cam disks
- Both limit contacts inactive
- Contacts 41/42 closed (lower limit contact)
- Contacts 51/52 closed (upper limit contact)

Fig. 7-2: Switching points of the limit contacts

7.2 Adjusting the resistance transmitter

⚠ DANGER

Risk of fatal injury due to electric shock.

→ Before adjusting the resistance transmitter, switch off the supply voltage and disconnect the signal line.

i Note

The resistance transmitter is not suitable for retrofitting.

As the valve passes through its travel range, the resistance value changes from 0 Ω to approx. 80 % of its nominal value. Turn a screwdriver placed on the slotted shaft to calibrate the resistance transmitter.

Calibrating the actuator with an extended actuator stem at 0 Ω

1. Connect ohmmeter to terminals 61 and 62 (see the 'Installation' section).
2. Move the actuator stem to the bottom end position.
3. Turn the resistance transmitter counterclockwise as far as it will go. The ohmmeter indicates the initial value of approx. 0 Ω .

Calibrating the actuator with a retracted actuator stem at 0 Ω

1. Connect ohmmeter to terminals 61 and 63 (see the 'Installation' section).
2. Move the actuator stem to the top end position.
3. Turn the resistance transmitter clockwise as far as it will go. The ohmmeter indicates the initial value of approx. 0 Ω .
4. Only for actuators with 6 or 12 mm travel: slowly turn the resistance transmitter counterclockwise up to the point where the resistance changes from 0 Ω .

8 Operation

After connecting the supply voltage, the actuator is ready for use.

8.1 Three-step operation

In three-step operation, the actuator stem is moved in the corresponding direction by applying a signal to the terminal eL or aL (see Fig. 8-1).

Actuators with fail-safe action additionally require a constant supply voltage (see the 'Installation' section).

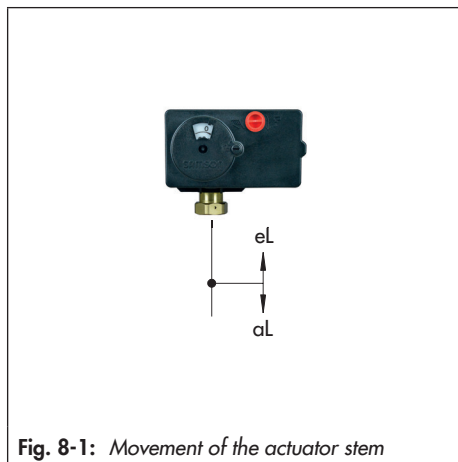


Fig. 8-1: Movement of the actuator stem

8.2 Handwheel

Travel and direction of action can be read off the scale of the travel indicator (see Fig. 8-2).

Actuator without fail-safe action

For actuators with fail-safe action, manually move the actuator stem one millimeter by turning the handwheel approx. 4 turns.

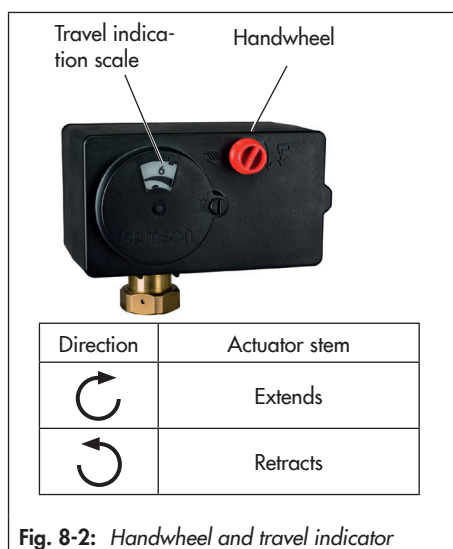


Fig. 8-2: Handwheel and travel indicator

Direction of rotation

- Turn clockwise: the actuator stem extends (see Fig. 8-1 and Fig. 8-2).
- Turn counterclockwise: the actuator stem retracts (see Fig. 8-1 and Fig. 8-2).

Operation

Actuator with fail-safe action

For actuators with fail-safe action, move the actuator stem one millimeter by turning the actuator shaft approx. 4 turns using a 4 mm Allen key (see Fig. 8-3). In this case, the front housing cover must be opened (see the 'Installation' section).

Direction of rotation

- Turn clockwise: the actuator stem extends (see Fig. 8-1).
- Turn counterclockwise: the actuator stem retracts (see Fig. 8-1).

⚠ DANGER

Risk of fatal injury due to electric shock.

- ➔ *Before opening the housing cover, switch off the supply voltage and protect it against unintentional reconnection.*
- ➔ *Disconnect the signal lines.*



9 Malfunctions

→ Troubleshooting (see Table 9-1).

i Note

Contact SAMSON's After-sales Service for malfunctions not listed in the table.

Table 9-1: Troubleshooting

Error	Possible reasons	Recommended action
Actuator stem does not move.	Actuator is blocked.	→ Check attachment. → Remove the blockage.
	No or incorrect supply voltage connected.	→ Check the supply voltage and connections.
Actuator stem does not move through the whole range.	No or incorrect supply voltage connected.	→ Check the supply voltage and connections.

9.1 Emergency action

The valve, on which the actuator with fail-safe action is mounted, is moved to its fail-safe position upon failure of the supply voltage (see the 'Design and principle of operation' section). Plant operators are responsible for emergency action to be taken in the plant.

Tip

Emergency action in the event of valve failure is described in the associated valve documentation.

10 Servicing

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

i Note

The electric actuator was checked by SAMSON before it left the factory.

– The product warranty becomes void if service or repair work not described in these instructions is performed without prior agreement by SAMSON's After-sales Service.

The actuator requires no maintenance.

We recommend inspection and testing according to Table 10-1.

Table 10-1: *Recommended inspection and testing*

Inspection and testing	Action to be taken in the event of a negative result
Check the markings, labels and nameplates on the electric actuator for their readability and completeness.	<ul style="list-style-type: none"> ➔ Immediately renew damaged, missing or incorrect nameplates or labels. ➔ Clean any inscriptions that are covered with dirt and are illegible.
Check the electric wiring.	<ul style="list-style-type: none"> ➔ Tighten loose terminal screws (see the 'Installation' section). ➔ Renew damaged wires.

11 Decommissioning

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

⚠ DANGER

Risk of fatal injury due to electric shock.

- *Before disconnecting live wires, switch off the supply voltage at the actuator and protect it against unintentional reconnection.*

⚠ WARNING

Risk of personal injury due to residual process medium in the valve.

While working on the valve, residual medium can flow out of the valve and, depending on its properties, cause personal injury, e.g. (chemical) burns.

- *Wear protective clothing, safety gloves and eye protection.*

⚠ WARNING

Risk of burn injuries due to hot or cold components and pipeline.

Valve components and the pipeline may become very hot or cold. Risk of burn injuries.

- *Allow components and pipelines to cool down or warm up to the ambient temperature.*
- *Wear protective clothing and safety gloves.*

To decommission the electric actuator for maintenance work or disassembly, proceed as follows:

- Put the control valve out of operation. See associated valve documentation.
- Disconnect the supply voltage and protect it against unintentional reconnection.

12 Removal

The work described in this section is only to be performed by personnel appropriately qualified to carry out such tasks.

⚠ DANGER

Risk of fatal injury due to electric shock.

→ Before disconnecting live wires, switch off the supply voltage at the actuator and protect it against unintentional reconnection.

⚠ WARNING

Risk of personal injury due to hot components.

→ If necessary, allow the pipeline and valve components to cool down.

⚠ WARNING

Risk of personal injury due to residual process medium.

While working on the valve, residual medium can flow out of the valve and, depending on its properties, cause personal injury, e.g. (chemical) burns.

→ Wear protective clothing, safety gloves and eye protection.

12.1 Force-locking attachment

Version without fail-safe action

1. Retract the actuator stem using the hand-wheel (see the 'Operation' section).
2. Open the front housing cover.
3. Disconnect and remove the wires of the connection cables from the terminals.
4. Unscrew the coupling nut (4 in Fig. 12-1) and remove the actuator from the valve connection.

Version with "actuator stem extends" fail-safe action

1. Open the front housing cover.
 2. Disconnect and remove the wires of the connection cables from the terminals.
 3. Retract the actuator stem with a 4 mm Allen key (see the 'Operation' section).
- Hold the actuating shaft in place after retracting the actuator stem to prevent it from extending again.
4. Unscrew the coupling nut (4 in Fig. 12-1) and remove the actuator from the valve connection.

Version with "actuator stem retracts" fail-safe action

- Proceed as for the version without fail-safe action.

12.2 Form-fit attachment

Version without fail-safe action

1. Retract the actuator stem using the hand-wheel (see the 'Operation' section).
2. Open the front housing cover.
3. Disconnect and remove the wires of the connection cables from the terminals.
4. Unfasten the stem connector clamps (12 in Fig. 12-1) between the actuator stem and the plug stem.
5. Undo the nut (13 in Fig. 12-1) and remove the rod-type yoke (11 in Fig. 12-1) together with the actuator from the valve.
6. Undo the coupling nut (4 in Fig. 12-1) and remove the actuator from the rod-type yoke (11 in Fig. 12-1).

Version with "actuator stem extends" fail-safe action

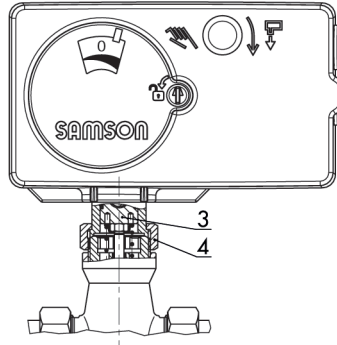
1. Open the front housing cover.
 2. Disconnect and remove the wires of the connection cables from the terminals.
 3. Unfasten the stem connector clamps (12 in Fig. 12-1) between the actuator stem and the plug stem.
 4. Retract the actuator stem with a 4 mm Allen key (see the 'Operation' section).
- ➔ Hold the actuating shaft in place after retracting the actuator stem to prevent it from extending again.
5. Undo the nut (13 in Fig. 12-1) and remove the rod-type yoke (11 in Fig. 12-1) together with the actuator from the valve.

6. Undo the coupling nut (4 in Fig. 12-1) and remove the actuator from the rod-type yoke (11 in Fig. 12-1).

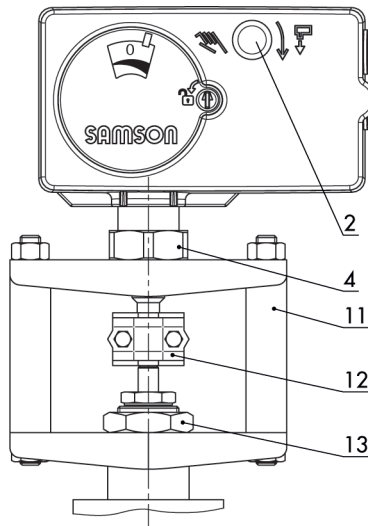
Version with "actuator stem retracts" fail-safe action

- ➔ Proceed as for the version without fail-safe action.

Force-locking attachment with coupling nut, e.g. to Type 3222 Valve



Form-fit attachment with stem connector, e.g. with yoke on Series V2001 Valve



- 2 Handwheel
- 3 Actuator stem with actuator piston
- 4 Coupling nut
- 11 Yoke
- 12 Stem connector
- 13 Nut

Fig. 12-1: Attaching actuator and valve

13 Repairs

If the actuator does not function properly according to how it was originally configured or does not function at all, it is defective and must be exchanged.

! NOTICE

Risk of actuator damage due to incorrect service or repair work.

- Do not perform any repair work on your own.
 - Contact SAMSON's After-sales Service.
-

13.1 Returning the actuator to SAMSON

Defective actuators can be returned to SAMSON for examination.

Proceed as follows to return devices:

1. Remove the electric actuator from the valve (see the 'Removal' section).
2. Continue as described on our website at
 - ▶ www.samsongroup.com > Service > After-sales Service > Returning goods.

14 Disposal



SAMSON is a producer registered at the following European institution ► <https://www.ewrn.org/national-registers/national-registers>.
WEEE reg. no.:
DE 62194439/FR 025665

- Observe local, national and international refuse regulations.
- Do not dispose of components, lubricants and hazardous substances together with your other household waste.

i Note

We can provide you with a recycling passport according to PAS 1049 on request. Simply e-mail us at offersaleservice@samsongroup.com giving details of your company address.

Tip

On request, we can appoint a service provider to dismantle and recycle the product as part of a distributor take-back scheme.

15 Certificates

The following certificates are included on the next pages:

- EU declaration of conformity
- UKCA declaration of conformity
- TR CU certificate
- Declaration of incorporation

The certificates shown were up to date at the time of publishing. The latest certificates can be found on our website:

▶ www.samsongroup.com > Products > Actuators > 5827

15.1 Information on the UK sales region

The following information corresponds to the Pressure Equipment (Safety) Regulations 2016, STATUTORY INSTRUMENTS, 2016 No. 1105 (UKCA marking). It does not apply to Northern Ireland.

Importer

SAMSON Controls Ltd
Perrywood Business Park
Honeycrook Lane
Redhill, Surrey RH1 5JQ
Tel.: +44 1737 766391

E-mail: ▶ sales-uk@samsongroup.com

Website: ▶ uk.samsongroup.com

EU declarations of conformity



**EU Konformitätserklärung / EU Declaration of Conformity /
Déclaration UE de conformité**

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller/
This declaration of conformity is issued under the sole responsibility of the manufacturer/
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.

Für das folgenden Produkte / For the following product/ Nous certifions que les produit

**Elektrischer Antrieb / Electric Actuator / Servomoteur électrique
Typ / Type / Type 5827**

wird die Konformität mit den einschlägigen Harmonisierungsrechtsvorschriften der Union bestätigt/
the conformity with the relevant Union harmonisation legislation is declared with/
sont conformes à la législation applicable harmonisée de l'Union:

EMC 2014/30/EU	EN 61000-6-2:2005, EN 61000-6-3:2007/A1:2011
LVD 2014/35/EU	EN 60730-1:2011 EN 60730-2-14 :1997/A1 :2005/A11 :2005/A2 :2008
RoHS 2011/65/EU	EN IEC 63000:2018

Hersteller / Manufacturer / Fabricant:

SAMSON AKTIENGESELLSCHAFT
Weismüllerstraße 3
D-60314 Frankfurt am Main
Deutschland/Germany/Allemagne

Frankfurt / Francfort, 2023-01-10

Im Namen des Herstellers/ On behalf of the Manufacturer/ Au nom du fabricant.


Fabio Roma
Vice President Smart Products & Components


Sebastian Krause
Vice President Product Development

EU DECLARATION OF CONFORMITY
TRANSLATION



Declaration of Conformity of Final Machinery

in accordance with Annex II, section 1.A. of the Directive 2006/42/EC

For the following product:

Type 3222/XXX-X Electric Control Valve consisting of Type 3222 Valve and 5857, 5824, 5825, 5827, TROVIS 5757-X, TROVIS 5724-X or TROVIS 5725-X Actuator

We hereby declare that the machinery mentioned above complies with all applicable requirements stipulated in Machinery Directive 2006/42/EC.

For product descriptions refer to:

- Electric and Pneumatic Control Valves Type 3222/...:
Mounting and Operating Instructions EB 5866

Referenced technical standards and/or specifications:


- VCI, VDMA, VGB: "Leitfaden Maschinenrichtlinie (2006/42/EG) – Bedeutung für Armaturen, Mai 2018" [German only]
- VCI, VDMA, VGB: "Zusatzdokument zum Leitfaden Maschinenrichtlinie (2006/42/EG) – Bedeutung für Armaturen vom Mai 2018" [German only], based on DIN EN ISO 12100:2011-03

Comment:


Information on residual risks of the machinery can be found in the mounting and operating instructions of the valve and actuator as well as in the referenced documents listed in the mounting and operating instructions.

Persons authorized to compile the technical file:

SAMSON AG, Weismüllerstraße 3, 60314 Frankfurt am Main, Germany
Frankfurt am Main, 22 September 2023



Norbert Tollas
Senior Vice President
Global Operations



Peter Scheermesser
Director
Product Maintenance and Engineered Products

Revision no. 00

Classification: Public · SAMSON AKTIENGESELLSCHAFT · Weismüllerstraße 3 · 60314 Frankfurt am Main, Germany

Page 1 of 1

EU DECLARATION OF CONFORMITY
TRANSLATION



Declaration of Conformity of Final Machinery

in accordance with Annex II, section 1.A. of the Directive 2006/42/EC

For the following product:

Type 3214/XXX-X Electric Control Valve consisting of Type 3214 Valve and TROVIS 5724-X, TROVIS 5725-X, Type 5824, Type 5825, Type 5827, Type 3274 or Type 3374 Actuator

We hereby declare that the machinery mentioned above complies with all applicable requirements stipulated in Machinery Directive 2006/42/EC.

For product descriptions refer to:

- Type 3214/... Electric and Pneumatic Control Valves:
Mounting and Operating Instructions EB 5868/5869

Referenced technical standards and/or specifications:

- VCI, VDMA, VGB: "Leitfaden Maschinenrichtlinie (2006/42/EG) – Bedeutung für Armaturen, Mai 2018" [German only]
- VCI, VDMA, VGB: "Zusatzdokument zum Leitfaden Maschinenrichtlinie (2006/42/EG) – Bedeutung für Armaturen vom Mai 2018" [German only], based on DIN EN ISO 12100:2011-03

Comment:

Information on residual risks of the machinery can be found in the mounting and operating instructions of the valve and actuator as well as in the referenced documents listed in the mounting and operating instructions.

Persons authorized to compile the technical file:

SAMSON AG, Weismüllerstraße 3, 60314 Frankfurt am Main, Germany
Frankfurt am Main, 10 October 2023

Handwritten signature of Norbert Tollas in blue ink.

Norbert Tollas
Senior Vice President
Global Operations

Handwritten signature of Peter Scheermesser in blue ink.

Peter Scheermesser
Director
Product Maintenance & Engineered Products

Revision no. 00

Classification: Public · SAMSON AKTIENGESELLSCHAFT · Weismüllerstraße 3 · 60314 Frankfurt am Main, Germany

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UKCA declaration of conformity

**UK
CA** UK DECLARATION OF CONFORMITY
ORIGINAL



This declaration of conformity is issued under the sole responsibility of the manufacturer.

For the following product:

Electric Actuator Type 5827

the conformity with the following relevant UK regulatory requirements is declared with:

UK Regulation / Statutory Instrument	Designated Standard
SI 2016 No. 1091 The Electromagnetic Compatibility Regulations 2016	EN 61000-6-2:2005 EN 61000-6-3:2007+A1:2011
SI 2016 No. 1101 The Electrical Equipment (Safety) Regulations 2016	EN 60730-1:2011 EN 61010-1:2010/A1:2019
SI 2012 No. 3032 The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012	EN IEC 63000:2018

Manufacturer:

SAMSON AKTIENGESELLSCHAFT
Weismuellerstrasse 3
60314 Frankfurt am Main
Germany

Frankfurt am Main, 2022-12-14

Signed for and behalf of the manufacturer:


Fabio Roma
Vice President Smart Products & Components


Sebastian Krause
Director Development Valves & Actuators

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**ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ**



Заявитель Общество с ограниченной ответственностью "САМСОН КОНТРОЛС".

Основной государственный регистрационный номер: 1037700041026. Место нахождения и адрес места осуществления деятельности: 109544, город Москва, бульвар Энтузиастов, дом 2, этаж 5, комната 11, Российская Федерация. Телефон: +7 (495) 777-4545, адрес электронной почты: samson@samson.ru.

в лице Генерального директора Крымшамхалова Азрета Индрисовича, действующего на основании Устава.

заявляет, что Приводы электрические торговой марки SAMSON, типы: 5824, 5825, 5827.

Изготовитель "SAMSON AKTIENGESELLSCHAFT".

Место нахождения: Weismuellerstrasse 3, 60314 Frankfurt am Main, Федеративная Республика Германия. Адреса мест осуществления деятельности по изготовлению продукции: Weismuellerstrasse 3, 60314 Frankfurt am Main, ("SAMSON AKTIENGESELLSCHAFT"), Федеративная Республика Германия; ul. Spacerowa 30, 57-402 Nowa Ruda, ("Framo Morat Polska Sp. z o.o."), Польша.

Продукция изготавливается в соответствии со стандартами согласно приложению № 1.

Код ТН ВЭД ЕАЭС: 8501 10 930 0.

Серийный выпуск.

соответствует требованиям Технических регламентов Таможенного союза: "О безопасности низковольтного оборудования" (ТР ТС 004/2011), "Электромагнитная совместимость технических средств" (ТР ТС 020/2011).

Декларация о соответствии принята на основании эксплуатационной документации (руководства по эксплуатации 3428-ЭП-2021.РЭ, паспорта 3428-5824-30-2021.ПС); протокола № 1-06-2021 от 02.06.2021, выданного Испытательной лабораторией Общества с ограниченной ответственностью "НТИ "ВОРОНЕЖ-ЭКСПЕРТ".

Схема декларирования соответствия: 1д.

Дополнительная информация ГОСТ 12.2.007.0-75 "Система стандартов безопасности труда. Изделия электротехнические. Общие требования безопасности"; ГОСТ 12.2.007.1-75 "Система стандартов безопасности труда. Машины электрические вращающиеся. Требования безопасности"; ГОСТ 30804.6.2-2013 раздел 8 " Совместимость технических средств электромагнитная. Устойчивость к электромагнитным помехам технических средств, применяемых в промышленных зонах. Требования и методы испытаний"; ГОСТ 30804.6.4-2013 раздел 7 " Совместимость технических средств электромагнитная. Электромагнитные помехи от технических средств, применяемых в промышленных зонах. Нормы и методы испытаний".

Условия хранения: в отопляемых хранилищах при температуре окружающего воздуха от минус 20 °С до плюс 70 °С и относительной влажности до 70%. Назначенный срок хранения: 24 месяца. Назначенный срок службы: 12 лет.

Декларация о соответствии действительна с даты регистрации

по 15.06.2026 включительно.


(подпись)



Крымшамхалов Азрет Индрисович

(Ф.И.О. заявителя)

Регистрационный номер декларации о соответствии:

ЕАЭС N RU Д-ДЕ.РА01.В.35473/21

Дата регистрации декларации о соответствии: 16.06.2021

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

**ПРИЛОЖЕНИЕ № 1
К ДЕКЛАРАЦИИ О СООТВЕТСТВИИ ЕАЭС N RU Д-ДЕ.РА01.В.33473/21**

Лист № 1 из 1

Наименования и реквизиты документов, в соответствии с которыми изготавливается продукция

IEC 60730-1:2013 / Cor. 1:2014 "Automatic electrical controls for household and similar use. Part 1. General requirements. Corrigendum 1"	"Устройства управления автоматические электрические. Часть 1. Общие требования. Поправка 1"
EN 61000-6-1:2007 "Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments"	"Электромагнитная совместимость. Часть 6-1. Общие стандарты. Помехоустойчивость для жилых районов, районов с коммерческими предприятиями и районов с небольшими производственными предприятиями"
IEC 61000-6-2:2016 "Electromagnetic compatibility (EMC). Part 6-2: Generic standards. Immunity for industrial environments"	"Электромагнитная совместимость (ЭМС). Часть 6-2: Общие стандарты. Помехоустойчивость для промышленных сред"
EN 61000-6-3:2007 + A1:2011 "Electromagnetic compatibility (EMC). Part 6-3: Generic standards. Emission standard for residential, commercial and light-industrial environments"	"Электромагнитная совместимость (ЭМС). Часть 6-3: Общие стандарты. Стандарт излучения для жилых, коммерческих и легких промышленных сред"
IEC 61010-1:2010 "Safety requirements for electrical equipment for measurement, control, and laboratory use. Part 1: General requirements"	"Требования безопасности к электрическому оборудованию для измерения, контроля и лабораторного использования. Часть 1: Общие требования"
EN 61326-1:2013 "Electrical equipment for measurement, control and laboratory use. EMC requirements. Part 1: General requirements"	"Электрооборудование для измерения, контроля и лабораторного использования. Требования ЭМС. Часть 1: Общие требования"


(подпись)



Крымшамхалов Азрет Индрисович
(Ф.И.О. заявителя)

Declaration of incorporation

DECLARATION OF INCORPORATION
TRANSLATION



Declaration of Incorporation in Compliance with Machinery Directive 2006/42/EC

For the following product:
Type 5827 Actuator

We certify that the Types 5824 and 5825 Electric Actuators are partly completed machinery as defined in the Machinery Directive 2006/42/EC and that the safety requirements stipulated in Annex I, 1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.2, 1.2.3, 1.2.5, 1.2.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.7, 1.3.8.2, 1.3.9, 1.4.1, 1.5.1, 1.5.3, 1.5.4 and 1.5.8 are observed. The relevant technical documentation described in Annex VII, part B has been compiled.

Products we supply must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive 2006/42/EC.

Operators are obliged to install the products observing the accepted industry codes and practices (good engineering practice) as well as the mounting and operating instructions. Operators must take appropriate precautions to prevent hazards that could be caused by the process medium and operating pressure in the valve as well as by the signal pressure and moving parts.

The permissible limits of application and mounting instructions for the products are specified in the associated mounting and operating instructions; the documents are available in electronic form on the Internet at www.samsongroup.com.

For product descriptions refer to:

- Type 5827 Electric Actuator: Mounting and Operating Instructions EB 5827-1 / EB 5827-2

Referenced technical standards and/or specifications:

- VCI, VDMA, VGB: "Leitfaden Maschinenrichtlinie (2006/42/EG) – Bedeutung für Armaturen, Mai 2018" [German only]
- VCI, VDMA, VGB: "Zusatzdokument zum Leitfaden Maschinenrichtlinie (2006/42/EG) – Bedeutung für Armaturen vom Mai 2018" [German only], based on DIN EN ISO 12100:2011-03

Comments:

- See mounting and operating instructions for residual hazards.
- Also observe the referenced documents listed in the mounting and operating instructions.

Persons authorized to compile the technical file:

SAMSON AG, Weismüllerstraße 3, 60314 Frankfurt am Main, Germany
Frankfurt am Main, 21 February 2021

Stephan Giesen
Director
Product Management

Sebastian Krause
Director
Strategic R&D, Valves and Actuators

Revision no. 02

16 Annex

16.1 Accessories

Cable glands ¹⁾	Order no.
M16x1.5 cable gland with 14x1.5 O-ring for 5 to 10 mm clamping range	8808-1010
M16x1.5 cable gland for 4 to 8 mm clamping range	100161061
O-ring 14x1.5	8421-0070
M16x1.5 lock nut with width AF 19	8808-1032
For mounting on form-fit valves without return spring ²⁾	Order no.
Rod-type yoke	1400-7414
Spacer to mount the actuator on Type 3323 Valve (DN 65 to 80)	0340-3031

1) It is not possible to use the cable glands from the Types 5824 and 5825 Actuators.

2) With Type 5827-x3x Actuator

16.2 After-sales service

Contact our after-sales service for support concerning service or repair work or when malfunctions or defects arise.

E-mail contact

You can reach our after-sales service at
 ► aftersaleservice@samsongroup.com.

Addresses of SAMSON AG and its subsidiaries

The addresses of SAMSON, its subsidiaries, representatives and service facilities worldwide can be found on our website (► www.samsongroup.com) or in all SAMSON product catalogs.

Required specifications

Please submit the following details:

- Type designation
- Material number
- Serial number

EB 5827-1 EN



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