


= Safety

1 Intended usage

Please review all ATEX data and notes in this operating manual to eliminate any risks which would jeopardize the safe function of the complete configured valves with pilot valves. Any use beyond the permissible limits, or the failure to comply with the instructions of this manual, will cause the user to be liable for damages. In case of non-permissible intrusions or modifications of the valve, as well as failing to comply with the instructions of this manual, the claim for guarantee expires and our liability is excluded. The valves must be used only with non-combustible mediums which do not corrode, chemically or mechanically, the materials used. Use only mediums approved by IMI Norgren.

2 Operating manual

2.1 General conditions

- The valve mentioned in this manual must be used with its permissible pilot valve and this pilot valve must be used with the IMI Norgren valve. If the pilot valve used is from another manufacturer, or if our pilot valve are used on another manufacturers valve, IMI Norgren assumes no liability. Moreover the Ex approval as well as the claim of guarantee expires for items of equipment and accessories.
- Before installation, the specifications of the device identification are to be compared with the intended operating conditions to ensure proper usage.
- Take measures to avoid unintentional or improper activation.
- Consider in case of pressurised systems that lines, valves and other components should not be removed.
- ATTENTION: There is some risk of injury! The surface of the pilot valve could become very warm in continuous operation.
- Leak and strength tests on open and closed valves are admissible until max. 1.5 times the max. operating pressure. It is not allowed to operate the valve during these tests.
- Do not use inlet air of an area with potentially explosive atmosphere.
- In case of applications with vacuum, please consider that no ambient gases or dust could be leak into the valve so that no potentially explosive situation inside of the valve or other components can arise.
- Never use the pilot valve as well as the complete valve as lever arm or a step for climbing.

2.2 Installation

Please consider following points before assembling and installing the valve:

- Check if classification of the pilot valve, the permissible application area of the basic valve and the marking on the equipment are suitable for the application. Please take note of section 3.2.
- Check the installation technical data, such as voltage level and current type, on the

product label for compliance with the existing operating conditions.

- After removing the packaging, make sure that no contamination enter into the system.
- Check before the installation of the system that no contamination exists in the piping and valve body.
- Check during installation of the system that gaskets will not become damaged. Please consider following points during the installation of the valve:
- The installation must be taken by qualified personnel with consideration of relevant regulations.
- Any fitting position of the valve is permissible but indicating pilot valve up is preferred.
- Damaged parts must be replaced with original spare parts from IMI Norgren.
- Order spare parts with the part number indicated on the product labels (valve and/or pilot valve).
- For equal potential bonding link all electroconductive parts including accessories together.
- Ground the complete system.
- Important: Power must be removed from the system while assembling and disassembling connector and pilot valve.

2.3 Operating

- Ensure before commissioning of the valve, that the whole equipment/machine conform to the provisions of the machine, ATEX and EMC directives as well as other applicable standards and directives.
- The valve must be used with compressed air only (see also section 3.2).
- Avoid contact with liquid and corrosive mediums.
- Do not load the system by bending or torsion.

2.4 Failures

- In case of failure check the connection of pipes, the operating voltage as well as the operating pressure.
- Any service or repair work as well as replacement of components must be taken in unpressurized condition. Also, power must be removed from the system.
- Important: It is not allowed to detach a connector or to open a body in a zone with potentially explosive atmosphere when power is not removed.

2.5 Maintenance and repair

It is recommended to make precautionary maintenance depending on the operating conditions and in case of significant changes in response times. The user is liable for adequate test and maintenance spacing dependent on the operating conditions of the valve. Precipitation, contamination, and aged or worn gaskets can cause failures. Damaged parts must be replaced with original spare parts from IMI Norgren.

3 ATEX CONFORMITY OF COMPLETE CONFIGURED VALVE SXE9561-E86-00



3.1 Mechanical basic valve (without pilot valve)

The "mechanical basic valve" of the SXE9561-E86-00 valve as well as the corresponding accessories does not fall under the EU directive 2014/34/EU "ATEX" because they do not contain an own potential ignition source.

It is to pay attention that no flammable fluids are allowed. Due to this fact, these items of equipment can be used in areas with potentially explosive atmosphere without any ATEX identification admittedly only with valve solenoids complying to the corresponding categories.

3.2 Use conditions for mechanical basic valves

Pilot pressure	1,6 ... 3,5 bar	
Operating pressure:	-0,9 ... 10 bar	(if permissible for valve type)
Ambient temperature:	-15°C ... +50°C	Consider the dewpoint of supply air (see also air quality) less than the air temperature to prevent ice from forming.
Medium temperature:	max. 50°C	
Medium:	Compressed air	Recommended air quality acc. to ISO 8573-1. Indoor at 15°C to 35°C air quality category: 5, 6, 4 Outdoor until -15°C air quality category: 2, 3, 3
Use conditions:	100% ED	
Volume of operating ports (mostly ports 2 and 4):	min. 30 cm ³	This aims for metallic volumes. In case of materials with worse caloric conductance, larger volumes are necessary. In case of doubt, take measurements.

3.3 Solenoid actuated complete configured valve

Part number complete configured valve*1)	Samsomatic part number pilot valve*2)	Size	ATEX category	Applicable in Ex zones
SXE9561-E86-00K	Typ 3964-111000000	18mm	II 2 G Ex ia IIC T6	1 and 2 (gases)

*1) EU Declaration of Conformity exists and is included with pilot valve

*2) For electrical connection see EU Declaration of Conformity

3.4 ATEX applicable accessories

Following accessories for the complete configured valve SXE9561-E86-00 are applicable in Ex zones 1, 2, 21 and 22:

Part numbers	Description
FP 2011-20; FP 2011; FP 2021-20; FP 2021	Single station base
BL 3**1-21; BL 4**1-23; BP 4***-13-91	Fixed length sub-base
FP 2880	Modular manifold
FP 2857	Blanking end plate
FP 2858	Blanking disc
FP 2001	Blanking plate
FP 2080; FP 2081	Blanking plug