

5 Operation and control

NOTICE



The device must not be operated beyond its specifications.

CAUTION



Hot surface

Burning hazard

According to the product type and operation conditions, the temperature may exceed 50 °C during operation.

Depending on the conditions at the installation site it may be necessary to provide these areas with appropriate warning signs.

DANGER



Toxic, corrosive gases

The measuring gas led through the equipment can be hazardous when breathing or touching it.

- Check tightness of the measuring system before putting it into operation.
- Take care that harmful gases are exhausted to a safe place.
- Before maintenance turn off the gas supply and make sure that it cannot be turned on unintentionally.
- Protect yourself during maintenance against toxic / corrosive gases. Use suitable protective equipment.



5.1 Switching on the sample gas pump

Before switching on the unit, check:

- the hose- and electrical connections are not damaged and correct installed.
- no parts of the sample gas pump have been removed (e.g. cover).
- the gas inlet and outlet of the sample gas pump are not closed.
- the pre-pressure is below 0.3 bar.
- a bypass is installed for continuous operation for throttling below 150 L/h
- ambient parameters are met.
- data on the rating plate is met.
- the voltage and frequency of the motor match the mains values.
- electrical connections are securely connected and monitoring devices are connected and set as prescribed.
- air inlets and cooling surfaces are clean.
- ventilation slots in the housing cover are not covered or dirty, but are freely accessible.
- precautions have been taken; earthing!

When switching the sample gas pump on make sure that

- no abnormal sounds or vibrations occur.
- the flow rate is neither too low nor too high. This would indicate a cracked bellows.

5.2 Operating the sample gas pump

CAUTION**Risk of injury by moving parts**

The device may be damaged if it falls down or by impacts. Pay attention to any accessible moving parts.
Operation without cover or with damaged cover is not allowed!

The sample gas pump is suitable for delivering gases only. It is not suitable for liquids.

The sample gas pump should be operated without pressure. A system pressure above 0.3 is not allowed. The gas outlet must not be closed. The flow rate must be at least 50 l/h (150 l/h with system pressure 0.3 bar). If the flow rate continuously is throttled below 150 l/h during operation, the flow rate must be controlled with a bypass valve.

NOTICE

Extreme throttling reduces the life time of the bellows.

If the pump is equipped with a bypass valve, the flow rate can be adjusted. Do not apply force when turning the valve, because the valve may be damaged otherwise! The turning range of the valve is about 5 turns.