

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 of the housing 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 device, ensure that:

- the hose and electrical connections are undamaged and correctly installed,
- no parts of the sample gas pump have been dismantled (e.g. cover),
- the gas inlet and outlet of the sample gas pump is not shut,
- the preliminary pressure is under 0.5 bar,
- in the event of throttling under 150 l/h (per head in the P4.3) or under 400 l/h (per head in the P4.83) in continuous operation, a bypass is available,
- the ambient parameters are complied with,
- information from the identification plate is complied with,
- the voltage and frequency of the motor correspond to those of the network,
- the electrical connections are fastened tightly and the monitoring devices have been connected and set correctly,
- the air inlet openings and cooling surfaces are clean,
- protective measures have been carried out; earthing!
- the motor is secured correctly,
- the terminal box cover is closed and the cable entry points have been properly sealed.

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

The sample gas pump is intended exclusively for the pumping of gaseous media. It is not suitable for liquids.

The sample gas pump should be operated without pre-compression. A preliminary pressure of more than 0.5 bar is not permitted. The gas outlet must not be shut. The flow rate per pump head must be at least 50 l/h for the P4.3 and at least 200 l/h for the P4.83 pumps. In the event of throttling under 150 l/h for the P4.3 or under 400 l/h for the P4.83 pumps in continuous operation, the flow rate must be regulated via a bypass. In this case you should choose a version with bypass valve.

NOTICE



Extreme throttling reduces the life time of the bellows.

The output can be adjusted on pumps with built-in bypass valve. Do not apply a lot of force when turning the valve as the valve could otherwise be damaged! The rotation range of the valve is about 7 rotations.