

Operating Instructions



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1 General Information

This document contains necessary information for the proper installation and use of this device. In addition to this instruction, be sure to observe all statutory requirements, applicable standards, the additional technical specifications on the accompanying data sheet (see www.labom.com) as well as the specifications indicated on the type plate.

You must pay attention to the data sheets and operating instructions of the individual measuring devices in addition to these instructions.

1.1 General Safety Notes

The installation, set up, service or disassembly of this device must only be done by trained, qualified personnel using suitable equipment and authorized to do so.



Warning

Media can escape if unsuitable devices are used or if the installation is not correct.

Danger of severe injury or damage

- Ensure that the device is suitable for the process and undamaged.

1.2 Intended Use

The device is suitable for measuring the relative and absolute pressure of gases, vapours and fluids with two independent pressure measurement devices as specified in the data sheet.

2 Transportation and Storage

Store and transport the device only under clean and dry conditions preferably in the original packaging. Avoid exposure to shocks and excessive vibrations.

Please refer to the data sheets of the individual devices to determine the permissible storage temperatures.

3 Installation and Commissioning

Ensure that the device is suitable for the intended application with respect to pressure range, overpressure limit, media compatibility, temperature range and process connection.

After the mechanical installation and electrical connection is completed, the device is ready for operation as soon as the power supply is switched on.

3.1 Mechanical Installation

Before starting operation, check the process connection carefully for leaks under pressure.

Use gaskets, if required, that are suitable for the process connection and resistant to the media.

4 Operation

Kombibar gauges are normally a combination of two measuring devices and a diaphragm seal. All components must be taken into account when determining the admissible limits.

4.1 Operating limits

The maximum pressure of the component with the lowest maximum pressure limit is considered to be the maximum pressure limit for the complete Kombibar gauge. For example, if the max. pressure of the transmitter is 6 bars and that of the manometer is 3 bars, the max. pressure limit of the Kombibar gauge is only 3 bars. The max. pressure limits are normally noted on the type plates of the individual devices.

It may be that the max. pressure is limited by the diaphragm seal (e.g. with clamp diaphragm seals); in this case the data for the nominal pressure level in the diaphragm seal's data sheet is decisive.

The same applies for the temperature limits that have to be observed. Please check the specification in the data sheets of the individual devices.

Since the manometer can affect the transmitter through the common pressure volume, the device with the lowest measuring accuracy is generally decisive for the warranted linearity/hysteresis. A higher accuracy, e.g. of the transmitter, is possible on request and can be documented by a measurement report.

4.2 Devices with Diaphragm Seal

Remove the protective cap or protective wrapping from the diaphragm only just before installation to prevent contamination or damage.

The diaphragm must not be touched. Do not place the device on its diaphragm. Even small scratches or deformations may negatively influence the zero point or other characteristics of the device.

Pressure transmitter and diaphragm seal are a closed system that must not be separated. You can find further information about diaphragm seals in the document TA_031 on www.labom.com.

4.3 Maintenance / Service

When properly installed in accordance with applicable specifications, this device is maintenance-free. However, we recommend an annual recalibration of the device.

In the event of any damage or defect the customer cannot replace or repair any components or assemblies.

5 Disassembly

When measuring hot media, make sure that the device has cooled down prior to any dismounting or wear appropriate protective clothing to avoid burns.

Switch off the power supply to the device before disconnecting the electrical connections. Once this is done, the device may be mechanically removed.



Warning

Opening pressurized lines might cause severe injuries.

Danger of severe injuries or damage

- Relieve the process pressure before attempting to remove the device. Shut off the pressure supply for all feed lines to the device and relieve the pressure in them.



Warning

Hazardous deposits and residues might remain on opened process connections and removed devices.

Danger of injury

- After the device has been removed, seal off the measuring point and mark the open process connection accordingly. Consider a possible danger due to residues when handling the removed device.