

## Operating Instructions



<b>1</b>	<b>General information</b> .....	<b>2</b>
1.1	Safety notes .....	2
1.2	Intended use .....	2
<b>2</b>	<b>Transportation and storage</b> .....	<b>2</b>
<b>3</b>	<b>Installation / Commissioning</b> .....	<b>2</b>
3.1	Mechanical installation .....	2
<b>4</b>	<b>Operation</b> .....	<b>4</b>
4.1	Zero-point correction .....	4
4.2	Devices with diaphragm seal or front-flush diaphragm.....	4
4.3	Maintenance / Service.....	4
4.4	Autoclaving of devices of the type BH8xxx.....	4
<b>5</b>	<b>Disassembly</b> .....	<b>5</b>

## 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](http://www.labom.com)) as well as the specifications indicated on the type plate.

### 1.1 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.

If you have purchased a device with EX or SIL approval, please refer to the enclosed EX or SIL instructions for the relevant data and information. These documents are also available on our homepage [www.labom.com](http://www.labom.com).

### 1.2 Intended use

The device is intended to measure pressure of gases, vapors and liquids 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.

Permissible storage temperature: -40...70 °C

BH5xxx, BH8xxx and S3 models with case filling

Permissible storage temperature: -20...60 °C

## 3 Installation / 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.

### 3.1 Mechanical installation


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

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

Install safety pressure gauges in the line with DIN EN 837-1 S1 and S3 so that the exhaust equipment can freely discharge to the rear in the event of a fault or malfunction. Provide for corresponding openings if mounting the unit on the wall.

Use the spanner flats to screw in the device.

Measuring devices where oil or grease residues in the measuring element are not permitted are marked accordingly with a label on the packaging.

Measuring devices for use with oxygen are marked on the scale with the oil can  icon and the word “oxygen” directly below this.

Seal cylindrical screw threads by fitting a sealing washer to the front face of the gasket. Seal taper screw threads by screwing tight; typically a gasket material is applied to the male thread. Make sure that the set of gasket you use are correct and in perfect condition when mounting the instrument; non-matching gasket can cause faults.

Vent the pressure gauge after installation using the vent valve (Figure 1).



Figure 1: Vent valve

The devices are supplied with a closed vent valve (CLOSED position). Moving the red lever to the OPEN position equalises the pressure level inside and outside the case (Figure 2).



Figure 2: Move valve

No activity is necessary prior to commissioning with ventilation systems positioned in the front glass, like for type series BH8xxx (Figure 3). Avoid contaminating the vent element.



Figure 3: Vent element in the front glass

## 4 Operation

During operation, take care that the device remains within its intended pressure and temperature ranges. No other monitoring is necessary.

The permissible ambient and media temperature depends on the type of device and its design. This information can be found in the relevant data sheet.

### 4.1 Zero-point correction

Zero point deviations can occur due to the mounting, the installation position or due to the type and duration of use. Measuring devices with micro adjustment pointer can be corrected in a depressurised state by means of the adjusting screw on the pointer hub (Figure 4).

You can find further information about zero-adjustment of pressure gauge with micro adjustment pointer in the document TA\_029 on [www.labom.com](http://www.labom.com).



Figure 4: Zero-point correction

### 4.2 Devices with diaphragm seal or front-flush diaphragm

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 gauge 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](http://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.

### 4.4 Autoclaving of devices of the type BH8xxx

After the sterilisation phase, a drying phase under temperature and negative pressure in the autoclave is required so that any residual moisture in the housing can escape without residue via the atmospheric ventilation filter (in the front panel). If there is still moisture in the housing after the autoclaving cycle, the drying phase must be extended accordingly. We recommend a drying time of 60 min. at 115 °C.

## 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.



### **Warning**

Opening pressurised 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.