

Operating Instructions



1	General Information	2
1.1	General Safety Notes	2
1.2	Intended Use	2
1.3	Conformity with EU Regulations	2
1.4	ATEX Approval	2
2	Transportation and Storage	2
3	Installation and Commissioning	2
3.1	Mechanical Installation	3
3.2	Electrical Connection	3
4	Operation	3
4.1	Zero-point correction	4
4.2	Devices with Diaphragm Seal	4
4.3	Maintenance / Service	4
5	Disassembly	5

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.

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 intended to measure pressure of gases, vapors and liquids as specified in the data sheet.

1.3 Conformity with EU Regulations

The CE-marking on the device certifies its compliance with the applicable EU Directives for placing products on the market within the European Union.

You find the complete EU Declaration of Conformity (document no. KE_021) at www.labom.com.

1.4 ATEX Approval

Devices of the type CX2001 are certified for use in explosive environments.

If you purchased a device with ATEX approval, please refer to the accompanying document XA_007 for ATEX-relevant information.

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: 0...80 °C

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.

3.1 Mechanical Installation

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

You can use the device in any mounting position. Normally the transmitter is adjusted for a vertical mounting position. A different mounting position in combination with a small nominal range might cause a zero point offset. In this case a zero point adjustment might be necessary.

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

Use new gaskets for each installation. We recommend the use of aluminium gaskets (A 27 x 32 as per DIN 7603), which you can order directly from us as an accessory.

Fit the pressure transmitter using four flange screws, as shown on the drilling diagram, and tighten them gradually crosswise. Max. tightening torque: 60 Nm (slightly oiled).

During installation of the device, attention has to be paid to the diaphragms not being damaged by the medium being measured. This is particularly important in the case of coagulating media that can have deforming influence on the diaphragms when they get cold.

Do not insulate the temperature coupler (tubular shank under the transmitter), as this would reduce its decoupling effect.

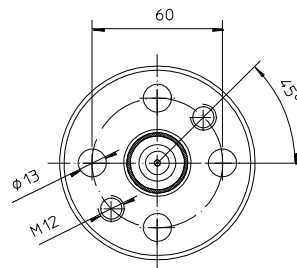


Figure 1: Drilling diagram

3.2 Electrical Connection

Complete the mechanical installation before you connect the device electrically.

Set up all electrical connections while the voltage supply is switched off.

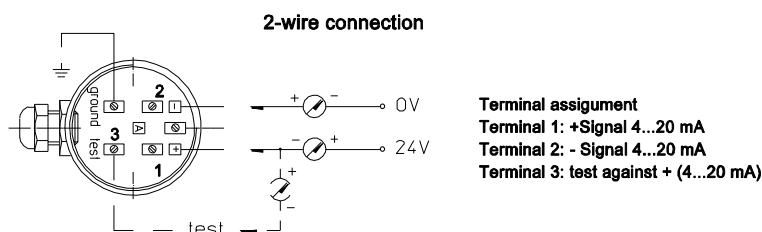


Figure 2: Electrical connection

4 Operation

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

Permissible media temperature: 10...350 °C

Permissible ambient temperature: 10...70 °C

4.1 Zero-point correction

If a subsequent zero point correction becomes necessary the potentiometers can be accessed in the model with field housing by unscrewing the locking ring. The potentiometer for the zero point (zero) and range (span) can be adjusted with a screwdriver (1.5x40). 10 revolutions correspond to approx. $\pm 10\%$ of the measurement range. An exact reference pressure should be applied to align the measurement range.

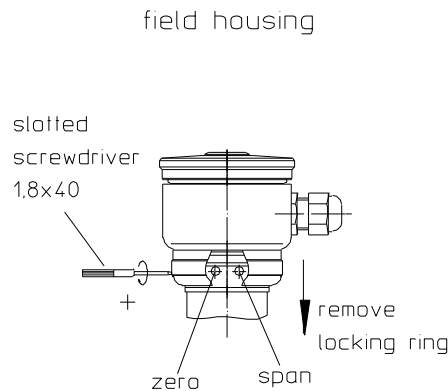


Figure 3: Zero-point correction

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.

Remove the four flange screws.

The pressure transmitter system may be pulled out only while the process medium is liquid (above melting point).

Use cylinder head screws (M12 x 55 as per DIN 912, A2-70) quality) for the two threaded holes, as shown on the drilling diagram, to push the device out of the process and ensure ease of removal. You can order these screws as an accessory.



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.