Pressure transmitter COMPACT ECO

Type series CA1xx0

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.

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.

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.

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.

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

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

There are no restrictions concerning the mounting position of the device.

Use the spanner flats to screw in the device.

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

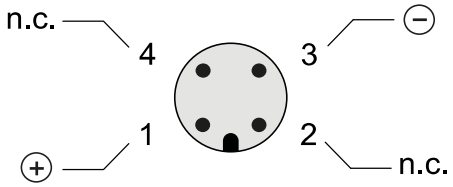
3.2 Electrical connection

Complete the mechanical installation before you connect the device electrically.
Set up all electrical connections while the voltage supply is switched off.

output (2-wire)	4...20 mA (20...4 mA)
supply voltage	U_V = 10…30 VDC (Standard version) U_V = 20…27 VDC (Ex-design)
allowable load	$R_B \leq (U_V - 10\ V) / 23\ mA$ $R_B \leq (U_V - 20\ V) / 23\ mA$ (Ex-design)

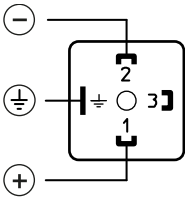
The transmitter is grounded via the process connection. Do not wire unconnected terminals!

M12-connector



Do not wire terminals 2 + 4!

right angle connector



Do not wire terminals 3 + ⏚!

Figure 1: Options for the electrical connection

4 Operation

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

4.1 Zero point correction

You can correct the zeropoint within ±10 % of the nominal range with a magnet.

To do so, hold a permanent magnet (e.g. a pin board magnet) to the position marked on the pressure transmitter (letter in a circle) for 30 to 120 seconds after the power has been switched on. A magnetic field applied outside of this time period has no effect on the setting.

Apply atmospheric pressure when correcting the zero point.

The power must be switched off and on before the zero point can be corrected again.

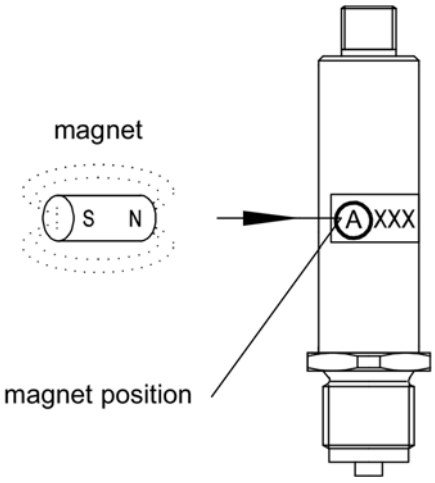


Figure 2: Position for zero point correction

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

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 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.