

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 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 filling level 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.

The following guidelines apply to these devices:

EMC Directive	2004/108/EC
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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:	-20...70 °C
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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

For installation use only approved sleeve clamps and adapters. Installation in non-Labom systems can result in incorrect function and leakage.

The thread of the devices must be electrically connected with the threaded sleeve and the metallic container.

Insulating seals of Teflon or paper are not suitable for correct, error-free operation.

The tightening torque must be between 5 and 10 Nm when screwing the device into the sleeve.

With non-metallic containers, a threaded sleeve with a diameter of at least 28 mm must be used.

If the device is opened there is a risk of influencing the signals by touching the electronic connections. This can be avoided by switching off the supply voltage or disconnecting the signal circuit.

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.

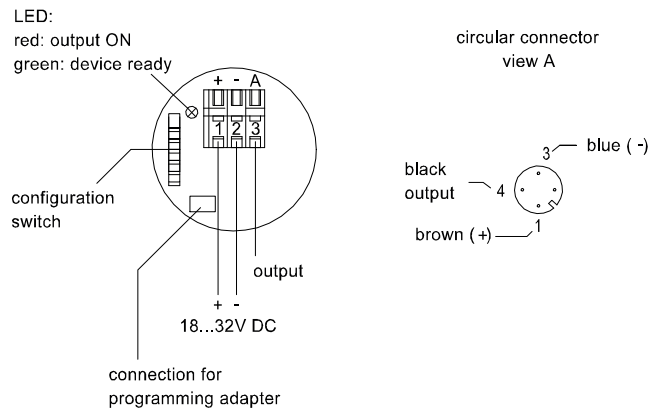


Figure 1: electrical connection

Connect power supply to terminals 1 (+) and 2 (-). The casing is electrically connected to terminal 2.

Set the signaling function via the configuration switch:

- 0 output triggered when covered with product
- 1 output triggered when not covered with product

A bicolor LED indicates the system status:

- green device ready
- red output ON

An ON output is available at terminal 3 (high signal). The output is 50 mA max. and is short-circuit-proof.

3.3 Sensitivity adjustment and delay

Sensitivity and delay can be adjusted either via the configuration DIP switches or alternatively using the optional programming set.

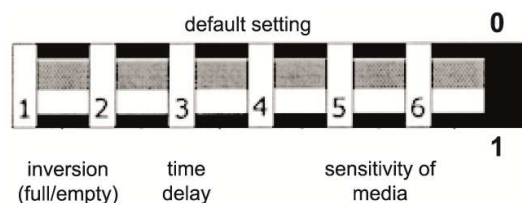


Figure 2: configuration DIP switches

3.3.1 Sensitivity adjustment

switch			on/off values in %	
6	5	4	on	off
0	0	0	86	84
0	0	1	97	96
0	1	0	72	70
0	1	1	60	58
1	0	0	50	48
1	0	1	11	9
1	1	0	5	4
1	1	1	configuration via PC and programming set MC1310 (option)	

Table 1: sensitivity adjustment for various media

3.3.2 Delay

switch		delay in sec
3	2	
0	0	0
0	1	2
1	0	4
1	1	8

Table 2: delay

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: 0...100 °C

Permissible ambient temperature: -10...60 °C

4.1 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.