

b.safe

EN

Installation Manual **b.safe Level Disc Sensor**



b.safe Level Disc Sensor

Cat.No.: R 640-05

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Scope of delivery

b.safe Level Disc Sensors are delivered with a screwdriver to set the sensitivity respectively to adjust the sensor from control of filling level to emptiness level. An adhesive strap as well as an optionally usable DualLock pressure lock is included in the delivery.

Compatibility

Our Level Disc Sensors are compatible with all filling level control devices offered by us. The use of filling level control systems of other manufacturers has to be clarified on a case-by-case-basis.

Safety Information

Do not use this Level Disc Sensor in explosive areas due to its construction.



Taking into operation

Only use this sensor in clean and dry environmental conditions. The connection to our filling level control systems is made through special signal cables that are available at BOHLENDER. Take care of the plug pins and do not damage them when screwing.

Please respect the installation manual attached to our filling level control systems.



Configuration of the Level Disc Sensor as Filling Level or Emptiness Level Sensor

Our Level Disc Sensors can be used as filling level or emptiness level sensor. On the front side of the Level Disc Sensor you will find two setting screws, the left one is required for the setting.

Never adjust the right screw as this makes the sensor unusable!

We always deliver our sensors as Filling Level Control Sensors where the screw is set to its limit clockwise (as you can see on the picture).



Taking into operation

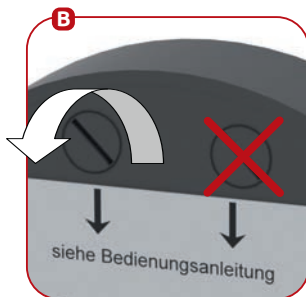
- A** To adjust the sensor for **filling level control**, turn the screw by means of the attached screwdriver up to its limit clockwise.
(The right screw should not be turned in any case!)

Please always check the correct function of the Level Disc Sensor after settings.



- B** To adjust the sensor for **emptiness level control**, turn the screw by means of the attached screwdriver up to its limit counter clockwise.
(The right screw should not be turned in any case!)

Please always check the correct function of the Level Disc Sensor after settings.



Mounting of the Level Disc Sensor with attached adhesive strap

Mount the Level Disc Sensor by means of the attached adhesive strap on the required height for a safe alerting. This is normally 90% of the absolute filling height of the canister in case of use as filling level control sensor. Take care of a safe and fix mounting in order to avoid malfunction (spill over).



The mounting height in case of use as emptiness level control depends on your individual requirements which means you have to choose at which rest volume the alerting is required.



Taking into operation

Mounting of the Level Disc Sensor with attached Dual-Lock

Mount the Level Disc Sensor by means of the attached Dual-Lock pressure lock on the required height for a safe alerting. This is normally 90% of the absolute filling height of the canister in case of use as filling level control sensor.

The mounting height in case of use as emptiness level control depends on your individual requirements which means you have to choose at which rest volume the alerting is required.



When mounting the DualLock on the back side of the Level Disc Sensor, take care of clean and greaseless surfaces.

When mounting the DualLock counterpart on the canister, take care of clean and greaseless surfaces.



Taking into operation

Mounting of the Level Disc Sensor with extra Accessorie Disc Sensor Holder

Cat.No. R 649-45 Suitable for Waste Caps GL45 (Cat.No. M 345-01/-05/-10)

Cat.No. R 649-55 Suitable for Waste Caps S55 (Cat.No. M 355-01/-03/-40)

Made of PE, height-adjustable bracket for a b.safe Disc Sensor (Cat.No. R 640-05).

- 1** Attached to the to be monitored canister by putting the holder onto a fitting b.safe Waste Cap.
- 2** The Disc Sensor is clipped into the corresponding holder, the cable guide prevents kinks on the sensor cable.
- 3** After having put the holder on the PTFE insert of the Waste Cap, the disc sensor can be positioned freely in the requested height. The adjusted height corresponds to the fill level to start the alarm.



Simple attachment of the **b.safe Disc Sensor (Cat.No. R 640-05)** by hanging the disc sensor holder into the b.safe Waste Cap.

Position of the sensor can be stepless adjusted in height for level monitoring in containers and canisters made of non-conductive materials.



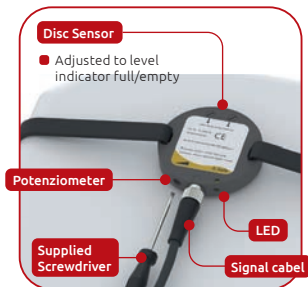
Setting of Level Disc Sensors

The Level Disc Sensor is suitable for container walls made of non-conductive and non-dissipative materials which is usually glass and plastics without filling materials. It is adjustable via the adjusting screw and the attached screwdriver shown on the picture on different container wall thicknesses and materials:

Generally, turning the screw clockwise increases the sensitivity, turning the screw counter clockwise, the sensitivity decreases.

To adjust the sensitivity, proceed as follows:

- 1 Fill the container partly with the used liquid
- 2 Hold the measuring surface of the sensor (surface without label) at the height of the liquid on the container wall. The whole measuring surface of the sensor has to be covered by the liquid.



- 3** If an alert already triggers (LED on the sensor shines yellow), turn the screw counter clockwise until the alert stops.
- 4** Now turn the screw as much clockwise until the alert triggers again.
- 5** Hold the measuring surface of the sensor on a part of the container wall where is no liquid. The alarm should not trigger. If, however, the alarm triggers, reduce the sensitivity through turning the screw counter clockwise in small steps.

The sensor is now correctly set.

If you have configured the Level Disc Sensor for emptiness level, go the same way. Just set the alert above the filling level of the container.

Supplementary **b.safe** products

b.safe Signal Cabel



Cat.No.: R 645-02 / R 645-03 /
R 645-05 / R 645-10



Cat.No.: R 644-07 / R 644-12

b.safe Disc Sensor Holder



Cat.No.: R 649-45 / R 649-55

Adhesive strap



Cat.No.: R 647-02

Dual-Lock pressure lock



Cat.No.: R 648-01

More b.safe Products

You will find these
and many other products
under **b.safe.de**



b.safe Air Valves
M 505-01

b.safe Cap GL45
M 145-01

b.safe Exhaust Filter, M 506-02

b.safe Waste Cap GL45
M 345-10

CE Declaration of Conformity

For the following product:

Device type: Disc Sensor

Type designation: Disc Sensor, R 640-05

The manufacturer / distributor

Bohlender GmbH · Waltersberg 8 · 97947 Grünsfeld

Hereby declares that the aforementioned products comply with the requirements of the following directives:

EMC-Directive 2014/30/EU - Electromagnetic Compatibility Directive

The following directives were used for assessment:

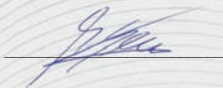
EN IEC 60947-5-2:2020

DIN EN IEC 63000: 2018

The product is RoHS-compliant; it complies with Directive 2011/65/EU on the restriction of hazardous substances in electrical and electronic equipment

The product fulfills the requirements provided that its intended use is ensured during installation and operation.

Grünsfeld, 20.07.2026



Marco Seus
Production Planning and Control

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