



Installation Manual

b.safe System Waste Caps

b.safe System Waste Caps LC

Cat.-No.:

R 1305-01 / R 1306-01 / R 1309-01

b.safe System Waste Caps DLC

Cat.-No.:

R 1350-21 / R 1355-20

R 1356-20 / R 1359-20

b.safe System Waste Caps Capacitive

Cat.-No.: R 1325-60



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Scope of Delivery

Depending on the version, the b.safe System Waste Cap is supplied with b.safe Fittings, Blind Fittings and Hose Connectors.

Functionality

The b.safe System Waste Caps are used in combination with the b.safe Mini-Display for reliable visual and acoustic monitoring of fill and empty levels in the laboratory.

Compatibility

Our b.safe System Waste Cap is compatible with all of our level monitoring devices we offer. The b.safe Mini Display enables the use of our System Waste Caps with pre-alarm function! Please check individually if you can use filling level monitoring devices of other brands. If filling level monitoring devices of other brands can be used, has to be checked individually.

Safety Information

Sensors used in explosion hazardous areas (EX zone) generally have to be secured with an isolated amplifier.
(Cat.No.: R 660-01, R 660-04)

All components that are connected upstream of the sensors, e. g. b.safe Display, b.safe Splitter as well as b.safe Isolated Amplifier, have to be installed outside of the explosion hazardous area.

Make sure to use only sensors that are explicitly approved for use in potentially explosive areas.

The installation of electronic components, especially in explosion hazardous areas, must always be carried out by trained specialist staff.

Please note

When installing a

b.safe System Waste Caps DLC S60
(Cat.-No.: R 1356-20) or

b.safe System Waste Caps LC S60
(Cat.-No.: R 1306-01)

on **b.safe Canister S60/61 inclined**
(Cat.-No.: R 236-10 and R 236-20)

it must be ensured that the level lance always
points upwards during installation

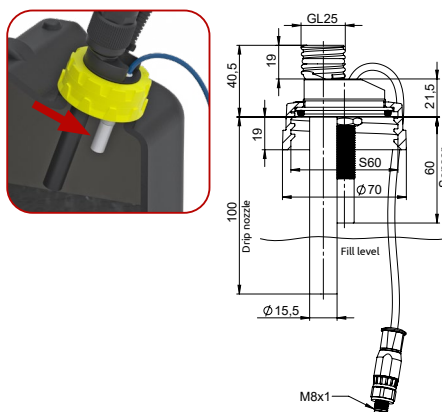


When installing a

b.safe System Waste Caps S60 Capacitive
(Cat.-No.: R 1325-60)

on **b.safe Canister S60/61 with inclined trim**
(Cat.-No.: R 236-10 and R 236-20)

It must be ensured that the capacitive sensor always
faces downward after installation!

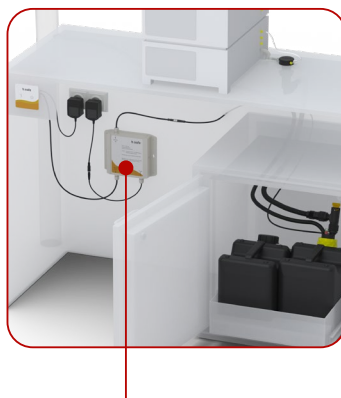


Important: Use b.safe Blind Fittings for
gas tight closing of unused openings on a
b.safe Waste Cap!

Before using Waste Caps LC/DLC always
check if the application of an Isolated Am-
plifier (Cat. No. R 660-01) is necessary!

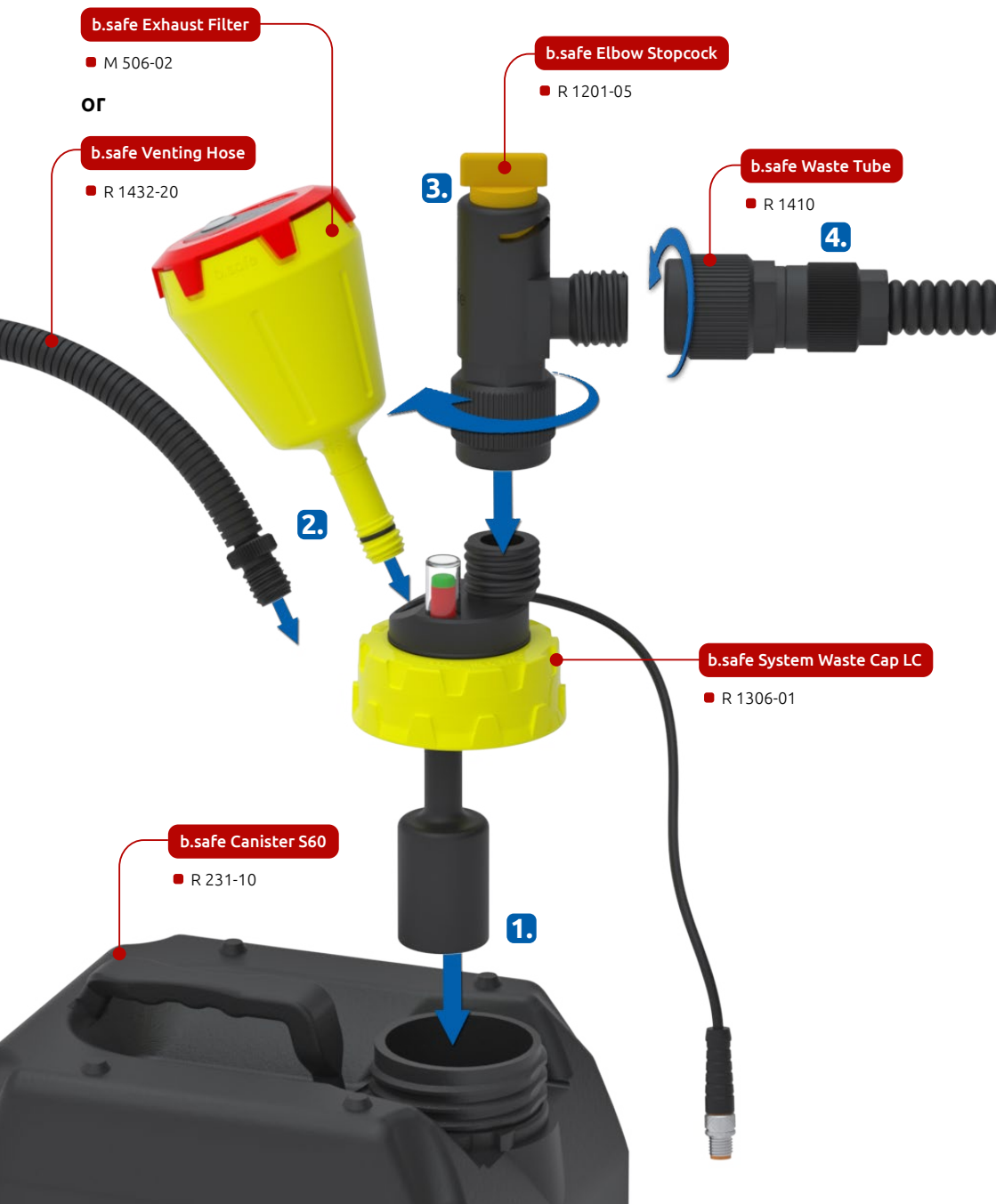
Only use b.safe Signal Cables for the
connection of Waste Caps LC/DLC and
make sure that the plugs are not damaged
(first plug and then screw)

Different kinds of connection of Waste
Caps LC/DLC are explained in the instruc-
tion manuals of our Displays (e.g. Cat. No.
R 657-01) or Mini-Displays (e.g. R 659-03).



b.safe Isolated Amplifier for
galvanic isolation of the sensor side
and the output side. Ignitable sparks
caused by the components of the
alerting systems are prevented in the
explosive atmosphere on sensor side.

Installation b.safe System Waste Cap LC



Connection of **b.safe System Waste Cap LC** with **b.safe Isolated Amplifier**

1. Connect signal cable of the **b.safe System Waste Cap LC** with the signal cable of the **b.safe Isolated Amplifier**:
Waste Cap with **Sensor IN**



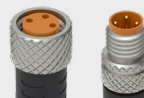
2. Connect signal cable of the **b.safe Isolated Amplifier** with the **b.safe Mini-Display**:
Sensor OUT with **Sensor**



3. Then plug in the power plug and connect the power supply unit to the mains:
a. Isolated Amplifier
b. Mini-Display



CAUTION: Carefully insert the plug and insert the pins into the holes provided! Then screw together.



Installation **b.safe System Waste Cap Capacitive** with **b.safe Isolated Amplifier**

1. Connect signal cable of the **b.safe System Waste Cap Capacitive** with the signal cable of the **b.safe Isolated Amplifier**:

Waste Cap with Sensor IN

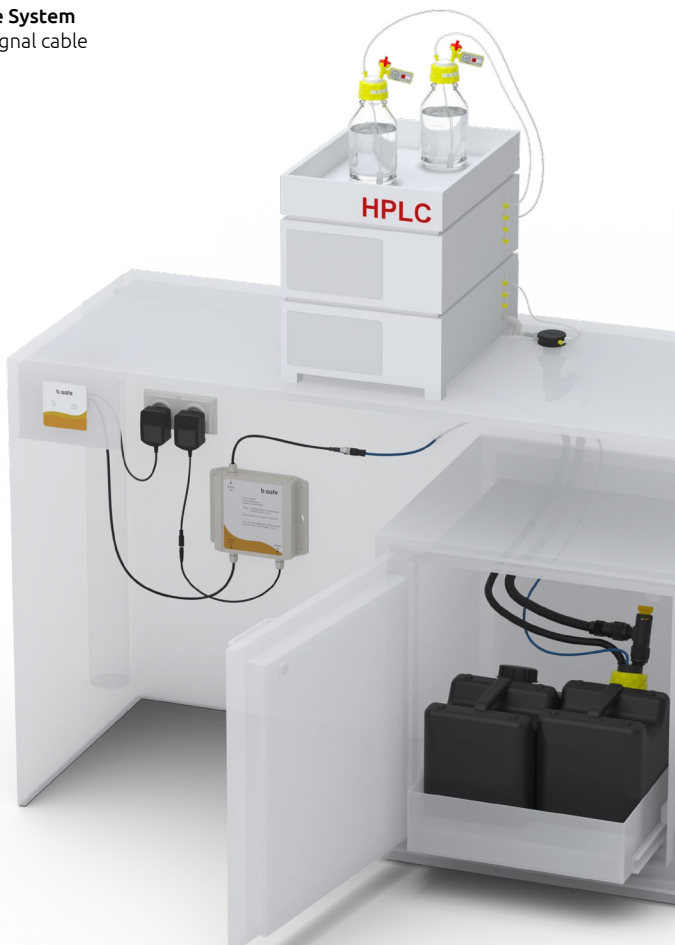


2. Connect signal cable of the **b.safe Isolated Amplifier** with the signal cable of the **b.safe Mini-Display**

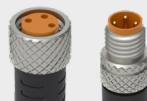
Sensor OUT with Sensor



3. Then plug in the power plug and connect the power supply unit to the mains:
 - a. Isolated Amplifier
 - b. Mini-Display



CAUTION: Carefully insert the plug and insert the pins into the holes provided! Then screw together.



Installation **b.safe System Waste Cap DLC** pre- and main alarm with **b.safe Isolated Amplifier**

1. Connect signal cable of the **b.safe System Waste Caps DLC** with the signal cable of the **b.safe Isolated Amplifier**

Waste Cap Cable 1 with **Sensor 1 IN**

Waste Cap Cable 2 with **Sensor 2 IN**



2. Connect signal cable of the **b.safe Isolated Amplifier** with the signal cable of the **b.safe Mini-Display**.

Isolated Amplifier Sensor 1 OUT with **Cap Sensor 1**

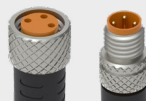
Isolated Amplifier Sensor 2 OUT with **Cap Sensor 2**



3. Then plug in the power plug and connect the power supply unit to the mains:
 - a. Isolated Amplifier
 - b. Mini-Display



CAUTION: Carefully insert the plug and insert the pins into the holes provided! Then screw together.



Cleaning & Maintenance

Possible labelling or adhesive residues on b.safe Waste Caps can be removed with isopropyl.

Once the b.safe Service Life Indicator is activated, the white inspection window turns into red with increasing time of use. If the white writing "CHANGE" is completely visible on the red background, the b.safe Exhaust Filter is dead and has to be replaced.

Cleaning

1. Clean the b.safe Waste Caps with a wet cloth and, if applicable, with a rinsing agent and warm water.

Attention: the b.safe Exhaust Filter must not get wet. We recommend to remove it before cleaning

2. Unscrew the floater from the Waste Caps LC/DLC regularly and clean it by putting it into warm water (if necessary with rinsing agent). It is enough to flush it with clear water afterwards before mounting it again.

3. Remove the protective glass / the level indicator from the b.safe Waste Cap

Attention:

- Don't immerse the b.safe Waste Cap with signal cable into liquids!
- Clean the b.safe Waste Caps with a wet cloth
- Do not disassemble the protective glass any further
- Do not remove the signal cable from the b.safe Waste Cap

4. Clean the protective glass / the level indicator in suitable baths (e.g. ultra sonic bath).

5. The protective glass of the b.safe Waste Cap can only be cleaned from below! Please use a small brush to get into the glass from below through the cap.

Attention: don't use a metal brush!

6. As soon as all parts are dry, the glass / the level indicator can be screwed into the b.safe Waste Cap again.

b.safe System Waste Cap LC



b.safe System Waste Cap DLC



Consumables & Accessories

b.safe Exhaust Filter



	Size	Service life	Packing Unit	Cat.-No.
A	Small	3 months	2 pcs.	M 506-01
B	Medium	6 months	2 pcs.	M 506-02
C	Large	12 months	2 pcs.	M 506-03

b.safe Signalkabel

Cable length	Connection 1	Connection 2	Cat.-No.
2,0 m	socket	plug	R 645-02
3,0 m	socket	plug	R 645-03
5,0 m	socket	plug	R 645-05
10,0 m	socket	plug	R 645-10



b.safe Elbow Stopcock

Female thread	Male thread	Bore-Ø (mm)	External dimensions (L x D x H mm)	Cat.-No.
GL25	GL25	10	34 x 57 x 102	R 1201-05

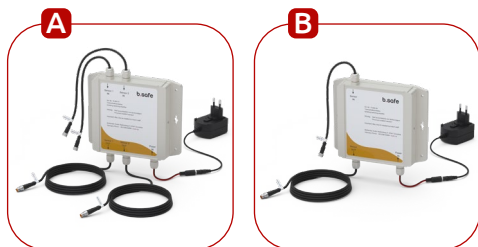


b.safe Mini-Displays



Version	No. of containers to be monitored	Dimensions	Cat.-No.
A Wall 1-channel	1	85x85x37 mm	R 658-01
B Wall 2-channel	2	85x85x37 mm	R 658-02
C Table 1-channel	1	110x65x30 mm	R 659-01
D Table 2-channel	2	110x65x30 mm	R 659-02
E Wall DLC	1	85x85x37 mm	R 658-03
F Table DLC	1	110x65x30 mm	R 659-03

b.safe Isolated Amplifier



	Outer dimension ca. mm	Number of level sensor inputs	Version	Cat.-No.
A	200 x 200 x 40	2	2-channel	R 660-01
B	200 x 200 x 40	1	1-channel	R 660-04

Better **b.safe**

Individual built-in systems
for safe solvent disposal
and waste management in
the laboratory



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