



VARIBOX®

## FAQ Sensors

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Packing chemicals can be safer

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## FAQ sensors

This FAQ contains frequently asked questions about the sensors that are mounted in the VARIBOX FC. This FAQ is about the three available versions: the empty sensor, low-level sensor and the full sensor.

### Empty sensor

#### What is an empty sensor?

The empty sensor is a sensor in the VARIBOX FC (option) that knows when the VARIBOX FC is almost empty: approximately 1-liter liquid remaining. A system can be connected to the empty sensor and sends a signal when the VARIBOX FC is almost empty or that switches off a pump.

#### How does an empty sensor work?

The empty sensor has a float switch at the deepest point of the VARIBOX FC. If there is liquid in the VARIBOX FC, the float will float, and the switch makes an electrical circuit. When all the liquid has been pumped out of the VARIBOX FC, the float drops and this contact breaks

#### How do I connect the empty sensor?

There is a plug connection on the top of the VARIBOX FC, next to the “empty sensor” symbol. A cable with the correct 2-pole plug can be connected to this. First remove the cover from the plug connection and then place the plug on the connection. The plug can only be placed in one way, as can be seen from the slot and the corresponding edge. After insertion, the plug can be secured by tightening the swivel that is around the plug.

#### How can I see that the empty sensor works?

When the VARIBOX FC is filled, the circuit closes. As soon as the VARIBOX FC is empty, the circuit is broken. If the VARIBOX FC is full and the circuit is not closed, there is a malfunction. The plug may not be connected properly, there may be a broken cable or poor contact, the float at the bottom of the empty sensor may be mounted upside down. Have this checked and repaired by a specialist.

#### How do I connect the empty sensor to my system?

Have a specialist prepare the connection to your system. A possible method of connection can be found in the Connection diagram (Appendix A). The connector of the empty sensor has a 2-pin plug. The empty sensor circuit is opened when the VARIBOX FC is almost empty: approximately 1 liter remaining. The empty sensor is also activated when the cable is damaged. The level sensors are two-wire and fail-safe. Max switching voltage is 48V; max. switching current is 0.5A. The correct connection for this plug is: Bulgin Standard Buccaneer PX0736 / S (screw termination).

#### Where can I get the plugs?

The connections are available at: [Distrelec.com](http://Distrelec.com), [Conrad.com](http://Conrad.com), [Farnell.com](http://Farnell.com) or [RS-components.com](http://RS-components.com).

#### Can I combine the empty sensor with a full sensor or pre-sensor?

The empty sensor cannot be combined with the low-level sensor. The empty sensor can, however, be combined with the full sensor.

## Low-level sensor

### What is a low-level sensor?

The low-level sensor is a sensor in the VARIBOX FC (option) that knows when there is approximately 50 liters of remaining content in the VARIBOX FC. A system can be connected to the low-level sensor, which then emits a signal or switches off a pump.

### How does a low-level sensor work?

The low-level sensor has a float switch in the VARIBOX FC. If there is liquid in the VARIBOX FC, the float will float, and the switch makes an electrical circuit. If there is only about 50 liters left in the VARIBOX FC, the float drops and this contact breaks.

### How do I connect the low-level sensor?

On the top of the VARIBOX FC there is a plug connection, next to the symbol for "low-level sensor". A cable with the correct 2-pole plug can be connected to this. First remove the cover from the plug connection and then place the plug on the connection. The plug can only be placed in one way, as can be seen from the slot and the corresponding edge. After insertion, the plug can be secured by tightening the swivel that is around the plug.

### How can I see that the low-level sensor works?

When the VARIBOX FC is filled, the circuit closes. As soon as there is approximately 50 liters in the VARIBOX FC, the circuit will be broken. If the VARIBOX FC is full and the circuit is not closed, there is a malfunction. The plug may not be connected properly, there may be a broken cable or poor contact, the float at the bottom of the empty sensor may have been mounted upside down. Have this checked and repaired by a specialist.

### How do I connect the low-level sensor to my system?

Have a specialist prepare the connection to your system. A possible method of connection can be found in the Connection Diagram (Appendix A). The connector of the low-level sensor has a 2-pin plug. The circuit is opened when the VARIBOX FC is almost empty: approximately 1 liter of capacity. The empty sensor is also activated when the switch cable is damaged. The level sensors are two-wire and fail-safe. Max switching voltage is 48V; max. switching current is 0.5A. The correct connection for this plug is: Bulgin Standard Buccaneer PX0736 / S (screw termination)

### Where can I get the plugs?

The connections are available at: [Distrelec.com](http://Distrelec.com), [Conrad.com](http://Conrad.com), [Farnell.com](http://Farnell.com) or [RS-components.com](http://RS-components.com)

### Can I combine the low-level sensor with a full sensor or empty sensor?

The low-level sensor cannot be combined with the empty sensor. The low-level sensor can, however, be combined with the full sensor.

## Full sensor

### What is a full sensor?

The full sensor is a sensor in the VARIBOX FC (option) that knows when the VARIBOX FC is full. A system can be connected to the full sensor that emits a signal when the VARIBOX FC is full or that switches off a pump.

### How does a full sensor work?

The full sensor has a float switch in the highest point of the VARIBOX FC. If the VARIBOX FC is not filled, the float will hang, and the contact will break. When the VARIBOX FC is completely full, the float will float, and the switch makes an electrical circuit.

### How do I connect the full sensor?

On the top of the VARIBOX FC there is a plug connection, next to the symbol for "full sensor". A cable with the correct 3-pin plug can be connected to this. First remove the cover from the plug connection and then place the plug on the connection. The plug can only be placed in one way, as can be seen from the slot and the corresponding edge. After insertion, the plug can be secured by tightening the swivel that is around the plug.

### How can I see that the full sensor works?

If the VARIBOX FC is not yet full, the circuit closes. As soon as the VARIBOX FC is full, the circuit is broken. If the VARIBOX FC is not full and the circuit is not closed, there is a malfunction. The plug may not be connected properly, there may be a broken cable or poor contact, the float of the full sensor may be mounted upside down. Have this checked and repaired by a specialist.

### How do I connect the full sensor to my system?

Have a specialist prepare the connection to your system. A possible method of connection can be found in the Connection Diagram (Appendix A). The connector of the full sensor has a 3-pin plug. The full sensor circuit is opened when the VARIBOX FC is full. The full sensor is also activated when the switch cable is damaged. The level sensors are two-wire and fail-safe. Max switching voltage is 48V; max. switching current is 0.5A. The correct connection for this plug is: Bulgin Standard Buccaneer PX0731 / S (screw termination).

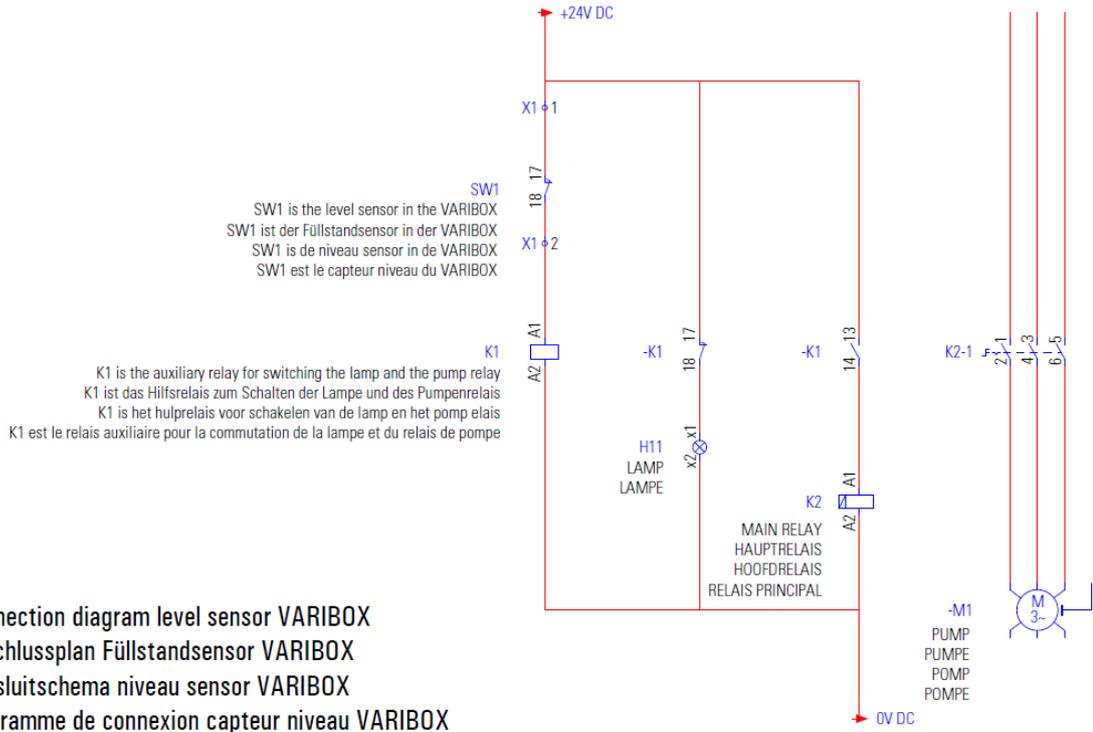
### Where can I get the plugs?

The connections are available at: [Distrelec.com](http://Distrelec.com), [Conrad.com](http://Conrad.com), [Farnell.com](http://Farnell.com) or [RS-components.com](http://RS-components.com)

### Can I combine the full sensor with an empty sensor or low-level sensor?

The full sensor can be combined with an empty sensor or a low-level sensor.

## Appendix A



## Learning More, Service and Support

### More information about using the VARIBOX FC

For the latest information about the VARIBOX FC and for service and support, please visit [www.varibox-ibc.com](http://www.varibox-ibc.com). You will also find instructional videos about using the VARIBOX FC. A quick way to access the website is to scan the QR code below. This code is also present at the VARIBOX FC.



[www.varibox-ibc.com](http://www.varibox-ibc.com)



### Getting in touch with us

For spare parts you can use the VARIBOX FC Service parts lists with all the correct references. To obtain this list, or for warranty related questions or for more information about this or more VARIBOX products, feel free to contact us:

VARIBOX Customer Service  
Tel.: +31 570 660 711  
[info@varibox-ibc.com](mailto:info@varibox-ibc.com)

### Obtaining warranty service

If the product appears to be damaged or does not function properly, please follow the advice in this booklet and the online resources. If the product still does not function, contact VARIBOX Customer Service for instructions how to obtain warranty