

Installation instructions / operating instructions

profi-air[®] flat / flex connection box

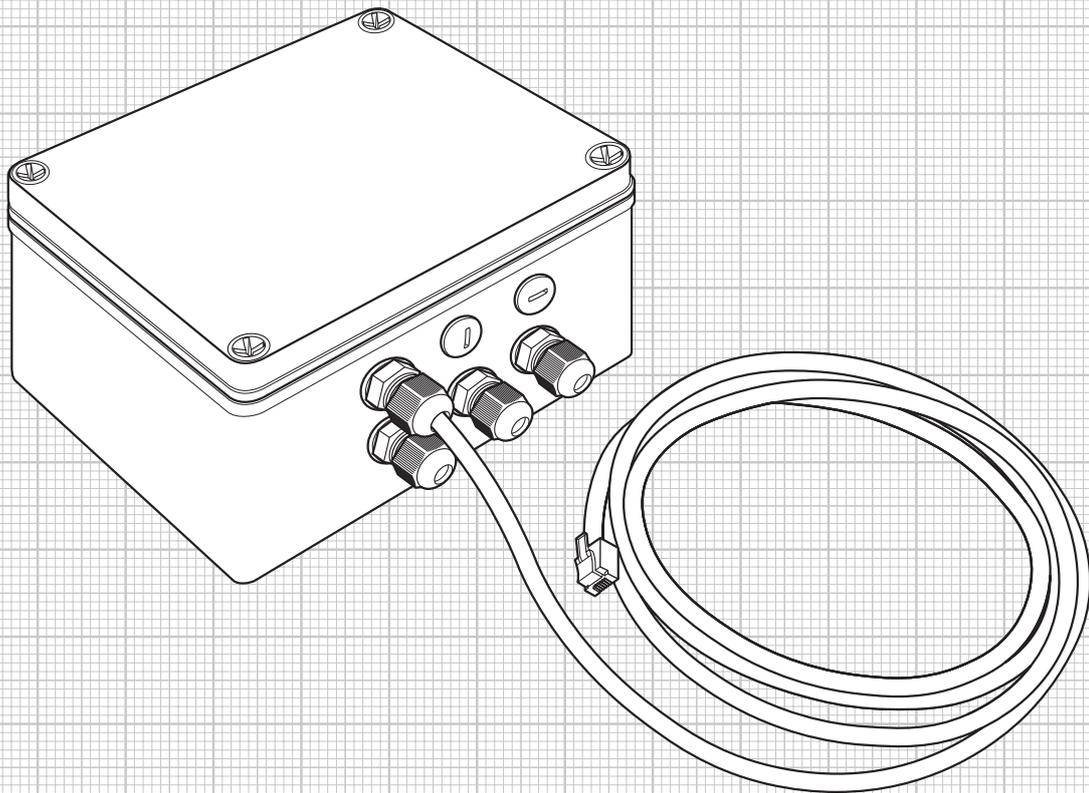


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1 General information

The profi-air connection box extends the range of electric connection options of a ventilation unit from the profi air flat / flex product line.

1.1 Introduction

These installation and operating instructions are intended to help you install a fully functional connection box and properly operate it. We recommend that you read these instructions carefully before you commence installation. These installation and operating instructions can also serve as a reference for service and maintenance work and guarantee smooth and efficient operation.

1.2 Safety

If used as intended, the unit is safe and reliable to operate. The construction and design are state of the art and comply with all relevant DIN / VDE regulations and safety provisions. All safety regulations, warnings and notes of these installation and operating instructions have to be observed; non-observance might result in personal injury and / or damage to the connection box.

1.2.1 Safety regulations

- Installation, connection and commissioning of the connection box must be performed by authorised and qualified personnel only.
- Non-authorized changes or modifications of the connection box are not allowed.
- Installation of the connection box is to be carried out according to the applicable local construction, safety and installation regulations.
- Keep these installation and operating instructions near the connection box during its entire life.

1.2.2 Symbols used



Risk of personal injury



Risk of:

- Damage to equipment
- Errors while operating the device if the instructions are not followed
- Other material damage



Additional notes



Reference to other sections and / or guidelines of the manufacturer



Disposal instructions

2 Intended use

The profi-air connection box extends the range of electric connection options for the ventilation units from the profi-air flat / flex product line. It is connected directly to the mainboard of the ventilation unit.

3 Structure

The connection box consists of a control board with various inputs and outputs. This control board is incorporated into a plastic housing which is installed near the ventilation unit.

4 Scope of delivery

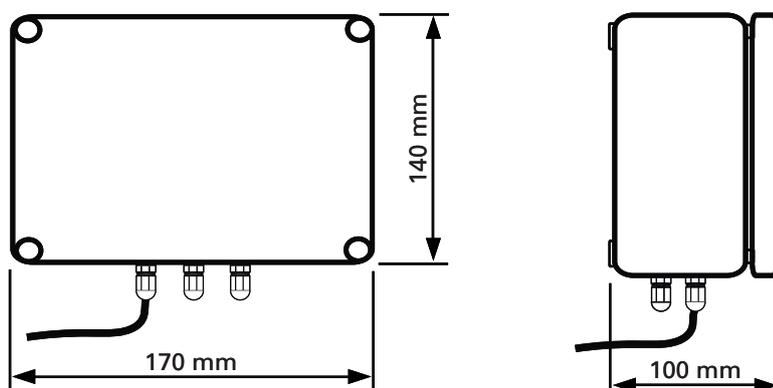
- Connection box incl. 4 PG threaded connectors
- Approx. 2.5 m of connection cable wired / with RJ25 connector plug to connect to the mainboard of the ventilation unit.
- USB cable (exclusively for the factory customer service for firmware updates)
- Installation and operating instructions

5 Technical data

5.1 Connection options

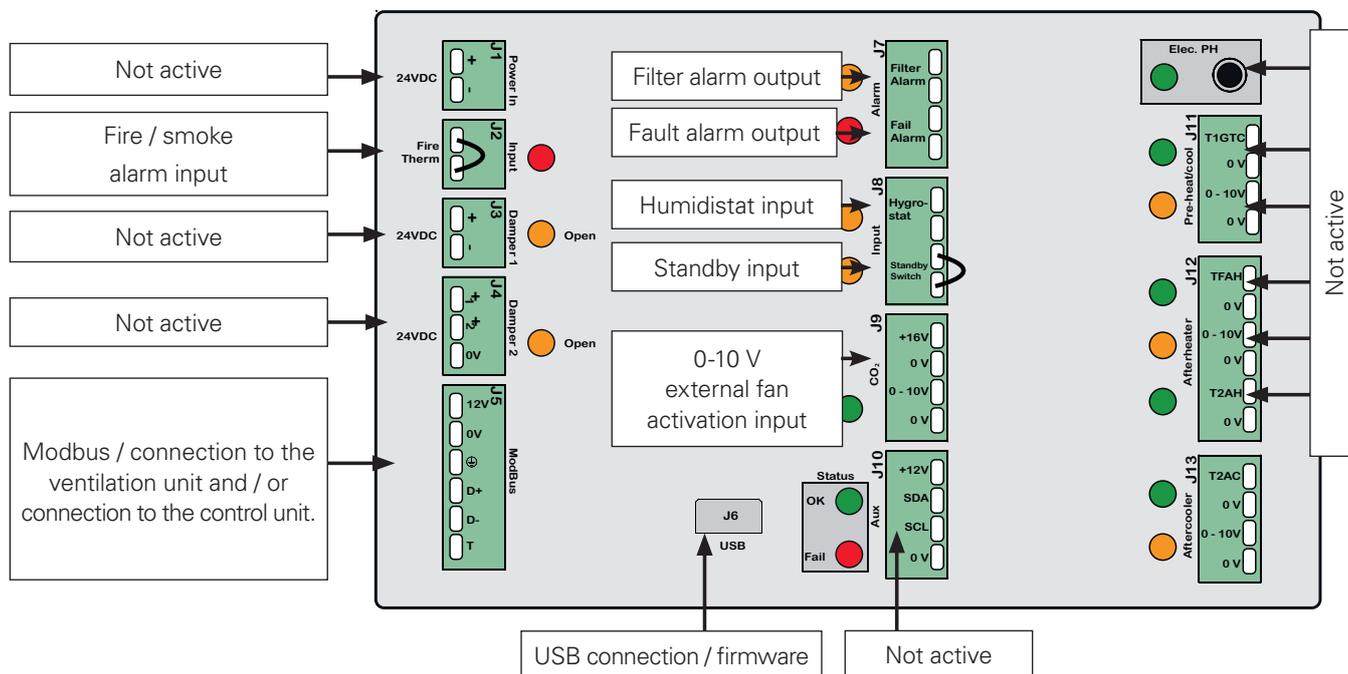
- Fire alarm
- Standby switch
- Room humidistats
- External fan activation
- External filter alarm
- External fault alarm

5.2 Dimensional drawing



5 Technical data

5.3 Schematic connection diagram



6 Wiring diagrams

The connection box must be wired and put into operation according to the following wiring diagrams.



All connection activities must be performed in the “dead” state only since otherwise the connection box or the mainboard of the ventilation unit may get damaged.

All connection activities must be carried out by authorised and qualified personnel only. In addition, applicable local regulations and safety provisions must be complied with.

6 Wiring diagrams

6.1 Modbus (connection to the ventilation unit)

The Modbus connection is used to connect the connection box to the mainboard of the ventilation unit.

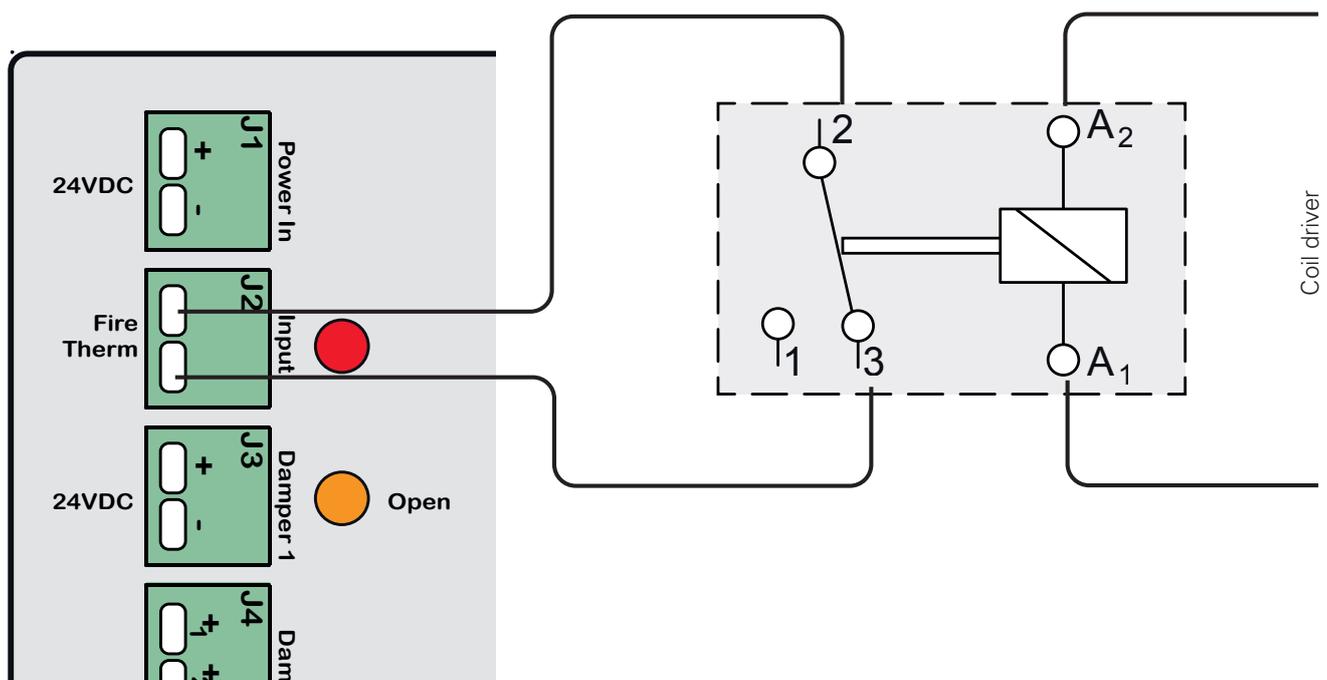


For information on the connection, please consult the installation and operating instructions of the ventilation unit.

Since the external control unit delivered with the profi-air 180 flat ventilation unit also uses the Modbus interface on the mainboard, it must also be connected to the clamping points of the connection box on site. Please observe the colour coding of the wires.

6.2 Fire / smoke alarm input

The input can be used to connect the fire / smoke alarm with a relay output. When delivered, the contact is furnished with a bridge. If this contact is interrupted by, e.g., a triggered fire / smoke alarm, the control system deactivates the ventilation unit. In order to put the ventilation unit back into operation, it must be completely disconnected from power supply for a short period of time.

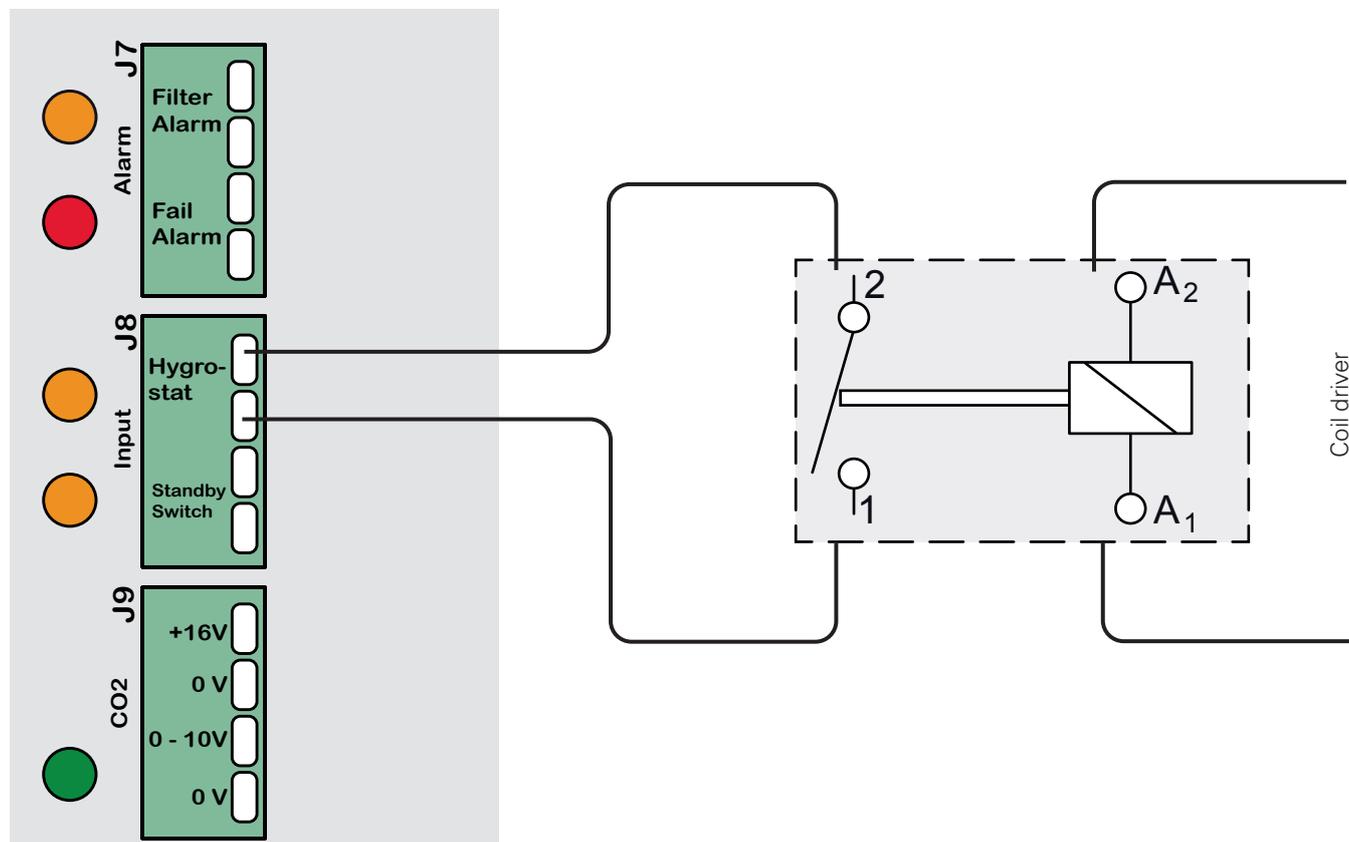


To use the function, the contact must be connected to the break-contact relay (see illustration), and the factory-provided bridge must be removed. If the relay is in a “live” state, the contact is closed. If the current at the relay drops, the contact will be broken and the ventilation unit will be deactivated. The J2 contact is operated at a maximum of 24 V DC/300 mA.

6 Wiring diagrams

6.3 Humidistat input

profi-air room humidistats (cat. no. 78300841) can be connected to this input. If the set value at the room humidistat is exceeded, the control system switches the ventilation unit to mode 3. If the wiring is arranged in parallel, several room humidistats can be connected to the contact.



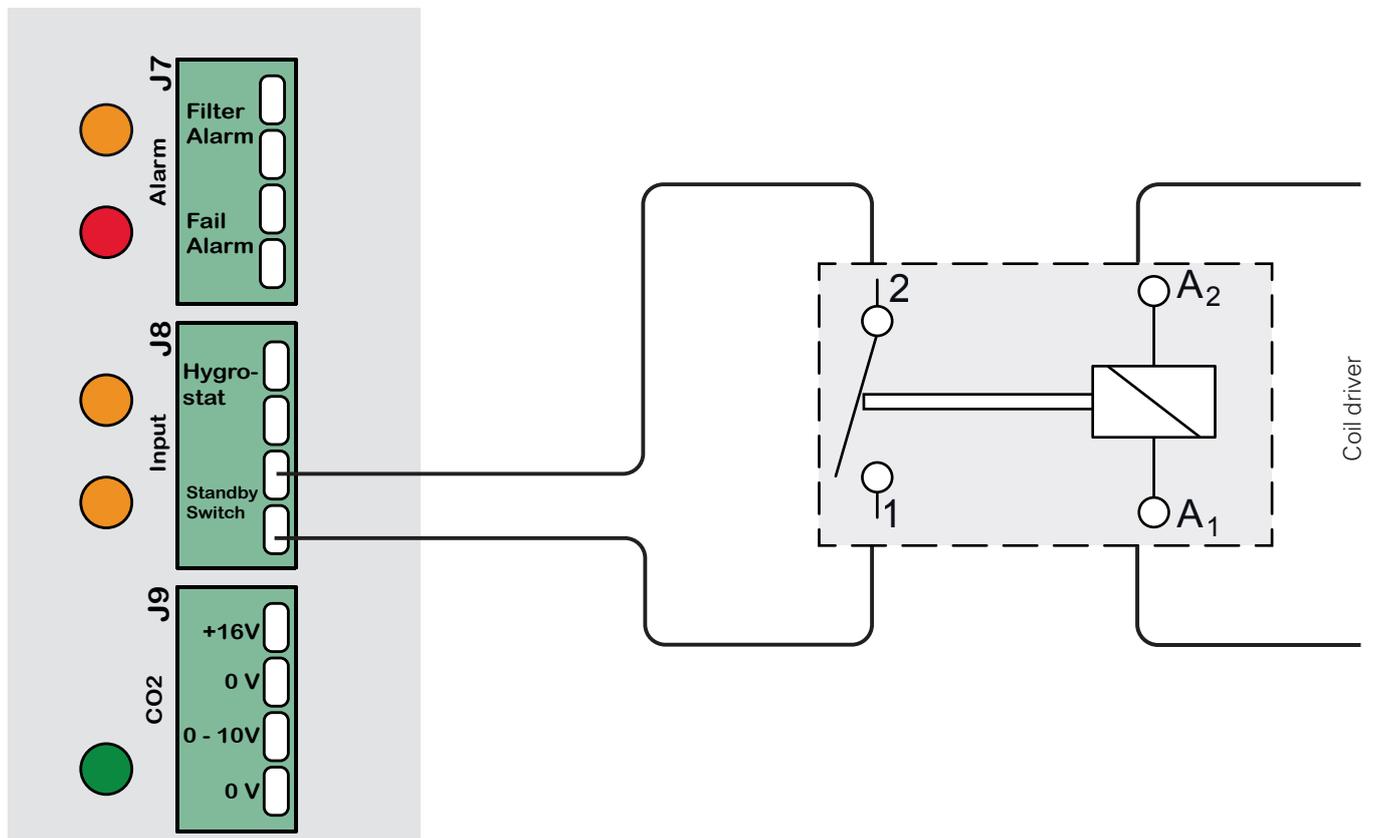
The digital input on the control board of the ventilation unit can also be used to connect room humidistats to the ventilation unit. See the profi-air 180 flat or profi-air 250 / 360 flex ventilation unit installation instructions / operating instructions.

6 Wiring diagrams

6.4 Standby input

The input can be used to connect a standby switch to the ventilation unit.

- Contact closed – ventilation unit in operation
- Contact open – ventilation unit out of operation

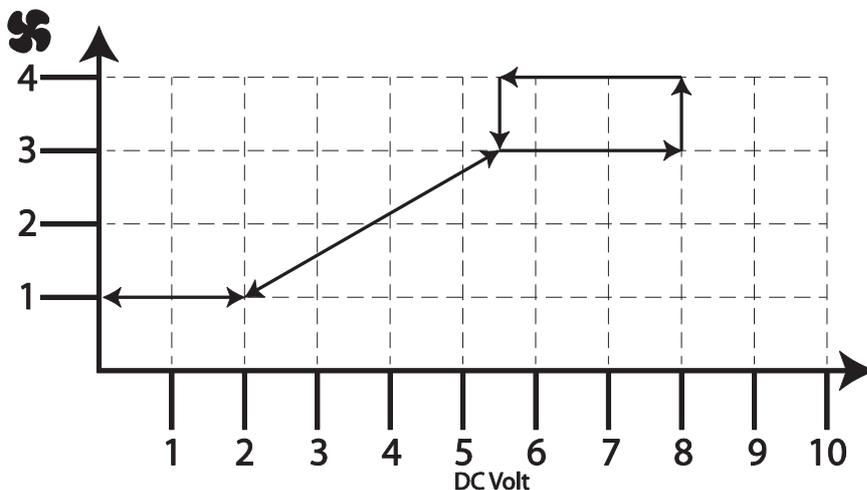
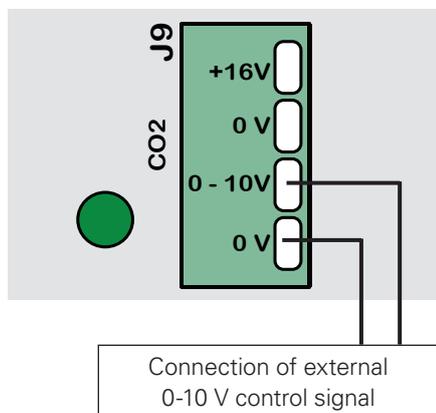


If the system has been switched off over a longer period of time, this causes an increased risk of condensation in the pipes, and / or might lead to moisture damage in the building.

6 Wiring diagrams

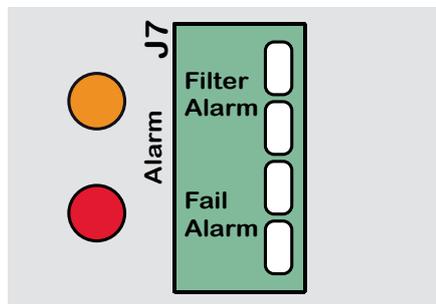
6.5 External fan activation input

The input can be used to control the fan mode of the ventilation unit with the help of a 0-10 V signal. The activation is carried out as in the following diagram.



6.6 Error messages output

The output can be used to externally display error messages and filter alarms. The output signal is 24 VDC.



7 Warranty

Deviating from the applicable GTCs, the manufacturer grants a warranty of 24 months from the time of completion of the installation for the connection box. Warranty claims can only be asserted for material and / or construction defects occurring within the warranty period. In case of a warranty claim, the connection box may not be removed without prior written consent of the manufacturer.

Warranty expires if:

- the warranty period ends.
- parts not provided by the manufacturer are installed.
- unauthorised changes or modifications to the unit are made.

8 Liability

The connection box has been developed and produced for applications in so-called comfort ventilation systems. Any other application is considered “improper” and can lead to damage to the ventilation unit or personal injury which the manufacturer cannot be held liable for.

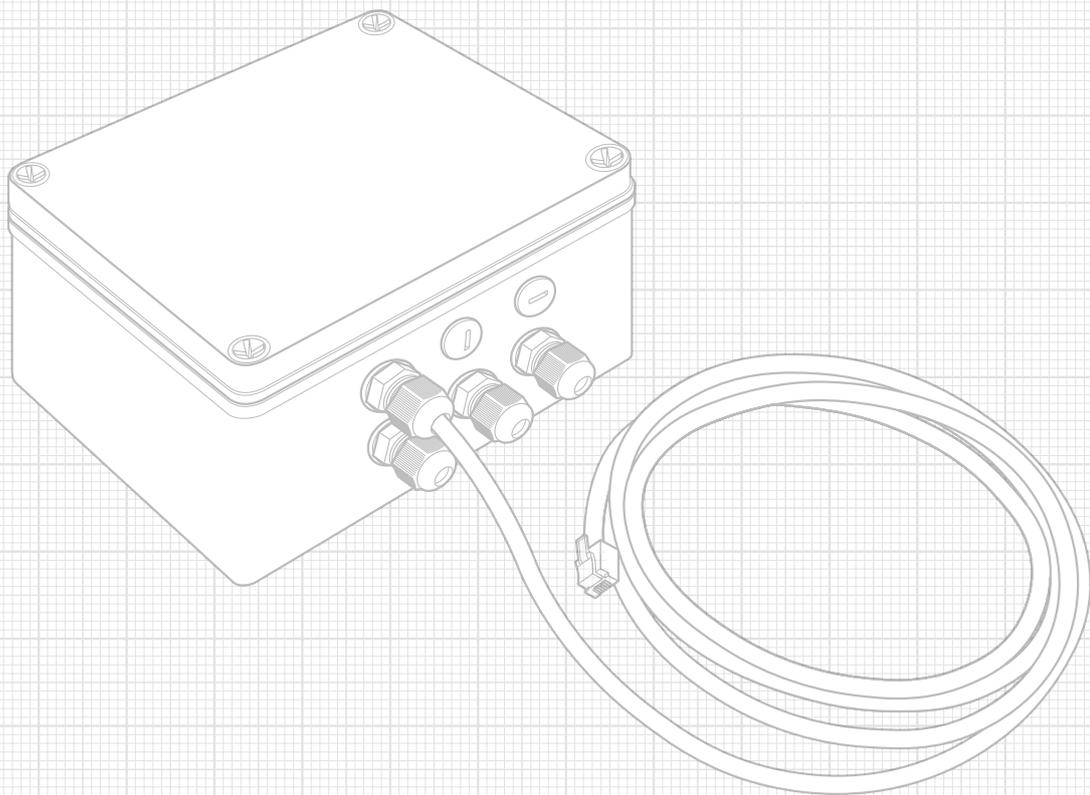
The manufacturer is not liable for damage attributed to the following causes:

- Failure to comply with the safety, operating and maintenance instructions stated herein.
- Installation of spare parts not provided or stipulated by the manufacturer. The responsibility for the use of such spare parts rests solely with the installer.
- Normal wear and tear.

Our “General Terms and Conditions” (please see www.fraenkische.com) apply additionally in their currently valid form.

9 Disposal

Please do not dispose of the connection box with the normal household waste; please ask your municipal waste consulting authority about collection points and recycling possibilities.



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