

732.29.128

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1. Notes on these installation and maintenance instructions

These installation and maintenance instructions aid in the secure mounting and installation of the WT 210 wall terminal as a component of an access control system. The instructions are a constituent of the system, and must be kept in the immediate vicinity of the system and be accessible to the personnel at all times.

The personnel must read and understand these instructions carefully before starting any work. A basic requirement for safe work is the observance of all safety notes and handling indications specified in these instructions.

Furthermore, the local health and safety regulations and general safety regulations for the area of application of the system apply.

Associated documents

In addition to these installation and maintenance instructions, the following documents are valid for the access control system:

- Supplier documentation of the power supply
- Dialock 2.0 user manual or updated version

1.1 Contents and target group of the installation and maintenance instructions

It is essential to pay attention to these installation and maintenance instructions in order to install the product successfully and safely. Please pay attention to all of the specified installation steps, instructions and notes!

These **installation and maintenance instructions** are intended for:

- the **operator** of the product
- the **installer** of the product

In addition to these installation and maintenance instructions, both groups of people must also have read **the separate operating instructions** and **the DIALOCK software manual** before handling the product.

In case of use in software-controlled systems, separate instructions are enclosed with the relevant system components.

1.2 Obligations of the installer

The installer has the following obligations:

- All notes and specifications in the installation and maintenance instructions must be complied with. The installation steps must not be deviated from or varied.
- Only the supplied original parts must be installed.
- The installation and maintenance instructions must be handed to the operator after installation has taken place.

1.3 Obligations of the operator

The operator has the following obligations:

- The installation requirements must be adhered to.
- The product may only be installed and started up by qualified experts.
- The installation and maintenance instructions must be kept until the product is disposed of, and handed to the new operator in the event of a change of operator.

1.4 Exclusion of liability

No liability is accepted for injuries or damage that is attributable to one or more of the following reasons:

- abuse of the equipment
- omission of the emergency opening facility
- failure to read and/or follow the instructions
- inadequately qualified / instructed personnel,
- negligent handling of the product

2. Safety

2.1 Safety notes and symbols in these instructions

Safety notes

Safety notes in these instructions follow a uniform structure. They are introduced by a signal word that indicates the extent of the hazard. This is followed by the source of the danger and measures to avoid them.

The following risk levels are distinguished:



DANGER

This combination of symbol and signal word indicates an immediately dangerous situation causing death or serious injury if not avoided.



WARNING

This combination of symbol and signal word indicates a potentially dangerous situation that may cause death or serious injury if not avoided.



CAUTION

This combination of symbol and signal word indicates a potentially dangerous situation that may cause minor or light injury if not avoided.

NOTE

The note is used to point out dangerous situations which could lead to potential property damage/consequential damage to the product or damage to the environment. Notes are also used to provide important additional information.

Safety notes in handling indications

Safety notes may relate to certain individual handling indications. Such safety notes are incorporated into the handling indication as to not interrupt the flow of reading when carrying out the action. The signal words described above are used.

Examples

1. Loosen screws.
2. Connect lead.



CAUTION

Risk of leads being trapped by the cover!

- Watch the position of the lead. Close cover carefully.

3. Tighten screws.

Special safety notes

To draw attention to special risks, the following symbols are used in the safety notes:

Warning sign	Type of risk
	Warning of dangerous electrical voltage
	Warning of a hazardous area



This symbol highlights useful tips and recommendations and information for efficient and problem-free operation.

Other markings

The following markings are used in these instructions to highlight action instructions, results, lists, references and other elements:

1.>, 2.>, 3.>	Step-by-step action instructions
⇒	Results of action steps
•	Lists without a defined order
[push button]	Controls (e.g. push buttons, switches), display elements (e.g. signal lamps)

2.2 Correct purpose of use

The WT 210 is intended exclusively for use in an access control system.

Correct purpose of use also includes observing all specifications contained in these instructions.



WARNING

Danger in case of improper use!

Improper use of the wall terminal, the controller and the add-on modules can result in dangerous situations.

- Never install the WT 210 in ambient conditions other than those permitted.

Any use beyond or other than the correct purpose of use shall be deemed improper use.

2.3 Incorrect purpose of use

Any use that is not mentioned in chapter 2.2 is considered to be improper. The operator is solely responsible for any resulting damage. It is particularly important to avoid the following:

- Use without emergency opening facility
- use in potentially explosive environments
- Use in the vicinity of electromagnetically sensitive devices
- Use in aggressive environments (containing salt or chlorine, for example)
- Omitting components during installation
- Changes to the installation order
- Use of non-original parts
- Use of defective or damaged components
- modifications or repairs to the product

2.4 Safety symbols

The following stickers are located on one or more components of the access control system. They relate to the immediate environment of where they are located.

Electric voltage



Only qualified electricians are permitted to work on such marked components.

Unauthorised persons may not open the such marked cabinet.

Crossed-out dustbin




This image indicates that the respective component must not be disposed of with residential waste.

2.5 Residual risks

The components have been designed according to the latest state of technology and current safety requirements.

However, there remain residual risks that require careful handling. Below the residual risks and the resulting behaviours and actions are listed.

Electric current

 **DANGER**

Risk of fatal injury from electrical current!

In case of contact with live parts, there is immediate danger to life by electrocution.

Damage to the insulation or individual components can be dangerous to life.

- Work on the electrical system may only be performed by trained electricians.
- In case of damage to the insulation, switch off voltage supply immediately and promptly initiate repairs.
- Before starting work on live parts of electrical systems and operating materials, it must be ensured that the equipment is de-energised for the duration of the work. Observe the 5 safety rules:
 - Disconnect.
 - Secure against reconnection.
 - Ensure that there is no voltage.
 - Earth and short circuit.
 - Neighbouring parts that are live must be covered up or fenced off.
- Never bypass or disable fuses. The correct amperage must be used when replacing fuses.
- Keep moisture away from live parts. It may cause short circuits.

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2.6 Obligations of the operator

Operator is the person who operates the access control system for commercial or economic purposes or a allows third party for use thereof and bears the legal product responsibility for the protection of the user, the personnel, or third parties during operation.

Operator's obligations

The access control system is commonly used in the commercial sector. The operator of the access control system is therefore subject to statutory occupational safety obligations.

In addition to the safety notes in these instructions, safety, work safety, and environmental regulations valid for the area of application of the access control system must be followed.

Here, in particular:

- The operator must ensure that escape routes and emergency exit doors are accessible for all people in case of danger.
- The operator must be aware of the applicable occupational safety regulations and determine other hazards in a hazard assessment that may arise from the special working conditions at the place of use of the access control system. They must be implemented for the operation of the access control system in the form of operating instructions.

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- During the entire operating time of the access control system, the operator must verify that the operating instructions created correspond to the current state of the regulations and, if necessary, adapt them.
- The operator must clearly regulate and specify the responsibilities for installation, operation, troubleshooting, maintenance, and cleaning.
- The operator must ensure that all persons handling the access control system have read and understood these instructions. In addition, the operator must train the personnel at regular intervals and inform them about the risks.

Furthermore, the operator is responsible for ensuring that the access control system is always in perfect technical condition. The following therefore applies:

- The operator must ensure that the maintenance intervals specified in these instructions are followed.
- The operator must have all safety devices inspected regularly for function and completeness.

2.7 Personnel requirements

Essential requirements

Only those persons are authorised as personnel who can be expected to carry out their work reliably.

Persons whose ability to react is affected by, e.g., drugs, alcohol, or medication are not permitted to operate the system.

In the selection of personnel, observe appropriate training as well as the applicable occupation-specific regulations.

These instructions describe the qualifications listed below for the personnel for the various work areas:

Qualified electrician

Qualified electricians are capable of working on electrical systems and recognise potential hazards and avoid them due to their professional training, knowledge, experience as well as knowledge of pertinent standards and provisions.

Qualified electricians have been specifically trained for the working environment in which they operate and know the relevant standards and regulations.

Installation and start-up personnel

Installation and initial start-up may only be carried out by trained experts. Knowledge of the following is a prerequisite:

- National accident prevention regulations
- National fire prevention regulations
- Expert electro-technical knowledge

If the installation and start-up personnel do not have these qualifications, a specialist installation company must be commissioned to do the work.

Personnel who are being trained may only install and start up the product under supervision or after being authorised to do so by someone with experience.

The operator and the installer are personally responsible for compliance with the VDE regulations (and the national electrotechnical and electronics regulations).

Unauthorised persons



WARNING

Danger to life for unauthorised persons due to hazards in the danger zone and working area!

Unauthorised persons who do not meet the requirements described herein will not be aware of the occupational hazards. Therefore, unauthorised persons are subject to risks of serious injury or death.

- Keep unauthorised persons away from the danger zone and working area.
- When in doubt, approach persons and have them clear the danger zone and working area.
- Interrupt the work until unauthorised persons have left the danger zone and working area.

2.8 Environmental protection

NOTE

Risk to the environment due to improper handling of environmentally hazardous substances!

Improper handling of environmentally hazardous substances, particularly improper disposal, can cause significant damage to the environment.

- Always follow the notes below for handling environmentally hazardous substances and their disposal.
- If environmentally hazardous substances are accidentally released into the environment, immediately take appropriate action. When in doubt, notify the appropriate local authority of the damage and check for appropriate measures to be taken.

The following environmentally hazardous substances are used:

Electric and electronic components

Electric and electronic components may contain toxic materials. These components must be collected separately and be deposited at municipal collection points or disposed of by a specialist company.

2.9 Safety notes and dangers

The product has been built in accordance with the latest state of technology and the recognised technical safety regulations. Nevertheless, danger to persons or damage to product or other property could occur during installation and use.

WARNING

Risk of fatality due to lack of emergency opening facility!

If the product is installed without an emergency opening facility, it may not be possible to open the door from the outside in the event of fault. If emergencies occur inside the room during the fault, rescue work will be hindered.

- > The operator must ensure that doors to which this product is fitted have an emergency opening facility in the event of faults.
- > Häfele is not liable for damage that is attributable to failure to install an emergency opening facility.

WARNING

Risk of fatality due to failures or faults in electromagnetically sensitive devices!

The electromagnetic radiation of the product can cause faults in sensitive parts (e.g. in medical equipment).

The functionality thereof will be adversely affected.

- > Do not place product close to electromagnetically sensitive devices.
- > Pay attention to the safety instructions for the electromagnetically sensitive devices.
- > If you have any doubts regarding compatibility, please contact the manufacturer.

WARNING

Danger in case of improper use!

Improper use of the product can result in dangerous situations.

- > Never install the product in potentially explosive areas.

NOTE

Damage to product due to damaged wires!

Damaged wires affect the functionality of the product.

- > Do not trap or damage wires during installation.
- > Never start up and use the product if any wires have been damaged.

3. Scope of delivery

⚠ WARNING

Risk of suffocation from small parts and packing materials!

Screws, small parts and packaging materials can be deadly playthings for children.

- > Do not leave the packing materials and the contents lying around carelessly, and keep away from children and babies.
- > Keep children away from the installation site during installation.

- Check completeness and condition of scope of delivery prior to installation.
- If parts are missing or damaged, contact the manufacturer.

The scope of delivery includes:

- WT 210 wall terminal with frame
- Installation instructions



Fig. 1: Scope of delivery

Dispose of packaging materials in accordance with national regulations.

4. Overview of the access control system

Short description

The WT 210 wall terminal is a compact wall terminal in which the reader and the electronic control unit are combined into a compact unit. In combination with an electrical or electro-mechanical opening device, the WT 210 forms a complete offline access point with low security requirements.

Applications with additional security requirements can be realised with the WTX 202 add-on module. This looks after the switching input functionality of the WT 210, and is installed in a secure area. Please refer to the installation instructions of the WTX 202 for more information on this topic.

The design of the device allows easy installation in flush-mount sockets in compliance with DIN 49073.

The WT 210 has a opto-uncoupled switching input. This can be used to connect an internal door opener push button, which activates the switching output of the WT 210 for the electric strike directly.

The WT 210 has a sabotage sensor which triggers the integrated acoustic signal generator and activates the alarm relay if the reader is removed from the mounting frame

All locking procedures and any removal of the device from the frame are logged in the memory of the WT 210.

The WT 210 has a radio interface, via which the terminal can be configured and audit trails read out with the aid of the MDU.

WT 210 wall terminal

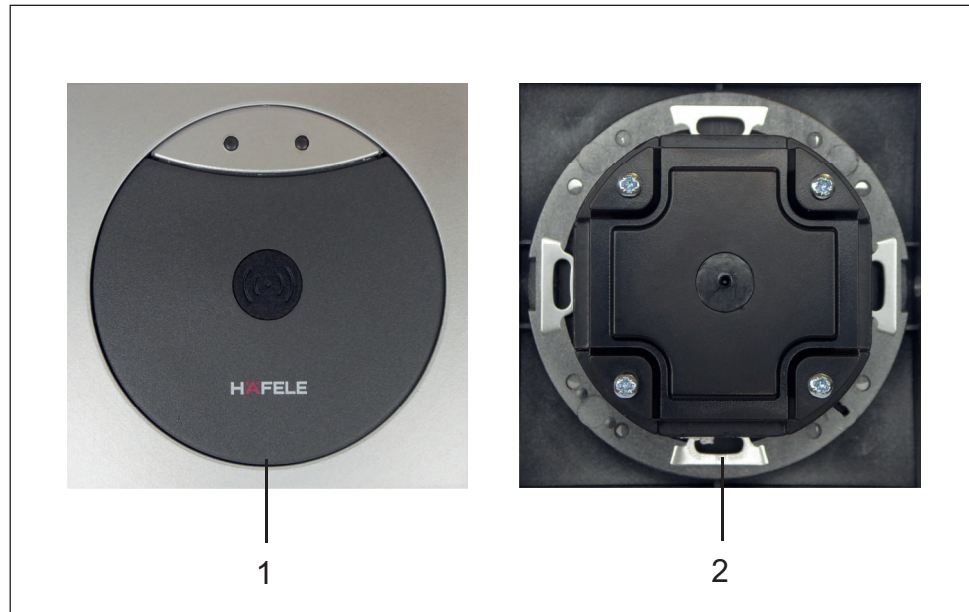


Fig. 2: WT 210 for flush mounting

- 1 Front view
- 2 Rear view

5. Description of functions

5.1 Function of the access control system

The access control system consists of the WT 210 wall terminal with an external power supply and a connected electrical or electro-mechanical opening device and the configuration software.

The settings of the WT 210 which are made in the configuration software are transmitted to the WT 210 by the MDU 110 mobile data transfer unit.

Audit trails are also read out of the WT 210 by the MDU 110 so that they can be loaded into the software of the administrator PC and processed.

Other components such a door release button can also be connected to the WT 210.

Amongst other things, the following installation versions are possible:

Installation version 1 (low security requirements)

- A door with a WT 210, electric opening device and internal door opener push button.
See chapter "5.4.1 Installation version 1 (low security requirements)" on page 35.

Installation version 2 (additional security requirements)

- A door with a WT 210, an electric opening device, an internal door opener push button and a WTX 202.
See chapter "5.4.2 Installation version 2 (additional security requirements)" on page 36.

5.2 Pin configuration of the WT 210

NOTE

Risk of damage to property or consequential damage due to incorrect installation!

The WT 210 can be damaged if it is installed incorrectly.

- A switch/button is connected between IN+ and IN-.
- If an external power source is to be connected, the negative pole must be connected to the negative terminal (-) and the positive pole to the IN- terminal.
- Attention with optocoupler: The input current must be limited to min. 5 mA to max. 20 mA with a series resistor, otherwise damage to property and/or consequential damage is possible.

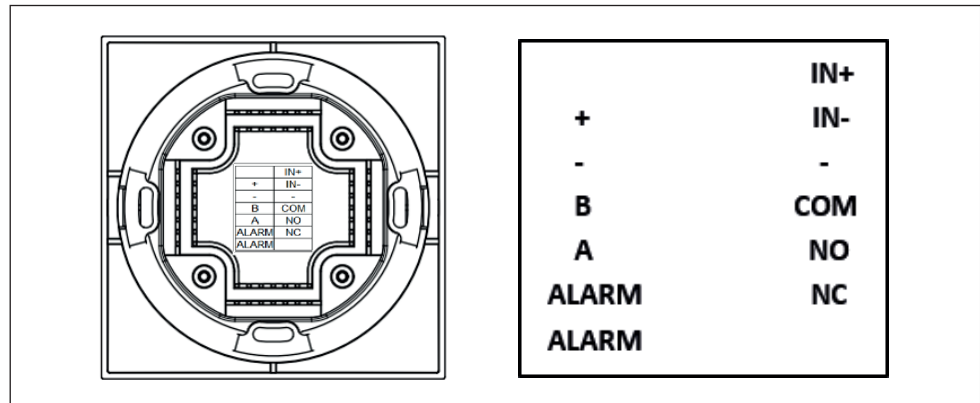


Fig. 3: Pin configuration WT 210

Connection	Usage
+/-	Connection of the power supply 12 – 24 V DC
A, B	Connection of the RS 485
ALARM	Alarm output port, make
IN+, IN-	Switching input/push button input
NC, NO, COM	Relay output port, changeover contact
IN-, -	5 – 24 V, min. 5 mA / max. 20 mA (optocoupler)

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5.3 Recommended power supply

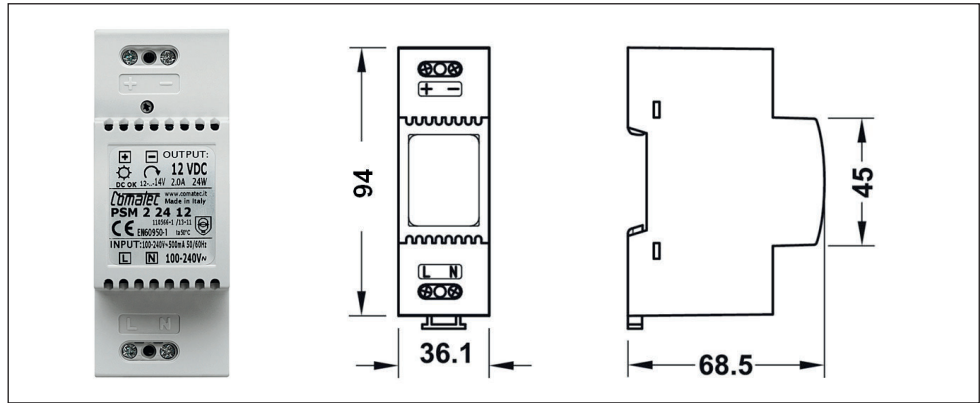


Fig. 4: Power supply

- Input voltage: 100 – 240 V AC
- Output voltage: 12 V DC
- Output current max. 2 A
- Short-circuit proof
- Can be mounted on DIN top hat rail
- Catalogue number 917.93.013

5.4 Installation versions

5.4.1 Installation version 1 (low security requirements)

Door with WT 210, electric strike and inner pushbutton

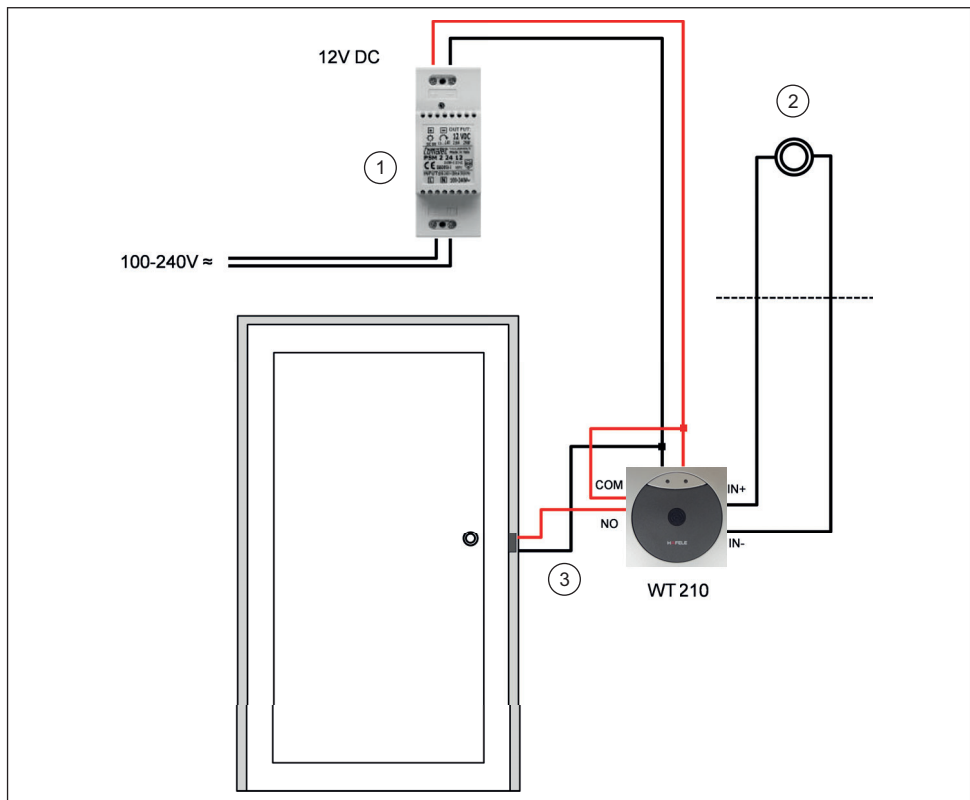


Fig. 5: Installation version 1

- 1 Power supply, Cat.No. 917.93.013
- 2 Option: Door release push button in the indoor area
- 3 Electric strike, 12 V DC

5.4.2 Installation version 2 (additional security requirements)

Door with WT 210, electric strike, inner pushbutton and WTX 202

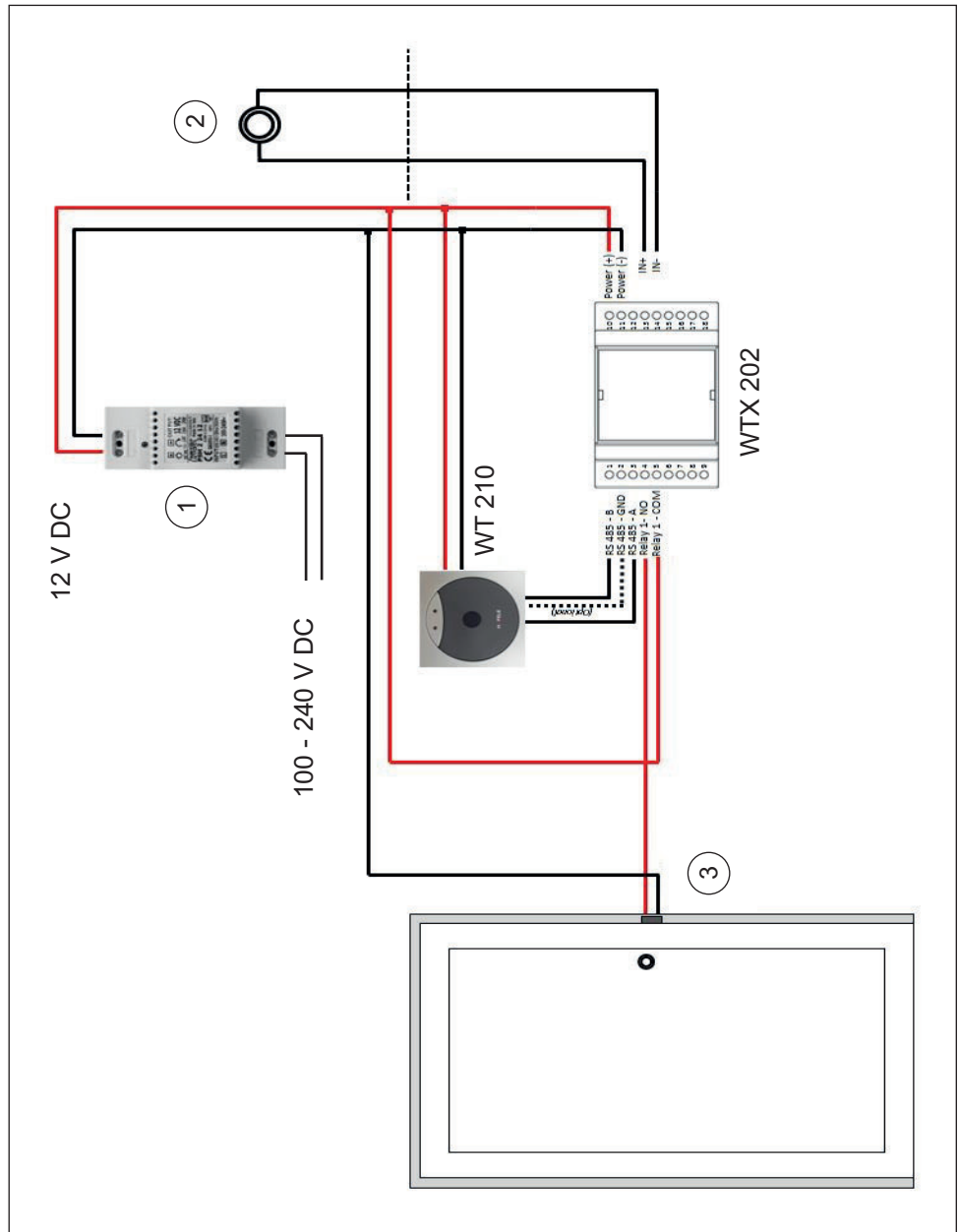


Fig. 6: Installation version 2

- 1 Power supply, Cat.No. 917.93.013
- 2 Option: Door release push button in the indoor area
- 3 Electric strike, 12 V DC

Connections at the WTX 202

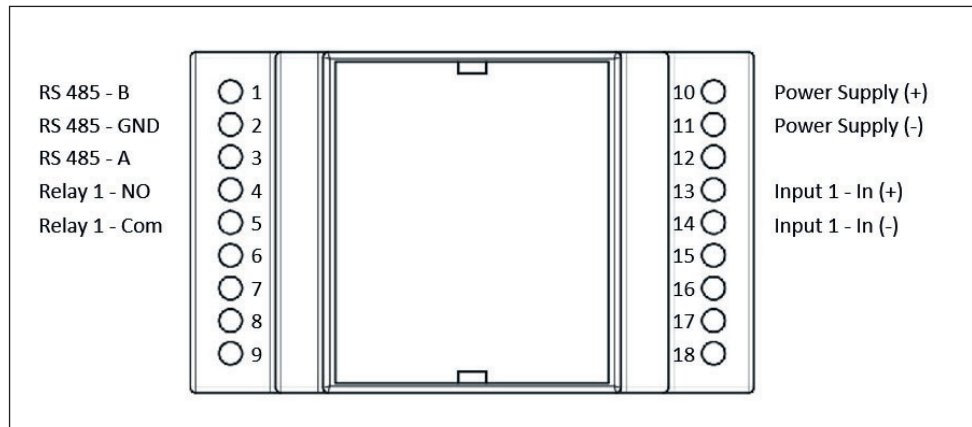


Fig. 7: Connections at the WTX 202

As soon as the reader is removed from the wall mounted holder, an alarm is triggered in the terminal. This interrupts the electrical connection to the electric strike via the external relay, meaning that the door cannot be opened.

5.4.3 Front view of WT 210

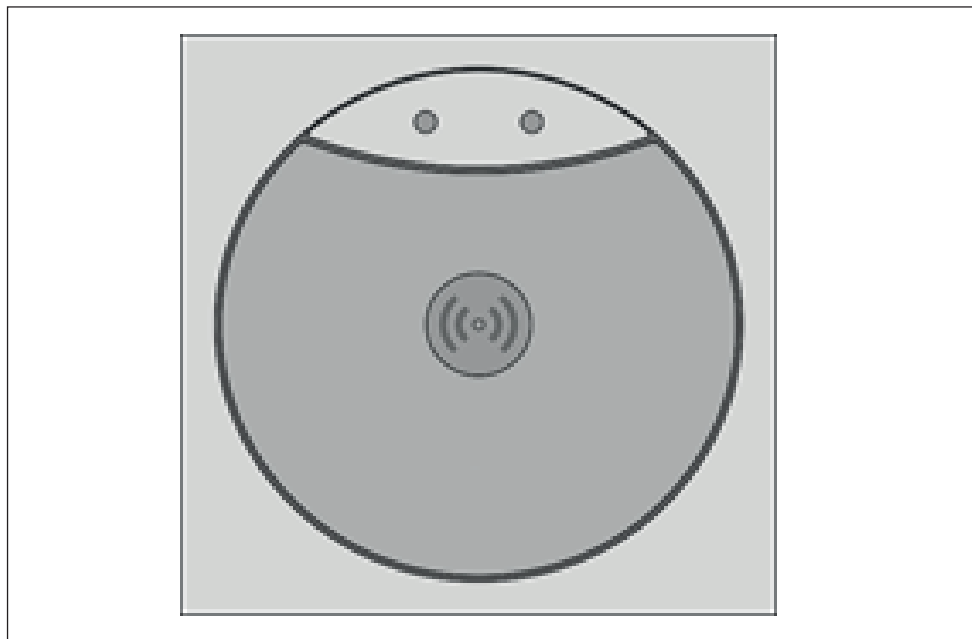


Fig. 8: Front view of WT 210 (with frame)

6. Mounting and installation

6.1 Requirements for installation locations

- The environmental conditions must be adhered to. See chapter "10.2 Ambient conditions during operation" on page 42.
- Connection leads for connecting the various components must be present.
- The voltage of the on site power supply must meet the requirements of the power supply unit used. See operating instructions of the power supply unit.
- Lead cross-section of the on site power supply: 1.5 mm

NOTE

Installation on metal surfaces (e.g. doors or panels) is generally possible. However, the metal surroundings (doors, frames, etc.) may have an adverse effect on the functionality of the terminal. We therefore recommend a sample installation.

6.2 Mounting and installation of the WT 210

Personnel: qualified electrician

Prerequisites:

- At the desired installation location, a switch box according to DIN 49073 is pre-installed in the wall.
- The lead for the power supply and the lead to the electric strike are already installed.

1. Disconnect voltage supply from the mains.

2. Screw the frame of the WT 210 to the pre-installed switch box.

Ensure that the black mark is at the top right and the retaining rails (fig. 9/1) for the reader are on the right and left.

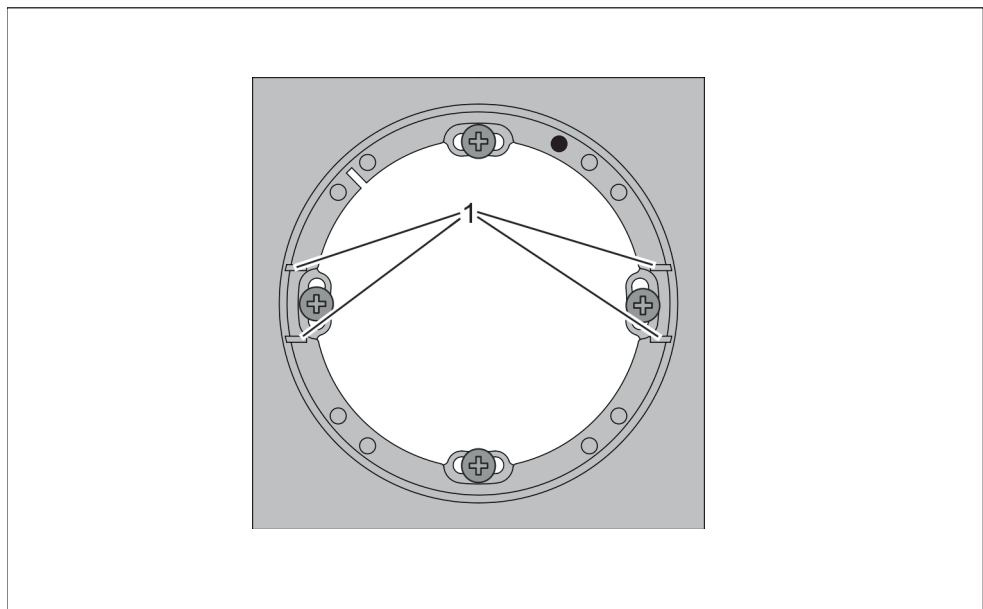


Fig. 9: Frame

3. Connect the connection leads to the clips (fig. 10/1) of the reader.

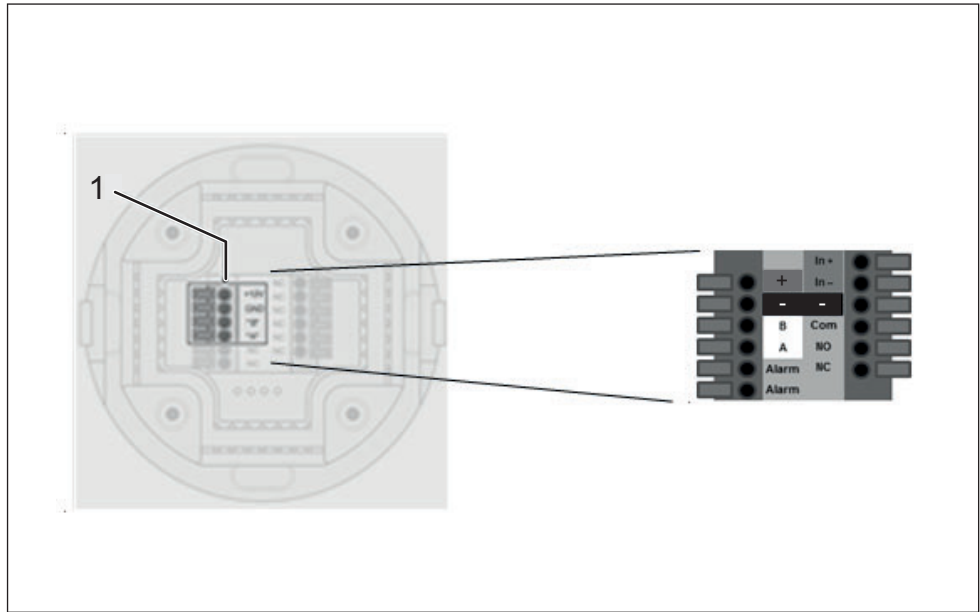


Fig. 10: Terminal clamps on the rear

4. Screw cover to rear of WT 210 (fig. 11/1). Lead out the leads to the padded cable guides at the side (fig. 11/2).

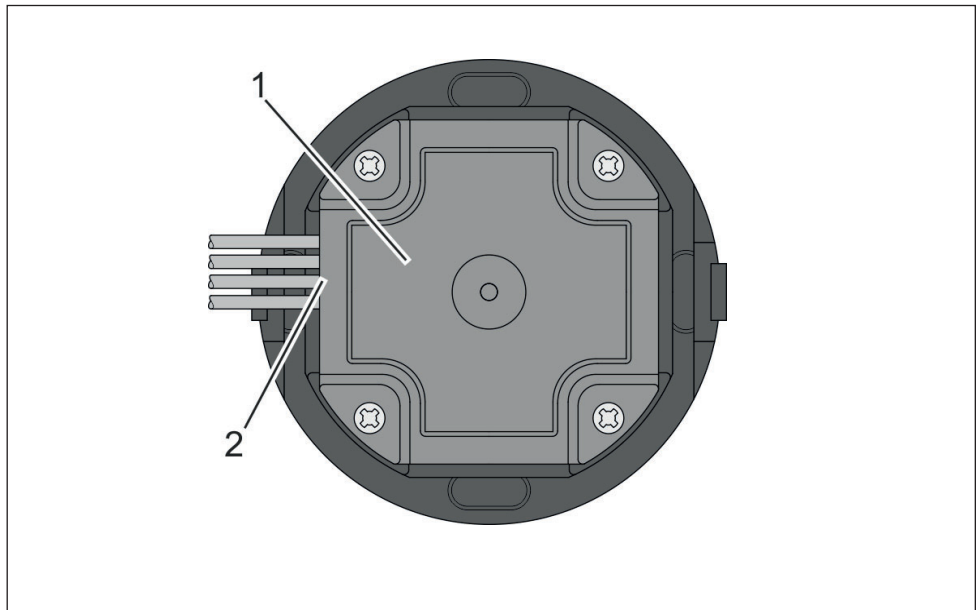


Fig. 11: Rear of WT 210 with lead

NOTE

Risk of damage to the leads!

The connection leads can be damaged in the event of incorrect installation.

- Carefully push the reader and lead into the switch box.
- Ensure that the leads are not trapped.

5. Push the reader into the frame until it has engaged into the retaining rails at both sides.

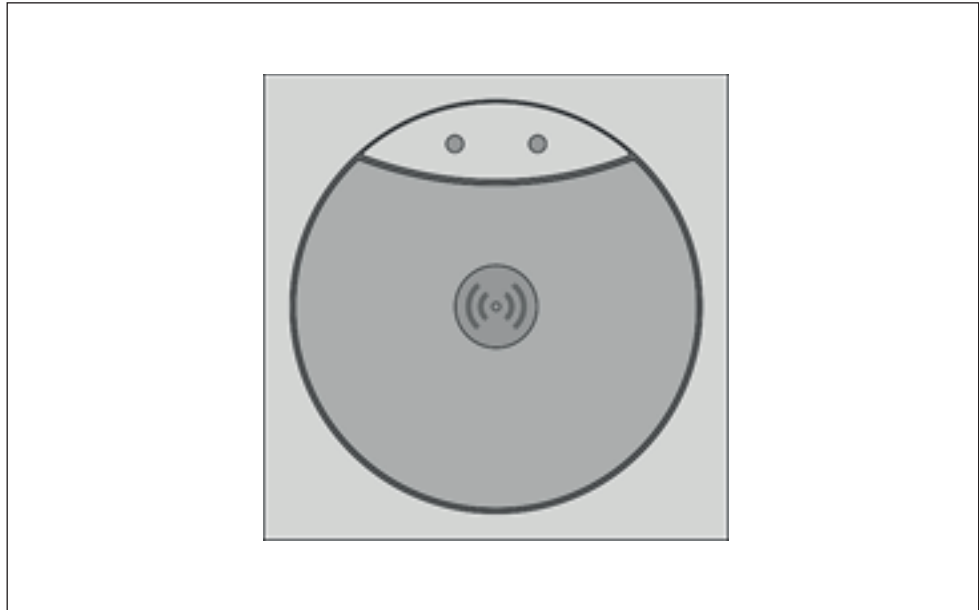


Fig. 12: WT 210 with frame

6.3 After installation

1. Re-establish the voltage supply.
2. Check function.



The installation was performed correctly, if the following is true:

- LED illuminates red.



Configuration and start-up

The system configuration and the configuration of the WT 210 take place via the software, and are carried out by the system supplier's authorised customer service.

The initial start-up of the access control system is also carried out by the system supplier's customer service.



To ensure that the current Dialock firmware is running on the terminal, the device has to be flashed (programmed) using the mobile programming unit (MDU) during start-up.

In case of questions concerning the firmware version or the procedure please contact Häfele.



BLE = Bluetooth Low Energy

Products that are equipped with BLE can also be operated via smartphone (Android/IOS) with a suitable app. In case of questions concerning smartphone applications please contact Häfele.



More information about the start-up and configuration of the overall system can be found in the Dialock 2.0 user manual.

6.4 Displays on the WT 210

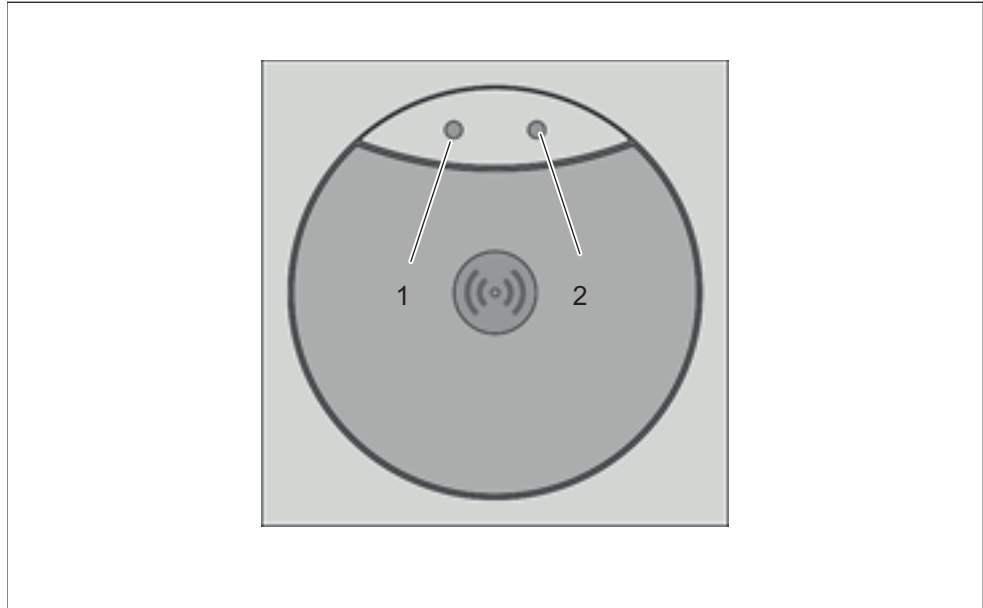


Fig. 13: Overview of LEDs on the WT 210

- 1 LED 1 illuminates in green, if access is granted.
- 2 LED 2 illuminates in red, if the WT 210 is ready for operation.

7. Disassembly

7.1 Safety notes for disassembly



DANGER

Risk of fatal injury from electrical current!

Contact with live components can be fatal.

- Before starting disassembly, switch off and permanently disconnect the electrical power supply.

7.2 Disassembly

Before starting disassembly:

- Physically disconnect the entire power supply and discharge stored residual energy.
- Disconnect interconnecting lead between the components.

8. Disposal

NOTE

Risk to the environment due to improper disposal!

Improper disposal may be hazardous to the environment.

- Do not dispose of electronic waste and electronic components in residential waste.
- Have electronic waste and electronic components disposed of only by authorised specialist companies.
- When in doubt, seek advice on environmentally responsible disposal from the local municipal authority or specialised disposal companies.

If no return or disposal agreement exist, recycle disassembled components:

- Scrap metals.
- Recycle plastic components.
- Dispose of other components sorted by nature of the material.

See chapter "2.8 Environmental protection" on page 30.

9. Storage

9.1 Storage of packages

Store packages under the following conditions:

- Do not store outdoors.
- Store in a dry and dust-free place.
- Do not expose to aggressive media.
- Protect against sun exposure.
- Avoid mechanical vibrations.
- Storage temperature: -25 – +70 °C
- Relative humidity: max. 90 %, not condensed.



In some cases, instructions for storage may be located on the package, which go beyond the requirements listed here. Follow these accordingly.

10. Technical data

10.1 Connection and power values

Specification	Value	Unit
Voltage	12 – 24	V DC
Tolerance	± 15	%
Current consumption, maximum (with 12 V)	0,2	A
Power consumption, maximum	3	W
Safe-keeping	1	A
Lead type (all terminals)	0.13 – 0.52	mm ²

10.2 Ambient conditions during operation

Specification	Value	Unit
Operating temperature	-25 – +70	°C
Relative humidity, maximum (not condensed)	10 – 95	%
Degree of protection (front)	IP 65	
Degree of protection (rear)	IP 44	

10.3 Dimensions and weights

Specification	Value	Unit
Weight (with frame)	85	g
Width	81	mm
Height	81	mm
Depth, frame	15	mm
Depth, reader	35	mm

Dimension sheet

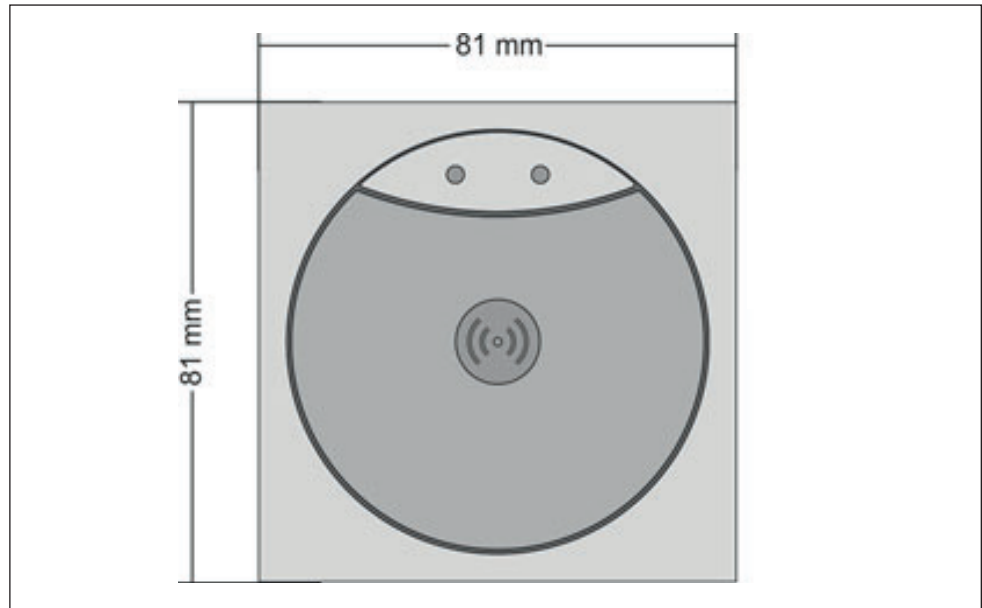


Fig. 14: Dimension sheet of WT 210 with frame

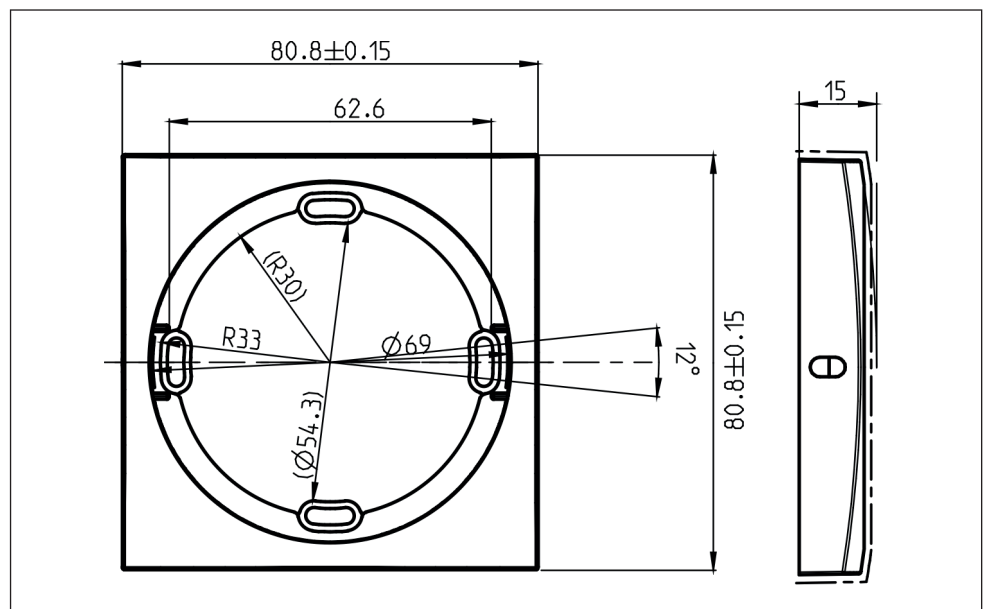


Fig. 15: Frame dimension sheet (top-down view and side view)

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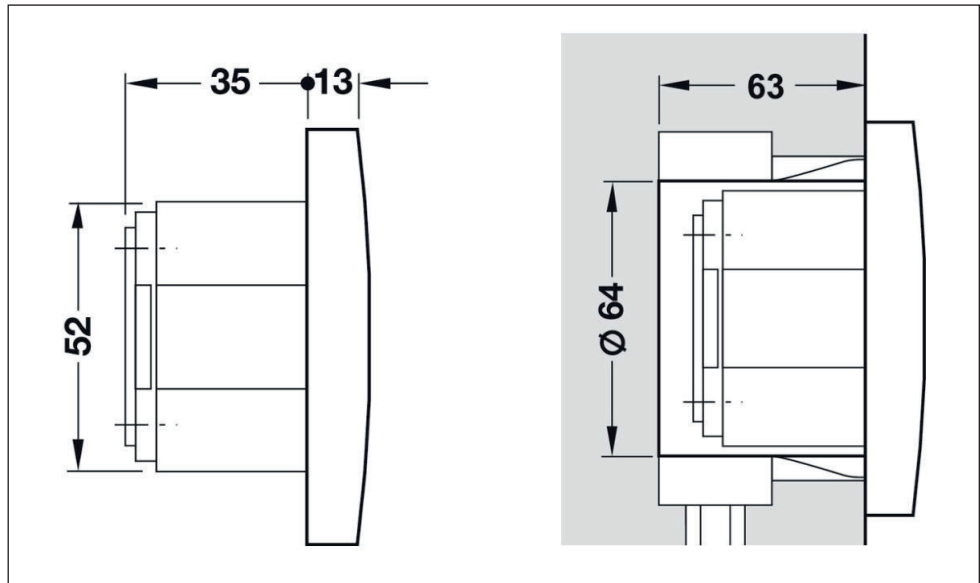



Fig 16: Side view of WT 210

11. EU Declaration of conformity


 Sphinx Electronics GmbH & Co KG hereby declares that the WT 210 wall terminal is compliant with directives 2014/53/EU and 2011/65/EU. The complete text of the EU declaration of conformity can be found under the product at the following web site: www.haefele.de