



HAFELE

WT 210门禁控制器
WT 210 BLE门禁控制器



732.29.128 ZN 6.169.000.90a

WT210 WT210BLE 安装手册

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1. 手册使用注意事项

本手册旨在说明如何安全正确的安装WT210门禁控制器。本手册是系统的一部分，请妥善保管，以便在需要时可以及时参阅。

安装人员在安装产品前需要认真阅读此手册，按照本手册中规定的安装顺序进行操作是安全工作的基本要求。

此外，安装时需遵守当地安全规定以及安装地的安全规定。

相关文件：

除了安装和操作手册外，也要参考以下文件：

- 电源供应商的说明文件
- Dialock 2.0 用户手册及更新文件

1.1 内容及相关使用人员

为了安全正确的安装产品，请先认真阅读此安装手册，按照安装步骤及注意事项进行安装。

本手册使用人员为：

- 产品管理人员
- 产品安装工人

以上人员除了阅读安装手册外，还应在安装产品前阅读产品的操作手册以及Dialock软件手册。

软件系统有单独的使用手册可供参考。

1.2 安装人员职责

安装人员有如下职责：

- 遵守安装手册中的注意事项，按正确的安装步骤进行安装。禁止改动安装步骤。
- 使用原厂配件进行安装。
- 安装完成后将安装手册交给管理人员。

1.3 管理人员职责

管理人员有如下职责：

- 遵守安装要求。
- 产品须由专人安装和调试。
- 安装完成后将安装手册妥善保管，在管理人员变更时转交新管理人员。

1.4 免责条件

由于以下一个或多个原因导致的事故，厂家将不对其承担责任：

- 未正确使用产品。
- 不安装紧急开启配件。
- 未阅读本手册，未按手册要求操作。
- 雇佣不具备安装资质的人员安装本产品。
- 未正确使用产品。
- 暴力安装和操作产品。

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2. 安全

2.1 安全说明及符号含义

安全说明

安装手册中的安全说明有统一的结构。由一个表示危险程度的信号词引入，后面写有危险提示和避险措施。

各级别危险提示标志：



危险

该标志表示即刻可能发生的危险，如不避免会导致严重伤亡。



警告

该标志表示潜在危险，如不避免可能会导致伤亡。



注意

该标志表示潜在危险，如不避免可能会造成轻微伤害。

注意

该标志表示潜在的因产品损坏或环境破坏等造成的财产损失。
该标志还用于指出其他重要提示信息。

处理安全说明时的注意事项

安全说明可能与某些单独的操作提示有关。这些安全说明被列入操作指导中，以便使操作过程更加顺畅。

例如：

1. 拧下螺钉。
2. 接线。

▲ 注意

电线有被模块压坏的风险！

- 注意电线的位置，小心安装模块。

3. 拧紧螺钉。

特殊安全提示

针对特殊安全风险有如下提示标志：

警告标志	危险类型
	危险电压警告
	危险区域警告



此符号提示一些有用的信息。

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其他符号

以下符号用于表示操作步骤、操作结果、无顺序列表、参考及其他设备：

1.>, 2.>, 3.>	操作步骤
	结果
•	未定义顺序的列表
[push button]	控制装置（如按钮、开关） 指示元件（如指示灯）

2.2 正确使用

WT210控制器用于门禁控制系统中。

正确的使用包括遵守安装手册中的所有规定和注意事项。

▲ 警告

使用不当会造成危险！

墙装读头、控制器和附加模块的不当使用可能导致危险出现。

- 禁止将WT210安装在允许环境以外的其他环境中。

任何未按手册要求的使用都被认为是错误使用。

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2.3 错误使用

未按照2.2要求进行的使用都为错误使用。

错误使用造成的损失由用户自行承担。请注意避免以下错误：

- 不安装紧急开启装置。
- 有潜在爆炸环境中安装使用。
- 在电磁敏感设备周围安装。
- 在腐蚀性环境中（如含盐、氯等）安装使用。
- 安装时少装某些配件。
- 不按照安装顺序安装。
- 使用非原厂配件。
- 使用有缺陷或损坏的配件。
- 擅自改装或维修产品。

2.4 安全符号

包装或产品上所贴标志及含义

电力标牌



只有专业电工才能对贴有此标志的产品进行作业。
未经授权人员不能打开贴有此标志的产品外壳。

专业回收处理标牌



产品需经专业回收，不得与生活垃圾一起处理。

2.5 其余危险

本产品基于最新技术及相关安全法规设计制造。

产品仍存在使用风险。下面列出了一些其余危险及进一步处理方法。

电流



危险

电流可能造成致命伤害！

如果与带电部分接触，触电会立即造成生命危险。

绝缘层或单个部件的损坏可能会造成生命危险。

- 在电气系统上的工作需由电工进行。
- 一旦绝缘层损坏，应立即切断电源并进行维修。
- 在电气系统或带电部件上工作前，需确保设备断电，并遵守以下5条安全规则：
 - 断开连接。
 - 防止意外连接。
 - 确保没有电压。
 - 确保接地。
 - 将相邻带电部件用绝缘物隔开。
- 不要短路保险丝。在允许的电流下更换保险丝。
- 避免潮湿环境。潮湿环境会导致短路。

2.6 系统管理员职责

系统管理员是指管理和控制门禁系统的人员。

职责如下

门禁系统是商业场所常用系统，系统管理员需要承担法律规定的职业安全义务。

除了本手册和操作手册的安全注意事项外，还需遵守门禁系统应用环境的安全规则。

具体如下：

- 系统管理员需确保所有人在发生危险时都能通过逃生通道和紧急出口逃出。
- 系统管理员需了解安全法规并在危险评估中确定电子锁系统在使用地可能产生的其他危险。门禁系统的操作须遵守操作说明。
- 在搭建和管理系统时，管理员需验证操作说明是否符合当前的规章，如果必要可对其进行调整。
- 系统管理员需明确指出安装、操作、故障排除、维护和清洁的责任。
- 系统管理员需确保所有与门禁系统相关的人员已阅读并完全理解这些安装和操作说明。此外，系统管理员需定期对相关人员进行培训，并将风险告知相关人。

此外，管理员还需确保门禁系统处于正常的运行状态，需尽到以下职责：

- 系统管理员需按照说明对系统进行定期维护。
- 系统管理员需定期检查所有装置的功能和完整性。

2.7 人员资质

基本要求

只有经过授权的人才能执行相关的工作。

受毒品、酒精或药物等影响的人不能操作此系统。

选择经过适当培训和职业规范的专业人员对系统进行操作。

各工作区域人员资质如下：

电工

合格的电工能在电气系统上作业，并运用专业的知识、经验识别系统存在的危险，避免其发生。

合格的电工经过专业的工作环境培训，了解相关标准和规定。

安装及初始设置人员

安装及初始设置需由经过培训的人来操作，且该人员需具备如下资质：

- 熟悉国内预防突发事故的法规。
- 熟悉国内防火的法规。
- 具备专业电工知识。

如果安装及初始设置人员不具备上述资质，需委托专业的安装公司进行安装和设置。

受酒精或药物等影响造成无正常反应能力的人员不得进行产品安装。

经过培训的安装及初始设置人员，必须在专业人员的监督下进行安装和设置。

系统管理员及安装人员在进行本产品的安装和管理时必须遵从本国的电力规范。

未经授权的人



警告

未经授权的人进入工作区域可能会有生命危险！

未经授权的人员对安装环境以及现场可能存在的危险并不了解，可能会有伤亡风险。

- 禁止未经授权人员进入工作区域。
- 在不确定环境危险时也要将未经授权的人员带离工作区域。
- 停止施工直到未经授权的人员离开工作区域。

2.8 环境保护

注意

对有害物质的不当处理会造成严重环境污染！

- 在处理有害物质时需遵守以下注意事项。
- 如果有害物质被意外泄露到自然环境中，应立即采取适当的行动。将危害通知当地政府，采取适当检查措施。

电子门禁控制器用到以下对环境有害的配件：

电气和电子元件

电气和电子元件可能含有有毒物质，这些废旧元件需要单独收集并由专业公司或机构处理。

2.9 安全注意事项及危险警告

本产品基于最新技术及相关安全法规设计制造，但在安装和使用过程中有可能存在产品损坏及人身安全威胁。

⚠ 警告

缺少紧急开启装置可能导致生命危险！

若产品安装时没有安装紧急开启装置，在产品发生故障时可能无法从室外开门。若在故障期间室内出现紧急情况，将会影响到室外救援人员进入。

- > 管理员需确保门禁系统装有紧急开启装置。
- > 对因未安装紧急开启装置而造成的损失，海福乐无任何赔偿责任。

⚠ 警告

电磁故障可能导致生命危险！

产品的电磁辐射会导致周围对电磁辐射敏感的设备（如医疗设备）出现故障。产品功能将受到负面影响。

- > 不要将产品放在电磁敏感设备附近。
- > 注意电磁敏感设备的安全说明。
- > 如对兼容性有疑问，请联系制造商。

⚠ 警告

不当使用会造成危险！

产品使用不当会导致危险情况出现。

- > 禁止将产品安装在有爆炸风险的区域。

注意

电线损坏会导致产品损坏！

电线损坏会影响产品功能。

- > 安装时不要夹坏或损坏电线。
- > 如果电线有损坏，请不要继续安装和使用产品。

3. 检查包装及零部件完整

⚠ 警告

小零件的包装可能导致窒息

安装螺钉、小零件以及包装袋可能对儿童造成伤害。

> 零件及包装不要随意丢弃，确保其不被儿童、婴儿接触。

> 安装时确保儿童远离安装现场。

- 安装前请检查产品零部件是否齐全以及有无破损。
- 如果零部件有缺失或损坏，请联系供应商。

包装中包含：

- WT 210墙装控制器，带安装边框
- 安装手册



图. 1: 包装所含部件

请按照国家规定处理包装材料。

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4. 门禁系统概述

简介

WT210是一个集成读头和控制单元于一体的控制器。WT210可与电控锁结合成一个完整的离线门禁系统，能够满足对安全要求较低的应用环境。

对于有较高安全要求的应用，可以使用WTX202继电器。将WTX202继电器安装到更加安全的区域，由WTX202接收WT210控制器的信号，控制电控锁开关。更多详细信息，请参阅WTX202的安装手册。

本产品设计符合DIN 49073标准，可以直接嵌入墙体内安装。

WT210带有开关信号输入口，可以接出门按钮，按下按钮可直接使WT210输出端闭合，控制电锁动作。

WT210带有防撬传感器，当控制器从安装框上撬下时，该传感器可激活蜂鸣器发出报警。

WT210有开门记录功能，并能记录其从安装框上拆下的时间。

WT210带有无线通讯接口，用户可使用MDU对读头进行设置和读取记录。

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WT 210控制器

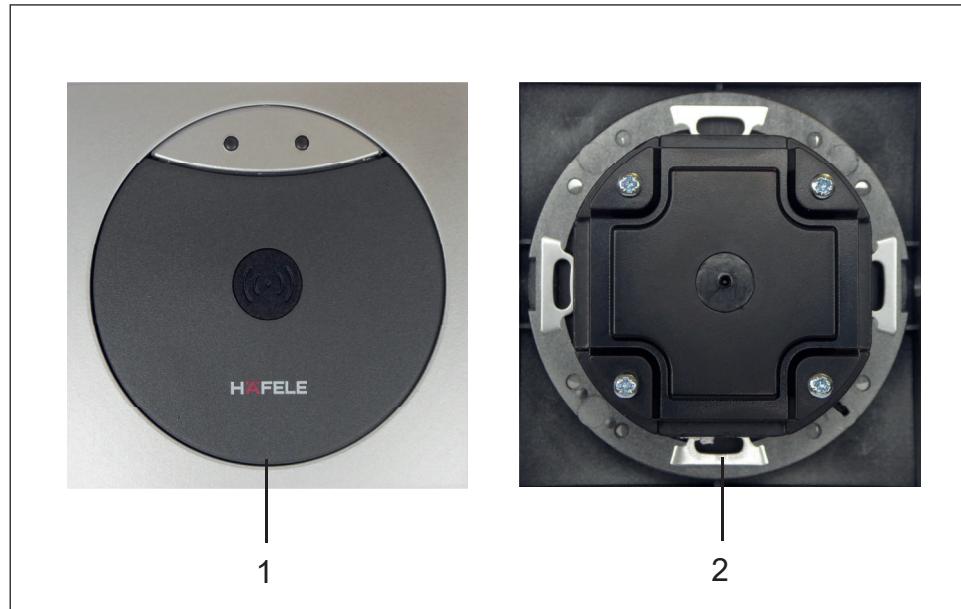


图. 2:WT210嵌入安装

- 1 正面视图
2 背面视图

5. 功能描述

5.1 门禁系统功能

门禁系统由WT210控制器、电源变压器、电控锁和软件组成。

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WT210中的功能要通过软件设置，由MDU将软件设置导入WT210。

开门记录需要使用MDU进行读取，并导入到软件中查看。

出门按钮也可以连接到WT210上。

以下是2中安装类型：

安装类型1（低安全要求）

- WT210控制电锁，刷卡进门，按钮出门。
见第11页“5.4.1 安装类型1（低安全要求）”

安装类型2（高安全要求）

- WT210配WTX202控制电锁，刷卡进门，按钮出门。
见第12页“5.4.2 安装类型2（高安全要求）”

5.2 WT210接口说明

注意

不正确的安装产品会导致产品损坏！

- 开关/按钮连接到 IN+ 和 IN-。
- 如有其他外部电源连接，负极连接到 (-)，正极连接到IN (-)。
- 注意光耦合器：使用串联电阻时，电流输入需在5mA-20mA之间，否则可能会造成产品损坏。

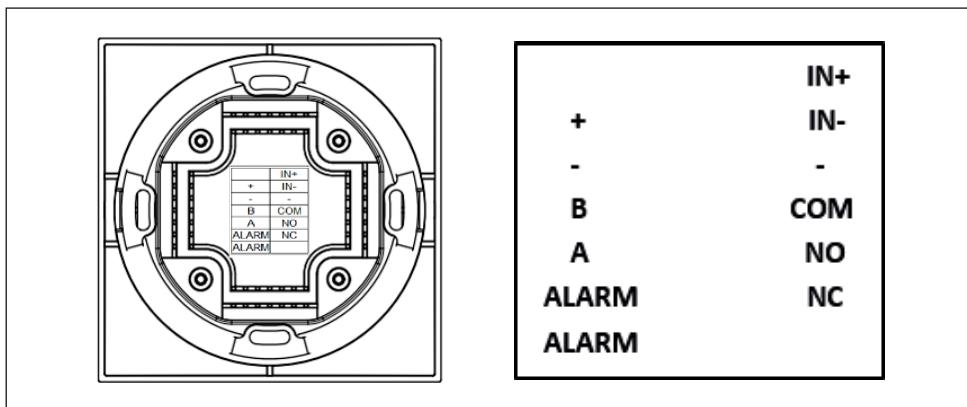


图.3: WT210端口说明

端口	说明
+/-	连接电源 12–24V DC
A, B	连接 RS485
ALARM	连接输出报警
IN+, IN-	连接开关/按钮
NC, NO, COM	继电器输出口
IN-, -	5 – 24V, 5mA–20mA (光耦)

5.3 推荐使用电源

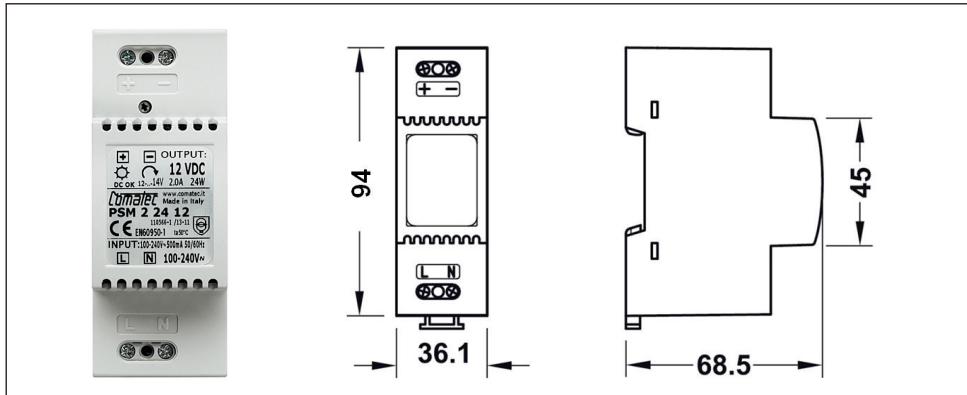


图.4: 电源

- 输入电压: 100 – 240 V AC
- 输出电压: 12 V DC
- 输出电流: <2 A
- 短路保护
- 可直接安装在DIN标准的安装轨道上
- 产品编号: 917.93.013

5.4 安装类型

5.4.1 安装类型 1 (低安全要求)

WT210控制电锁片，刷卡进门按钮出门。

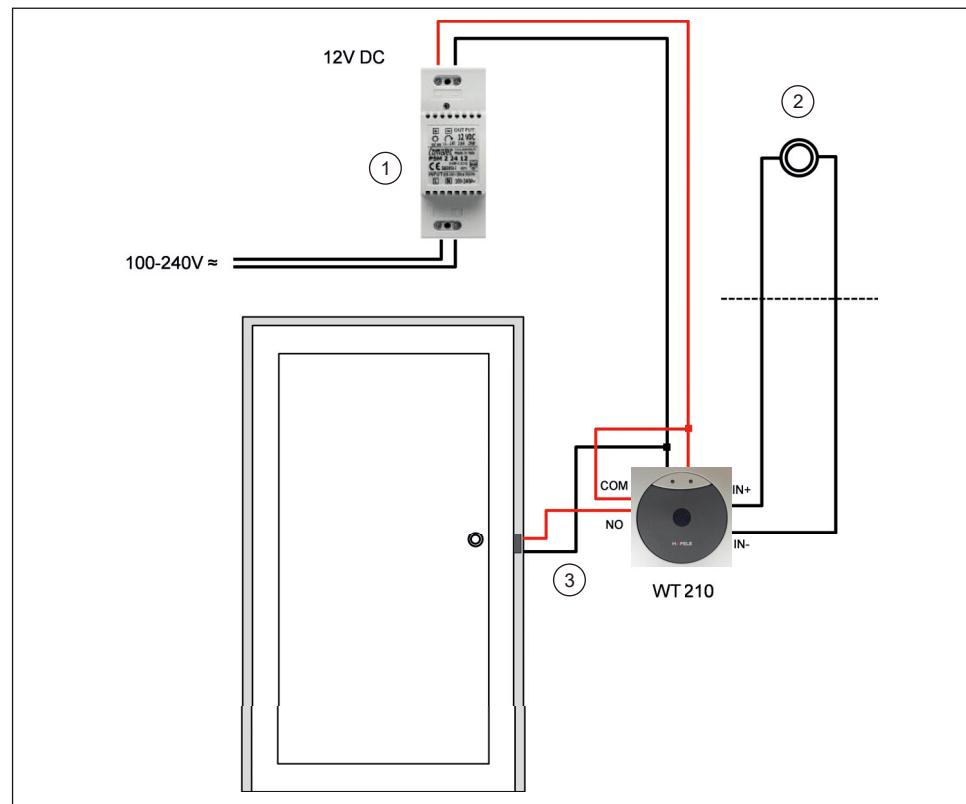


图. 5: 安装类型1

- 1 电源, 产品编号 917.93.013
- 2 选配: 室内出门按钮
- 3 电锁片, 12V DC

5.4.2 安装类型 2 (高安全要求)

WT210配WTX202控制电锁片，刷卡进门按钮出门。

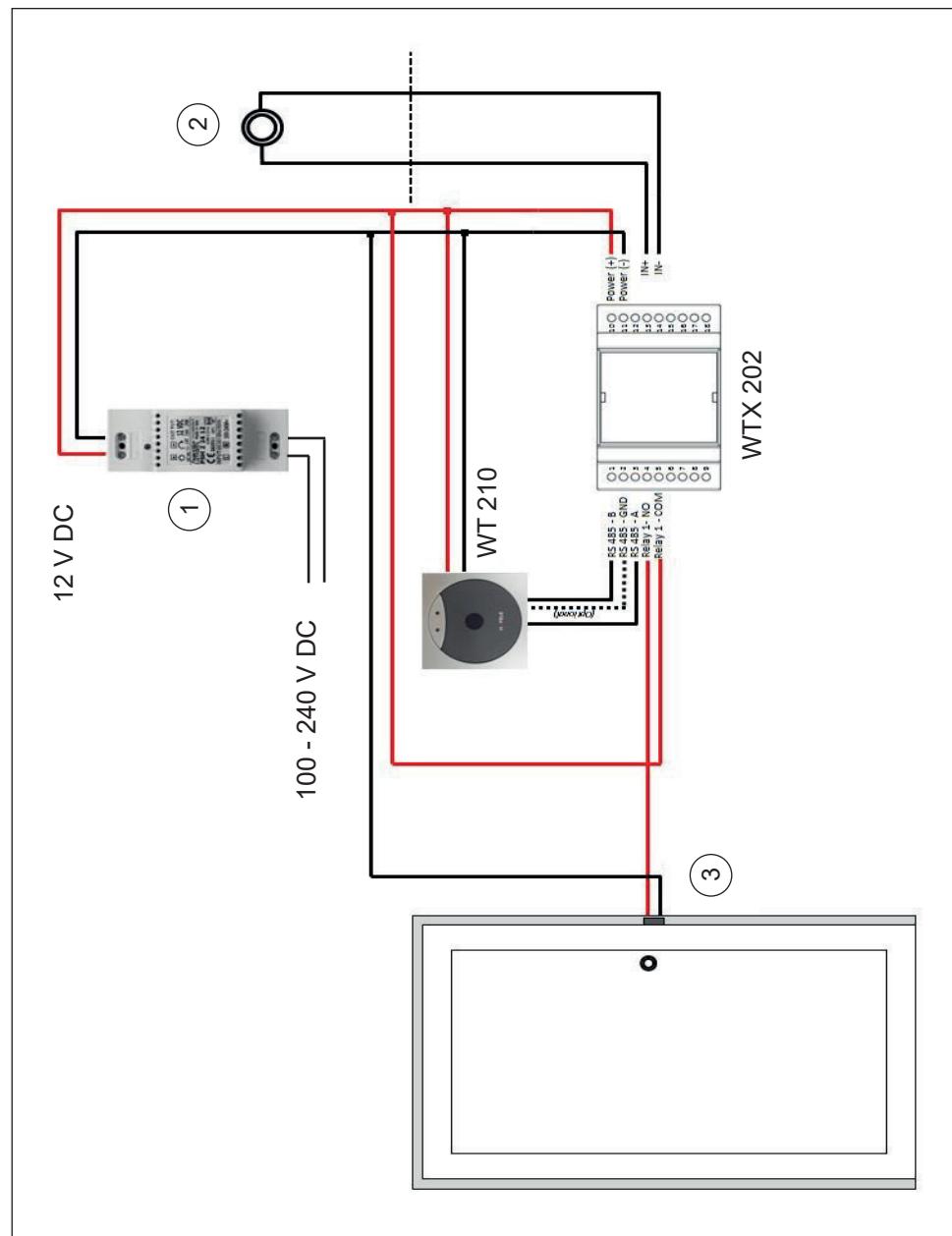


图.6: 安装类型2

- 1 电源, 产品编号 917.93.013
- 2 选配: 室内出门按钮
- 3 电锁片, 12V DC

WTX202端口说明

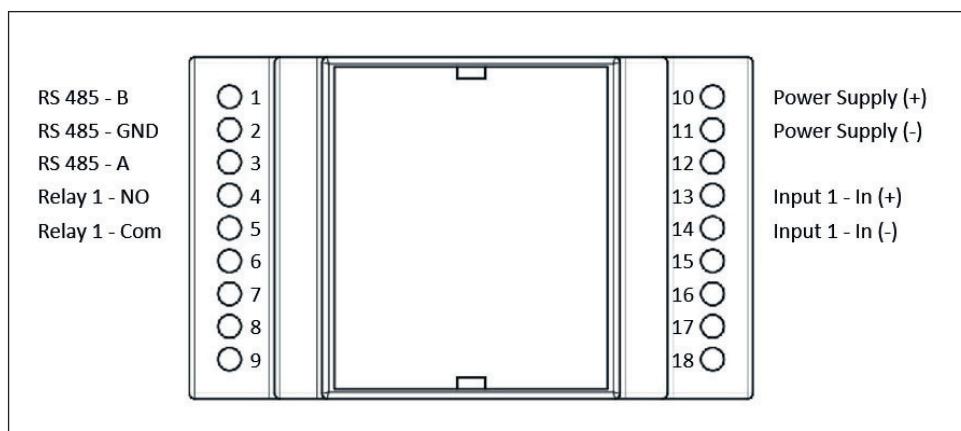


图. 7: WTX 202端口

当读头因被撬而脱离框架，控制器会触发报警。WTX202继电器会断开与电锁片的连接，继而无法通过拆读头开门。

5.4.3 WT 210正面视图

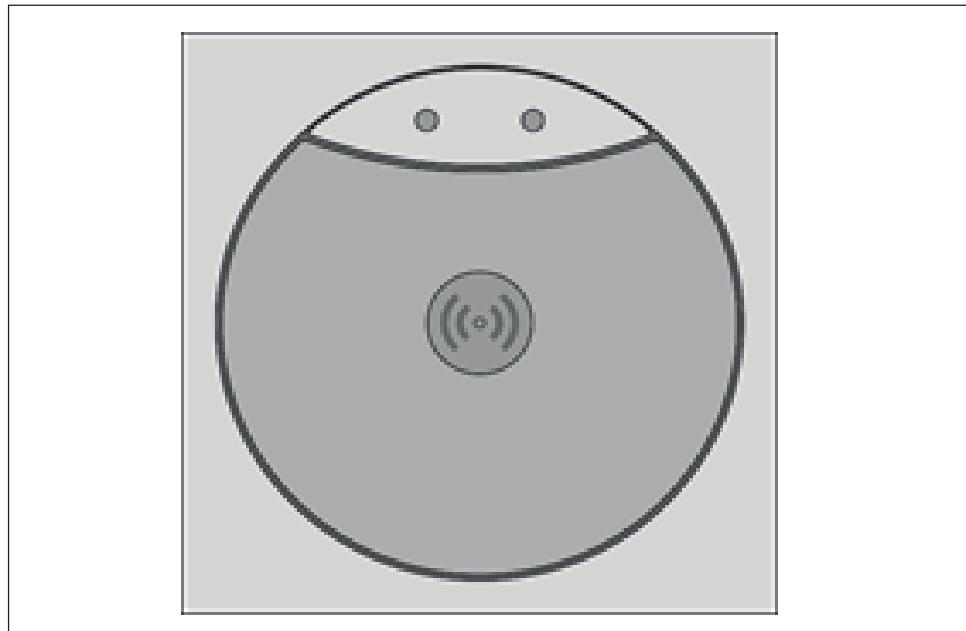


图. 8: WT 210正面视图 (带安装边框)

6. 安装

6.1 安装位置要求

- 安装环境条件需满足第18页“10.2 工作环境条件”。
- 现场需准备好连接电线。
- 现场供电需满足电源输入电压的要求。请参阅电源的操作说明。
- 现场电源导线截面为 1.5mm^2 。

注意

控制器可以安装在金属表面（如金属门或金属板）。但是金属环境可能对读头的功能产生影响，因此建议先做样品进行测试。

6.2 WT210的安装

安全人员：电工

准备工作：

- 在安装WT210的位置预先安装符合DIN49073标准的开关盒。
- 布好电源线和电锁连接线。

- 断开电源。
- 将安装边框固定到预装好的开关盒上。
确保黑色标记点在右上方，读头的固定槽（图9中的1）在左右两侧。

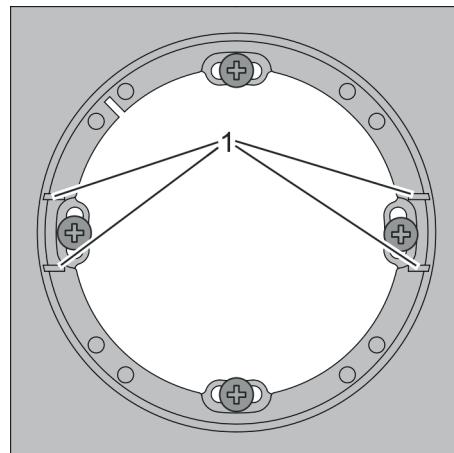


图. 9: 安装边框

- 将电线连到控制器的端口处

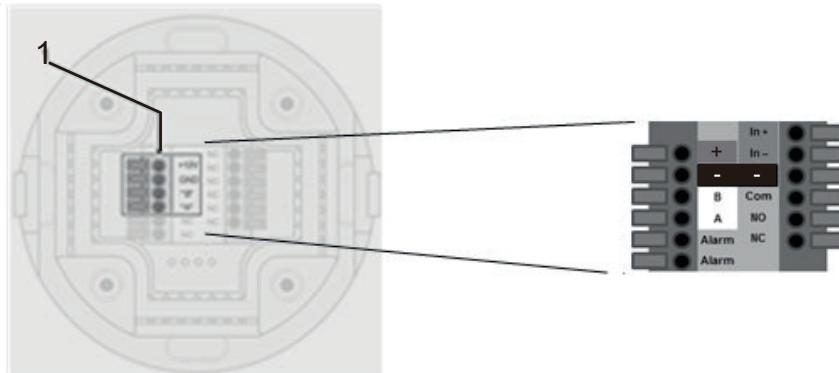


图. 10: 控制器背面端口

4. 将电线从控制器侧面引出（图11/2），用螺钉将WT210控制器背面的盖板（图11/1）固定。

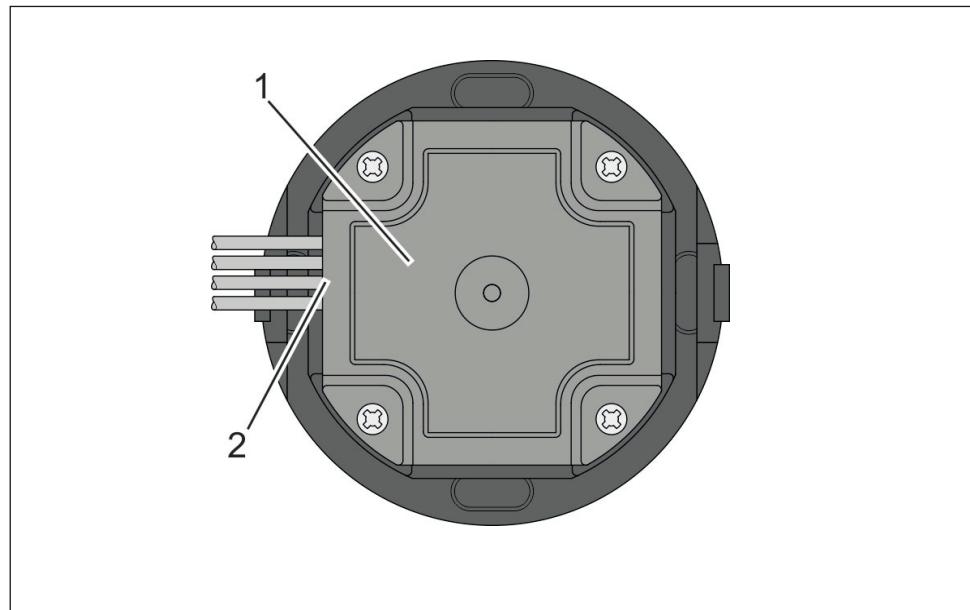


图. 11: WT210背面（已接线）

注意

电线有损坏风险！

安装不正确可能会压坏电线。

- 小心的将接好线的控制器置入开关盒。
- 确保电线没有被夹住。

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5. 将控制器卡入到固定框架上。

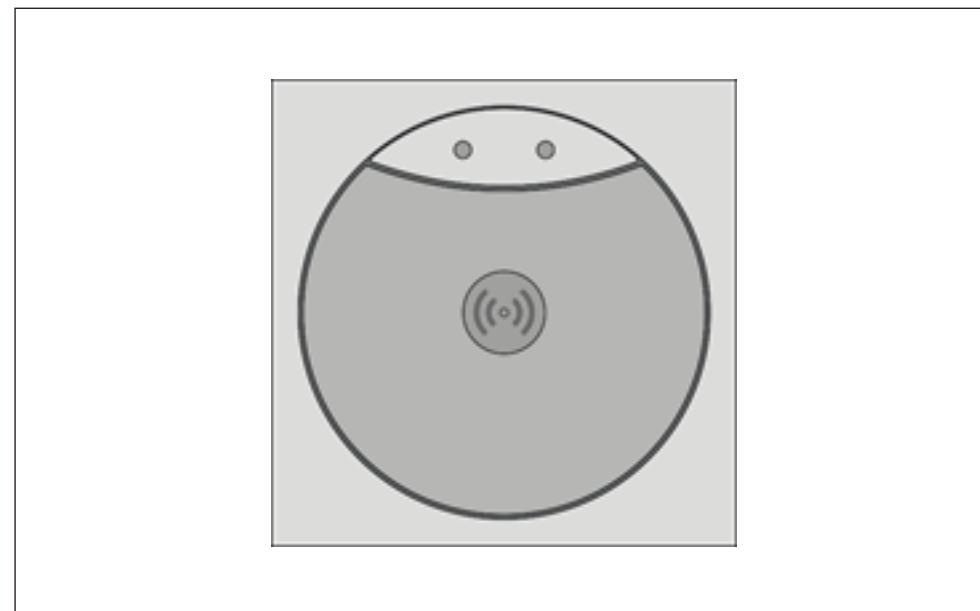


图. 12: WT 210 带固定框架

6.3 安装后的检测

1. 接通电源。
2. 检查功能。



如果出现下列情况，则表示安装正确：

- LED 红灯亮。



初始配置和启动

WT210的设置在软件中进行，由海福乐工程师或经过培训的人员来进行。

WT210门禁系统的初始设置，由海福乐工程师或经过培训的人员来进行。



为确保控制器使用最新的Dialock固件，在首次使用控制器时用手机（MDU）对控制器进行固件升级。

对固件版本有疑问，可以与海福乐工程师联系。



BLE = 低功耗蓝牙

配备BLE模块的产品可以使用智能手机（Android/iOS）中的app操作开锁。有关智能手机应用程序的问题请联系海福乐。



更多初始设置信息，请参阅Dialock2.0使用手册

6.4 WT210指示灯

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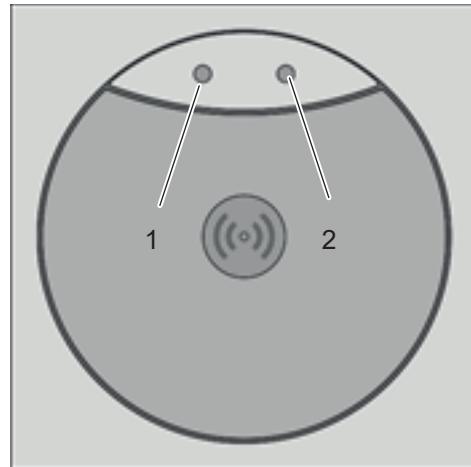


图. 13: WT210上的LED指示灯

- 1 LED 1 为绿灯，绿灯指示是否允许进入，亮则允许。
- 2 LED 2 为红灯，红灯指示WT210是否处于待机状态，亮则正在待机等待刷卡。

7. 拆卸

7.1 拆卸时的注意事项

危险

触电可能造成生命危险!

接触带电部件有致命危险。

- 拆卸前请先关闭或切断电源。

7.2 拆卸

开始拆卸前:

- 断开电源并释放设备中剩余的电量。
- 断开部件之间的电线。

8. 清理

注意

产品随意丢弃会对环境造成危害!

- 请勿将电子废弃物或电子元件丢弃在生活垃圾中。
- 电子废弃物或电子元件须由专业回收公司回收处理。
- 如对清理产品有疑问, 请向当地政府或专业回收公司咨询有关产品回收处理的意见。

对不存在回收处理协议的情况, 回收拆解的部件:

- 废金属。
- 回收塑料部件。
- 对于其他部件按照材料性质分类处理。

9. 储存

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9.1 储存

储存产品需满足以下原则:

- 不要将产品置于室外。
- 将产品存放在干燥无尘的地方。
- 不要将产品暴露在侵蚀性介质中。
- 避免阳光直接照射。
- 避免震动。
- 储存温度: -25 - +70 ° C
- 相对湿度: 最大90%, 非凝露。



在某些情况下, 包装上的储存说明可能超出上面列出的要求, 按照包装上的要求储存。

10. 技术参数

10.1 电压及功率

	值	单位
工作电压	12 - 24	V DC
公差	±15	%
最大工作电流(接12V电源)	0.2	A
最大功耗	3	W
工作耐流	1	A
电线规格(接入端口)	0.13 - 0.52	mm ²

10.2 工作环境条件

	值	单位
工作温度	-25 - +70	° C
工作湿度 (非凝露)	10 - 95	%
防护等级 (前盖)	IP 65	
防护等级 (后盖)	IP 44	

10.3 尺寸和重量

	值	单位
重量 (带安装框架)	85	g
宽度	81	mm
高度	81	mm
进深 (安装框架)	15	mm
进深 (读头)	35	mm

尺寸图

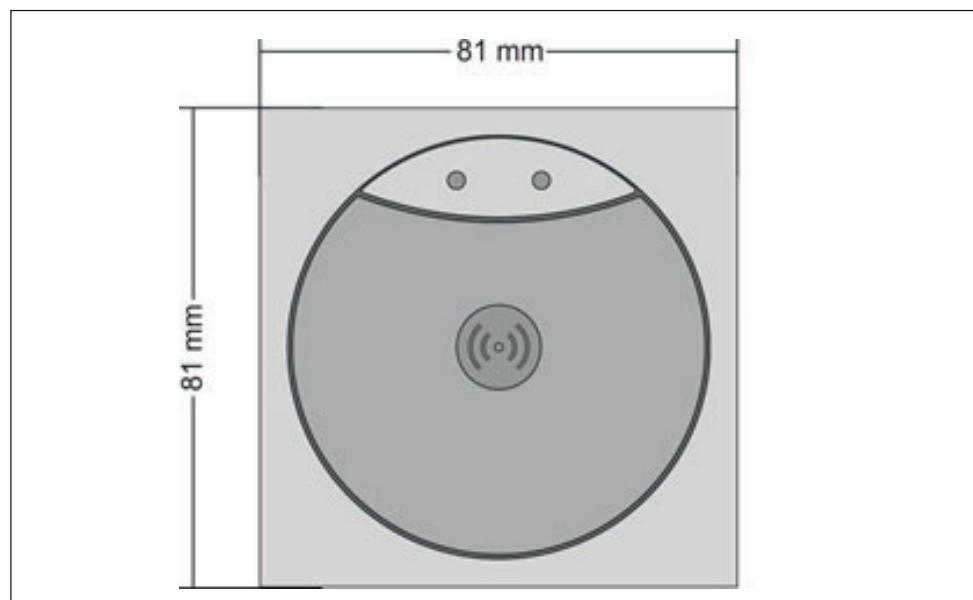


图.14: WT210 (带安装边框) 尺寸图

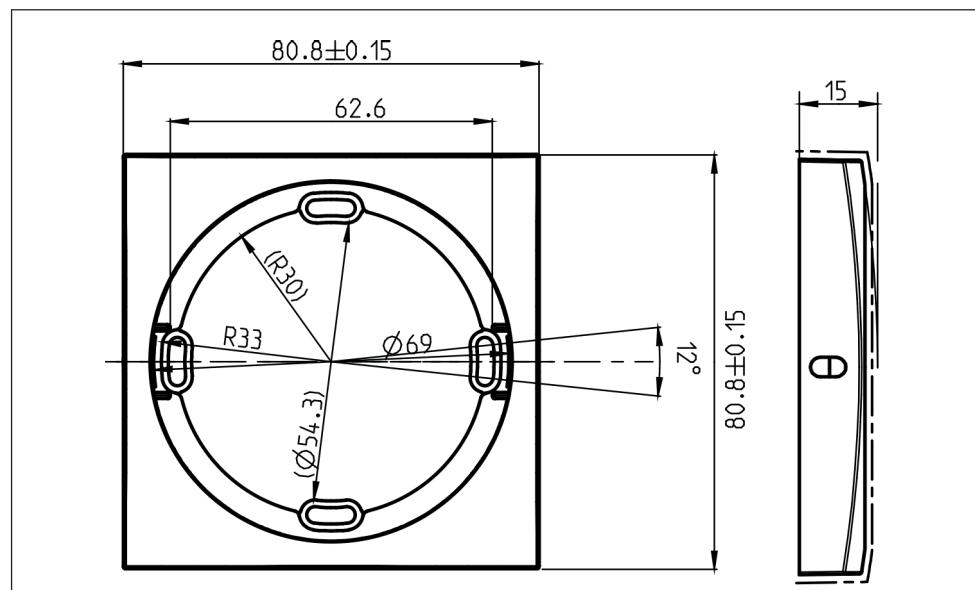


图.15: 安装边框尺寸图 (俯视图和侧视图)

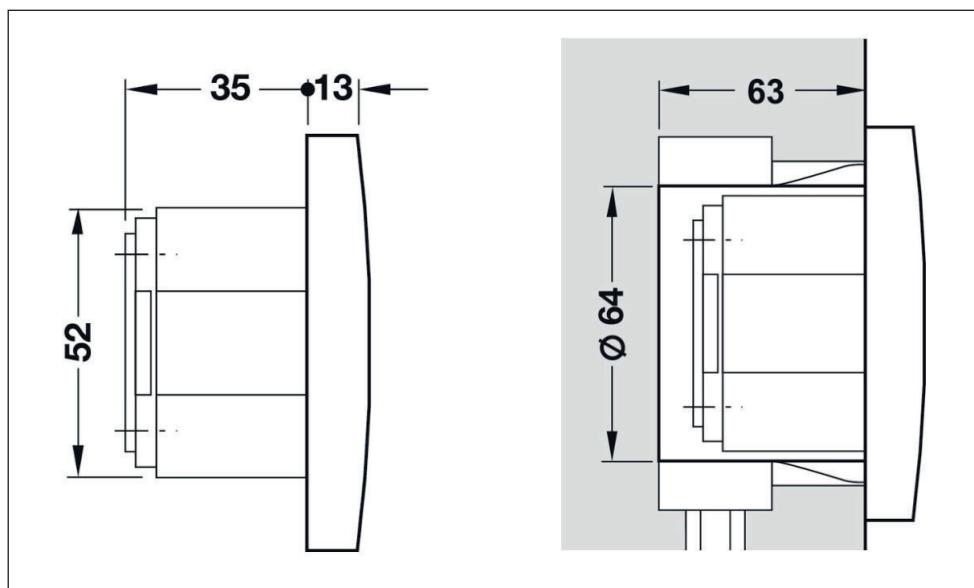


图 16: WT210侧视图

11. EU符合性声明



WT210门禁控制器通过欧盟2014/53/EU和2011/65/EU认证。
证书文档可到www.haefele.de下载。

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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.

2.6 Obligations of the operator

Operator is the person who operates the access control system for commercial or economic purposes or 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.

- 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

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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 an 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.

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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

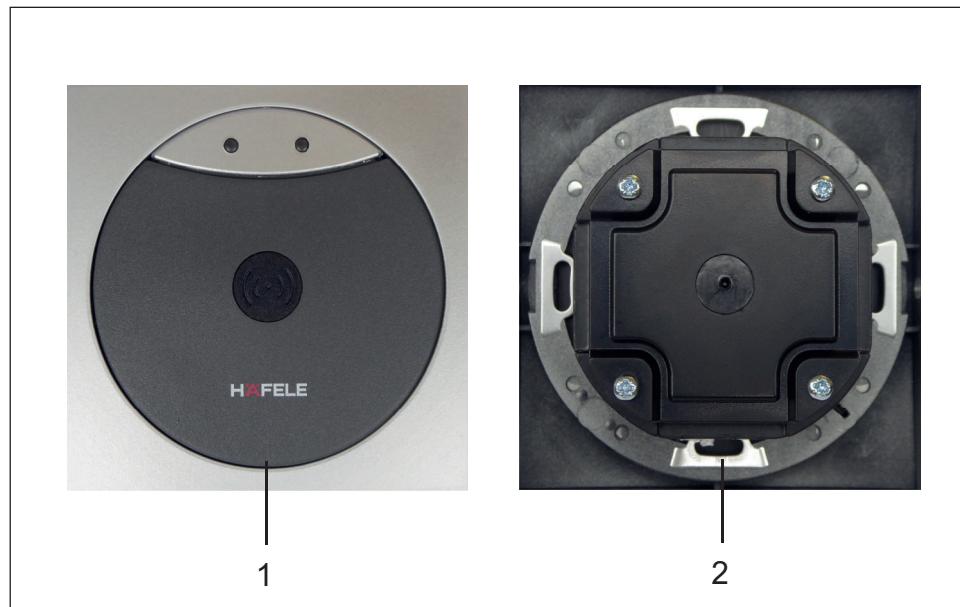


Fig. 2: WT 210 for flush mounting

- 1 Front view
- 2 Rear view

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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 31.

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 32.

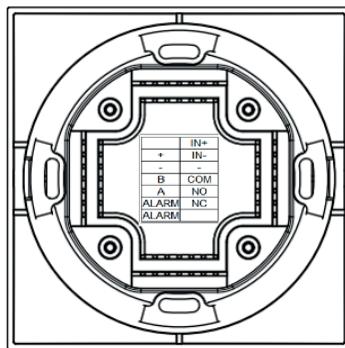
5.2 Pin configuration of the WT 210

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.



	IN+
+	IN-
-	
B	COM
A	NO
ALARM	NC
ALARM	

Fig. 3: Pin configuration WT 210

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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)

5.3 Recommended power supply

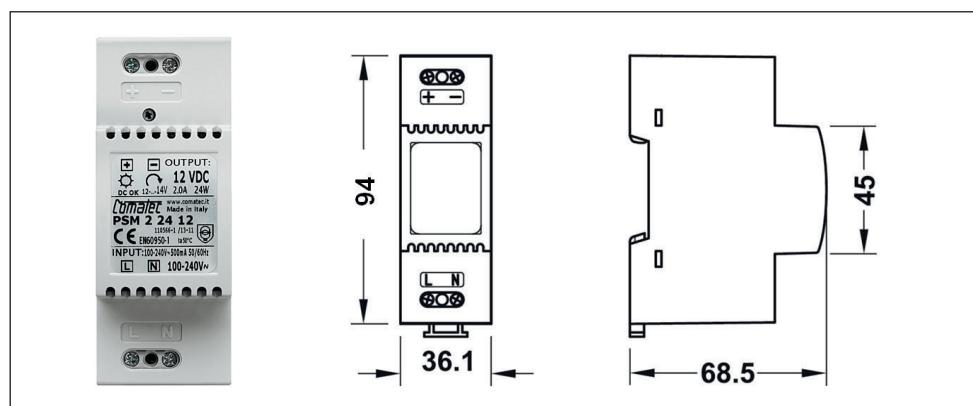


Fig. 4: Power supply

- 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

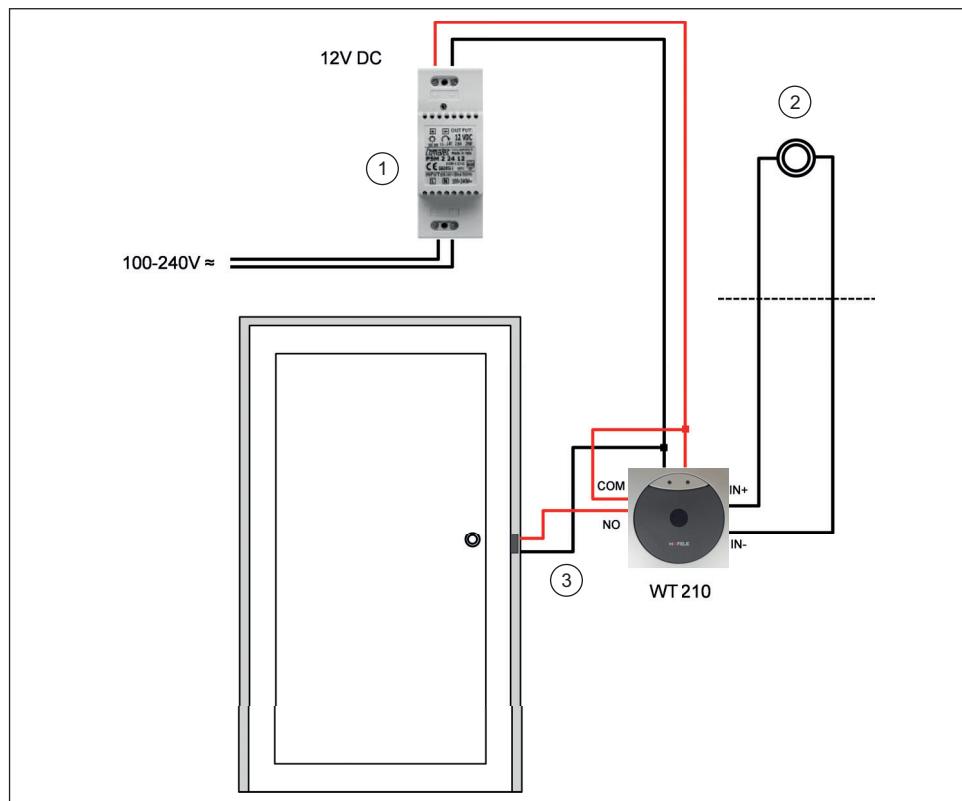


Fig. 5: Installation version 1

- 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

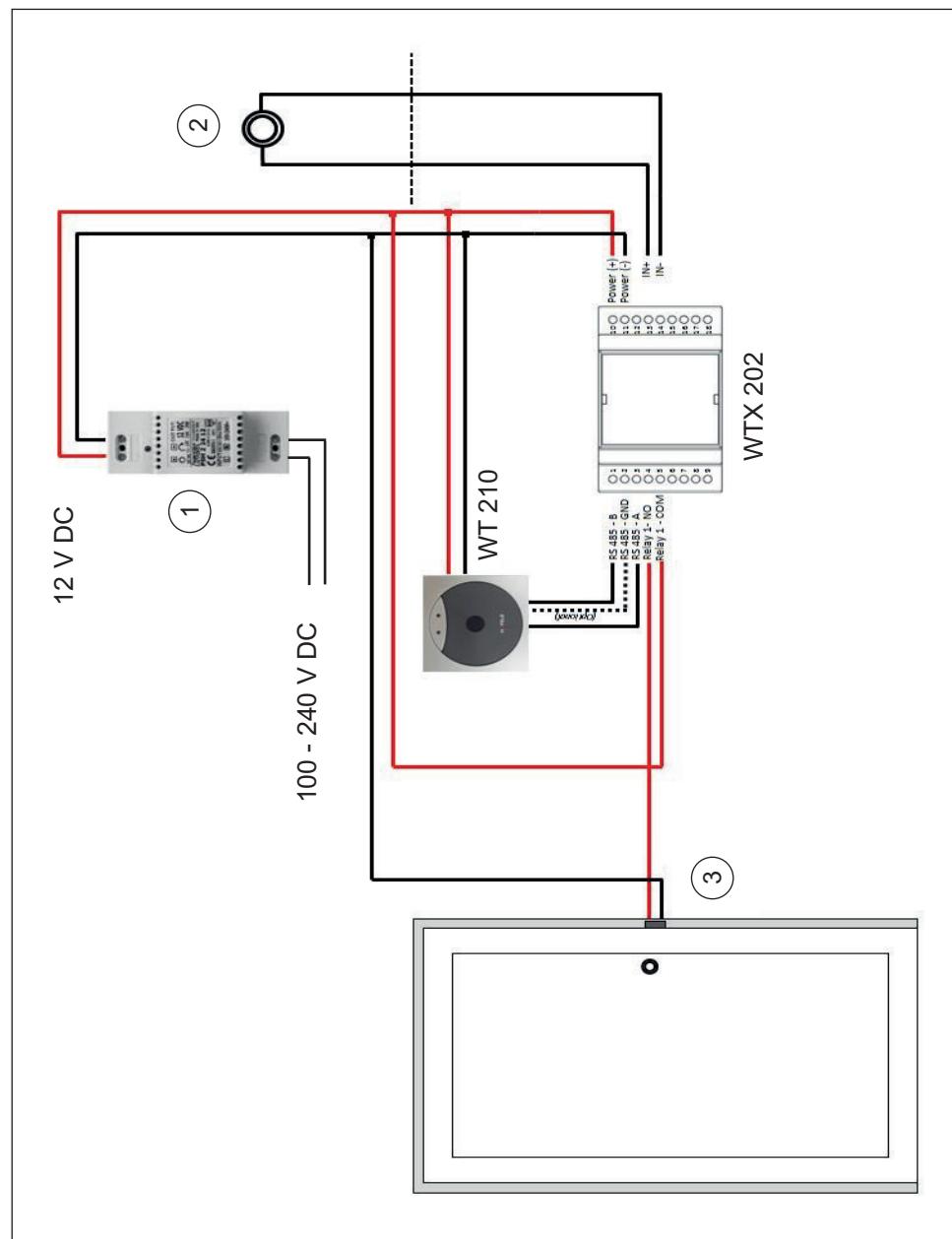


Fig. 6: Installation version 2

- 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

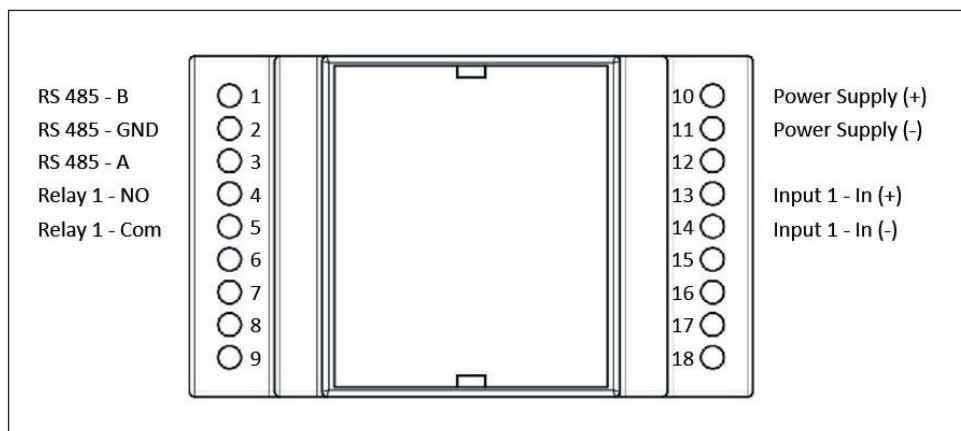


Fig. 7: Connections at the WTX 202

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

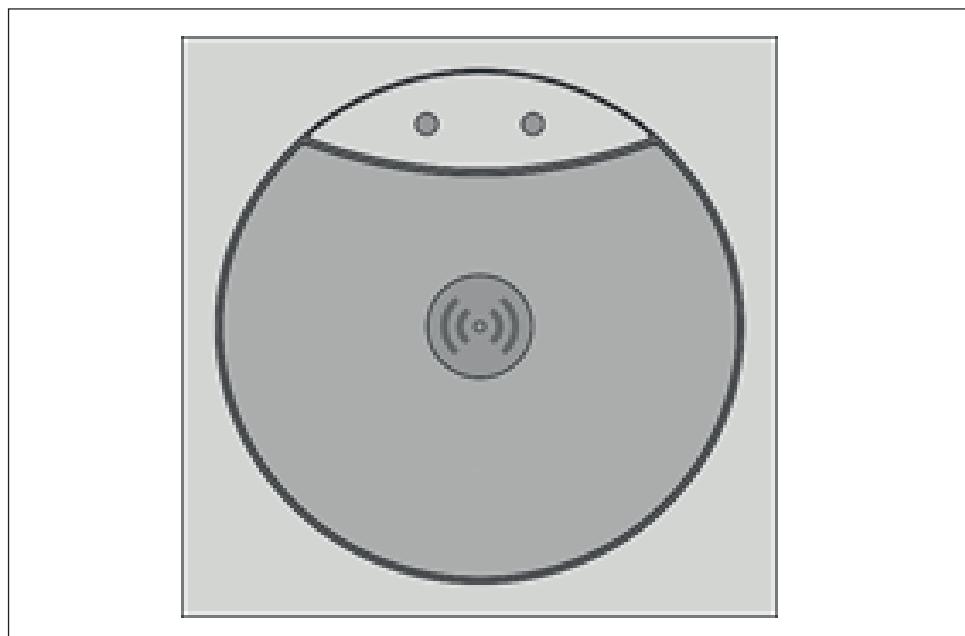


Fig. 8: Front view of WT 210 (with frame)

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 38.
- 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.

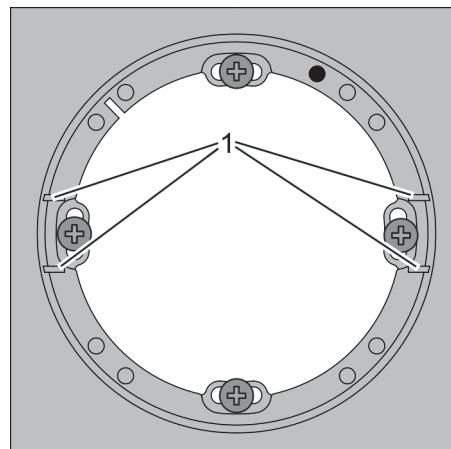


Fig. 9: Frame

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

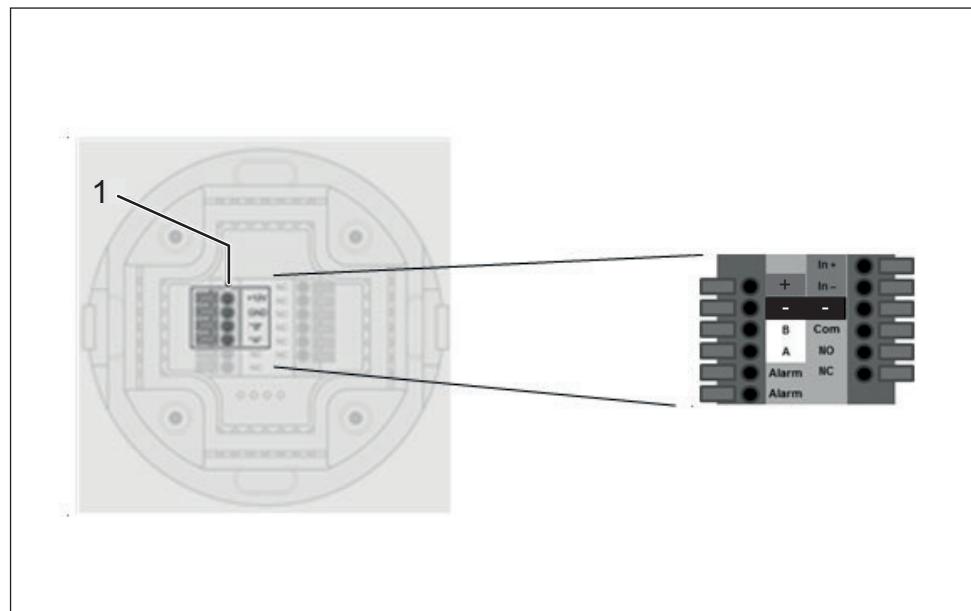


Fig. 10: Terminal clamps on the rear

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).

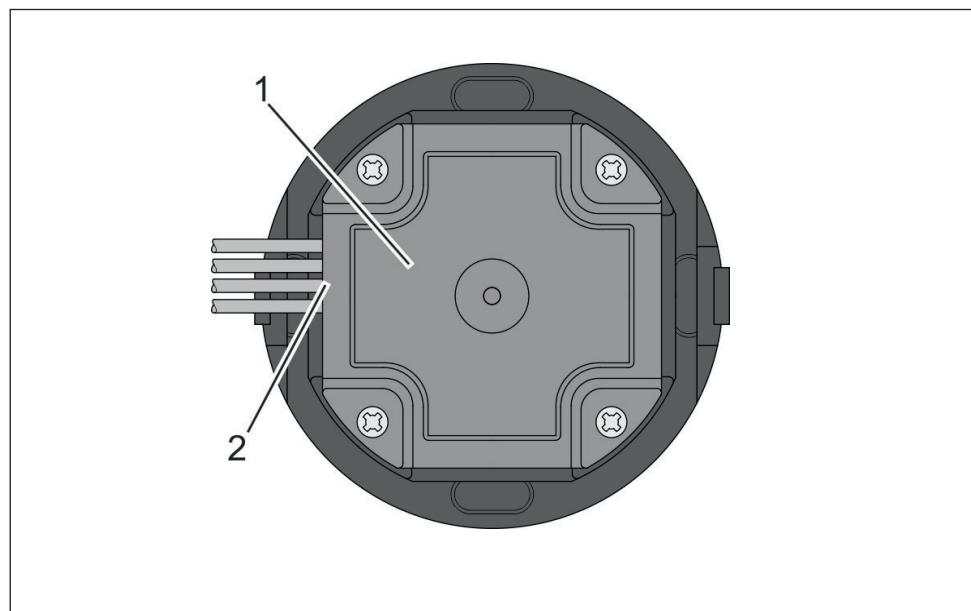


Fig. 11: Rear of WT 210 with lead

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.

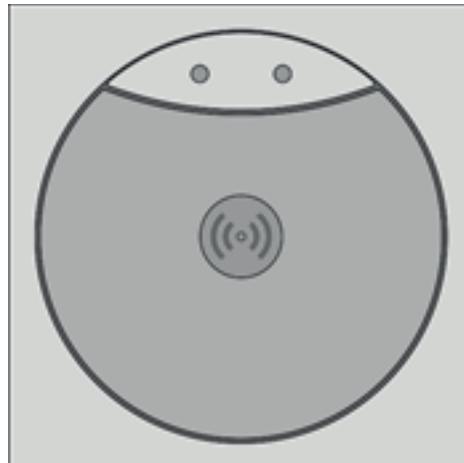


Fig. 12: WT 210 with frame

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

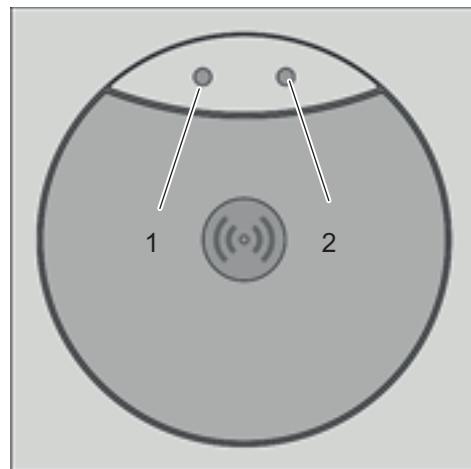


Fig. 13: Overview of LEDs on the WT 210

- 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 26.

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: $-25 - +70^{\circ}\text{C}$
- 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	$-25 - +70$	$^{\circ}\text{C}$
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

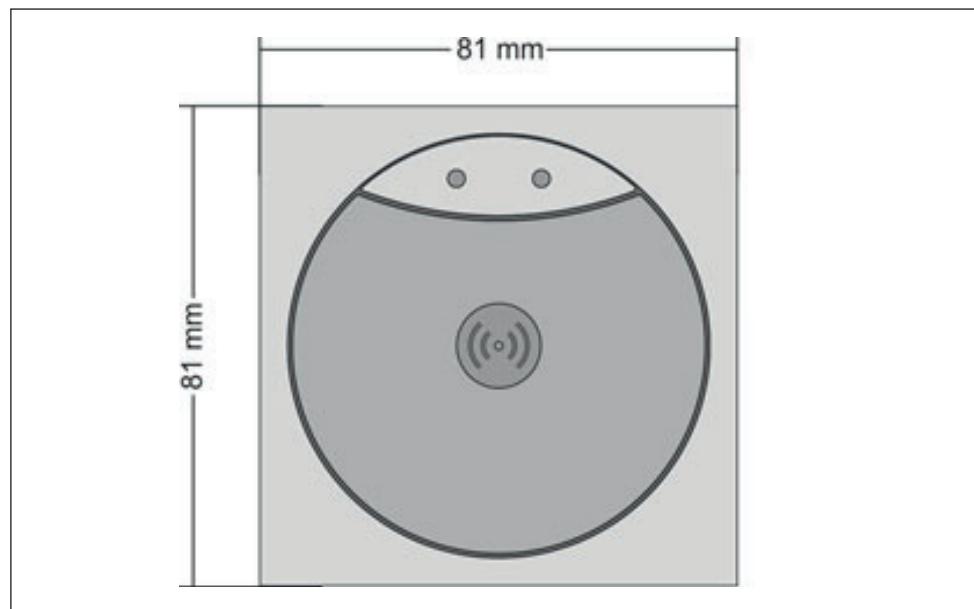


Fig. 14: Dimension sheet of WT 210 with frame

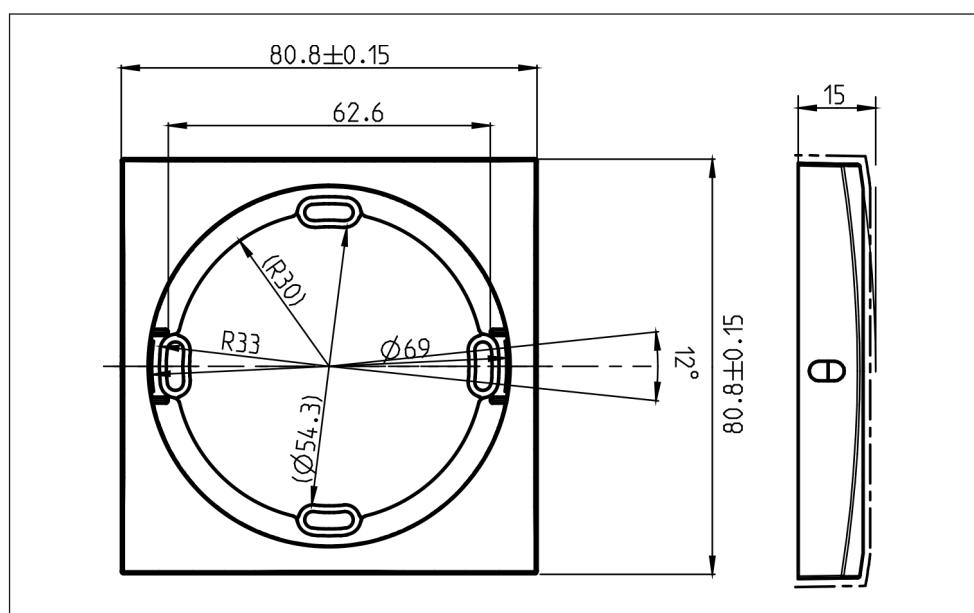


Fig. 15: Frame dimension sheet (top-down view and side view)

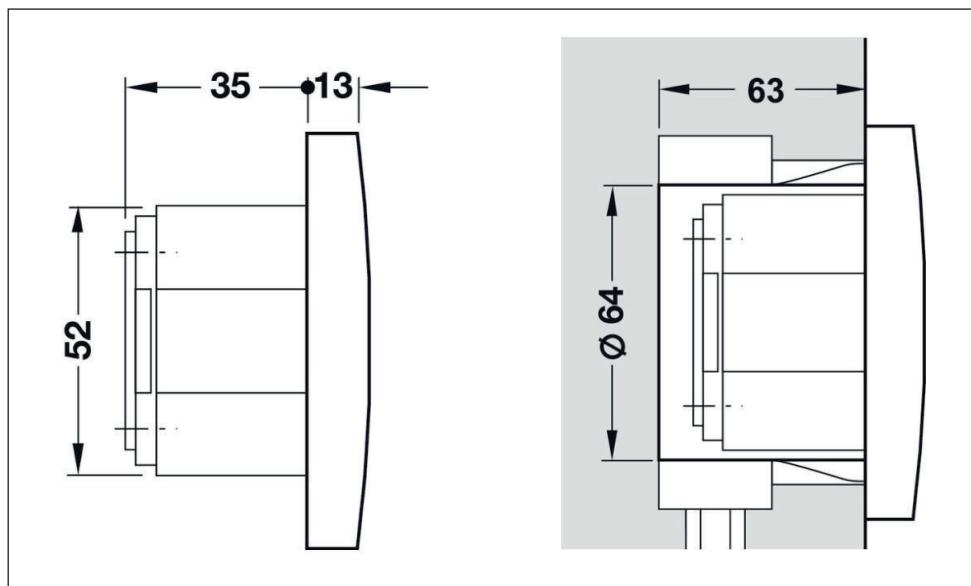


Fig 16: Side view of WT 210

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

12. Approval according to Part 15 of the FCC rules

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

NOTICE

This device complies with Part 15 of the FCC Rules [and with Industry Canada licence-exempt RSS standard(s)].

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTICE

Changes or modifications made to this equipment not expressly approved by Häfele may void the FCC authorization to operate this equipment.

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