

# Installation instructions FinKey



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### 1 General instructions

- Please read the installation instructions carefully, before activating the lock.

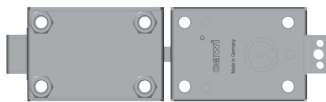
#### 1.1 Liability notes

- The mounting of the electronic lock and the reader unit has to be carried out according to the installation instruction.
- We point out that this installation instruction is part of the VdS-certification and non-compliance leads to the loss of this certification.
- By opening the lock cover warranty of the manufacturer will be void.
- Take care that the reader unit or the lock and the cables are not damaged.

#### 1.2 Installation note

- Reader and relay unit are coupled to each other and must not be interchanged with other FinKey systems.

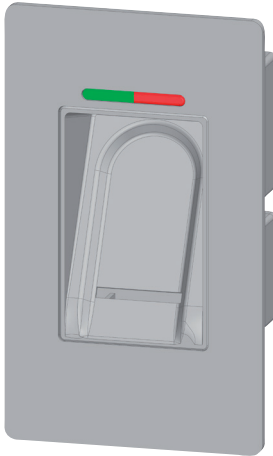
### 2 System overview



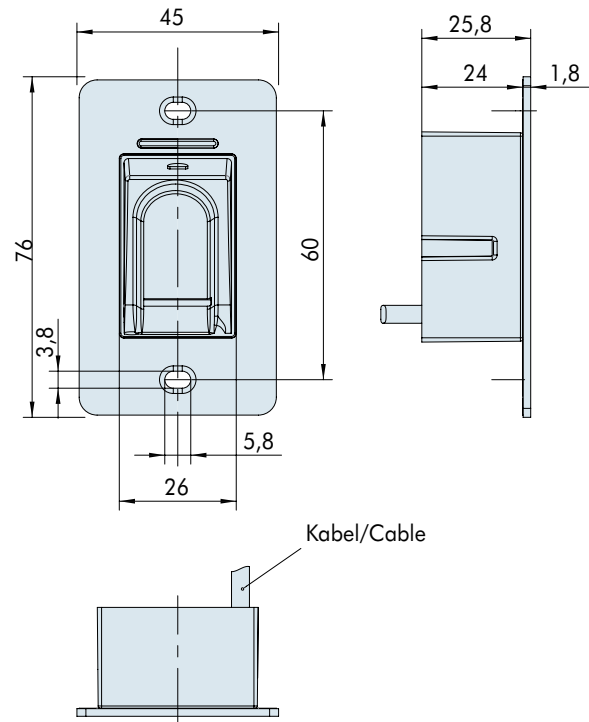
	FinKey SL	FinKey FS
<b>Remote 3000</b>	Set 1	Set 9
	Set 3	Set 11
	Set 5 (with alarm signal)	Set 13 (with alarm signal)
<b>Remote 3010</b>	Set 2	Set 10
	Set 4	Set 12
	Set 6 (with alarm signal)	Set 14 (with alarm signal)

### 3 Installation reader unit FinKey SL

#### 3.1 Reader unit FinKey SL

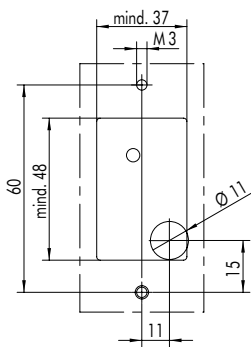


#### 3.1.1 Dimensions FinKey SL

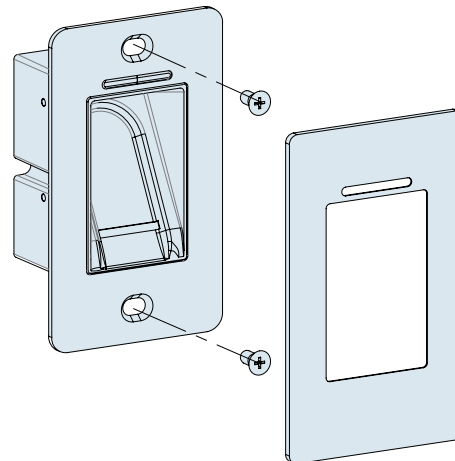


### 3.2 Mounting

#### 3.2.1 Drill pattern reader unit FinKey SL



Opening for cable:  
drilling min.  
Drill-hole  $\varnothing$  11 mm for  
connection cable has to  
be drilled into the safe  
door



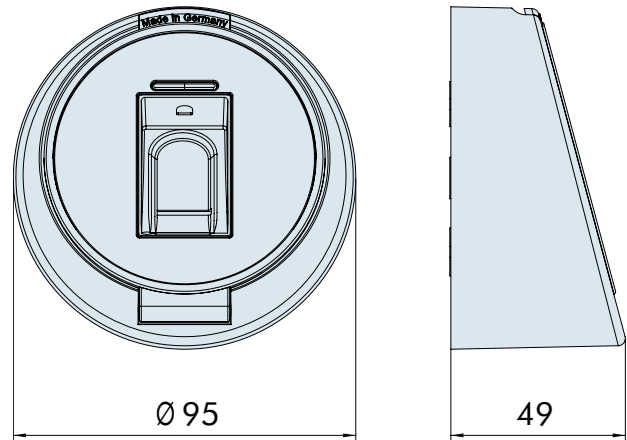
- From the front 2 threaded holes M3 with sufficient depth and 1 through-hole (opening for cable) have to be drilled into the safe door.
  - up to door strength 25 mm 1 through-hole 48 mm x 37 mm have to be drilled into the safe door.
  - from door strength 25 mm 1 through-hole  $\varnothing$  11 mm (opening for cable) have to be drilled into the safe door additionally.
- Fix the input unit with the enclosed countersunk screws M3 from the front.
- Affix the cover plate.

## 4 Installation reader unit FinKey FS

### 4.1 Reader unit FinKey FS



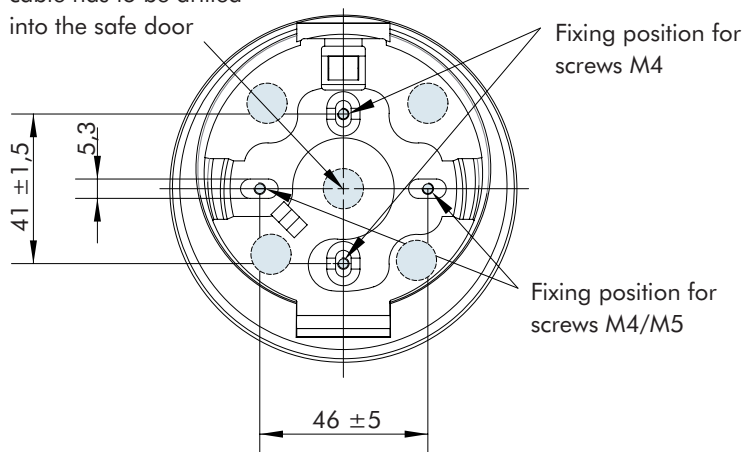
### 4.1.1 Dimensions FinKey FS



## 4.2 Mounting

### 4.2.1 Drill pattern reader unit FinKey FS

Possible positions for opening for cable:  
 Ø 11 mm for connection cable has to be drilled into the safe door



- From the front 2 threaded holes M4/M5 with sufficient depth and 1 through-hole (opening for cable) have to be drilled into the safe door.
- Fix the input unit with the respective enclosed cylinder screws M3 from the front.

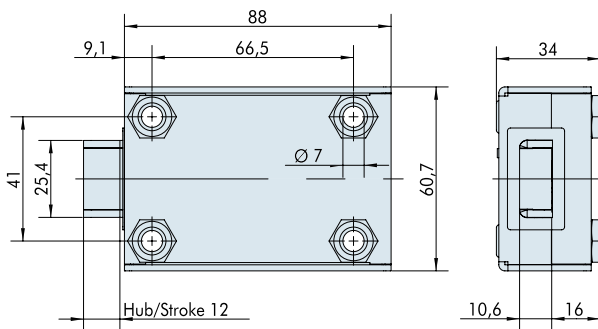
## 5 Installation lock Remote 3000/3010

Before mounting the lock the reader unit has to be installed (see chapter 3 to 6).

Wittkopp electronic locks of the Remote series have got standard fixing points and can be mounted in all 4 directions (right-hand, left-hand, up, down)

- The lock can be installed in all conventional safes.
- Further locking elements can be mounted optionally on the existing holes on the lock's bolt. Please make sure that the lock and the connections operate properly.
- The electronic lock is maintenance free in normal domestic and office surroundings. After approx. 10,000 closures it is recommended to carry out a security and functional test of the electronic lock.
- For safety reasons it is not allowed to locate the electronic lock in the area where openings are.
- The electronic lock has to be protected against external attacks.
- Do not insert any lubricants or other substances into the electronic lock.

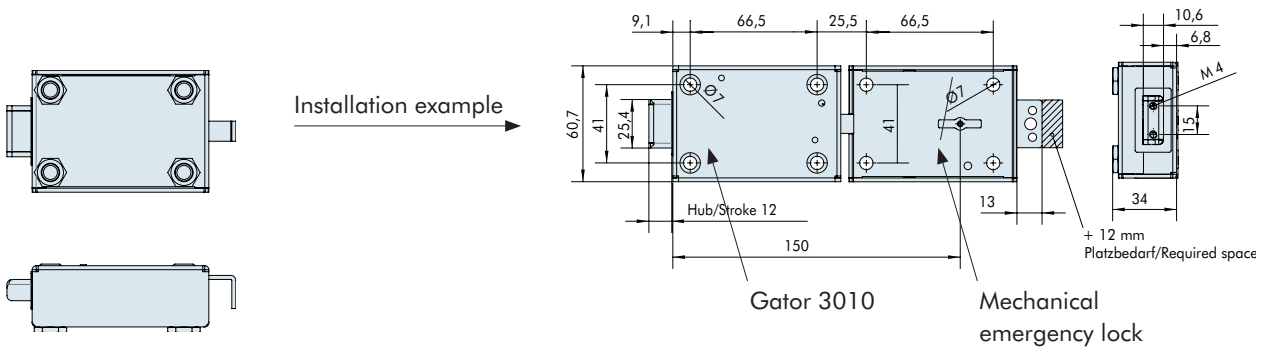
### 5.1 Dimensions lock Remote 3000



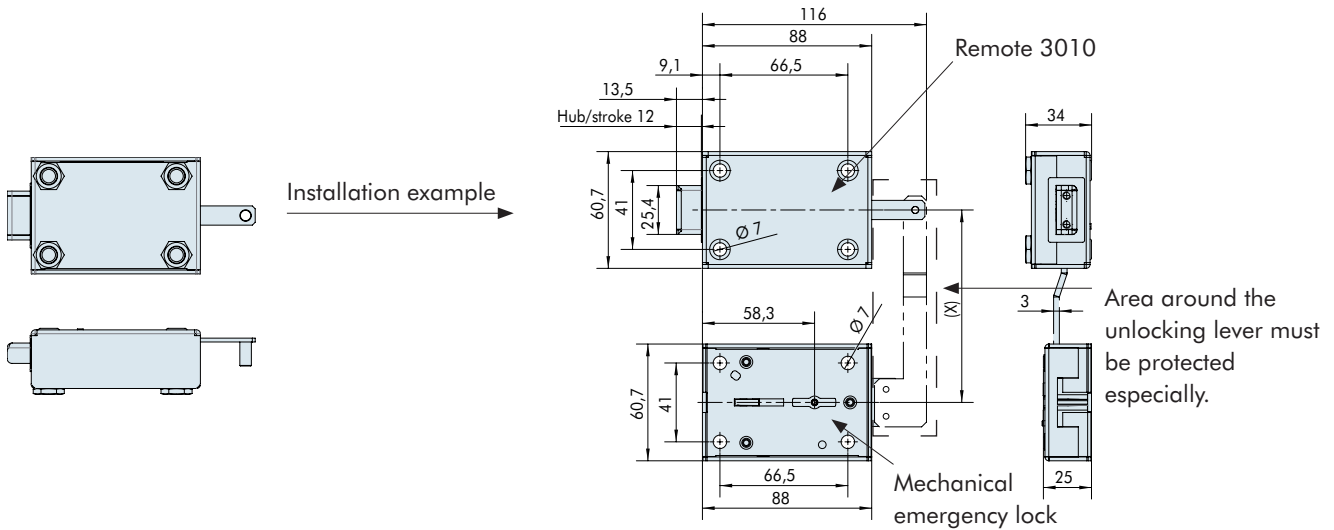
### 5.2 Remote 3010 mechanical emergency lock

If a mechanical emergency lock with VdS class 1 is used, the whole emergency lock system receives VdS class 1. When using a class 2 emergency lock the certification remains the same.

#### 5.2.1 Dimensions lock Remote 3010 - short connection with mechanical emergency lock

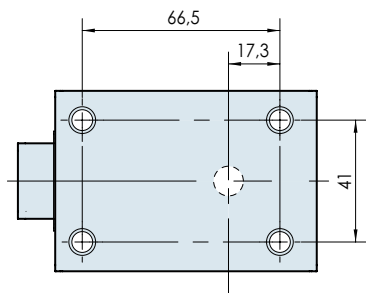


**5.2.2 Dimensions lock Remote 3010 - long connection with mechanical emergency lock**



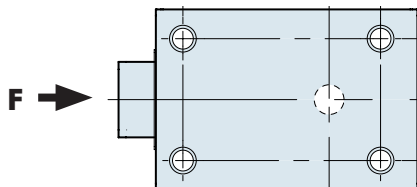
**5.3 Mounting**

**5.3.1 Drill pattern lock Remote 3000/3010**



- For fixing the electronic lock 4 threaded holes M6 with depth min. 6 mm (or a comparable inch thread) have to be drilled into the safe door.
- Fixing the electronic lock/emergency lock with screws M6 or a comparable inch thread. Length and material application of the screw has to be selected such as a secure long-term stability is guaranteed.
- Turn the screws with a maximum turning force of 3.5 – 5 Nm.
- Independent loosening of the screws has to be avoided. Recommendation: put lock washers underneath the screw's head.
- After the installation the lock's bolt may not be loaded.
- Mind sufficient slackness of the locking point.

**5.3.2 Bolt load lock Remote 3000/3010**



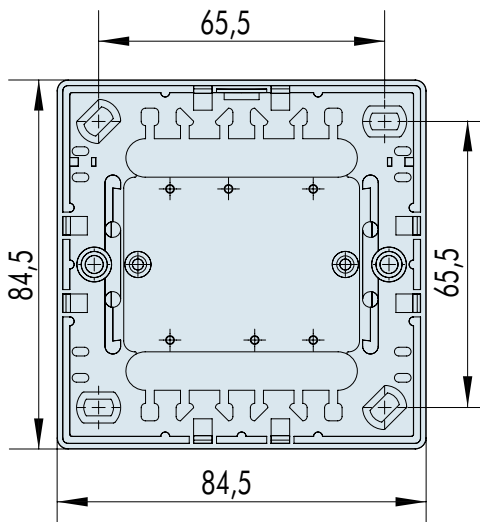
- The **maximum and constant** bolt load against **closing direction** may not exceed the following limits:  
 Remote 3000/3010                      2,5N

## 6 Installation FinKey divider

In order to make wiring as easy as possible all components are connected to the FinKey divider.

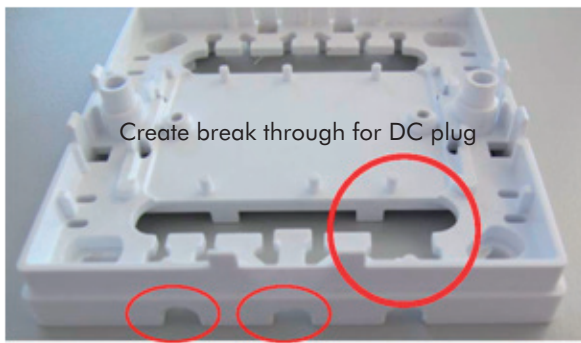
**The FinKey divider has to be installed within the secure area.**

### 6.1 Drill pattern FinKey divider



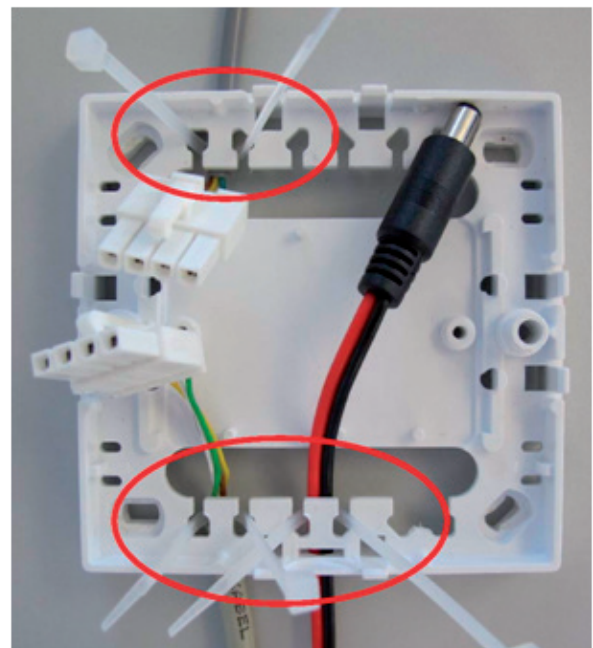
### 6.2 Preparing the FinKey divider for wiring

Include cable ties for strain-relief and tie the cables



Create break through for DC plug

Create break-throughs



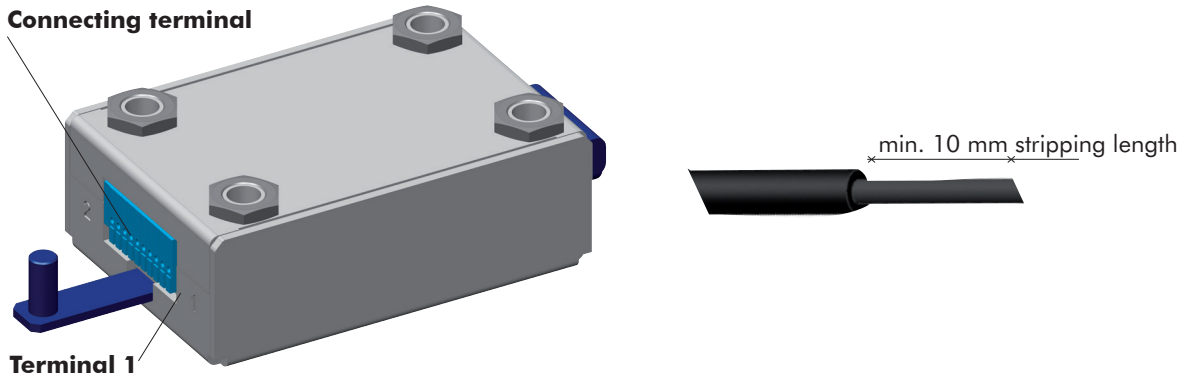
Lead cables into the divider from below

### 7 Wiring FinKey system

Fix the circuit board in the Finkey divider only after the cables have been fixed.  
Please make sure that the cables are protected from tampering from the outside.  
Fix the cables within the safe to make sure they can't be pulled out.

#### 7.1 Terminal assignment lock Remote 3000/3010

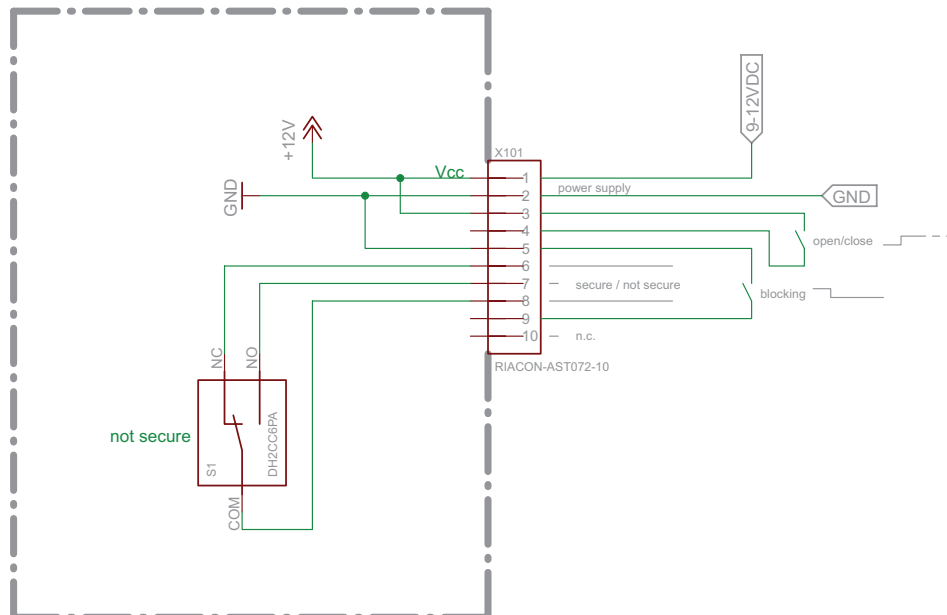
##### Connecting terminal



Using the supplied cable 051-1034-00-0 for connecting the FinKey divide and the lock the following colour assignment is shown below:

- Terminal 1: brown
- Terminal 2: white
- Terminal 3: yellow
- Terminal 4: green

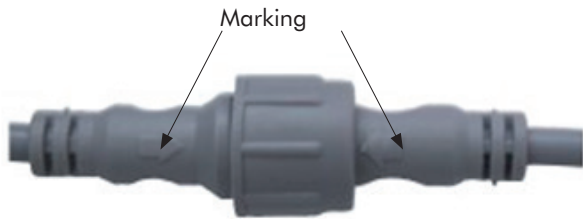
#### 7.1.1 General assignment plan for the terminal lock Remote 3000/3010



- The blocking input allows to inhibit lock openings. Closing or accordingly extending the bolt, is still possible.
- The lock electronically checks at the beginning of every opening cycle, whether a blocking signal is active. To combine multiple locks like a double door system, only one common signal line is necessary (easier cabling).
- The condition „secure“, when the bolt is in closed position and retained, is signaled by switching contacts directly connected to the terminal block (dry-contact).

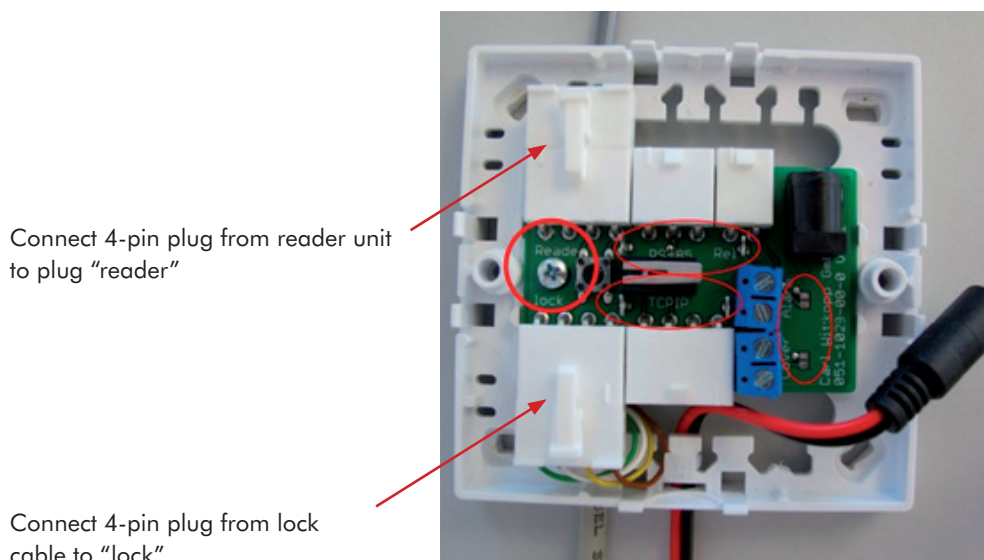


**7.2 FinKey divider to reader unit**



**Please note the marking on the connector plug when connecting the cables.**  
 In order to pull the cable of the reader units through the drilling, disconnect the cable on its coupler between the reader and the relay unit.  
 • After the installation connect the coupler again.

**7.3 FinKey divider to reader unit/lock**

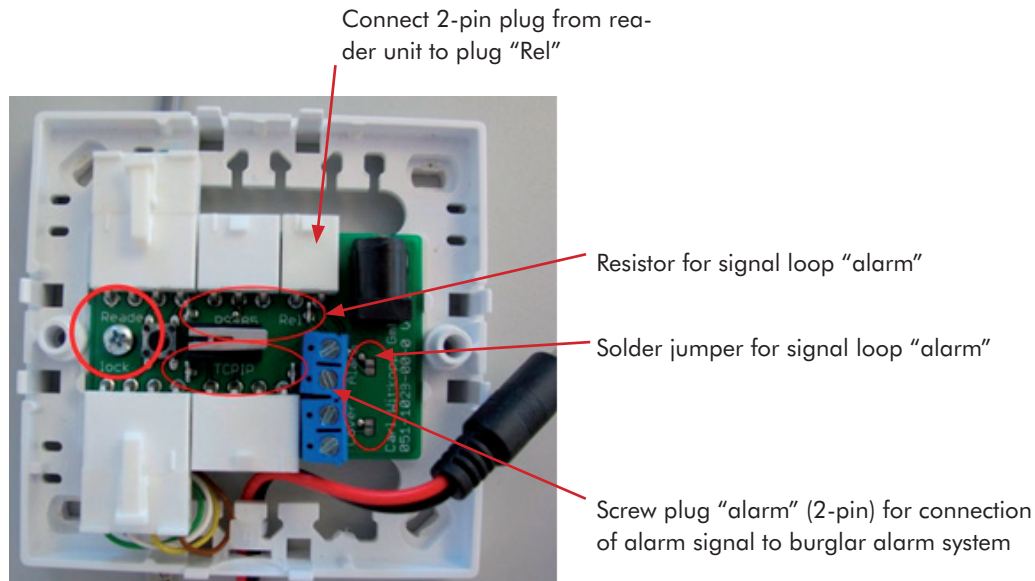


Connect 4-pin plug from reader unit to plug "reader"

Connect 4-pin plug from lock cable to "lock"

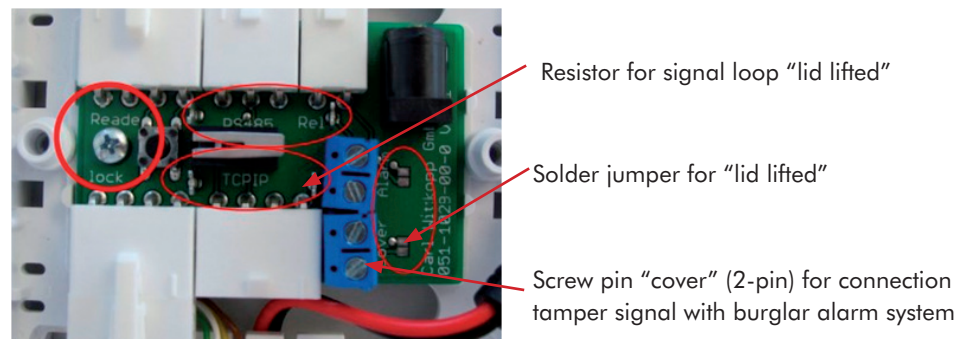
- Connect the skinner from the FinKey divider to the terminal of the lock and check the adjustment.
- Ensure sufficient strain-relief
- In order to loosen single skimmers push in the corresponding levers (orange) with an appropriate tool
- Keep cable away from sharp edges and moving boltwork components and fix them permanently

**7.4 FinKey divider with alarm signal (optional)**



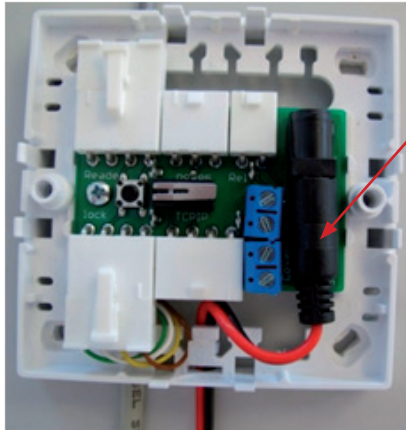
Solder the resistors for signal loops only if the connection will be lead out, link the solder jumper.

**7.4.1 FinKey divider with tamper contact (optional)**



Solder the resistor of the tamper signal only when the connection should be lead out, link the solder jumper.

## 8 Power supply of FinKey system



Plug "power supply"

Create power supply by plugging in the plug.  
Lead the cables for "alarm signal" and tamper signal" underneath the plug.

## 9 Setting the mode of operation

The system can be operated in two modes.

- Automatic locking: the bolt closes automatically after a set time
  - Closing with finger: the bolt closes only after a finger was recognized by the reader unit
- The modes of operation are set via the remote control

### 9.1 Setting the mode of operation "Automatic locking"

The time in which the lock closes automatically is set in seconds. Times possible to set are 5 to 65 seconds (factory setting: 5 seconds).

- Press the button RT – R1 on the remote control – opening time (5....65) – OK

### 9.2 Setting the mode of operation "closing with finger"

- Press the buttons RT – R1 on the remote control – 1 – OK

## 10 Setting the signal time "silent alarm"

The signal time of the "silent alarm" is set in seconds. Times possible to set are 5 to 65 seconds (factory setting: 5 seconds).

- Press the buttons RT – R2 on the remote control – opening time in seconds (1....65) – OK

## 11 Functional test

- Carry out a functional test after installing the lock (when the door is open).
- Trigger the control signal.  
Press the button 0 – OK on the remote control  
This function is only possible in factory setting when all three LEDs (green, red and blue) are lit, when no finger is saved yet.
- The lock bolt moves in automatically (has to happen easily). The lock is opened.
- After triggering another control signal (pulse mode) or after switching off the control signal (hold mode) the lock bolt moves out automatically and locks. The lock is closed.
- Keep enough clearance to the locking point.

## 12 Technical data

Dimensions lock (mm)		88 x 60.7 x 34
Material		zinc plated steel sheet
Ingress protection		IP30
Temperature (°C)		5-40
Rel. humidity (%)		10-75 % not condensating
<b>Operation conditions</b>	(standby *1)	supply voltage 12VDC, only power supply without any control contacts
	(load *2)	7.5 N bold force, supply voltage 12VDC
	(bold blocked *3)	supply voltage 12VDC
<b>Power supply</b>		
Voltage	(Vcc)	9-12 VDC +/- 10%
Current consumption	(standby *1)	typ. 1 $\mu$ A
	(load *2)	< 300 mA
	(max. *3)	< 700 mA
<b>Current consumption control inputs</b>		
- Open/close (mA)		< 0.5 mA
- Blocking (mA)		< 0.1 mA
<b>Voltage levels control inputs</b>		
- Open/close		5V – 12 V (max. Vcc)
- Blocking		0-5 V
(always with reference to ground)		
<b>Output</b>		
- „Secured“		5-500mA@30V (data sheet Cherry DH)
Terminal block wire gauge		0.13 – 0.5 mm <sup>2</sup> respectively AWG 26-20