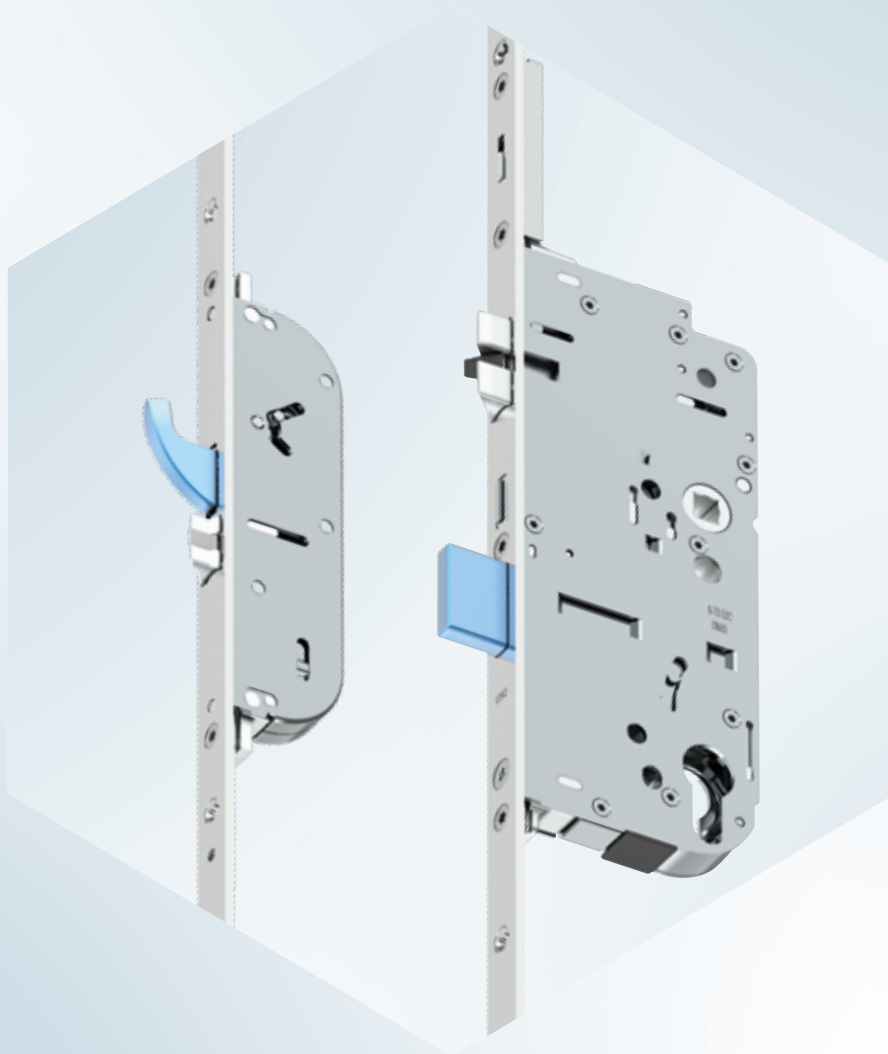


ASSEMBLY INSTRUCTIONS

# A-TS

## Automatic Door Lock PVC



M119317

Use only for  
**certified specialists!**



## Table of Contents

<b>Item</b>	<b>Page</b>
Important Notes	4
Key	5
Use of transportation protection devices	6
Instructions for use	7 - 11
Installation Instructions	12 - 17
Set lock for day release function (assembler)	13
Assembly day release element on the lock (assembler)	14
Assemble MACO day release opener on striker plate (assembler)	15
Operating instructions day release (end customer)	16
Positions	17
Drilling and milling Images	18 - 20
Lock case and multi-function latch with hook lock	18
Latch and shootbolt striker plate	19
Multi-function hook striker plate	20
Positioning of the striker plates	21 - 26
2 Multi-function latch with hook, standard K+730, 1-sash	21
2 Multi-function latch with hook, standard K+730, 2-sash	22
2 Multi-function latch with hook, Low K+605, 1-sash	23
2 Multi-function latch with hook, Low K+605, 2-sash	24
2 Multi-function latch with hook, High K+980, 1-sash	25
2 Multi-function latch with hook, High K+980, 2-sash	26
Lengthening/shortening of the A-TS K+730	27 - 28
Module without additional locking point	27
Module with additional locking point	28



## Table of Contents

<b>Item</b>	<b>Page</b>
<b>openDoor Access Solutions</b>	<b>29 - 40</b>
Overview	29
A-TS Transponder Plus	30
A-TS Transponder Keypad and Touchkey	31
Somfy lock controller	32
Circuit Diagram frame-side	33
Circuit Diagram button impulse	34
Circuit Diagram toggle switch	35
Milling image Transponder Plus	36
Milling image Keypad / Touchkey BT	37
Milling image including connector plate and motor	38
Cable transition for opening angle $\leq 110^\circ$ , PVC 12 air	39
Cable transition for opening angle $\leq 180^\circ$ , PVC 12 air	40



## Important Notes

### Target audience

This documentation is intended exclusively for specialist companies and certified specialists. The work-steps contained may only be carried out by certified specialists.

### Instructions for use

- Unless otherwise indicated, measurements are made in millimetres.
- Assemble all hardware parts professionally as described in these instructions and observe all safety instructions.
- All diagrams are only symbolic.
- With the spacer-block setting, observe the glazing technical guideline No. 3 for the "Blocking of Glazing Units".
- Observe the "Guidelines and Instructions for Product and Liability (GIPL)".
- Inform the end user about the contents of the "Guidelines and Instructions for End Users (GIEU)".
- Printing errors, mistakes and changes are reserved.

### Material information

- The hardware parts described in this guide are made of stainless steel or galvanised passivated steel and sealed in accordance with DIN EN 12329. They must not be used in environments with aggressive, corrosive air content.
- Do not use acid-curing sealants, as these can lead to corrosion of the hardware parts.
- The door lock elements may only be surface-treated before the hardware is installed. Any subsequent surface treatment may restrict the functionality of the hardware. In this case, no warranty claims can be made against the hardware manufacturer.

## Key



Backset DM



Distance E



Handle height GM



Profile Front Edge

MF

Multi-function latch

EV

End piece

FFH

Sash rebate height

K+

Case dimension top

K-

Case dimension bottom

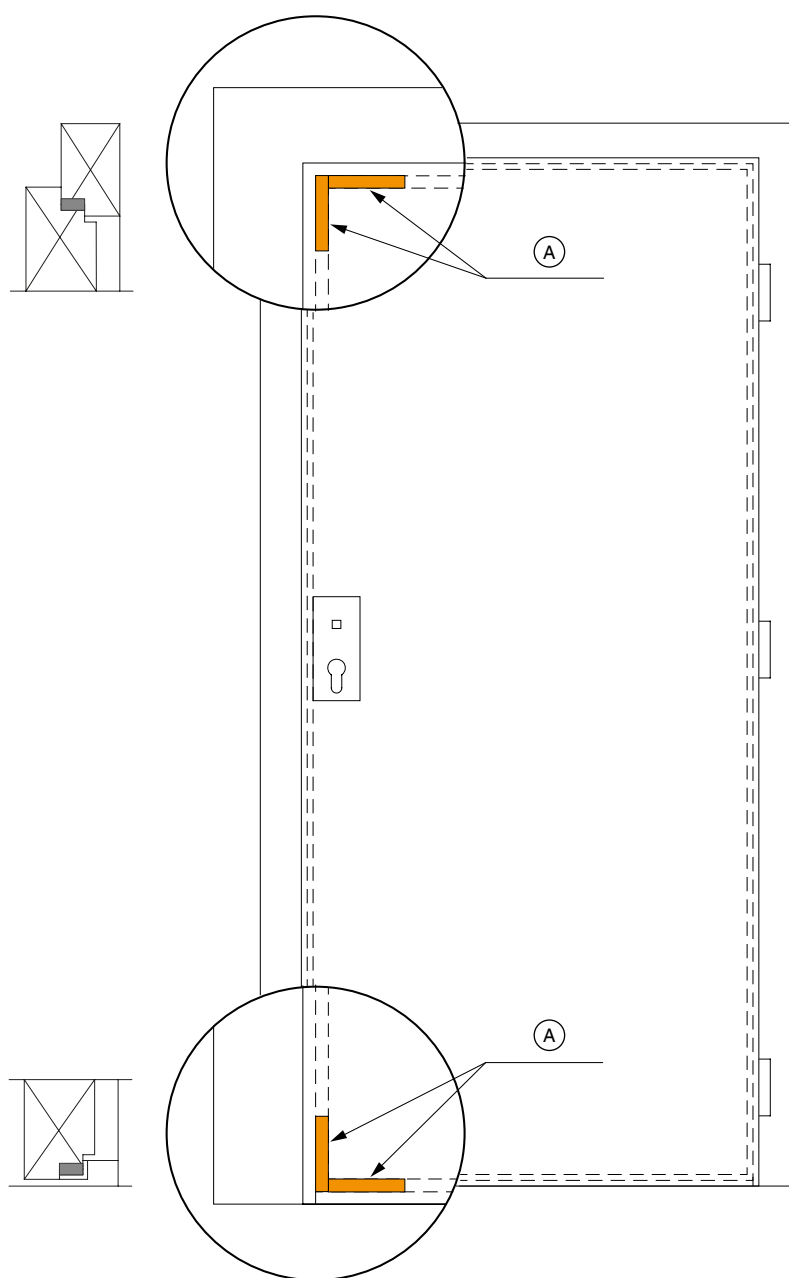


Important note

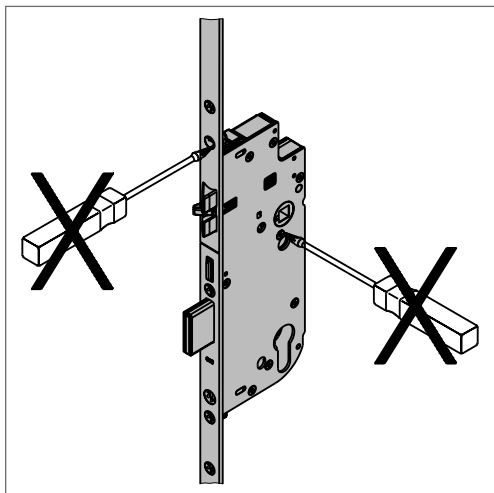
## Use of transportation protection devices

Simple transport protection devices, wedges or blocks ensure a safe transport of the entire door element. Remove only after installation.

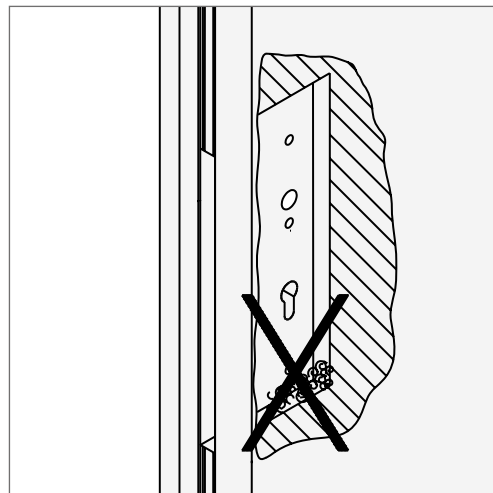
### Ⓐ Transport protection device position



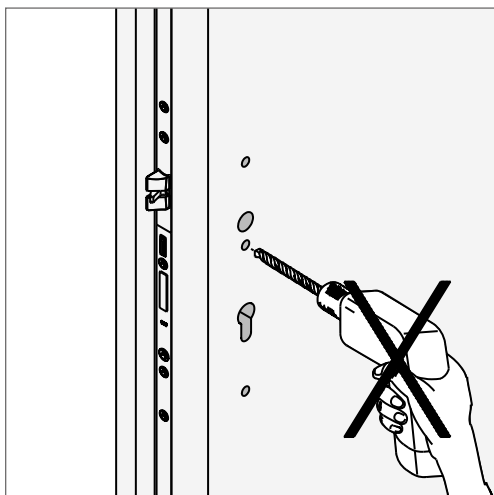
## Instructions for use



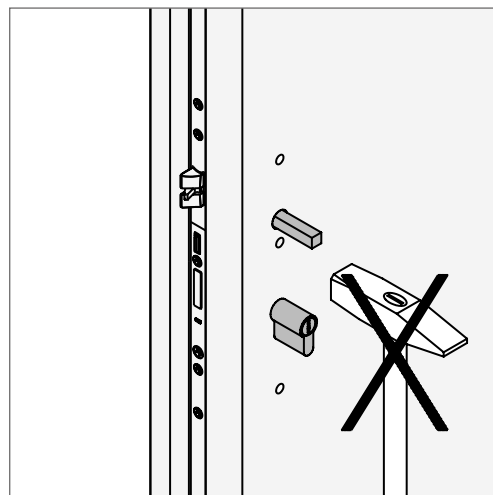
Never open the lock case!



Remove swarf from the milled space!

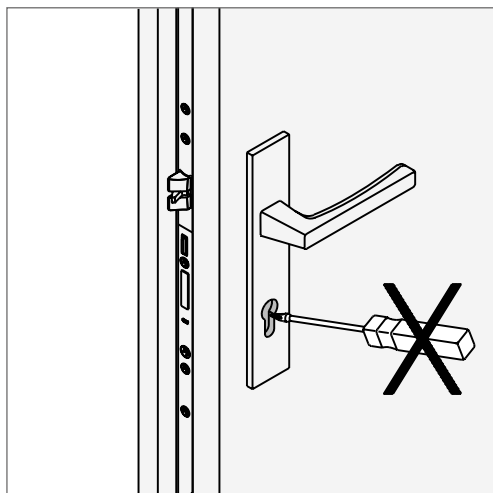


Drill all holes before installation of the lock!

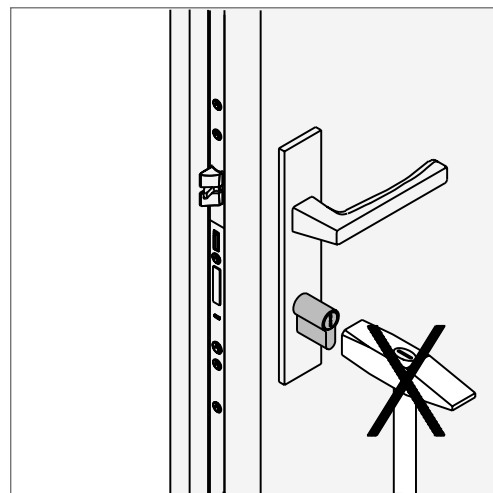


Do not force the handle pin through the lock nut!

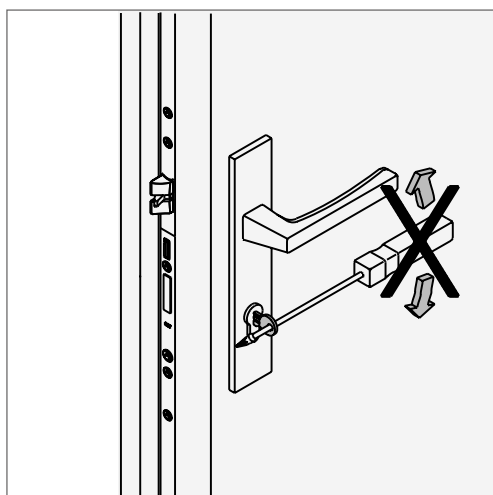
## Instructions for use



Only close the lock with the corresponding operating key!

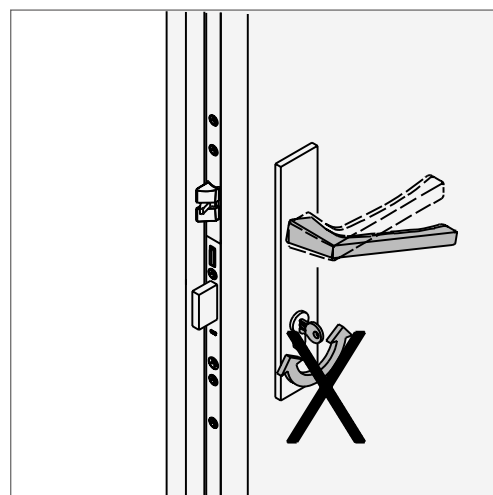


Do not use force during the cylinder assembly!



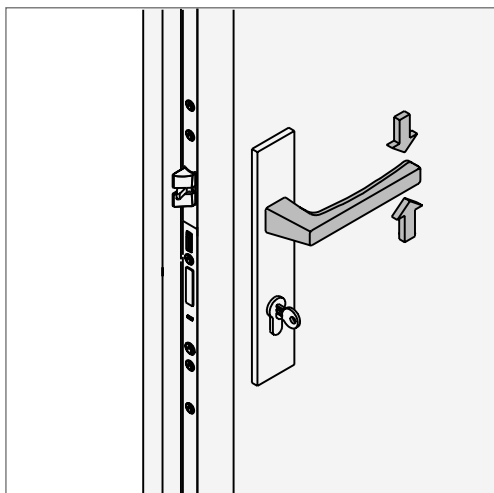
Do not turn the key using force!

The latch of the main lock must not rub against the striker plate – this also applies to multi-point locks without door acceleration, and all latches of the side locks. For this, use the adjustment option on the striker plates and door hinges. Adjustment of the holes in the striker plates is not permitted.

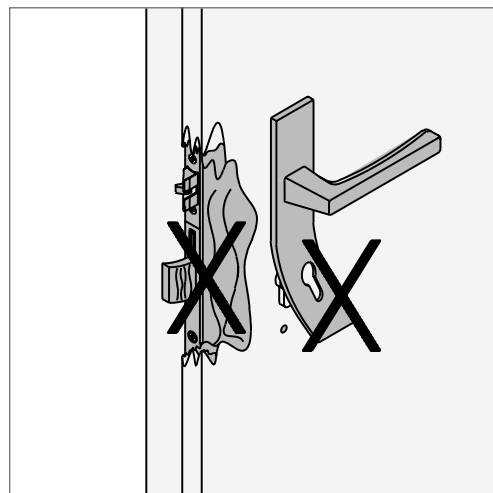


Do not simultaneously press the key and handle!

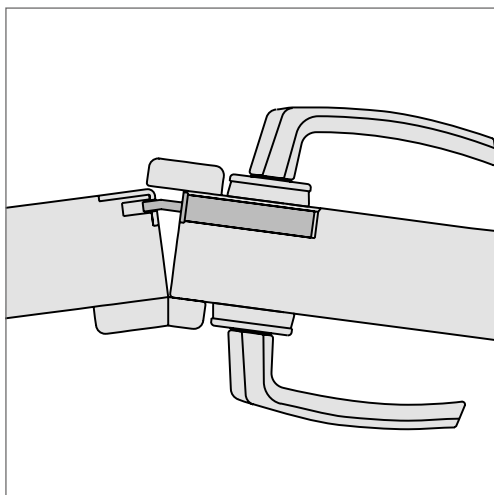
## Instructions for use



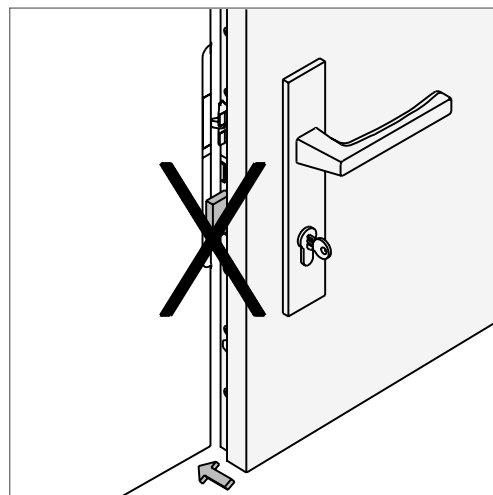
Only apply load to the handle in the normal direction! Apply a maximum force of 15 kg in the direction of actuation (on the handle)!



The multi-point lock must be replaced as soon as traces of use of force are visible!

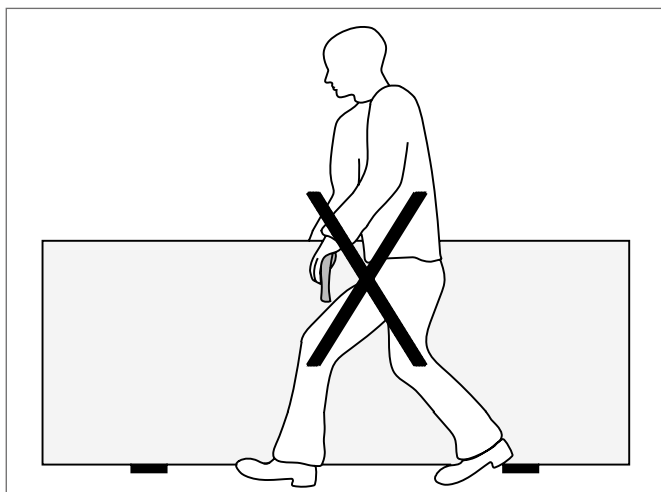


Two-sash doors must not be forced over the inactive leaf!

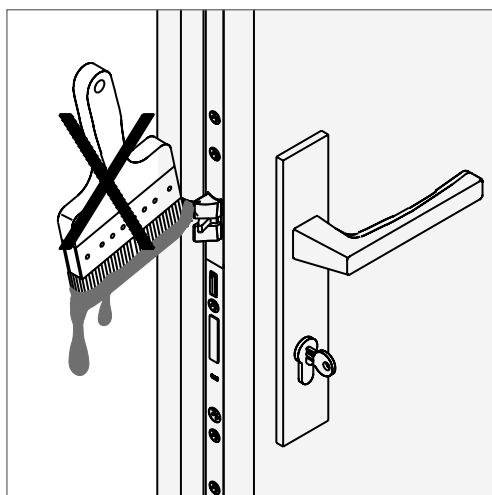


Do not close the lock latch when the door is open!

## Instructions for use

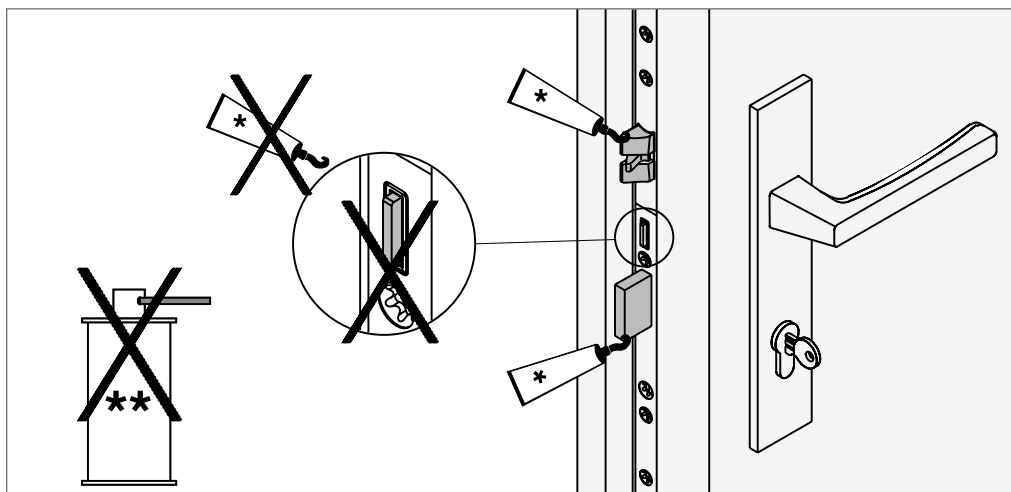


Do not carry the door leaf with the handle!

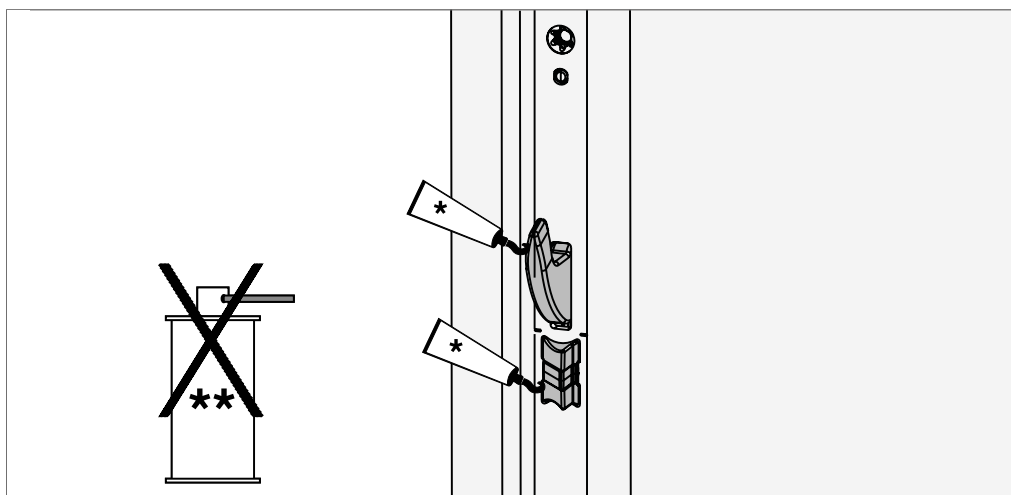


Do not paint or varnish over the padlock bolt or latch!

## Instructions for use



The door lock (lock case) is delivered with an intensive lubrication of high-performance greases and must NOT be re-lubricated!



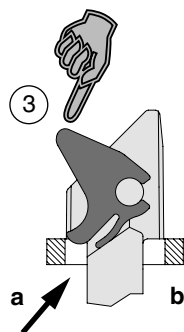
Lubricate the MF-HO locking element 1x annually!



**Do not use any lubricating oils, rust remover, silicone sprays etc!  
Lubricate only with grease or technical petroleum jelly! Lubricate the  
latch and locking bolt 1x annually!**

*\* Spray grease (455341), \*\* Rust remover*

## Installation Instructions

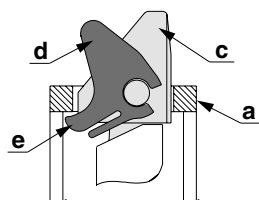


a = Faceplate

c = Latch

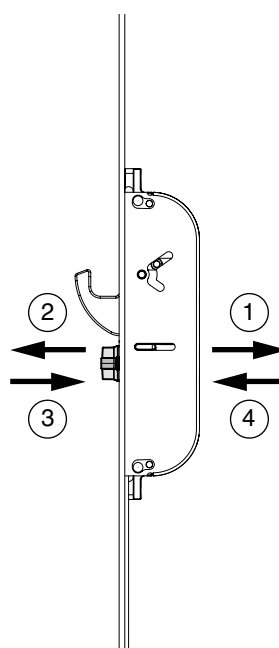
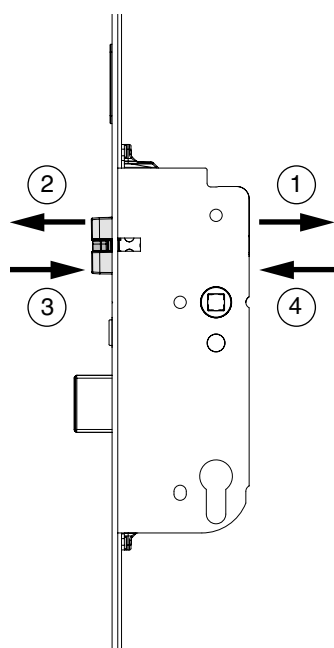
d = Latch insert

e = insert leg of latch insert



### Crank latch

### Multi-function latch



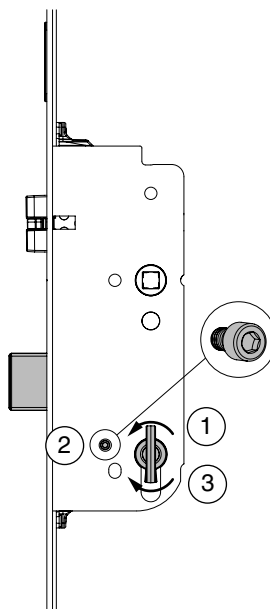
- ① Loosen the screw completely and push forward with the screwdriver!
- ② Remove the latch!
- ③ Turn the latch over and place it on the faceplate (a) so that you can press the insert leg (e) of the latch insert (d) under the faceplate recess (b).  
Only then press the latch in completely!
- ④ Screw in (torque min. 1.5 Nm to max. 2 Nm)!



**Perform functional check!**

## Installation Instructions

Set lock for day release function (assembler)



### Set day release function

- ① Lock
- ② Remove the day release screw (2.5 mm hex socket)
- ③ Unlock

### Manufacture delivery state

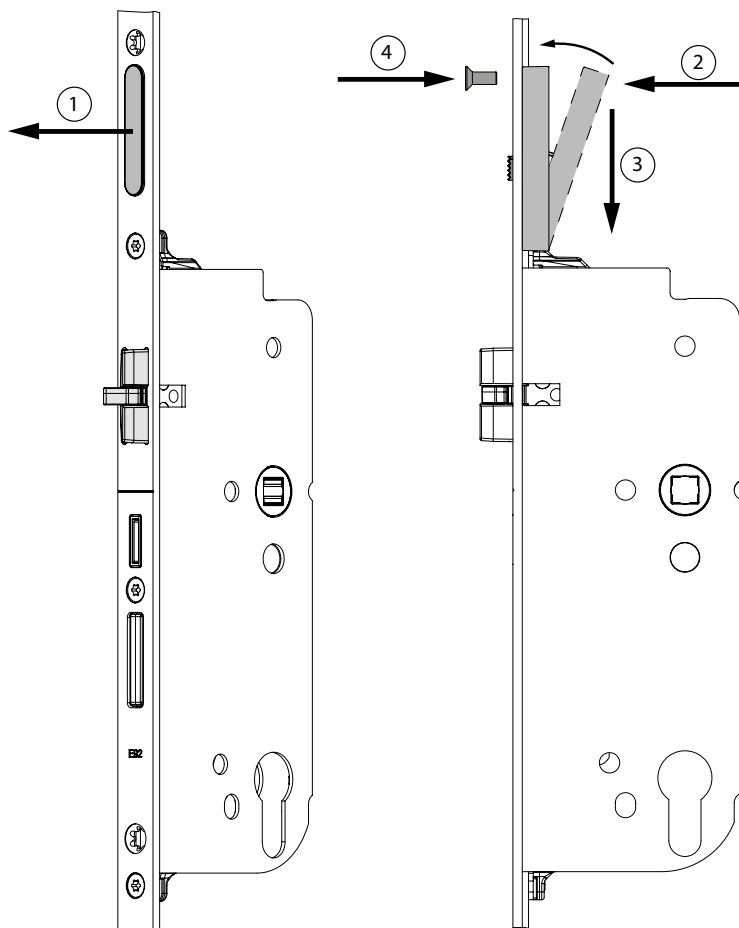
- ① Lock
- ② Insert day release screw (2.5 mm hex socket)
- ③ Unlock



**If the day release function is set, the main latch is not actuated during motorised operation (door does not automatically jump open)!**

## Installation Instructions

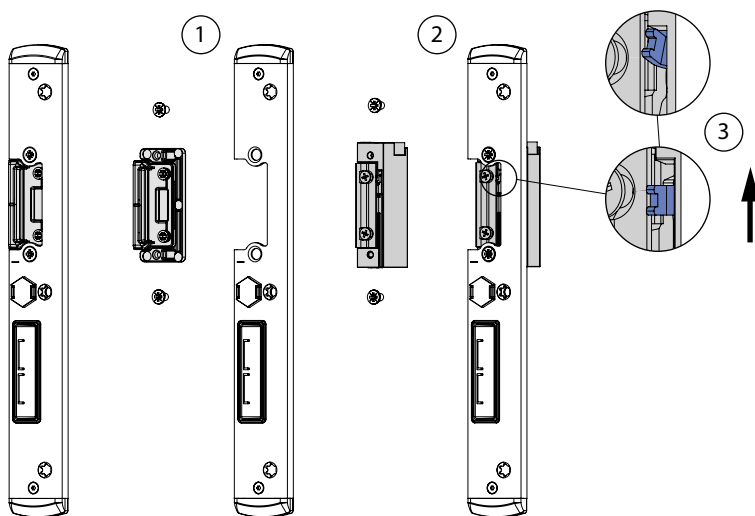
Day release element assembly on the lock (assembler)



- ① Remove the faceplate cover.
- ② Position the day release element on the back of the faceplate (directly on the latch above the lock case)
- ③ and push onto the lock case.
- ④ Screw on the day release element with the attached TX20 M4x10 screw on the front of the faceplate!

## Installation Instructions

MACO day release opener assembly on the striker plate (assembler)

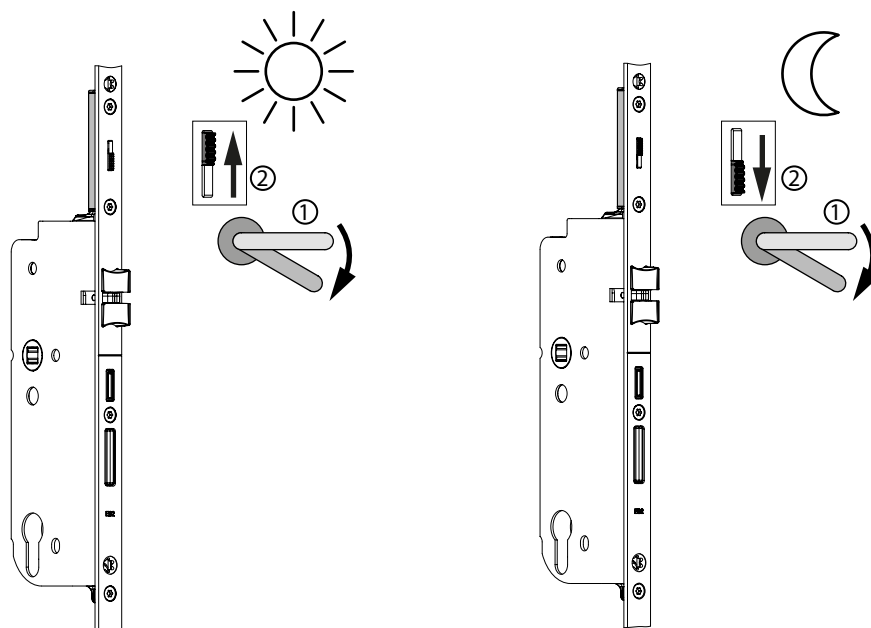


- ① Remove the latch insert.
- ② Assemble the MACO day release opener.
- ③ Activate the mechanical unlocking on the day release opener using the lever\*.

\* Mechanical unlocking can remain activated as the day release function is controlled by the day release slider on the lock (see "Day Release Function" user manual, page 16).

## Installation Instructions

Day release function user manual (end customer)



### Activate day release function

- ① Press the handle so that the locking element and the multi-function latch are pulled in
- ② Slide the day release slider upwards, release the handle!

### Deactivate day release feature

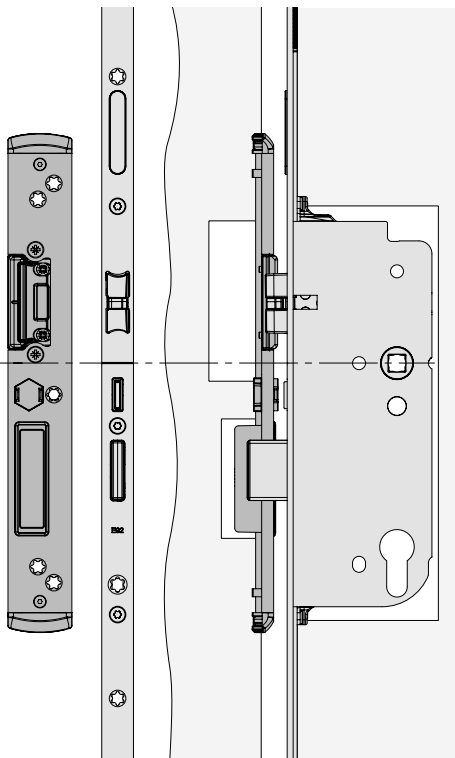
- ① Press the handle so that the locking element and the multi-function latch are pulled in!
- ② Slide the day release slider downwards!

The A-TS basic function, automatic locking, is restored!

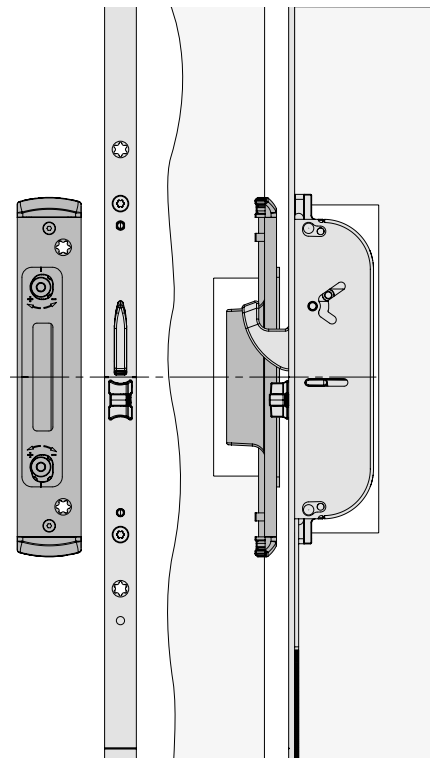
# Installation Instructions

## Positions

### Position of latch and shootbolt striker plate



### Position of striker plate, multi-function latch with hook



### Pressure adjustment:

+/- 2 mm with latch and shootbolt striker plate

+/- 1.5 mm with MF-HO striker plate

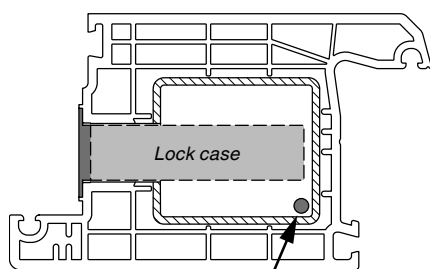
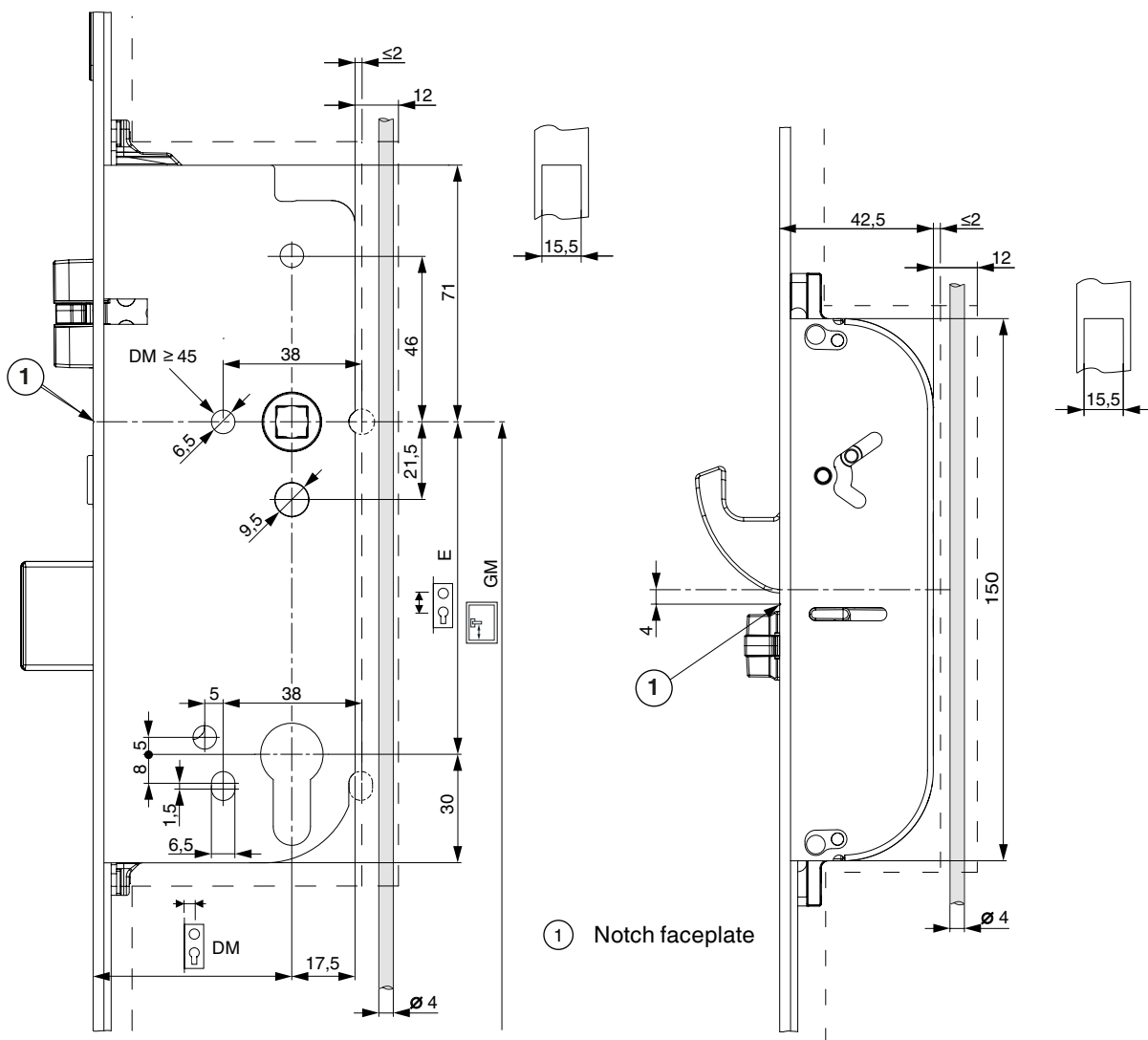
Positioning of notch faceplate = notch strike plate



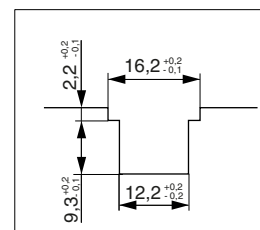
**A rebate clearance of 10 - 14 mm must be kept in the installed state!**

## Drilling and milling images

Lock case and multi-function latch with hook lock



Proposed cable position for access solution

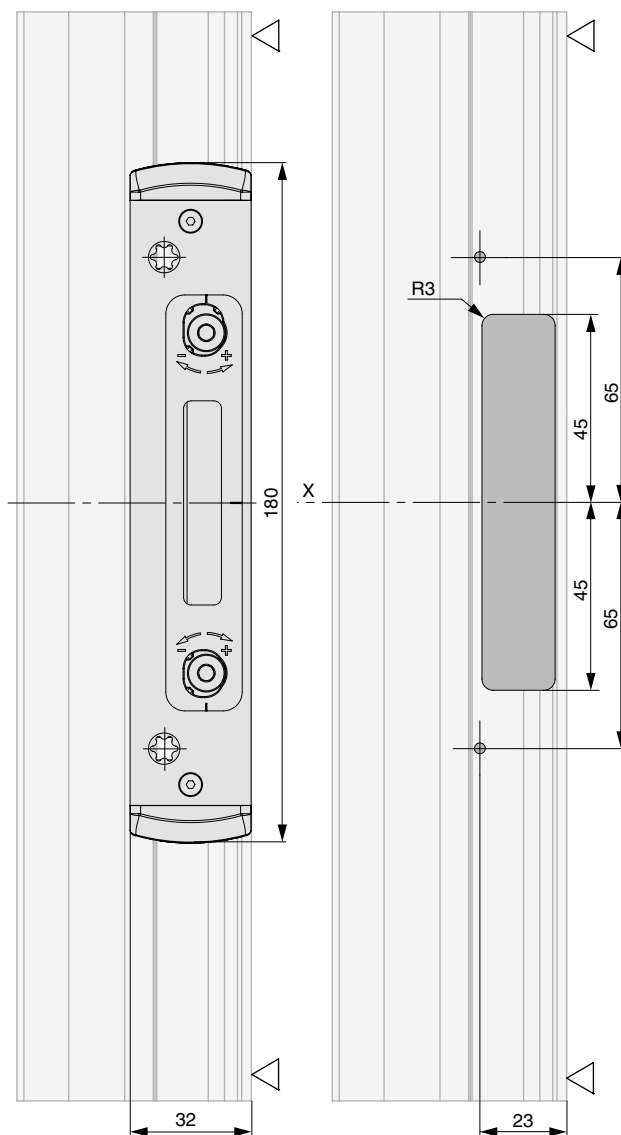
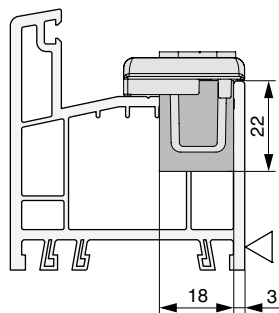




## Drilling and milling images

Multi-function hook striker plate

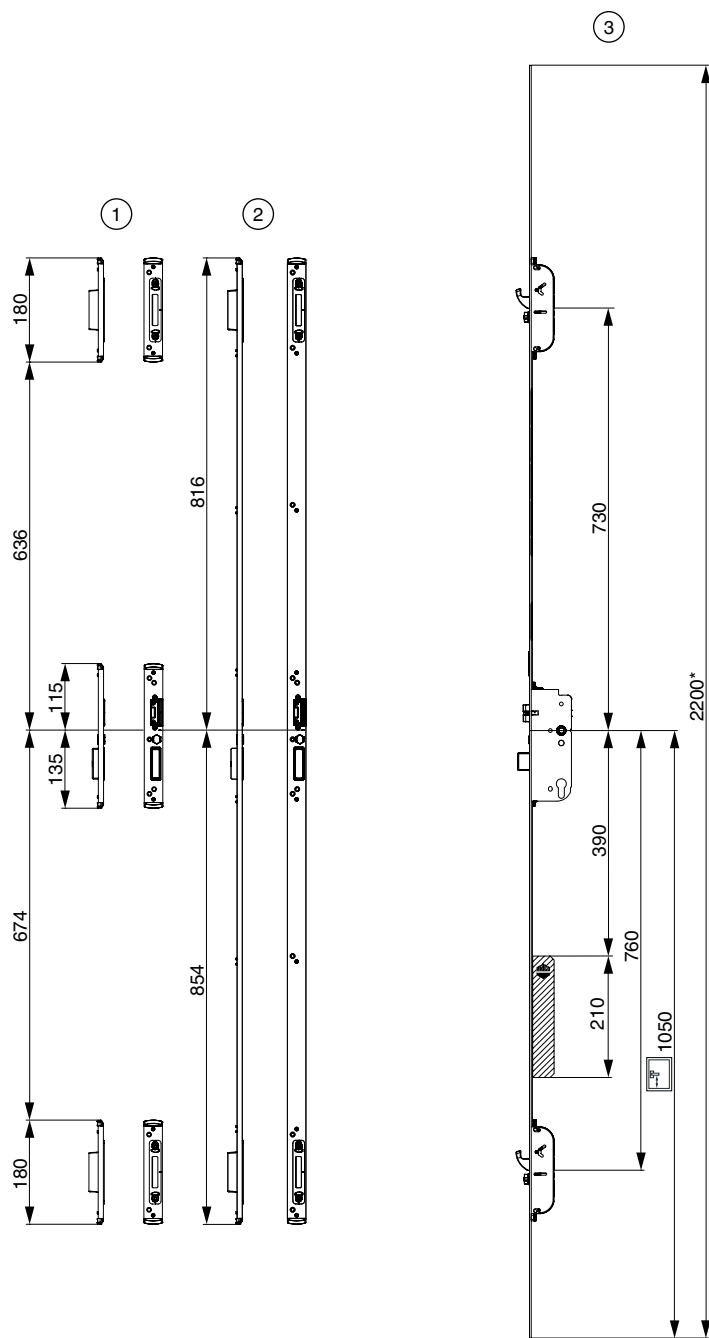
	X
	2 MF-HO
↑	+726
0	0
↓	-764



# Positioning of the striker plates

2 Multi-function latches with hook, standard K+730, 1-sash

- ① Single striker plate
- ② Single piece door striker
- ③ Lock



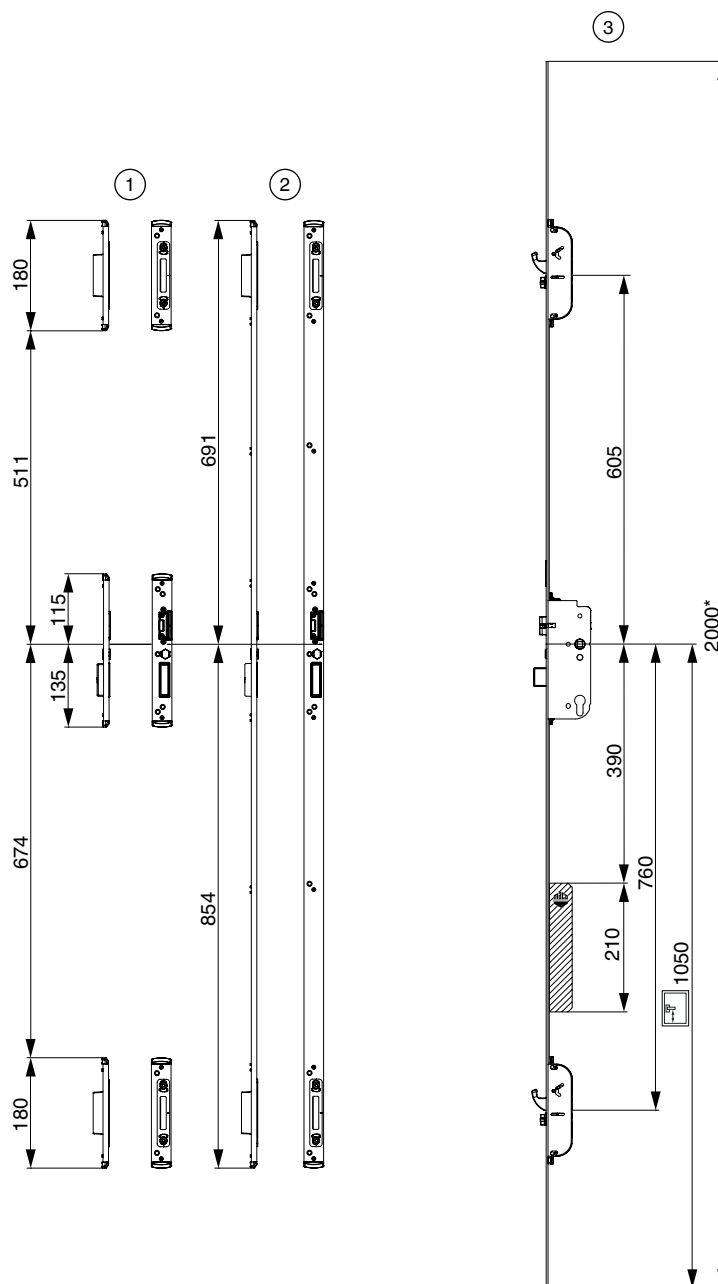
\* Use faceplate strip cover for higher FFH!  
 Drive for motorised opening



## Positioning of the striker plates

2 Multi-function latches with hook, Low K+605, 1-sash

- ① Single striker plate
- ② Single piece door striker
- ③ Lock

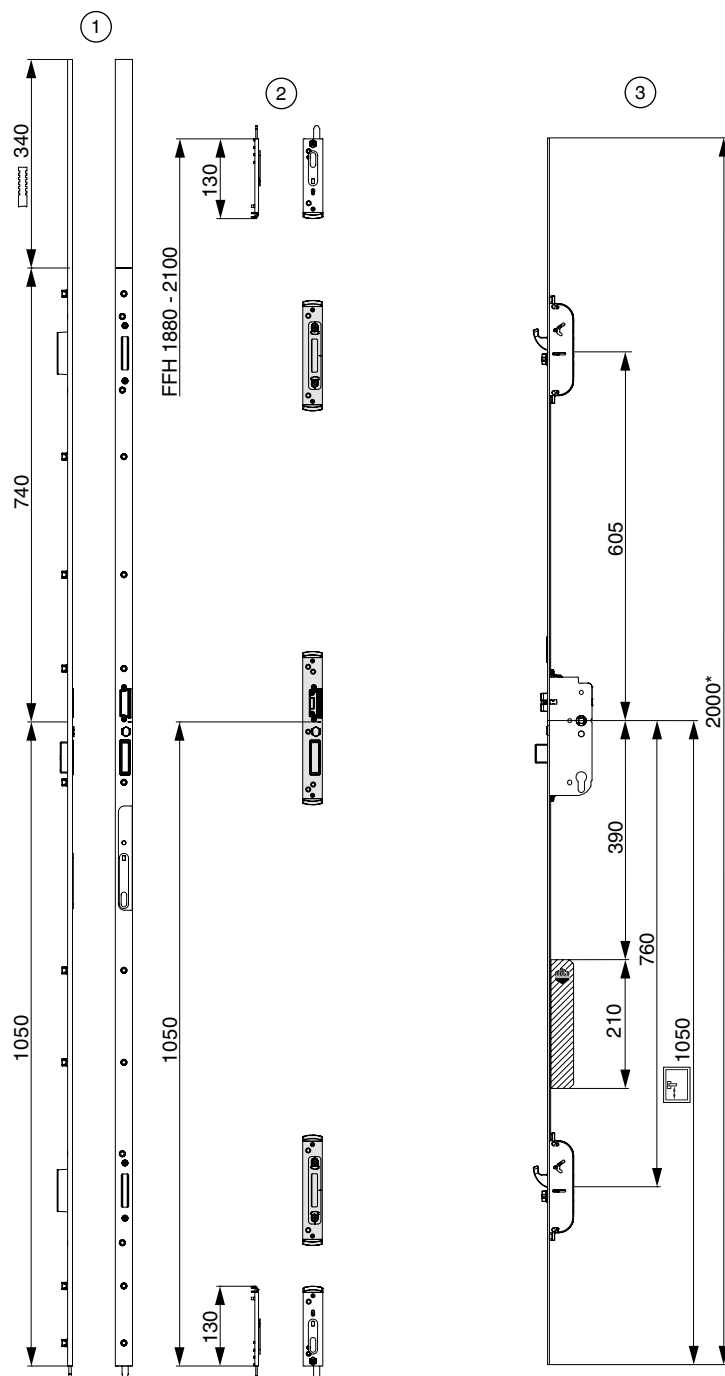


\* Use faceplate strip cover for higher FFH!  
 Drive for motorised opening

## Positioning of the striker plates

2 Multi-function latches with hook, Low K+605, 2-sash

- ① French casement drive gear
- ② Finger operated door shootbolt
- ③ Lock

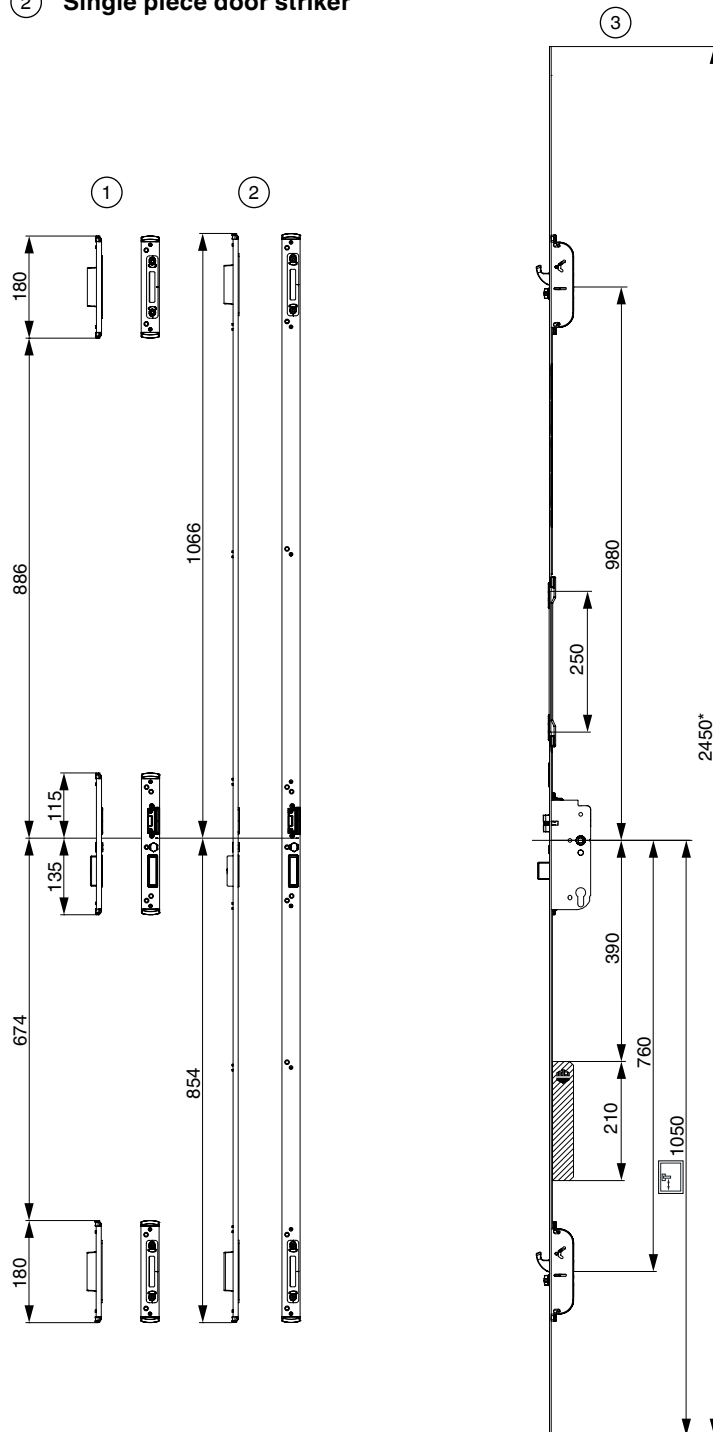


\* Use faceplate strip cover for higher FFH!  
 Drive for motorised opening

## Positioning of the striker plates

2 Multi-function latches with hook, High K+980, 1-sash

- ① Single striker plate
- ② Single piece door striker
- ③ Lock

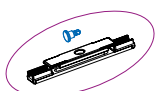


\* Use faceplate strip cover for higher FFH!  
 Drive for motorised opening



# Lengthening/shortening of the A-TS K+730

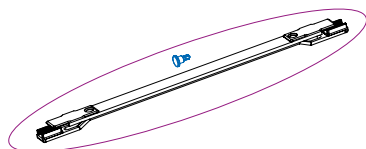
Module without additional locking point



- ⇒ Only possible with A-TS K+730 module!
- ⇒ When using the lengthening or shortening faceplate, the standard eurogroove must be used!

## Shortening faceplate pack

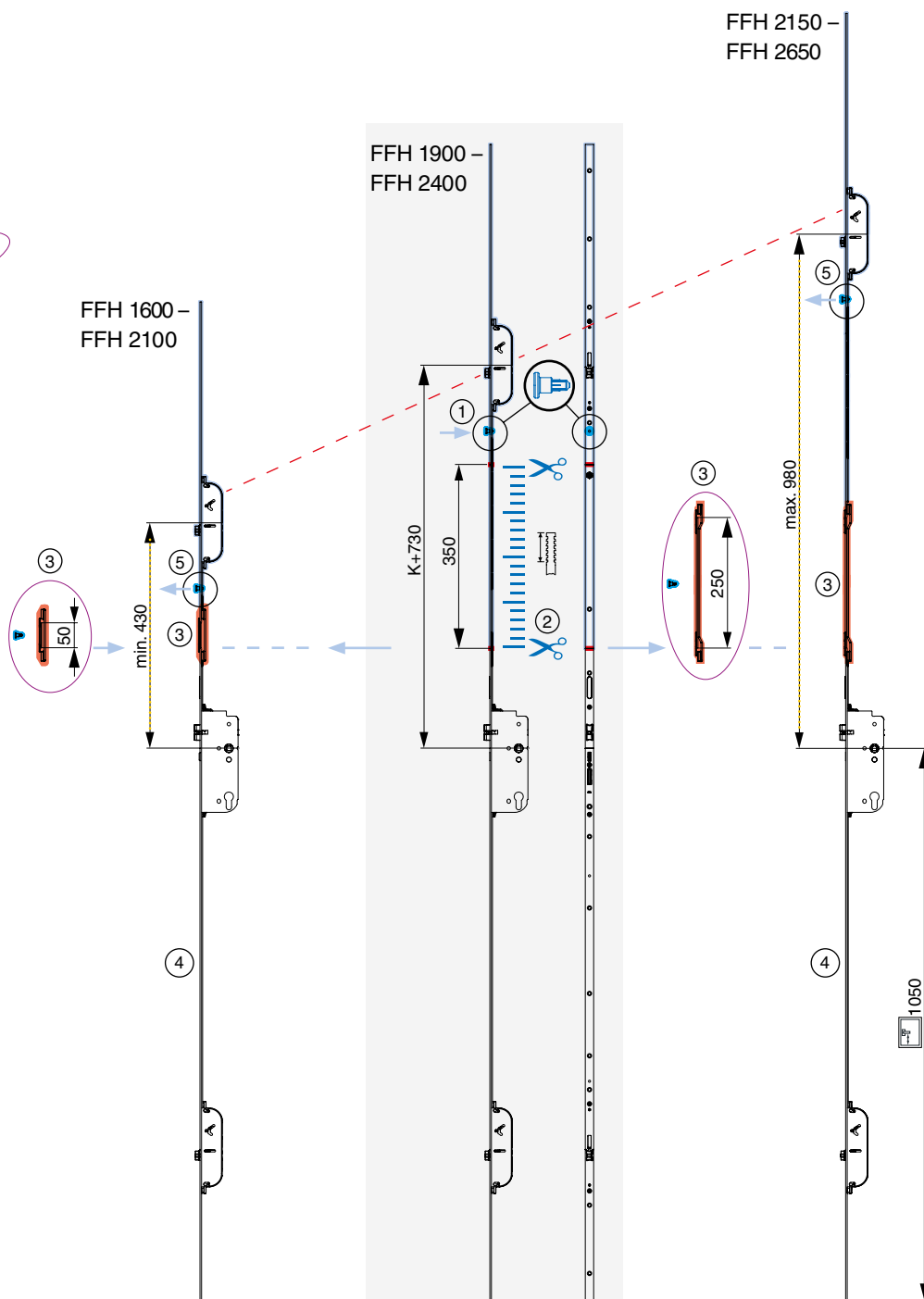
Contents: 1 pc. fixing bolt with shortening faceplate and deadbolt



## Lengthening faceplate pack

Contents: 1 pc. fixing bolt with lengthening faceplate and deadbolt

- ① Remove the fixing bolts on Standard A-TS pre-place K+730 Module
  - ② Separate the faceplate and deadbolt.
  - ③ Use the shortening or lengthening faceplate.
  - ④ Screwing the entire faceplate.
  - ⑤ Remove the fixing bolts on A-TS intermediate faceplate and the A-TS K+730 Module.
- ⇒ Perform functional testing!



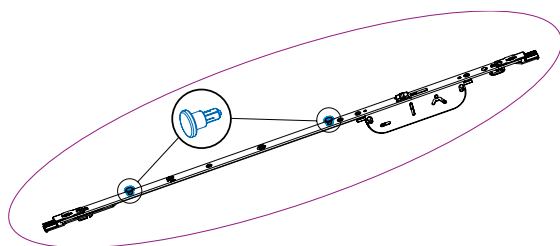
## Extension of the A-TS K+730

Module with additional locking point



⇒ Only possible with A-TS K+730 module!

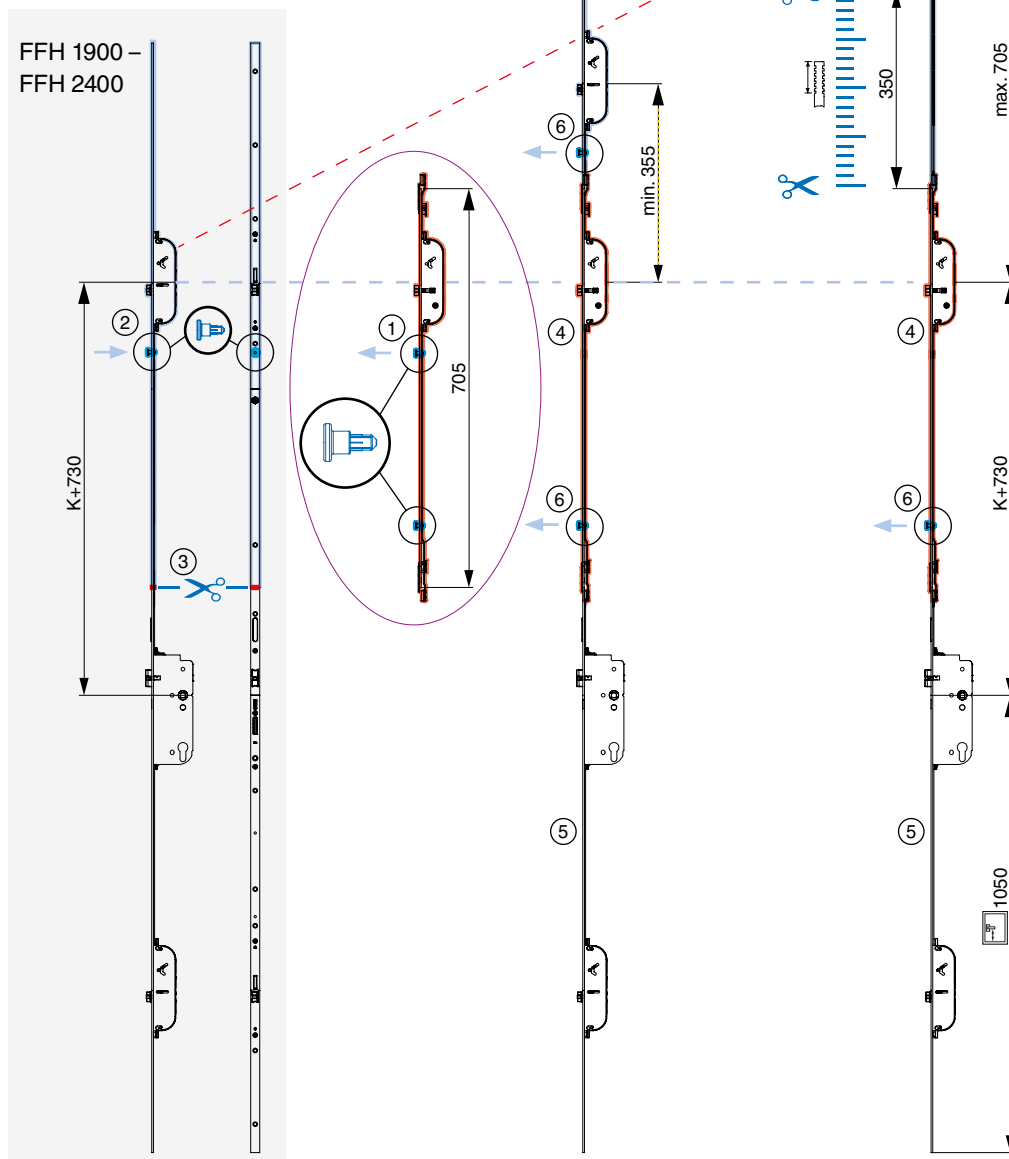
⇒ When using the A-TS intermediate faceplate module, the standard eurogroove must be used!



The A-TS intermediate faceplate module is delivered with two pre-inserted fixing pins!

- ① Remove 1 of the fixing pins from the intermediate faceplate.
- ② Remove the fixing bolts on the Standard A-TS K+730 module
- ③ Separate the faceplate and deadbolt
- ④ Insert the A-TS intermediate faceplate with the pre-fitted fixing pins.
- ⑤ Screw in the entire faceplate.
- ⑥ Remove the fixing bolts on the A-TS intermediate faceplate and on the A-TS K+730 module.

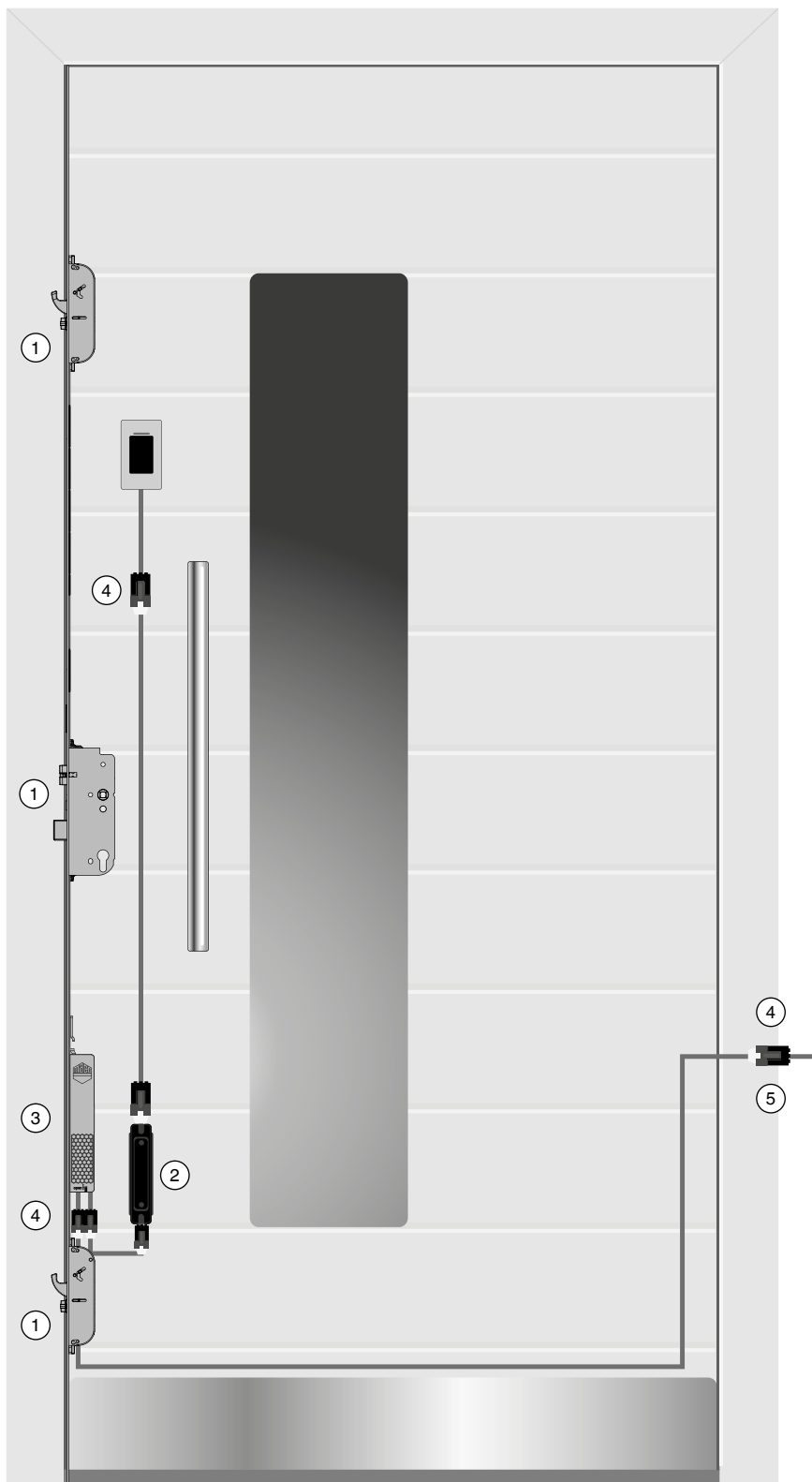
⇒ Perform functional testing!



# openDoor Access Solutions

## Overview

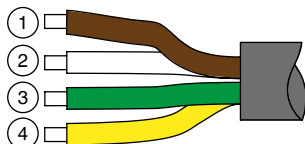
- ① **3-latch door lock with opening motor**  
High security thanks to self-locking of steel hooks and locking latch
- ② **Tamper-proof**  
Control unit protected from unauthorised access
- ③ Maximum comfort thanks to **motorised release**
- ④ **Plug & Play**  
Simple, non-mistakable plug-in connection
- ⑤ **EASY mounting and de-mounting** of the door thanks to plug-in cable transition



# openDoor Access Solutions

## A-TS Transponder Plus

### Plug & Play connector / cable installation



- ① Brown: motor operating voltage minus -
- ② White: motor operating voltage plus +
- ③ Green: control voltage\* minus -
- ④ Yellow: control voltage\* plus +

\*The control voltage is required for push-button (button impulse) and toggle switch (activation/deactivation of day-release)!



Button for button impulse



Toggle switch for Day / Night setting

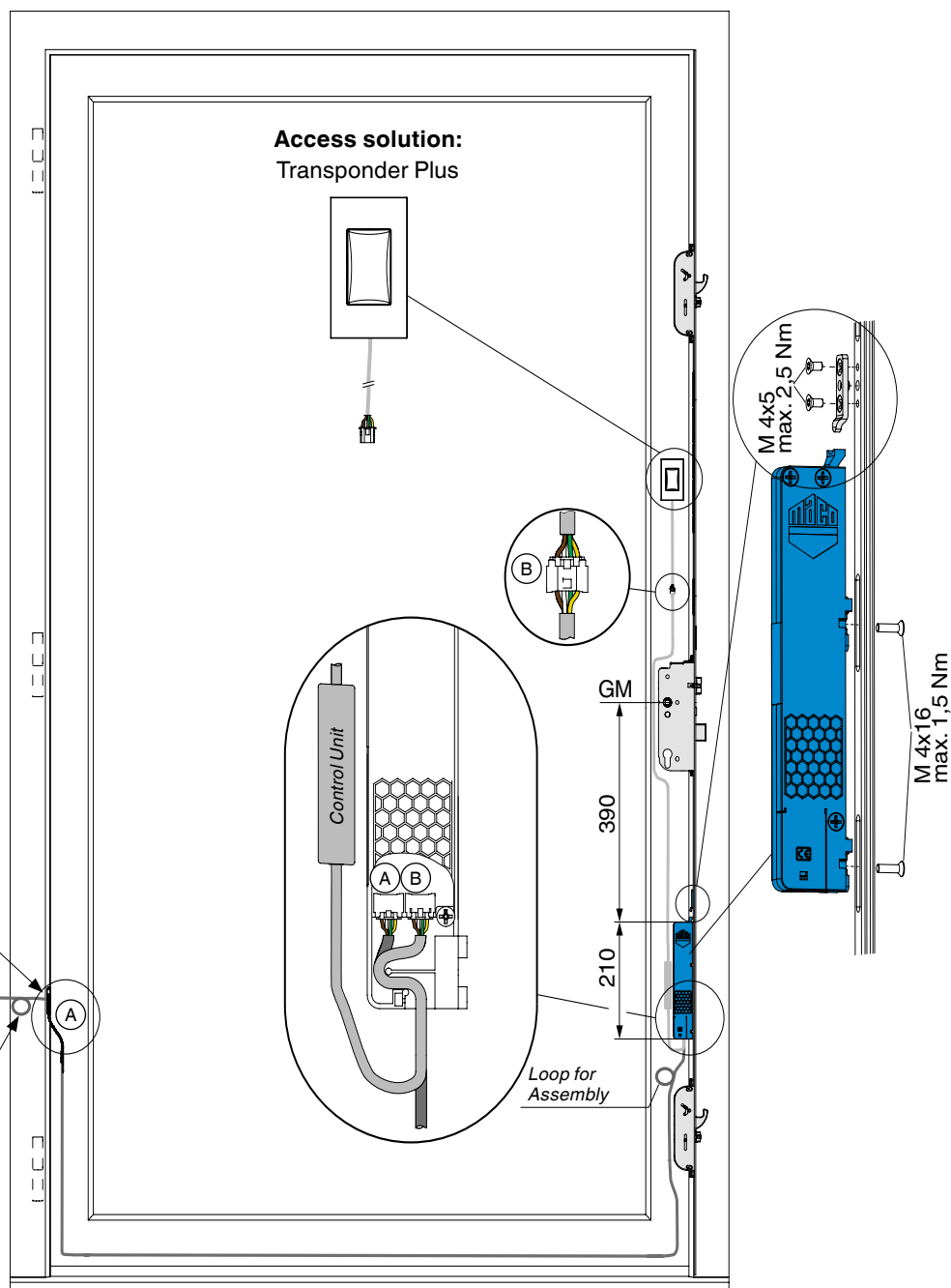
### Cable transition

2.5 m door leaf / 6 or 10 m outer installation length

12 - 24V DC  
min. 1.5 A



- Ⓐ Motor cable connection
- Ⓑ Motor to access solution connection
- Ⓒ ⚡ Power supply 12 - 24 V DC min. 1.5 A
- Ⓓ Tension release

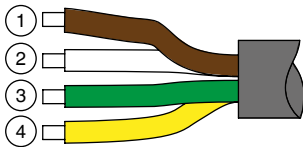


**Electrical connections (connection of power supply, connection cable 0.15 m and 10 m) may only be carried out by authorised personnel!**

# openDoor Access Solutions

## A-TS Transponder Keypad and Touchkey

### Plug & Play connector / cable installation

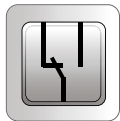


- ① Brown: motor operating voltage minus -
- ② White: motor operating voltage plus +
- ③ Green: control voltage\* minus -
- ④ Yellow: control voltage\* plus +

\*The control voltage is required for push-button (button impulse) and toggle switch (activation/deactivation of day-release)!



Button for button impulse



Toggle switch for Day / Night setting

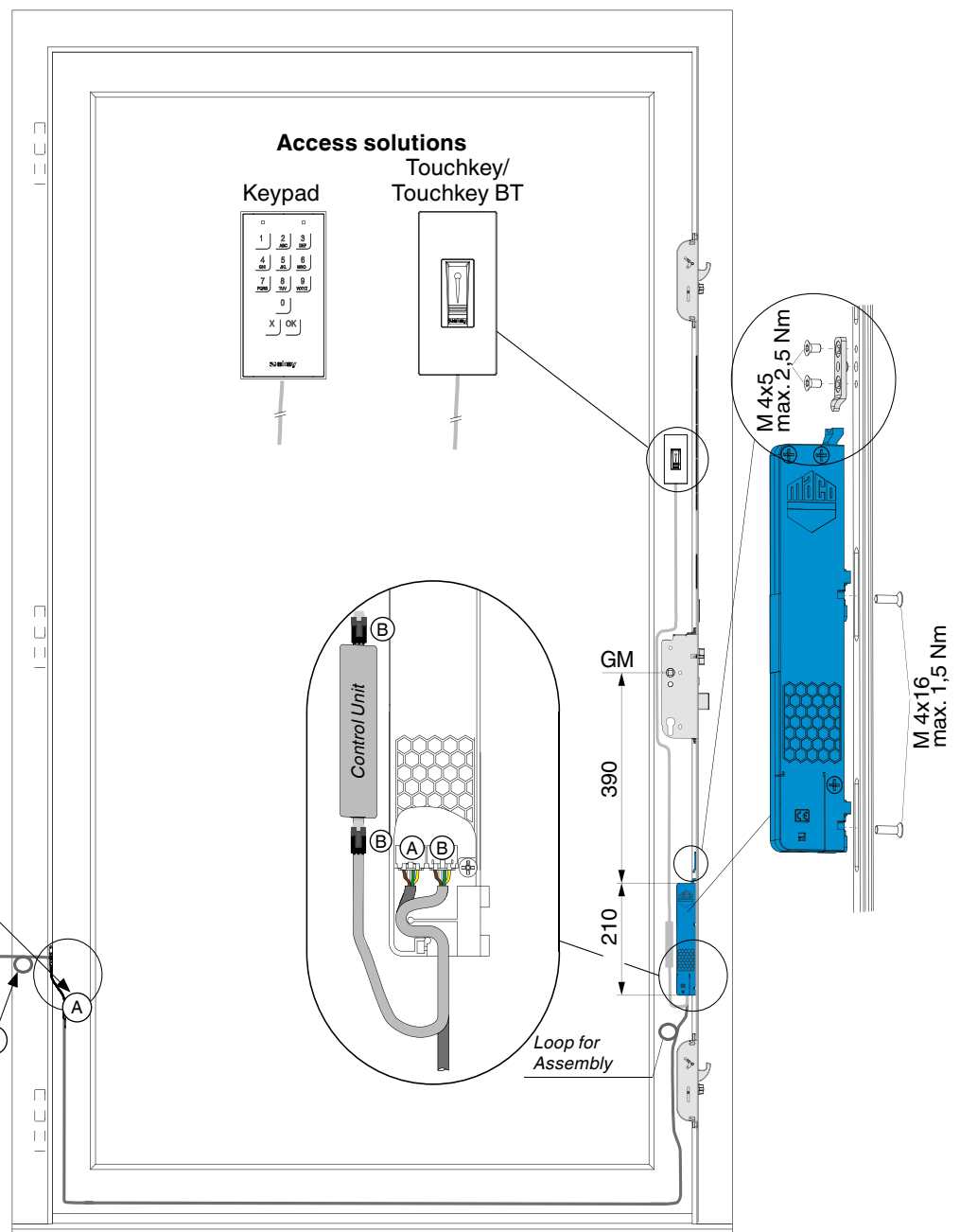
### Cable transition

2.5 m door leaf / 6 or 10 m outer installation length

12 - 24V DC  
min. 1.5 A



- Ⓐ Motor cable connection
- Ⓑ Motor to access solution connection
- Ⓒ ⚡ Power supply 12 - 24 V DC min. 1.5 A
- Ⓓ Tension release



**Electrical connections (connection of power supply, connection cable 0.15 m and 10 m) may only be carried out by authorised personnel!**

# openDoor Access Solutions

## Somfy lock controller

- (A) Motor cable connection
- (B) ⚡ Power supply 12 - 24 V DC min. 1.5 A
- (C) Tension release

### DIP switch

DIP switch 4 ON = IN1 / IN 2 Locking monitoring ON  
OFF = IN1 / IN 2 Locking monitoring OFF

DIP switch 5 ON = 3 sec. exit activation 1/2  
OFF = 1 sec. exit activation 1/2

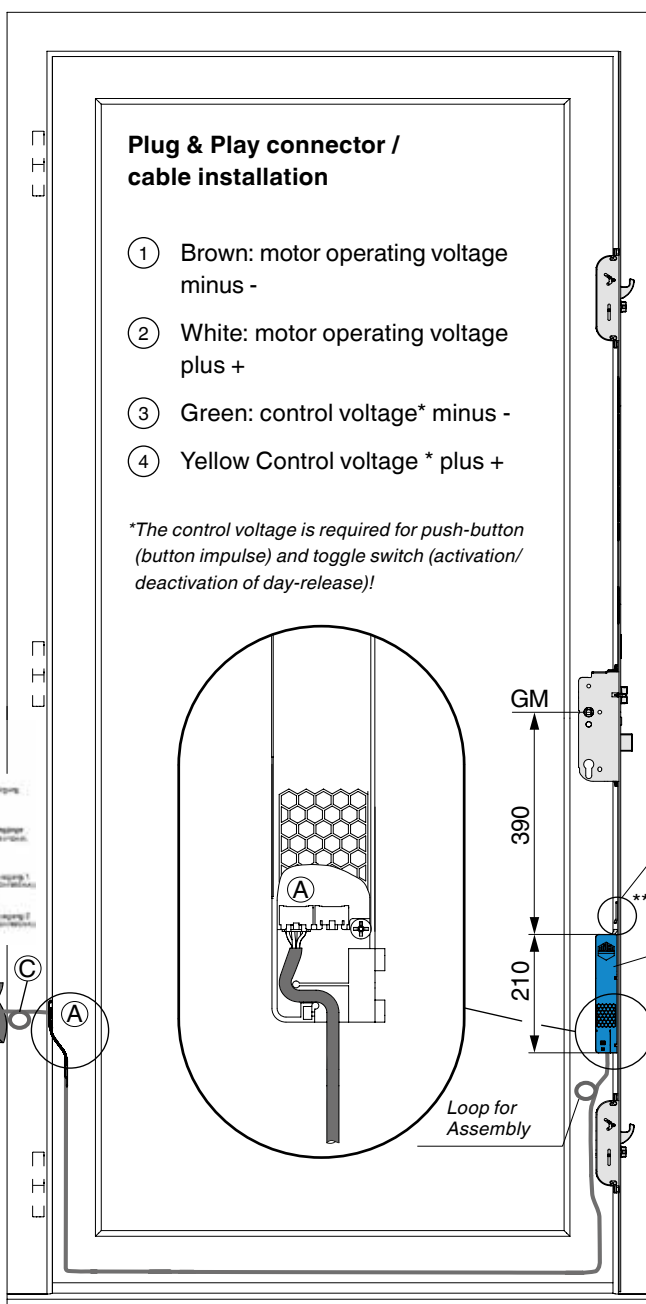
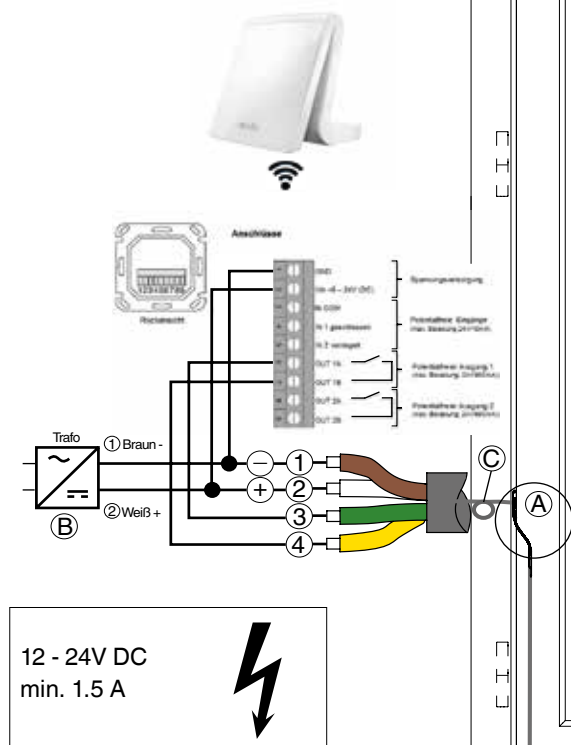
### Connections

1 GND  
2 V in +8 - 24V (DC)  
= **supply power**

3 IN COM  
4 IN closed  
5 IN double locked  
= **Isolated free inputs (max. load 24V / 10mA)**

6 OUT 1A  
7 OUT 1B  
= **Isolated free outputs 1 (max. load 24V / 600mA)**

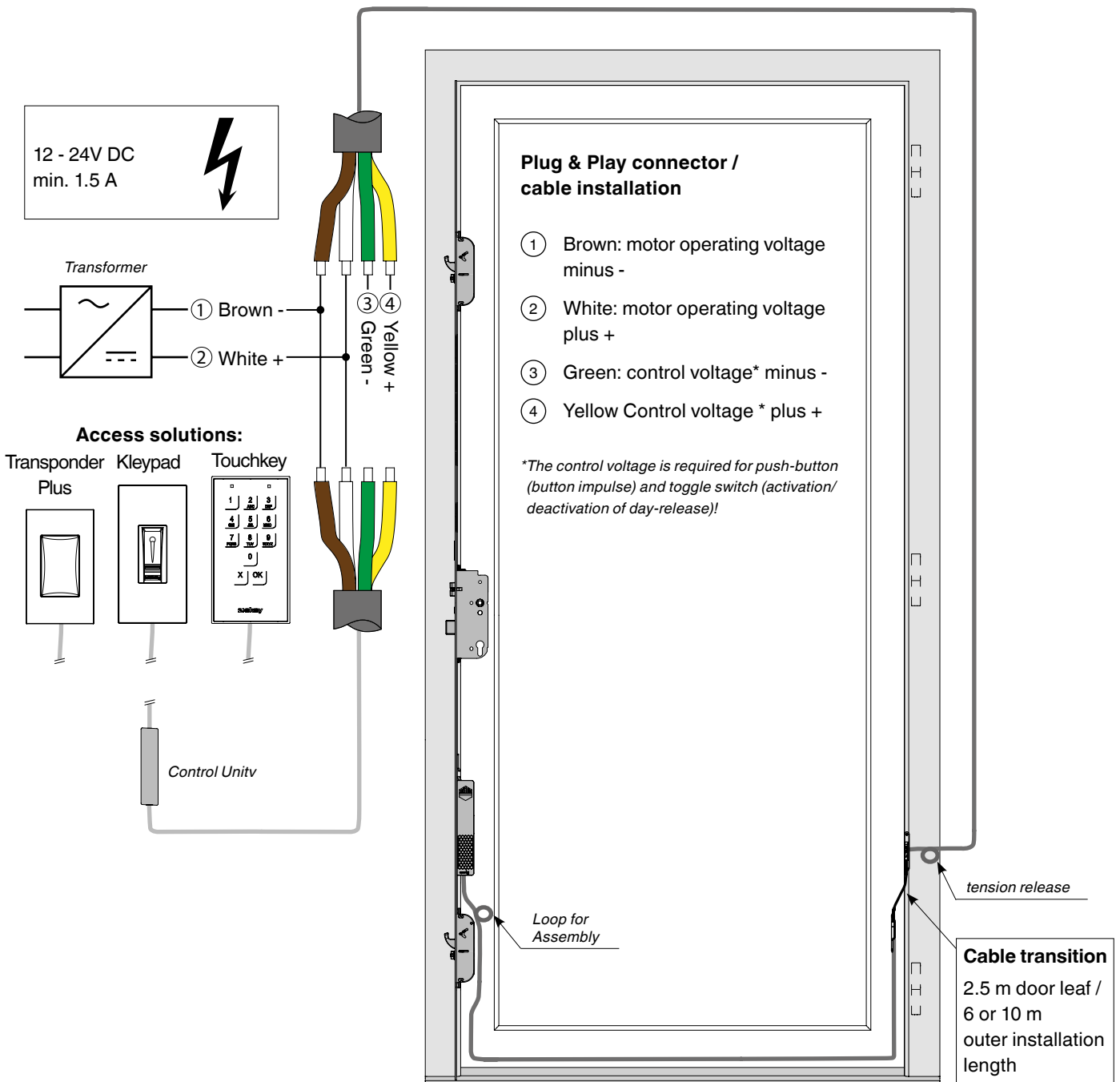
8 OUT 2A  
9 OUT 2B  
= **Isolated free outputs 2 (max. load 24V / 600mA)**



**Electrical connections (connection of power supply, connection cable 0.15 m and 10 m) may only be carried out by authorised personnel!**

# openDoor Access Solutions

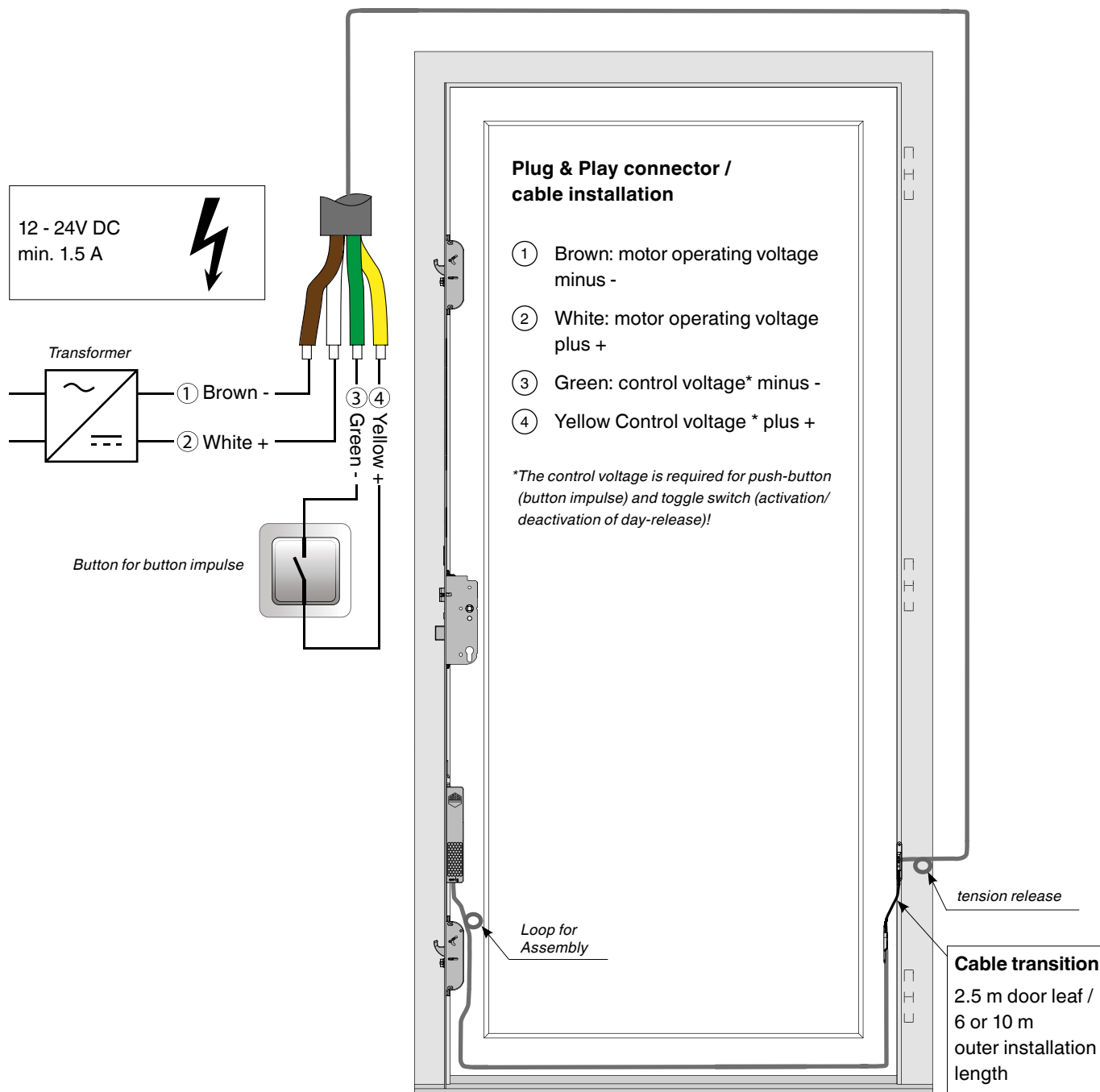
circuit diagram frame side



**Electrical connections (connection of power supply, connection cable 0.15 m and 10 m) may only be carried out by authorised personnel!**

# openDoor Access Solutions

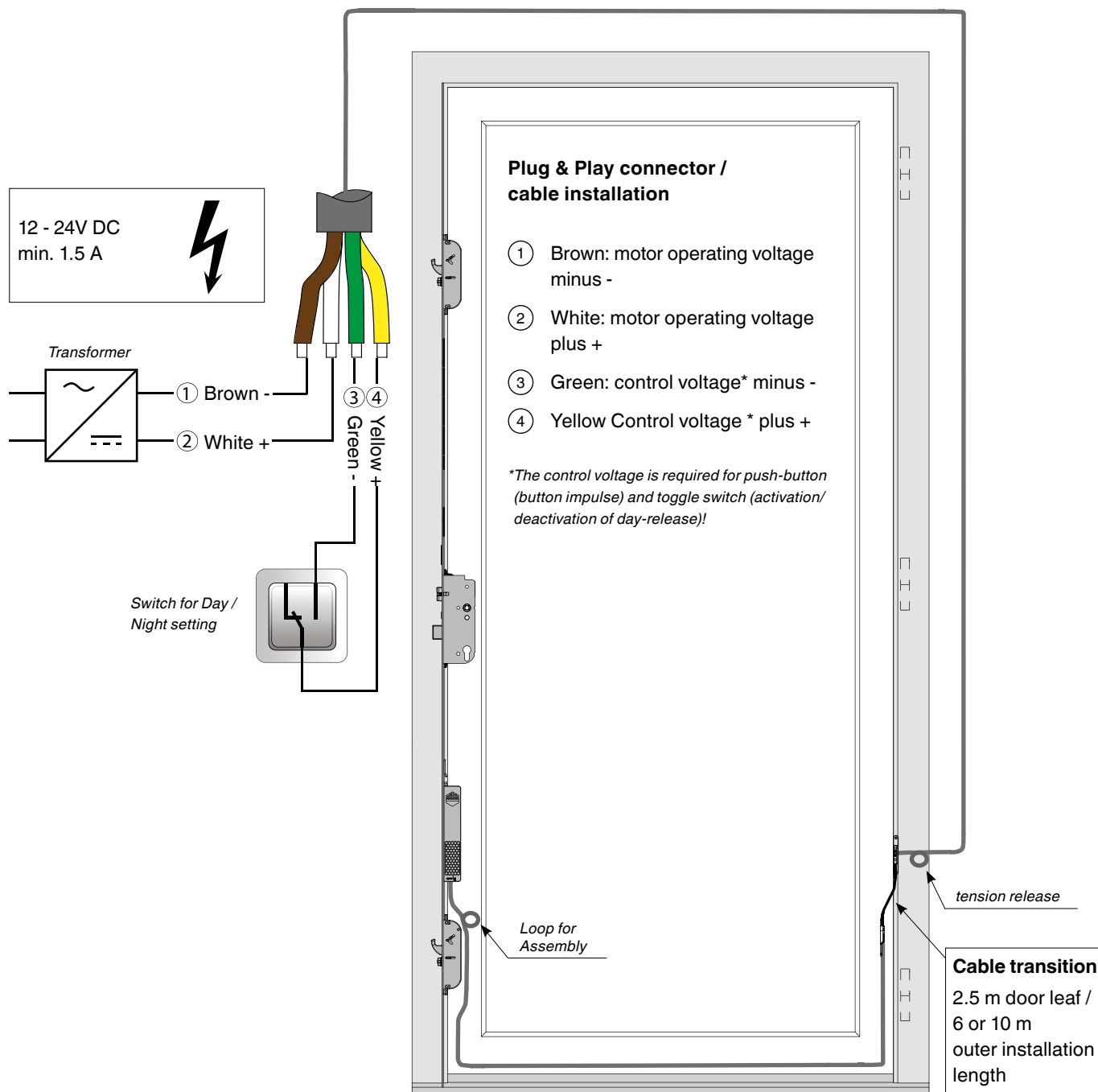
circuit diagram button impulse



**Electrical connections (connection of power supply, connection cable 0.15 m and 10 m) may only be carried out by authorised personnel!**

# openDoor Access Solutions

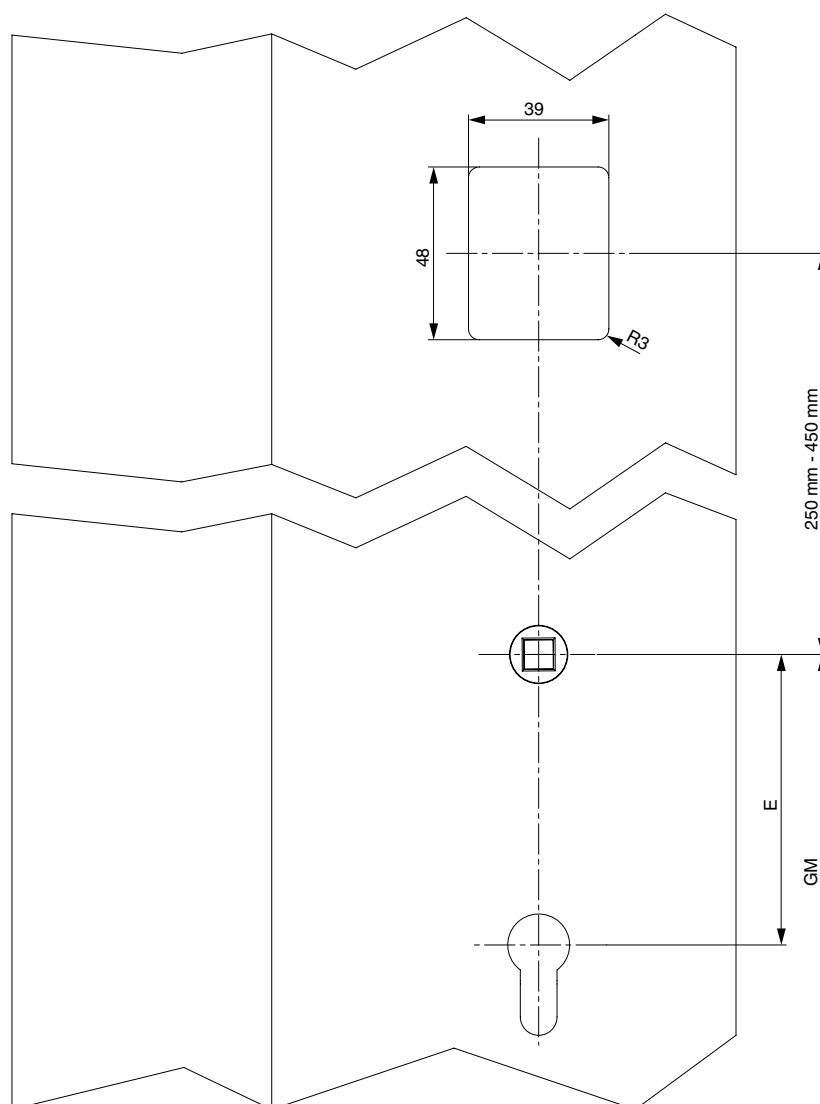
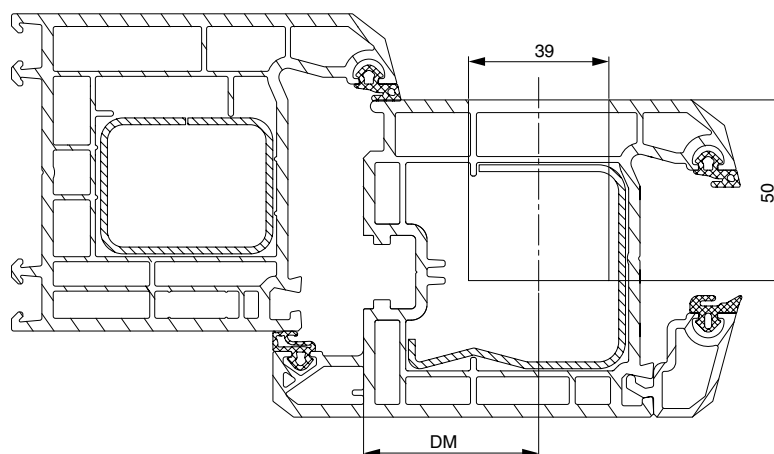
## circuit diagram toggle switch



**Electrical connections (connection of power supply, connection cable 0.15 m and 10 m) may only be carried out by authorised personnel!**

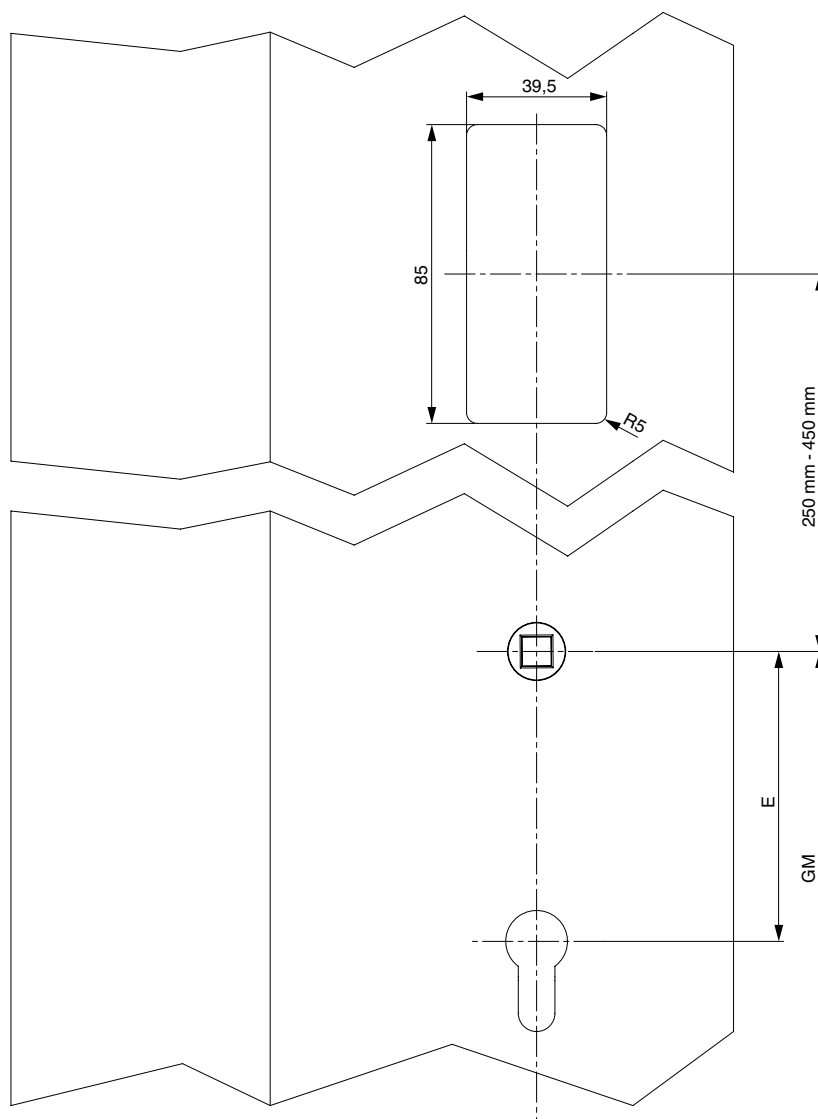
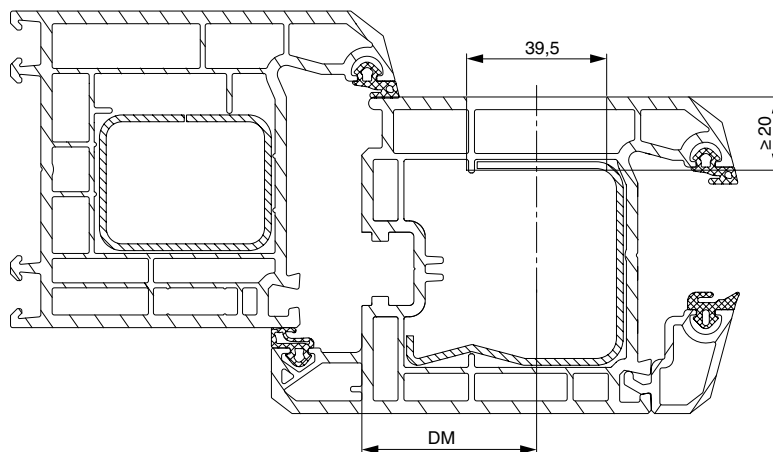
# openDoor Access Solutions

milling image Transponder Plus



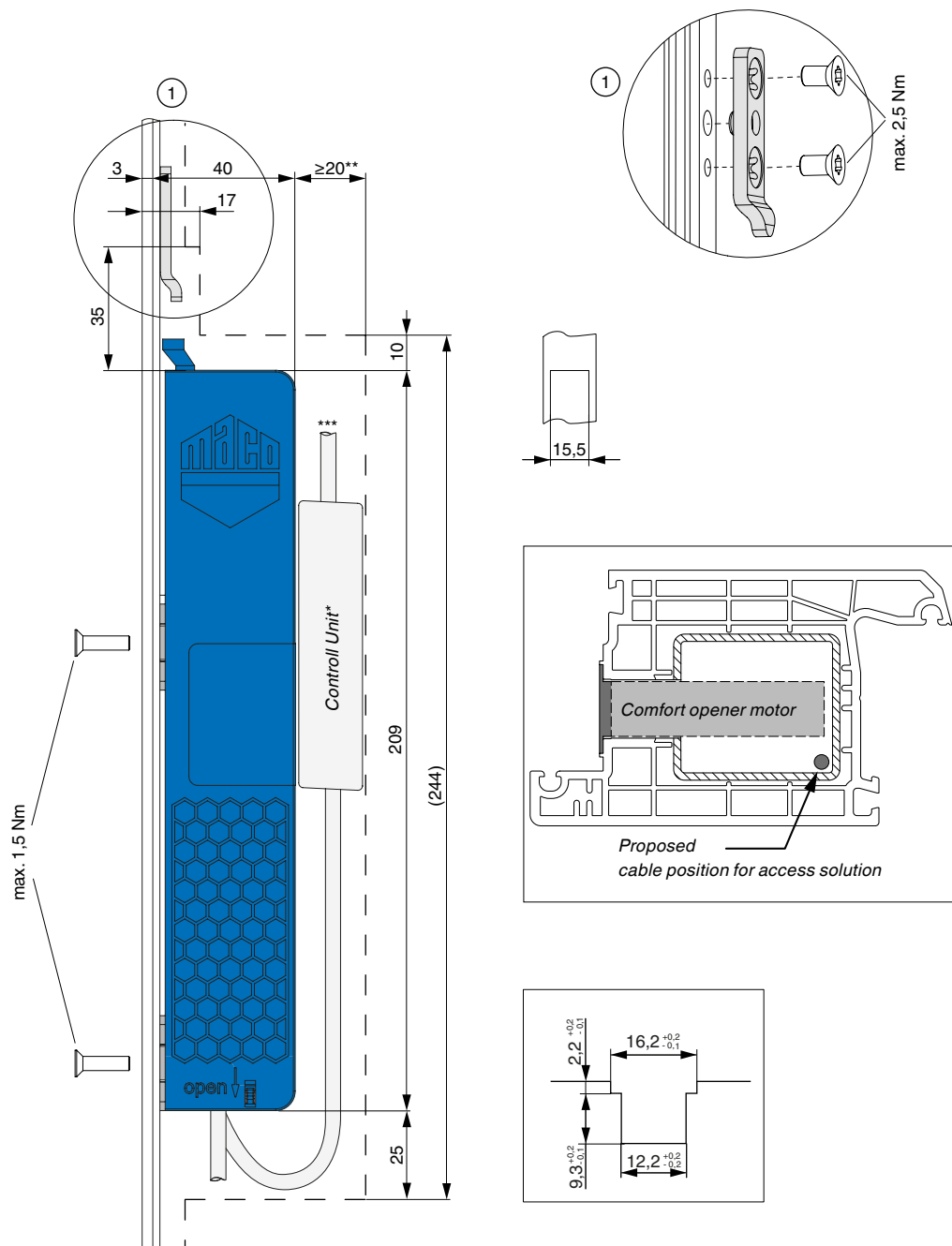
# openDoor Access Solutions

milling image Keypad / Touchkey BT



# openDoor Access Solutions

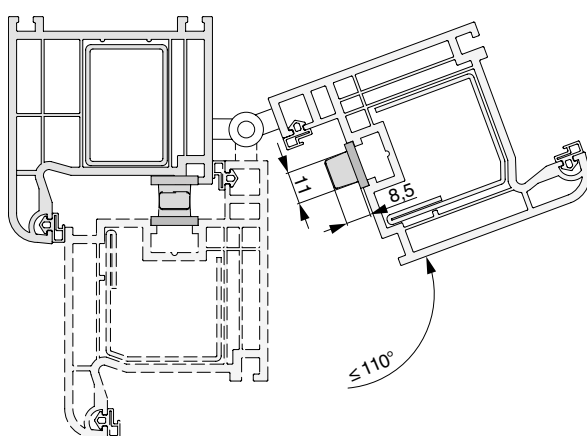
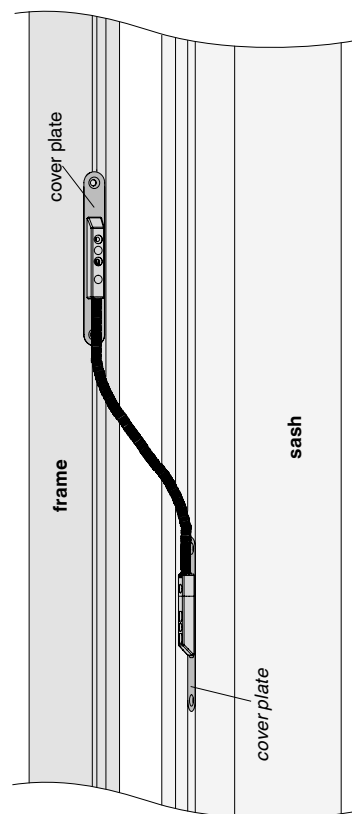
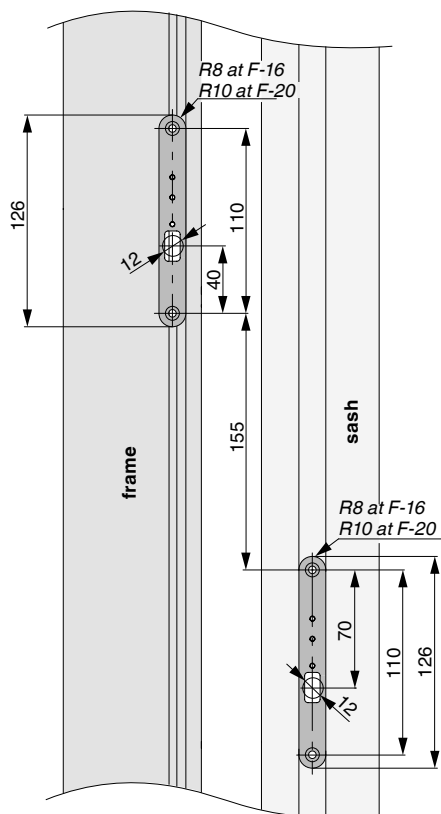
milling image including mounting plate and motor assembly



\* Control unit for openDoor Access Solutions, \*\* Cable channel for Comfort solution, \*\*\* Cable for openDoor Access Solutions

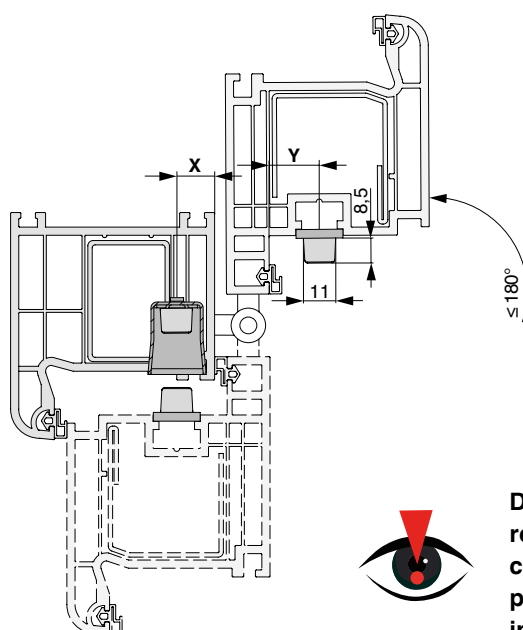
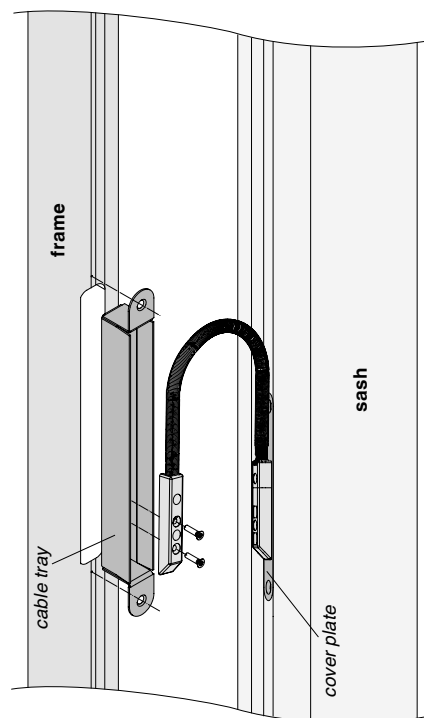
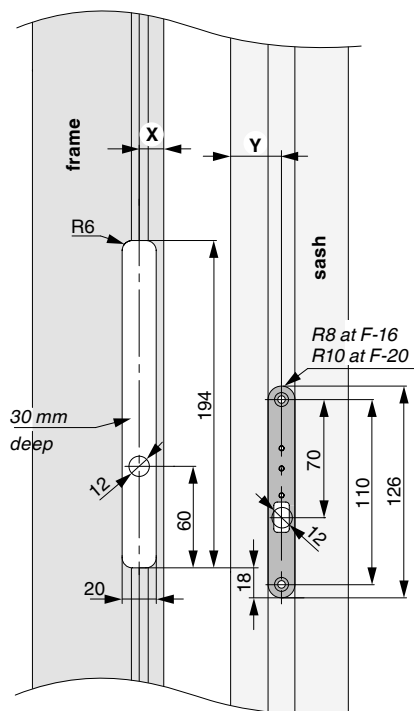
# openDoor Access Solutions

cable transition for opening angle  $\leq 110^\circ$ , PVC 12 air



## openDoor Access Solutions

cable transition for opening angle  $\leq 180^\circ$ , PVC 12 air



**Due to the various hinge options and the resulting turning axes, the position of the cable tray (dimension X) and the cover plate (dimension Y) must be determined independently!**



## Notes

A large rectangular area filled with a fine grid pattern, intended for taking notes.



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A large rectangular area filled with a fine grid pattern, intended for taking notes.

**MACO  
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