



TECHNOLOGY IN MOTION

# INSTINCT by MACO

SYSTEM FOLDER – TIMBER ONE-SIDED FLUSH  
INSTALLATION IN SASH

**instinct**<sup>o</sup>  
by MACO



[maco.eu/instinct](http://maco.eu/instinct)

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## Important information

To assemble and install the INSTINCT by MACO system, you need the following documents:

- › Operating and maintenance instructions
- › System folder for the corresponding door profile
- › Assembly instructions

### **Operating and maintenance instructions**

The operating and maintenance instructions contain important information on project planning, installation, commissioning, operation and maintenance of the INSTINCT by MACO system. This document must be handed over to the client/end user in the course of delivery.

### **System folder**

The system folder contains profile-specific information on the milling and drilling patterns as well as information and notes on cable installation in the profile. In addition, please also note the fabrication guidelines of the profile manufacturer!

### **Assembly instructions**

The assembly instructions contain profile-independent information for correct assembly of the INSTINCT by MACO system. These instructions include the work steps in the factory and the work steps on the construction site.

## Profile details and matching components

### PROFILE SYSTEM

Installation of the closures:	In the sash profile
Opening direction:	Opens inwards
Tested sash profile:	One-sided flush Timber reference system with double rebate and 4 mm rebate gap
Tested frame profile:	One-sided flush Timber reference system with double rebate and 4 mm rebate gap

### MATCHING COMPONENTS

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Matching closures:	Housing shape C - Part No. 501_3_
Matching closure covers:	Part No. 50212_
Recommended screw type(s):	4x DIN 7982 CT / 4,2 x 38
Matching striker plates:	flush mounted, milled Part No. 50371_
Matching striker plate covers:	Part No. 50471_
Recommended screw type(s):	4x DIN 7982 CT / 4,2 x 38

### MINIMUM SASH WIDTH

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Offset hinges:	≥ 850 mm
Butt hinges:	≥ 850 mm
Consealed hinges:	≥ 850 mm

## Basic design and tolerances

Basic setting of the locking cam:	9 mm
Basic design of the rebate gap:	4 mm
Minimum rebate gap:	≥ 2 mm
Maximum rebate gap:	≤ 6 mm

**IMPORTANT:**

Compatibility assessment applies to door hinges with standard turning curves. If the turning curve deviates, the basic setting of the locking cam may have to be adjusted.

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Reducing the minimum rebate gap (by tightening the locking cam screw) is:

- Possible                       Not possible

**IMPORTANT:**

The maximum rebate gap is reduced by tightening the locking cam screw.

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Increasing the minimum rebate gap (by loosening the locking cam screw) is:

- Possible                       Not possible

**IMPORTANT:**

The minimum rebate gap is increased by loosening the locking cam screw.

DESIGN  
& TOLERANCES

MINIMUM  
REBATE GAP

MAXIMUM  
REBATE GAP

## Recommended positioning

### DIN L

### RECOMMENDED CONFIGURATION

In the minimum configuration, 3 closures are recommended.  
 From a door height of 2500 mm, 4 closures are recommended.  
 An additional horizontal closure is optional.

### EXAMPLE DISTANCES\*

Door height	Qty	L1	L2
2000	3	240	760
2100	3	240	810
2200	3	240	860
2300	3	240	910
2400	3	240	960
2500	4	240	673
2600	4	240	706
2700	4	240	740
2800	4	240	773

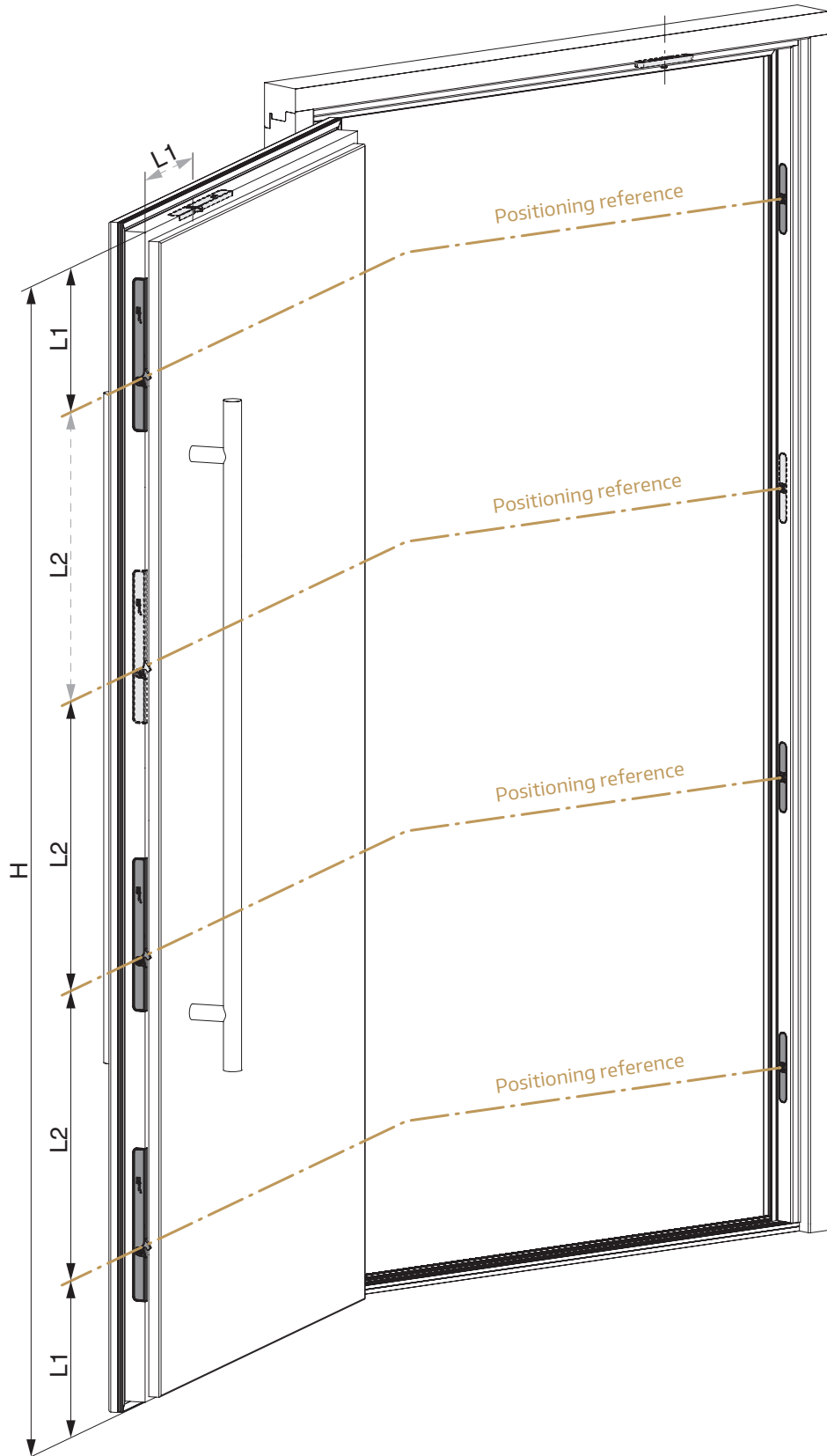
\*Figures in mm.  
 Table valid for DIN L and DIN R.  
 The values in this table are examples and serve as guidance for the installation of the INSTINCT closures.

Calculation for L2 with 3 Closures:

$$\frac{\text{Door height} - (2 \times L1)}{2}$$

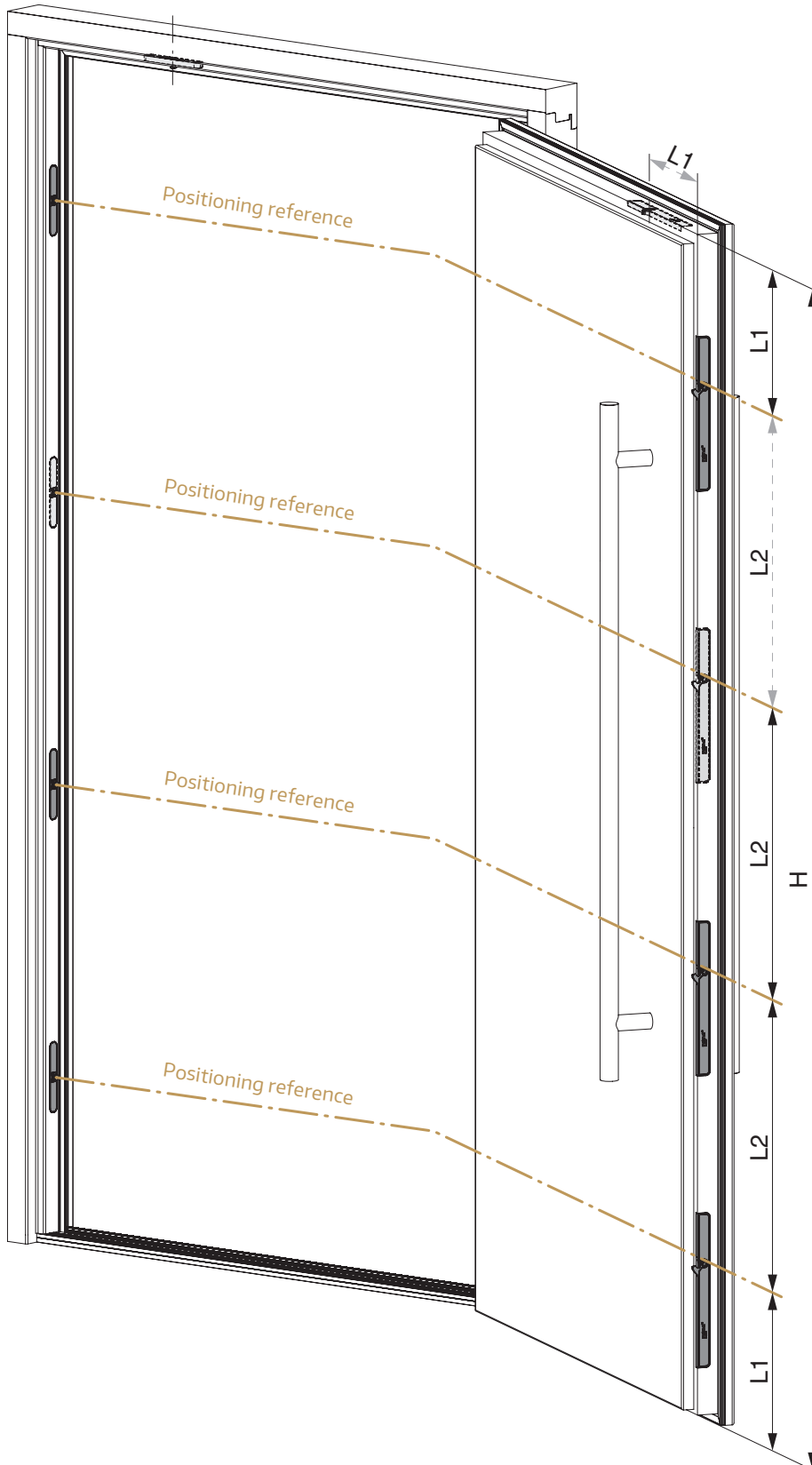
Calculation for L2 with 4 Closures:

$$\frac{\text{Door height} - (2 \times L1)}{3}$$



## Recommended positioning

DIN R



### RECOMMENDED CABLE LENGTHS\*

L2	Cable length	Item number
$L2 \leq 400$	600	509006
$L2 \leq 500$	700	509007
$L2 \leq 600$	800	509008
$L2 \leq 700$	900	509009
$L2 \leq 800$	1000	509010
$L2 > 800$	1100	509011

\*Figures in mm

The required cable lengths may differ depending on the position of the cable routing.

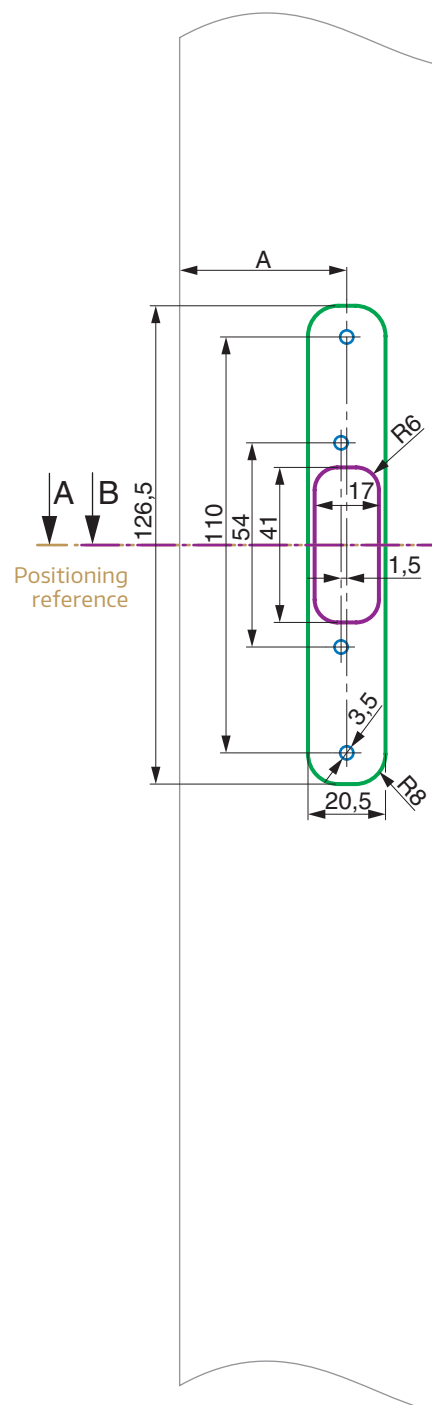
For the integration of the INSTINCT Bluetooth module or the INSTINCT interface, system cables with a length of 200 (Part No. 509002), 300 (Part No. 509003) or 500 mm (Part No. 509005) are available.

The detailed cabling scheme can be found on Page 14 and 15.

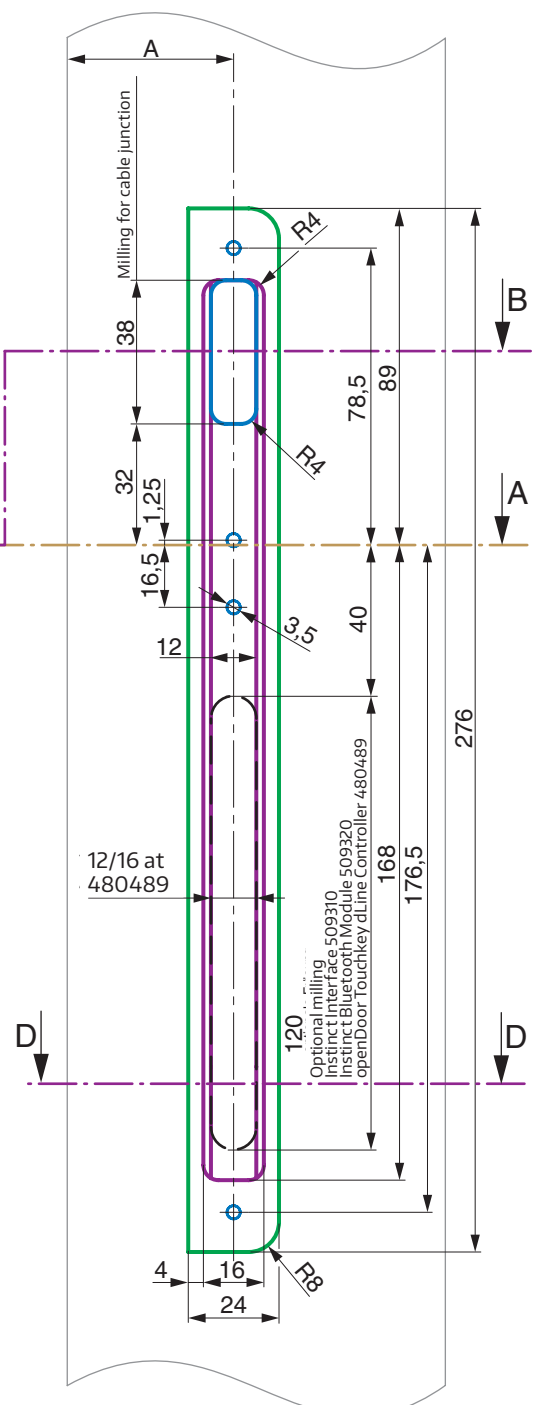
# Milling pattern top view

DIN R, M 1:2

Frame profile  
(simplified illustration)



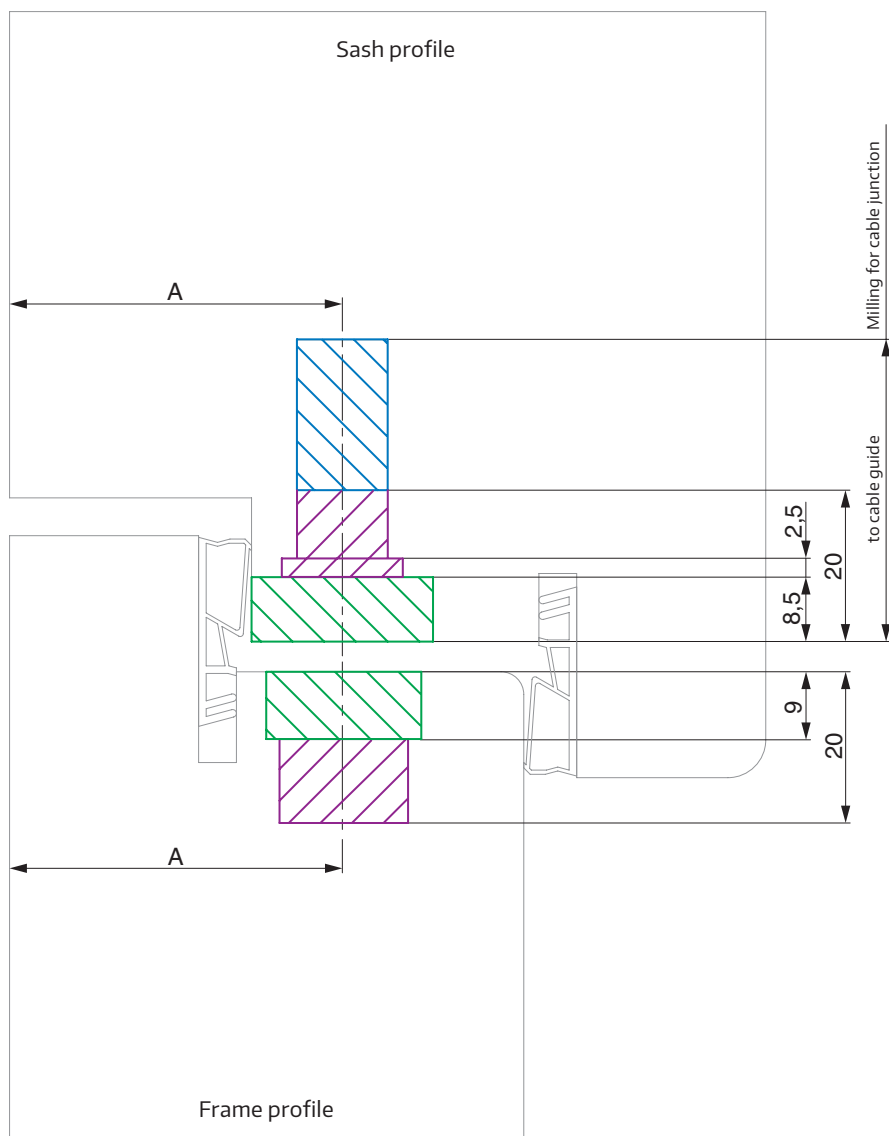
Sash profile  
(simplified illustration)





# Milling pattern cross-section B-B

DIN R, M 1:1

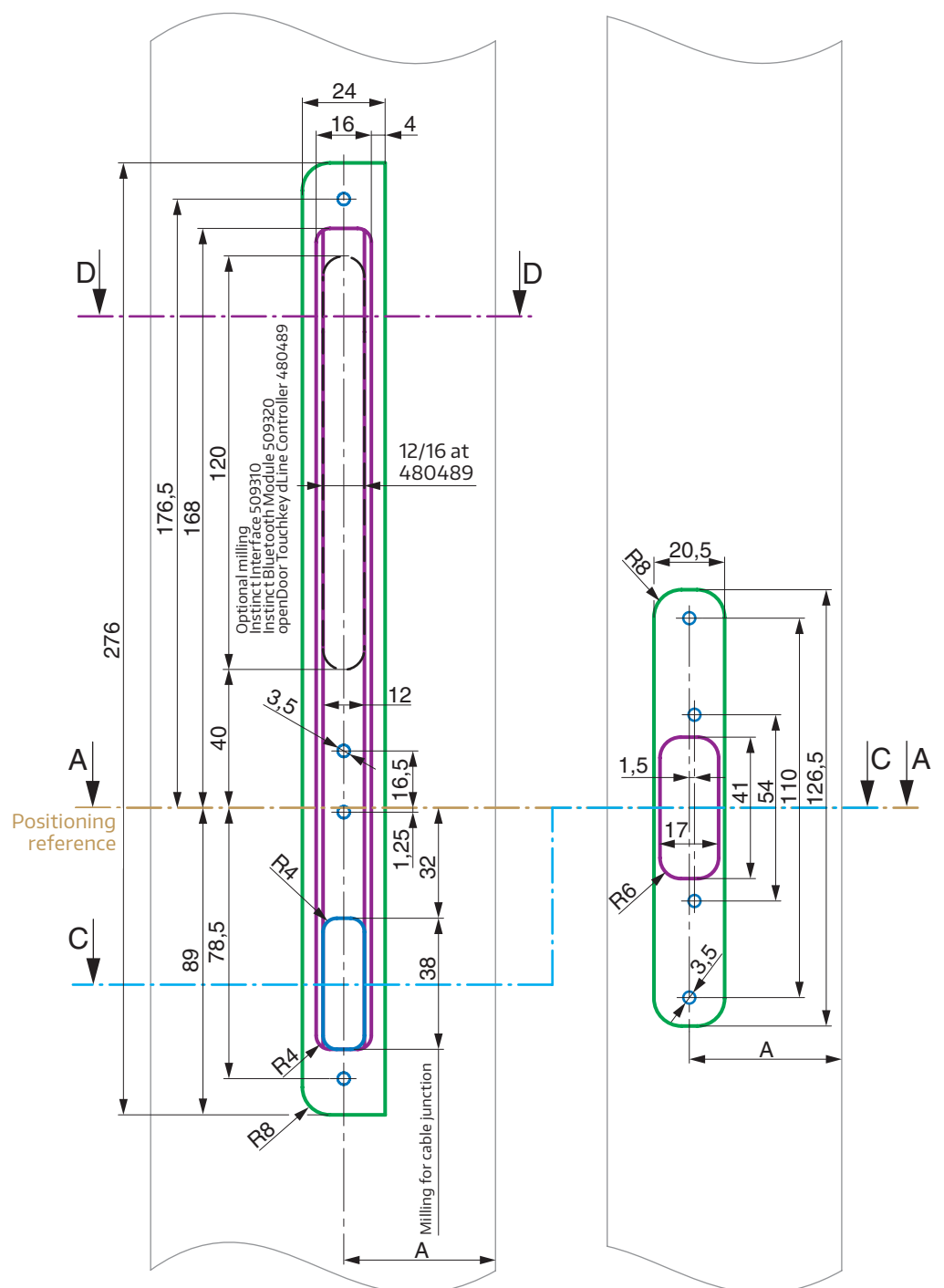


# Milling pattern top view

DIN L, M 1:2

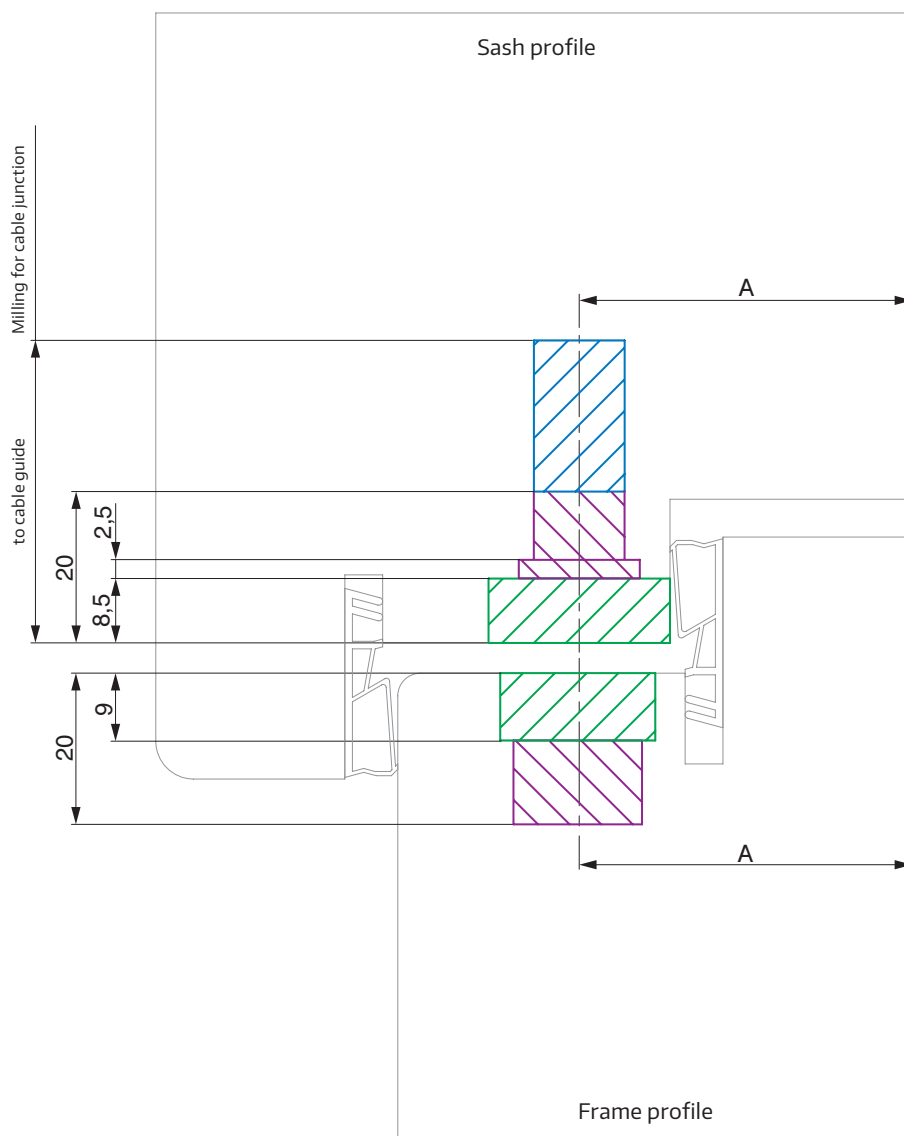
Sash profile  
(simplified illustration)

Frame profile  
(simplified illustration)



## Milling pattern cross-section C-C

DIN L, M 1:1



# Milling pattern cross-section D-D

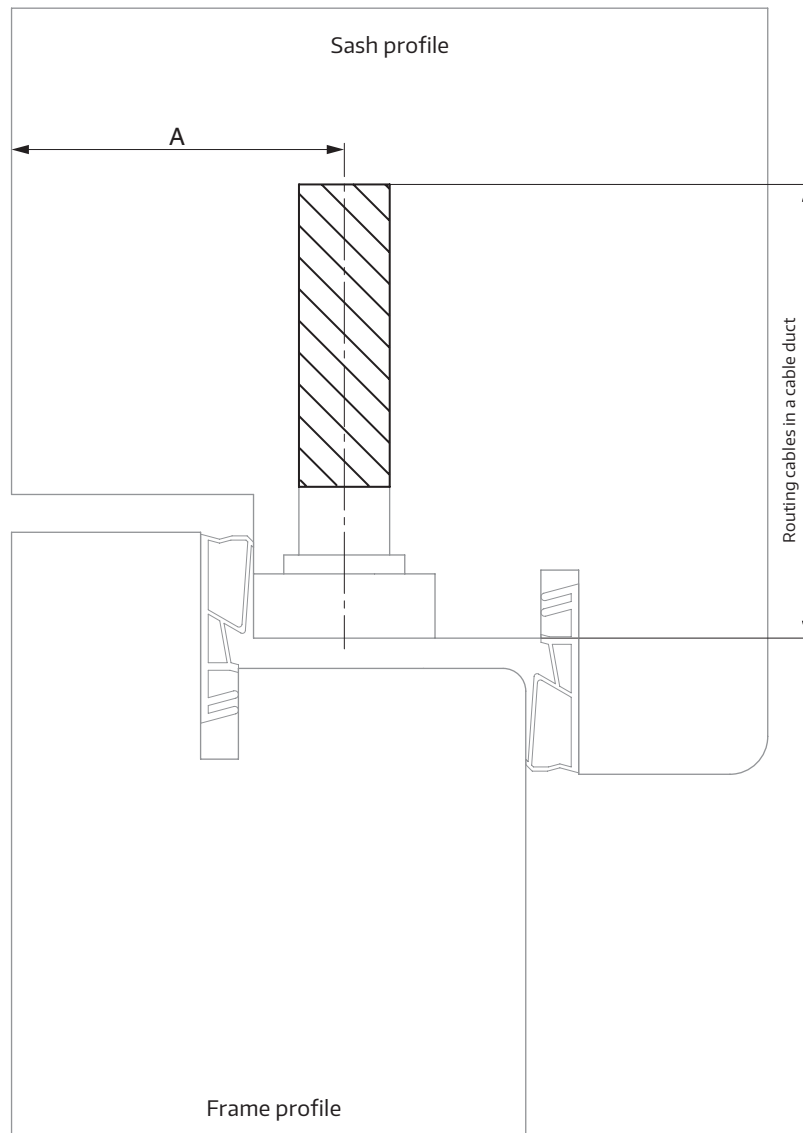
DIN R, M 1:1

optional milling

INSTINCT Interface 509310

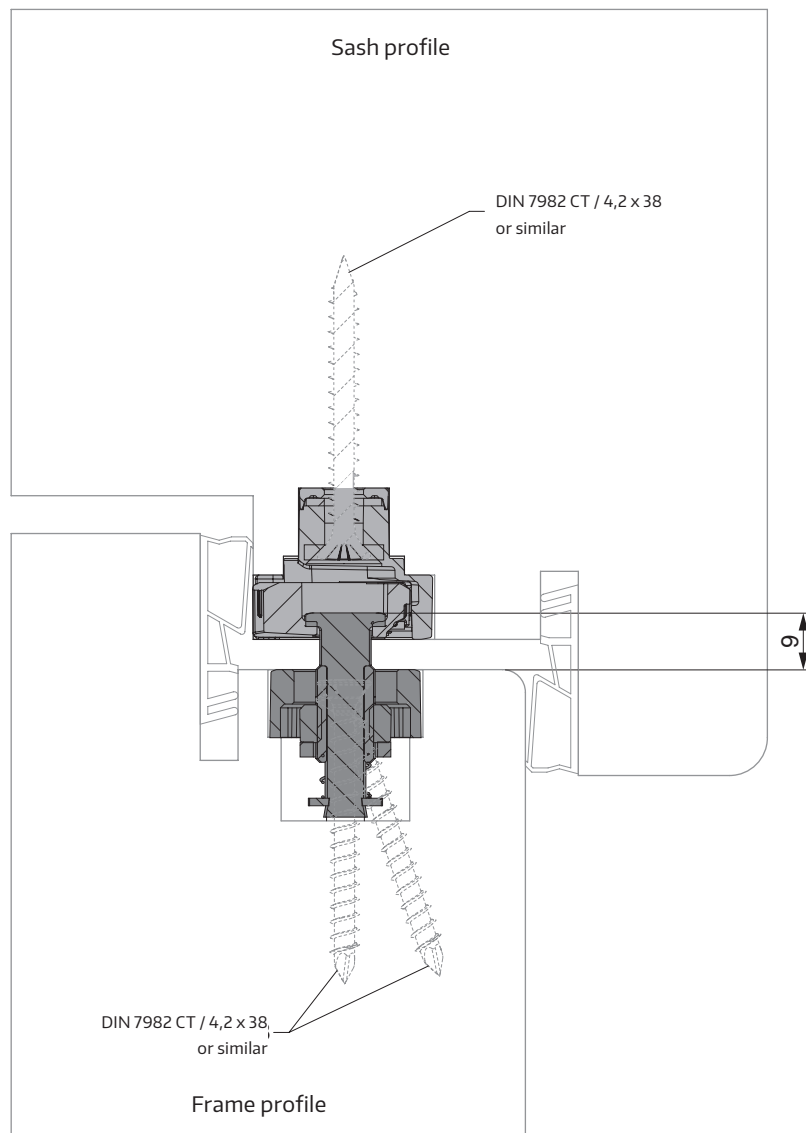
INSTINCT Bluetooth module 509320

openDoor Touchkey dLine Controller 480489



## Basic adjustment of the striker plate

Cross-section A-A, M 1:1

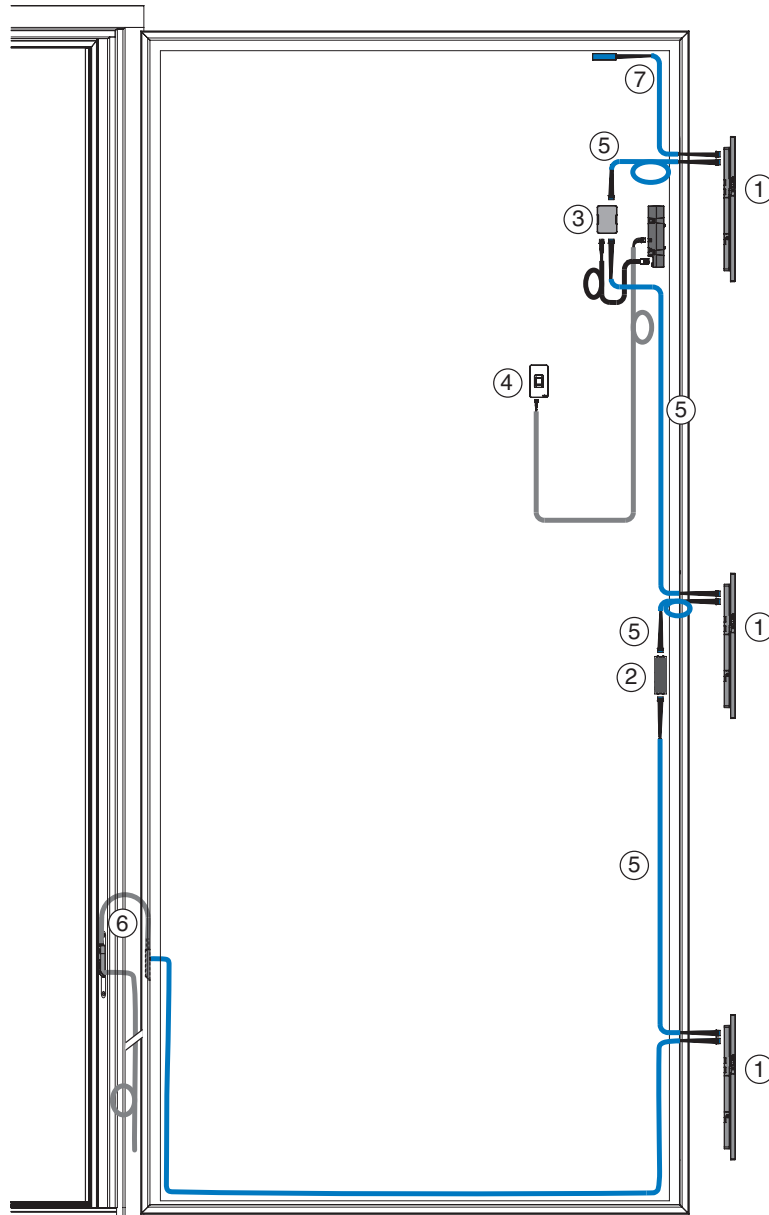


## Cabling overview

### for vertical closure points

#### NOTE

The cables are always routed through a cable duct in the door frame.



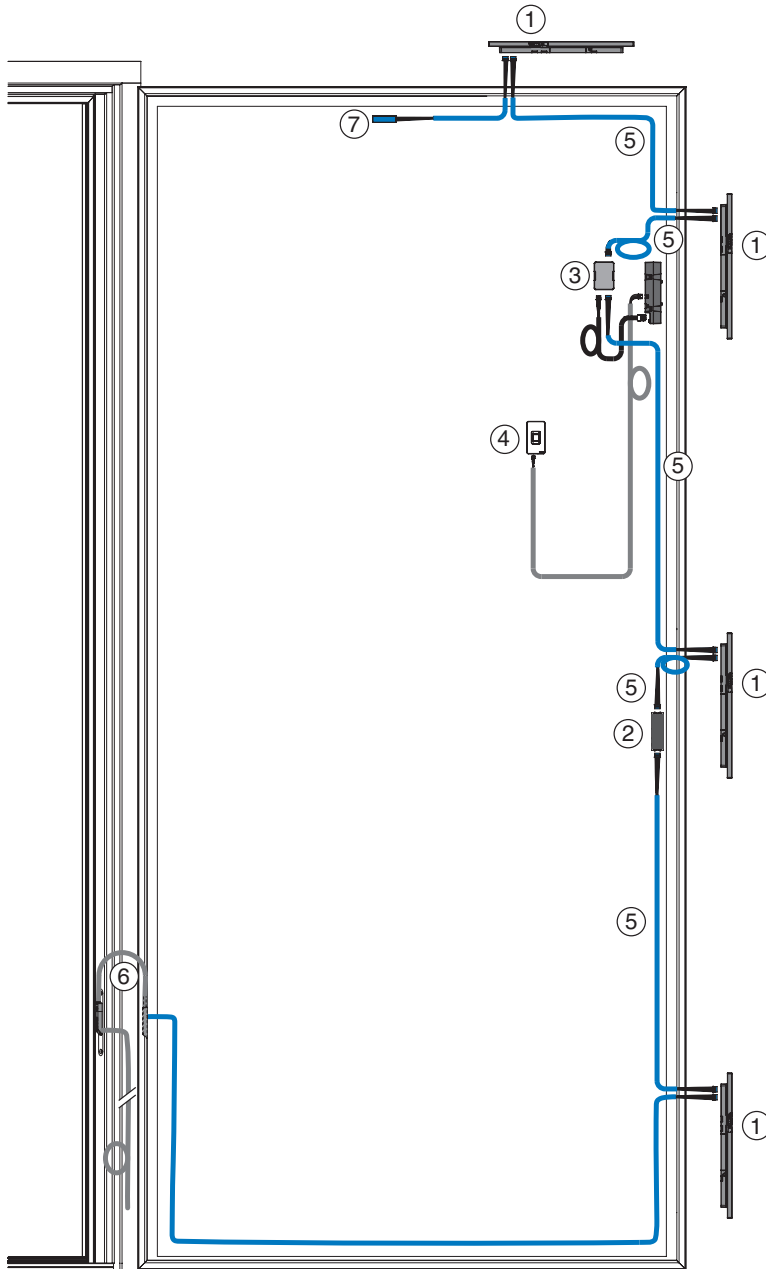
- ① INSTINCT Guard/Guard+
- ② INSTINCT Bluetooth module
- ③ INSTINCT Interface
- ④ MACO OpenDoor Access Control
- ⑤ INSTINCT System cable
- ⑥ INSTINCT cable transition
- ⑦ Termination cable (included with INSTINCT Gateway)

#### Cable routing

- In the cable guide
- In the sash

## Cabling overview

for vertical and horizontal closure points



- ① INSTINCT Guard/Guard+
- ② INSTINCT Bluetooth module
- ③ INSTINCT Interface
- ④ MACO OpenDoor Access Control
- ⑤ INSTINCT System cable
- ⑥ INSTINCT cable transition
- ⑦ Termination cable (included with INSTINCT Gateway)

### Cable routing

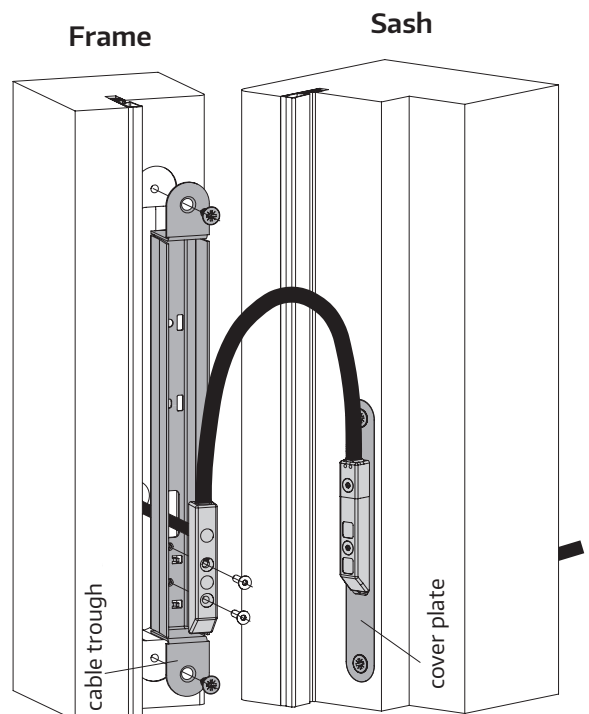
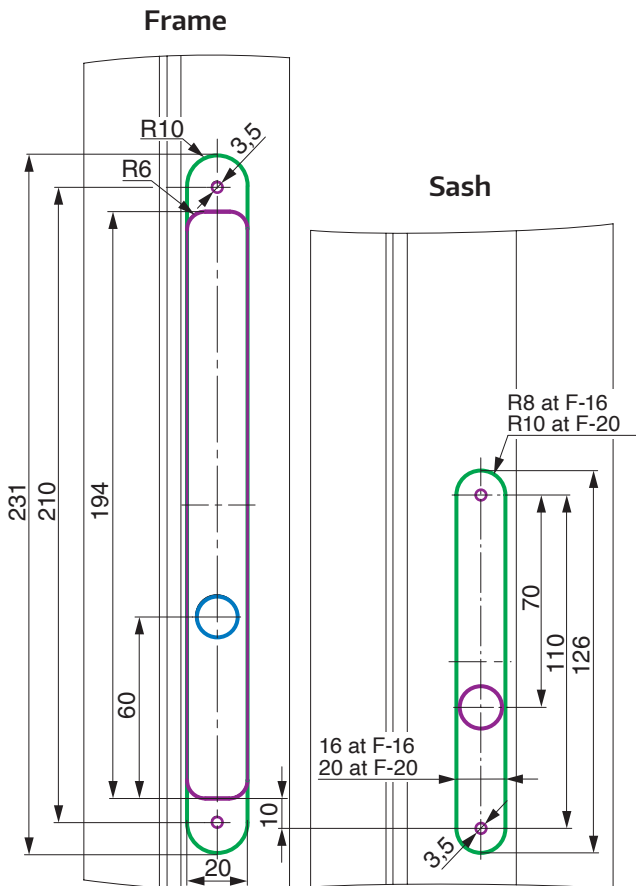
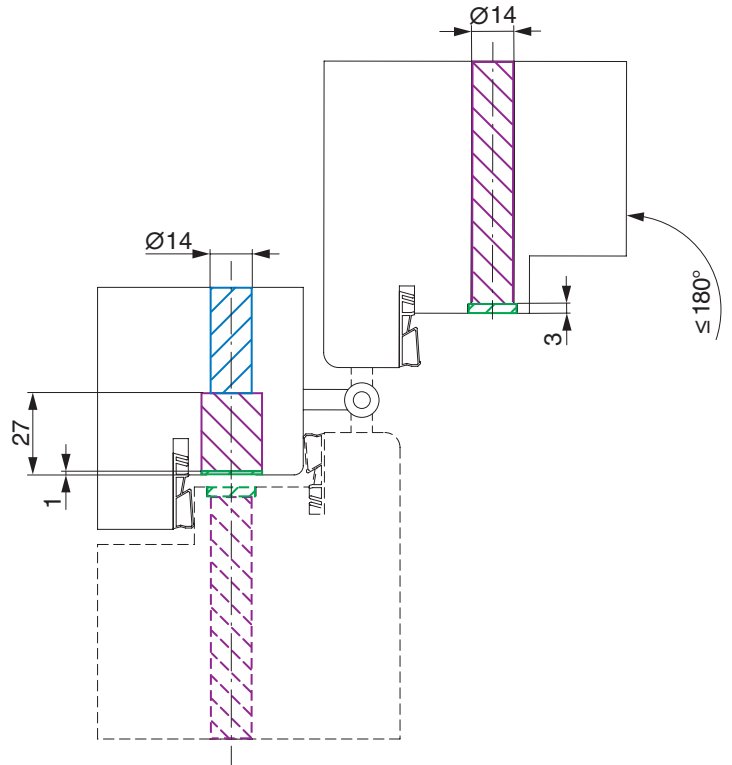
- In the cable guide
- In the sash

## NOTE

The cables are always routed through a cable duct in the door frame.

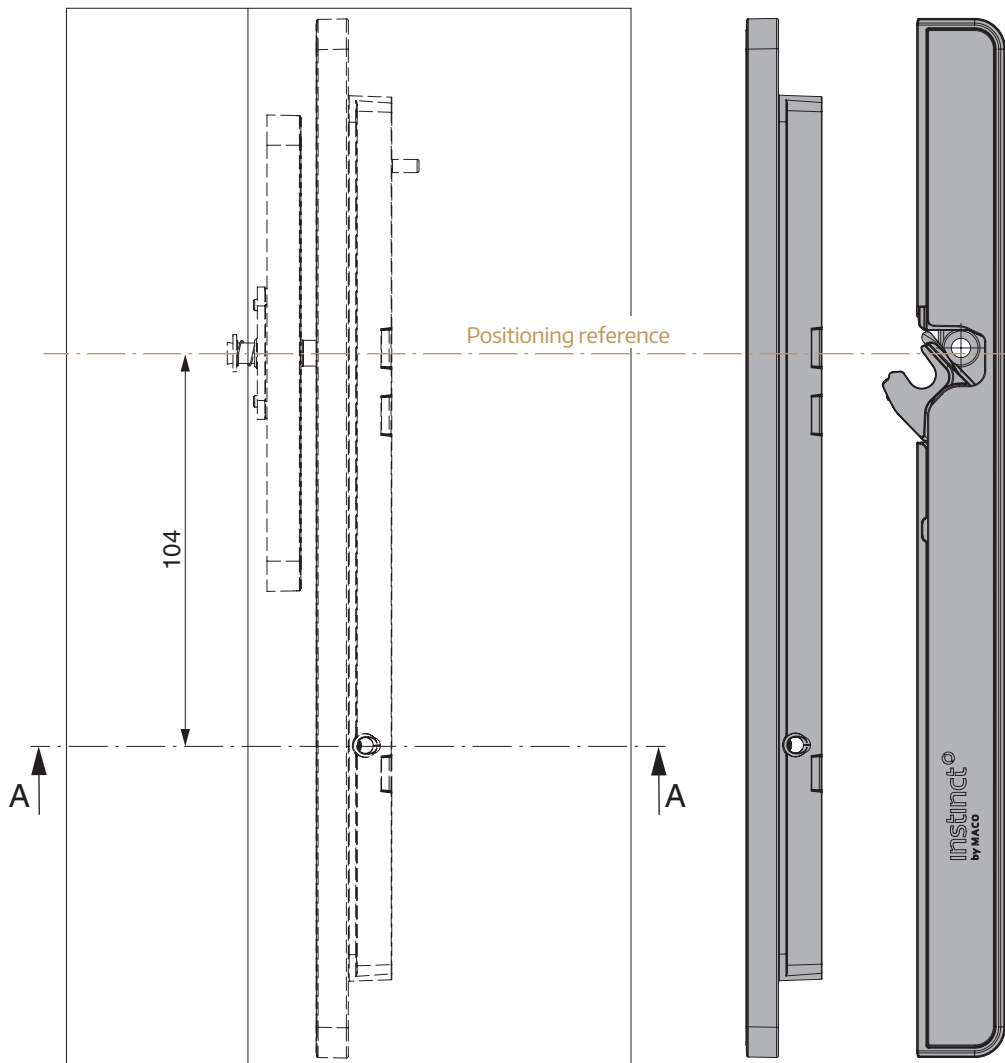
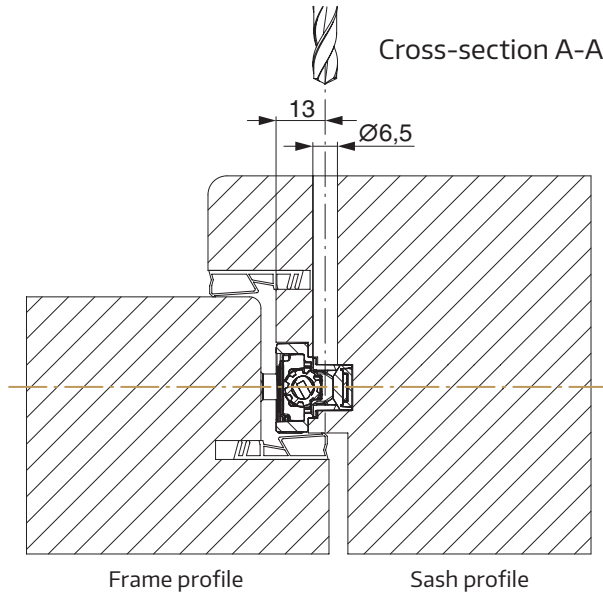
# Cable transition

for opening angle  $\leq 180^\circ$





## Emergency release drill pattern



### NOTE

In the event of a defect, it is possible to mechanically open each individual locking point from the inside via an emergency release.

For this purpose, the unlocking tool (Part No. 509520) as well as an Allen key with ball head (4 mm) is required.

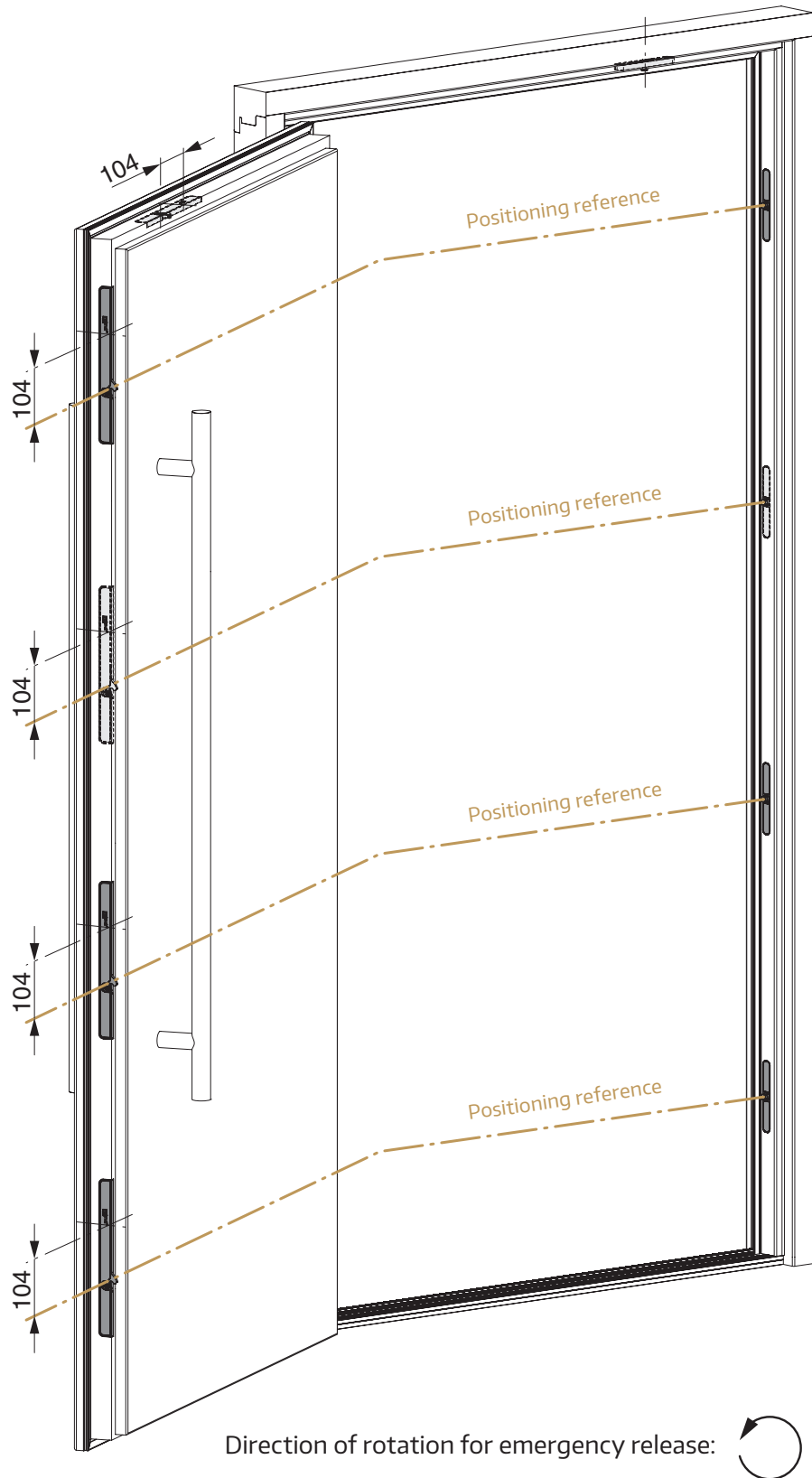
## Emergency release positions

DIN L

### NOTE

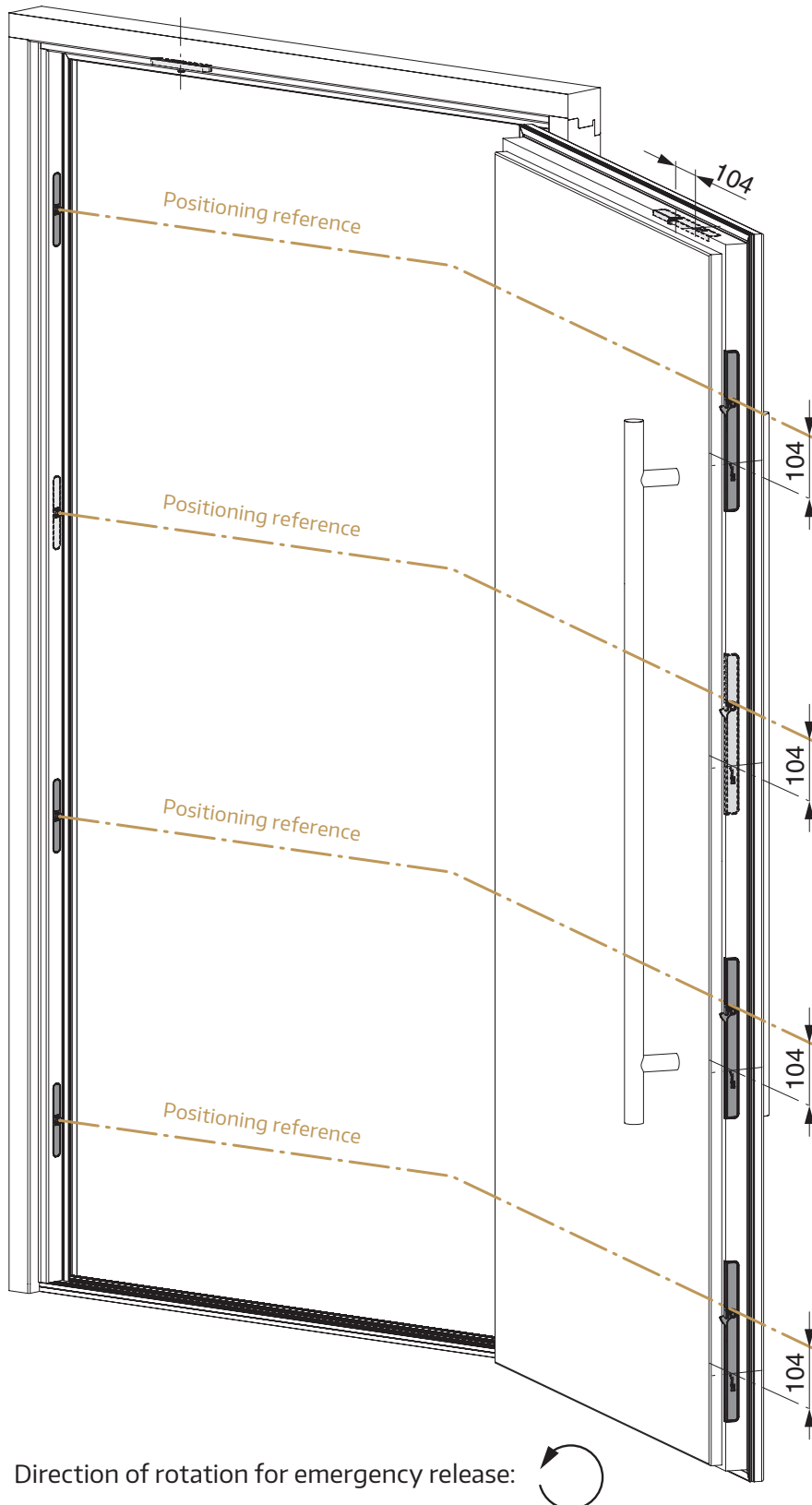
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## Emergency release positions

DIN R



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» If I had asked people  
what they wanted,  
they would have said  
**faster horses.** «

Henry Ford

