

FRAME+ 75 DI
Product range
Fittings

Locking technology
Pusher and handles
Door closer
Tools

Product range

Selection of the locks

Locks

FRAME+ 75 DI
Selection tables
Fittings

Selection of the overhead door closer

Door closer

**Fitting systems
for standard locks**

Standard locks

**Fitting systems
for emergency exit and panic door locks**

Emergency exit and
panic door locks

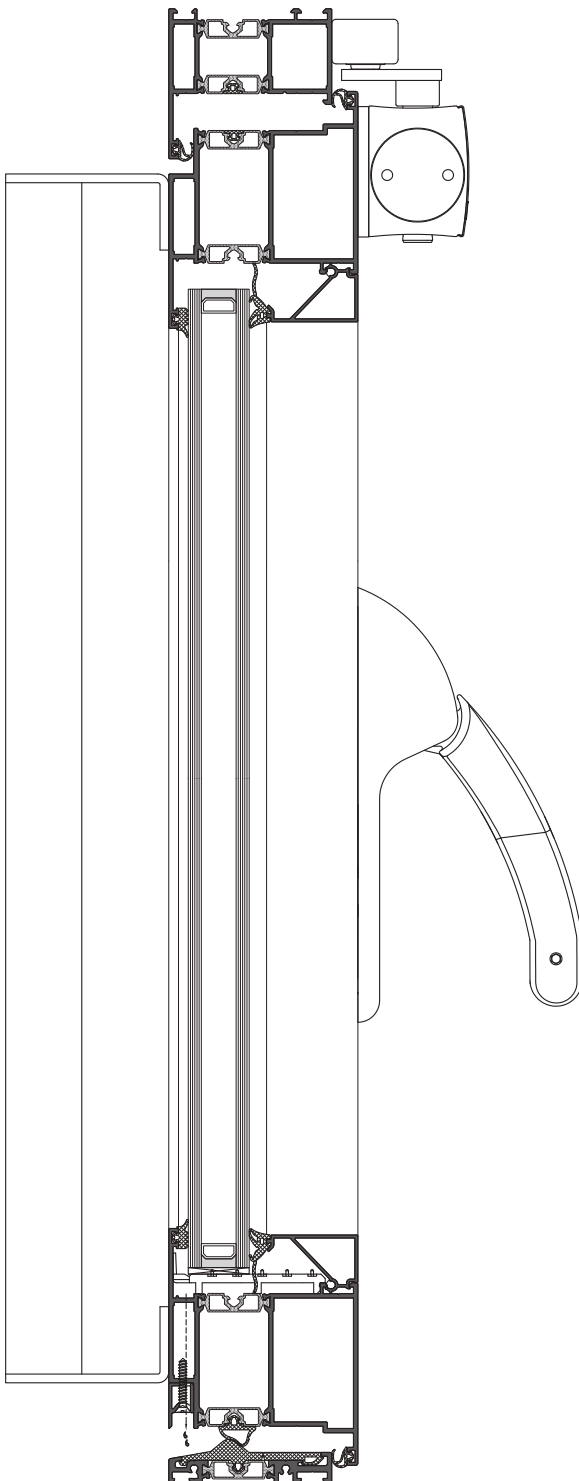
Accessories for locking systems

Accessories
locking systems

**Technical
information**

Technical conditions
General terms of sale

Technical
Information



■ **Product features**

- Locks with commercial U-shaped forend 24 x 6 mm.
- All locks feature long bolt travel with a bolt projection of 20 mm as described in DIN 18251-2.
- All locking and fittings sets are designed for max. sash dimensions of 1,400 x 2,950 mm (W x H).
- Escape and panic doors for maximum sash dimensions of 1,400 x 2,950 mm (W x H) and a sash weight of 250 kg tested and executable.
- Doors with burglar resistant requirements can be manufactured up to a sash height of 2,950 mm depending on the fitting selection.
- Locking sets for emergency exit and panic door locks according to DIN EN 179 and DIN EN 1125 can also be used for doors with burglar-resistant requirements according to DIN EN 1627 up to class RC3.

■ **Optimum planning**

- Simple design and work preparation, since all components are matched to the profile system.
- Legal security through certified escape door sets according to DIN EN 179 and DIN EN 1125.
- Individual adaptation to customer wishes with extensive range of accessories.

■ **Efficient processing**

- Simple installation thanks to uniform profile machining and detailed installation drawings.
- Uniform lever and fitting axis with all lock types.
- No rework on the building site in case of change of use, since the milled slot is identical for standard and emergency exit locks.
- ISO plate with integrated latch bolt slide block is mounted with the strike plate without a separate screw fastening.
- Striking plates adapted to the profile, hence much less adaptation work necessary during manufacturing.

Tests	
U _f values	up to 1.4 W/(m ² K)
Air permeability	up to Class 4
Water tightness	up to Class 9A
Resistance to wind load	up to Class C4
Burglar resistance	RC3
Operating forces	Class 2
Airborne sound insulation	up to 44 dB
Capability for release	fulfilled

Overview system values

	FRAME⁺ 75 DI
System values	
System depth	75 mm
Applications	
Punched opening window	X
Curtain wall insertion element	X
Leaf-enclosing infills	X
Application limits	
Min. width inactive leaf	310 mm ^{1,5}
Min. width active leaf	310 mm ²
Min. height active/inactive leaf	720 mm ³ /2,010 mm ⁴
Max. width active/inactive leaf	1,400 mm
Max. height active/inactive leaf	2,950 mm
Max. sash weight	250 kg ⁵
Glass infill thickness sash	10 to 68 mm ⁶
Glass infill thickness frame	10 to 56 mm
Leaf-enclosing infill thickness	31 to 77 mm

¹ For a clear passage width ≥ 800 mm with 90° opening min. width = 940 mm.

² At EN 179 / EN 1125 as well as standard with closing sequence control min. width = 450 mm.

³ For a clear passage width ≥ 1800 mm with interlocking catch lock min. height = 1821 mm.

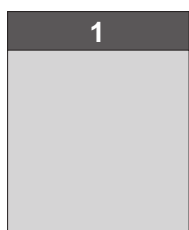
⁴ At multipoint locking with pusher height 1050 mm.

⁵ Depending on the hinge equipment, see diagram 6000.

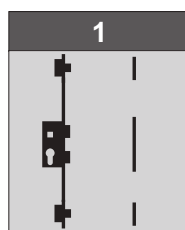
More specific requirements (oversized dimensions) on request.

⁶ Depending on profile, see selection tables glazing beads.

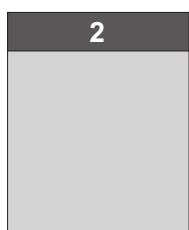
Overview of pictograms



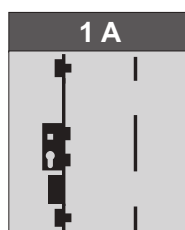
1
One active leaf e. g.:
– Single-sash elements.
– Active leaf at two-winged elements without panic function.
– Active leaf at two-winged elements with partial panic function.
The fitting selection applies only for the active leaf, the fitting for the inactive leaf must possibly be selected separately.



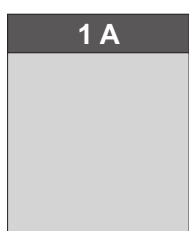
Multipoint locking



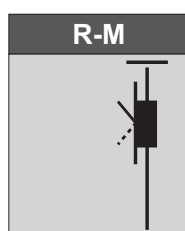
2
Two active leaves e. g.:
– Active and inactive leaf at two-winged elements with full panic function.
The fitting selection applies for the active and inactive leaf.



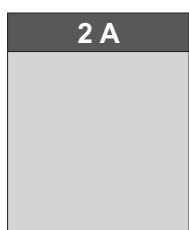
Multipoint locking
– The active leaf opens electrically by an A-opener motor.



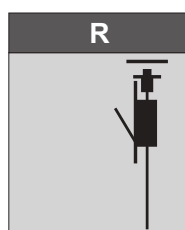
1 A
One active leaf
– The active leaf opens electrically by an A-opener motor.



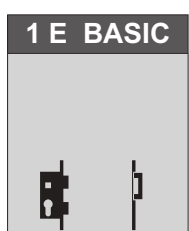
Manual inactive leaf closure
– With door edge bolt.
– No panic function in the inactive leaf.
The fitting selection applies only for the inactive leaf, the fitting for the active leaf must be selected separately.



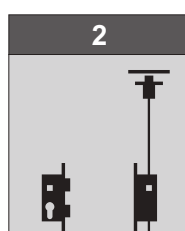
2 A
Two active leaves
– The active leaf opens electrically by an A-opener motor.



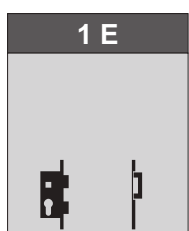
Automatic inactive leaf closure
– With rebate locking bolt.
– No panic function in the inactive leaf.
The fitting selection applies only for the inactive leaf, the fitting for the active leaf must be selected separately.



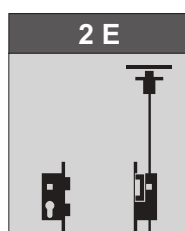
1 E BASIC
Single lever lock
– Prepared for E-opener without smoke and fire safety requirements.



Single lever lock

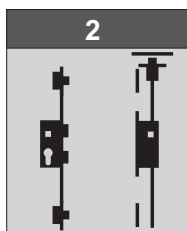


1 E
Single lever lock
– Prepared for an E-opener.

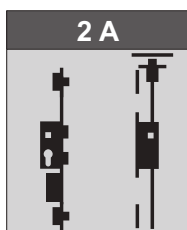


Single lever lock
– Strike box with integrated E-opener.

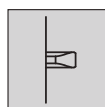
Overview of pictograms/abbreviations



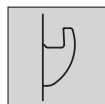
Multipoint locking



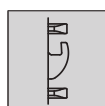
Multipoint locking
– The active leaf opens electrically by A-opener motor.



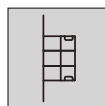
Multipoint locking:
– As bolt.



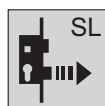
Multipoint locking:
– As hook bolt.



Multipoint locking:
– As hook bolt with two round bolts.



Multipoint locking:
– As latchbolt.



Self-locking multipoint locking



DIN EN 179:
– Complies with the guidelines of DIN EN 179 for emergency exit doors.



DIN EN 1125:
– Complies with the guidelines of DIN EN 1125 for panic doors.

List of abbreviations

- i.o.: inward opening
- o.o.: outward opening
- PU: packing unit
- s-s: single-sash
- t-w: two-winged
- OHS: opposite hinge side
- PC: profile cylinder
- LI: length inside
- Lo: length outside
- L: length
- incl.: inclusive
- ODS: overhead door closer

Determination of the order numbers
Testing of the selection diagram

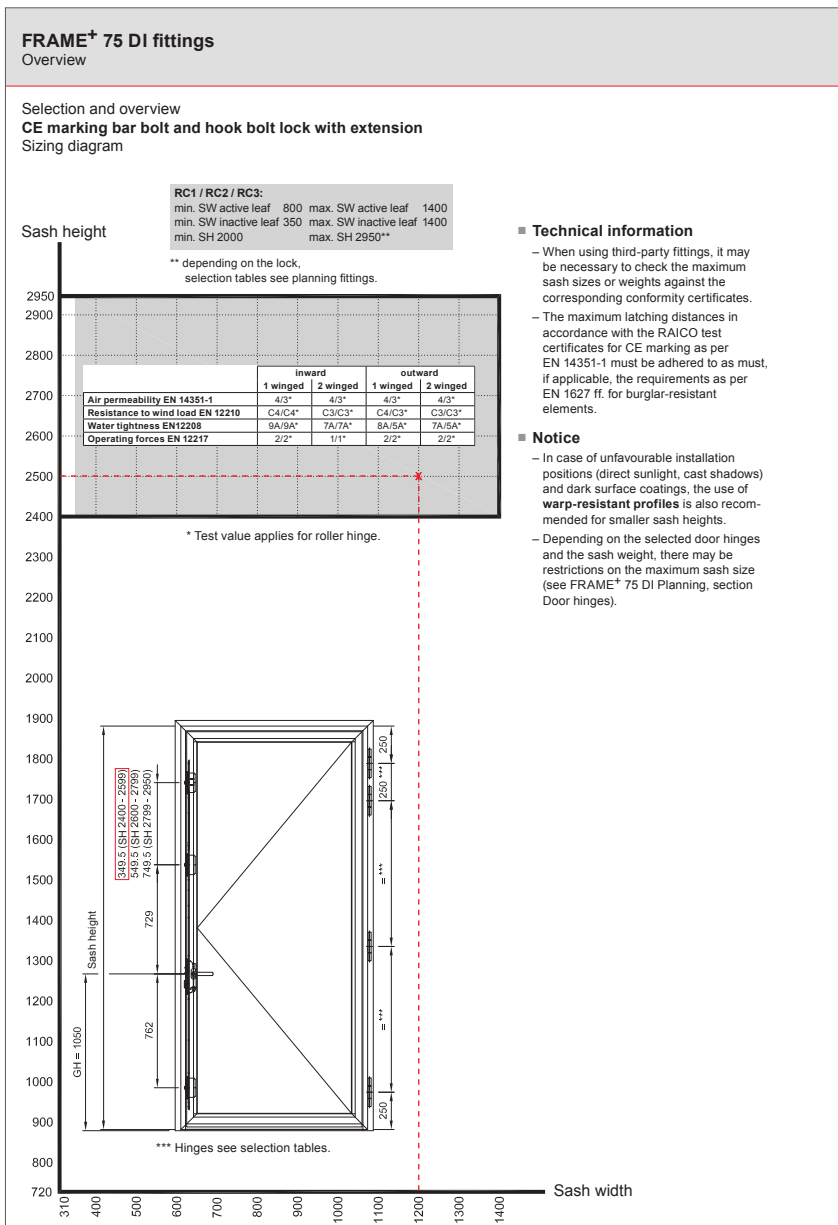
■ **Important note**

The following pages are an instruction for the determination of the order numbers of the RAICO fitting selection and show you the fundamental procedure with the aid of an example.

Example values for fitting selection

Sash dimension	1200 x 2500 - single-sash
Sash weight	150 kg
Opening direction	Inward opening
DIN direction	DIN R
Sash profile	314380 sash profile 84/71 VH
Lock	Multipoint locking bar bolt lock without panic function
Hinge	Aluminium roller hinge colour EV1

1. Testing of the selection diagram



Result:

- The sash dimension must be executed with deformation-resistant profile.
- The sash height requires a bar bolt lock with lock extension.

Determination of the order numbers
Selection of the lock

2. Selection of the locking system

FRAME⁺ 75 DI fittings
Selection tables standard

Locking systems without panic function
Bar bolt lock
Single-sash elements and active leaf at two-winged elements

1 active sash (s-s)
Multipoint locking
with round bolt

No.	Article	PU
395010	Bar bolt lock	1 set

Selection of the available versions

Opening direction	DIN direction	Technical specification	Colour
I = inward A = outward	R = right L = left	010 = active leaf backset 34 sash profile 314391, 314506 011 = active leaf backset 44 sash profile 314100, 314102, 314112, 314150, 314160, 314380, 314386, 314387, 314390, 314392, 314508, 314510 012 = Active leaf backset 64 sash profile 314110, 314151, 314161	00 = no colour specification

Execution example for determination of the requested version
No. 395010 – Opening direction I – DIN direction R – Technical specification 011 – Colour 00 = Version 395010.IR01100

Technical information

- Min. sash height for multipoint lockings 2010 mm.
- Stainless steel dummy mullion with end caps.
- Lock 2-turn.
- Square pin 8 mm.
- At outward opening ISO plate with integrated latch bolt slide.
- Classification DIN 18251-3 class 3.
- Tested in RAICO doors up to burglar resistance class RC2 according to DIN EN 1627 ff.
- **PU contains:**
 - A Bar bolt lock manual locking, stainless steel round bolt.
 - B Strike plate with latch support, adjustable.
 - C ISO plate.
 - D 2 pieces strike plate round bolts.
- **Accessories:**
 - Pusher sets see fitting system standard locks.
 - E-opener, connection cable and cable transition see product range chapter „Accessories standard locks“.
 - At two-winged elements inactive leaf locking also necessary.

Extension

No.	Article	PU
395015	Extension bar bolt lock	1 set

Technical information

- Use from sash height \geq 2400 mm additionally.
- **PU contains:**
 - D Strike plate round bolt.
 - E Extension bar bolt lock manual locking, stainless steel round bolt.

Fixation

No.	Article	PU	Sash height	Demand
908016	Countersunk screw St 4.2x19	100 pc(s)	\leq 2400	18 pc(s)
			2400 to 2599	23 pc(s)
			2600 to 2799	24 pc(s)
			\geq 2800	25 pc(s)

- Result:**
- Bar bolt lock:
No. 395010.IR01100.
 - Lock extension:
No. 395015.
 - Fixation:
24 pc(s) countersunk screws
St 4,2x19 **no. 908016.**
 - The selection of the accessories (pusher sets, E-opener) will be taken separately.