

ES PROLINE

Automatic sliding door operators





Table of contents

ES PROLINE

The new generation of sliding door operators - general review of sliding doors	4
Data and features	12
System planning	14

Sliding door operators with and without FST escape route function

System dimensions and max. door leaf weight	16
Technical data for sliding door operators	17
Header profiles	18
Schematic illustration of door cross-section	18
Connections with CAN-bus technology	19
Conventional technology connections	19

Sliding doors

ST Pro Green - Thermally separated profile system	20
ST Pro Green RC2 / RC3 - Thermally separated profile system with certified burglary protection	22
ST Flex - Extra slim profile system	24
ST Manet - Stainless steel all-glass system	26
SST Flex - Slim profile system with break out function	28

Telescopic sliding door operators with and without FST escape route function

System dimensions and max. door leaf weight	34
Technical data for telescopic sliding door operators	35
Header profiles	36
Schematic illustrations of door cross-section	36
Connections with CAN-bus technology	37
Conventional technology connections	37

Telescopic sliding doors

TST Flex - Profile system for telescopic doors	38
TST Flex Green - Telescopic door with improved thermal insulation	40

Locking devices 42

Casing variants 43

Master controller functions and optional expansion module functions 44

Door Pilot App 45

Accessories

Program switches	46
Activation switches	47
Key switch	48
Led touch switch	48
Emergency activation buttons	49
Cover frame for buttons and switches	49
Active infrared sensor and combined sensors	50
Accessories for active infrared sensor and combined sensors	51

ES PROLINE

The new generation of sliding door operators – powerful, quick and networked.

The new ES PROLINE drive system for automatic sliding doors is the ideal solution in almost all applications and areas of use. It features many enhanced functions and attributes compared to the previous drive system. The modular structure of the system enables it to be used with classic sliding doors, sliding doors with escape route functions and with telescopic sliding doors.

The ES PROLINE is a sound investment for the future. This drive system addresses current topical issues such as sustainability and digitisation. The ES PROLINE also complies with the current European and German standards and safety regulations DIN 18650 and EN 16005.



Powerful

The ES PROLINE is equipped with modern dormakaba Direct Drive motor technology for the dynamic opening and closing of sliding doors. The ES 400 PRO drive model can be used for door leaves with a weight of up to 2 x 200 kg.



Durable

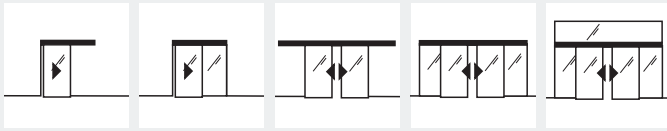
Verified dormakaba quality is the goal of the ES PROLINE. This drive system successfully passed tests involving **1.5 million opening and closing cycles**. This extends the service life of doors by 50%.



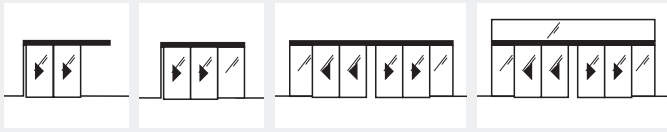
Quick

The ES PROLINE opens and closes automatic sliding doors swiftly. This ensures a smooth flow of users even in areas with a high volume of traffic. It also contributes to reducing energy losses caused by open doors.

ES PRO for sliding door systems ST



ES PRO T for telescopic sliding door systems TST



Modular

The adaptable ES PROLINE can be used to satisfy varying requirements for automatic sliding doors.

The modular kit can be universally combined with standard doors, escape route doors and telescopic sliding doors.

Converting existing systems (dormakaba ES 200) is quite straightforward.

ES PROLINE EASY

Entry-level solution with a Direct Drive Unit (DDU).

ES PROLINE

For standard sliding doors with door leaves weighing up to 2 x 200 kg and optional expansion modules.

ES PROLINE FST

For sliding doors used on escape routes with door leaves weighing up to 2 x 200 kg and optional expansion modules.



Sustainable

The ES PROLINE modular system is economical and utilises dormakaba Direct Drive motor technology. In addition, the packaging material is 100% recyclable.



Quiet

Its gearless motor means that the ES PROLINE opens and closes sliding doors extremely quietly. Making it ideal for use in applications particularly sensitive to noise.



Connected

The ES PROLINE drive can be equipped with a module that enables it to be controlled by an app. The app also provides useful additional information and a direct link to dormakaba Service.

Automatic sliding doors

ST, SST and TST – a suitable solution for every requirement

The architectural and functional requirements of an automatic door system are numerous. The extensive product range from dormakaba meets every requirement. The durable Direct Drive motor technology ensures quiet and long-lasting operation. Thanks to the wide range of product options and the modular design, every individual requirement can be realised economically.

Individually adaptable and modular drive technology

The basis of every sliding door system is always an operator from the ES PROLINE series. The functions of the sliding door system result from the selected operator and can be configured as required. In combination with one of our sliding door systems, we offer a suitable solution in proven quality.

Safe operation as standard

All systems comply with the safety standards EN 16005 and DIN 18650. Safety sensors are required for touch-free protection of the door leaves. The required safety measures result from the respective risk analysis.

Increased burglary protection if required

Secure locking is provided by the operator or manually on request. In addition, the resistance class (up to RC3) can be achieved with some sliding door systems by means of electric motor-driven locks and further reinforcements.



Escape routes

The special requirements in escape routes are fulfilled by all systems that are equipped with an Series ES PROLINE FST operator.



Large range of sliding door and telescopic sliding door systems

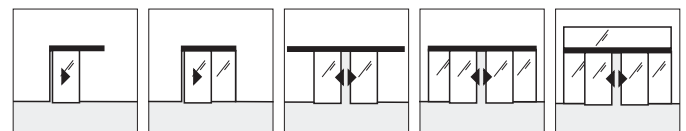
From the thermally separated door leaf profile to the elegant all-glass sliding door system, dormakaba offers a multitude of sliding door systems. Together with an operator from the the ES PROLINE series, you will find the optimum solution for your application.

A wide range of design options

All ST sliding door systems, SST sliding door systems with break out function and TST telescopic sliding door systems can be flexibly planned and can be supplemented with side panels, fanlights and, if required, additional protective wings.

Seamless integration into façade systems

Many sliding door systems can be convincingly integrated into a wide variety of façade systems. The possibilities are manifold.



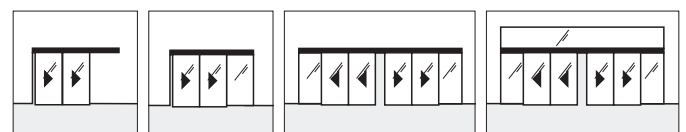
Sliding door systems ST

ST PRO Green: Thermally insulated profile system
ST PRO Green RCx: Thermally insulated profile system with increased burglary resistance class RC2 or RC3

ST FLEX: Slim profile system

ST MANET: All-glass with stainless steel brackets

SST FLEX: Slim profile system with break out function



Telescopic sliding door systems TST

TST FLEX: Slim profile system
TST FLEX Green: Slim profile system with improved thermal separation

- 01 ST PRO Green Thermally separated profile system
- 02 ST PRO Green RCx Thermally separated profile system with certified burglary protection
- 03 ST FLEX Sliding door system as escape route door, opening on one side with operator integrated in the suspended ceiling
- 04 ST MANET All-glass with stainless steel brackets
- 05 SST FLEX Slim profile system with break out function
- 06 TST FLEX Telescopic sliding door system integrated in façade
- 07 TST Flex Green Telescopic door with improved thermal insulation

Which sliding door system fits to your requirements?

Whether a noble façade design is continued with corresponding door systems or accents are set in the entrance area: Automatic sliding doors leave almost nothing to be desired.

Depending on the requirements, the sliding door system is composed of a sliding door system (profile system or all-glass) and an operator from the ES PROLINE series.

Profile systems		ST Sliding doors				Telescopic sliding doors	
		ST Pro Green	ST Pro Green RC2 / RC3	ST FLEX	SST FLEX	TST FLEX	TST FLEX Green
Thermal insulation	ISO glass double	○	○	○	○	○	●
	ISO glass triple	●	●	-	-	-	○
	Improved thermal separation	-	-	-	-	-	●
	Thermally separated profile	●	●	-	-	-	-
Suitable for wind-exposed sites		○	●	○	○	○	○
Burglary protection	RC-Glass	○	●	○	○	○	○
	Floor lock	○	○	○	○	○	○
	hook locking (multipoint)	○	●	○	○	-	-
	Unterfloor rail	○	●	○	○	○	○
Profile view (ca.-Dimensions)	horizontal (top)	50 mm	50 mm	47 mm	47 mm	47 mm	47 mm
	vertical	50 mm	77 mm	35 mm	35 mm	35 mm	46 mm
Emergency exit approval		○	○	○	○	○	○
Possible clearance dimensions*	LW	700 - 3000 mm		700 - 3000 mm		800 - 4000 mm	
	LH	2050 - 3000 mm		2000 - 3000 mm		2000 - 3000 mm	

All-glass systems

			ST Manet	● standard ○ optional - no
Emergency exit approval			○	
Possible clearance dimensions*	LW	700 - 2000 mm		
	LH	2000 - 2500 mm		

* The concrete maximum dimensions that can be executed result from the respective door planning (e.g. glass type/door leaf weight, door leaf format (height to width), wind load conditions in the object, floor guide, etc.) and the door requirements.

ST PRO Green

The sliding door ST PRO Green is characterised by excellent thermal properties. In combination with double or triple glazing, particularly low UD values (heat transfer coefficient) of up to 1.0 can be achieved (value depends on the glass used and the door size). The door thus fulfils the strict requirements of the current Building Energy Act GEG (formerly EnEV). A very high stability of the door elements is also achieved through the optimised profile cross-sections with low-torsion webs. The sustainability of the door is certified by an Environmental Product Declaration (EPD).

Areas of application: Exterior doors with high demands on thermal insulation and/or wind-exposed positions (with additional continuous floor rail).

See detail page 20



ST PRO Green RC2 / RC3

The sliding doors ST PRO Green RC2 / RC3 have similarly excellent thermal properties as the ST PRO Green. In addition, the doors guarantee a high level of protection against burglary and vandalism thanks to a locking system and other constructive measures. A continuous floor guide is standard with this system. The sliding door system is RC2 or RC3 tested and certified. The sustainability of the door is certified by an Environmental Product Declaration (EPD).

Areas of application: Exterior doors with high thermal insulation requirements, thermal insulation, wind-exposed locations and increased need for burglary protection.

See detail page 22



ST FLEX

The ST FLEX sliding door can be used universally due to the small profile face widths. The high number of different construction types enables the optimal solution of demanding object requirements. Sliding doors with telescopic drive are available with the same profile system. Optionally, single-pane glazing or also insulating glazing can be used.

Areas of application: Exterior doors with insulating glazing, wind trap solutions, interior doors as room closures in public buildings, sales rooms, etc.

See detail page 24



SST FLEX

Break-out sliding door with the FLEX Green profile are energy-saving doors specially designed for external building closures. The profiles with improved thermal separation result in very good insulation values. Even the most unfavourable sizes still meet the strict requirements of the current Building Energy Act (GEG).

The heat transfer coefficients UD are documented by test certificates. The sustainability of the door is certified by an Environmental Product Declaration (EPD). Thanks to the slim profile face widths, this door type can be combined very well with other door systems from the FLEX family.

See detail page 28



All-glass systems

ST all-glass sliding door systems are frameless door systems made of glass. This creates light-flooded and barrier-free entrance solutions in the interior of buildings.

ST MANET



The ST MANET system is ideal for particularly high-quality commercial applications. The point holders of this door are made of solid, high-quality stainless steel. Here, as well, door versions are available with or without side panels or with or without fanlight.

Areas of application: High-quality interior fittings, as room closures e.g. in law firms, medical practices and hotels.

See detail page 26

ST Glass Clamping Rail



The ST Glass Clamping Rail system offers a refined and sleek alternative to visible point holders like the ST MANET. By opting for this system, a smooth, uninterrupted look is achieved, ideal for spaces where a minimalist aesthetic is desired. This high-quality solution provides the same stability and quality as point holders but with a streamlined design that enhances modern interiors without visible fixings or any drilled holes in the glass.

Areas of application: High-quality interior fittings, as room closures e.g., in law firms, medical practices, and hotels.

Telescopic sliding door systems TST

TST telescopic sliding door systems offer a larger passage width than simple sliding door systems with the same overall width. Especially when the structural openings are not sufficiently dimensioned, telescopic sliding door systems offer a good alternative.

TST FLEX



The TST FLEX telescopic sliding door is based on the same profile system as the ST FLEX sliding doors. The small profile face widths make the door appear very transparent overall. Other door types from the FLEX family can be combined very harmoniously in a building. The door leaves are glazed with ISO 22 mm insulating glass.

Areas of application: External or internal doors, wind trap solutions in public buildings, sales rooms, etc.

See detail page 38

TST FLEX Green



The TST FLEX Green telescopic sliding door is based on the same profile system as the ST FLEX Green sliding doors and is also an energy-saving sliding door specially designed for external building closure. The profiles have improved thermal separation and the thermal transmittance coefficients UD are proven by test certificates. Due to the slim profile elevations, this door type can be combined very well with the other door systems from the FLEX family.

Areas of application: Especially for exterior doors and wind trap solutions, closures in public buildings.

See detail page 40

ES PROLINE

Data and features

		ES 250 PRO ES 400 PRO ES 250 PRO T ES 400 PRO T	ES 250 PRO FST ES 400 PRO FST ES 250 PRO T FST ES 400 PRO T FST	ES 250 PRO EASY ES 250 PRO T EASY
Control module				
Modular design		●	●	●
Function programs	– Off	●	●	●
	– Automatic	●	●	●
	– Permanent open	●	●	●
	– Partial open	●	●	●
	– Exit	●	●	●
Automatic reversing		●	●	●
Connection for securing the passageway (on both sides)		●	●	●
Tested in accordance with EN 16005/DIN 18650		●	●	●
Securing main and secondary closing edge(s) according to EN 16005/DIN 18650		●	●	●
Basic parameters set using integrated display and buttons		●	●	●
Parameterisation via Operator Service Interface (OSI)		●	●	●
Door Pilot interface (Bluetooth)		○	○	○
Automatic opening/closing in the event of a power failure (if a battery set is used)		●/●	●/– (Battery set supplied as standard)	●/●
Emergency battery operation (if a battery set is used)		●	–	●
24 V DC output for accessories		●	●	●
Readable fault memory with fault codes		●	●	●
CAN interface for connecting a program switch		●	●	●
CAN interface for connecting additional CAN-bus components		●	●	–
Multiports for connecting accessory components		4	4	2
Functions*				
Pharmacy function		●	●	–
Door status signal contacts		●	●	●
Panic closing (observe regional regulations!)		●	●	–
Door bell contact		●	●	–
Airlock control		●	–	–
Synchronous operation		●	●	–
Safety deactivation		●	●	–
Night/bank function		●	●	●
Emergency open		–	●	–
Emergency stop		●	–	–
Configurable partial opening distance		●	●	●
Slide and Go		●	●	–
Close/open on malfunction		●	●	–
Fire service switch function		●	●	–

*The functions can be implemented by the master controller or by the 4 I/O modules. For further information, see page 18

	ES 250 PRO ES 400 PRO ES 250 PRO T ES 400 PRO T	ES 250 PRO FST ES 400 PRO FST ES 250 PRO T FST ES 400 PRO T FST	ES 250 PRO EASY ES 250 PRO T EASY
Control module			
Safety and activation (SiAK) expansion module**			
For connecting conventional (not CAN-bus-capable) safety and activation sensors	○	○	-
Program switch (MS) expansion module**			
For connecting conventional (not CAN-bus-capable) program switches	○	○	-
Auxiliary equipment			
Electro-mechanical belt locking device	○	○	○
Manual lock release for electro-mechanical locking device	○	○	○
Magnetic locking device, jam-free	○	○	-
Electromotive hook locking device (up to RC3)	○	○	-
Manual lock release for electromotive locking device	○	○	-
Battery set	○	●	○
Emergency power supply UPS (external)	○	○	○
Module for connection to LON/LAN building control systems	○	○	-
Potential-free relay contact	○	○	○
● as standard ○ optional			

**Further information on the expansion modules can be found on page 18

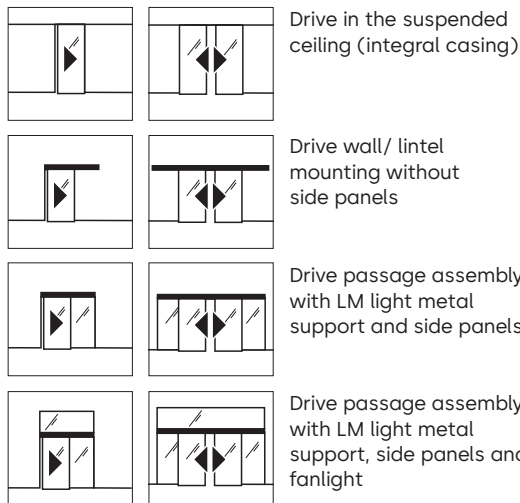


System planning

You should know these dimensions

Drive, door leaf, side panels and fanlight

Single-opening sliding doors can be designed to open to the right or left. In addition, telescopic sliding doors are possible with the TST FLEX and TST FLEX Green profile system.



Individual sliding door system as standard

Each system is individually planned and produced. The modular approach of our systems ensures economical implementation. Each system can be easily extended with further automatic and access functions from the dormakaba range.

Freely selectable size and design

The dimensions of the sliding door systems are freely selectable. Depending on the sliding door system, the glass selected and the door leaf weight, passage widths of up to 3,000 mm are possible for sliding door systems and up to 4,000 mm for telescopic sliding door systems. The profile surfaces are anodised as standard or powder-coated according to the individual colour of common powder manufacturers. For special requirements, more resistant coatings are also possible, e.g. in swimming pool construction or near the coast.

Our service starts at the planning stage

We support every project at an early stage. The architectural and functional requirements are the starting point. Every sliding door system is delivered ready for installation. Installation, commissioning and maintenance are carried out by our qualified personnel. Comprehensive documentation in the local language is supplied with every system.

Maximum system dimensions

Depending on the sliding door system and the glass selected, the maximum system dimensions are limited by the weight of the TG door leaves. For more detailed information, please refer to the chapters on sliding door systems.

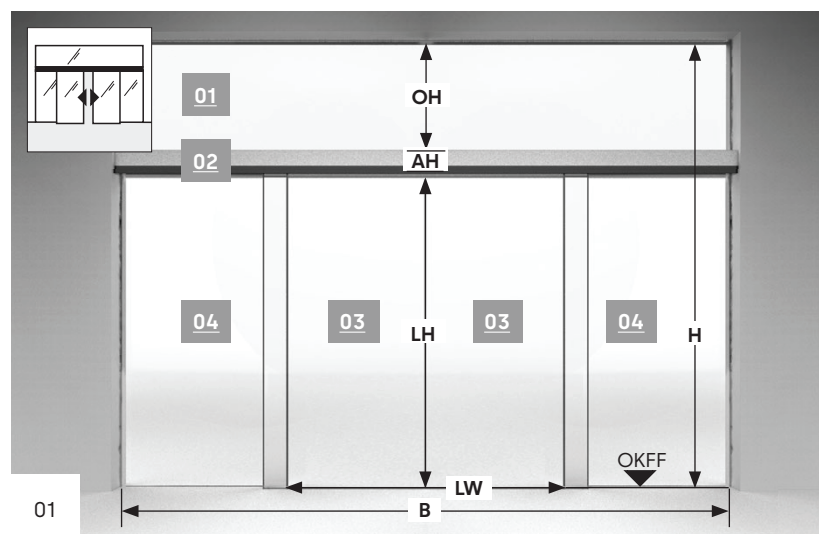
The following formula can be used to roughly determine the door leaf weight TG:

$$TG = \frac{LH [m] \times LW [m] \times \text{glass weight [kg/m}^2\text{]}}{\text{Number of door leaves}}$$

Common glass thicknesses and weights:

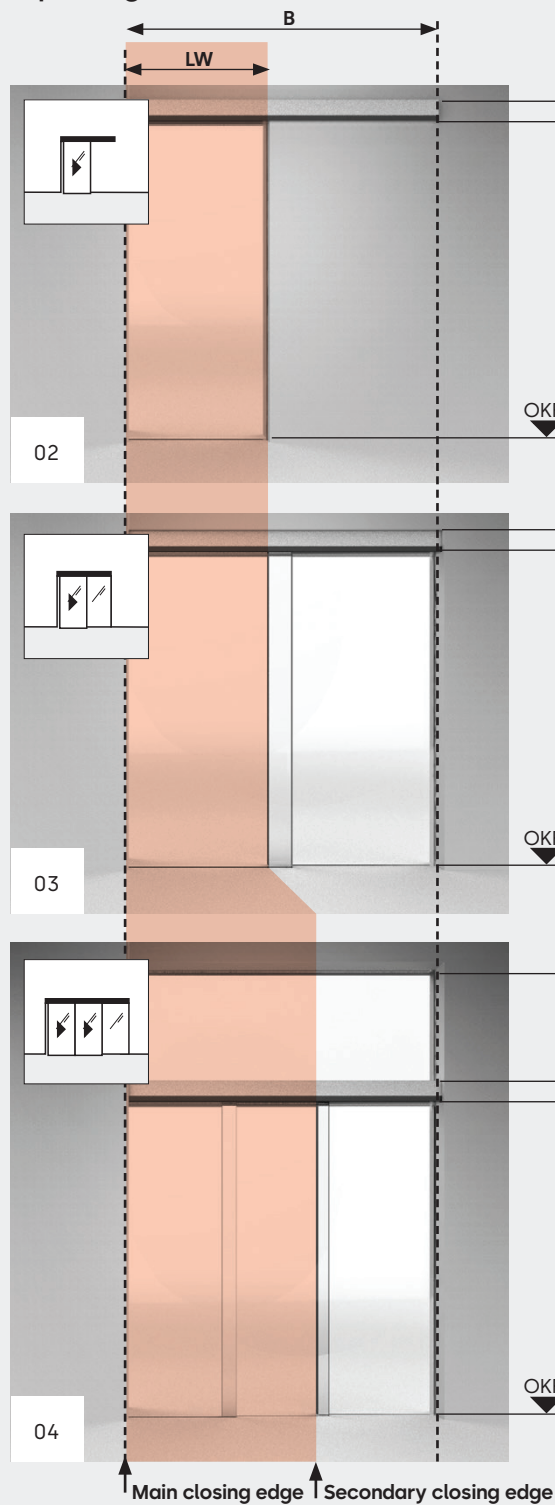
10 mm z. B. ESG 10: 25 kg/m²

12 mm z. B. ISO 22, 2 x VSG 6: 30 kg/m²

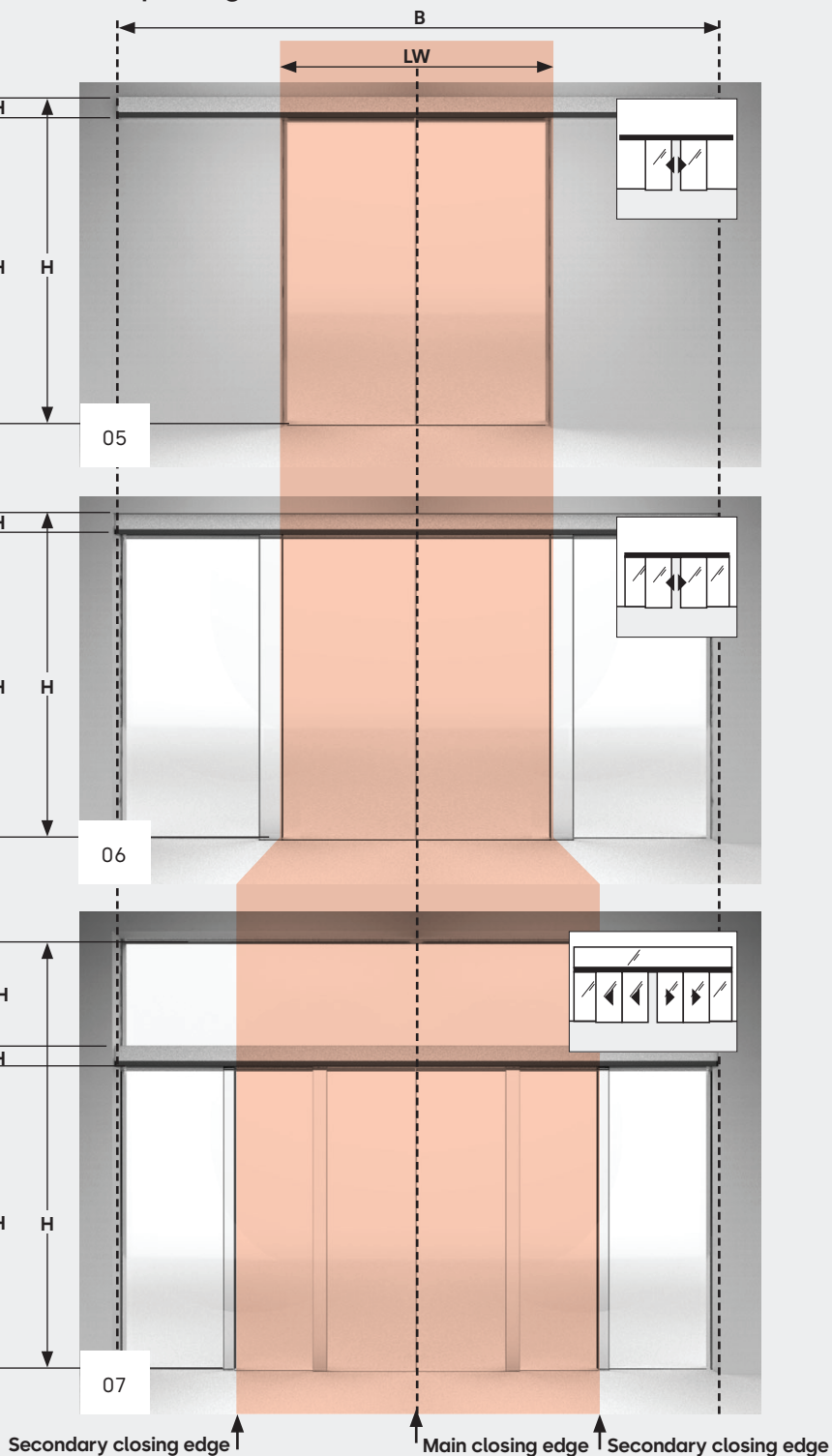


- 01** Fanlight
- 02** Drive unit
- 03** Sliding door panel
- 04** Stationary side screen

Opening to one side



Opening to both sides



LW: Clearance width (passage width)
LH: Clearance height (passage width)
B: Total system width
OH: Height of fanlight (option)
H: Total system height
AH: Drive height 100 or 150 mm dependent on version
OKFF: Upper edge of finished floor

System examples

- 01 Sliding door opening on two sides with side panel and fanlight
- 02 Sliding door opening on one side
- 03 Sliding door opening on one side with side panel
- 04 Telescopic sliding door opening on one side with side panel and fanlight
- 05 Sliding door opening on two sides
- 06 Sliding door opening on two sides with side panel
- 07 Telescopic sliding door opening on two sides with side panel and fanlight

Sliding door operators

with and without FST escape route function



The innovative ES PROLINE sliding door drive system can be used for classic single-leaf or double-leaf sliding door applications without a hitch. It can also be used on escape route and emergency exit doors, as well as with particularly heavy door leaves.

System dimensions and max. door leaf weight

Door parameters	1-leaf		2-leaf	
	ES 250 PRO ES 250 PRO FST ES 250 PRO EASY	ES 400 PRO ES 400 PRO FST	ES 250 PRO ES 250 PRO FST ES 250 PRO EASY	ES 400 PRO ES 400 PRO FST
Max. door leaf weight	1 x 125 kg	1 x 250 kg	2 x 125 kg	2 x 200 kg
Clear passage width LW*	700 – 3000 mm		800 – 3000 mm	
Clear passage height LH	2000 – 3000 mm		2000 – 3000 mm	

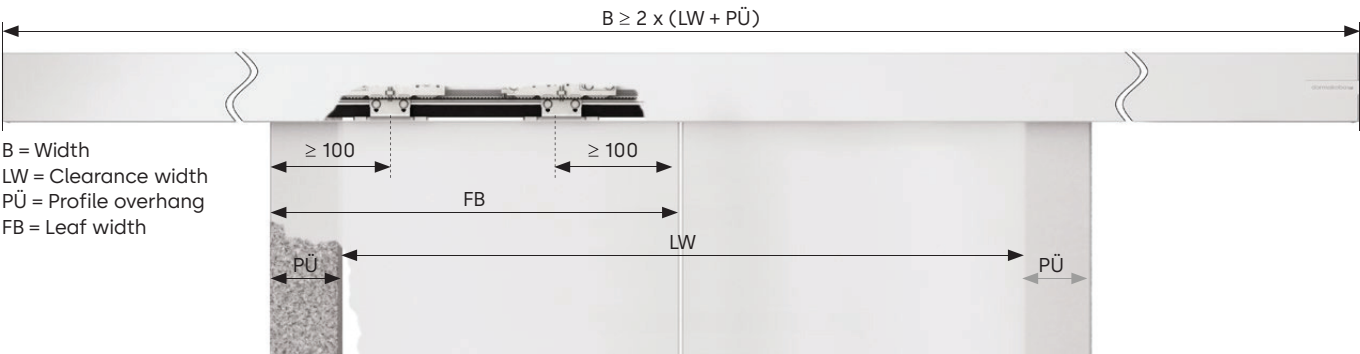
Estimated door leaf weight

Door leaf weight

$$\frac{LH [m] \times LW [m] \times \text{weight of glass [kg/m}^2]}{\text{Number of door leaves}}$$

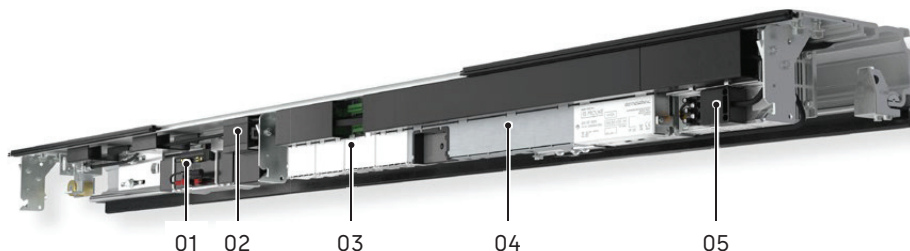
Normal glass weights: 10 mm glass thickness e.g. toughened safety glass 10: 25 kg/m², 12 mm glass thickness e.g. double glazing 22, 2 x laminated safety glass 6: 30 kg/m²

*The minimum clear passage width for escape route sliding doors is specified in the relevant regional building codes and may vary. The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the selected profile system.



 Escape route sliding doors are only approved if installed with type-approved dormakaba profile systems.

- 01 Battery
- 02 Door Pilot interface
- 03 Expansion modules
- 04 Drive unit
- 05 Power supply unit



Technical data for sliding door operators

	Standard sliding door			Escape route sliding door	
Door parameters	ES 250 PRO	ES 400 PRO	ES 250 PRO EASY	ES 250 PRO FST	ES 400 PRO FST
Min. operator length	2 LW	2 LW	2 LW	2 LW	2 LW
Operator depth in mm	180	180	180	180	180
Operator height in mm	100	100	100	100	100
Use in escape routes and emergency exits	-	-	-		
Force limitation in accordance with EN 16005/DIN 18650	●	●	●	●	●
Operating noise	<47 dB(A)	<47 dB(A)	<47 dB(A)	<47 dB(A)	<47 dB(A)
Settings					
Opening speed (adjustable in increments)	10 – 70 cm/s	10 – 90 cm/s	10 – 70 cm/s	ca. 20 – 70 cm/s	ca. 20 – 90 cm/s
Closing speed (adjustable in increments)	10 – 70 cm/s	10 – 90 cm/s	10 – 70 cm/s	10 – 70 cm/s	10 – 90 cm/s
Low speed OPEN	0 – 9 cm/s	0 – 9 cm/s	–	0 – 9 cm/s	0 – 9 cm/s
Low speed CLOSE	3 – 9 cm/s	3 – 9 cm/s	–	3 – 9 cm/s	3 – 9 cm/s
Hold-open time, night/bank hold-open time	0 – 180 s	0 – 180 s	0 – 180 s	0 – 180 s	0 – 180 s
Night/bank opening delay	0 – 10 s	0 – 10 s	–	0 – 10 s	0 – 10 s
Partial opening	25 – 300 cm	25 – 300 cm	25 – 300 cm	25 – 300 cm	25 – 300 cm
Low-speed travel OPEN/CLOSE	0 – 30 cm	0 – 30 cm	0 – 30 cm	0 – 30 cm	0 – 30 cm
Power supply					
Supply voltage	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz
Power consumption	130 W	180 W	130 W	130 W	180 W
On-site line fuse	10 A	10 A	10 A	10 A	10 A
Degree of protection	IP 20	IP 20	IP 20	IP 20	IP 20
Power supply for peripheral equipment under network conditions	24 V DC/2A	24 V DC/2A	27 V DC/1A	24 V DC/2A	24 V DC/2A
Power supply for peripheral equipment in the event of a power failure (battery operation)	Optional 21–27 V DC/2A	Optional 21–27 V DC/2A	Optional 21–27 V DC/1A	21–27 V DC/2A	21–27 V DC/2A
Temperature range	-20 – + 60 °C	-20 – + 60 °C	-20 – + 60 °C	-20 – + 60 °C	-20 – + 60 °C
Permissible air humidity (relative) (non-condensing)	max. 93 %	max. 93 %	max. 93 %	max. 93 %	max. 93 %
Standardisation and testing					
Compliant with the Low Voltage Directive and the EMC Directive	●	●	●	●	●
Monitoring of secondary closing edges verified to fulfil German standard DIN 18650 and EN 16005.	●	●	●	●	●
Manufactured to ISO 9001	●	●	●	●	●
Environmental product declaration according to ISO 14025; declaration holder: Institut Bauen und Umwelt e.V.	●	●	●	●	●

Header profiles

Profiles for 100 mm and 150 mm drive heights, for corridor or wall installation, enable the system to be adapted to all conceivable areas of application. The basic mechanical system has a low number of components and is the same for both drive heights.

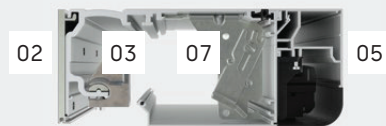
**Profiles for corridor installation:
100 mm**



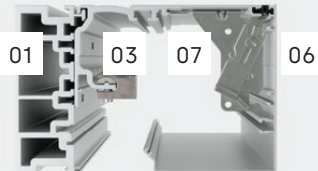
**Profiles for wall installation:
100 mm**



**Profiles for wall installation:
100 mm with sensor casing**



**Profiles for corridor installation:
150 mm**



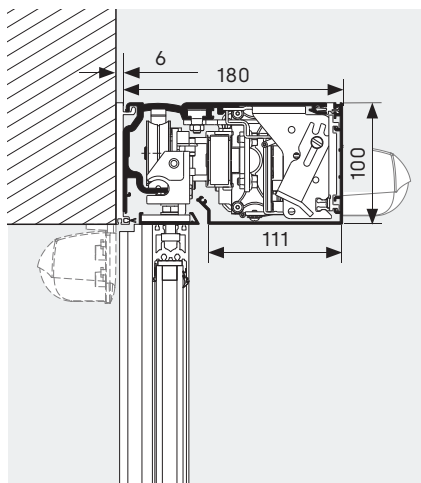
**Profiles for wall installation:
150 mm**



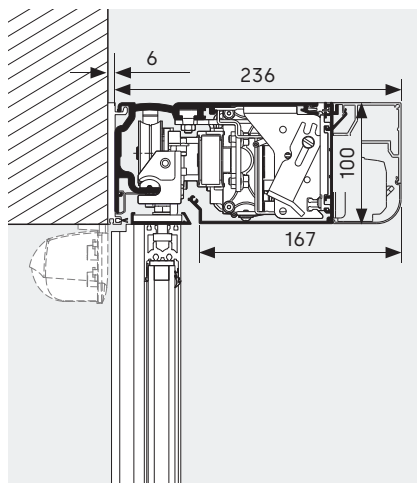
- 01 Aluminium girder
- 02 Mounting profile
- 03 Header profile
- 04 Internal casing for 100 mm drive height
- 05 Sensor casing for 100 mm drive height
- 06 Internal casing for 150 mm drive height
- 07 Cover bracket

Schematic illustration of door cross-section (operator and sliding panel)

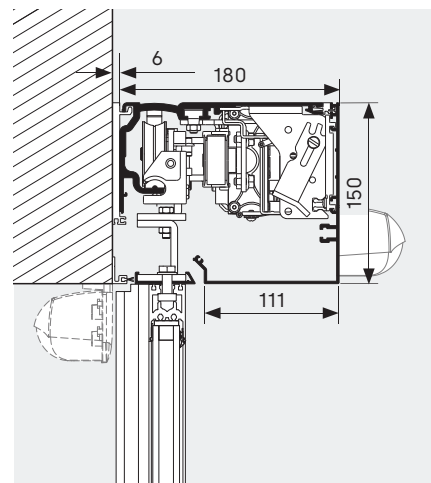
Schematic illustration of door cross-section:
wall mounted, drive height 100 mm



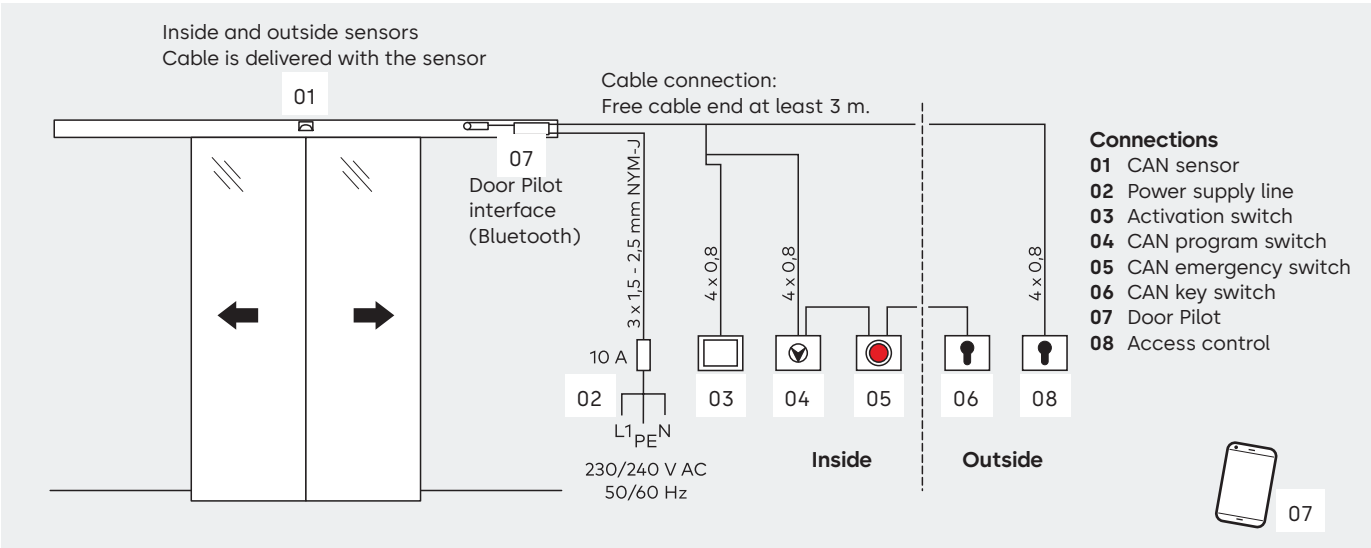
Schematic illustration of door cross-section: wall mounted, sensor casing,
drive height 100 mm



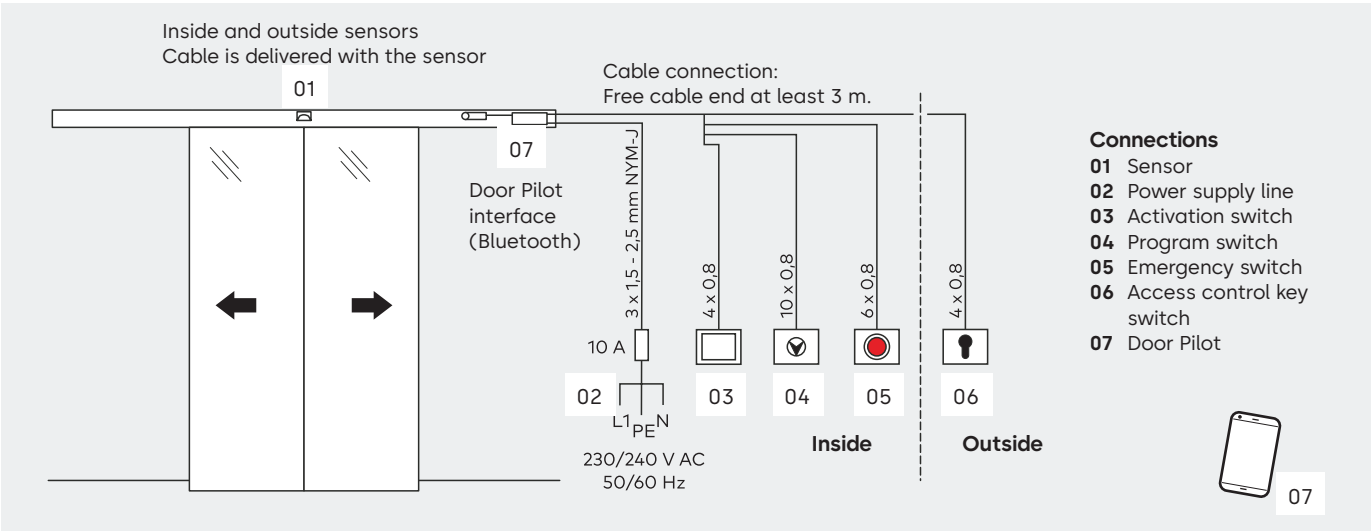
Schematic illustration of door cross-section: wall mounted, drive height 150 mm



Connections with CAN-bus technology



Conventional technology connections



ST PRO Green

Thermally separated profile system

Properties

- Complies with the current German Building Energy ACT GEG (formerly EnEV)
- Particularly low U_D values up to 1.0 W/m²K calculated individually for each door system
- Minimised profile face widths
- Above-floor and underfloor routing possible
- Drive height 100 mm or 150 mm
- Certified thermal conductivity values to EN ISO 10077
- Environmental Product Declaration (EPD) included

Glazings

- Double glazing ISO 34 with warm edge
- Triple glazing ISO 50 with warm edge
- Special glazing

Possible additions

- Protective leaf in front of the moving leaf or in the façade
- Georgian bar profile
- Underfloor routing
- Main closing edge with multi-point locking system (see variant RC2/RC3)

Approximate determination of door leaf weight

$$TG = \frac{LH [m] \times LW [m] \times \text{glass weight [kg/m}^2]}{\text{Number of door leaves}} + 7.5 \text{ kg}$$

Common glass weight for triple glazing: 45 kg/m²

		Version	ST PRO Green
Drive type	Standard		ES 250 PRO/ES 400 PRO
	Escape route 		ES 250 PRO FST/ES 400 PRO FST
Door parameters*			
System width (B) min. =	1-leaf	Passageway installation (without safety clearance, without post width)	2 x LW + 153 mm
		Wall mounting, without post width	2 x LW + 115 mm
	2-leaf	Passageway installation (without safety clearance)	2 x LW + 180 mm
		Wall mounting	2 x LW + 120 mm
Clearance width LW*2	1-leaf	Standard	700 – 3000 mm
		Escape route 	700 – 3000 mm
	2-leaf	Standard	800 – 3000 mm
		Escape route 	800 – 3000 mm
Max. door leaf weight	1-leaf	ES 250 PRO/ES 250 PRO FST	1 x 125 kg
		ES 400 PRO/ES 400 PRO FST	1 x 250 kg
	2-leaf	ES 250 PRO/ES 250 PRO FST	2 x 125 kg
		ES 400 PRO/ES 400 PRO FST	2 x 200 kg
Clear passage height LH*			2050 – 3100 mm

* The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the profile system selected. For doors with tested anti-intruder protection, increased requirements are placed on the structural tolerances as well as the careful design of the structure.

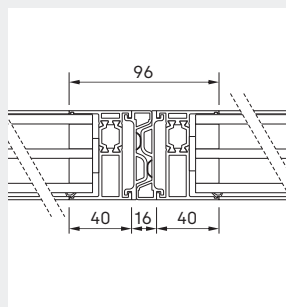
² The minimum clearance width for escape route sliding doors is laid down in the respective regional building codes and may vary in certain circumstances.



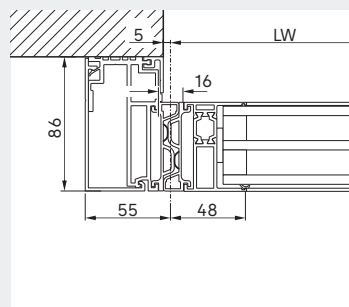
The requirements in escape routes are met by all systems that are equipped with an operator from the ES PROLINE FST series.

Main closing edge variants

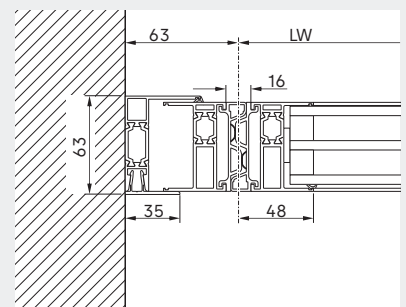
- LW:** Clearance width
LH: Clearance height
B: Total system width
OH: Skylight height (option)
H: Total system height
AH: Drive height 100 or 150 mm dependent on version
OKFF: Upper edge of finished floor prefabricated floor



Opening to both sides



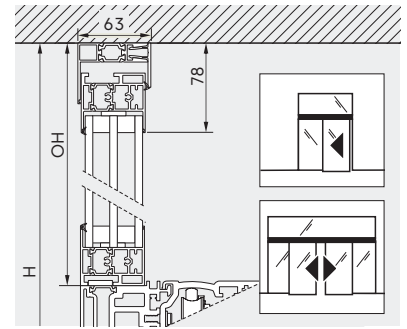
Lintel installation, opening to one side



Passageway installation, opening to one side

Note on installation with light metal beam

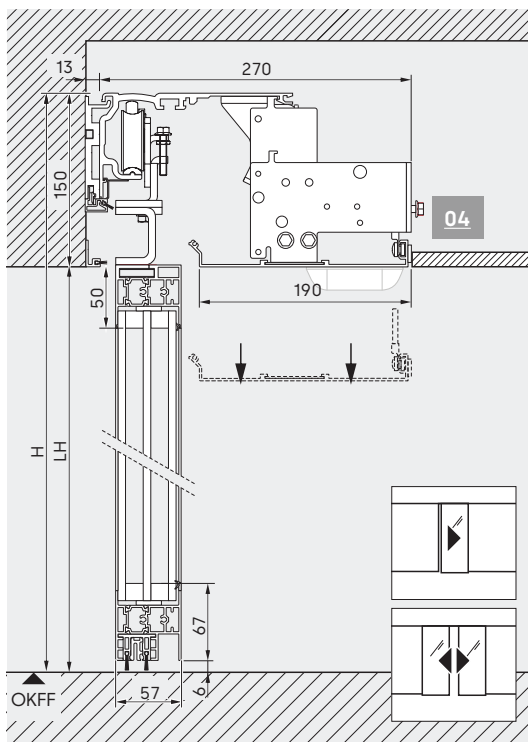
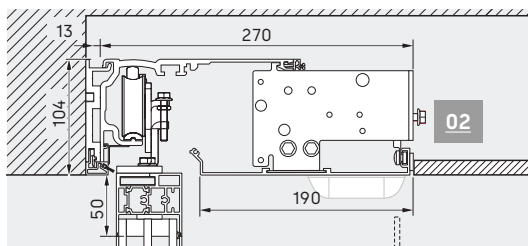
For doors with side panels and light metal beam, the drive must either be suspended or the 150 mm drive type is required for door leaf weights of approx. 125 kg or more – depending on the clearance width.



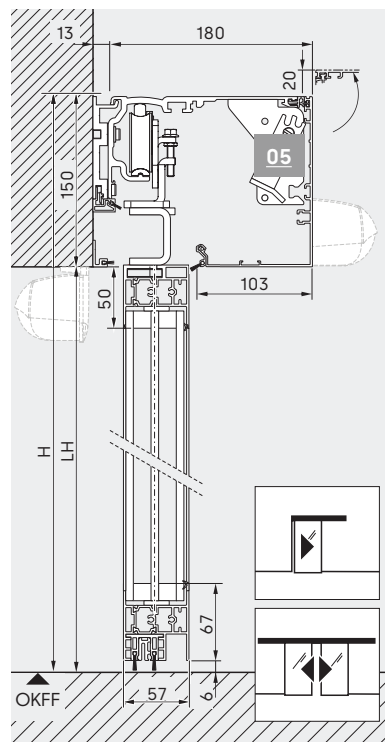
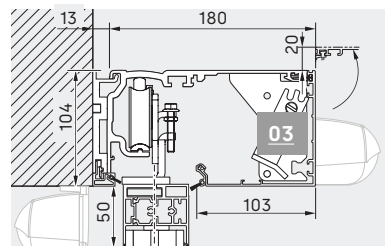
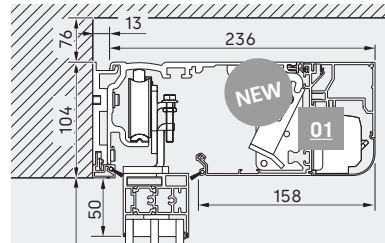
Installation variations and drive casings

- 01** Sensor casing 100 mm
- 02** Integral casing overall height 100 mm
- 03** Standard casing 100 mm
- 04** Integral casing overall height 150 mm
- 05** Standard casing 150 mm

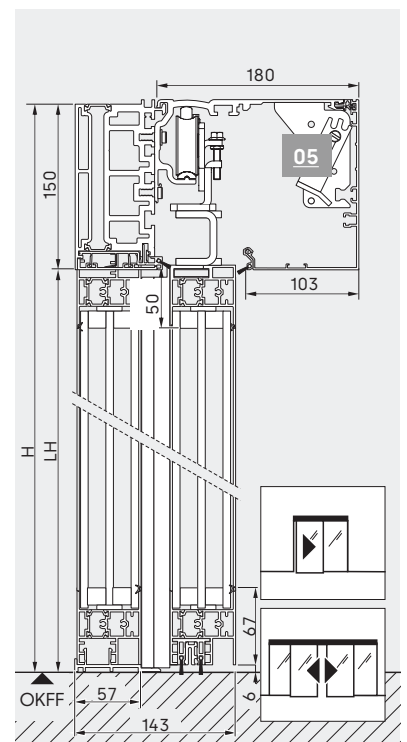
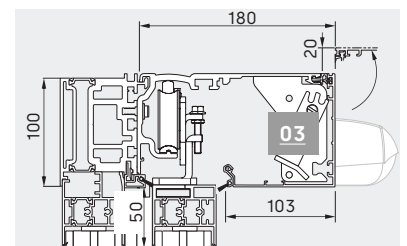
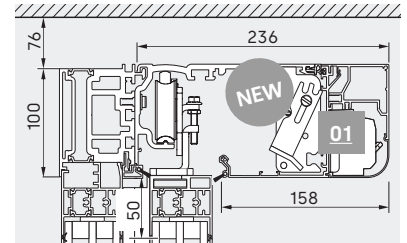
Installation in suspended ceiling



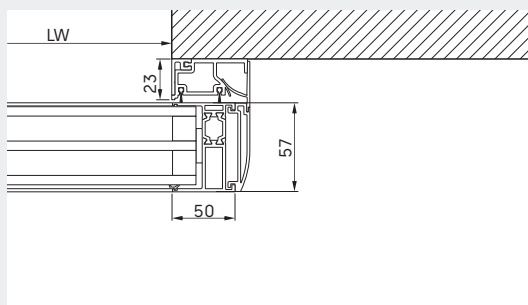
Wall/lintel installation



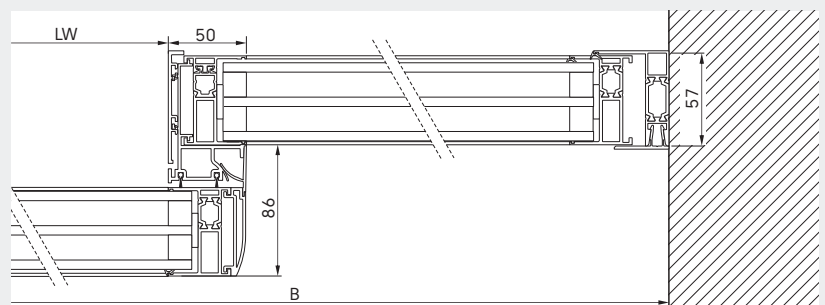
Installation with light metal beam



Secondary closing edge variants



Lintel installation variant



Variants with side panels

ST PRO Green RC2 / RC3

Thermally separated profile system with certified burglary protection

Properties

- Complies with the current German Building Energy ACT GEG (formerly EnEV)
- Particularly low U_g values up to 1.0 W/m²K calculated individually for each door system
- Minimised profile face widths
- Underfloor routing and pry-out protection as standard
- Multi-point locking system in the door leaf
- Overhead guidance for RC2 doors on request
- Drive height 100 mm
- Certified thermal conductivity values to EN ISO 10077
- Environmental Product Declaration (EPD) included

Glazings

- For resistance class RC2: P4A glazing
- For resistance class RC3: P5A glazing
- Double glazing ISO 34 with warm edge
- Triple glazing ISO 50 with warm edge
- Special glazing

Possible additions

- Protective leaf in front of the moving leaf or in the façade
- Manual release (with manual release and optional protective leaf, the clearance width LW is reduced by 166 mm for 2-leaf systems and 83 mm for 1-leaf systems)
- For Switzerland: Manual, external hand release via Bowden cable to meet country-specific requirements

Approximate determination of door leaf weight

$$TG = \frac{LH [m] \times LW [m] \times \text{glass weight [kg/m}^2\text{]}}{\text{Number of door leaves}} + 21.5 \text{ kg}$$

Common glass weight for burglar-resistant glazing (RC2/RC3):
Up to 59 kg/m²



The requirements in escape routes are met by all systems that are equipped with an operator from the ES PROLINE FST series.

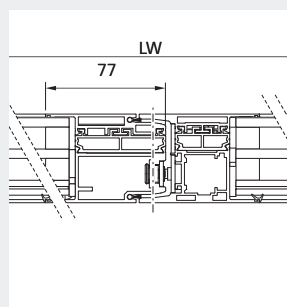
		Version	ST PRO Green RC2/RC3
Drive type		Standard	ES 400 PRO
		Escape route	ES 250 PRO FST/ES 400 PRO FST
Door parameters*			
System width (B) min. =	1-leaf	Passageway installation (without safety clearance)	2 x LW + 233 mm
		Wall mounting	2 x LW + 227 mm
	2-leaf	Passageway installation (without safety clearance)	2 x LW + 207 mm
		Wall mounting	2 x LW + 207 mm
Clearance width LW ²	1-leaf	Standard	800 – 3000 mm
		Escape route	800 – 3000 mm
	2-leaf	Standard	1000 – 3000 mm
		Escape route	1000 – 3000 mm
Max. door leaf weight	1-leaf	ES 400 PRO/ES 400 PRO FST	1 x 250 kg
	2-leaf	ES 400 PRO/ES 400 PRO FST	2 x 200 kg
Clear passage height LH*			2050 – 3100 mm

* The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the profile system selected. For doors with tested anti-intruder protection, increased requirements are placed on the structural tolerances as well as the careful design of the structure.

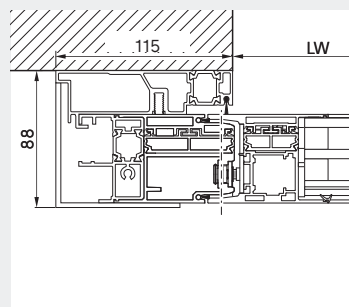
^{*2} The minimum clearance width for escape route sliding doors is laid down in the respective regional building codes and may vary in certain circumstances.

- LW:** Clearance width
LH: Clearance height
B: Total system width
OH: Skylight height (option)
H: Total system height
AH: Drive height 100 or 150 mm dependent on version
OKFF: Upper edge of finished floor prefabricated floor

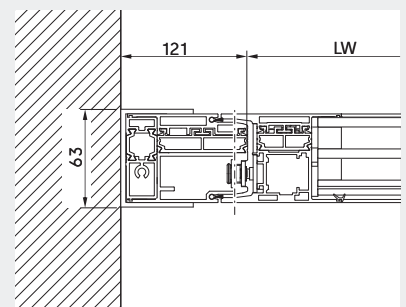
Main closing edge variants with multi-point locking system



Opening to both sides



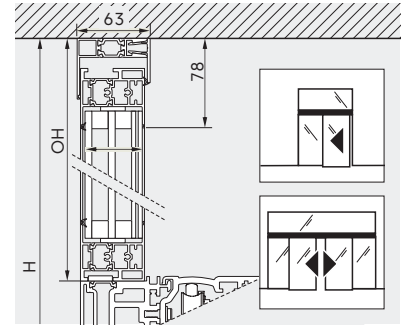
Lintel installation, opening to one side



Passageway installation, opening to one side

Note on installation with light metal beam

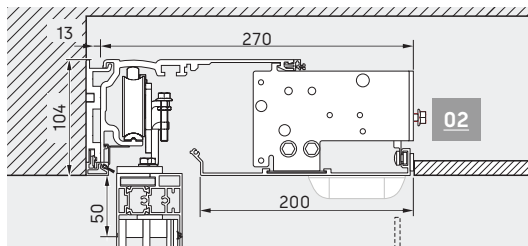
For a total leaf weight over 2 x 125 kg, an additional suspension and/or the 150 mm drive type is required.



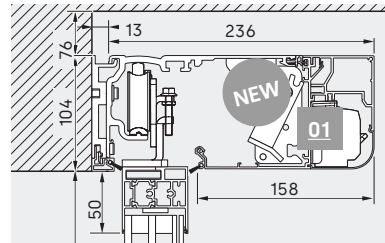
Installation variations and drive casings

- 01** Sensor casing 100 mm
- 02** Integral casing overall height 100 mm
- 03** Standard casing 100 mm
- 04** Integral casing overall height 150 mm
- 05** Standard casing 150 mm
- 06** Optional manual release
- 07** Underfloor routing

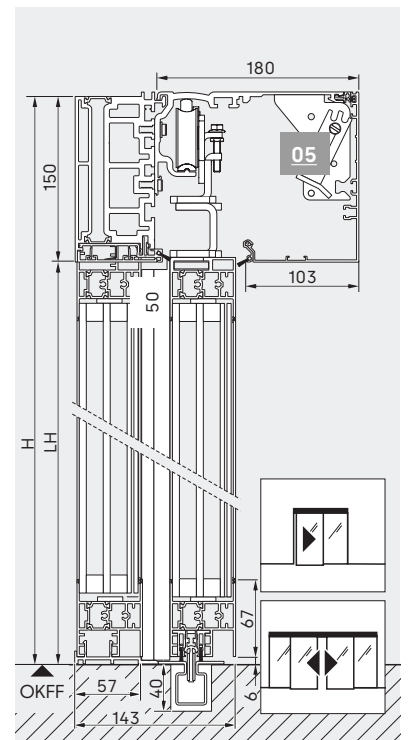
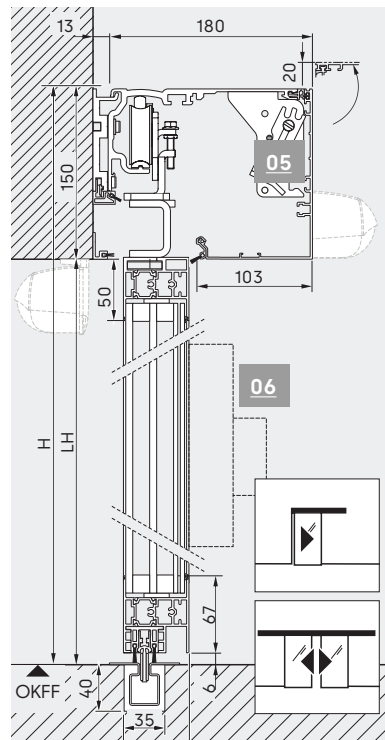
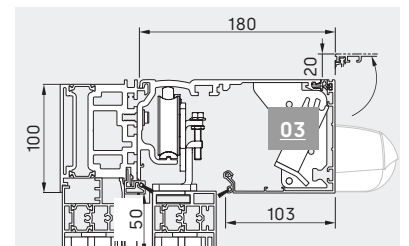
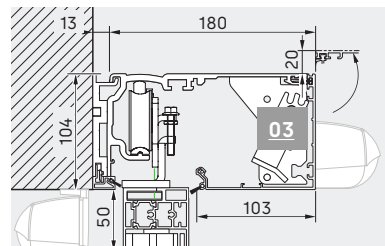
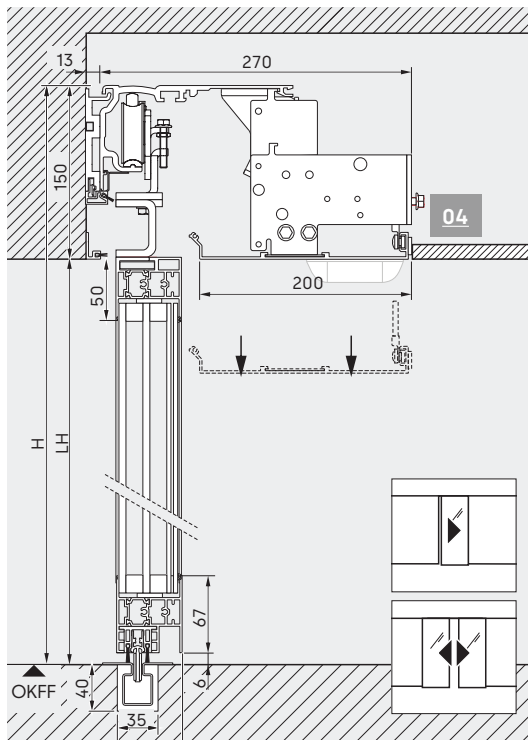
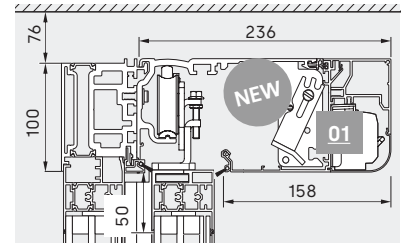
Installation in suspended ceiling



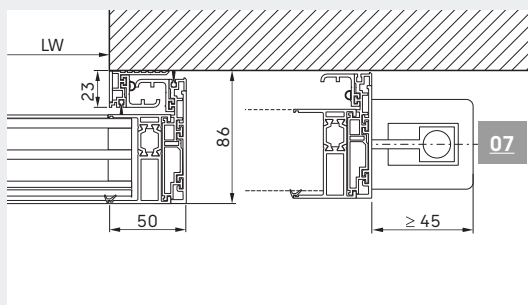
Wall/lintel installation



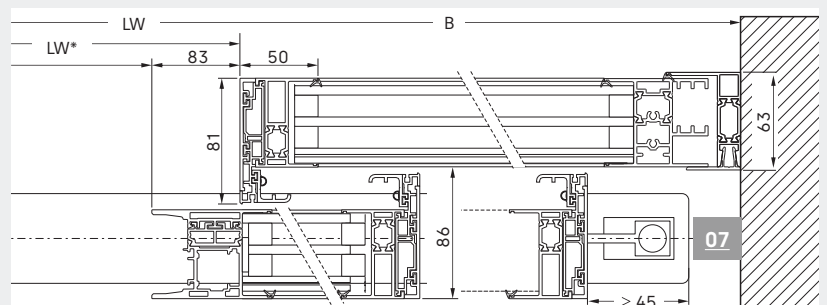
Installation with light metal beam



Secondary closing edge variants



Lintel installation variant



Variants with side panels *with manual release (p. 32) and protective leaf (s. 29)

ST FLEX

Extra slim profile system

Properties

- Slim profile cross-sections
- Safety secondary closing edge made of rubber
- Suitable for ISO glass and toughened glass
- Above-floor and underfloor routing possible
- Also available as telescopic sliding door
- Environmental Product Declaration (EPD) included

Glazings

- Safety glass ESG or VSG in 8 or 10 mm
- Insulating glass ISO 22 with different U-values
- Special glazing

Possible additions

- Protective leaf in front of the moving leaf in combination with ISO glass
- Protective leaf in the façade
- Georgian bar profile
- Underfloor routing
- Manual floor locks

Approximate determination of door leaf weight

$$TG = \frac{LH [m] \times LW [m] \times \text{glass weight [kg/m}^2]}{\text{Number of door leaves}}$$

Common glass weights: ESG 8mm = 20 kg/m²,
VSG 10mm = 25 kg/m², ISO 22, 2xVSG 6 = 30 kg/m²

			Version	ST FLEX
Drive type			Standard	ES 250 PRO/ES 400 PRO
			Escape route 	ES 250 PRO FST/ES 400 PRO FST
Door parameters*				
System width (B) min. =	1-leaf	Passageway installation (without safety clearance, without post width)		2 x LW + 80 mm
		Wall mounting, without post width		2 x LW + 49 mm
	2-leaf	Passageway installation (without safety clearance)		2 x LW + 98 mm
		Wall mounting		2 x LW + 98 mm
Clearance width LW* ²	1-leaf		Standard	700 – 3000 mm
			Escape route 	700 – 3000 mm
	2-leaf		Standard	800 – 3000 mm
			Escape route 	800 – 3000 mm
Max. door leaf weight	1-leaf	ES 250 PRO/ES 250 PRO FST		1 x 125 kg
		ES 400 PRO/ES 400 PRO FST		1 x 250 kg
	2-leaf	ES 250 PRO/ES 250 PRO FST		2 x 125 kg
		ES 400 PRO/ES 400 PRO FST		2 x 200 kg
Clear passage height LH*				2000 – 3000 mm



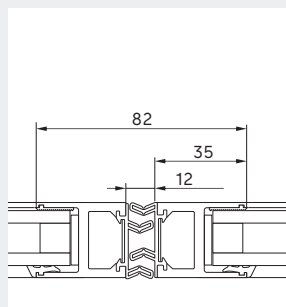
The requirements in escape routes are met by all systems that are equipped with an operator from the ES PROLINE FST series.

* The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the profile system selected. For doors with tested anti-intruder protection, increased requirements are placed on the structural tolerances as well as the careful design of the structure.

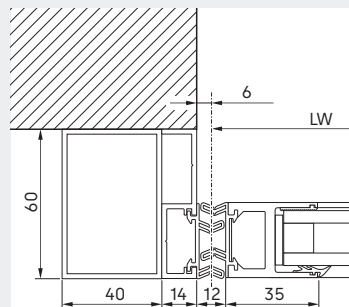
*2 The minimum clearance width for escape route sliding doors is laid down in the respective regional building codes and may vary in certain circumstances.

Main closing edge variants

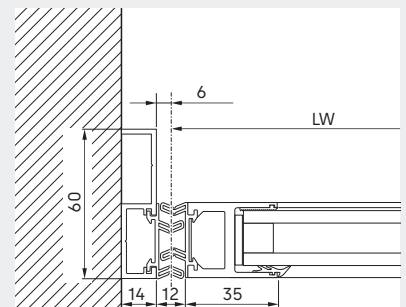
- LW: Clearance width
LH: Clearance height
B: Total system width
OH: Skylight height (option)
H: Total system height
AH: Drive height 100 or 150 mm dependent on version
OKFF: Upper edge of finished floor prefabricated floor



Opening to both sides



Lintel installation, opening to one side



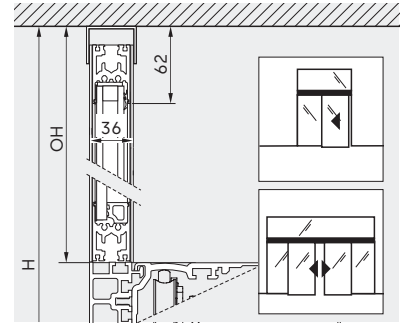
Passageway installation, opening to one side

Note on installation with light metal beam

For units with a drive height of 100 mm, the following sizes are used for the LM support profile are used:

- Total width up to 5 m or max. leaf weight 2 x 85 kg or 1 x 100 kg: 100 x 36 mm
- from 5 m or leaf weight >2 x 85 kg or >1 x 100 kg: 100 x 53 mm

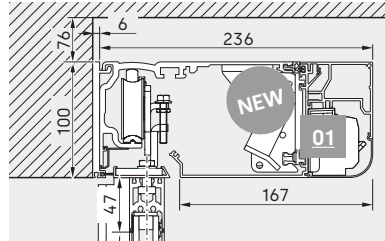
With a total leaf weight of more than 2 x 125 kg, an additional drive suspension is required and/or the 150 mm drive version is necessary.



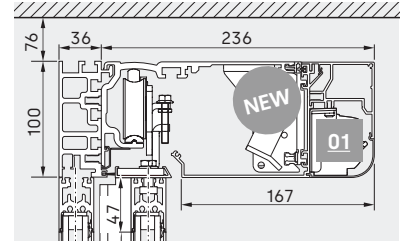
Installation variations and drive casings

- 01** Sensor casing 100 mm
- 02** Integral casing overall height 100 mm
- 03** Standard casing 100 mm
- 04** Integral casing overall height 150 mm
- 05** Standard casing 150 mm

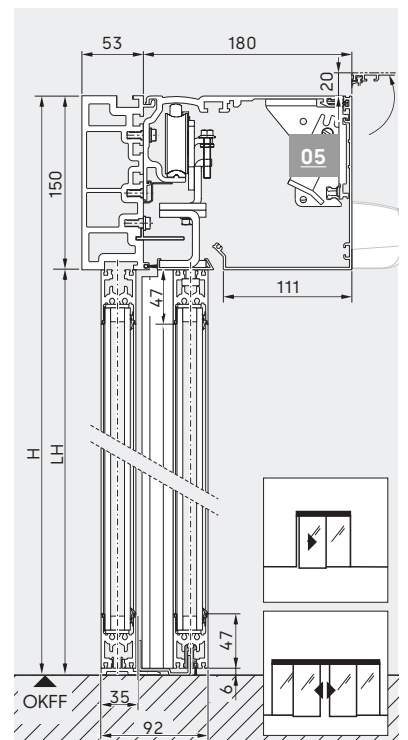
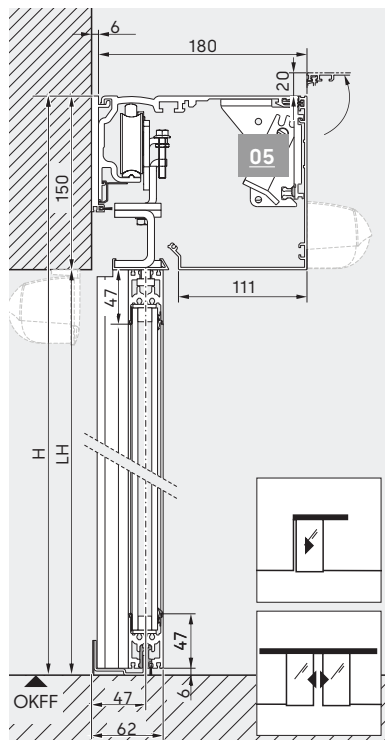
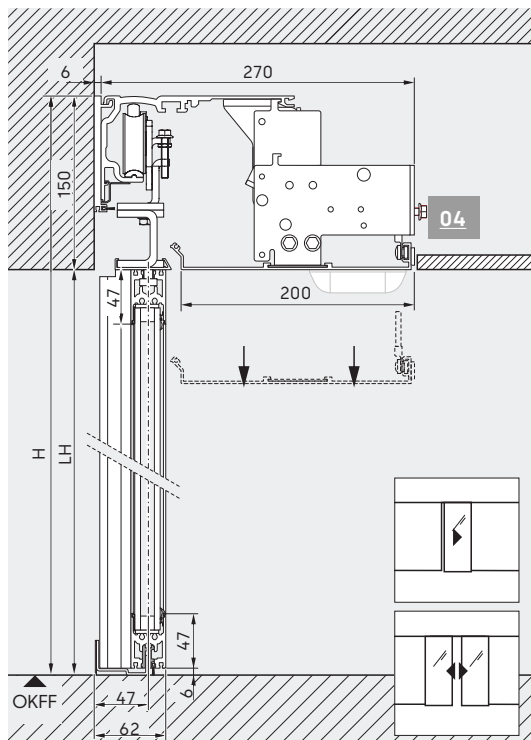
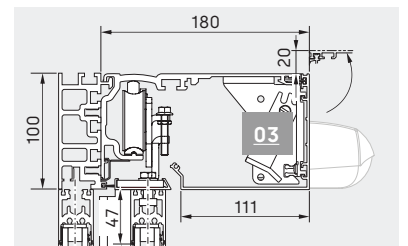
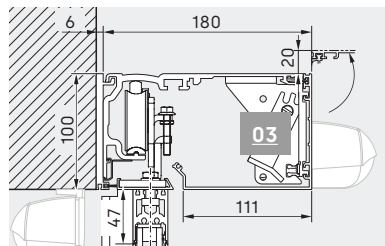
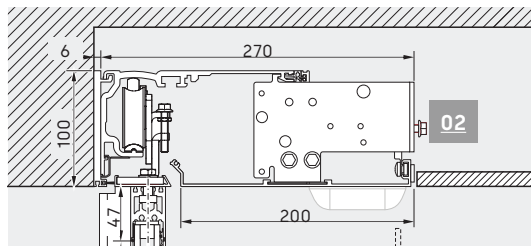
Wall/lintel installation



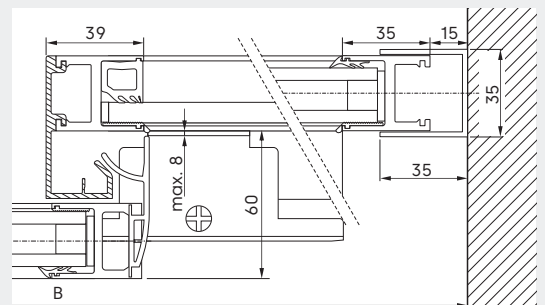
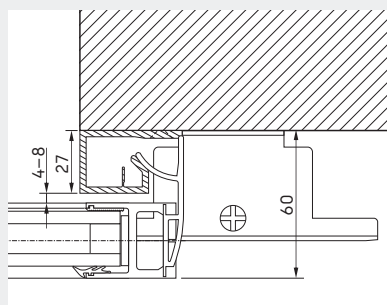
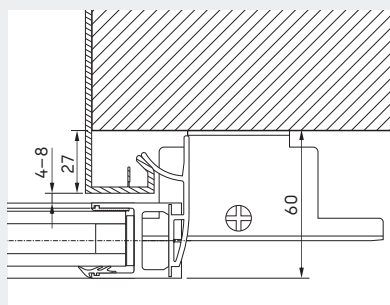
Installation with light metal beam



Installation in suspended ceiling



Secondary closing edge variants



Variant A

Variant B

Variants with side panels

ST MANET

Stainless steel all-glass system

Properties

- High-quality stainless steel single-point fixings for door-leaves
- Door leaf without profiles for maximum transparency
- For high-quality interior design
- For doors with and without side panel or fanlight

Glazings

- ESG 10 mm
- Special glazing

Possible additions

- Protection leaf in the façade

Approximate determination of door leaf weight

$$TG = \frac{LH [m] \times LW [m] \times \text{glass weight [kg/m}^2\text{]}}{\text{Number of door leaves}}$$

Common glass weights: ESG 10 mm = 25 kg/m²



			Version	ST MANET
Drive type			Standard	ES 250 PRO/ES 400 PRO
			Escape route 	ES 250 PRO FST/ES 400 PRO FST
Door parameters*				
System width (B) min. =	1-leaf	Passageway installation (without safety clearance, without post width)		2 x LW + 80 mm
		Wall mounting, without post width		2 x LW + 70 mm
	2-leaf	Passageway installation (without safety clearance)		2 x LW + 140 mm
		Wall mounting		2 x LW + 140 mm
Clearance width LW* ²	1-leaf	Standard		700 – 1600 mm
		Escape route 		700 – 1600 mm
	2-leaf	Standard		800 – 2000 mm
		Escape route 		800 – 2000 mm
Max. door leaf weight	1-leaf	ES 250 PRO/ES 250 PRO FST		1 x 100 kg
		ES 400 PRO/ES 400 PRO FST		1 x 100 kg
	2-leaf	ES 250 PRO/ES 250 PRO FST		2 x 100 kg
		ES 400 PRO/ES 400 PRO FST		2 x 100 kg
Clear passage height LH*				2000 – 2500 mm



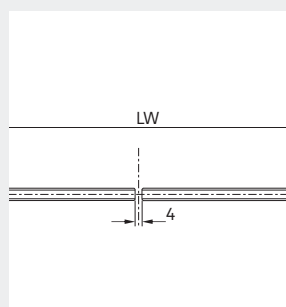
The requirements in escape routes are met by all systems that are equipped with an operator from the ES PROLINE FST series.

* The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the profile system selected. For doors with tested anti-intruder protection, increased requirements are placed on the structural tolerances as well as the careful design of the structure.

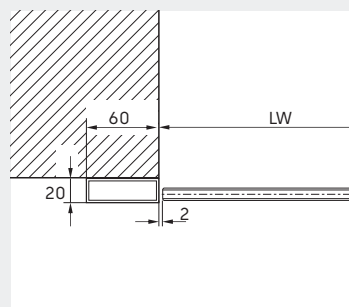
² The minimum clearance width for escape route sliding doors is laid down in the respective regional building codes and may vary in certain circumstances.

Main closing edge variants

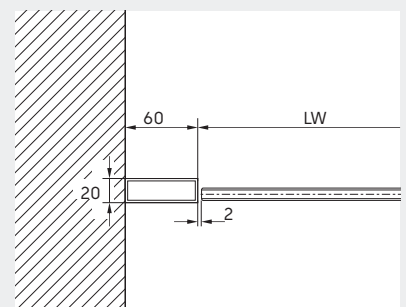
- LW:** Clearance width
LH: Clearance height
B: Total system width
OH: Skylight height (option)
H: Total system height
AH: Drive height 100 or 150 mm dependent on version
OKFF: Upper edge of finished floor prefabricated floor



Opening to both sides



Lintel installation, opening to one side



Passageway installation, opening to one side

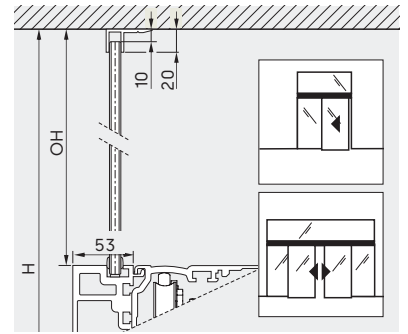
Installation variations and drive casings

- 01** Sensor casing 100 mm
- 02** Integral casing overall height 100 mm
- 03** Standard casing 100 mm
- 04** Integral casing overall height 150 mm
- 05** Standard casing 150 mm

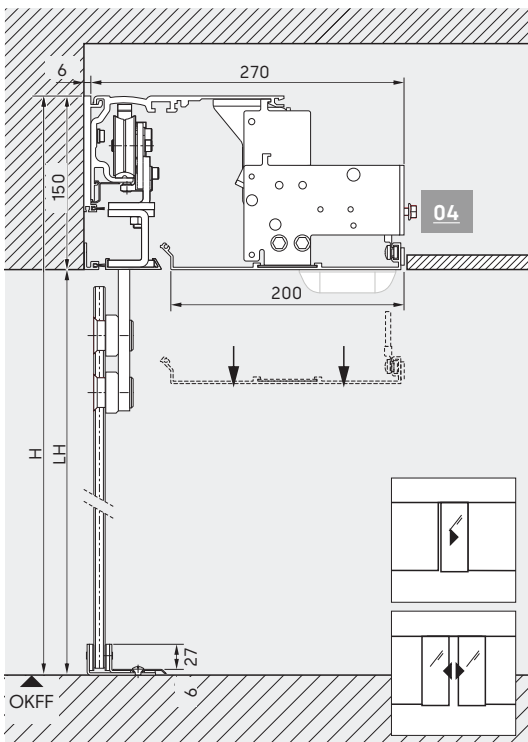
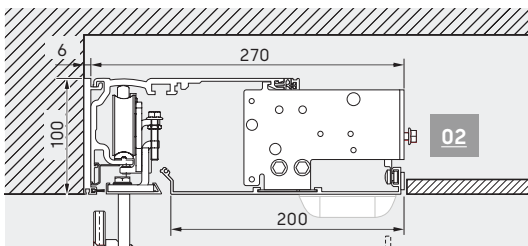
Note on installation with light metal beam

For units with a drive height of 100 mm, the following sizes are used for the LM support profile are used:

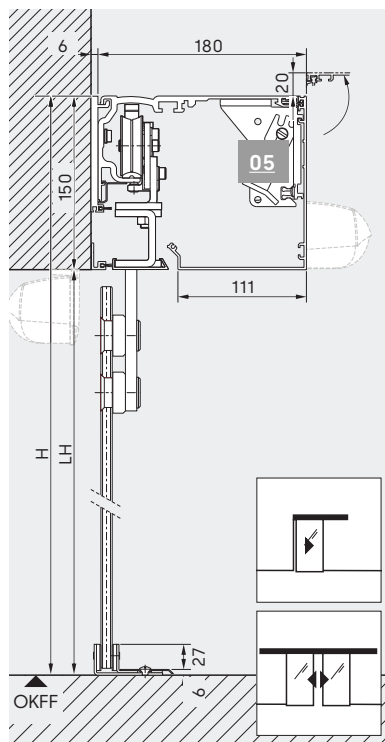
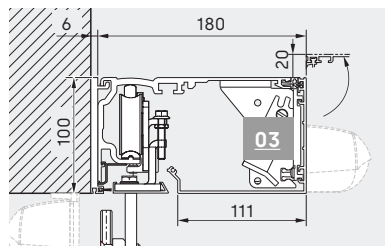
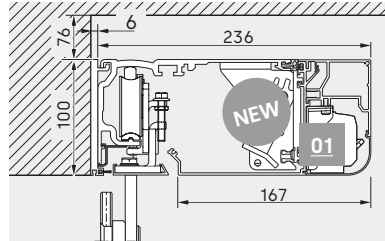
- Total width up to 5 m or max.
leaf weight 2 x 85 kg or 1 x 100 kg:
100 x 36 mm
- from 5 m or leaf weight >2 x 85 kg:
100 x 53 mm



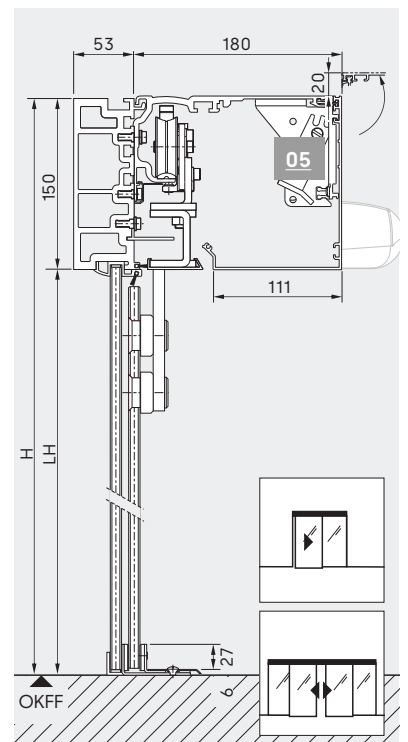
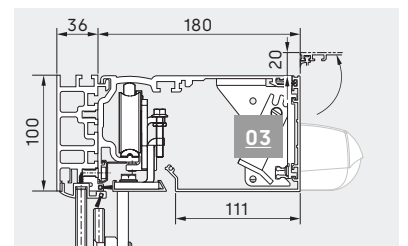
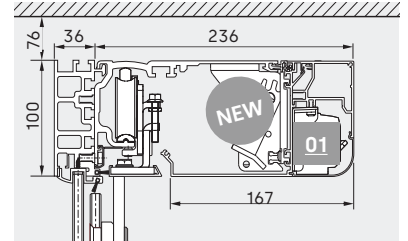
Installation in suspended ceiling



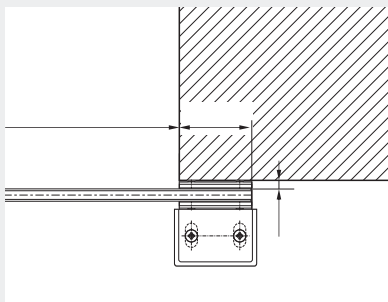
Wall/lintel installation



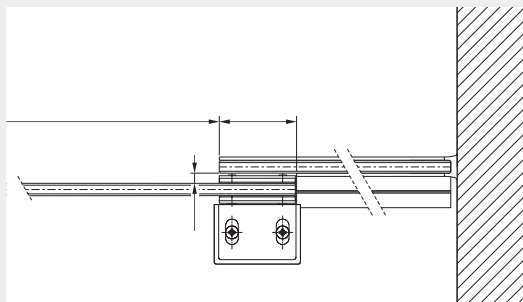
Installation with light metal beam



Secondary closing edge variants



Variants without side panels



Variants with side panels

SST FLEX

Slide open to normal width,
break-out to full width.

Automatic sliding doors with break-out from dormakaba fit into different structural openings, satisfy a variety of demands and can be adapted to suit individual requirements.



The classic door solution for emergency exits and escape routes

With SST automatic sliding doors with break-out, not only the door panels but also the side screens are pivot-mounted to swing out when needed - without the need to disengage any locks. This doubles the passage width of the doorway particularly in cases of emergency.

The break-out function for the sliding panels and side screens is also approved in most countries as a viable solution for emergency exits. The approved escape route function is not available in the operating states "Off" or "Locked".

Proven drive technology

Powerful dormakaba ES PROLINE door operators are characterised by their fast, smooth motion cycles, minimal noise emission and exceptional user friendliness. ES PROLINE operators, with which the door sets presented here are equipped, have that extra capacity reserve which means that they continue to perform efficiently even when put under strain.

Exceptional economy

The variability of the dimensions available with SST FLEX automatic sliding doors means that they can be specified for maximum economy. Yet every door set is designed and made to measure and then supplied ready for installation. And dormakaba will also carry out the installation and commissioning work if requested.

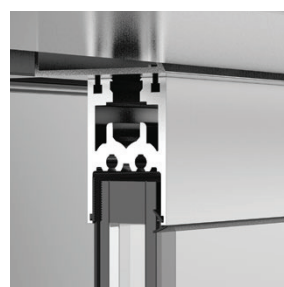
Convenient and safe

The control units with their adjustable parameters and self-learn capability offer a full range of functionality. They are also utterly reliable and, together with the closing force monitoring, provide for maximum operational safety.

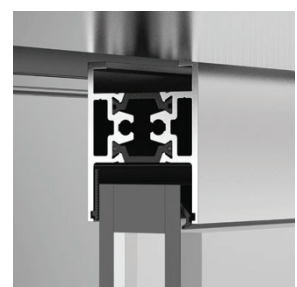
Features and benefits

- Excellent scope of supply
- Easily adapted to individual requirements
- Emergency exit and escape route doors with break-out panels and side screens
- Highly economical and reliable thanks to proven standard components
- Wide range of adjustable parameters
- Extensive provision of standard connections
- Supplied ready for installation – mounting and commissioning on request
- Profile systems: SST FLEX or SST FLEX Green with improved thermal separation

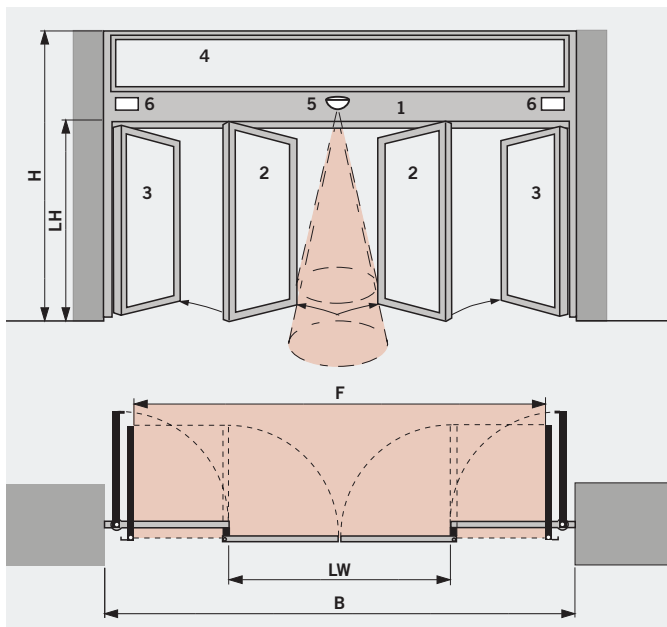
SST Flex
Slim profile system



SST Flex Green
Slim profile system with improved thermal separation



Quality-assured manufacture



- 01** Self-supporting header, operator with integrated control unit
- 02** Break-out door panels with toughened (TSG) or laminated (LSG) safety glass
- 03** Side screens with break-out function
- 04** Fanlight or panel cover
- 05** Activators like motion detectors or sensors
- 06** Safeguarding of secondary closing edges to DIN 18650 and EN 16005

H	System height
LH	Clear passage height
B	System width
F	Escape route width
LW	Clear passage width

In the event of a panic, the moving leaf and side panels can be swivelled

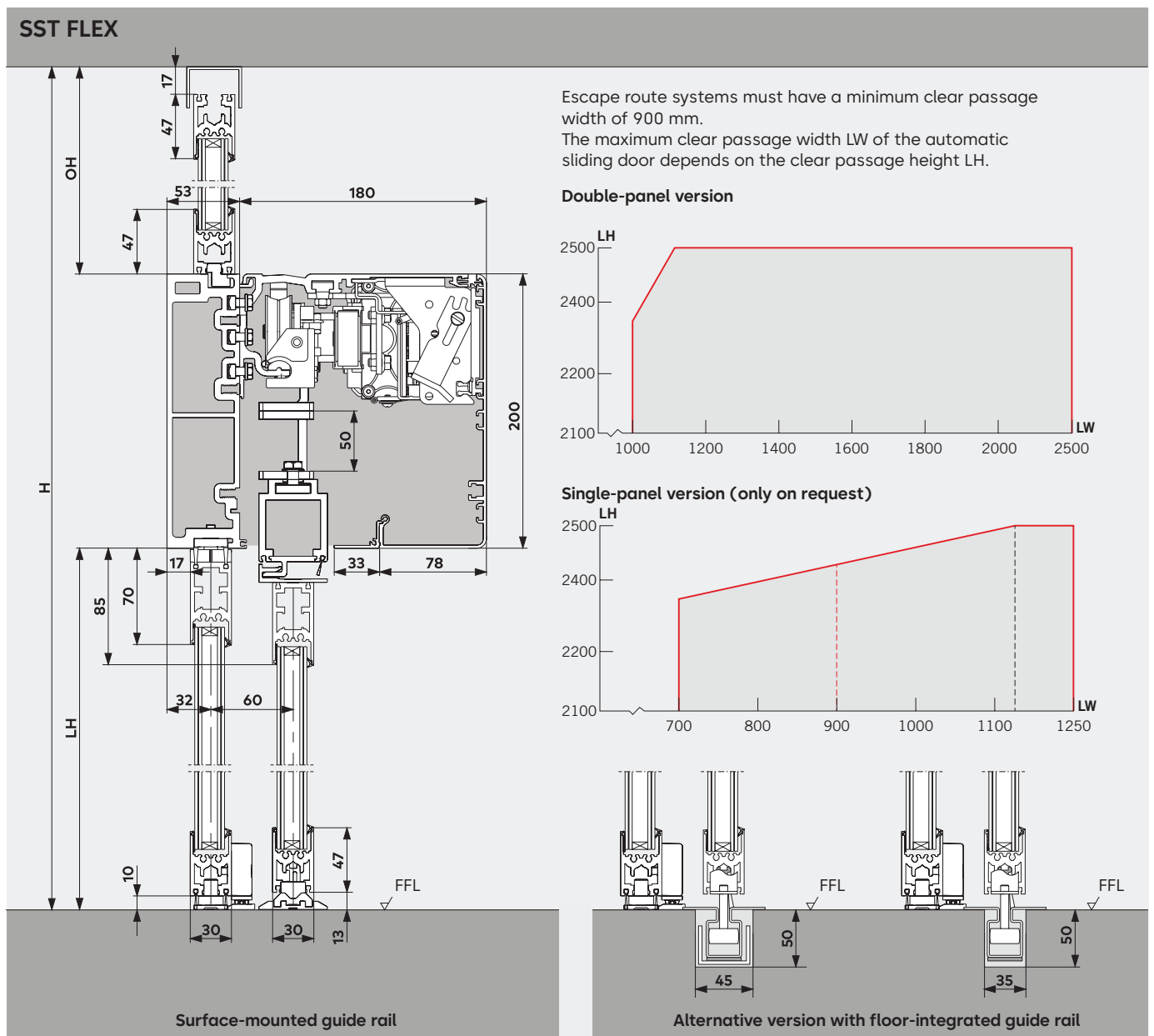
Pressure applied against the door panels and side screens of automatic break-out sliding door systems suffices to activate the break-out function, leaving the way out free. Fast escape from buildings equipped with this automatic break-out sliding door system is thus ensured, even in a crush. Once broken out, the pivoted door panels and side screens remain in their position, however, they can easily be moved aside by hand. When closed, dormakaba SST automatic break-out sliding door systems effectively protect the interior against heat loss and draughts thanks to their especially developed frame profiles with integrated high-performance seals. At the same time, the Softline cross sections and the minimum clearances between the door panels and the side screens provide maximum safety in the event of user contact with the door panels. Effective finger guard thanks to specially shaped pivot profiles at the break-out side screens.

SST FLEX

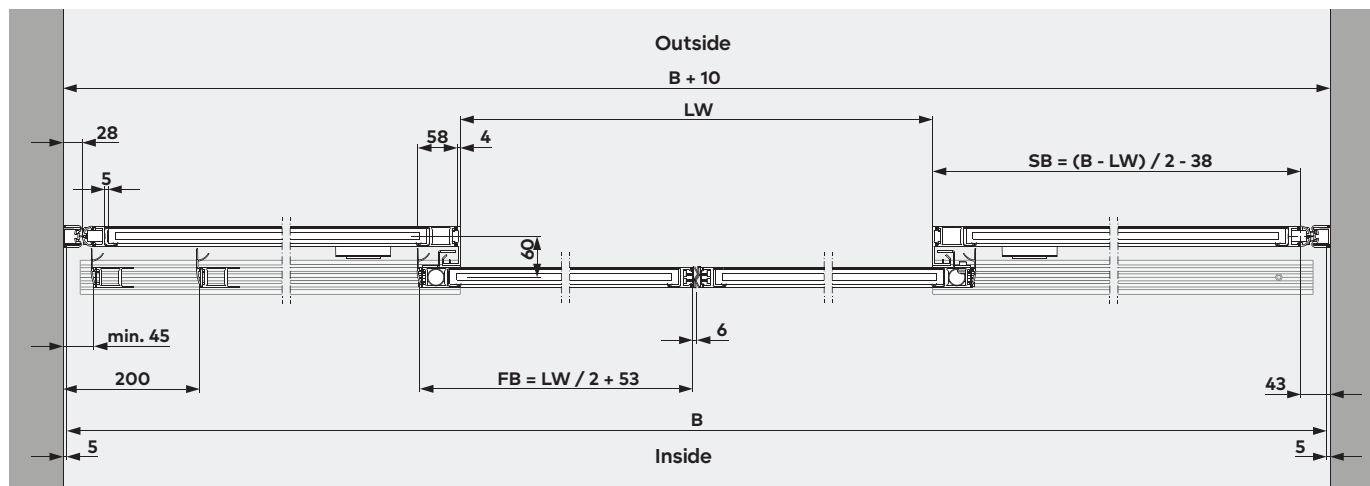
Slim profile system without thermal optimization

With the FLEX fine-frame system developed by dormakaba, these automatic sliding doors with break-out offer all the aesthetic elegance of a full-glass construction. The FLEX profile system provides maximum flexibility as it can be combined with toughened safety glass or double glazing. Slender though they are, the profiles nevertheless offer optimum

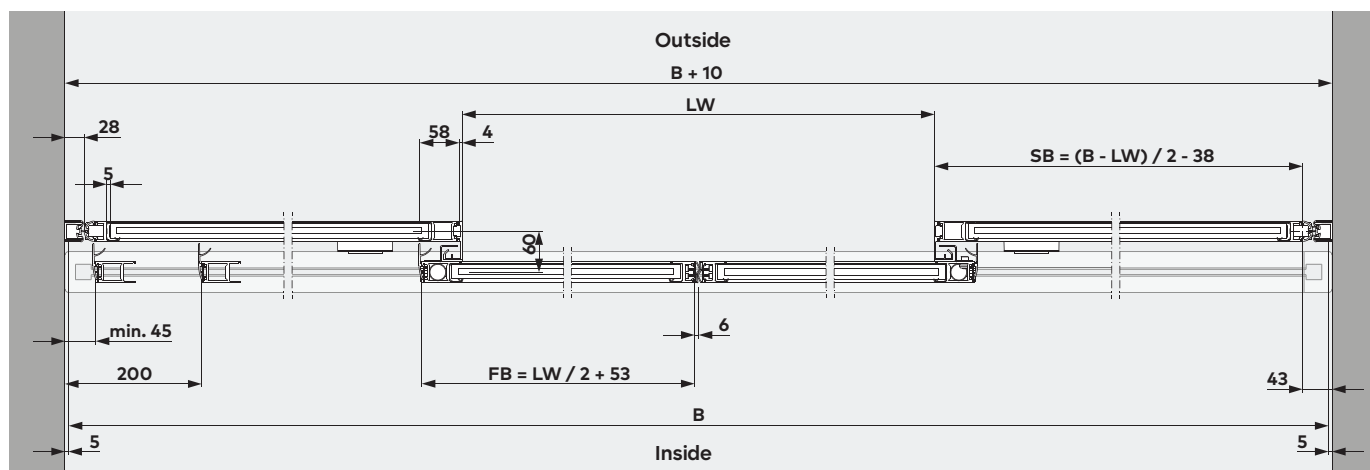
sealing performance and outstanding glass edge protection. Automatic sliding doors with break-out are the ideal solution wherever ensuring safety in emergency escape routes is the main priority. At the same time, they also offer maximum light penetration, visibility and architectural compatibility.



Double-panel version with surface-mounted guide rail



Double-panel version with floor-integrated guide rail



Dimensions and versions

Sliding panel and side screen profiles as FLEX- oder FLEX Green	●
Fanlight	○
Door panels with break-out function	●
Side screens with break-out function	●
Approved for application in escape routes	●
Clear passage width (LW)	1000 – 2500 mm
System width (B)	2520 – 5520 mm
Max. door-panel weight	2 x 110 kg
Operator cross section W x H (with square-edged cover)	233 x 200 mm
Clear passage height (LH)	2100 – 2500 mm
Safety clearance at secondary closing edges	○
Software for monitoring of secondary closing edges	○

● Standard ○ Option

Calculating the door dimensions

Profil	FLEX
Including safety clearance	$B1 = LW \times 2 + 520$ $LW = (B1 - 520) / 2$
Without safety clearance	$B2 = LW \times 2 + 210$ $LW = (B2 - 210) / 2$
Single-panel version (only on request)	

B	System width
B1	System with incl. safety clearance
B2	System with without safety clearance
SB	Side screen width
FB	Door panel width
F	Escape route width
LW	Clear passage width
H	System height
OH	Height of fanlight
LH	Clear passage height
FFL	Finished Floor Level

Drive and control unit

Functions and features

Control module		ES 250 PRO EASY
Modular design		●
Function programs	– Off	●
	– Automatic	●
	– Permanent open	●
	– Partial open	●
	– Exit	●
Automatic reversing		●
Connection for securing the passageway (on both sides)		●
Tested in accordance with EN 16005/DIN 18650		●
Securing main and secondary closing edge(s) according to EN 16005/DIN 18650		●
Basic parameters set using integrated display and buttons		●
Parameterisation via Operator Service Interface (OSI)		●
Door Pilot interface (Bluetooth)		○
Automatic opening/closing in the event of a power failure (if a battery set is used)		●/●
Emergency battery operation (if a battery set is used)		●
24 V DC output for external appliances		●
Readable fault memory with fault codes		●
CAN interface for connecting a program switch		●
CAN interface for connecting additional CAN-bus components		–
Multiports for connecting accessory components		2
Functions*		
Pharmacy function		–
Door status signal contacts		●
Panic closing (observe regional regulations!)		–
Door bell contact		–
Airlock control		–
Synchronous operation		–
Safety deactivation		–
Night/bank function		●
Emergency open		–
Emergency stop		–
Configurable partial opening distance		●
Slide and Go		–
Close/open on malfunction		–
Fire service switch function		–

*The functions can be implemented by the master controller or by the 4 I/O modules. For further information, see brochure ES-PROLINE

Settings

Opening speed (adjustable in increments)	10 – 70 cm/s
Closing speed (adjustable in increments)	10 – 70 cm/s
Low speed OPEN	0 – 9 cm/s
Low speed CLOSE	3 – 9 cm/s
Hold-open time, night/bank hold-open time	0 – 180 s
Night/bank opening delay	0 – 10 s
Partial opening	25 – 300 cm
Low-speed travel OPEN/CLOSE	0 – 30 cm

Auxiliary equipment

Electromechanical combined locking device	○
Electrical manual lock release for electro-mechanical locking device	○
Magnetic locking device, jam-free	–
Electromotive hook locking device (up to RC3)	–
Manual lock release for electromotive locking device	–
Battery set	○
Emergency power supply UPS (external)	○
Module for connection to LON/LAN building control systems	–
Potential-free relay contact	○

Safety and activation (SiAK) expansion module*

For connecting conventional (not CAN-bus-capable) safety and activation sensors	○
---	---

Program switch (MS) expansion module*

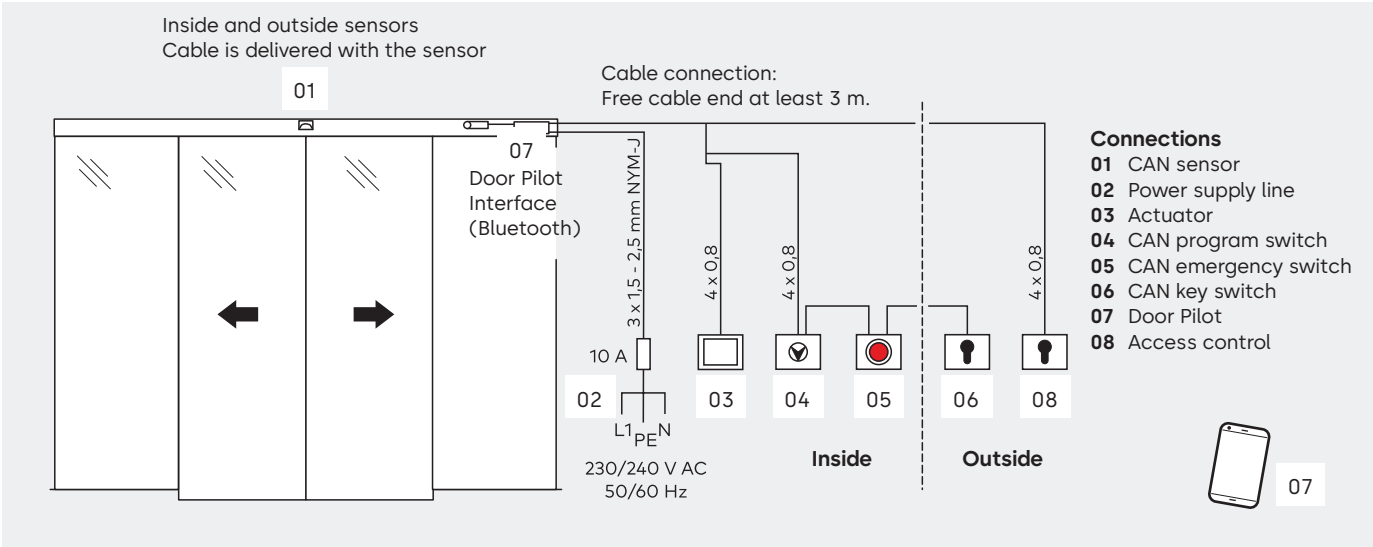
For connecting conventional (not CAN-bus-capable) program switches	○
--	---

*For further information, see brochure ES-PROLINE

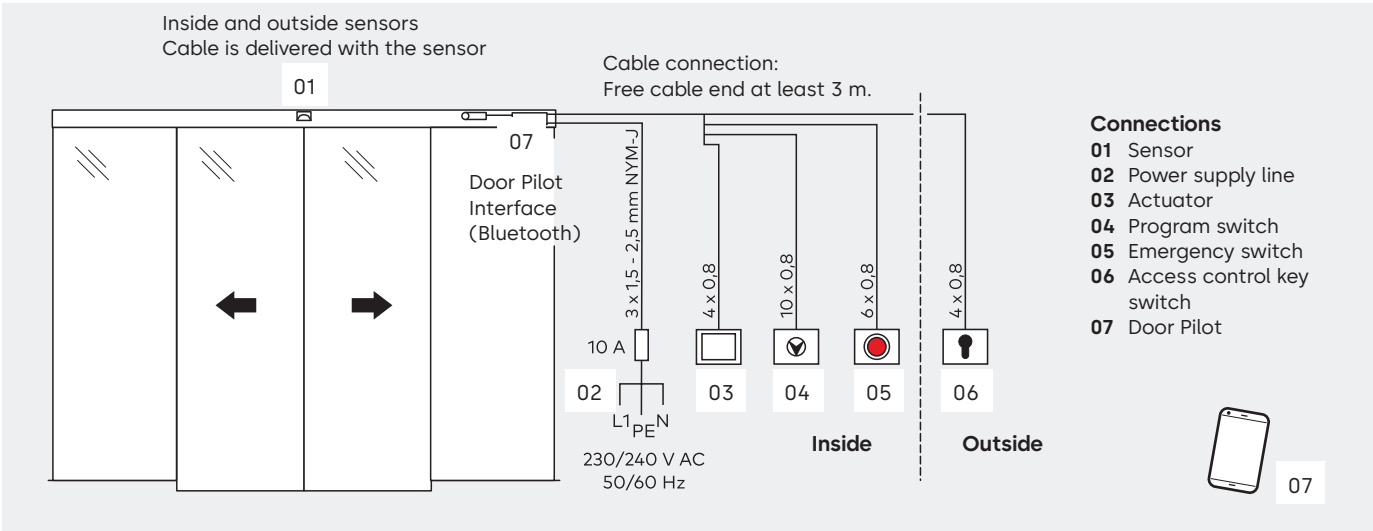
Standardisation and testing

Compliant with the Low Voltage Directive and the EMC Directive	●
Monitoring of secondary closing edges verified to fulfil German standard DIN 18650 and EN 16005.	●
Manufactured to ISO 9001	●
Environmental product declaration according to ISO 14025; declaration holder: Institut Bauen und Umwelt e.V.	●

Connections with CAN-bus technology



Conventional technology connections



Door Pilot App

The dormakaba Door Pilot app allows automatic doors to be easily controlled from a smartphone. Operators from the ES PROLINE series can be equipped with the Door Pilot interface as an option. The app is available in iOS and Android versions and can be obtained from the respective app store. For further information, see brochure ES-PROLINE

Power supply

Supply voltage	230 V, 50/60 Hz
Power consumption	130 W
On-site line fuse	10 A
Degree of protection	IP 20
Power supply for peripheral equipment under network conditions	24 V DC/2A
Power supply for peripheral equipment in the event of a power failure (battery operation)	Optional 21–27 V DC/2A
Temperature range	-20 – + 60 °C
Permissible air humidity (relative) (non-condensing)	max. 93 %

Telescopic sliding door operators

with and without FST escape route function



Automatic telescopic sliding door operators can be used to construct wide passageways with comparatively slim systems. And that is not the only reason they are so versatile: they can also be used for escape route and emergency exit doors with opening widths of up to 4000 mm.

System dimensions and max. door leaf weight

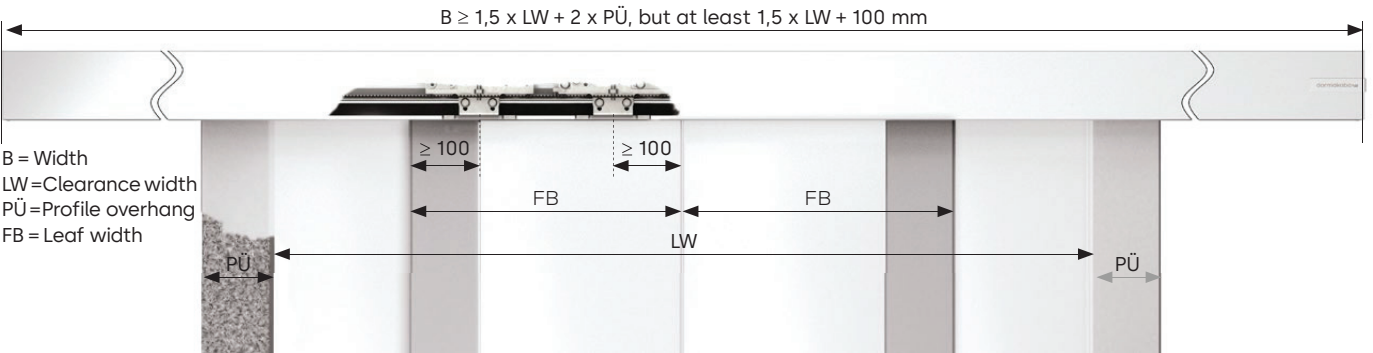
Door parameters	2-leaf		4-leaf	
	ES 250 PRO T ES 250 PRO T FST ES 250 PRO T EASY	ES 400 PRO T ES 400 PRO T FST	ES 250 PRO T ES 250 PRO T FST ES 250 PRO T EASY	ES 400 PRO T ES 400 PRO T FST
Max. door leaf weight	2 x 65 kg	2 x 100 kg	4 x 65 kg	4 x 100 kg
Clear passage width LW*	800 – 2400 mm		1400 – 4000 mm	
Clear passage height LH	2000 – 3000 mm		2000 – 3000 mm	

Estimated door leaf weight

Door leaf weight $\frac{LH [m] \times LW [m] \times \text{weight of glass [kg/m}^2]}{\text{Number of door leaves}}$

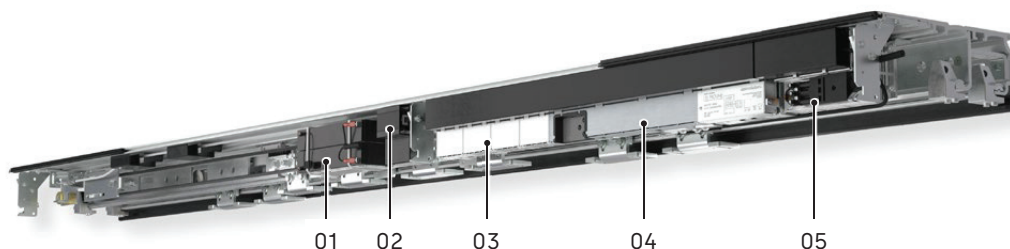
Normal glass weights: 10 mm glass thickness e.g. toughened safety glass 10: 25 kg/m², 12 mm glass thickness e.g. double glazing 22, 2 x laminated safety glass 6: 30 kg/m² A drive suspension is required from a leaf weight of 2 x 75 kg or 4 x 75 kg.

*The minimum clear passage width for escape route sliding doors is specified in the relevant regional building codes and may vary. The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the selected profile system.



Escape route sliding doors are only approved if installed with type-approved dormakaba profile systems.

- 01 Battery
- 02 Door Pilot interface
- 03 Expansion modules
- 04 Drive unit
- 05 Power supply unit



Technical data for telescopic sliding door operators

	Standard sliding door			Escape route sliding door	
Door parameters	ES 250 PRO T	ES 400 PRO T	ES 250 PRO T EASY	ES 250 PRO FST	ES 400 PRO FST
Min. operator length	1,5 LW+100	1,5 LW+100	1,5 LW+100	1,5 LW+100	1,5 LW+100
Operator depth in mm	252	252	252	252	252
Operator height in mm	100	100	100	100	100
Use in escape routes and emergency exits	-	-	-		
Force limitation in accordance with EN 16005/DIN 18650	●	●	●	●	●
Operating noise	<47 dB(A)	<47 dB(A)	<47 dB(A)	<47 dB(A)	<47 dB(A)
Settings					
Opening speed (adjustable in increments)	10 – 70 cm/s	10 – 90 cm/s	10 – 70 cm/s	ca. 20 – 70 cm/s	ca. 20 – 90 cm/s
Closing speed (adjustable in increments)	10 – 70 cm/s	10 – 90 cm/s	10 – 70 cm/s	10 – 70 cm/s	10 – 90 cm/s
Low speed OPEN	0 – 9 cm/s	0 – 9 cm/s	–	0 – 9 cm/s	0 – 9 cm/s
Low speed CLOSE	3 – 9 cm/s	3 – 9 cm/s	–	3 – 9 cm/s	3 – 9 cm/s
Hold-open time, night/bank hold-open time	0 – 180 s	0 – 180 s	0,5 – 30 s	0 – 180 s	0 – 180 s
Night/bank opening delay	0 – 10 s	0 – 10 s	–	0 – 10 s	0 – 10 s
Partial opening	25 – 400 cm	25 – 400 cm	25 – 400 cm	25 – 400 cm	25 – 400 cm
Low-speed travel OPEN/CLOSE	0 – 30 cm	0 – 30 cm	0 – 30 cm	0 – 30 cm	0 – 30 cm
Power supply					
Supply voltage	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz
Power consumption	130 W	180 W	130 W	130 W	180 W
On-site line fuse	10 A	10 A	10 A	10 A	10 A
Degree of protection	IP 20	IP 20	IP 20	IP 20	IP 20
Power supply for peripheral equipment under network conditions	24 V DC/2A	24 V DC/2A	27 V DC/1A	24 V DC/2A	24 V DC/2A
Power supply for peripheral equipment in the event of a power failure (battery operation)	Optional 21–27 V DC/2A	Optional 21–27 V DC/2A	Optional 21–27 V DC/1A	21–27 V DC/2A	21–27 V DC/2A
Temperature range	-20 – + 60 °C	-20 – + 60 °C	-20 – + 60 °C	-20 – + 60 °C	-20 – + 60 °C
Permissible air humidity (relative) (non-condensing)	max. 93 %	max. 93 %	max. 93 %	max. 93 %	max. 93 %
Standardisation and testing					
Compliant with the Low Voltage Directive and the EMC Directive	●	●	●	●	●
Monitoring of secondary closing edges verified to fulfil German standard DIN 18650 and EN 16005.	●	●	●	●	●
Manufactured to ISO 9001	●	●	●	●	●
Environmental product declaration according to ISO 14025; declaration holder: Institut Bauen und Umwelt e.V.	●	●	●	●	●

Header profiles

Profiles for 100 mm and 150 mm installation heights, for corridor or wall installation, enable the system to be adapted to all conceivable areas of application.

The basic mechanical system, with a low number of components, is the same for both installation heights.

- 01 Aluminium girder
- 02 Mounting profile
- 03 Header profile
- 04 Internal casing for 100 mm drive height
- 05 Sensor casing for 100 mm drive height
- 06 Internal casing for 150 mm drive height
- 07 Cover bracket

Profiles for corridor installation:
100 mm



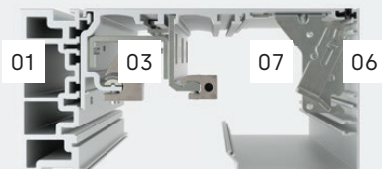
Profiles for wall installation:
100 mm



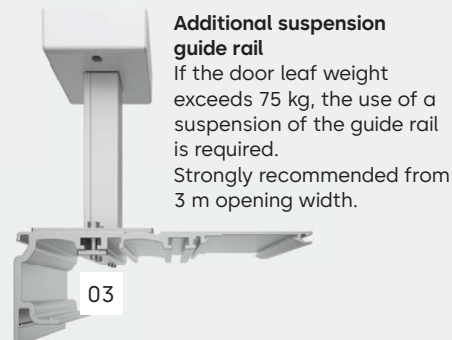
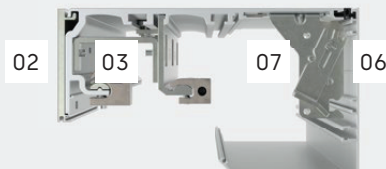
Profiles for wall installation:
100 mm with sensor casing



Profiles for corridor installation:
150 mm

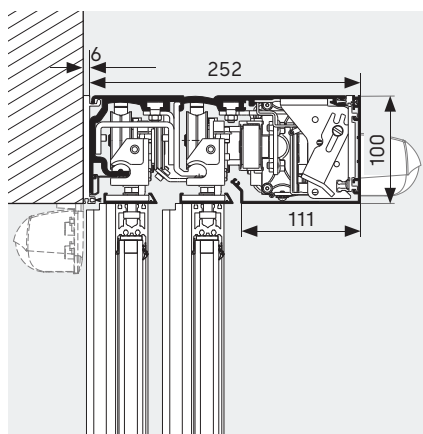


Profiles for wall installation:
150 mm

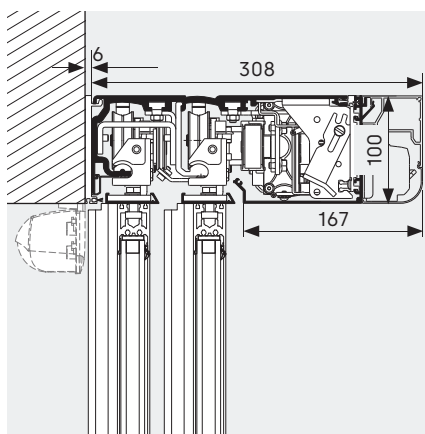


Schematic illustration of door cross-section (operator and sliding panel)

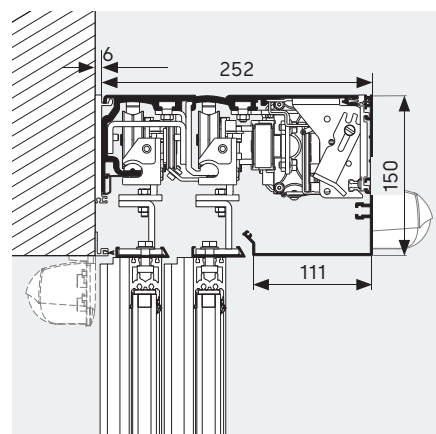
Schematic illustration of door cross-section:
wall mounted, drive height 100 mm



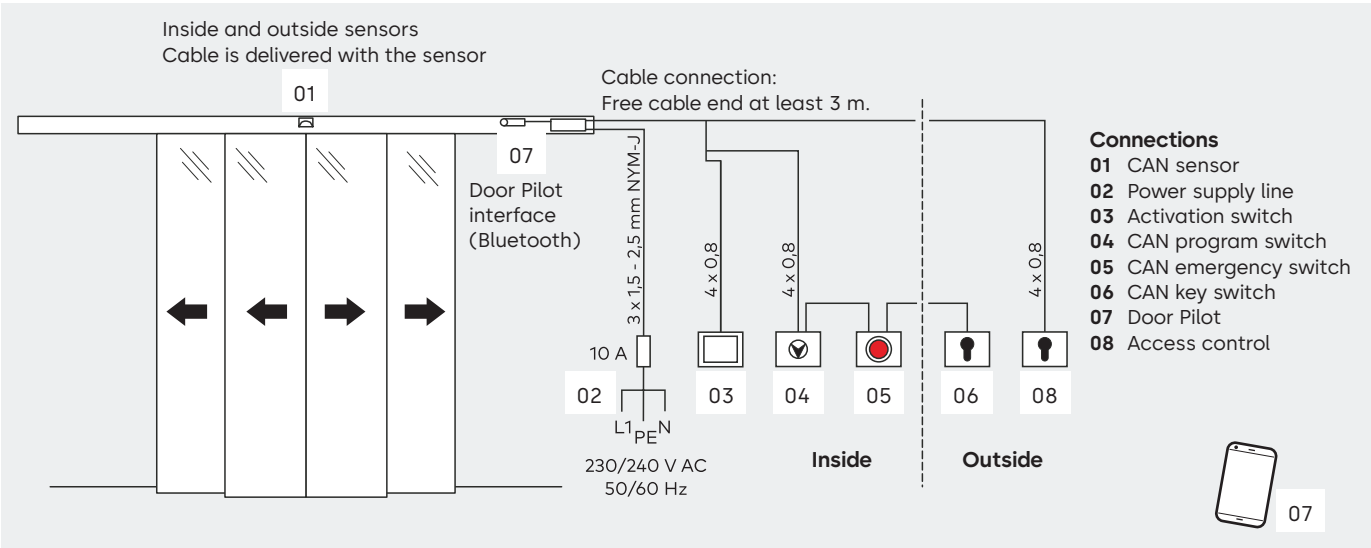
Schematic illustration of door cross-section:
wall mounted, sensor casing, drive
height 100 mm



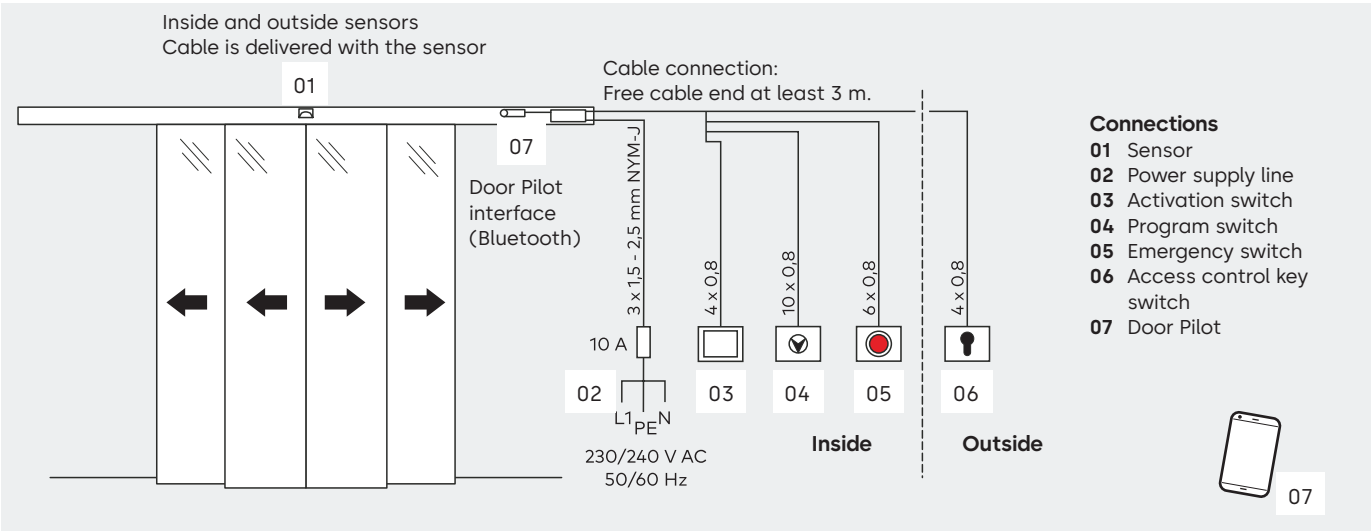
Schematic illustration of door cross-section:
wall mounted, drive height 150 mm



Connections with CAN-bus technology



Conventional technology connections



TST FLEX

Profile system for telescopic doors

Properties

- Telescopic mechanism creates more passage with the same system width
- Slim profile cross-sections
- Secondary closing edge with safety profile
- Version with and without side panel available
- Suitable for ISO glass 22 mm
- Above-floor and underfloor routing possible
- Environmental Product Declaration (EPD) included

Glazings

- Insulating glass ISO 22 with different U-values
- Special glazing

Possible additions

- Protection leaf in the façade
- Georgian bar profile
- Underfloor routing (recommended from LW of 1,400 mm)
- Manual floor locks

Approximate determination of door leaf weight

$$T_G = \frac{LH [m] \times LW [m] \times \text{glass weight [kg/m}^2\text{]}}{\text{Number of door leaves}}$$

Common glass weights: ISO 22, 2xVSG6 = 30 kg/m²
 Number of door leaves: 1-leaf = 2 door leaves,
 2-leaf = 4 door leaves.

Version			TST FLEX
Drive type	Standard		ES 250 PRO T / ES 400 PRO T
	Escape route 		ES 250 PRO T FST / ES 400 PRO T FST
Door parameters*			
System width (B) min. =	1-leaf	Passageway installation (without safety clearance, without post width)	1,5 x LW + 180 mm
		Wall mounting, without post width	1,5 x LW + 122 mm
	2-leaf	Passageway installation (without safety clearance)	1,5 x LW + 180 mm
		Wall mounting	1,5 x LW + 122 mm
Clearance width LW*2	1-leaf	Standard	800 – 2400 mm
		Escape route 	800 – 2400 mm
	2-leaf	Standard	1400 – 4000 mm
		Escape route 	1400 – 4000 mm
Max. door leaf weight	1-leaf	ES 250 PRO T / FST	2 x 75 kg
		ES 400 PRO T / FST	2 x 100 kg
	2-leaf	ES 250 PRO T / FST	4 x 75 kg
		ES 400 PRO T / FST	4 x 100 kg
Clear passage height LH*			2000 – 3000 mm



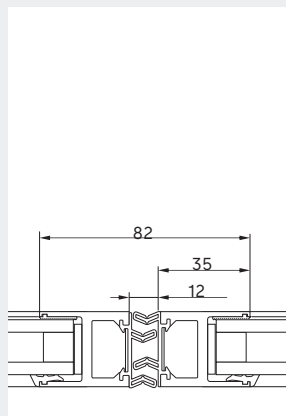
The requirements in escape routes are met by all systems that are equipped with an operator from the ES PROLINE FST series.

* The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the profile system selected. For doors with tested anti-intruder protection, increased requirements are placed on the structural tolerances as well as the careful design of the structure.

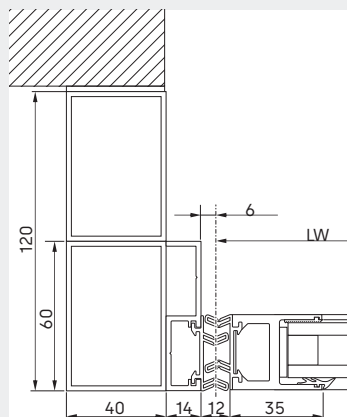
*2 The minimum clearance width for escape route sliding doors is laid down in the respective regional building codes and may vary in certain circumstances.

Main closing edge variants

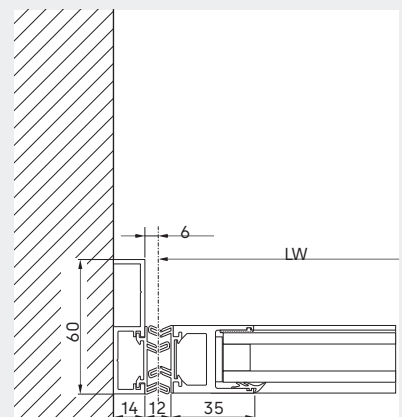
- LW: Clearance width
 LH: Clearance height
 B: Total system width
 OH: Skylight height (option)
 H: Total system height
 AH: Drive height 100 or 150 mm dependent on version
 OKFF: Upper edge of finished floor prefabricated floor



Opening to both sides



Lintel installation, opening to one side



Passageway installation, opening to one side

Note on installation with light metal beam

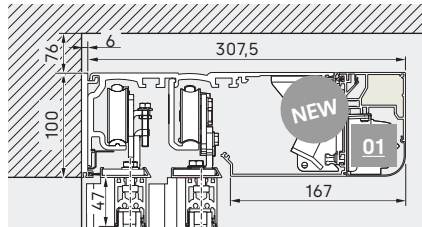
If the door leaf weight exceeds 2 x 75 kg or 4 x 75 kg, an additional drive suspension and/or the 150 mm drive version is required.



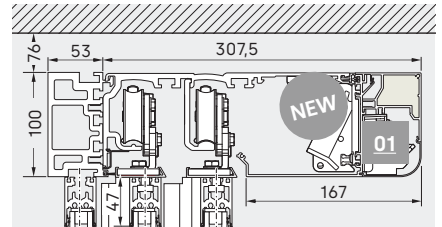
Installation variations and drive casings

- 01** Sensor casing 100 mm
- 02** Integral casing overall height 100 mm
- 03** Standard casing 100 mm
- 04** Integral casing overall height 150 mm
- 05** Standard casing 150 mm

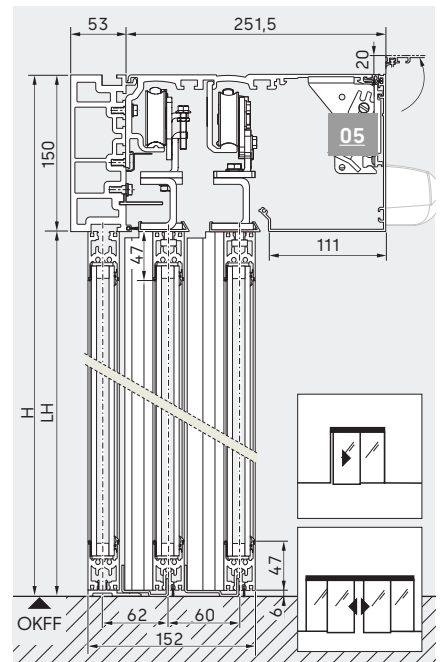
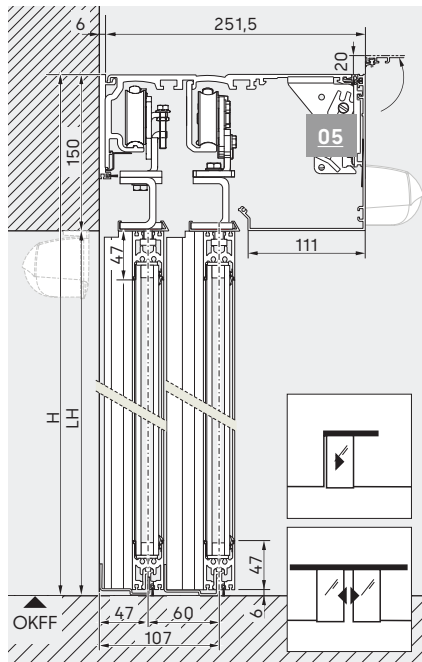
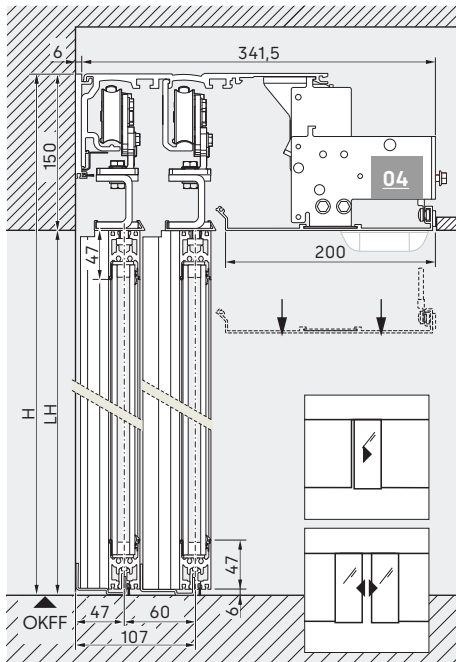
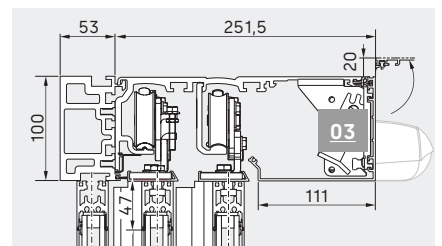
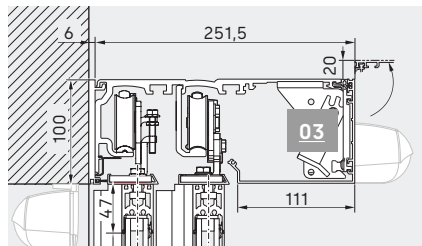
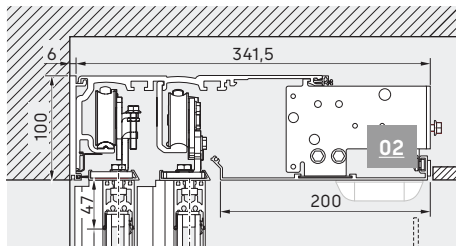
Wall/lintel installation



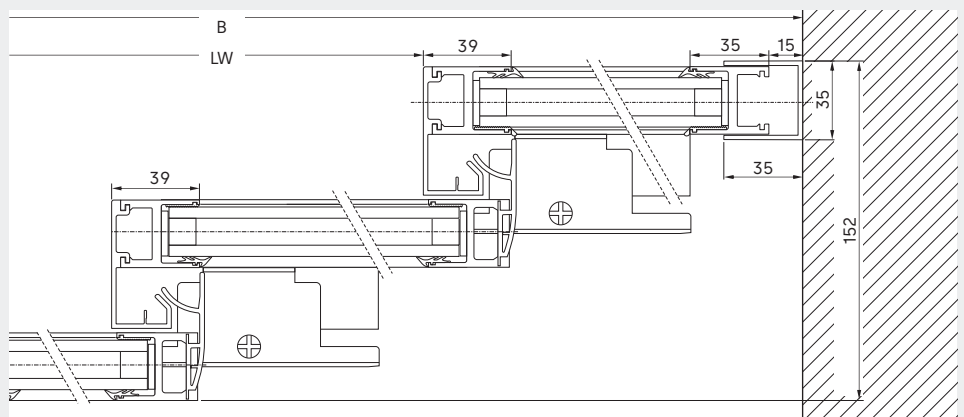
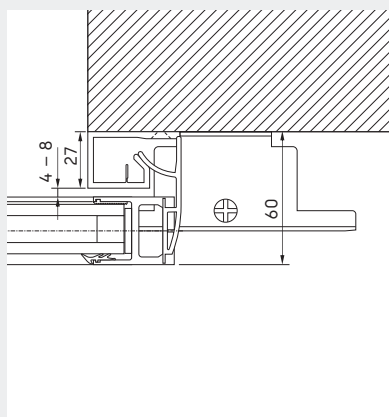
Installation with light metal beam



Installation in suspended ceiling



Secondary closing edge variants



Variants without side panels

Variants with side panels

TST FLEX Green

Telescopic door with improved thermal insulation

Properties

- Telescopic mechanism creates more passage with the same system width
- Slim profile cross-sections
- Secondary closing edge with safety profile
- Version with and without side panel available
- Suitable for ISO glass 22 mm
- Above-floor and underfloor routing possible

Glazings

- Double glazing ISO 28 with warm edge
- Triple glazing ISO 30 with warm edge
- Special glazing

Possible additions

- Protection leaf in the façade
- Georgian bar profile
- Underfloor routing (recommended from LW of 1,400 mm)
- Manual floor locks
- Manual hook-bolt lock

Approximate determination of door leaf weight

$$T_G = \frac{LH [m] \times LW [m] \times \text{glass weight [kg/m}^2\text{]}}{\text{Number of door leaves}}$$

Common glass weights: ISO 28 oder ISO 30, 2xVSG6 = 30 kg/m²

Number of door leaves: 1-leaf = 2 door leaves,
2-leaf = 4 door leaves.

			Version	TST FLEX Green
Drive type	Standard			ES 250 PRO T / ES 400 PRO T
	Escape route 			ES 250 PRO T FST / ES 400 PRO T FST
Door parameters*				
System width (B) min. =	1-leaf	Passageway installation (without safety clearance, without post width)		1,5 x LW + 180 mm
		Wall mounting, without post width		1,5 x LW + 122 mm
	2-leaf	Passageway installation (without safety clearance)		1,5 x LW + 180 mm
		Wall mounting		1,5 x LW + 122 mm
Clearance width LW ²	1-leaf	Standard		800 – 2400 mm
		Escape route 		800 – 2400 mm
	2-leaf	Standard		1400 – 4000 mm
		Escape route 		1400 – 4000 mm
Max. door leaf weight	1-leaf	ES 250 PRO T / FST		2 x 75 kg
		ES 400 PRO T / FST		2 x 100 kg
	2-leaf	ES 250 PRO T / FST		4 x 75 kg
		ES 400 PRO T / FST		4 x 100 kg
Clear passage height LH*				2000 – 3000 mm



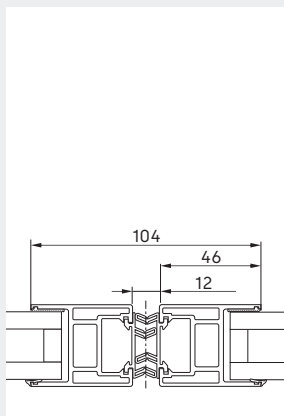
The requirements in escape routes are met by all systems that are equipped with an operator from the ES PROLINE FST series.

* The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the profile system selected. For doors with tested anti-intruder protection, increased requirements are placed on the structural tolerances as well as the careful design of the structure.

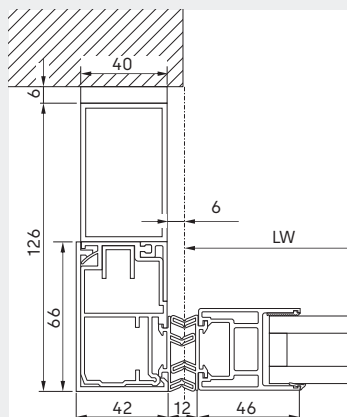
² The minimum clearance width for escape route sliding doors is laid down in the respective regional building codes and may vary in certain circumstances.

Main closing edge variants

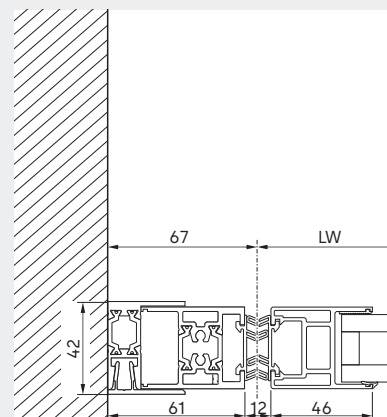
- LW: Clearance width
LH: Clearance height
B: Total system width
OH: Skylight height (option)
H: Total system height
AH: Drive height 100 or 150 mm dependent on version
OKFF: Upper edge of finished floor prefabricated floor



Opening to both sides



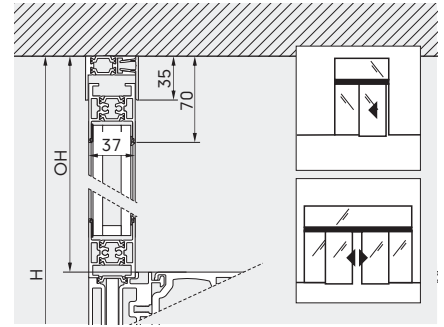
Lintel installation, opening to one side



Passageway installation, opening to one side

Note on installation with light metal beam

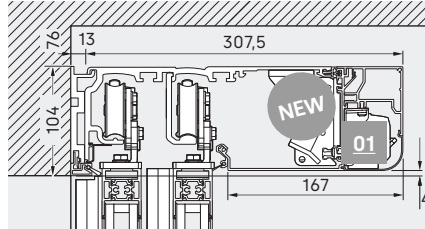
If the door leaf weight exceeds 2 x 75 kg or 4 x 75 kg, an additional drive suspension and/or the 150 mm drive version is required.



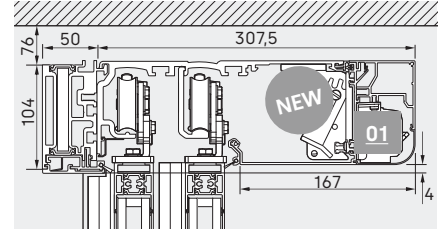
Installation variations and drive casings

- 01** Sensor casing 100 mm
- 02** Integral casing overall height 100 mm
- 03** Standard casing 100 mm
- 04** Integral casing overall height 150 mm
- 05** Standard casing 150 mm

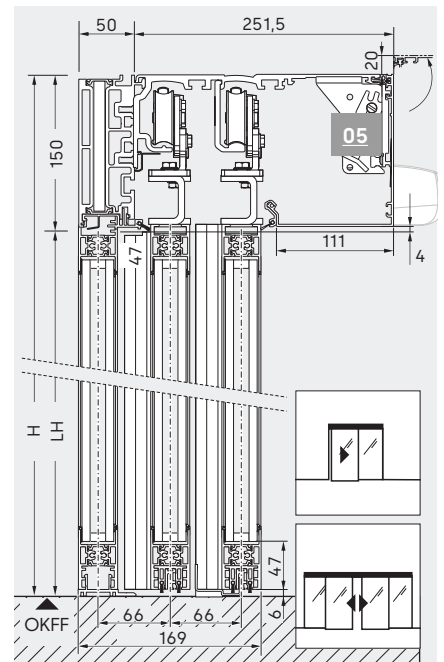
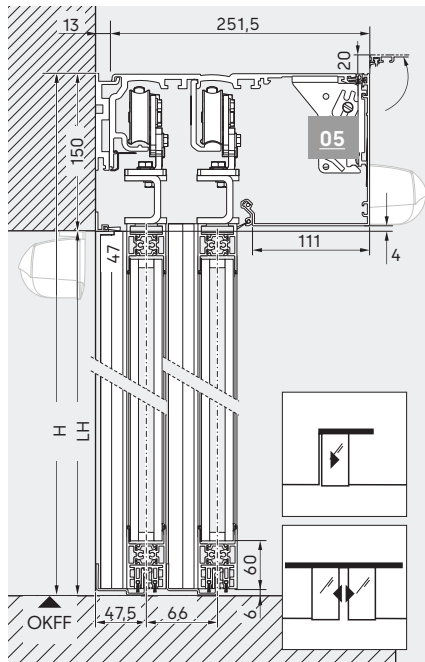
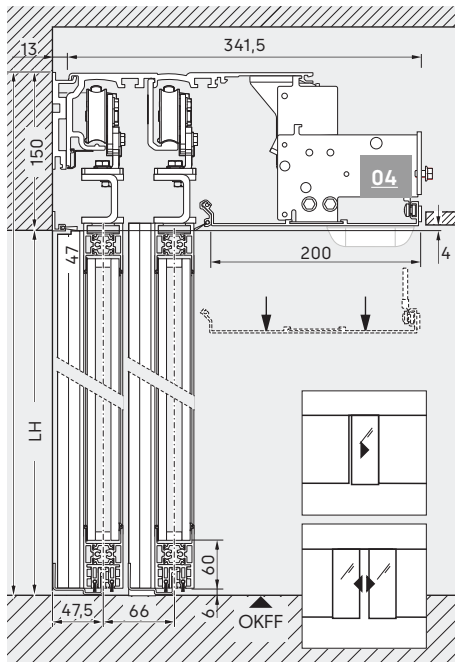
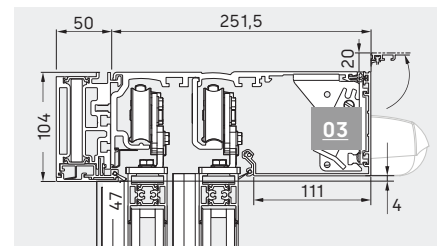
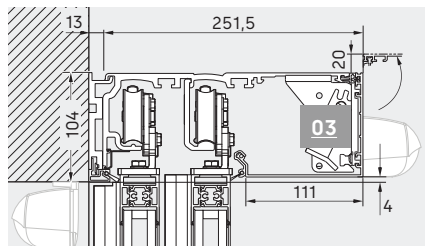
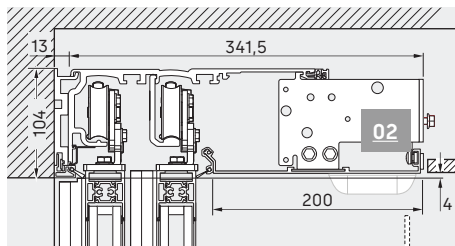
Wall/lintel installation



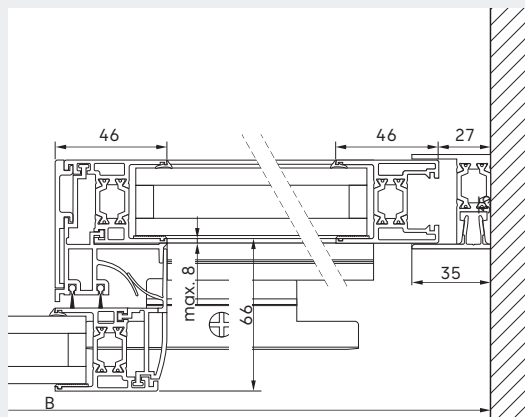
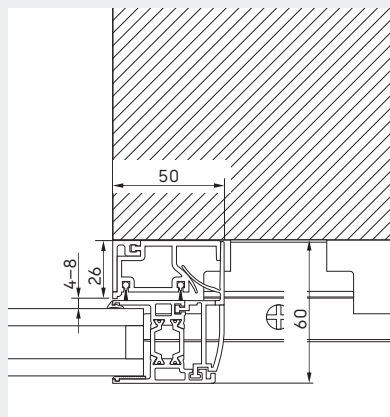
Installation with light metal beam



Installation in suspended ceiling



Secondary closing edge variants



Variants without side panels

Variants with side panels

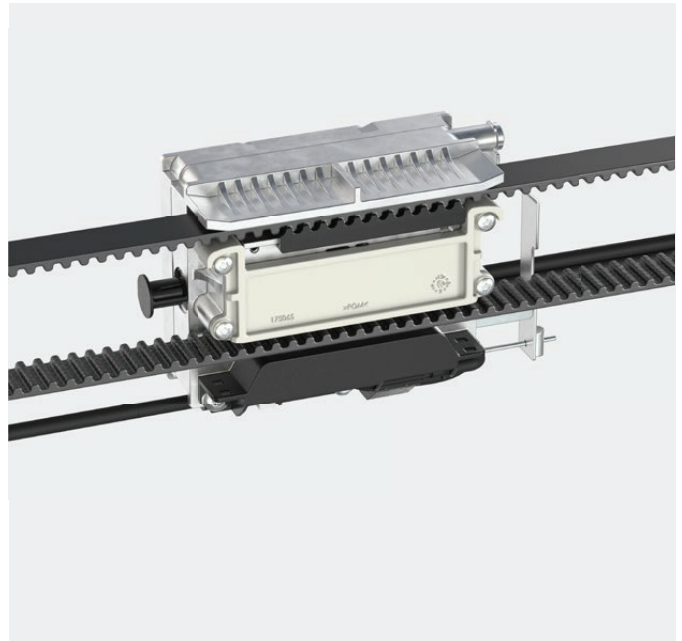
Locking devices

dormakaba offers a range of locking device variants for the ES PROLINE to prevent unauthorised access to buildings by opening the sliding door.

Electro-mechanical belt locking device

The self-adjusting locking device is attached directly to the drive unit of the operator. The standard lock status signal contacts increase the operational safety of the door.

The locking device function is configured ex works to be bistable; this means that the locking device status is maintained in the event of a power failure. Versions with other functions (monostable with Failsafe: opens the locking device in the event of a power failure and Failsecure: closes the locking device in the event of a power failure) are also available.

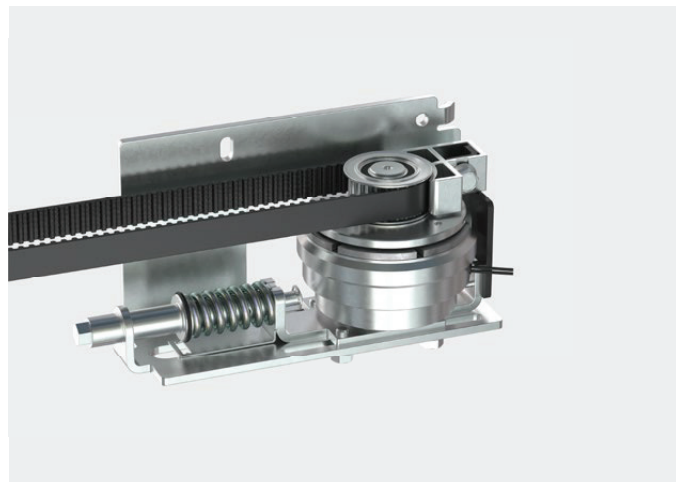


Magnetic locking device (FIA) for escape route and emergency exit doors

When using the magnetic locking device and the ES PROLINE control variant, you can lock an escape route sliding door in all automatic program switch positions, even when persons are present in the building.

The locking device system has been type-approved by the German Technical Inspectorate and does not require approval in each individual case.

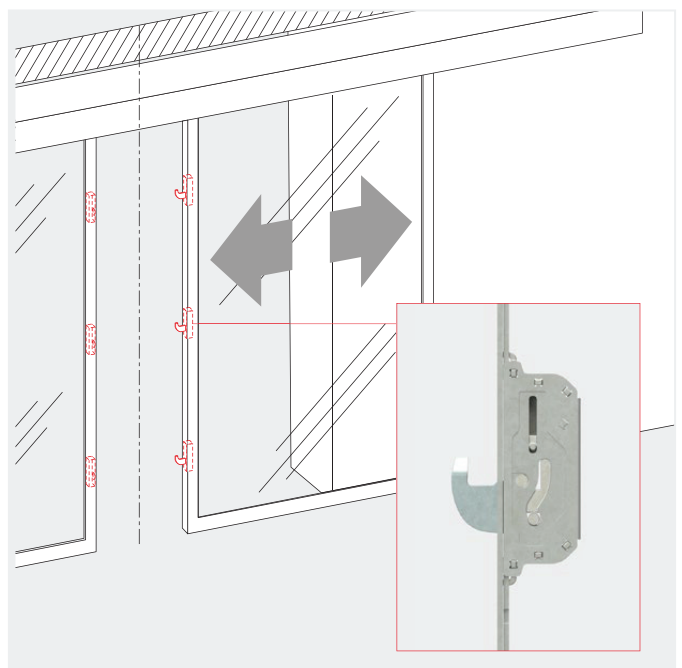
This variant is suitable for all properties that are used 24 hours a day, such as self-service areas in banks, hotels, hospitals, schools, etc. Any person can leave the building safely in case of an emergency and the door provides protection against uninvited guests.



Electromotive hook locking device

This particularly robust multipoint locking device provides a very high level of break-in protection for standard sliding doors and doors of resistance classes RC2/RC3 (doors with increased anti-intruder protection are equipped with these locking devices as standard). Solid swing bolts are extended by a motor to lock the door. Mechanical unlocking devices for opening doors manually are optionally available.

The following applies to all types of mechanical locks for doors used in escape routes and emergency exits: locking is only permitted if there are no persons in the building.

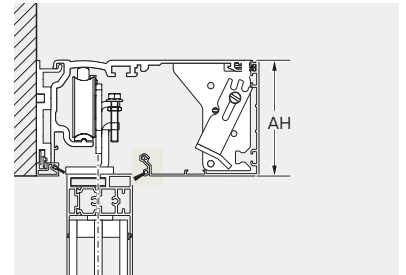


Casing variants



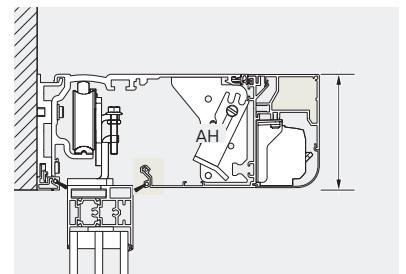
Standard casing

The standard casing for ES PROLINE operators is available in two different versions (height 100 mm, 150 mm). A cover bracket is supplied as standard and allows the casing to be opened in three different positions.



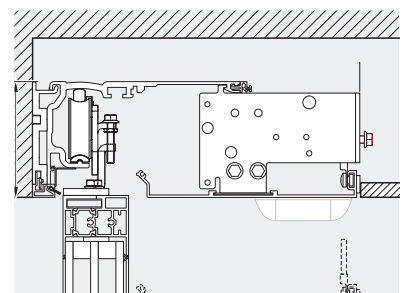
Sensor casing

Sensor casing is the right solution when it comes to premium design requirements. It creates a sleek look for doors with 100 mm drive heights. Activation and safety sensors are integrated into the drive system. There is no need for disruptive additional units and visible components. The sensor casing is approved for doors with a clear passage height of max. 3000 mm.



Integrated casing

Integrated casing allows the ES PROLINE operator to be elegantly concealed in suspended ceilings. The operator cover can be detached from below to allow easy access to all the components when carrying out maintenance tasks. Special accessories sets make it possible to integrate the safety sensors in the cover so that the entire height of the passage area can be used.



Additional track rail suspension

Optionally available, for instance, for particularly heavy skylight weights.





Master controller functions and optional expansion module functions

A wide variety of functions can already be tapped into just using the master controller for the ES PROLINE sliding door operators. The optional expansion modules can be used to implement various special functions and connect conventional accessories that are not based on CAN-bus technology.

Master controller	PRO	PRO FST	PRO EASY
Pharmacy function/pharmacy door opening The door can be locked in a partially open position apart from when the program switch is in the "Off" position. This allows a pharmacy to dispense goods securely outside business hours, for example.	●	●	–
Door status signal contacts This function issues door statuses. E.g. Door open/closed/locked, System OK, Current door position.	●	●	●
Panic closing This function closes the door immediately and switches off passage security and force limitation. This function is only permissible in certain countries (observe regional regulations).	●	–	–
Door bell contact For connecting an on-site door bell or an audible indicator.	●	●	–
Airlock function The doors can be switched to function as a personal interlock (not for escape route systems).	●	–	–
Synchronous operation For instance, two doors opening on one side can be switched to act as one large, double-leaf door. This allows particularly wide opening distances or high door leaf weights to be achieved.	●	●	–
Safety deactivation The door can be opened or closed by pressing a button.	●	●	–
Night/bank function Allows the connection of access controls, key switches etc. with the program switch in the "Off" position. The door unlocks – opens – closes – locks.	●	●	●
Emergency open	–	●	–
Emergency stop	●	–	–
Configurable partial opening distance	●	●	●
Slide and Go An opening signal can be triggered by gently pushing the door leaf.	●	●	–
Unlock/lock in case of malfunction In case of system malfunction, a door can be deliberately triggered to close and lock or unlock and open.	●	●	–
Fire service function Used to deliberately open and close a door via a separate signal input.	●	●	–

● Function can be implemented via the four programmable inputs and outputs. – Function is not implementable

Expansion modules	PRO	PRO FST	PRO EASY
4 I/O Expansion module The 4 I/O module is capable of four inputs and four outputs. The master controller functions can be implemented if the master controller connections have already been assigned. Only one module can be used at a time.	○	○	–
Safety and activation (SiAK) expansion module The safety and activation (SiAK) expansion module is used to connect conventional accessories, such as sensors and radar detectors. Safety sensors can be connected either for the main closing edge (MCE) or the secondary closing edge (SCE). Two modules are required in order to combine these safety functions (MCE/SCE).	○	○	–
Program switch (MS) expansion module Used to connect a conventional program switch (mode switch/MS) that is not based on CAN-bus technology. Only one module can be used at a time.	○	○	–

○ optional – not extendable

Door Pilot App



The dormakaba Door Pilot app allows automatic doors to be easily controlled from a smartphone. Operators from the ES PROLINE series can be equipped with the Door Pilot interface as an option. The app is available in iOS and Android versions and can be obtained from the respective app store.

Program switch functions

Use 6 different functions:

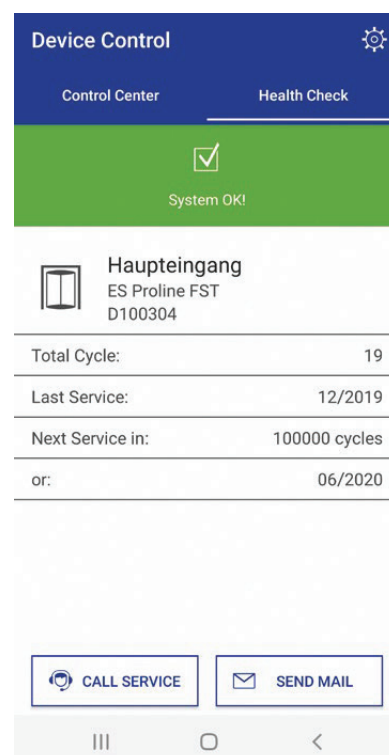
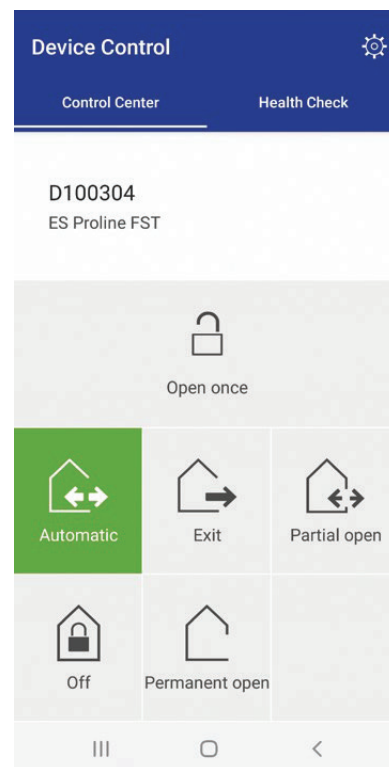
automatic	Opens from the inside and outside – perfect for normal opening hours.
Partial opening	Opens from the inside and outside with reduced opening width – ideal for cold winter days.
Output	Opens from the inside only – ideal for use shortly before closing time.
Permanent Open	Door is permanently open – suitable for deliveries or ventilation.
Off	Door remains closed (and perhaps locked) and can only be opened by changing the program switch position or by an externally controlled impulse.
Open-once	For easy opening in close proximity (not possible with the program switch in the "Off" position).

Door status signal contacts

System OK	Maintenance due	Fault detected, service due

Customer benefits

- Complement to the program switch, convenient operation from a smartphone.
- Check functions easily without needing specialist knowledge.
- No need to incorporate into existing building network.
- Direct contact function for simplified/direct access to dormakaba Service.



Wide range of accessories from dormakaba

Program switches

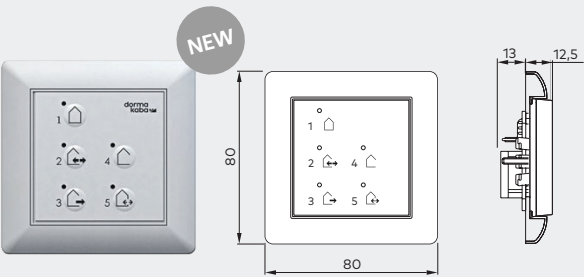
When combined with a program switch from the dormakaba accessories range, the automatic door system can satisfy all kinds of individual operating requirements and is easy to use. The program switches have been designed in various versions and for a wide range of requirements.

The options range from mechanical to fully electronic versions locked by your choice of profile cylinders, round cylinders or fully electronic coding.

- Up to 5 different functions: Off, automatic, exit only, partially open, permanent open
- Electronic program switches in System 55 design for the most discerning aesthetic demands

For sliding door operators without escape route
and emergency exit requirements

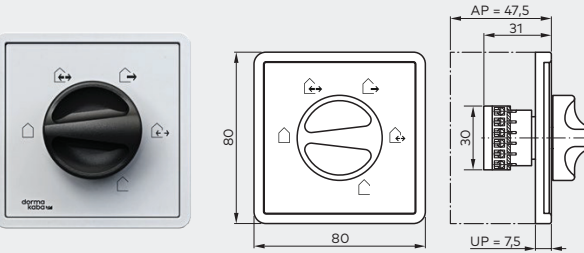
Article no.



EPS fully electronic program switch

System 55 design, 5 positions, lockable using coding or additional TL-ST S55 key switch, membrane keypad, concealed, 80 x 80 mm

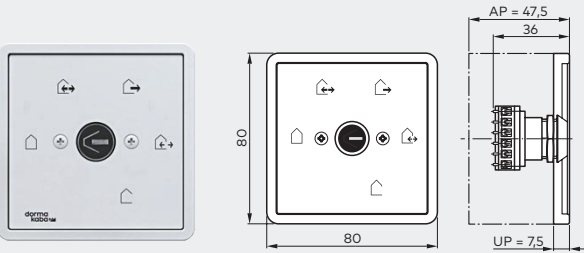
EPS	White	16556901150
EPS CAN	White	16712501150
Box for surface mounting		5158533332
EPS CAN (44 x 50 mm)		16712401150



PG-S1 program switch

5 positions, aluminium, concealed, 80 x 80 x 40 mm

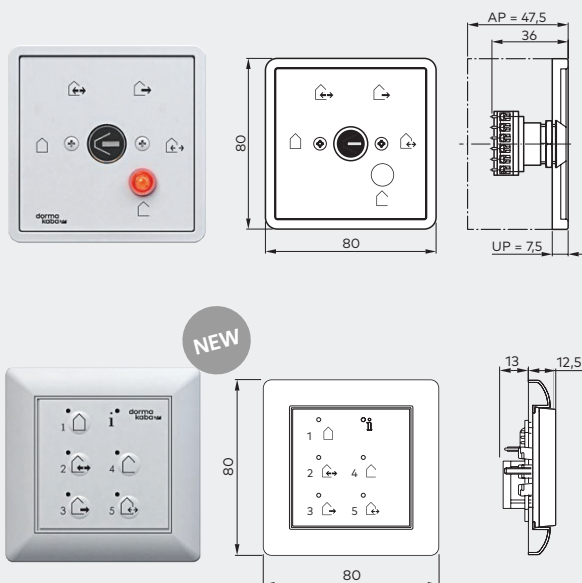
PG-S1	White, Gira S-Color	19135401150
Box for surface mounting		5080531332



PG-S2 program switch

5 positions, lockable, aluminium, concealed, 80 x 80 x 40 mm

PG-S2	weiss, Gira S-Color	19135602150
Box for surface mounting		5080531332



For sliding door operators in escape routes and emergency exits

Article no.

PG-FST1 program switch

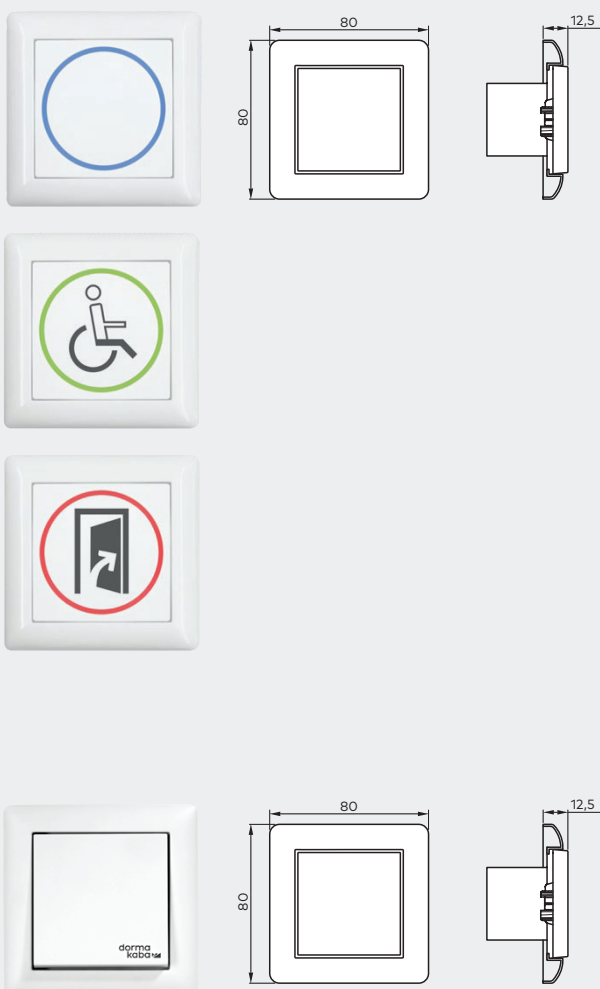
5 positions, lockable, aluminium, concealed, 80 x 80 x 40 mm

PG-FST1	White, Gira S-Color	19135603150
Box for surface mounting		5080531332

EPS-FST fully electronic program switch

System 55 design, 5 positions, lockable using coding or additional TL-ST S55 key switch, membrane keypad, concealed, 80 x 80 mm

EPS-FST	White	16556801150
EPS CAN	White	16712501150
Box for surface mounting		5080531332



Activation switches

Article no.

CleanSwitch

contactless radar push-button, System 55, flush-mounted, detection zone adjustable 10 - 50 cm, dimensions: 80 x 80 x 40 mm, switch insert 55 x 55 mm, colour: white

CleanSwitch	neutral	16737401170
	wheelchair	16737501170
	door open	16737601170

Manual release switch

Single-pole change-over contact, single frame, concealed, System 55

Manual release switch	White	19144701170
-----------------------	-------	-------------



NEW

Key switch

Article no.

KT 3-1

1 NO contact with Europrofile half-cylinder in line with DIN 18252, half 30–32.5 mm, length 40.5–43.5 mm, locking cam position left (90°) (interchangeable with master-key system half-cylinder), key can only be removed in neutral position, aluminium, metal, 75 x 75 x 60 mm

KT 3-1 UP	Concealed	05054531332
KT 3-1 AP	Surface-mounted	05054631332

KT 8

Labelled "Open"/"Closed", 2 NO contacts with Europrofile half-cylinder in line with DIN 18252, half 30–32.5 mm, length 40.5–43.5 mm, locking cam position left (90°) (interchangeable with master-key system half-cylinder), key can only be removed in neutral position, aluminium, metal, 75 x 75 x 60 mm

KT 8 UP	Concealed	05054831332
KT 8 AP	Surface-mounted	05054931332

TL-ST S55

Push button with single-pole changeover contact for on-site Europrofile half-cylinder in line with DIN 18252, half 30–32.5 mm, length 40.5–43.5 mm, locking cam position left (90°), with cover for System 55, not suitable for surface-mounted boxes, without Europrofile half-cylinder, **without frame**.

TL-ST S55 W	White	56330710
TL-ST S55 S	Silver	56330701
TL-ST S55 A	Anthracite	56330715

KT 3-2

1 NO contact with Europrofile half-cylinder, interchangeable with master-key system half cylinder, key can only be removed in neutral position, cover panel for replacement, labelled "Open"/"Closed", aluminium, concealed: 125 x 100 mm, surface-mounted: 70 x 90 mm

KT 3-2	05054731332
--------	-------------

Key switch CAN

Switch with single-pole changeover contact, with Europrofile half-cylinder in line with DIN 18252, half 30–32.5 mm, length 40.5–43.5 mm, locking cam position left (90°) (interchangeable with master-key system half-cylinder), with cover for System 55, not suitable for surface-mounted boxes, without frame.

Schlüsseltaster CAN	16715801150
---------------------	-------------

LED touch key

Article no.

LED touch key

Manual actuator with plastic frame in white, similar to RAL 9016 and traffic grey similar to RAL 7043

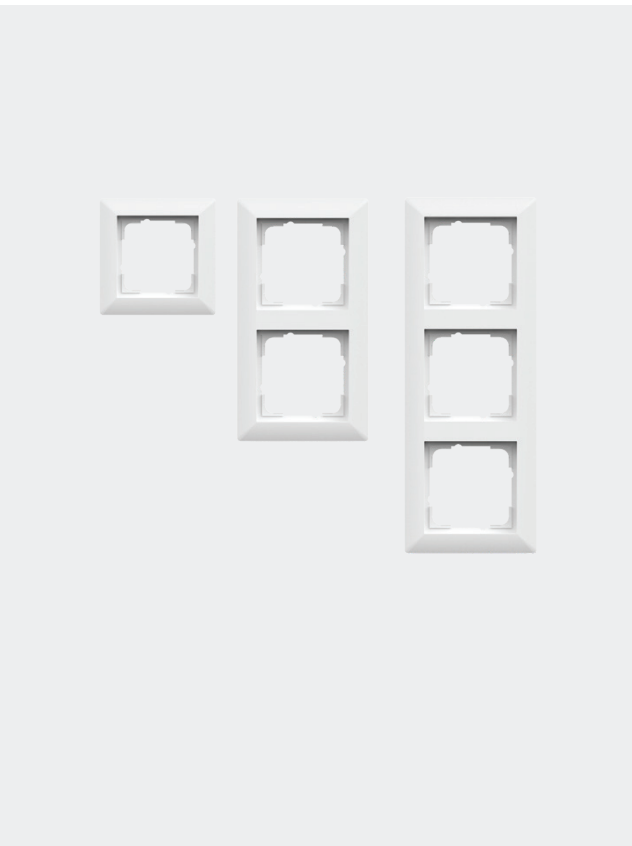
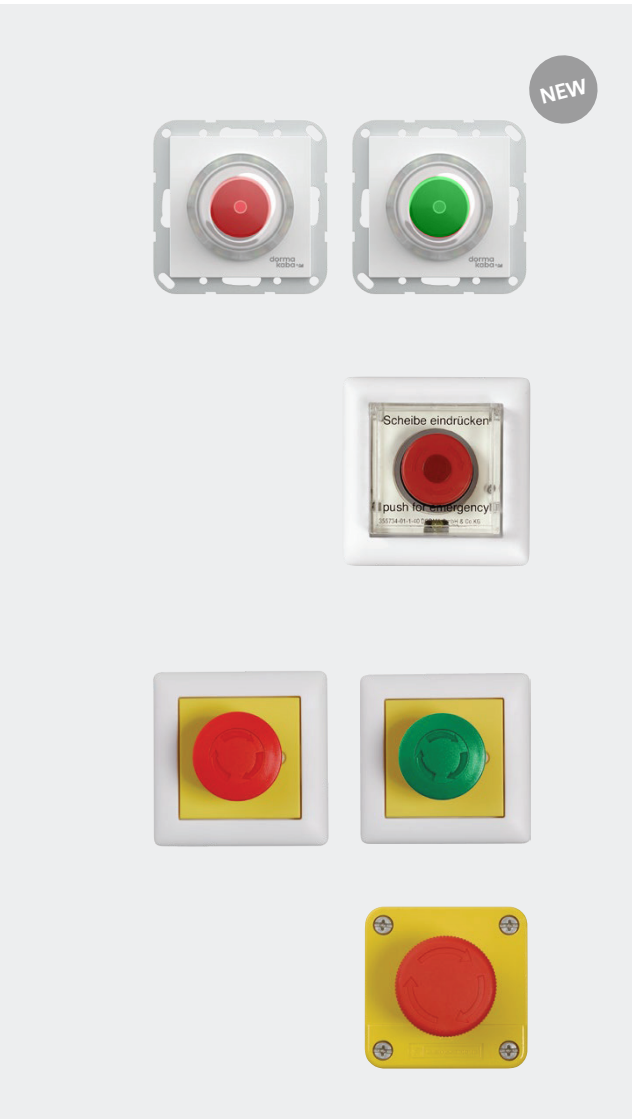
LED touch key	16672601170
---------------	-------------

LED hygienic touch key

Manual actuator, tempered glass encapsulated, glass button surface, hygienic version in line with EN 1672-1/2

LED touch key	16672901170
---------------	-------------





Emergency activation buttons

Article no.

Emergency switch CAN

CAN-bus emergency activation button, red knob (emergency activation button off) or green knob (emergency open), System 55, without frame.

Emergency switch CAN, red	16718501150
Emergency switch CAN, green	16718502150

TL-N S55 conventional

The area around the emergency button is brightly illuminated and has a visual display of the locking status, an acoustic and visual alarm siren, is tamper-protected under glass, without frame, one NO contact and one NC contact, concealed, 80 x 80 mm, System 55

TL-N S55	56330500
----------	----------

Conventional emergency switch

Emergency activation button (Emergency Off function with red knob and Emergency Open function with green knob) with yellow central plate

NAT 1	One NO contact and one NC contact, white frame, concealed, 80 x 80 mm, System 55	90400025
NAT 2	Emergency Open version with green knob, white frame, concealed, 80 x 80 mm, System 55	90400035
NAT 4	One NO and one NC contact, surface-mounted 68 x 68 mm Concealed	05027031332

Cover frame for buttons and switches

Article no.

Standard System 55

FR-S55 1	Single frame, white, 80.7 x 80.7	56391110
FR-S55 2	Double frame, white, 151.8 x 80.7	56391210
FR-S55 3	Triple frame, white, 223.3 x 80.7	56391310

E2 System 55 (not shown)

FR-E2W 1	Single frame, E2 55, white, 80.8 x 80.8	56392110
FR-E2W 2	Double frame, E2 55, white, 151.9 x 80.8	56392210
FR-E2W 3	Triple frame, E2 55, white, 223.4 x 80.8	56392310
FR-E2S 1	Single frame, E2 55, silver, 80.8 x 80.8	56392101
FR-E2S 2	Double frame, E2 55, silver, 151.9 x 80.8	56392201
FR-E2S 3	Triple frame, E2 55, silver, 223.4 x 80.8	56392301
FR-E2A 1	Single frame, E2 55, anthracite, 80.8 x 80.8	56392115
FR-E2A 2	Double frame, E2 55, anthracite, 151.9 x 80.8	56392215
FR-E2A 3	Triple frame, E2 55, anthracite, 223.4 x 80.8	56392315



NEW

Active infrared sensor and combined sensors

Article no.

Combined sensor IXIO-DT1

Combined sensor featuring radar detector with direction recognition and safety curtain for non-escape route systems

IXIO-DT1	Black	86800001
	Silver	86800002
	White	86800003

Combined sensor IXIO-DT3

Combined sensor featuring self-monitored radar detector with direction recognition and safety curtain for escape route systems

IXIO-DT3	Black	86800004
	Silver	86800005
	White	86800006

Safety curtain IXIO-ST

Safety curtain (tested) IXIO-ST for monitoring closing edges

IXIO-ST	Black	86800010
	Silver	86800011
	White	86800012

Combined sensor IXIO-D CAN

Combined sensor featuring radar detector with direction recognition and safety curtain for escape route systems and non-escape route systems (CAN-bus technology)

IXIO-D CAN	Black	86800053
	Silver	86800057
	White	86800056

Safety curtain IXIO-S CAN

Safety curtain (tested) IXIO-S CAN for monitoring closing edges (CAN-bus technology)

IXIO-S CAN	Black	86800055
	Silver	86800059
	White	86800058

Integrated combined sensor IXIO-D CAN

Combined sensor (without cover) featuring self-monitored radar detector with direction recognition and safety curtain for escape route and non-escape route systems for integration into the sensor casing.

Integrated IXIO-D CAN	86800050
-----------------------	----------

Integrated safety curtain IXIO-S CAN

IXIO-S CAN safety curtain (tested, without cover) for monitoring closing edges (CAN-bus technology), for integration into the sensor casing.

Integrated IXIO-S CAN	86800052
-----------------------	----------



Accessories for active infrared sensor and combined sensors

Article no.

Ceiling installation set

Ceiling installation system for IXIO-DT and IXIO-S

Ceiling installation set	Black	86800019
	White	86800020

Rain protection cover

Rain protection cover for IXIO-DT and IXIO-ST

Rain protection cover	Black	86800021
-----------------------	-------	----------

Fixing bracket

Fixing bracket for IXIO-DT and IXIO-ST

Fixing bracket	Black	86800016
----------------	-------	----------

Access Automation Solutions

Entrance Automation
Entrance Security
Glass Partition Walls



Access Control Solutions

Escape and Rescue Systems
Lodging Systems
Electronic Access & Data



Access Hardware Solutions

Door Closers
Architectural Hardware
Mechanical Key Systems
Glass Door Fittings



Services

Technical Support
Installation and commissioning
Maintenance and Repair



Sustainability

We are committed to fostering a sustainable development along our entire value chain in line with our economic, environmental and social responsibilities toward current and future generations. We seek an open, transparent dialogue with all stakeholders to define strategies and actions based on clear targets and continuous improvement, and we actively report on our progress.



dormakaba.com.tr

Warehouse address:

Beylikdüzü OSB, 8. Cd.
Mermerciler Sanayi Sitesi No:1
34524 Beylikdüzü/İstanbul,
Türkiye

Headquarters address:

**dormakaba Kapı ve Güvenlik Sistemleri
San. ve Tic. A.Ş.**

Kağıthane Ofispark, B2 Blok, K:5/30
Merkez Mah. Bağlar Cad. No:14
34406 Kağıthane/İstanbul

T +90 212 332 00 00

info.tr@dormakaba.com