

Automatic  
sliding doors with  
emergency breakout  
and the powerful  
ES operator range

# DORMA SST

## ... slide open to normal width, break out to full width

### For any entrance, any application, any requirement

Automatic sliding doors with breakout from DORMA fit into different structural openings, satisfy a variety of demands and can be adapted to suit individual requirements. Powerful DORMA ES door operators are characterised by their fast, smooth motion cycles, minimal noise emission and exceptional user friendliness. ES 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.



### The classic door solution for emergency exits and escape routes

With DORMA SST automatic sliding doors with breakout, 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 through-passage width of the doorway – a decisive advantage not only in emergencies but also in certain everyday situations. The breakout function for the sliding panels and side screens is also approved in

most countries as a viable solution for emergency exits.

### Exceptional economy

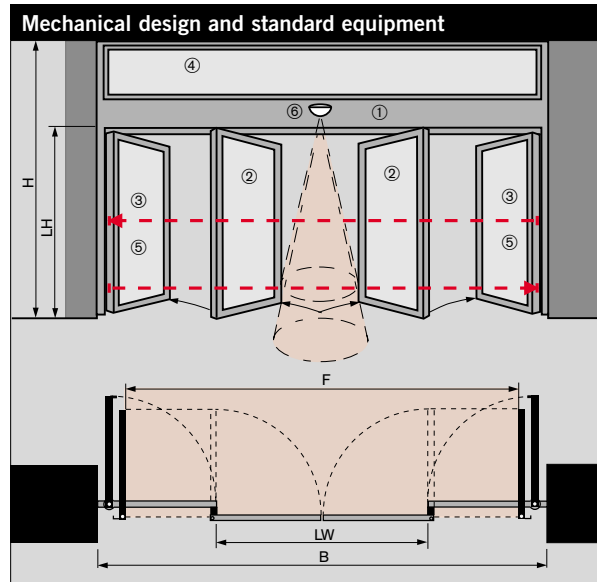
The variability of the dimensions available with DORMA SST automatic sliding doors means that they can be specified for maximum economy. Yet every door set is designed and made to measure and then supplied ready for installation. And DORMA will also carry out the fitting and commissioning work if requested.

### Convenient and safe

Designed as microprocessor systems, the controls 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 system, provide for maximum operational safety. Integrated locks also ensure that individual intruder protection requirements can be effectively satisfied.



Quality-assured manufacture



- |   |                                     |
|---|-------------------------------------|
| ① Self-supporting header with operator and integrated control               | ⑥ Activators, e.g. motion detectors |
| ② Breakout door panels with single-pane toughened or laminated safety glass | LW = Clear passage width            |
| ③ Breakout side screens   | F = Emergency escape passage width  |
| ④ Fan light or opaque panel   | B = System width                    |
| ⑤ Photocell safety light barriers   | LH = Clear passage height           |
|   | H = System height                   |

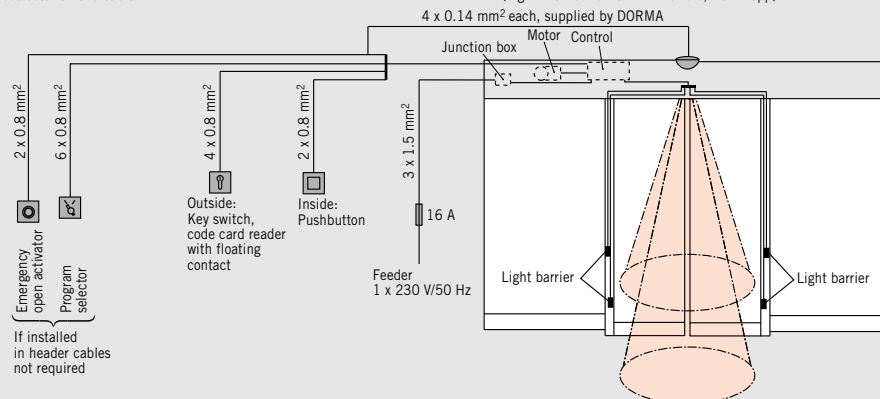
### Benefits and features

- Excellent scope of supply
- Easily adapted to individual requirements
- Emergency exit and escape route doors with breakout panels and side screens
- Highly economical and reliable thanks to proven standard components
- Wide range of adjustable parameters
- Extensive provision of standard connections
- Automatic obstruction detection and reversing cycle
- Supplied ready for installation – fitting and commissioning on request
- State-of-the-art design in compliance with all relevant regulations and standards

### DORMA SST connections

**Connections** The external emergency open device should be installed close to the door. Cable length max. 50 m. Can be installed with the program switch/selector on one cable.

The maximum cable length for installing the external program switch/selector is 50 m. If installed with other cables, this cable must be screened (e.g. LIYCY 6 x 0.25 mm<sup>2</sup> flexible, from Lapp)



Dimensions and construction details		SST
Sliding panel and side screen construction		
– Toughened glass profiles G		■
– Standard frame profiles R		■
Fan light		○
Opaque panel		○
Operator type		
– Standard	ES 90	■
– Standard with power-plus motor	ES 90 E	■
– Enhanced performance	ES 100	■
– Enhanced performance with power-plus motor	ES 100 E	■
Low-noise track rail		
	ES 90	
	ES 90 E	●
Low-noise replaceable track rail		
	ES 100	
	ES 100 E	●
With breakout sliding panels		
With breakout side screens		
Approved for emergency exits		
Number of sliding panels		
2		
Clear passage width LW		
	SST-G	1000 – 2000 mm
	SST-R	1000 – 2500 mm
Total width B		
2460 – 5540 mm		
Sliding panel weight max.		
2 x 100 kg		
Operator cross section W x H (with square-edged cover)		
202 x 200 mm		
Clear passage height LH		
2100 – 2500 mm		
Safety clearance at secondary closing edges		
○		
Software for anti-nip protection of secondary closing edges		
○		

Technical data	SST
Opening and closing force variable up to max. 150 N	●
Parameter variability	●
Opening speed, variable	
– ES 90, ES 100 operator	100 – 600 mm/s
– ES 90 E, ES 100 E operator	100 – 750 mm/s
Closing speed, variable	
	100 – 550 mm/s
Creep speed, variable	
	30 – 90 mm/s
Hold-open time, variable	
	0 – 180 s
Power supply data	
	230 V, 50/60 Hz
Power consumption, max.	
	360 W
Power consumption, average	
	30 W
Outgoing power supply	
	24 V, 2 A
Class of protection	
	IP 20
Type approved by the German TÜV	
	●
Compliant with the EU low-voltage directives	
	●
Quality-assured manufacture, registered to ISO 9000	
	●

● standard ■ alternatives ○ optional extra

Drive and control system	SST
Operator type	
Expansion module EM 4	●
Short-circuit-proof switched power supply unit	
	●
Microprocessor control	
	●
Function programs	
– Off	●
– Automatic	●
– Permanent open	●
– Partial opening or self-locking partial opening	●
– Exit only	●
– Exit only, partial opening	●
– Night-bank control	●
Connection for airlock control	
	○
Delayed action for cheque or code card reader, or key switch	
	●
Self-learning	
	●
Floating contact	
	●
Light barriers, self-monitoring (2 pairs)	
	●
Automatic reverse	
	●
Fail-safe*	
	●
Fail-secure*	
	○
Emergency closing*	
	○
Program selector CP 90 / CP 90 C	
	○
Connection for access control system	
	●
Bell contact	
	●
Door status signalling	
	○
Module for connection to EIB building management system	
	○
Visual fault display	
	○
Battery pack	
	●
UPS module	
	○
System stop on panel breakout	
	●

\* Ensure compliance with latest regulations

Optional accessories	SST-G	SST-R
Locking systems		
Combined electro-mechanical locking system incl. internal pull-rod for manual unlocking		
	○	○
Combined electro-mechanical locking system incl. external manual unlocking device		
	○	○
Mechanical locking system (rods, handles, with profile cylinder lock, control voltage trip)		
		○
Integrated ITS 96 door closer for sliding panels and side screens		
		○

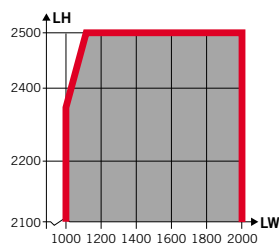
## With G-type toughened glass profiles

### Fine-framed sliding doors with breakout in elegant all-glass design

Thanks to the inconspicuousness of the G-type fine frame system developed by DORMA, these automatic sliding doors with breakout offer all the aesthetic elegance of an all-glass construction. Slender though they are, the profiles nevertheless offer optimum sealing performance and outstanding glass edge protection.

DORMA SST-G automatic sliding doors with breakout 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.

### 2-panel



- B1 = System width with safety clearance
  - H = System height
  - LH = Clear passage height
  - LW = Clear passage width
  - F = Emergency escape passage width
- All dimensions in mm

### Calculation of door dimensions

with safety clearance

$$B1 = LW \times 2 + 460$$

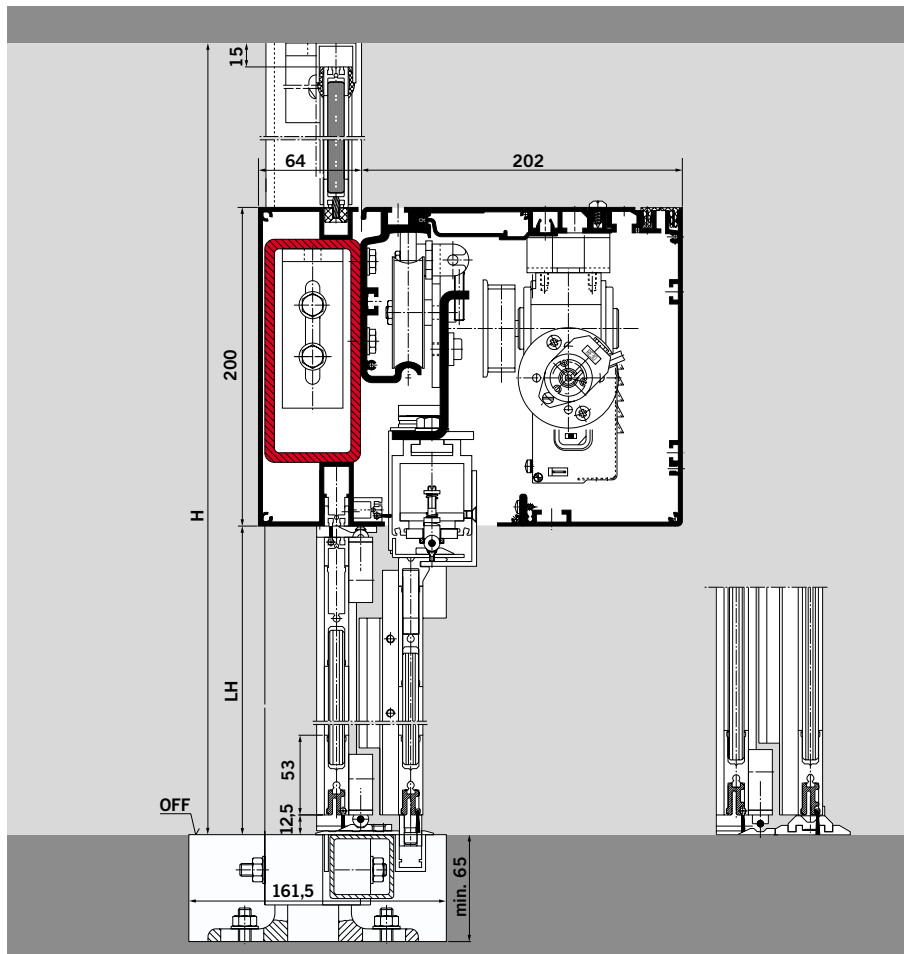
$$LW = (B1 - 460) / 2$$

without safety clearance

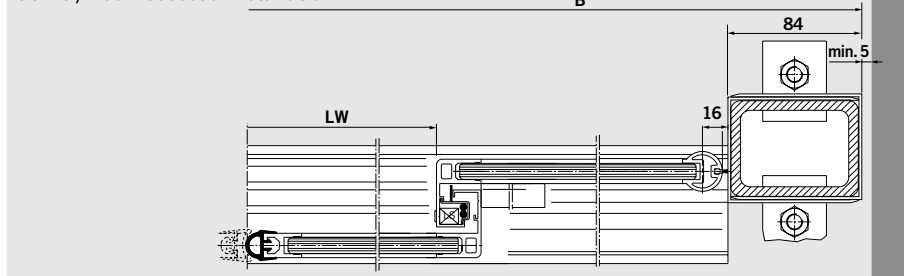
$$B2 = LW \times 2 + 290$$

$$LW = (B2 - 290) / 2$$

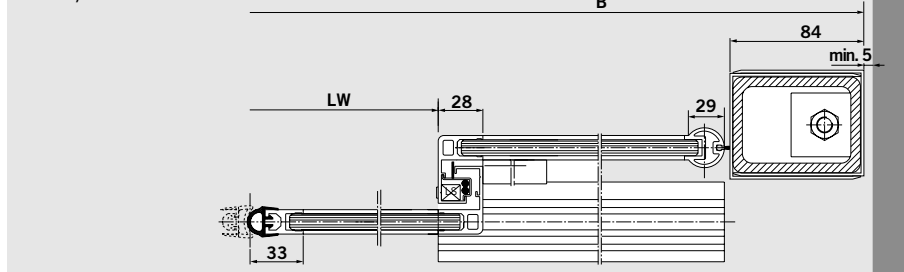
$$F = LW \times 2 + 25$$



SST-G, floor-recessed installation



SST-G, floor-level installation



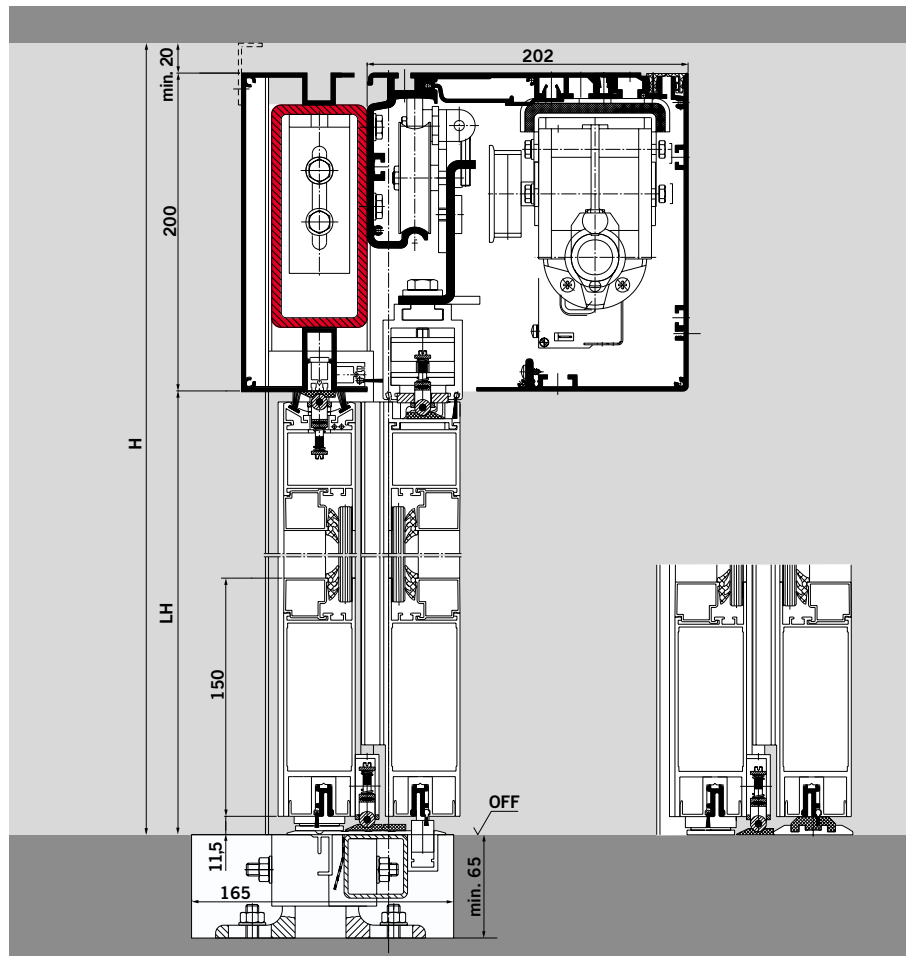
### DORMA SST-G standard dimensions

Variant	01	02	03	04	05	06	07	08	09	10	11
LW	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
B1	2460	2660	2860	3060	3260	3460	3660	3860	4060	4260	4460
F	2025	2225	2425	2625	2825	3025	3225	3425	3625	3825	4025

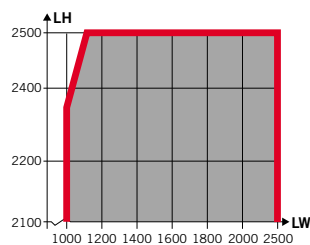
## With R-type standard frame profiles

### Inherent robustness for heavy-duty applications

Fitted with the R-type standard frame system developed by DORMA, these automatic sliding doors with breakout ensure especially high levels of stability, torsional stiffness, sealing capacity and security. With their glass panels clearly separated, DORMA SST-R door sets signal an unequivocal barrier function. At the same time, with the almost unbeatable safety that they embody, they constitute an optimum solution for heavily frequented entrances and internal doors in emergency escape routes.



### 2-panel



B1 = System width with safety clearance

H = System height

LH = Clear passage height

LW = Clear passage width

F = Emergency escape passage width

All dimensions in mm

### Calculation of door dimensions

with safety clearance

$$B1 = LW \times 2 + 540$$

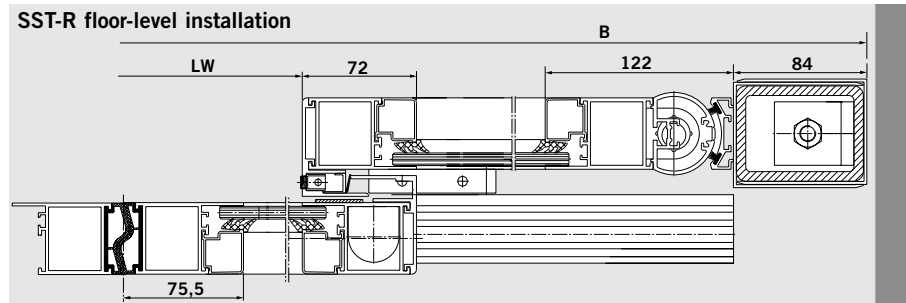
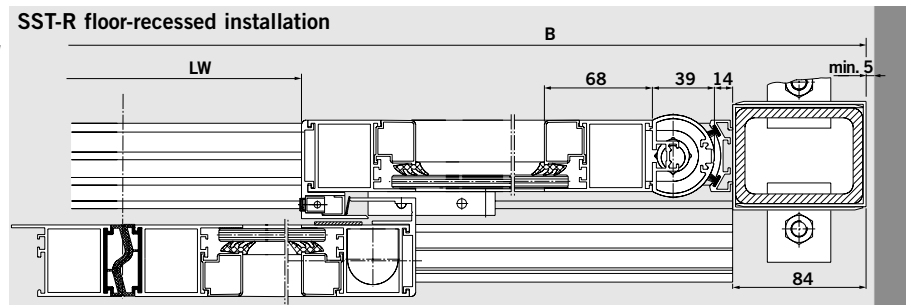
$$LW = (B1 - 540) / 2$$

without safety clearance

$$B2 = LW \times 2 + 420$$

$$LW = (B2 - 420) / 2$$

$$F = LW \times 2 + 45$$



### DORMA SST-R standard dimensions

Variant	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
LW	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
B1	2540	2740	2940	3140	3340	3540	3740	3940	4140	4340	4540	4740	4940	5140	5340	5540
F	2045	2245	2445	2645	2845	3045	3245	3445	3645	3845	4045	4245	4445	4645	4845	5045

**Breakout sliding panels and side screens**

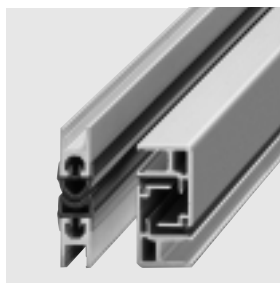
**Softline profiles for maximum safety with added benefits**

Pressure applied against the door panels and side screens of the DORMA SST will immediately produce the breakout effect, leaving the way out free. Fast escape from buildings equipped with this automatic sliding door system is thus ensured, even in a crush. Once broken out, the pivoted door panels and side screens remain in their 90° position but can then still be easily moved to one side by hand. Such an opening could, of



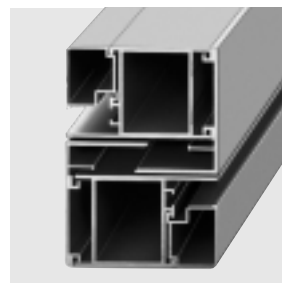
course, also be very welcome on hot summer days, and it can also be utilised to turn the entrance area of shops and department stores into additional sales space. When closed, DORMA SST automatic sliding doors with breakout effectively protect

**Tempered glass profile system G**



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 clearances between the sliding panels and side

**Standard frame profile system R**



screens ensure maximum safety in the event of user contact with the door. Effective anti-nip protection is also provided by the specially shaped pivot profiles on the breakout side screens.

**CP 90 program selector**



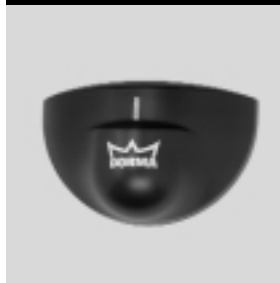
- Program selection
- Indication of the current program
- Adjustment of basic parameters
- CP 90 C with timer function
- CP 90 N for night-bank mode (additional to CP 90 or CP 90 C)
- Display of error codes for remote diagnostics
- Available in black, white and silver
- Dimensions (W x H) 48 x 125 mm
- Also suitable for ST/ES and TST door sets

**Program selector**



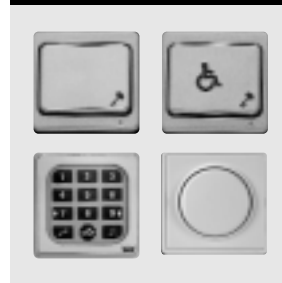
- External installation
- Concealed or surface-mounted units
- Lockable/Rotary knob
- Suitable for standard flush-mounting boxes
- Can be integrated with an emergency-stop pushbutton in a double frame
- Key switches, concealed or surface-mounted

**Radar motion detectors**



- Eagle system
- Directionally sensitive or standard design
- Radar detectors can be used in any combination
- No licence fee (in most countries)
- No effect on pacemakers due to very low output of just approx. 2 mW
- No interference from mobile phones

**Switches/Pushbuttons**



- Concealed or surface-mounted
- Stainless steel finishes
- Water-resistant models
- Keypads for access control systems
- Other switches/pushbuttons available

**Hand terminal**



- Fast and problem-free commissioning of DORMA sliding door systems
- Adjustment of basic parameters
- Simple and reliable diagnostics in the event of malfunctions
- Plain text display

## Specification text

## DORMA SST-G

DORMA SST-G automatic sliding door with breakout, of fine-framed (narrow-stile) construction with hinged panels firmly secured to the header construction which pivot open in the escape direction (breakout function); and with breakout side screens having Softline frame profiles of nip-free design. Opens on power failure (fails-safe function with back-up battery pack); with automatic monitoring and control of the door panel movements. Manufactured in accordance with German code of practice ZH 1/494 governing power-operated windows, doors and gates, German UVV (accident prevention) regulations, and VDE (Association of German Engineers) regulations (latest edition in each case). Quality-assured manufacture to ISO 9000. Equipped with two self-monitoring photocell light barriers. Power supply data: 230 V AC, 50 Hz. DORMA ES sliding door operator, 200 mm high, with microprocessor control, self-learning, and with intelligent RS 485 interface.

**Track rail design:**

- Non-replaceable (standard)
- Replaceable

**Locking system:**

- Electro-mechanical combination lock with internal manual release device
- Electro-mechanical combination lock with external manual release device

**Activators:**

- Standard radar motion detectors
- Directionally sensitive radar motion detectors
- Pushbutton
- Other activators, type = ...

**Drive unit options:**

- Module for interfacing with building control systems (EIB compatible)
- Safety software for protection of secondary closing edges through force limitation where the safety clearances are less than 200 mm
- External emergency power supply for 30 minutes continuous operation

**Program switch modes:**

- OFF – Exit only – Permanent open – Automatic – Self-regulating partial opening
- Night-bank control
- Airlock control with two doors arranged in tandem

**Program switch type:**

- Lockable
- Lockable with replaceable Europrofile cylinder
- CP 90 intelligent program selector, external

**Installation of lockable program switch:**

- External, concealed
- External, surface-mounted
- Internal

**Emergency stop pushbutton:**

- External, concealed
- External, surface-mounted
- External under glass
- Internal
- None

**Dimensions:**

- Total width B = ... mm
- Total height H = ... mm
- Clear passage width LW = ... mm
- Clear passage height LH = ... mm

**Floor guide installation:**

- Continuous, floor-recessed
- Sectional, floor-level

**Glazing of sliding panels and side screens:**

- Toughened safety glass (TSG), 10 mm clear
- Special glass = ...

**Fan light:**

- No fan light, no opaque panel
- Fan light
- Opaque panel

**Fan light construction:**

- Single-piece
- Two-piece
- Three-piece

**Fan light glazing:**

- Float glass 10 mm clear = ...
- Same glazing as for sliding panels and side screens
- Special glazing

**Colour of aluminium parts**

- Silver anodised, E6/CO
- RAL = ...
- Special colour = ...

## Specification text

## DORMA SST-R

DORMA SST-R automatic sliding door with breakout, of standard-profile framed construction with hinged panels firmly secured to the header construction which pivot open in the escape direction (breakout function); and breakout side screens with standard frame profiles of nip-free design. Opens on power failure (fails-safe function with back-up battery pack); with automatic monitoring and control of the door panel movements. Manufactured in accordance with German code of practice ZH 1/494 governing power-operated windows, doors and gates, German UVV (accident prevention) regulations, and VDE (Association of German Engineers) regulations (latest edition in each case). Quality-assured manufacture to ISO 9000. Equipped with two self-monitoring photocell light barriers. Power supply data: 230 V AC, 50 Hz.

DORMA ES sliding door operator, 200 mm high, with microprocessor control, self-learning, and with intelligent RS 485 interface.

**Track rail design:**

- Non-replaceable (standard)
- Replaceable

**Locking system:**

- Electro-mechanical combination lock with internal manual release device
- Electro-mechanical combination lock with external manual release device
- Mechanical through-rod lock with manual release device

**Activators:**

- Standard radar motion detectors
- Directionally sensitive radar motion detectors
- Pushbutton
- Other activators, type = ...

**Drive unit options:**

- Module for interfacing with building control systems (EIB compatible)
- Safety software for protection of secondary closing edges through force limitation where the safety clearances are less than 200 mm
- External emergency power supply for 30 minutes continuous operation

**Program switch modes:**

- OFF - Exit only - Permanent open - Automatic - Self-regulating partial opening
- Night-bank control
- Airlock control with two doors arranged in tandem

**Program switch type:**

- Lockable
- Lockable with replaceable Europrofile cylinder
- CP 90 intelligent program selector, external

**Installation of lockable program switch:**

- External, concealed
- External, surface-mounted
- Internal

**Emergency stop pushbutton:**

- External, concealed
- External, surface-mounted
- External under glass
- Internal
- None

**Dimensions:**

- Total width B = ... mm
- Total height H = ... mm
- Clear passage width LW = ... mm
- Clear passage height LH = ... mm

**Floor guide installation:**

- Continuous, floor-recessed
- Sectional, floor-level

**Glazing of sliding panels and side screens:**

- Laminated safety glass (LSG), 8 mm clear
- Toughened safety glass (TSG), 8 mm clear
- 24 mm double glazing, clear safety glass
- Special glass = ...

**Fan light:**

- No fan light, no opaque panel
- Fan light
- Opaque panel

**Fan light construction:**

- Single-piece
- Two-piece
- Three-piece

**Fan light glazing:**

- Float glass, 8 mm clear
- 24 mm double glazing, float glass = ...
- Same glazing as for sliding panels and side screens
- Special glazing

**Colour of aluminium parts:**

- Silver anodised, E6/CO
- RAL = ...
- Special colour = ...

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