

BST/FBST SPECIAL LINE

Curved sliding doors





Attractive appearance, extensive design options

BST SPECIAL LINE automatic curved sliding doors are the perfect answer to providing entrance areas with a customised and aesthetically pleasing appearance. The systems can be designed as customised full circles, semicircles and segments.

Tailored to your architectural concept, BST SPECIAL LINE automatic curved sliding doors can be designed to either contrast or harmonise with the building façade, providing an all-glass appearance complemented and augmented by the slender profiles of their fine-framing. BST SPECIAL LINE automatic curved sliding doors will perform draught exclusion and airlock functions, steer people in the right direction and give width and depth to even cramped structural openings. They can also be combined with other automatic doors.

Reliable and safe

As in the case of all components and systems from the dormakaba portfolio, BST SPECIAL LINE curved sliding doors excel in reliability and user convenience. The self-learning microprocessor control unit keeps the system running smoothly and reliably. Combining with the integrated presence sensor, it also ensures maximum operational safety.

The doors are designed to order, manufactured to fit and supplied ready for installation. If required, dormakaba will also perform the installation and commissioning work.

For emergency exits and escape routes

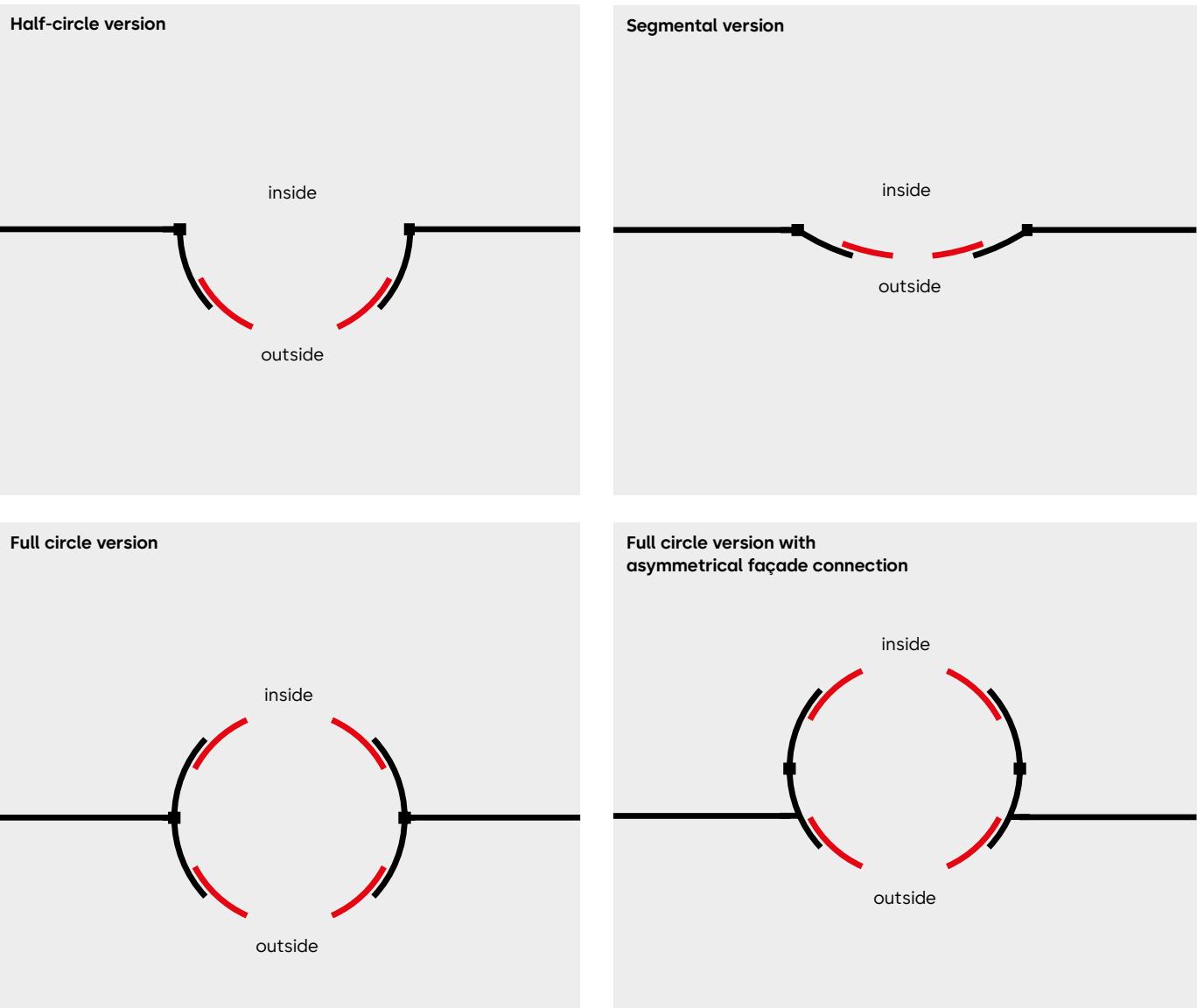
Under the designation FBST SPECIAL LINE, these curved sliding doors can also be supplied with a redundant operator, an additional control unit for safety purposes and a special motion detector. The FBST is type-approval by the German TÜV as an "automatic sliding door without breakout for use in escape routes". If desired, the doors can be equipped with safety components (sensors) in accordance with DIN 18650.



dormakaba FBST with approval for application in emergency exits and escape routes according to DIN 18650



Designs



Data and features

Dimensions and versions	BST	FBST
Clear passage width LW ²⁾	1000 – 2500 mm ¹⁾³⁾	1000 – 2500 mm ¹⁾³⁾
Escape route width F	–	1000 – 2500 mm ¹⁾³⁾
Installation width B, min. ²⁾	2064 mm	2064 mm
Passage height H	2100 – 2500 mm ¹⁾	2100 – 2500 mm ¹⁾
Half-circle radius r	1000 – 2000 mm ¹⁾	1000 – 2000 mm ¹⁾
Full circle radius r	1000 – 2000 mm ¹⁾	1000 – 2000 mm ¹⁾
Segmental radius r	freely selectable, min. 1000 mm	freely selectable, min. 1000 mm
Number of sliding panels	1 ³⁾ or 2	1 ³⁾ or 2
2-panel, symmetrical	●	●
Asymmetrical	○	○
Fixed side screens	●	●
Canopy height (min.)	240 mm	240 mm
Canopy height extension (240 – 700 mm) ¹⁾	○	○
Sliding panel, convex	●	●
Max. weight per door panel	130 kg	110 kg

¹⁾ Standard dimensions (other dimensions on request)

²⁾ Depending on radius r

³⁾ max. clear passage width (LW) for 1-panel door = 1300 mm

Technical data	BST	FBST
Power consumption, max.	250 W	250 W
Power consumption, average	30 W	30 W
Supply voltage/frequency	230 V / 50 – 60 Hz	230 V / 50 – 60 Hz
External power supply	27 V DC / 2 A	27 V DC / 2 A
TÜV type-approved	●	●
Compliant with the Low Voltage Directive	●	●
Manufactured to ISO 9001	●	●

Adjustable parameters	BST	FBST
Opening speed per panel, adjustable	100 – 600 mm/s	100 – 600 mm/s
Closing speed per panel, adjustable	100 – 500 mm/s	100 – 500 mm/s
Low (creep) speed per panel, adjustable	30 – 90 mm/s	30 – 90 mm/s
Opening and closing force, adjustable	●	●
Max. force on contact with obstacle	150 N	150 N

Operator and control unit	BST	FBST
Operator	ES 200	ES 200 2D
Microprocessor control unit	●	●
Integrated presence sensor	○	○
Equipped in accordance with EN 16005 / DIN 18650	○	○
Obstruction self-recognition	●	●
Automatic reversing cycle on obstruction contact	●	●
Complete system self-test	●	●
Connection for airlock function	●	—
Parameter adjustment capable	●	●
Self-learning	●	●
Class of protection	IP 20	IP 20
Pulse expansion for cheque and code card readers or key switches	●	●
Potential-free contact	●	●
Bus-capable	●	●
Door status contact, locking device for door system	○	○

Program modes	BST	FBST
Automatic	●	●
Exit Only	●	●
Permanent Open	●	●
Partial Open, Exit Only	●	—
Night-/Bank Function	●	●

Design of ceiling	180°/360°	Segment
Ceiling	●	—
Operator cover	—	○
Upper dust-proof ceiling	●	—
Ceiling prepared for rainproofing (by others), incl. spouts	○	—

Profiles and glazing	BST	FBST
Fine-frame profile system with 10 mm laminated safety glass	-G	●
Insulating glass profile system with 18 mm insulation glass	-Iso	○
Special glazing with patterning, sand-blast effect, screen printing etc.	○	○

Drive and control	BST	FBST
Façade connection, panel board	○	○
Aluminium girder with aluminium cover, external	●	●
Aluminium girder	●	●
Adhesive-bonded midrails	○	○
Air curtain (180 and 360° design, canopy extension required)	○	○
LED-Spotlights	○	○
Floor mat	○	○
Floor guide rail		
Surface-mounted floor guide without floor ring	●	●
Surface-mounted floor guide with floor ring	○	○
Flush-mounted floor guide with floor ring (Compulsory for clear passage widths (LW) beyond 1500 mm)	○	○

Accessories/Safety equipment	BST	FBST
Locking device		
Electro-mechanical locking device	○	—
Electro-mechanical locking device with manual lock release	○	○
Fail-safe via emergency power supply unit	○	●
Monitored rechargeable battery pack	○	●
Intrinsically safe activator in escape direction	—	●
Motion detector, external	○	○
Motion detector, internal	○	○
Emergency pushbuttons		
Emergency Off function	○	—
Emergency Opening function	—	○

● standard ○ optional

Half-circle and full-circle version

Standard dimensions

Clear passage width **LW**

Actual radius **r**

Internal width **S**

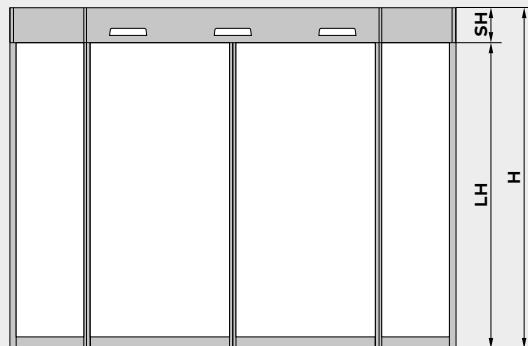
System width **B**

Clear passage height **LH**

Canopy height **SH**

System height **H**

Dimensions in mm



Fine-frame profile system G

r 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

B 2064 2264 2464 2664 2864 3064 3264 3464 3664 3864 4064

S 1932 2132 2332 2532 2732 2932 3132 3332 3532 3732 3932

LW 1221 1363 1504 1646 1788 1929 2071 2212 2354 2495 2500

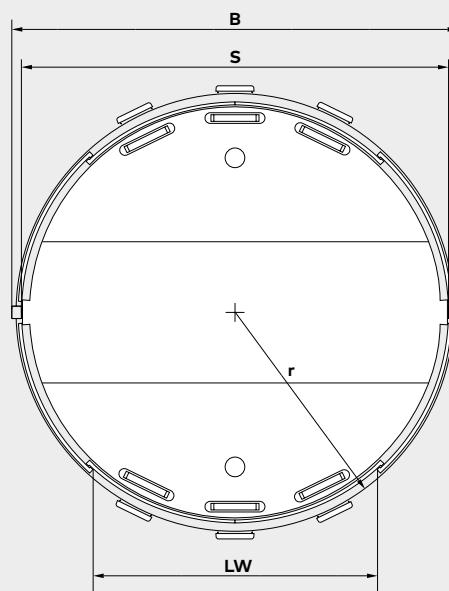
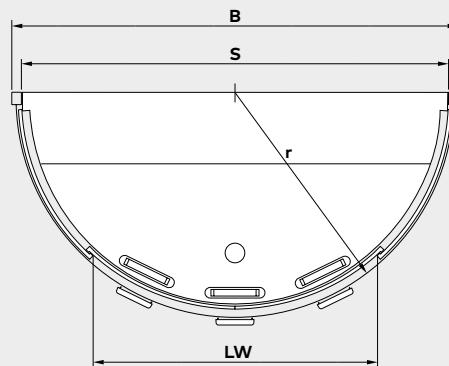
Insulating glass profile system Iso

r 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

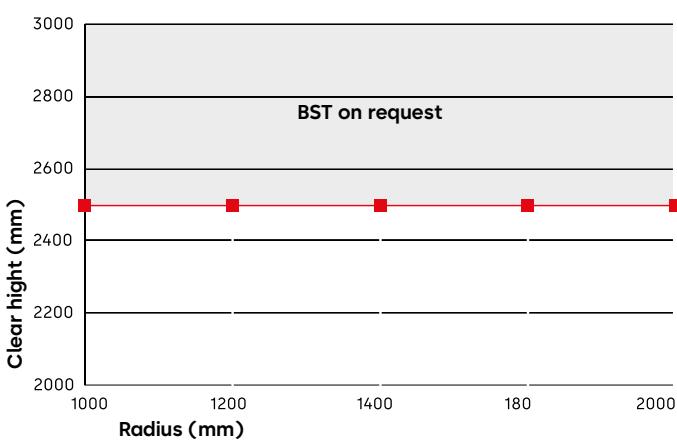
B 2044 2244 2444 2644 2844 3044 3244 3444 3644 3844 4044

S 1912 2112 2312 2512 2712 2912 3112 3312 3512 3712 3912

LW 1184 1326 1468 1609 1751 1893 2034 2176 2317 2495 2500



Dependency Chart BST 180°/360°

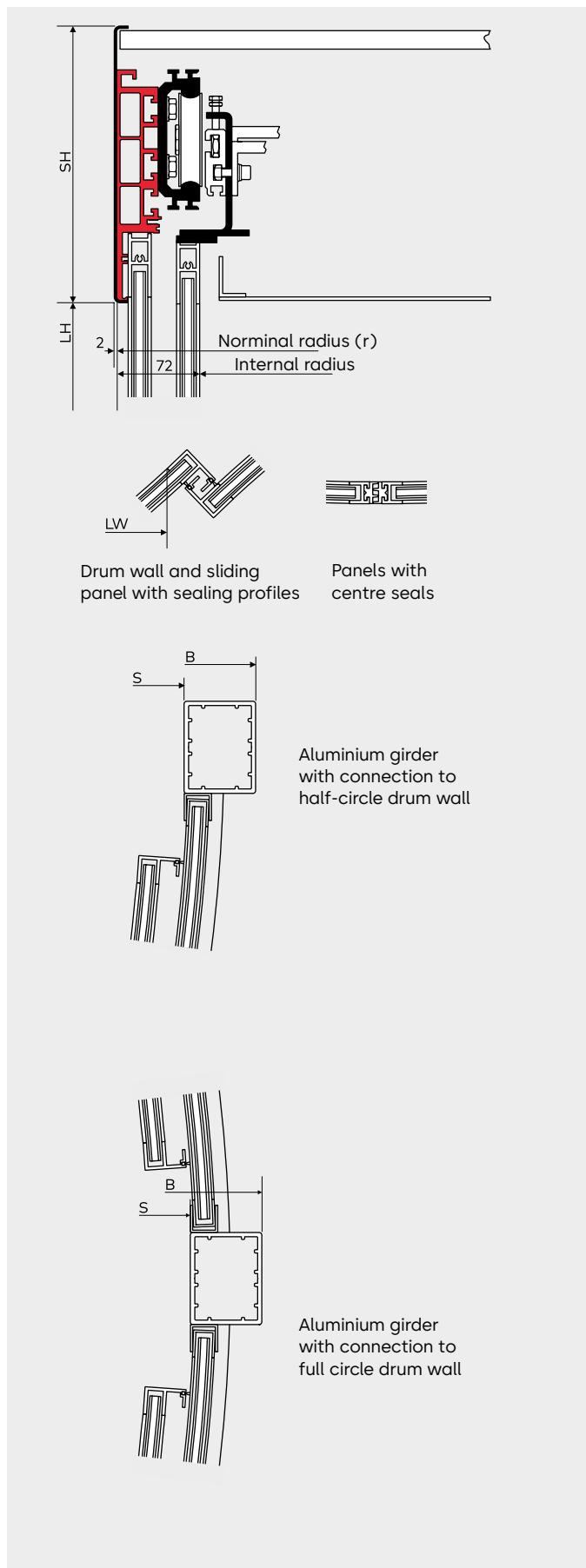


■ Standard version 2,500 mm height

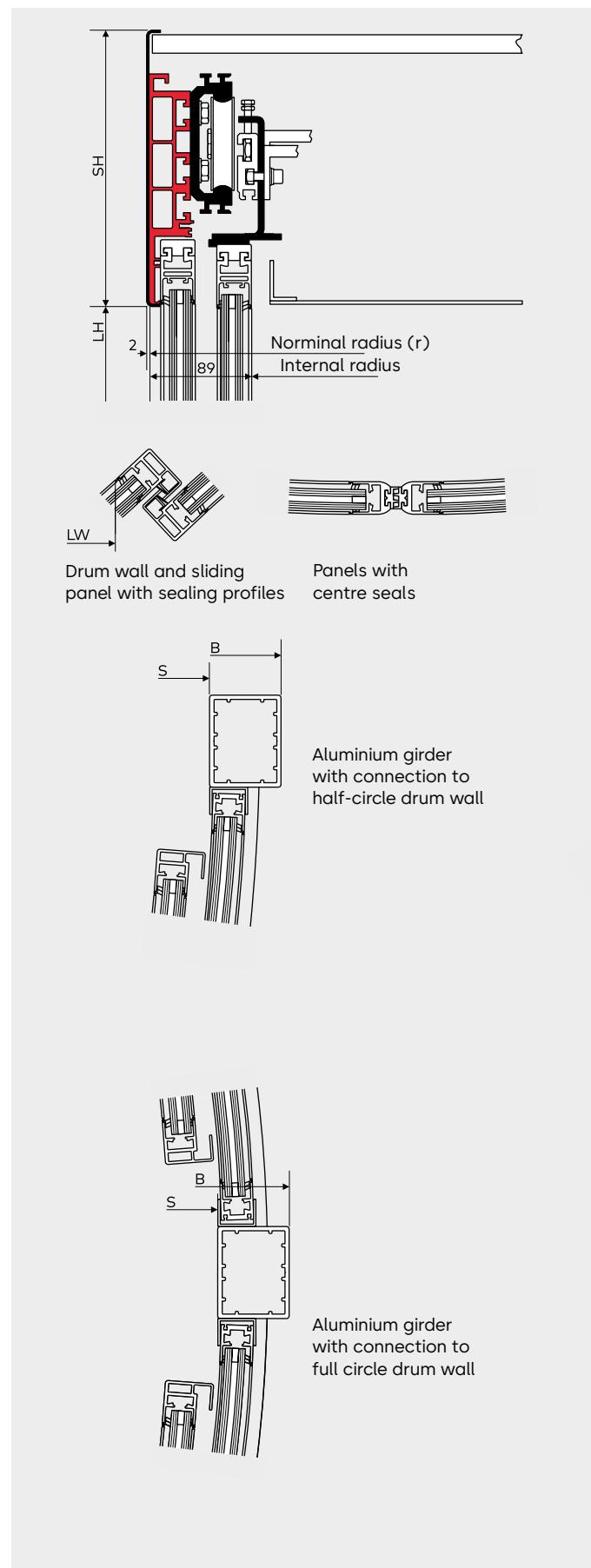


For dormakaba FBST with approval for application in emergency exits and escape routes according to DIN 18650

Fine-frame profile system G



Insulating glass profile system Iso



Segmental version

Standard dimensions

Clear passage width	LW
Clear passage width	r
Internal width	S
System width	B
Arc length	BL
Clear passage height	LH
Canopy height	SH
System height	H
Installation depth	T

Dimensions in mm

Standard dimensions:

Arc length BL: max. 6600 mm
 Clear passage width LW: 1000 mm – 2500 mm

Calculating arc length BL

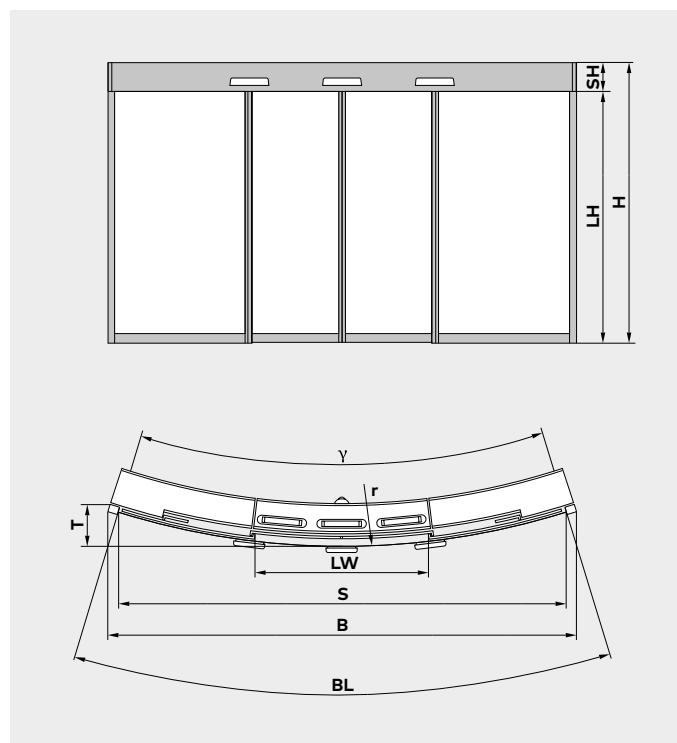
- For a given radius r and angle γ

$$BL = r \cdot \frac{\gamma \cdot \pi}{180}$$
- For a given system depth T and system width B

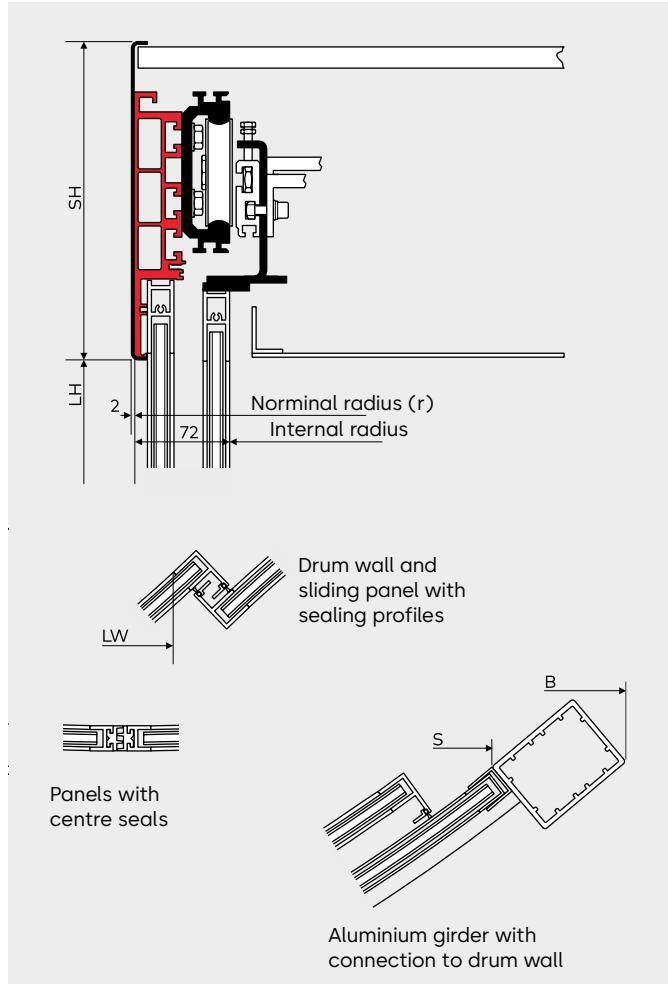
$$BL = \sqrt{B^2 + \frac{16}{3} \cdot T^2}$$



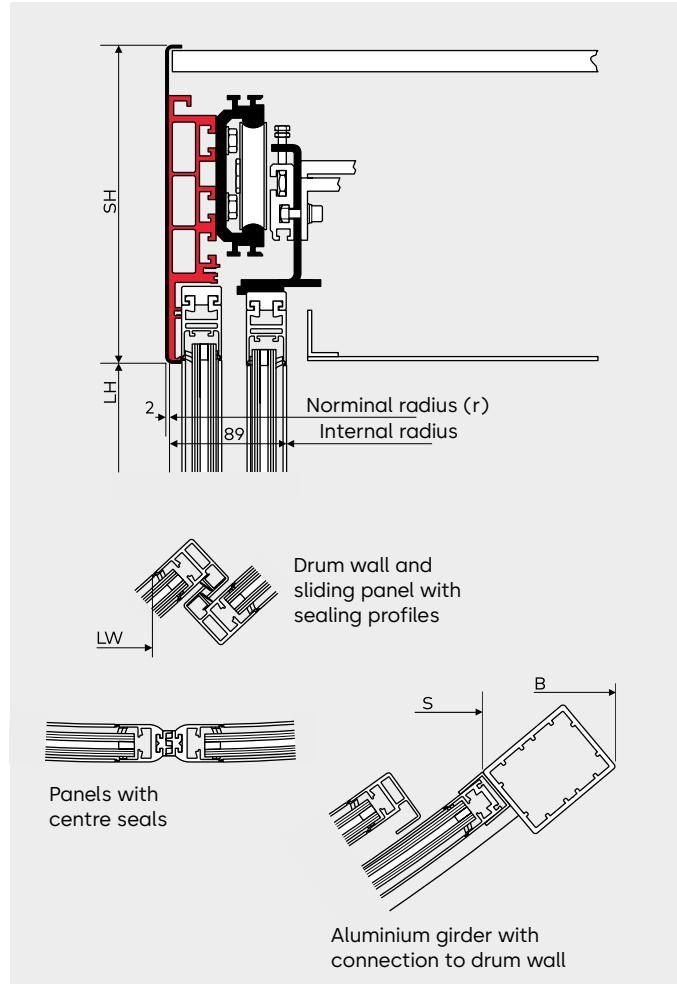
dormakaba FBST with approval for application
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Fine-frame profile system G

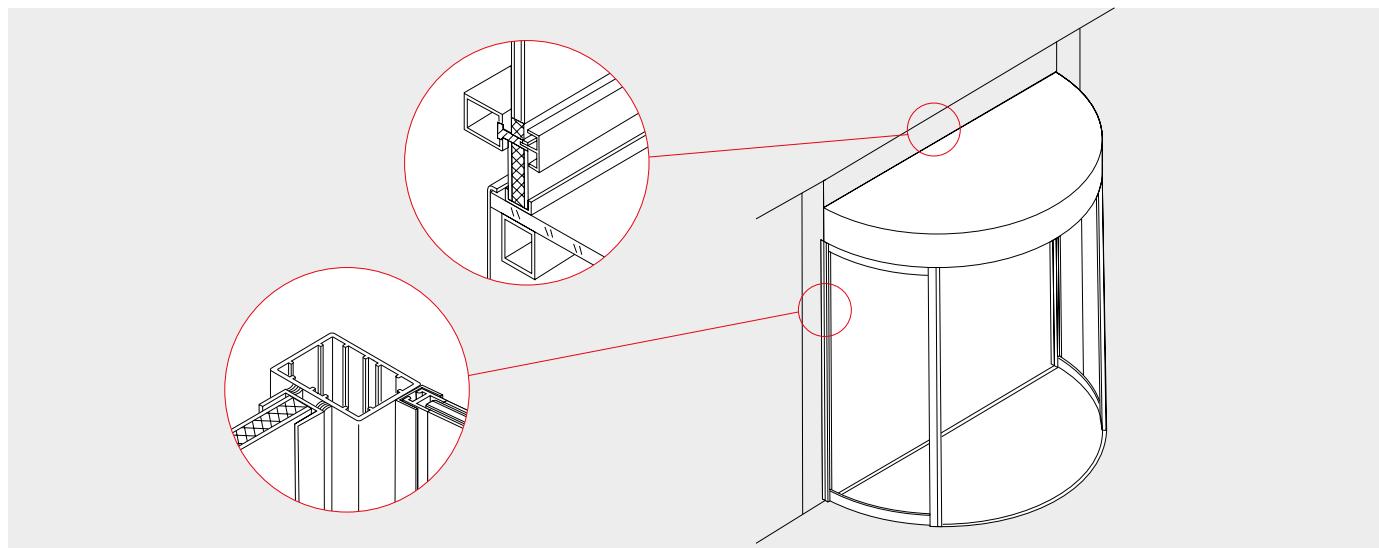


Insulating glass profile system Iso

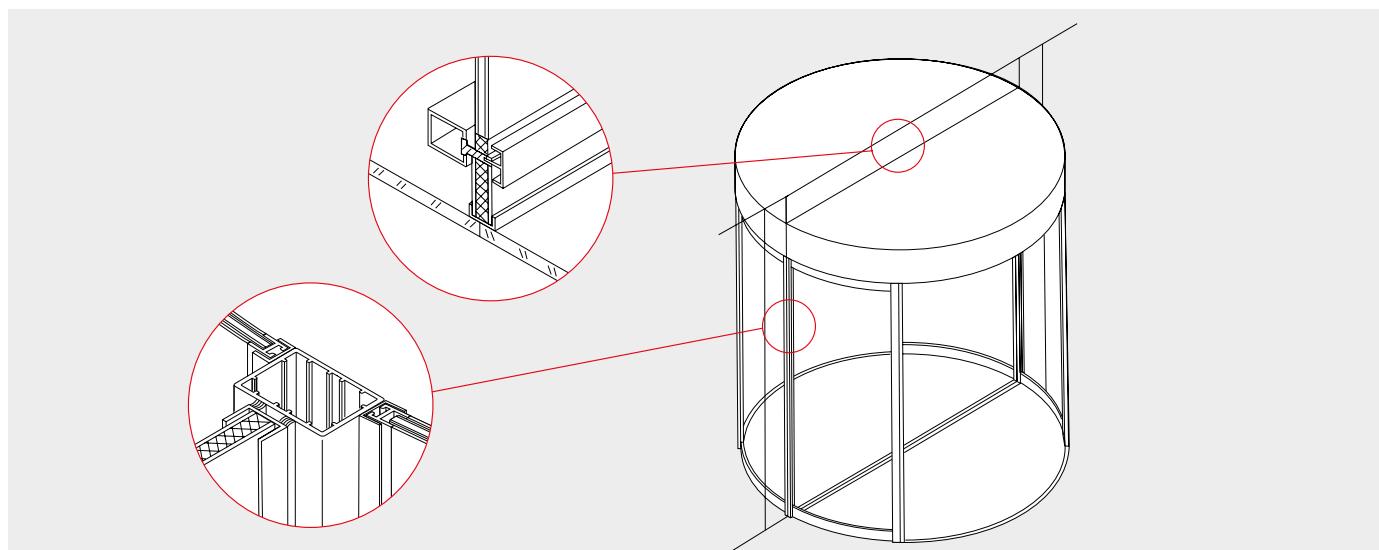


Façade connection

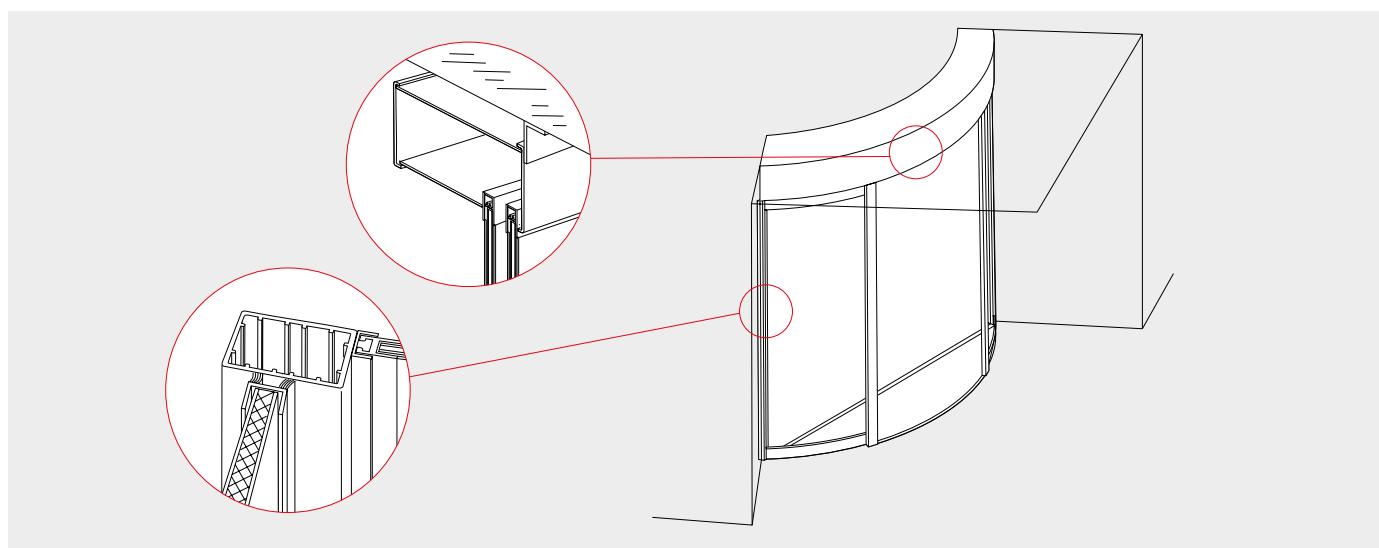
Façade connection 180°



Façade connection 360°

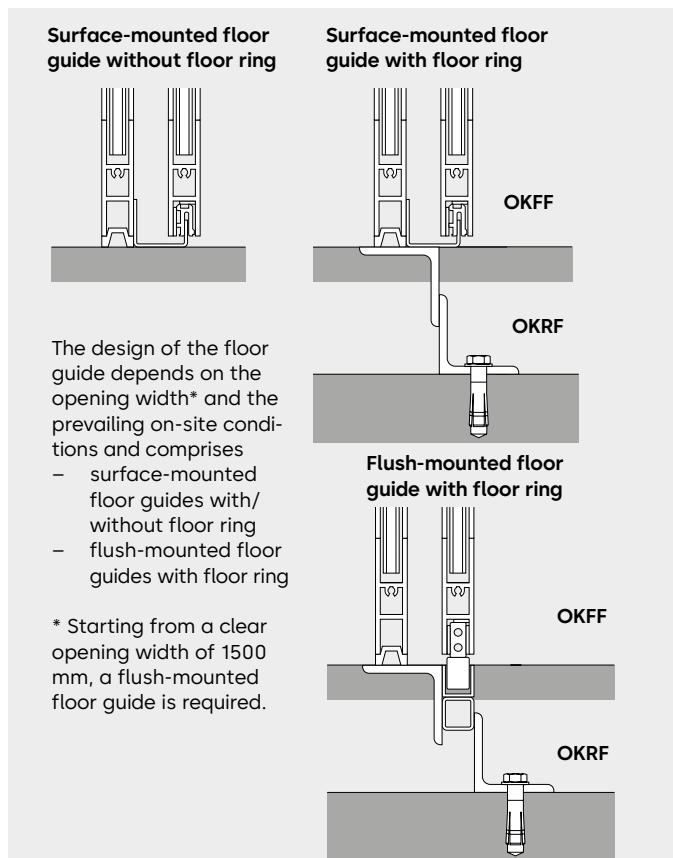


Façade connection with segmental design

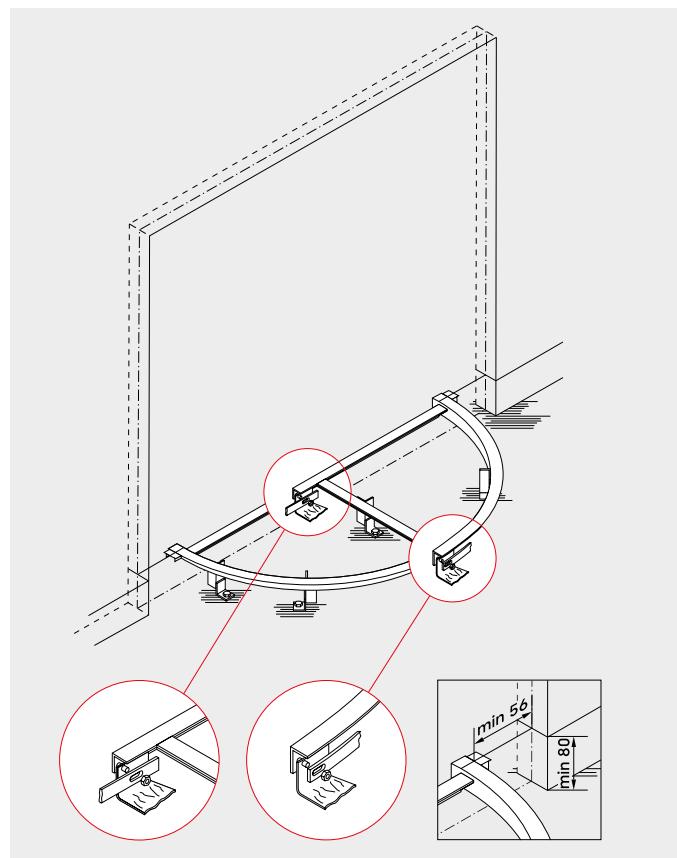


Floor guides, floor ring

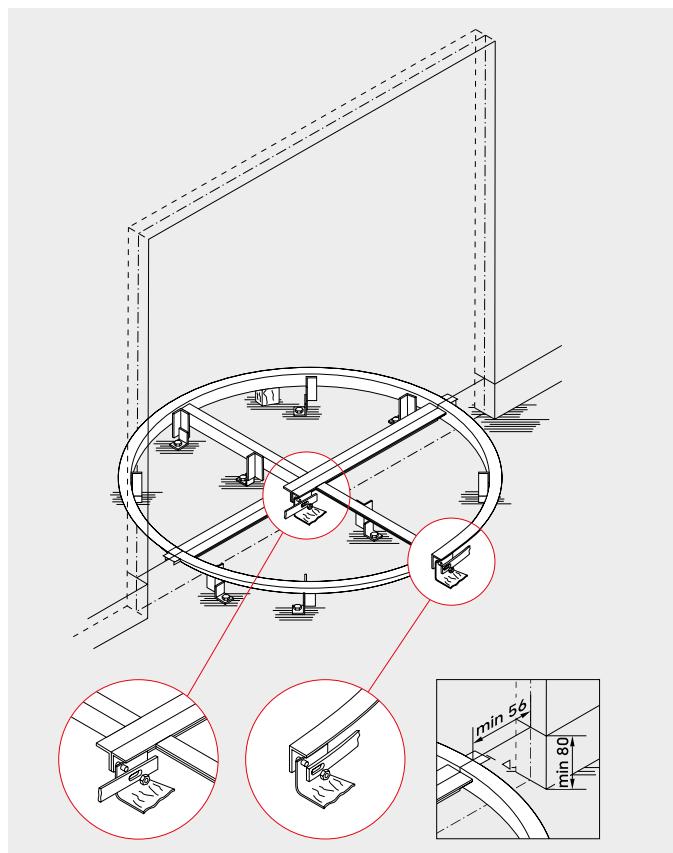
Floor guide



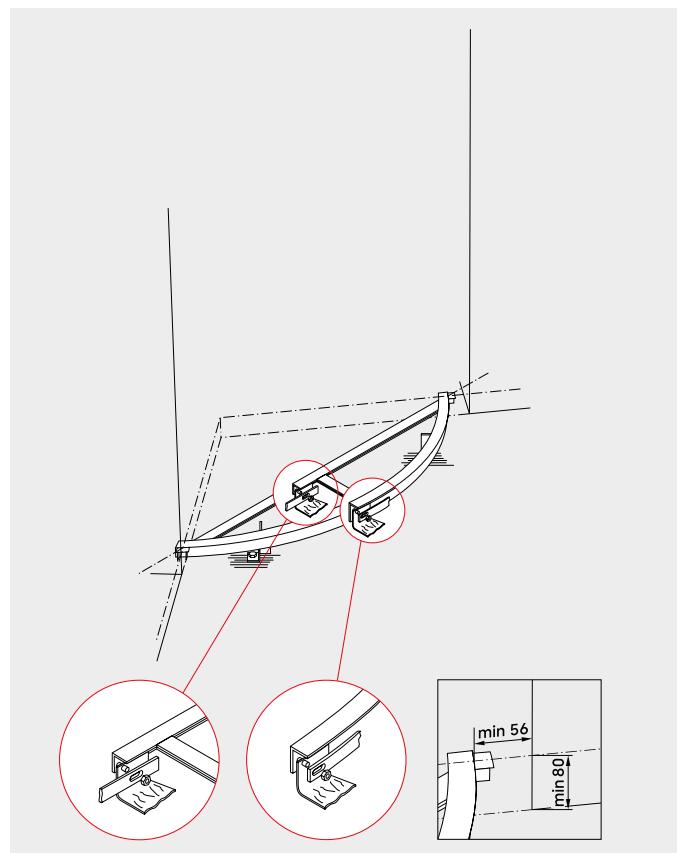
Floor ring half-circle design



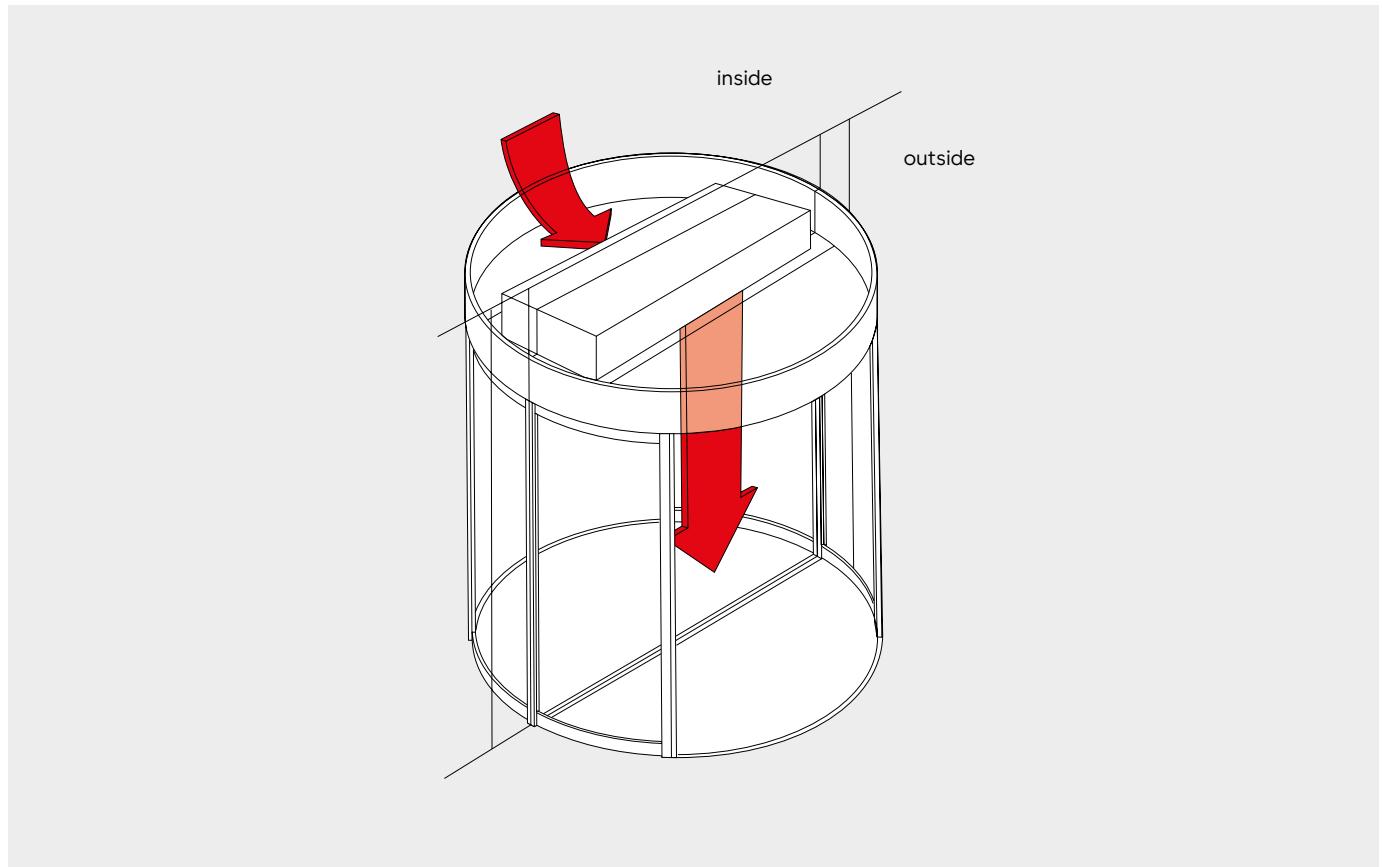
Floor ring with full circle design



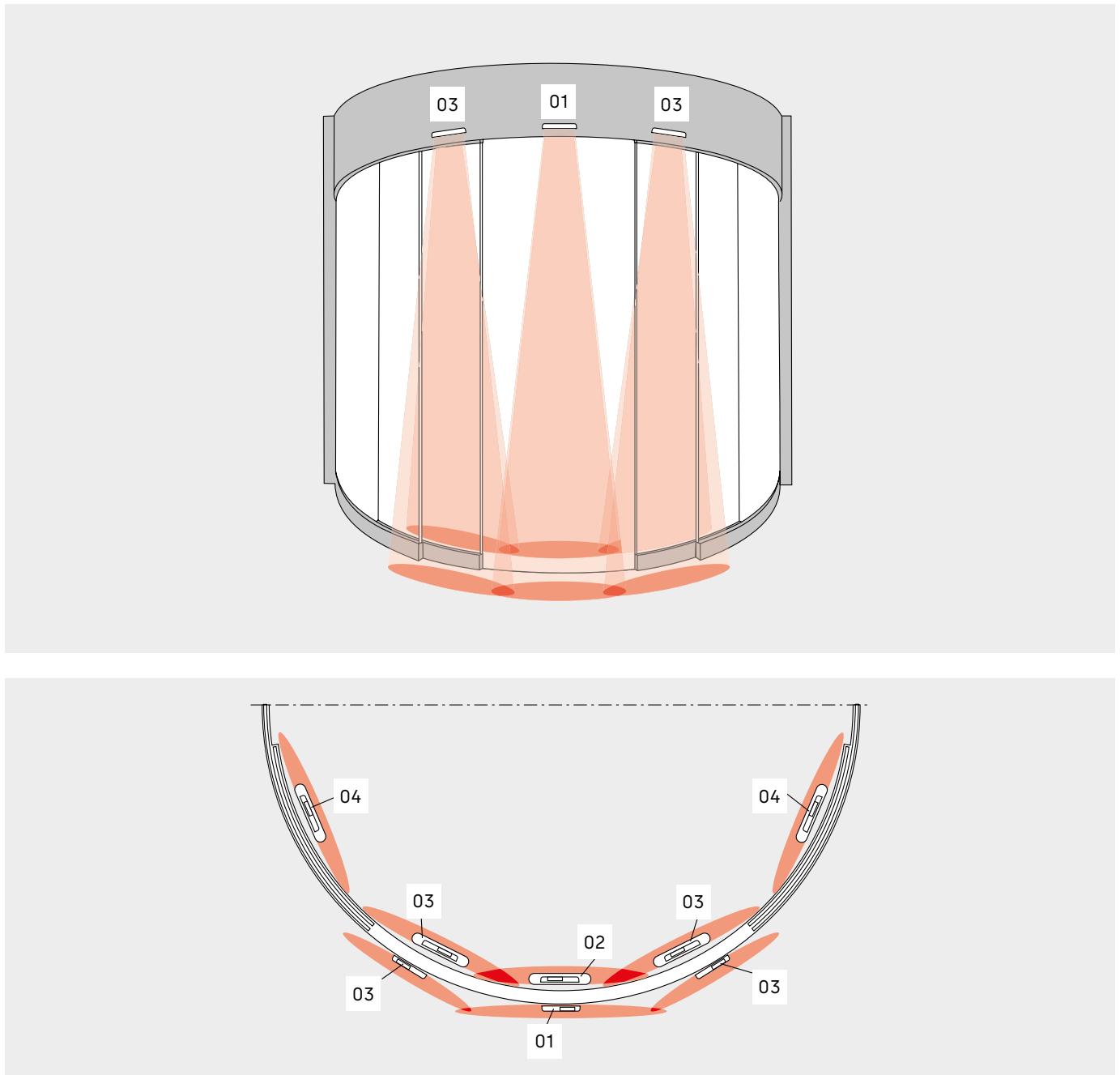
Floor ring segmental design



Air curtain

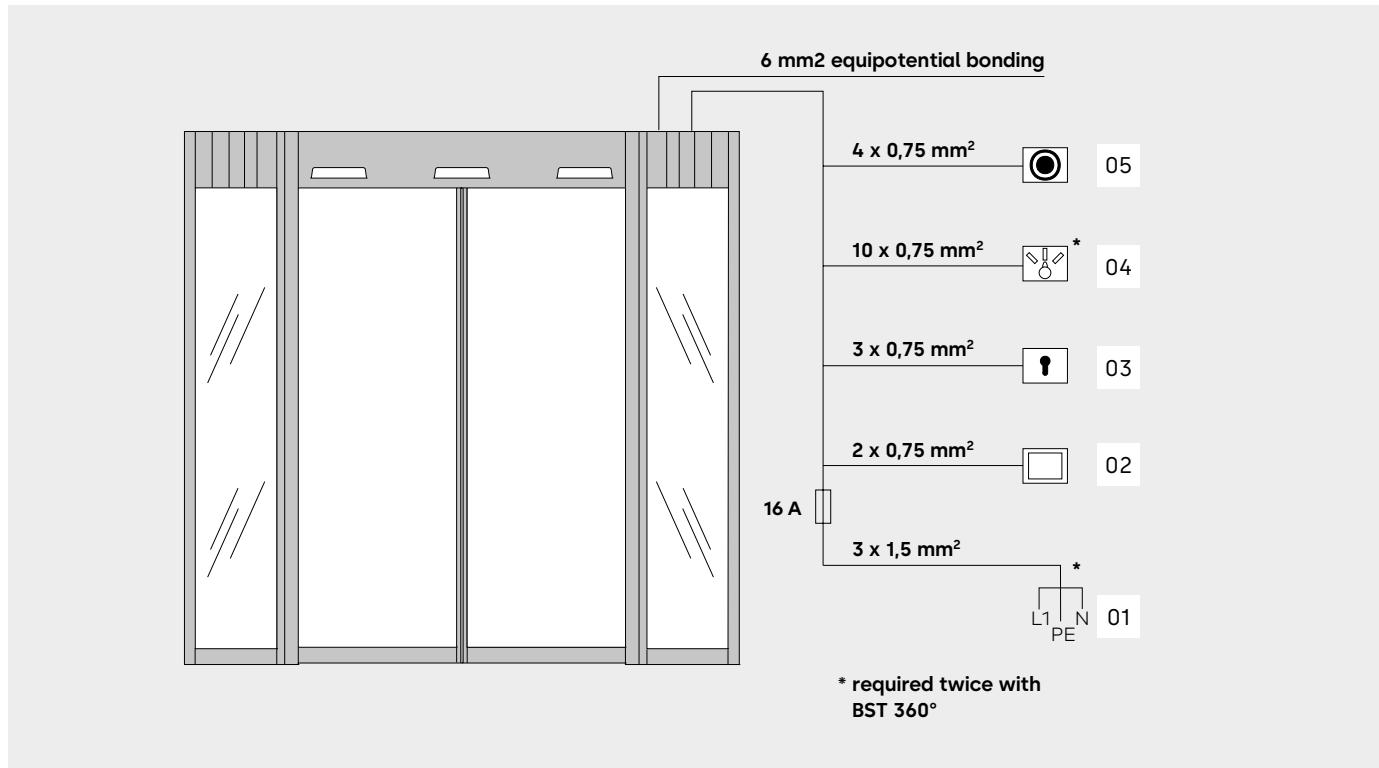


Safety equipment



- 01** External combination sensor (motion detector and infrared detector for monitoring the passage area, number depending on the size of the system)
- 02** Combination sensor inside (motion detector and infrared detector for monitoring the passage area)
- 03** Infrared safety sensor (optional, mandatory with EN 16005 / DIN 18650)
- 04** Infraret safety sensor to monitor the secondary closing edges (optional)

Wiring diagram



The external Emergency pushbutton (BST: Emergency-Off; FBST: Emergency-Open) must be installed close to the door. The maximum cable length is 20 m. The cable can be laid together with the cable for the program switch. The maximum length of the cable connecting the external program switch is 30 m. If the cable is laid with other cables, it must be provided with a shield.

- 01 Mains connection
- 02 Internal pushbutton
- 03 Key switch
- 04 Program switch
- 05 Emergency pushbutton (Option)

Wide range of accessories from dormakaba

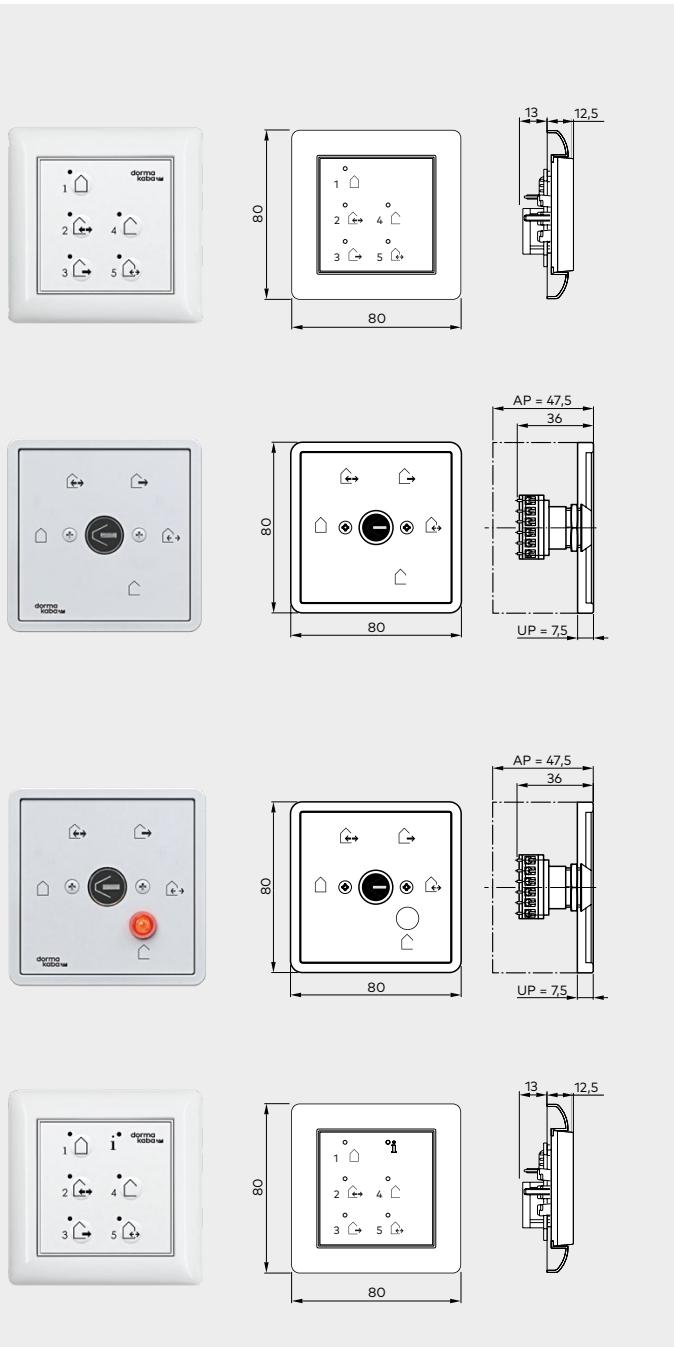
Program switches

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, with frame	White	16556901150
Box for surface mounting		5226933332

PG-S2 program switch

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

PG-S2	White, Gira S-Color	19135602150
Box for surface mounting		5227033332

For sliding door operators in escape routes and emergency exits

Article no.

PG-FST1 program switch

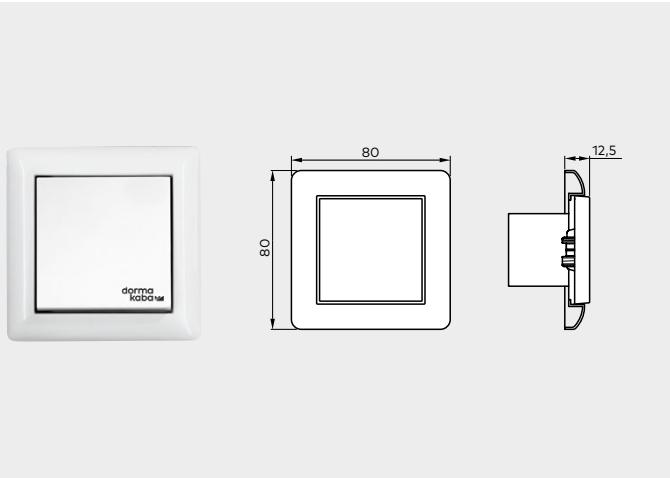
5 positions, lockable, aluminium, concealed, 80 x 80 x 40 mm

PG-FST1	White, Gira S-Color	19135603150
Box for surface mounting		5227033332

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, with frame	White	16556801150
Box for surface mounting		5226933332



Activation switches

Article no.

Manual release switch

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

Manual release switch	White	19144701170
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Key switch

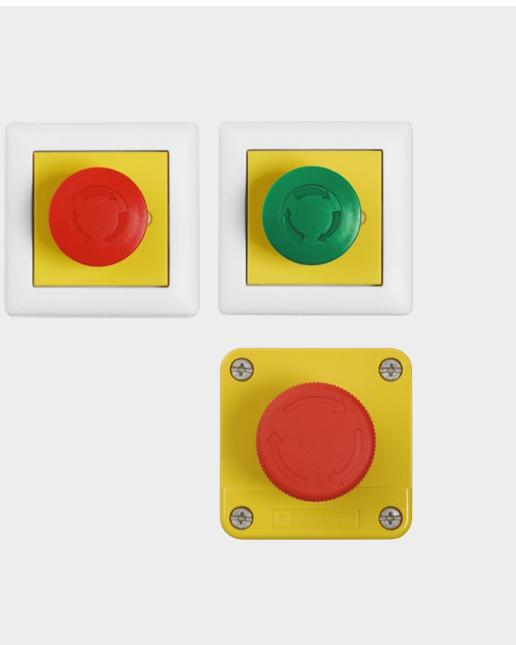
Article no.

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, flush-mounted version incl. flush-mounted box, diameter 59 mm x 50 mm deep

KT 3-1 UP	Concealed	05054531332
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KT 3-1 AP	Surface-mounted	05054631332
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Emergency activation buttons

Article no.

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
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NAT 2	Emergency Open version with green knob, white frame, concealed, 80 x 80 mm, System 55	90400035
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Our Sustainability Commitment

We are committed to foster a sustainable development along our entire value chain in line with our economic, environmental and social responsibilities toward current and future generations. Sustainability at product level is an important, future-oriented approach in the field of construction. In order to give quantified disclosures of a product's environmental impact through its entire life cycle, dormakaba provides Environmental Product Declarations (EPD), based on holistic life cycle assessments.

www.dormakaba.com/sustainability



Our offering

Access Automation Solutions

Entrance Automation
Entrance Security



Access Control Solutions

Electronic Access & Data
Escape and Rescue Systems
Lodging Systems



Access Hardware Solutions

Door Closers
Architectural Hardware
Mechanical Key Systems



Services

Technical Support
Installation and commissioning
Maintenance and Repair



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Subject to technical modifications.



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