BST/FBST COMFORT LINE

Curved Sliding Doors

Attractive visual appearance, various fields of application.

DORMA BST COMFORT LINE automatic curved sliding doors are the perfect answer to providing entrance areas with a customised and aesthetically pleasing appearance.
The systems can be delivered in half-circle (180°) and full-circle (360°) design. They are available in 6 well-established diameters. The façade connection is realised with a flexible connection profile.

The door systems are manufactured as concave and convex versions. Tailored to your architectural concept, DORMA BST COMFORT 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.

They can also be combined with other automatic doors.

Reliable and safe
As in the case of all components and systems from the DORMA portfolio, DORMA BST COMFORT 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, DORMA will also perform the installation and commissioning work.
If desired, the doors can be equipped with safety components (sensors) in accordance with DIN 18650.

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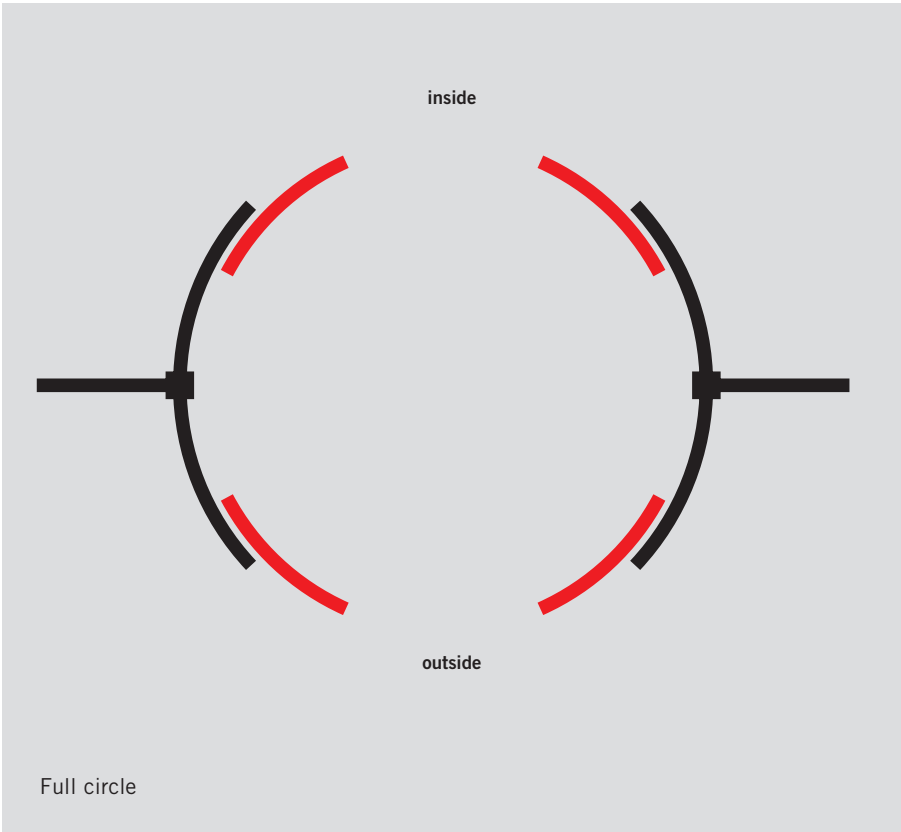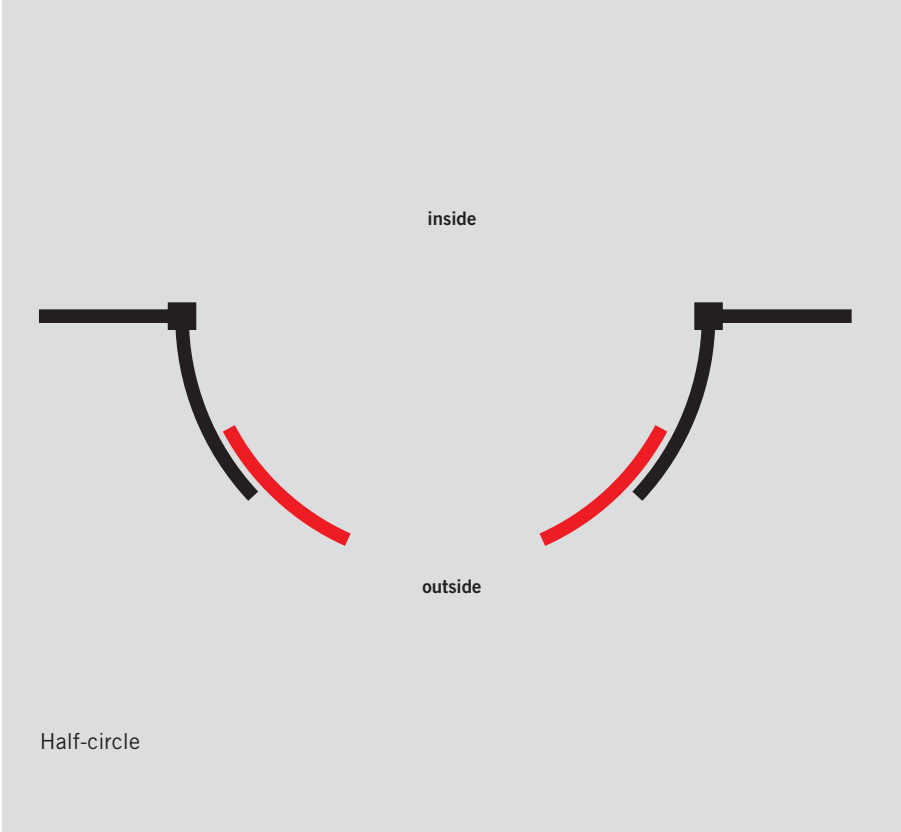If desired, the doors can be equipped with safety components (sensors) in accordance with DIN 18650.

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

Basic configurations

inside

outside

Half-circle

inside

outside

Full circle

Data and features		BST COMFORT LINE	FBST COMFORT LINE
Clear passage width	LW [2]	1235, 1519, 1660, 1802, 1943, 2085	1660, 1802 1943, 2085
Escape route			1660, 1802 1943, 2085
Installation width B,	min.[2]	2100 mm	
Passage height	H	2200 / 2500 mm[1]	
Half-circle radius	r	1000, 1200, 1300, 1400, 1500, 1600	1300, 1400 1500, 1600
Full circle radius	r	1000, 1200, 1300, 1400, 1500, 1600	1300, 1400 1500, 1600
Number of sliding panels		2	
2-panel, symmetrical		●	
Fixed side screens		●	
Canopy height (min.)		260 mm	
Canopy height extension[1]		260 – 500 mm	
Sliding panel, convex		●	
Max. weight per door panel		80 kg	80 kg

[1] Standard dimensions (other dimensions on request)

[2] Depending on radius r

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

Adjustable parameters	BST COMFORT LINE	FBST COMFORT LINE
Opening speed per panel, adjustable	100 – 750 mm/s	
Closing speed per panel, adjustable	100 – 500 mm/s	
Low (creep) speed per panel, adjustable	30 – 90 mm/s	
Opening and closing force, adjustable	●	
Max. force on contact with obstacle	150 N	

Operator and control unit	BST	FBST
Operator	ES 200	ES 200 2D
Microprocessor control unit	●	
Integrated presence sensor	○	
Equipped in accordance with 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	
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
Off	●	
Automatic	●	
Exit Only	●	
Permanent Open	●	
Partial Open, Exit Only	●	
Night-/Bank Function	●	

Design of ceiling		
Ceiling, melamine, white	●	
Upper dust-proof ceiling	●	
Rain-proof ceiling with drainage spouts (prepared)	○	

Profiles and glazing	BST	FBST
Fine-frame profile system with 8 mm ESG - G	●	
Fine-frame profile system with 8,76 mm VSG - G	○	

Accessories	BST	FBST
Straight panel board for top façade connection		○
Lateral façade connection glass/panel board		○
Aluminium girder with aluminium cover, external		●
Aluminium girder		●
Downlights		
Ceiling aperture for downlights by others		○
Halogen spot, 20 W, including ceiling aperture and accessories		○
Floor finish		
Emco floor mat		○
Arwei 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	○	○
Fail-safe via emergency power supply unit	○	●
Monitored rechargeable battery pack	○	●
Intrinsically safe activator in escape direction	–	●
Radar motion detector, external		○
Radar motion detector, internal		○
Emergency pushbuttons		
Emergency Off function	○	–
Emergency Opening function	–	○

● standard
○ optional

Half-circle and full-circle configurations

Standard dimensions	
Clear passage height	**LH**
Canopy height	**SH**
System height	**H**
Actual radius	**r**
Internal width	**S**
System width	**B**
Clear passage width	**LW**

Half-circle and full-circle configurations

Fine-frame profile system G

LH		2200		2500	
SH			260		
H			LH + SH		

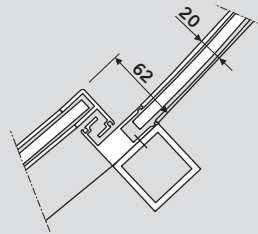| r	1000	1200	1300	1400	1500	1600
S	1960	2360	2560	2760	2960	3160
B	2100	2500	2700	2900	3100	3300
LW	1235	1519	1660	1802	1943	2085

Dimensions in mm
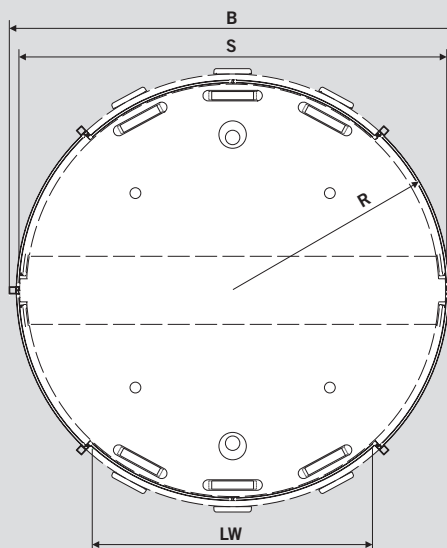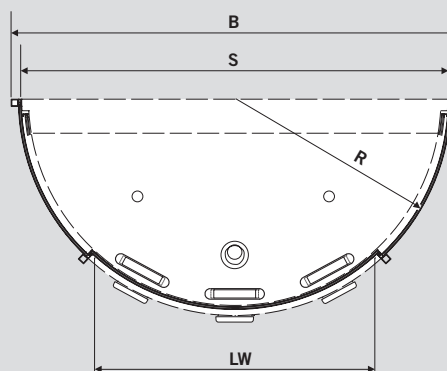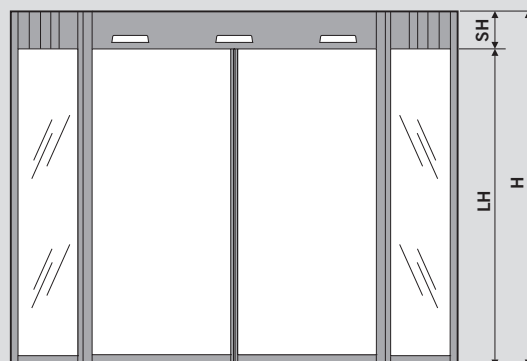
DORMA FBST with approval for application in emergency exits and escape routes according to DIN 18650
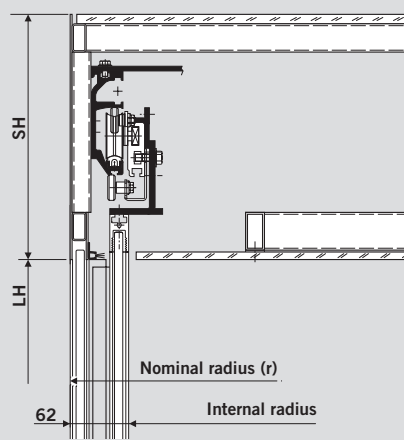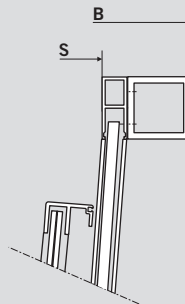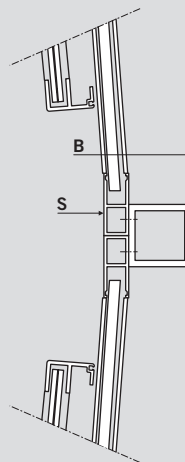
Drum wall and sliding
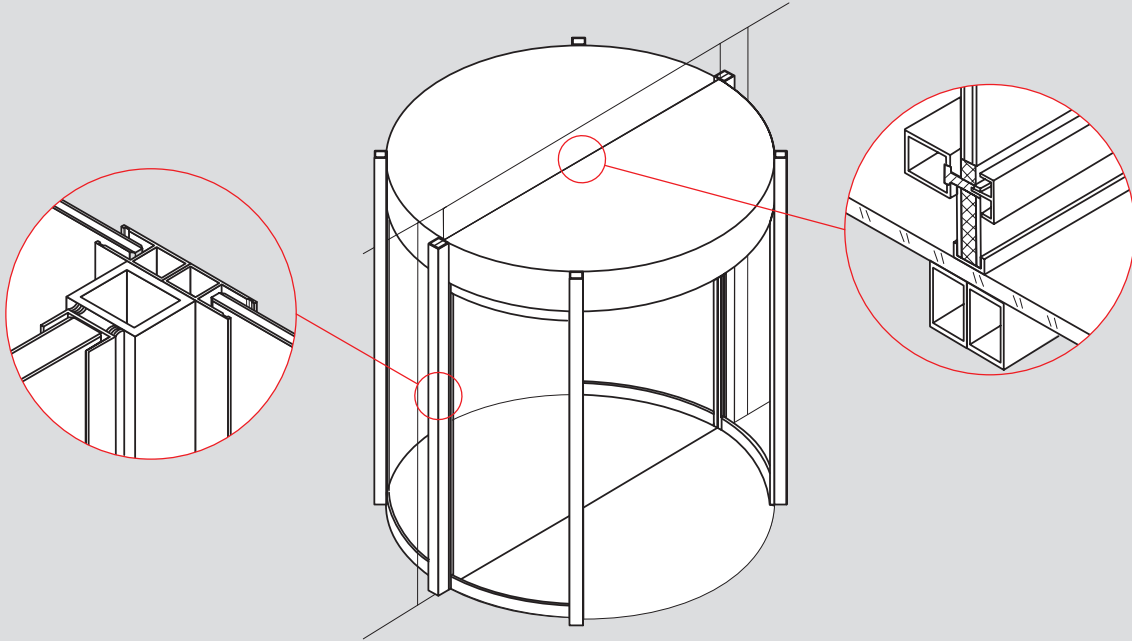panel with sealing profiles

Panels with
centre seals
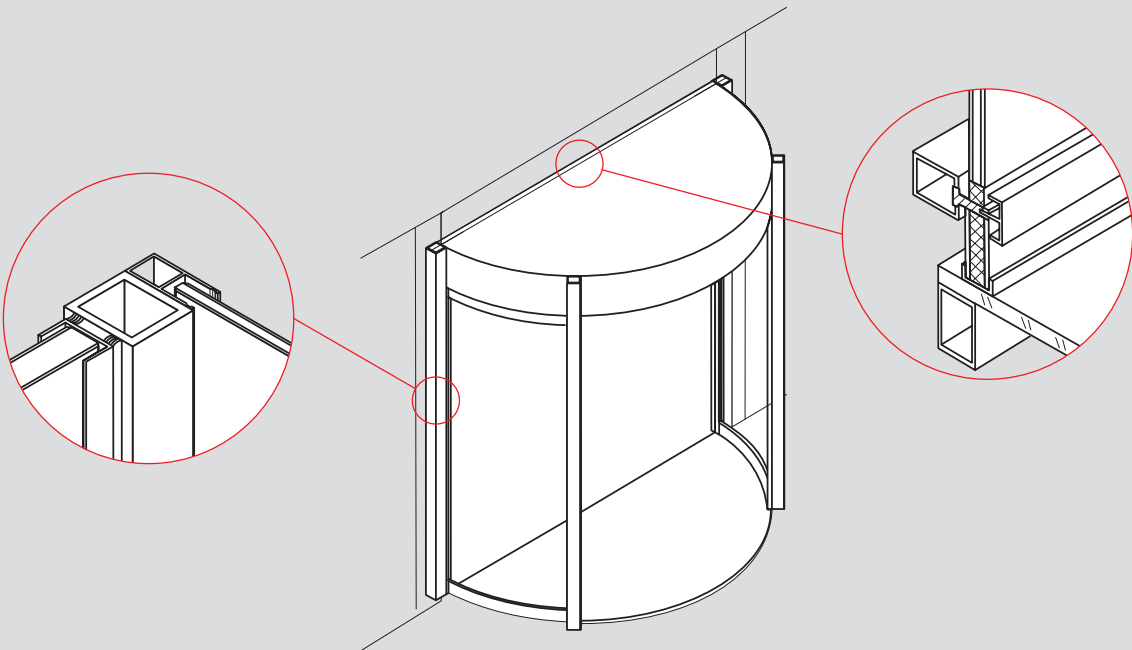
Aluminium girder
with connection to
half-circle drum wall

Aluminium girder
with connection to
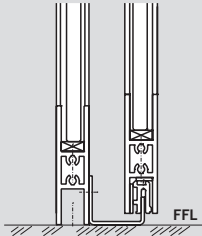full circle drum wall

Façade connection 360°

Façade connection 180°

DORMA
BST COMFORT LINE
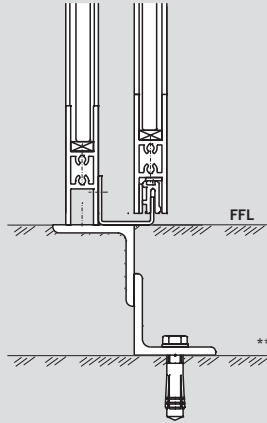**FBST COMFORT LINE**

Floor guides
Floor rings

DORMA

Floor guides
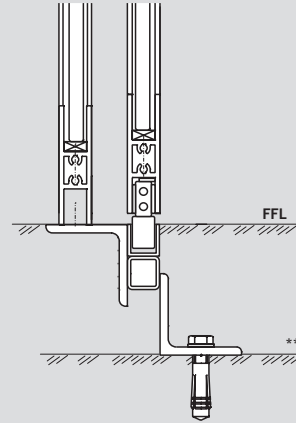
Surface-mounted floor guide without floor ring

Surface-mounted floor guide with floor ring
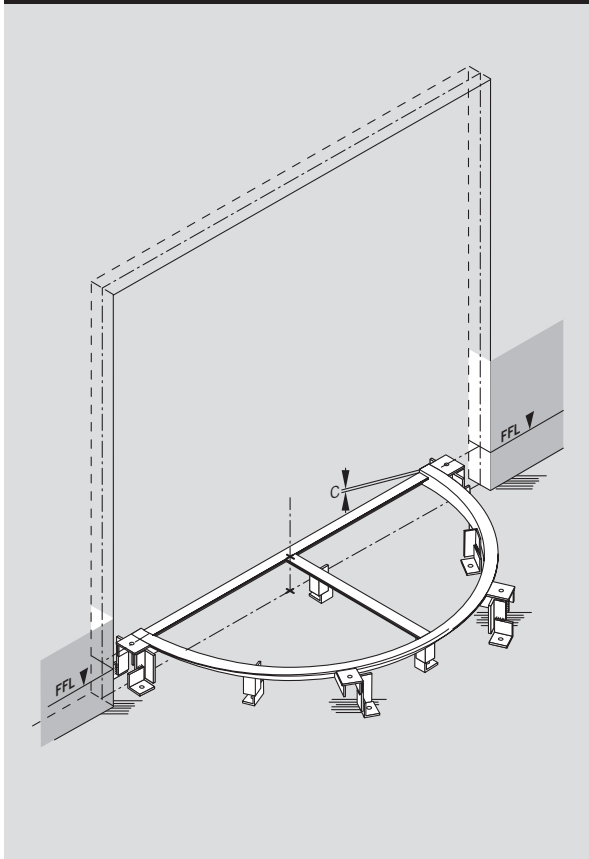
Flush-mounted floor guide with floor ring

FFL

FFL

FFL

The design of the floor guide depends on the opening width* and the prevailing on-site conditions and comprises

– surface-mounted floor guides with/without floor ring

– flush-mounted floor guides with floor ring.
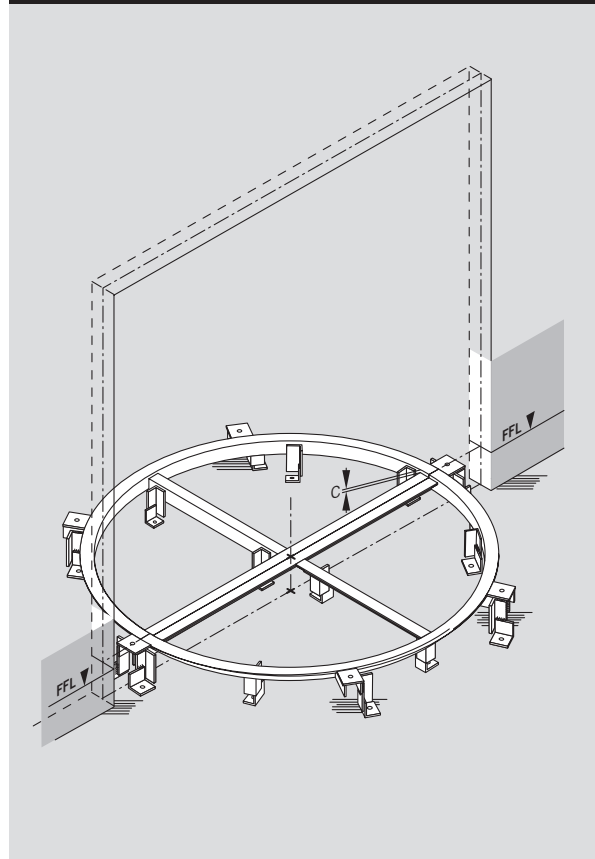
*Starting from a clear opening width of 1500 mm, a flush-mounted floor guide is required.

**

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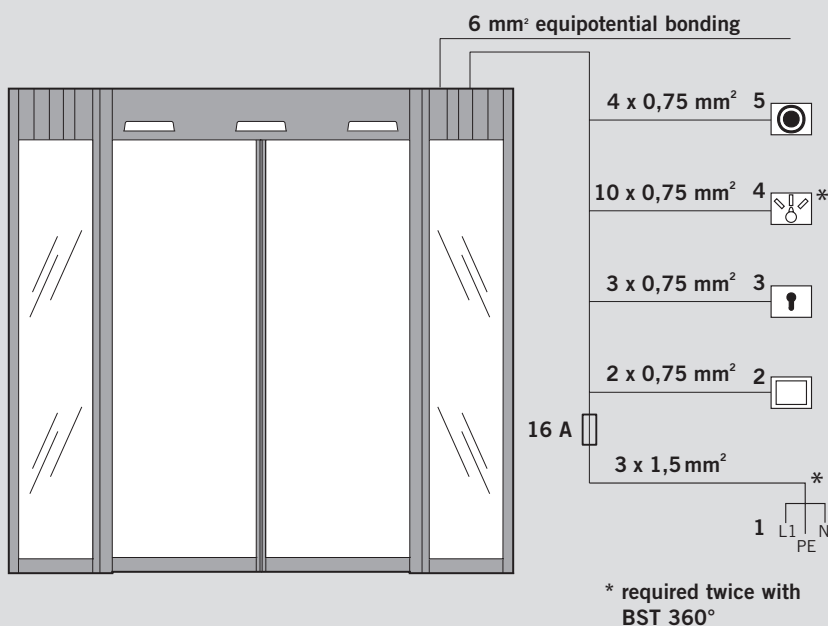**upper edge of unfinished floor

Floor ring with half circle design

FFL

FFL

C

Floor ring with full circle design

FFL

FFL

C

Connection diagram

6 mm² equipotential bonding

4 x 0,75 mm² 5

10 x 0,75 mm² 4 *

3 x 0,75 mm² 3

2 x 0,75 mm² 2

16 A

3 x 1,5 mm² *

1 L1 N
PE

* **required twice with BST 360°**

1 Feeder
2 Internal pushbutton
3 Key switch
4 Program switch
5 Emergency pushbutton (option)

The external Emergency Off pushbutton must be installed close to the door. The maximum cable length amounts to 30 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..

Safety equipment

4   1   4

4   3   4
4   2   4
1
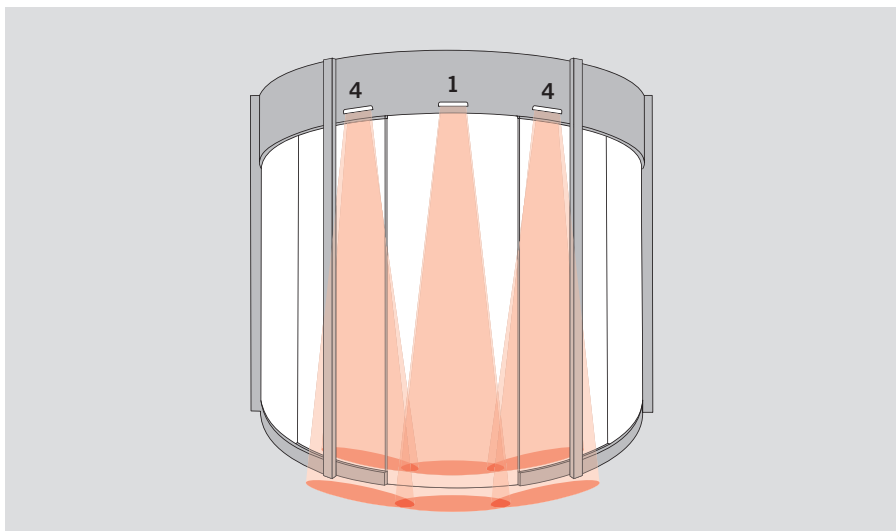
1 External radar motion detector/combined sensor, external (compulsory with DIN 18650)
2 Integrated infrared safety sensor to monitor the passage area
3 Internal radar motion detector
4 Infrared safety sensor (optional, compulsory with DIN 18650)
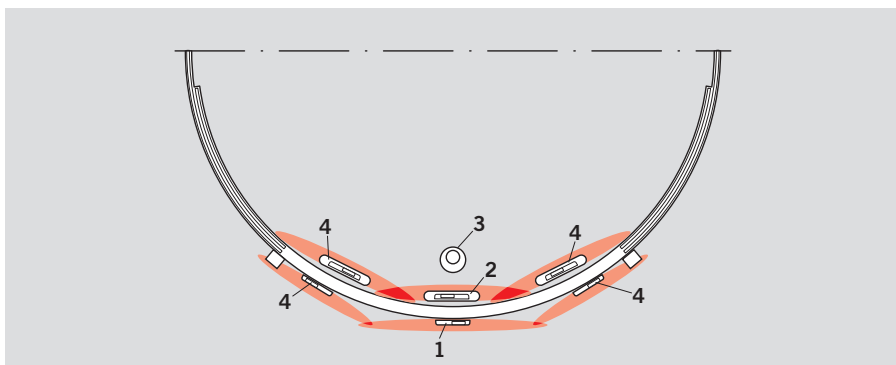
Program switch

When combining the system with a program switch out of the DORMA accessory range, the automatic door system even meets individual requirements and offers easy handling.

These program switches are available in various designs have been conceived for all kinds of demands.

Furthermore they offer various options, from a mechanical to a full-electronic version alternatively also lockable via Euro profile half-cylinder or in a full-electronic way via code.

– Up to 5 different functions: Off, Automatic, Exit Only, Partial Open, Permanent Open
– Electronic program switches in System 55 design to cope with the highest aesthetic demands

Program switches for sliding door operators

Program switches	Designation	Specification	Installation system	Order No.
PG-S2	PG-S2	5-position, lockable, aluminium, white, flush-mounting, 80 x 80 x 40 mm	Gira S-Color	19135602150
EPS-S	EPS-S	Full-electronic program switch in System 55 design, 5-position, lockable via code or additional key switch TL-ST S55, membrane keypad, aluminium-coloured, white, flush-mounting, 80 x 80 mm	System 55	16556901150
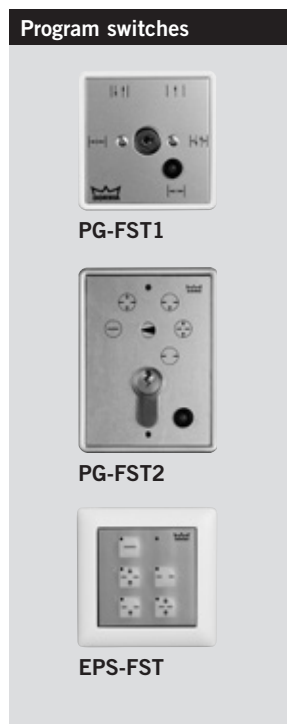
Program switches for sliding door operators in emergency exits and escape routes (FST)

Program switches	Designation	Specification	Installation system	Order No.
PG-FST1	PG-FST1	5-position, lockable, aluminium, white, flush-mounting, 80 x 80 mm	Gira S-Color	19135603150
PG-FST2	PG-FST2	5-position, lockable via Euro profile half-cylinder, white, aluminium, flush-mounting, 105 x 80 x 65 mm	Deutsche Solenoid	19142001170
		box for surface-mounting:		19142201170
EPS-FST	EPS-FST	Full-electronic program switch in System 55 design, 5-position, lockable via code or additional key switch TL-ST S55, membrane keypad, white, aluminium-coloured, flush-mounting, 80 x 80 mm	System 55	16556801150

Pushbuttons
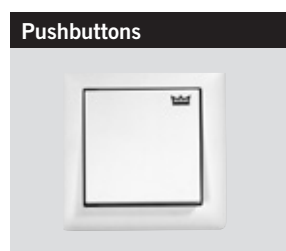
Pushbuttons

	Designation	Specification	Installation system	Order No.
Pushbuttons	**Pushbutton**	Single-pole changeover contact, standard frame, white, flush-mounting	System 55	19144701170
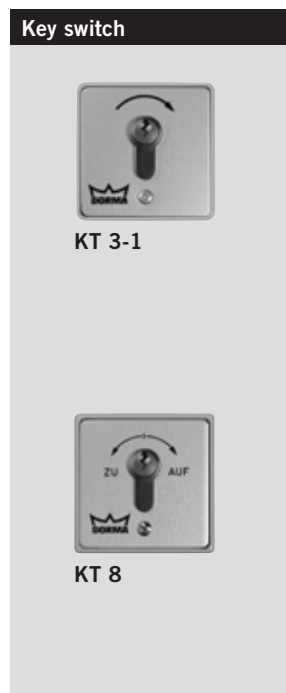
Key switch

	Designation	Specification	Order No.
KT 3-1	**KT 3-1**	1 NO contact, with Euro profile half-cylinder (can be replaced by any half-cylinder of a master-key system), you can only withdraw the key when it is in zero position, aluminium, metal, 75 x 75 x 60 mm	
	KT 3-1	**flush-mounting**	05054531332
	KT 3-1	**surface-mounting**	05054631332
KT 8	**KT 8**	Lettering "Auf, Zu", 2 NO contacts, with Euro profile half-cylinder can be replaced by any half-cylinder of a master-key system), you can only withdraw the key when it is in zero position, aluminium, metal, 75 x 75 x 60 mm	
	KT 8	**flush-mounting**	05054831332
	KT 8	**surface-mounting**	05054931332

Emergency pushbutton

	Designation	Specification	Installation system	Order No.
Emergency pushbutton / **NAT 1**	**NAT 1**	To interrupt the automatic movement of the door. Emergency pushbutton (Function: Emergency Off) for automatic door operators. Manufactured according to ZH 1/494 (German Guidelines for power-operated windows, doors and gates) and BGR 232 (German Employer's Liability Insurance Association Rule) as well as DIN 18650 (German Industrial Standard). Red knob with yellow centre insert. Maximum load current: max. 10 A at 230 V AC. NO contact: 1, NC contact: 1, white frame, flush-mounting, 80 x 80 mm	System 55	90400025
	NAT 2*	Function: "Emergency Open" with green knob, NO contact: 1, NC contact: 1, Maximum load current: 10 A at 230 V AC, white frame, flush-mounting, 80 x 80 mm	System 55	90400035

*no illustration

System accessories

Active infrared safety sensor
Radar motion detectors
Combined sensors

Active infrared safety sensor

Active infrared system to protect the passage area and the secondary closing edges of sliding doors. To detect the presence of people and objects.

Active infrared safety sensor	Designation	Specification
	IRIS ON	black

Radar motion detectors

The user-friendliness of automatic doors depends a lot on what kind of activator is used and its construction.

The DORMA sensor range combines the flexibility that is required for the different fields of application with reliability and the highest level of user friendliness.

Furthermore it effectively detects moving people or objects in order to activate (open) automatic doors.

Radar motion detectors	Designation	Specification	Order No.
Eagle	**Standard motion detectors**		
	Eagle 2	Standard, black	16503201170
System for ceiling installation Eagle	**Motion detectors with direction recognition** Direction recognition for perfectly controlled opening and closing cycles.		
	Eagle 1	Direction recognition, black	16503101170
	Self-monitoring motion detector **(FST application – for doors with application in emergency exits and escape routes)** Radar motion detector for doors in emergency exits and escape routes with self-monitoring function and electronic systems in redundant design.		
	Eagle 3-N	Self-monitoring, direction recognition, black	16551601170
Rain protection cover Eagle	**Accessories for Eagle detectors**		
	System for ceiling installation, white		16502901170
	Rain protection cover, transparent		05090731332

Combined sensors

To activate (open) and pro-
tect automatic sliding doors.
This system is designed
to substitute light barriers
with the aid of an integrated

active infrared function.
This combined sensor opens
sliding doors via radar and
protects the main and
secondary closing edges with

the aid of an active infrared
system.

Aktiv-Infrarotmelder
Activ8 One on / Activ8 Three on

Designation	Specification
Activ8 One on	Direction recognition, black
Activ8 Three on	Direction recognition, self-monitoring, suitable for application on FST doors (fire and smoke doors), black

DORMA

Door Control

Automatic

**Glass fittings
and Accessories**

**Security Time
and Access (STA)**

Movable Walls

www.dorma.com

**DORMA GmbH + Co. KG
DORMA Platz 1
D-58256 Ennepetal
Phone +49 2333/793-0
Fax   +49 2333/793-495**

Division Automatic worldwide

Region Australasia

Australia
DORMA Automatics Pty. Ltd.
Phone +61 3 8795 0666
www.dorma.com.au

New Zealand
DORMA HORIZON NZ LTD
Phone +64 9 573-1999
www.dorma.com.nz

Region Central Europe

Belgium
DORMA foquin N.V./S.A.
Phone +32 50 451570
www.dorma.be

Germany
DORMA Automatic
GmbH + Co. KG
Phone +49 2333 793-0
www.dorma.de

Luxembourg
Luxembourg Subsidiary
Automatic
Phone +49 2333 793-216
www.dorma.de

Netherlands
DORMA Nederland B.V.
Phone +31 488 418100
www.dorma.nl

Switzerland
DORMA Schweiz AG
Phone +41 718864646
www.dorma.ch

Region Emerging Markets

Bulgaria
DORMA-BALKAN EOOD
Phone +359 2 9714 904
www.dorma.com

Greece
DORMA Representation Greece
Phone: +30 21 09944388
www.dorma.com

India
DORMA Door Controls India
Pvt. Ltd.
Phone +91 44 28585097
www.dorma.com

Israel
DORMA GmbH + Co. KG
Phone +49 2333 793-0
www.dorma.com

Poland
DORMA Polska sp. z o.o.
Phone +48 22 7365900
www.dorma.pl

Russia
DORMA Russia
Phone +7 495 981-1433
www.dorma.rus

South Africa
DORMA Door Controls (Pty.) Ltd
Phone +27 11 8300280
www.dorma.com

Turkey
DORMA Kapi Kontrolleri Ltd.
Sti Sahraticedid Mah.
Phone: +90 216 3600056
www.dorma.com

Ukraine
DORMA Sales Representative
Vasyl Stuchylin
Phone +38 44 5183526
www.dorma.com

Region China

China
DORMA China Ltd.
Phone +86512 67612481
www.dorma.com.sg

Hong Kong
DORMA Door Controls (Suzhou)
Co., Ltd.
Phone +852 25034632
www.dorma.com.sg

Region Far East

Indonesia, Japan, Malaysia,
Vietnam
DORMA Emerald Entrance
Systems Pte Ltd
Phone +65 459 5733
www.dorma.com.sg

Philippines
DORMA Door Controls Pte. Ltd.
Phone +632 893 4077/8
www.dorma.com.sg

Singapore
DORMA Far East Pte. Ltd.
(Sales)
Phone +65 64151898
www.dorma.com.sg

South Korea
DORMA Emerald Entrance
Systems Pte Ltd
Phone +65 459 5733
www.dorma.com.sg

Taiwan
DORMA Door Controls Pte. Ltd.
Phone +886 2 9182987
www.dorma.com.sg

Region France

France
DORMA Accueil S.A.S.
Phone +33 4 79348924
www.dorma.fr

Region Gulf

Saudi Arabia
DORMA Arabia Automatic
Doors Ltd.
Kingdom of Saudi Arabia
Phone +9663 847 2394
www.dorma.com

United Arab Emirates
DORMA Gulf Door Controls FZE
Dubai, United Arab Emirates
Phone +971 48 839014
www.dorma.com

Region North America

Canada
DORMA Door Controls
Phone +1 905 6701281
www.dorma.com

Mexico
DORMA México, S. de R.L.
de C.V.
Phone +52 55 5272-6937
www.dorma.com

USA
DORMA Automatics Inc.
Phone +1 847 295-2700
www.dorma-usa.com

Region Scanbalt

Denmark
DORMA Danmark A/S
Phone +45 44 543000
www.dorma.dk

Estonia
DORMA Representation
Estonia
Phone +372 6707064
www.dorma.com

Finland
DORMA Finland Oy
Phone +358 9 8789130
www.dorma.fi

Lithuania
DORMA Norge AS
Phone +47 23 176800
www.dorma.com

Norway
DORMA Norge AS
Phone +47 23 176800
www.dorma.no

Sweden
DORMA Sverige AB
Phone +46 31 289520
www.dorma.se

Region South America

Argentina
DORMA Sistemas de
Controles para Portas Ltda
Phone +54 11 45051032
www.dorma.com

Brazil
DORMA Sistemas de Controles
para Portas Ltda.
Phone +55 11 46899128
www.dorma.com.br

Region South-East Europe

Austria
DORMA Austria GmbH
Phone +43 6225 8636-0
www.dorma.at

Croatia
DORMA Croatia d.o.o.
Phone +385 0 1 46 06 944
www.dorma-croatia.hr

Czech Republik
DORMA dverní technika CR,
s.r.o.
Phone +420 2 671321-78
www.dorma.com

Hungary
DORMA AKS Automatic GmbH
Phone +36 1 2065127
www.dorma.com

Romania
DORMA Romania S.R.L.
Phone +40 31 806 916 0
www.dorma.com

Slovakia
DORMA Slovensko spol. s.r.o.
Phone +421 2 50221-283
www.dorma.com

Slovenia
DORMA Representation
Slovenia ICL d.o.o.
Phone +386 2 5302010
www.dorma.com

Region South Europe

Italy
DORMA Italiana S.r.l.
Phone: +39 039 244031
www.dorma.it

Portugal
DORMA Portugal
para Portas, Lda.
Phone +351 252 860490
www.dorma.com

Spain
DORMA Ibérica, S.A.
Phone +34 91 8757850
www.dorma.es

Region UK/Ireland

Ireland
DORMA Ireland Limited
Phone +353 1 295-8280
www.dorma.ie

Great Britain
DORMA UK Limited
Phone +44 1462 477600
www.dorma-uk.co.uk