



# ES 200

Sliding door operator

## Flexible, simple and modular – with drive power to spare.

The new, innovative DORMA ES 200 sliding door operator system offers the perfect solution for all applications and service requirements. The ES 200, equipped with the DORMA **PowerDrive** technology, fulfills every demand imposed on operators in terms of adaptability to different door widths, door weight capacity and functionality.

### The modular system

The modular design of the ES 200 provides an ideal basis for the implementation of new ideas and individual concepts in the design and construction of sliding door systems.

The identical mechanical components may be installed in all three versions of the operator (ES 200, ES 200-2D and ES 200 *Easy*).

DORMA has also opened up a new dimension with its control system. Now there is no longer any need to replace components when you want to expand the functionality of your system. In future, “docking” will be the order of the day. The modular control system comprises of the basic module (BM) and the function module (FM). Consequently, upgrading in accordance with individual customer requirements may be carried out without problem. Particularly impressive is the prefabricated **MiniDriveUnit**, industrially tested and equipped with all the necessary electrical and electronic components.

### Integrated power

With its extra-powerful motor and a dynamic driving phase control, the integrated **PowerDrive** system ensures safe and reliable operation. And it can readily cope with sliding door weights of up to 2 x 160 kg per door panel weight.

### Exceptional cost-efficiency

With the ES 200, DORMA offers a drive system of modular design capable of covering every application on the basis of just a few components. The system offers easy assembly and installation, reduced storage and stocking costs, and simple maintenance for enhanced operational cost efficiency.

### A system for the future

With this system you are investing in the future. You also have the security derived from our decades of experience in the automatics business – a history that sets DORMA apart as the market leader in drive and control systems for doors. The ES 200 corresponds to all the latest European and German standards and safety regulations.

### Delivery formats

The ES 200 is available as a component kit, as a complete, pre-assembled operator or ready integrated in all DORMA sliding door systems.

### Accessories

DORMA furthermore provides program switches, activators and door profiles all perfectly matched to the operator as ideal complementary components.



### Features and benefits

- Modular, flexible system
- With DORMA **PowerDrive**: Dynamic driving phase control for particularly powerful operation – and with emergency power backup in the form of a rechargeable battery pack
- Industrially prefabricated and tested **MiniDriveUnit**
- Modular control system upgradeable with additional function modules
- Integrated DCW (DORMA Connect and Work) bus system for easy integration of DORMA DCW sensors and activators
- Easy commissioning via the integrated display
- May be combined with all customary door profiles
- Fully comprehensive range of accessories
- Reliable investment due to compliance with all relevant European and German standards

Door parameters	ES 200
Single-panel sliding door – Clear passage width LW – Door panel weight, max.	700 – 3000 mm 1 x 200 kg
Double-panel sliding door – Clear passage width LW – Door panel weight, max.	800 – 3000 mm 2 x 160 kg

Technical data of operator	
Height	100 and 150 mm
Installation depth	180 mm
Opening and closing force, max. 150 N	●
Opening speed (incremental setting)	10 – 70 cm/s
Closing speed (incremental setting)	10 – 50 cm/s
Hold-open time	0 – 180 sec.
Supply voltage, frequency	230 V, 50/60 Hz
Power consumption	250 W
Class of protection	IP 20
Compliant with EU Low Voltage Directive and EMC Directive	●
Manufactured to ISO 9001:2000	●

Basic module (BM)	
Modular design	●
Microprocessor-controlled function programs – Off – Automatic – Permanent Open – Partial Open – Exit Only – Night-/Bank Function	● ● ● ● ● ●
Connections for – electro-mechanical locking device – light barriers	● ●
Adjustment of all basic parameters via integrated display and pushbuttons	●
24 V output for external accessory	●
Read-out error memory with error codes	●
DCW bus interface	●
Rechargeable battery pack for emergency operation	●

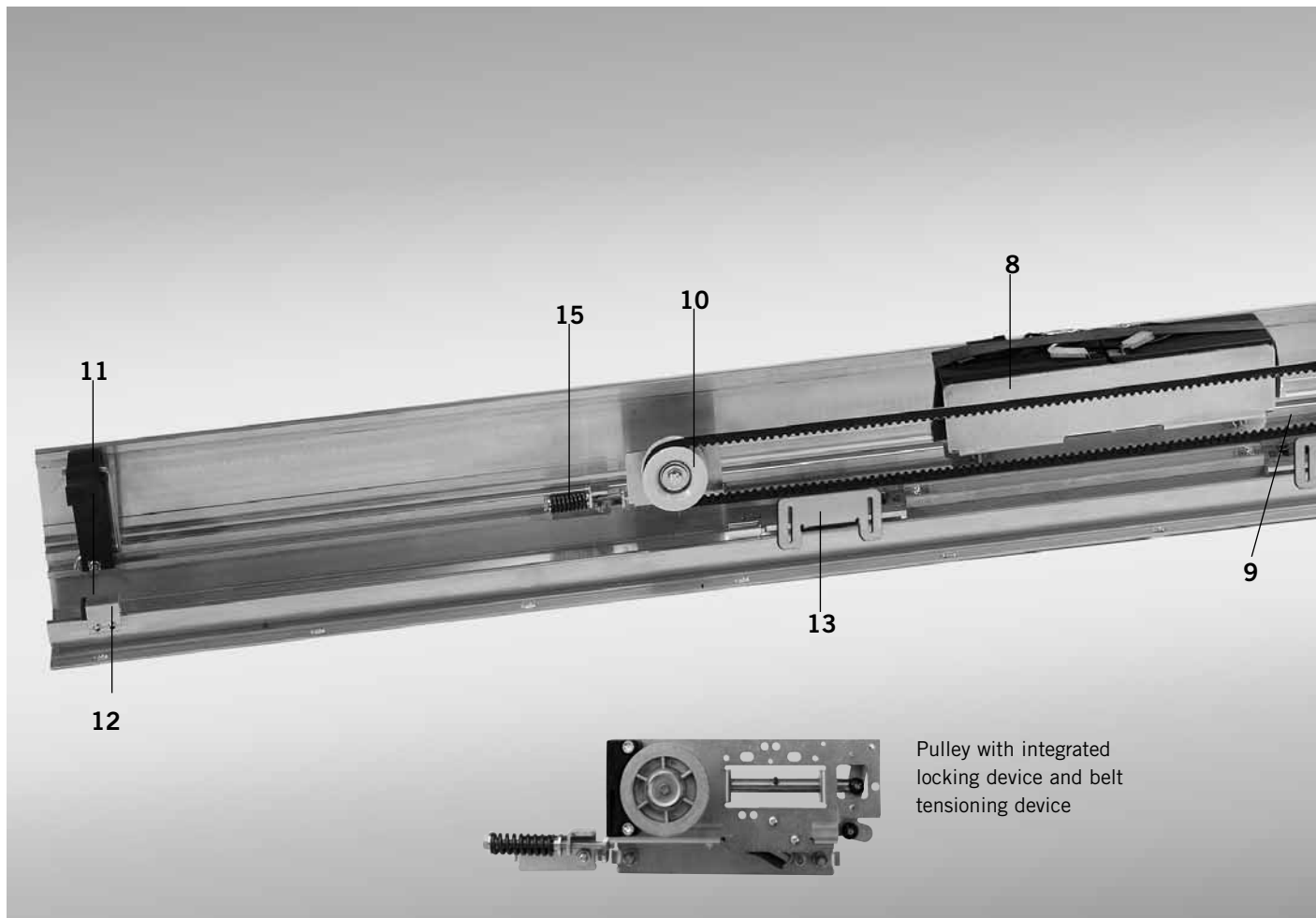
Function module (FM) – optional extra	
Pharmacy Function	●
Door status contact (three)	●
Main and secondary closing edge protection	●
Panic Closing Function	●
Bell contact	●
Airlock control	●
Synchronous operation	●

DIN 18650 function module – optional	
The DIN 18650 function module* enables the tested monitoring of the secondary closing edges in order to comply with the German standard DIN 18650.	○

Additional equipment	
Electro-mechanical locking device (bistable)	○
Manual lock release for electro-mechanical locking device	○
Light barriers	○
Rechargeable battery pack (emergency opening, emergency closing)	○
Module for coupling to EIB or LON building management systems*	○

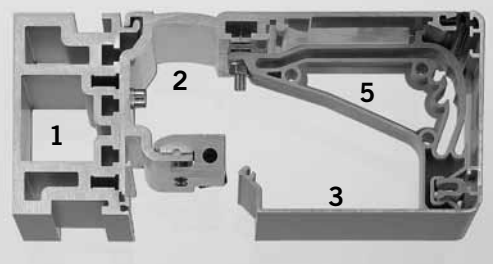
\* Please ask your Sales Consultant for series start date.

- standard
- optional

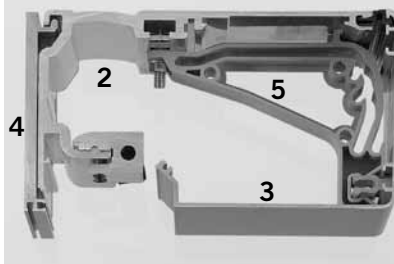


Pulley with integrated locking device and belt tensioning device

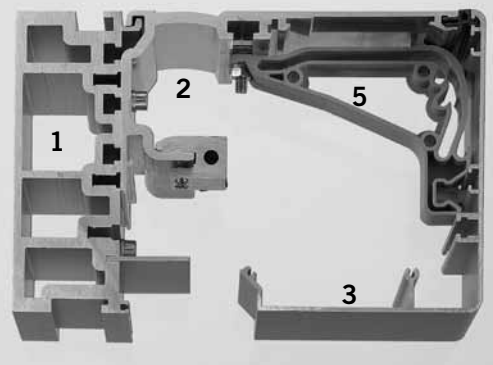
Profiles for corridor installation, 100 mm



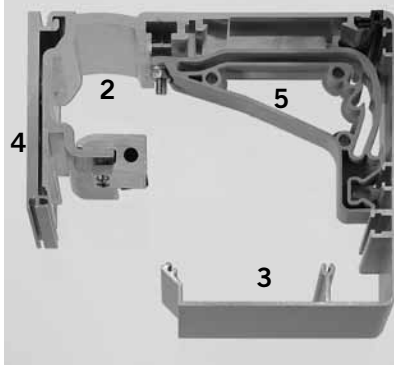
Profiles for wall installation, 100 mm



Profiles for corridor installation, 150 mm

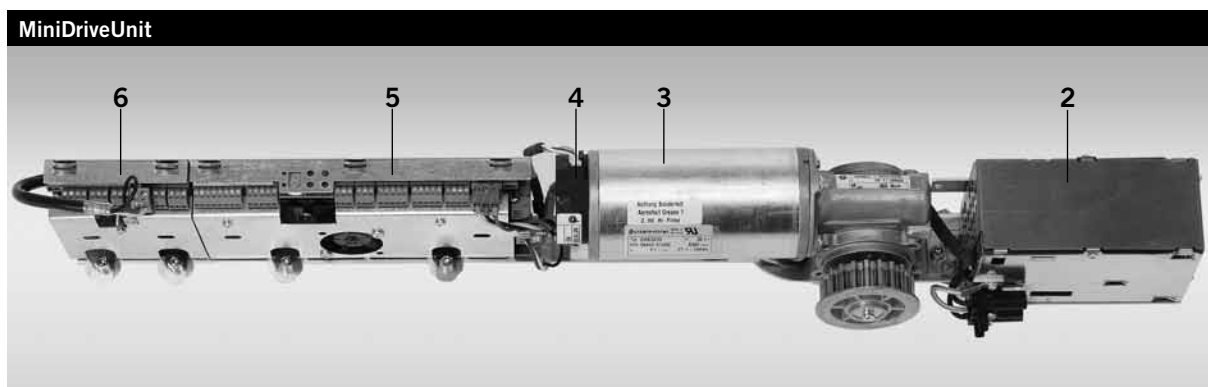
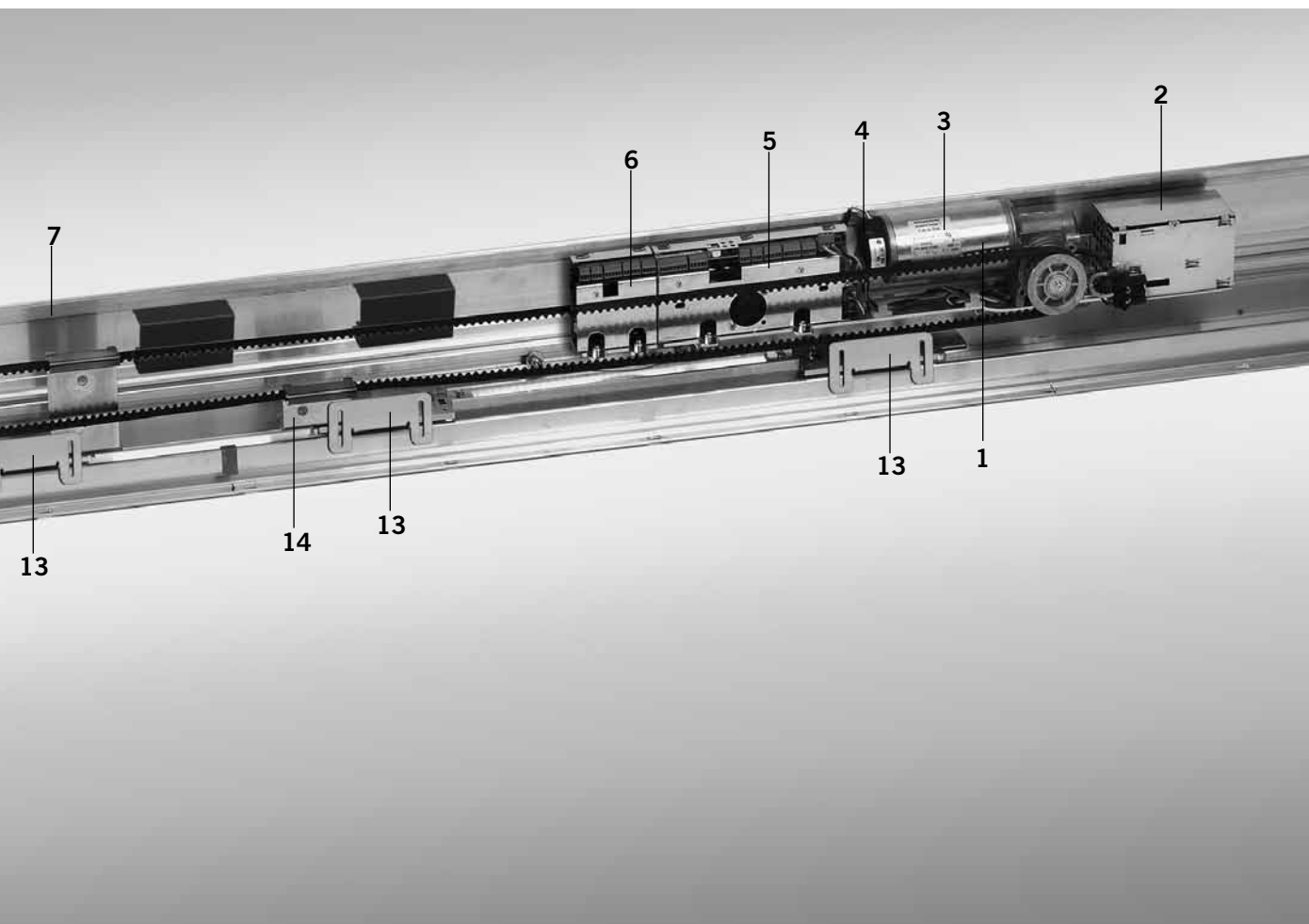


Profiles for wall installation, 150 mm



Our profiles for installation heights of 100 mm and 150 mm, which are suitable for both corridor or wall installation, make the system suitable for all kinds of applications. The basic mechanical system, with a low number of components, is the same for both installation heights.

- 1 Aluminium girder (LM)
- 2 Basic operator profile
- 3 Internal cover, 100 mm or 150 mm high
- 4 Wall connection profile
- 5 Service cover bracket



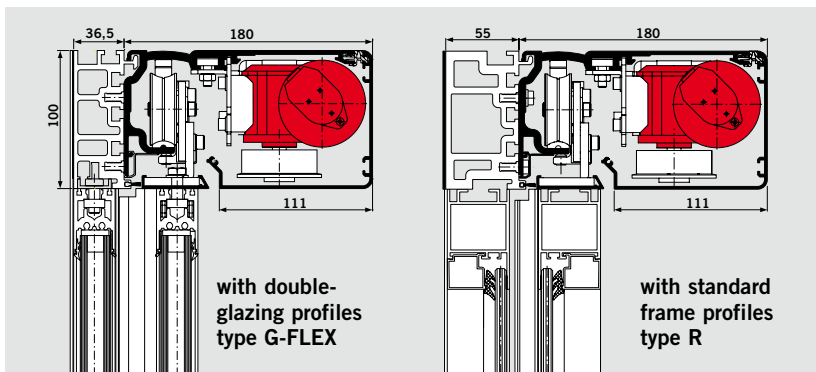
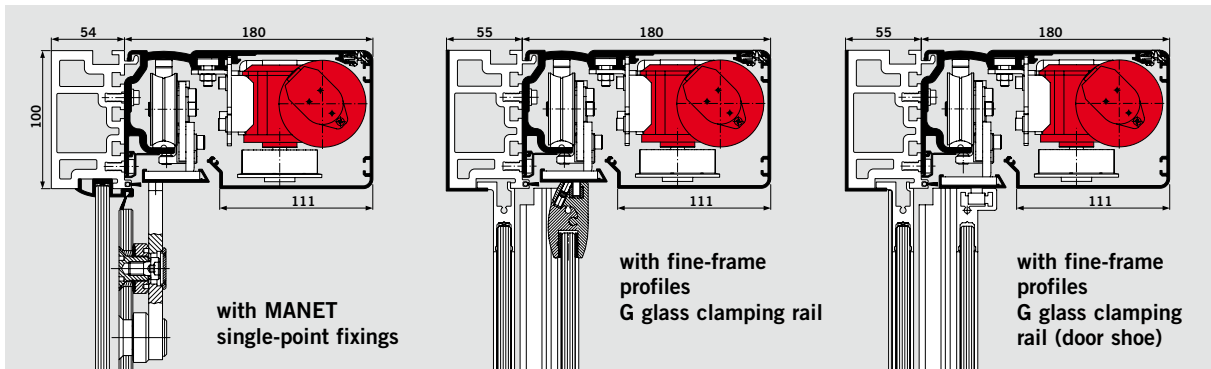
At the core of the **ES 200**: the prefabricated **MiniDriveUnit**. It has been industrially tested with all the requisite electrical and electronic components, thus greatly facilitating the assembly, installation and maintenance of the operator.

#### Components

- |  |  |
|--|--|
| <b>1 MiniDriveUnit</b>                   | <b>8</b> Rechargeable battery pack (optional)    |
| <b>2</b> Power supply unit               | <b>9</b> Carrier head                            |
| <b>3</b> Motor                           | <b>10</b> Pulley (locking device)                |
| <b>4</b> Decoder                         | <b>11</b> Service cover bracket                  |
| <b>5</b> Basic module (BM)               | <b>12</b> End stop                               |
| <b>6</b> Function module (FM)            | <b>13</b> Door connection with adjustment device |
| <b>7</b> Track rail and mounting profile | <b>14</b> Belt connection                        |
|  | <b>15</b> Belt tensioning device                 |

## ES 200 – the professional operator for individual door design

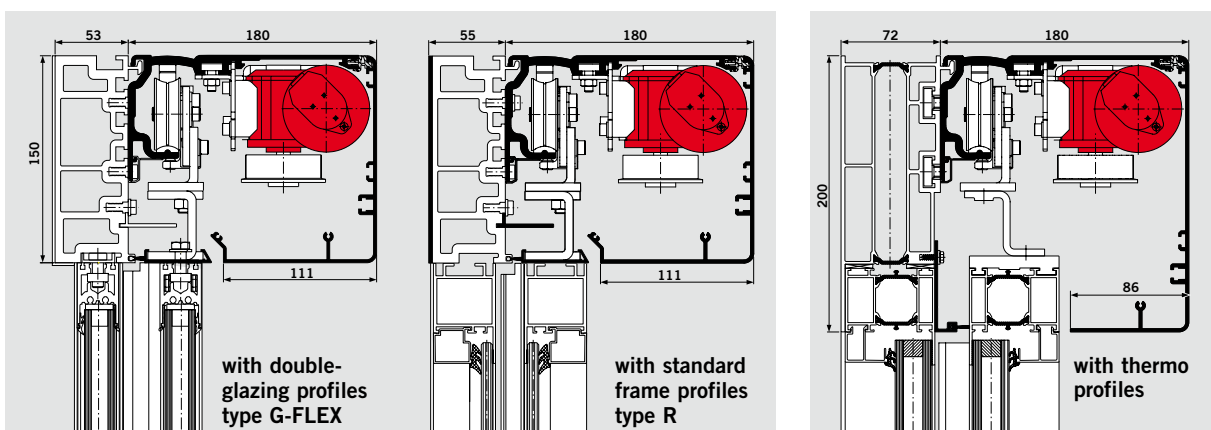
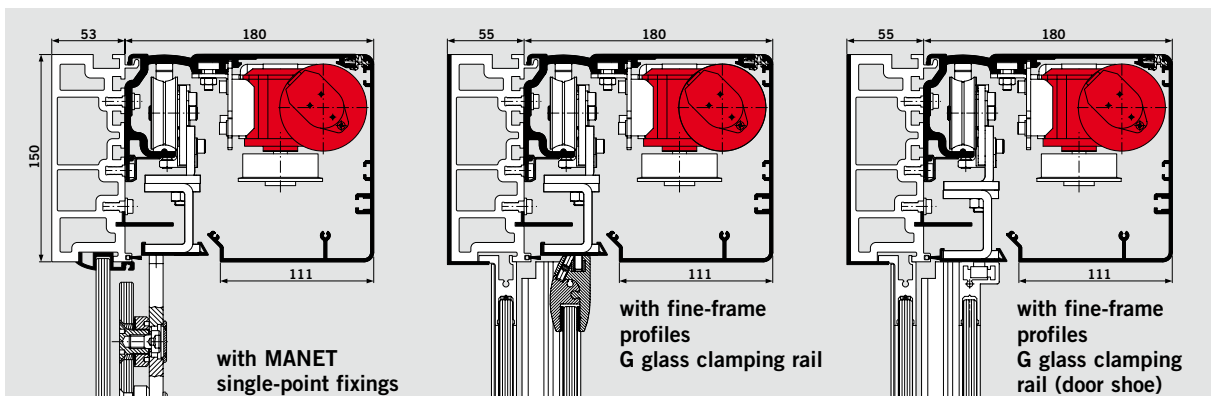
### Door variants with ES 200, 100 mm installation height



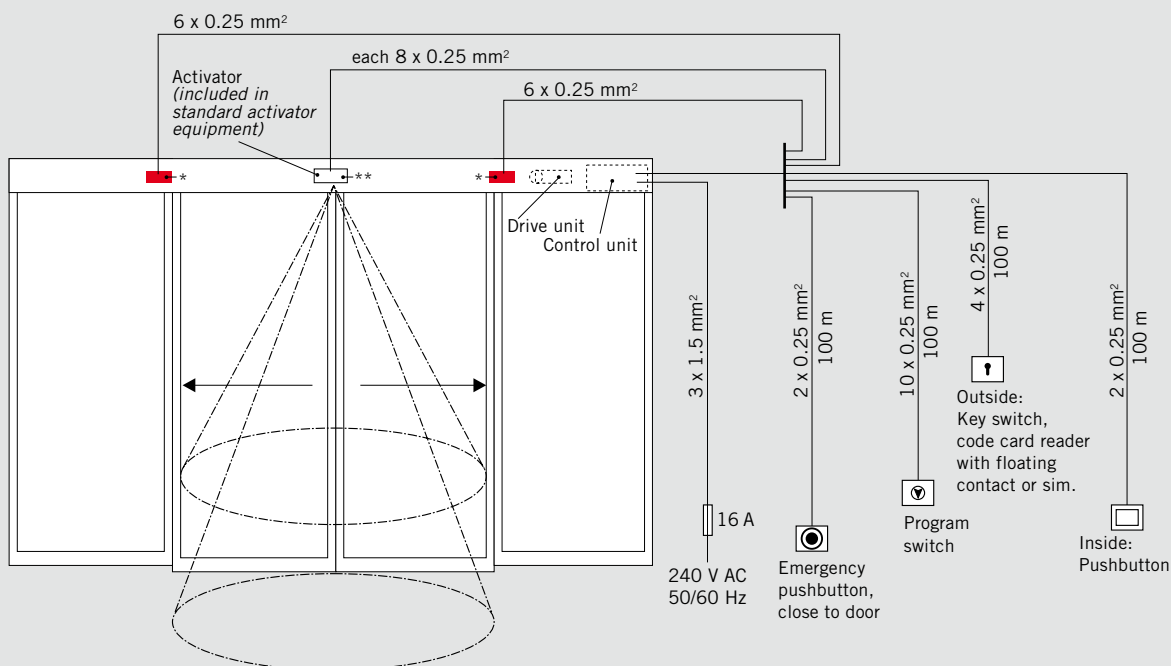
**DORMA PowerDrive System**  
for particularly punchy performance

The door variants on this page are shown as corridor installation with aluminium girder (LM). See page 5 for profiles for wall installation.

### Door variants with ES 200, 150 mm installation height and special "profile" version



**Connections**



\*Safety sensors to monitor the secondary closing edge in accordance with DIN 18650  
 \*\*Safety sensors to monitor the main closing edge in accordance 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.

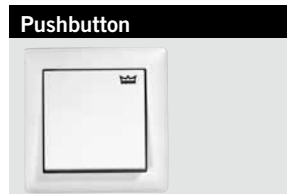
- Up to 5 different functions: Off, Automatic, Exit Only, Partial Open, Permanent Open
- Electronic program switches in System 55 design to cope with the highest aesthetic demands

### Program switches for sliding door operators

Program switches	Designation	Specification	Installation system	Order No.
 PG-S1	PG-S1	5-position, aluminium, white, flush-mounting, 80 x 80 x 40 mm	Gira S-Color	19135401150
 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
	<b>For header installation**</b>			
	PS-FST3	5-position, lockable, also suitable for FST systems		25006014150

\*\* no illustration

## Pushbuttons



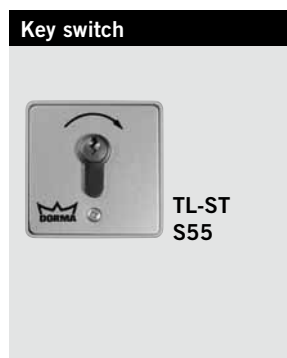
### Pushbuttons

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



### Key switches

Designation	Specification	Order No.
KT 3-1	1 NO contact, with Euro profile half-cylinder (may be replaced by any half-cylinder of a master-key system), key only retractable in neutral position, aluminium, metal, 75 x 75 x 60 mm	
KT 3-1 UP	flush-mounting	05054531332
KT 3-1 AP	surface-mounting	05054631332



### Key switch TL-ST out of our STA product range

Designation	Specification	Installation system	Order No.
TL-ST S55	Switch with single-pole changeover contact, for Euro profile half-cylinder by others to DIN 18252, locking cam centre 30 – 32.5 mm, overall length 40.5 – 43.5 mm, Locking cam position left (90°), incl. cover for System 55, not suitable for box for surface-mounting, without Euro profile half-cylinder, <b>without frame</b>		
TL-ST S55 W	white	System 55	56330710
TL-ST S55 S	silver	System 55	56330701
TL-ST S55 A	anthracite	System 55	56330715

## Switches



### Switches

Designation	Specification	Installation system	Order No.
On/Off switch	white, aluminium, flush-mounting, 80 x 80 mm	Gira S-Color	19135403150
Radar switch	„MAGIC SWITCH”, proximity-type radar switch responds to movement, for flush-mounting, 80 x 80 mm		05076831332






### Key switches

Designation	Specification	Order No.
KT 3-2	1 NO contact with Euro profile half-cylinder, may be replaced by any half-cylinder of a master-key system, key only retractable in neutral position, changeable cover, lettering “Ein, Aus” (German for “On/Off”), aluminium, for flush-mounting: 125 x 100 mm, for surface-mounting: 70 x 90 mm	05054731332
KT 3-2.1*	2 changeover contacts, with Euro profile half-cylinder, replaceable by any half-cylinder of a master-key system, key only retractable in neutral position, lettering “Ein, Aus” (German for “On/Off”), aluminium, for flush-mounting: 125 x 100 mm, for surface mounting: 70 x 90 mm	05032631332

\*no illustration



## Emergency pushbuttons


Emergency pushbuttons	Designation	Specification	Installation system	Order No.
	<b>NAT 1</b>	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: 10 A at 230 V AC.		
	<b>NAT 1</b>	NO contact: 1, NC contact: 1, white frame, flush-mounting, 80 x 80 mm	System 55	90400025
	<b>TL-N S55</b>	Highly-illuminated emergency pushbutton environment with visual locking status indication, optical and acoustic alarm via yellow flashlight and integrated alarm siren, sabotage-proof, behind glass, <b>without frame</b>		
	<b>TL-N S55</b>	NO contact: 1, NC contact: 1, Maximum load current: 1 A at 24 V DC, flush-mounting, 80 x 80 mm	System 55	56330500
	<b>NAT 4</b>	Behind glass, NO contact: 1, NC contact: 1 flush-mounting, 120 x 87 mm		90400023
	<b>NAT 3*</b>	NO contact: 1, NC contact: 1, surface-mounting, 68 x 68 mm		05027031332

\* no illustration


## Infrared detectors

These detectors are designed to safeguard automatic doors by detecting moving people or objects



### Light barriers

Light barriers	Designation	Specification	Order No.
	<b>LB 03</b>	To safeguard the passage area of sliding doors by detecting the presence of people and objects	
	<b>LB 03</b>	Counter light barrier comprising transmitter and receiver	05102331332

### Active infrared detector



Active infrared detector	Designation	Specification	Order No.
	<b>AIR 30/31</b> <b>AIR 30-H/31</b>	Active infrared system to safeguard the passage area and the secondary closing edges of sliding doors. Designed to detect the presence of people and objects	
	<b>AIR 30/31</b>	Including background evaluation, black	16503601170
	<b>AIR 30-H/31</b>	Including background suppression, black	16503701170
	<b>WH 30</b>	Rain protection cover, black	16500901170

### Crystal Presence




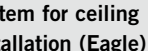



Crystal Presence	Designation	Specification	Order No.
	<b>Crystal Presence</b>	– For improved protection of passage areas and secondary closing edges of sliding doors – Designed to detect the presence of people and objects	
	<b>System for ceiling mounting</b>	Presence detection curtain for improved protection thanks to exactly adjustable detection range, black	16504301170
	<b>System for ceiling mounting</b>	for Crystal Presence, white	05094731332

## Infrared detectors

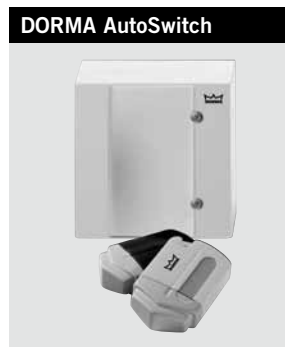
### Combined sensors

Combined sensors	Designation	Specification	Order No.
 <b>Activ8.2</b>	To activate (open) and protect automatic sliding doors. This system is designed to substitute light barriers with the aid of an integrated of an integrated active infrared function. This combined sensor opens sliding doors via radar and protects the main and secondary closing edges via an active infrared system.		
	<b>Activ8.2</b>	Direction recognition, black	16518301170
 <b>Jupiter</b>	<b>Activ8.3-N</b>	Direction recognition, self-monitoring, suitable for application on FST doors (fire and smoke doors), black	16555001170
	<b>Jupiter</b>	Direction recognition with cross-traffic suppression, black	16563201170
	<b>Jupiter SE</b>	Direction recognition with cross-traffic suppression, self-monitoring, suitable for application on FST doors (fire and smoke doors), black	16563301170

## Radar motion detectors

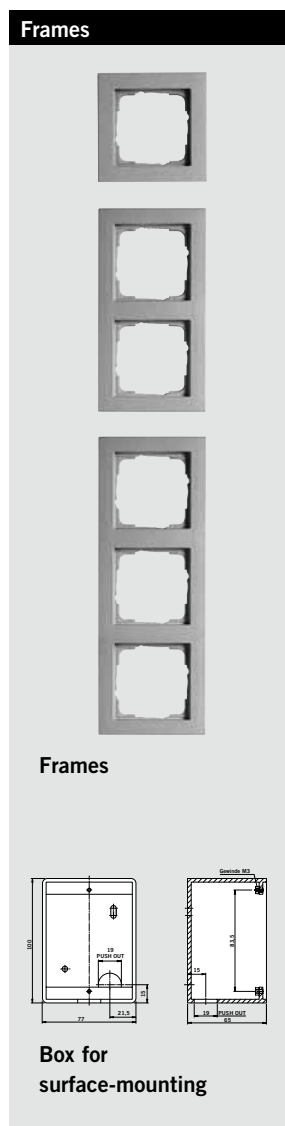
Radar motion detector	Designation	Spezifikation	Colour	Order No.
 <b>Eagle</b>	The user-friendliness of automatic doors depends a lot on what kind of activator is used and its construction. The DORMA sensor range combines the flexibility that is required for the different fields of application with reliability and the highest level of user friendliness. Furthermore it effectively detects moving people or objects in order to activate (open) automatic doors.			
	<b>Standard motion detectors</b>			
 <b>Merkur</b>	<b>Eagle 2</b>	Standard	black	16503201170
			white	16503203170
			silver	16507502170
 <b>System for ceiling installation (Eagle)</b>	<b>Merkur M</b>	Standard	black	16537501170
	<b>Motion detectors with direction recognition</b>			
 <b>System for ceiling installation (Eagle)</b>	Direction recognition for perfectly controlled opening and closing cycles.			
	<b>Eagle 1</b>	Direction recognition	black	16503101170
			white	16503103170
			silver	16503102170
 <b>Rain protection cover (Eagle)</b>	<b>Merkur</b>	Cross-traffic suppression with direction recognition	black	16532201170
	<b>Merkur SE/R</b>	Self-monitoring, direction recognition with cross traffic suppression	black	16532201170
 <b>Special bracket (Eagle)</b>	<b>Accessories for Eagle detectors</b>			
		System for ceiling mounting	white	16502901170
		Rain protection cover	transparent	05090731332
		Infrared remote control to adjust all radar motion detectors	black	16503001170
		Special bracket, for projections of up to 500 mm	black	19138903150
 <b>System for ceiling installation (Merkur)</b>	<b>Accessories for Merkur-type detectors</b>			
		System for ceiling installation (Merkur)	white	05102231332

## DORMA AutoSwitch transponder



Designation	Specification	Order No.
The "active" transponder system. The transponder sends a pulse to the control unit as soon as it enters the receiver range, which amounts to approx. 2.5 m. This system is especially suitable for areas where a manual operation of the system is to be excluded. Thanks to its range it is the perfect access control system for doors used by wheelchair drivers.		
<b>DORMA AutoSwitch</b>	Receiver/control unit, surface-mounted version, white	16571101175
	Programming-(Transponder-) key, yellow	16571201175
	Standard-(Transponder-) key, blue	16571301175

## Frames and boxes for surface-mounted pushbuttons and switches



Designation	Specification	All dimensions in mm (W x H x D)	Installation system	Order No.
<b>System 55 Cover frame (STA range)</b>				
<b>FR-S55 1</b>	Single-type frame, Standard 55, white	80.7 x 80.7	System 55	56391110
<b>FR-S55 2</b>	Double-type frame, Standard 55, white	151.8 x 80.7	System 55	56391210
<b>FR-S55 3</b>	Triple-type frame, Standard 55, white	223.3 x 80.7	System 55	56391310
<b>E2 range</b>				
<b>FR-E2W 1</b>	Single-type frame, E2 55, white	80.8 x 80.8	System 55	56392110
<b>FR-E2W 2</b>	Double-type frame, E2 55, white	151.9 x 80.8	System 55	56392210
<b>FR-E2W 3</b>	Triple-type frame, E2 55, white	223.4 x 80.8	System 55	56392310
<b>FR-E2S 1</b>	Single-type frame, E2 55, silver	80.8 x 80.8	System 55	56392101
<b>FR-E2S 2</b>	Double-type frame, E2 55, silver	151.9 x 80.8	System 55	56392201
<b>FR-E2S 3</b>	Triple-type frame, E2 55, silver	223.4 x 80.8	System 55	56392301
<b>FR-E2A 1</b>	Single-type frame, E2 55, anthracite	80.8 x 80.8	System 55	56392115
<b>FR-E2A 2</b>	Double-type frame, E2 55, anthracite	151.9 x 80.8	System 55	56392215
<b>FR-E2A 3</b>	Triple-type frame, E2 55, anthracite	223.4 x 80.8	System 55	56392315

Please see STA price list for further frames and versions.

Designation	Specification	All dimensions in mm (W x H x D)	Installation system	Order No.
<b>System 55 Boxes for surface-mounting for Standard 55 frames</b>				
<b>ST-AP 55-1*</b>	Single-type frame, pure white, RAL 9010	81.0 x 52.5 x 44.5	System 55	515853332
<b>ST-AP 55-2*</b>	Double-type frame, pure white, RAL 9010	152.0 x 81.0 x 44.5	System 55	515863332
<b>ST-AP 55-3*</b>	Triple-type frame, pure white RAL 9010	224.0 x 81.0 x 44.5	System 55	515873332
<b>Box for surface-mounting</b>	For mechanical program switch PG-FST2 with Euro profile half-cylinder	100 x 80 x 65	Deutsche Solenoid	19142201170

\* no illustration

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