



Sliding door operator  
for emergency exits

# DORMA ES 200-2D

## Flexible, simple and modular – with safety included

With its ES 200, DORMA is able to offer a new, innovative sliding door operator system covering all applications and service requirements.

In the case of emergency exits and escape doors, the ES 200-2D version featuring DORMA **DualDrive** technology offers an impressive solution with outstanding operational reliability.

### The modular system

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

The identical mechanical components can be used in all three versions of the operator (ES 200-2D, ES 200 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 control module (BM), the **DualDrive** module (2D unit) and the function module (FM). Consequently, upgrading in accordance with individual customer requirements can be carried out without problems.

Particularly impressive is the prefabricated **MiniDriveUnit**, industrially tested and equipped with all the necessary electrical and electronic components.

### Commissioning with a PALM

Commissioning and the setting of all the standard parameters can be performed quickly and easily via an integrated display and using keys provided on the front panel of the control unit. For extra convenience, you can also program the system using the DORMA ASP software loaded on a PALM.

### DualDrive for redundant safety

The innovative and powerful **DualDrive** system offers double safety through its particularly dynamic drive power based on a predetermined acceleration/deceleration operational control curve. It consists of a double-protected control system, an extra-powerful motor and an additional auxiliary coil for emergencies. Delicate and unreliable wearing parts such as rubber ropes/bungees, clutches or springs are out. Instead, the system guarantees durable, disruption-free functional dependability while at the same time significantly reducing the amount of maintenance input required. Maximum operational reliability in all situations is also ensured by a continuous self-monitoring function which covers the entire system.

### 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 200-2D corresponds to all the latest European and German standards and safety regulations: AutSchR (Regulations governing the use of automatic sliding doors in escape routes), R238 (ZH 1/494), EN 18650 and prEN 12650.

### Delivery formats

The ES 200-2D is available as a component kit, as a complete, pre-assembled operator or ready integrated in all DORMA sliding door systems.

### Accessories

DORMA is able to provide program switches, activators and door profiles all perfectly matched to the operator as ideal complementary components.



### Features and advantages at a glance:

- Modular, flexible system
- With DORMA **DualDrive**: Double-protected drive system, low in maintenance with redundant control and powerful 2D motor
- Industrially prefabricated and tested **MiniDriveUnit**
- Modular control system upgradeable with additional functional modules
- Integrated DCW (DORMA Connect and Work) bus system for easy integration of DORMA DCW sensors and actuators
- Commissioning via integrated display or optionally with PALM and ASP software
- Can 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 200-2D
1-panel sliding door – Clear passage width LW – Door panel weight, max.	900 – 1800 mm 1 x 150 kg
2-panel sliding door – Clear passage width LW – Door panel weight, max.	1000 – 3000 mm 2 x 130 kg

Technical data	
Height	100 and 150 mm
Overall 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	0,5 – 30 sec.
Mains voltage, frequency	230 V, 50/60 Hz
Power consumption	180 W
Class of protection	IP 20
Compliant with EU low-voltage directives	●
Manufacture according to ISO 9001:2000	●



Servicing and commissioning can be performed quickly and easily via an **integrated display with pushbuttons** on the front panel of the control unit or with a hand-held computer (PALM) and the DORMA Automatic Service Program (ASP).

Basic module (BM)	
Modular design	●
Microprocessor-controlled function programs – Off – Automatic – Permanent open – Partial opening – Exit only – Night-bank control	● ● ● ● ● ●
Connections for – electro-mechanical lock – light barriers	● ●
Adjustment of all basic parameters via integrated display and pushbuttons	●
PALM parameter setting	●
24 V output for external loads	●
Read-out error memory with error codes	●
DCW bus interface	●
Rechargeable battery pack for emergency operation	●

DualDrive module (2D unit)	
Self-monitoring	●
For actuation of the emergency escape function	●
Redundant safety	●

Function module (FM) – optional extra	
Pharmacy control	●
Door status detection (triple-mode)	●
Main and secondary closing edge protection	●
Emergency closing	●
Bell contact	●
Airlock control	●
Synchronising mode	●

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

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

- standard
- optional

## Always on the safe side with emergency exit doors: *DualDrive*

The DORMA DualDrive concept is particularly impressive with its superior system innovations.

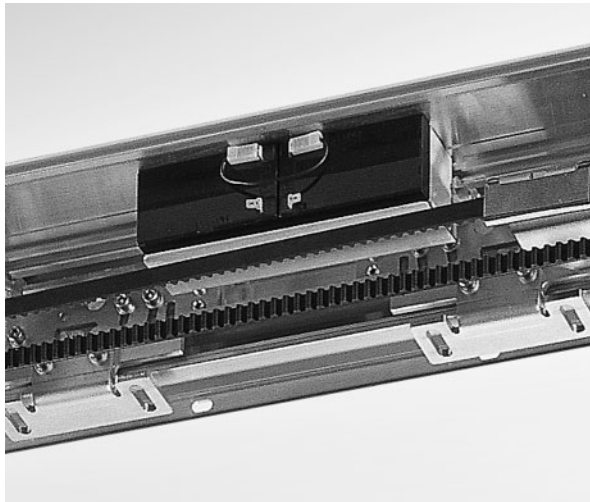
The technical lead offered by the DORMA DualDrive is the culmination of a combination comprising smart control electronics and a redundant motor system.

Delicate and disruptive rubber rope and bungee systems, clutches or springs for the emergency opening function have been banished from the scene. This guarantees durable, disruption-free operability while at the same time significantly reducing maintenance input and expense.

Maximum operational reliability in all situations is guaranteed by the fact that the system self-monitors on a continuous basis.

**DORMA *DualDrive* – more safety right from the start.**

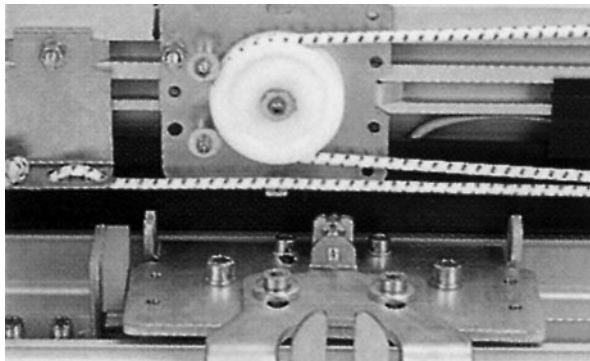




Emergency operation with integrated backup battery pack

## DORMA *DualDrive* in brief:

- More functional reliability in emergency exit doors thanks to redundant motor and control system to replace rubber rope/bungee, clutch and spring systems.
- High flexibility in the planning and construction of emergency exit sliding doors.
- Integrated rechargeable back-up battery module for reliable, mains-independent opening and closing of the door in any situation.
- Additional manual unlocking mechanism available as optional extra.
- Reliable investment for the future thanks to satisfaction of the very latest European and German standards for automatic doors in emergency exits and escape routes (prEN 12650)
- Enhanced efficiency thanks to simplified installation and low-maintenance components
- Comprehensive service and support package



Previously: Safety provided by a bungee-type actuator



Today: Safety with the *DualDrive*

**TÜV NORD CERT**

**Prüfbescheinigung  
Award Certificate  
PP-006/2002**

Hiermit wird bestätigt, dass unten näher beschriebenes Produkt den genannten Prüfgrundlagen entspricht. Der Hersteller oder Importeur wird berechtigt, dieses Produkt mit dem unten abgebildeten Prüfzeichen zu kennzeichnen.  
*The product described below meets the requirements of the test specifications. The manufacturer or importer is entitled to label the product named below with the approval mark as illustrated.*

<b>Hersteller oder Importeur:</b> <i>Manufacturer or importer:</i>	DORMA GmbH & Co. KG Breckerfelder Straße 42 - 48  58256 Ennepetal
<b>Fertigungsstätte:</b> <i>Manufacturing plant:</i>	DORMA GmbH & Co. KG Breckerfelder Straße 42 - 48  58256 Ennepetal
<b>Beschreibung des Baumusters:</b> <i>Description of equipment:</i>	Automatische Schiebetüranlage ohne Drehbeschlag mit und ohne festen Seitenteilen zum Einsatz in Rettungswegen <i>Automatic sliding door without breakout with and without fixed side screens for use in escape route</i> max. Flügelgewicht / max. leaf weight 1-flügelig one leaf 1 x 120 kg 2-flügelig two leaves 2 x 100 kg
<b>Bezeichnung, Typ:</b> <i>Designation, Type</i>	Automatic-Flichtweg-Schiebetüranlage DORMA CS-FST-2D mit Dual-Drive Technologie <i>Automatic sliding door DORMA CS-FST-2D with DUAL Drive Technology</i> DORMA Ganzglas G / DORMA Rahmen R / DORMA / Ganzglas G-ISO/ Glasklemmleiste / Manet
<b>Prüfgrundlage:</b> <i>Tested in accordance to:</i>	Zh 1462: 04 99 VDE 0700, T 238 10 83 prEN 12650 09 99 DIN V VDE 0901 01 99 DIN V 19251 02 95 DIN V 19253 05 95 Richtlinie über automatische Schiebetüren in Rettungswegen –AUSCHÜß <i>Directive for automatic sliding doors in escape route</i> Weitergehende Anforderungen an das Baurecht bleiben unberührt. <i>Requirements of the building regulations are not be affected by the award certificate.</i>

Diese Bescheinigung gilt nur in Verbindung mit umsetzten Bedingungen  
*This certificate shall only be valid with the conditions stated overleaf*

vom/from: 10.01.2002 bis/to: 09.01.2005 Aktennr./File No.: YTT 145440

TÜV Hannover/Sachsen-Anhalt e.V., Am TÜV 1, 30519 Hannover  
Hannover, den 10.01.2002

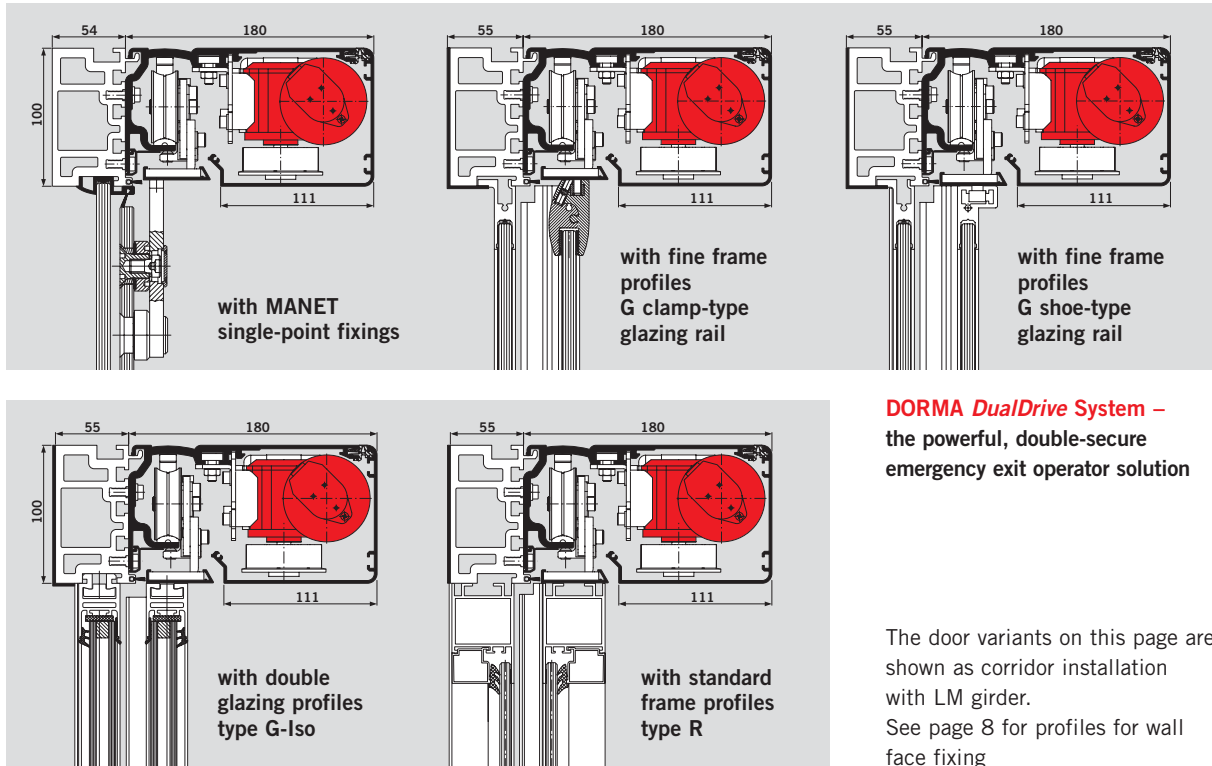
Der Leiter der Zertifizierungsstelle für Produkte / Head of certification body  
*Stürwald*  
Dipl.-Ing. Stürwald

**Baumuster  
geprüft**

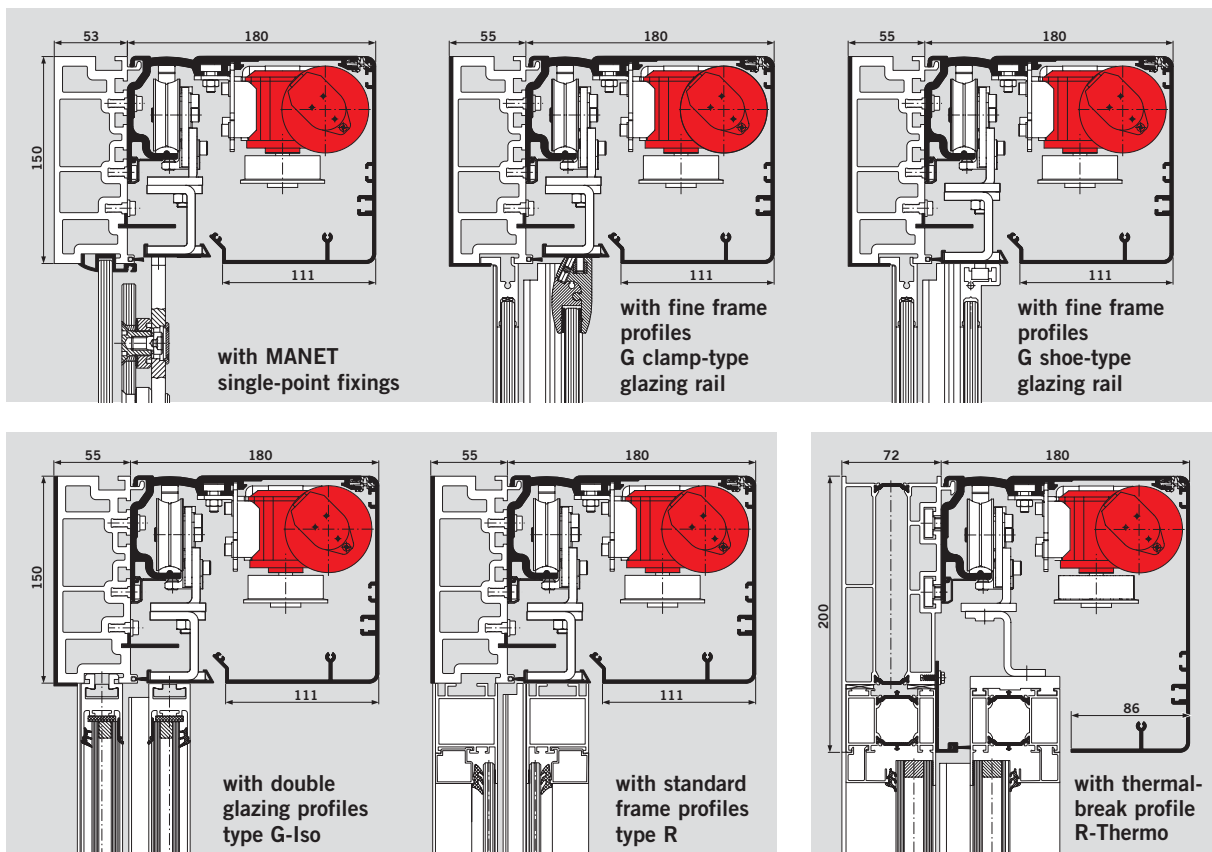
The German TÜV certificate for emergency exit sliding doors with *DualDrive* technology validates the primary technical specifications and place of manufacture. DORMA emergency exit doors offer additional safety by virtue of the fact that they are manufactured in production facilities subject to third-party QA verification.

## ES 200-2D – the emergency exit operator for individual door design

### Door variants with ES 200-2D, 100 mm height



### Door variants with ES 200-2D, 150 mm height and special version "thermal-break profile R-Thermo"

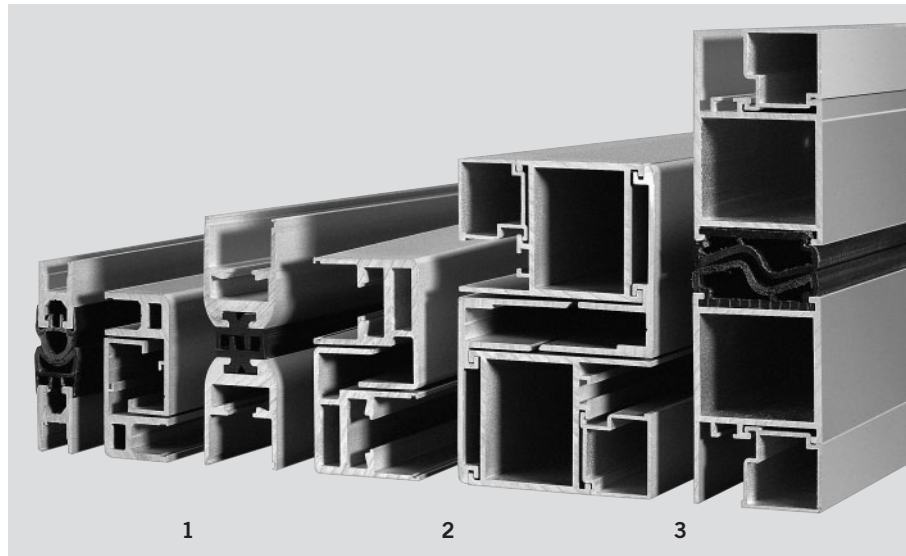


## Door profiles

DORMA supplies door profile for doors in full-glass and for framed doors as the optimum addition to the ES 200-2D.

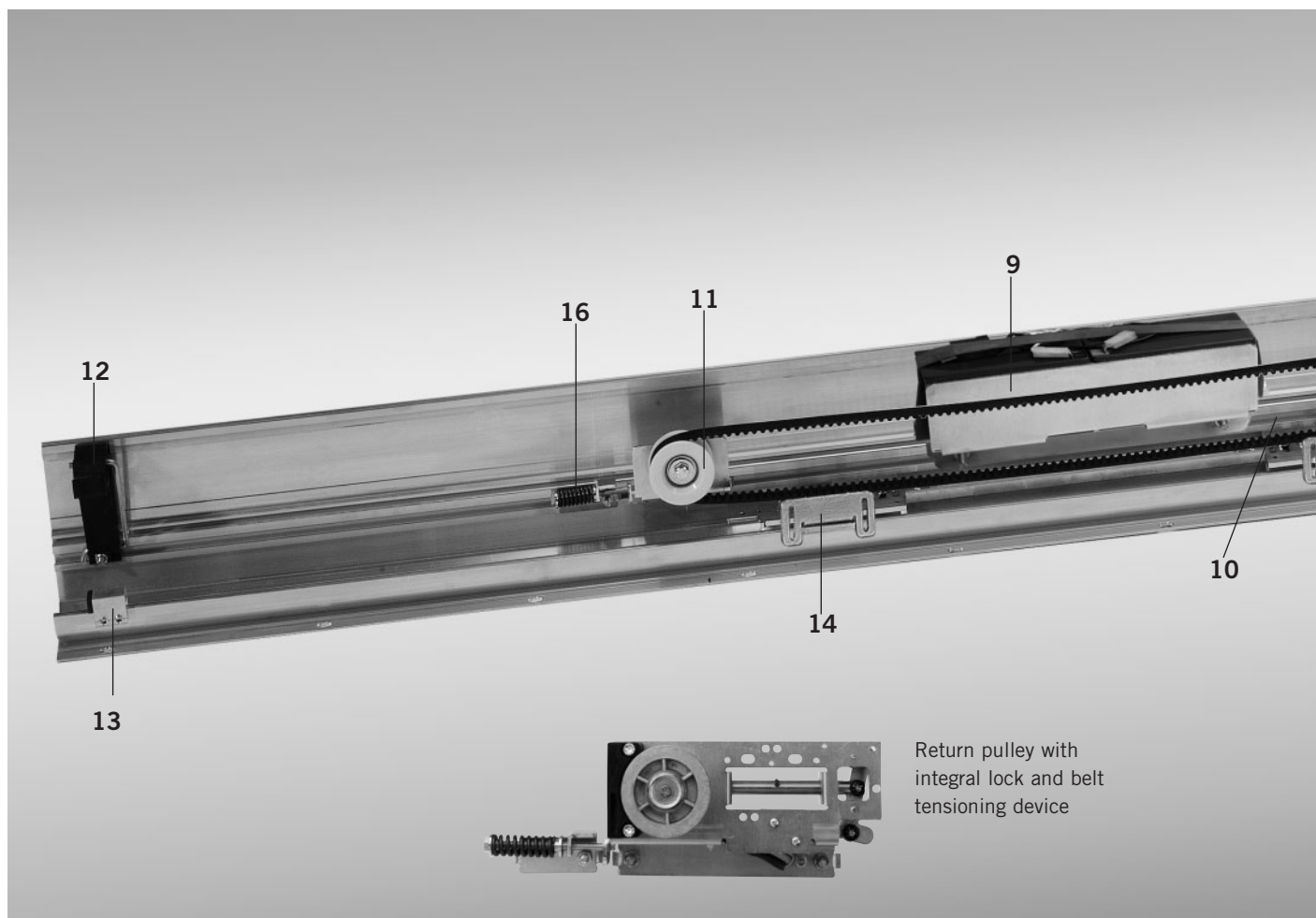
Manet single point fixings and a glazing rail complement the program.

- 1 Fine frame profile system type G
- 2 Double glazing profile system type G-Iso
- 3 Standard frame profile type R



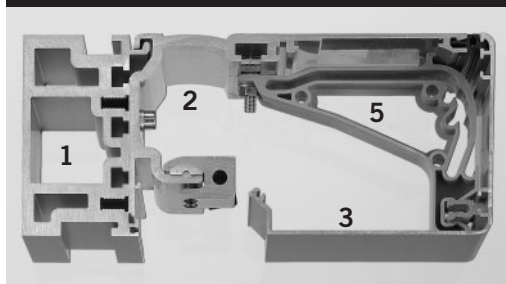
MANET single-point fixings



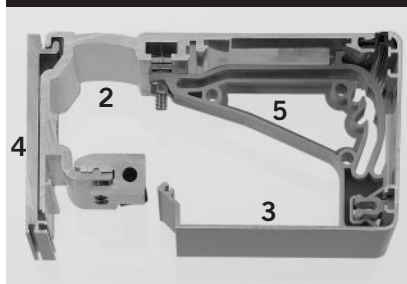


Return pulley with  
integral lock and belt  
tensioning device

Profiles for corridor installation, 100 mm

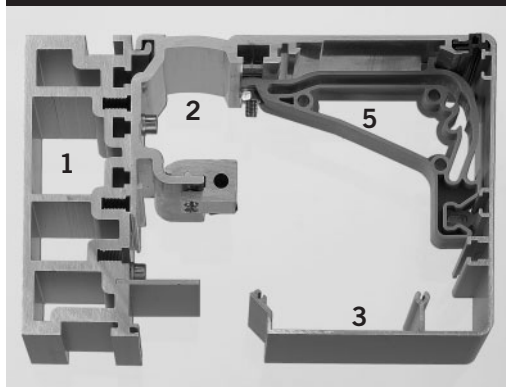


Profiles for wall face fixing, 100 mm

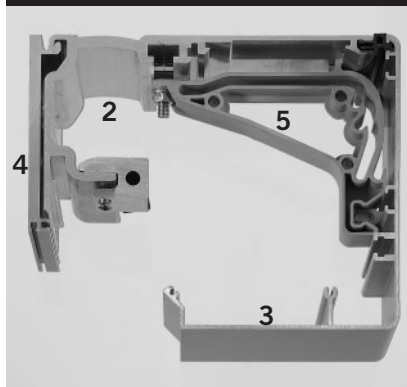


Profile for 100 mm and 150 mm height, for corridor or wall face fixing guarantees adaptation for all possible applications. The basic mechanical system, with a low number of components, is the same for both heights.

Profiles for corridor installation, 150 mm

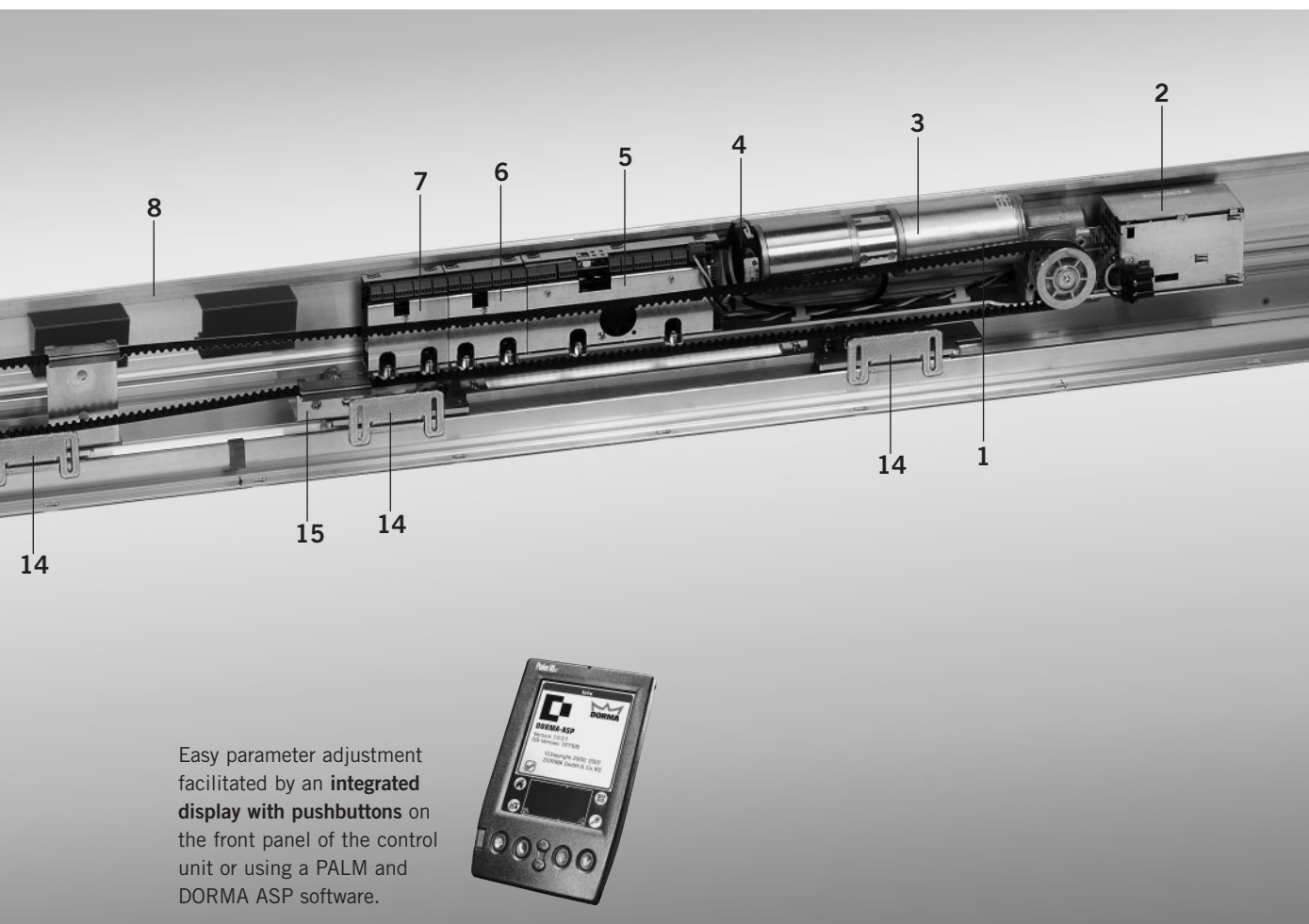


Profiles for wall face fixing, 150 mm

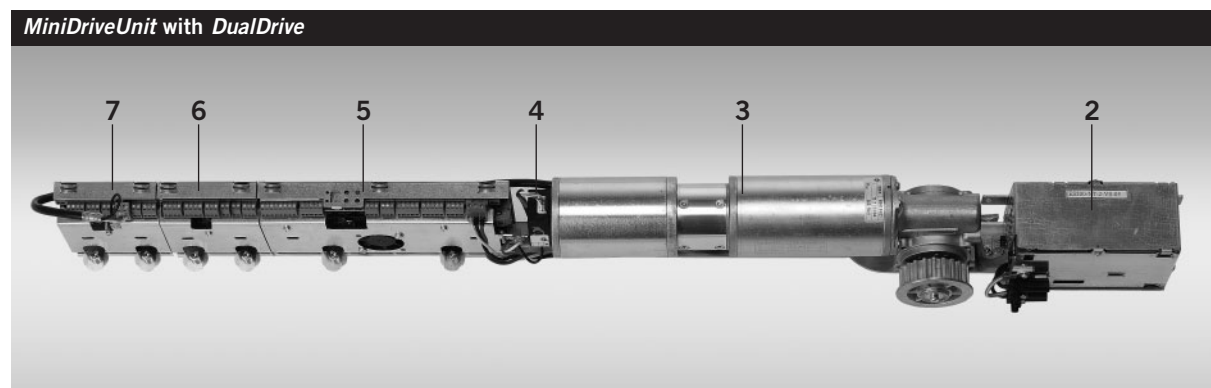


- 1 LM girder
- 2 Basic operator profile
- 3 Interior cover, 100 or 150 mm high
- 4 Wall face fixing profile
- 5 Service cover holder





Easy parameter adjustment facilitated by an **integrated display with pushbuttons** on the front panel of the control unit or using a PALM and DORMA ASP software.



At the heart of the ES 200-2D is its prefabricated **MiniDriveUnit with DualDrive** technology. It has been industrially tested with all the requisite electrical and electronic components, thus greatly facilitating the assembly, installation and maintenance of the door operator.

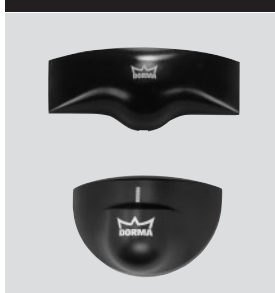
#### Components

- |                                       |  |
|---------------------------------------|--|
| 1 <b>MiniDriveUnit with DualDrive</b> | 8 Track and mounting profile           |
| 2 Transformer                         | 9 Battery pack (optional)              |
| 3 Motor                               | 10 Carrier                             |
| 4 Decoder                             | 11 Return pulley                       |
| 5 Basic control module (BM)           | 12 Service cover holder                |
| 6 <b>DualDrive</b> module (2D unit)   | 13 End stop                            |
| 7 Function module (FM)                | 14 Door bracket with adjustment device |
|                                       | 15 Belt connection                     |
|                                       | 16 Belt tensioning device              |

System accessories



Radar motion detectors



- Directional sensitive – standard version
- Directional non-sensitive
- Radar detector for any combination
- No effect on pacemakers due to the low output, approx. 2 mW

Program switch to select the operating mode of DORMA automatic doors.

- Up to 5 different functions: Off, Automatic, Exit, Partial opening, Permanent open
- Electronic program switch in System 55 design for the highest aesthetic demands
- Material variants for frames from polished steel, abrasive blasted silk-mat stainless steel, aluminium and brass to glass, ebony or terracotta
- Also lockable by key or electronic code
- For internal or external installation as well as flush-mounted or surface-type installation



Program switch EPS-FST System 55

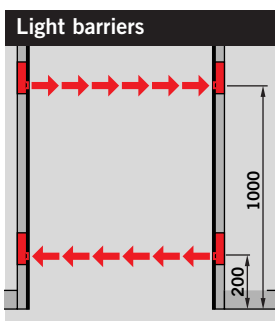
Pushbuttons and switches: Electric, pneumatic or radio remote.

- To open and close DORMA automatic doors
- Via key or manually by switch or momentary contact
- For a variety of installation situations: flush or surface mounted or in the door frame



Program switch PG-FST1

The widely diversified automatic system accessories from DORMA are complemented by further components which are specially matched to various safety measures.

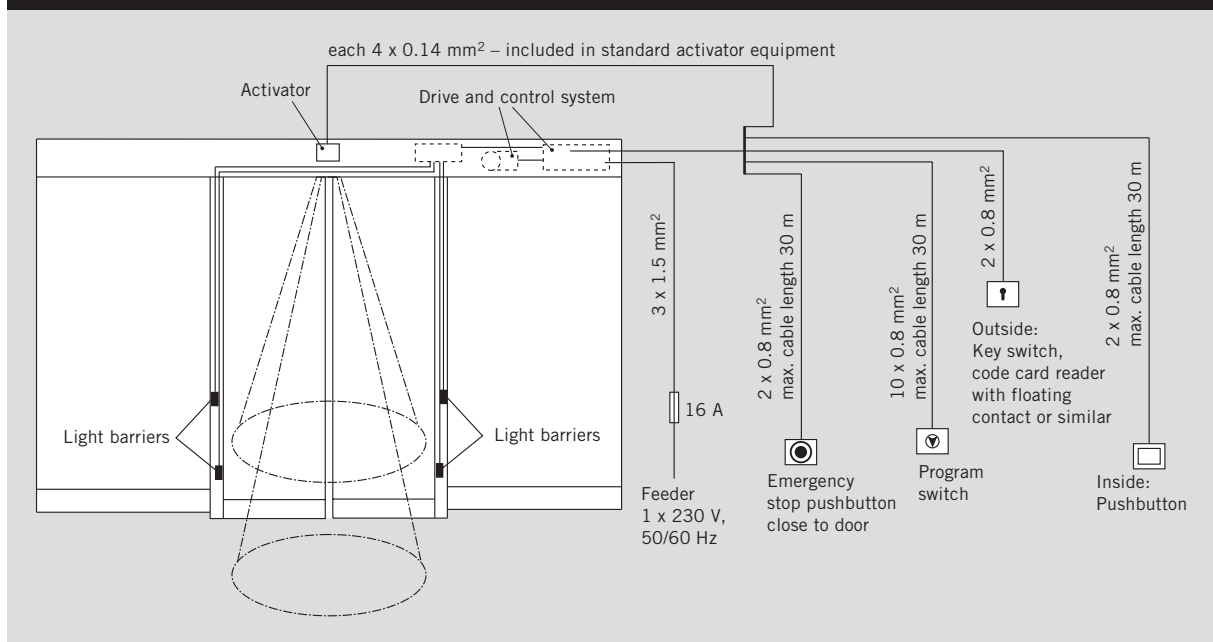


- According to the reflex-light principle
- Additional protection of closing sweep, installation 200 and 1000 mm above floor level



Emergency command device System 55

## Connections



## Specification text

### Automatic sliding door operator for emergency exits and escape routes

- 1 panel                                     2-panel sliding door  
 150 mm height                             100 mm height

Dimensions (H x D): 150/100 x 180 mm.

Microprocessor control, self-learning, reversing when obstruction is encountered, redundant with **DualDrive**.

### Clear passage width:

- 1-panel 900 – 1800 mm  
 2-panel 1000 – 3000 mm

### Door weight:

- 1-panel max. 1 x 150 kg  
 2-panel max. 2 x 130 kg

### Function programs:

Off, Automatic, Permanent open, Exit only, Partial opening, Night-bank control, Emergency off. Basic parameters of door adjustable via integrated display and pushbuttons. With **DualDrive** technology and rechargeable emergency backup battery for mains-independent operation.

Manufactured according to the guidelines for power-operated windows, doors and gates R 238 (ZH 1/494), latest edition of AutSchR, German UVV (accident prevention) and VDE (electrical engineering) regulations. TÜV type tested, compliant with EU low-voltage directives, production according to ISO 9001 certification. Fulfils the future European standards and regulations: EN 18650, prEN 12650.

### Power supply data:

230 V, 50/60 Hz

### Switches, pushbuttons:

- Program switch:  
 external flush-mounted  
 external surface-mounted  
 internal     lockable  
 Emergency off pushbutton installation:  
 external flush-mounted  
 external surface-mounted  
 internal     dual box, external  
 under glass

### Additional equipment:

- Battery pack, fitted in header, for emergency opening or emergency closing

### Activators:

- Radar system  
 directional sensitive ..... pcs.  
 non-directional sensitive ..... pcs.  
 other ..... pcs.  
 Light barriers, comprising receiver and transmitter (only 3-wire technology) ..... pcs.

### Locking:

- electro-mechanical locking, bistable  
 door status detector, locking detector  
 manual unlocking

### Colour light alloy parts:

- silver, anodised E6/C0  
 RAL .....

### Operator dimensions:

Total length B ..... mm  
 Clear passage width LW ..... mm

**Make:** DORMA ES 200-2D

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Door Control

Automatic

Glass Fittings and Accessories

Security/ Time and Access (STA)

Movable Walls