



Swing Door Operator

# DORMA ED 200

## Universal operator – easy to install, reliable in operation

As a powerful fully automatic electro-hydraulic swing door operator, the DORMA ED 200 is suitable both for standard doors and also for large and heavy doors. It can be adapted to a wide range of different applications and installation conditions, and offers numerous adjustable features.

With the integrated permanent-open mode activated, the door is held open by a solenoid valve in a manner which ensures absolute stability and operating silence.

The sound-insulated Softline cover can be extended to the full width of the door opening for maximum visual attractiveness.

The DORMA ED 200 – available up to size EN 7 – is also suitable for fire and smoke rated doors, even with its permanent open function. It can also be installed in emergency exits and escape routes provided that it is controlled by an appropriate emergency exit security control system.

It can likewise be combined with access control systems.



CE DIN 18 263/T4

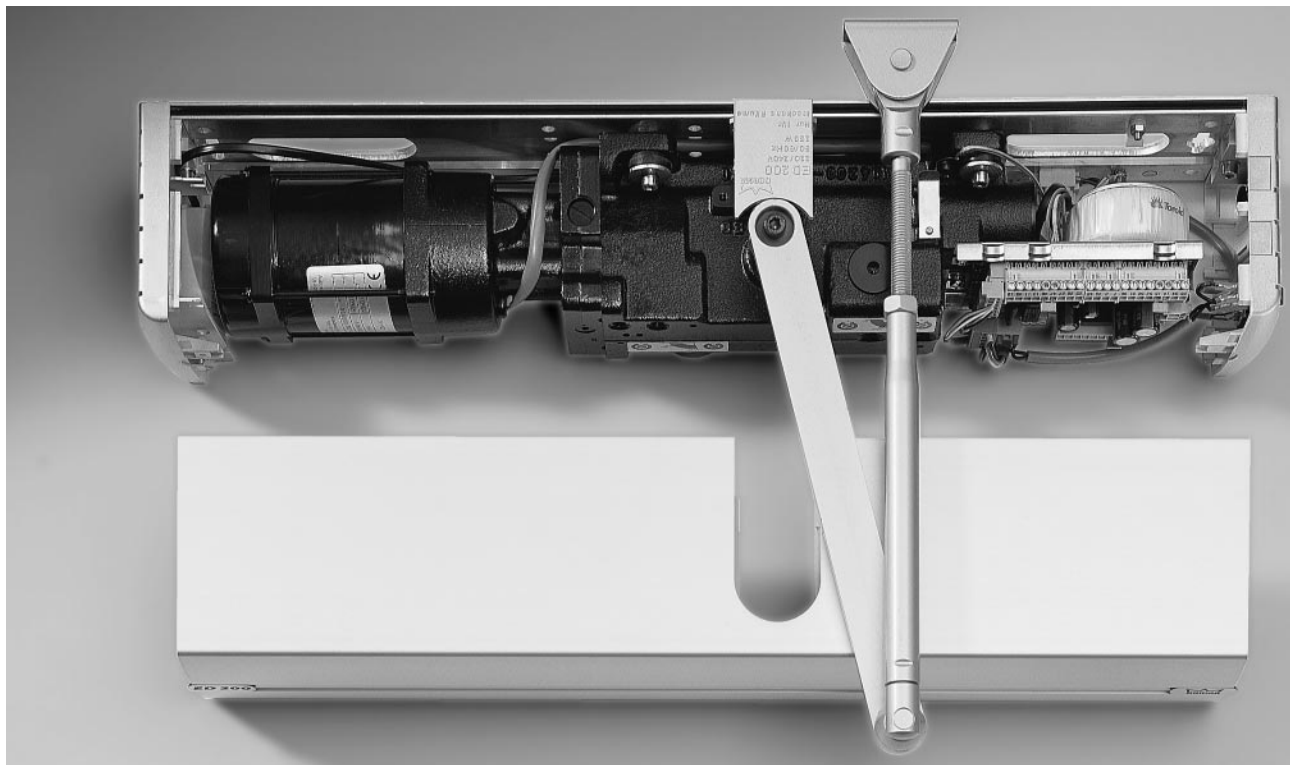
### Features and benefits

- Two models (EN 4-6, EN 7) to suit all applications
- One model for both door directions and fixing positions (pull side/push side)
- Quick and easy to fix thanks to two auxiliary screws and plug-connected cabling
- Reliable function even in the case of heavy-use doors and entrances exposed to various weather conditions
- Optimum adaptability to individual requirements – e.g. in hospitals, homes for the elderly, facilities for the disabled, restaurants, security areas and laboratories
- Numerous control options
- Also available with enhanced control system for additional functions

### Door parameters

### DORMA ED 200

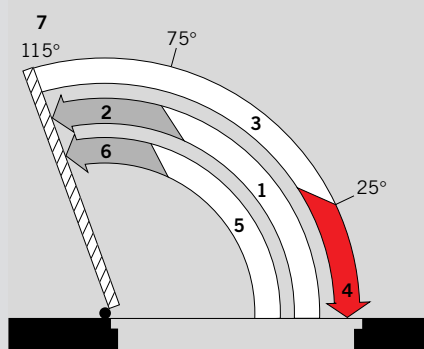
Standard doors	
– Single-leaf	●
– Double-leaf	●
Fire and smoke rated doors	
– Single-leaf	●
– Double-leaf	●
Door leaf width (including fire and smoke rated doors), max.	1400 mm
Door leaf weight (including fire and smoke rated doors), max.	250 kg
Opening angle, max.	115°
Lintel depth (standard arm)	– 40 to 360 mm



Technical data	
Adjustable closing force	Size EN 4 – 6
Fixed closing force setting	Size EN 7
DIN left/DIN right	●
Width (standard)	665 mm
Height	106 mm
Overall depth	133 mm
Weight	18 kg
Standard arm	■
Slide channel arm*	
– sound-insulated	■
– slimline design	■
Power consumption, max.	250 W
Power supply data	230 V, 50/60 Hz
External power supply	12 V AC, 12 – 24 V DC
– 800 mA (AC), 400 mA (DC)	●
– 1500 mA (AC), 800 mA (DC)	▲
Degree of protection	IP 20
Type approved by the German Technical Inspectorate (TÜV)	●
Tested and approved in accordance with the low voltage directives (CE)	●
Quality-assured manufacture to ISO 9000	●

\* Not approved for use with fire and smoke check doors

### Functions and adjustment possibilities



- 1 Adjustable opening speed
- 2 Adjustable backcheck
- 1 + 2 Adjustable opening time
- 3 Adjustable closing speed
- 4 Adjustable delayed closing action
- 3 + 4 Adjustable closing time
- 5 Easy manual operation with bypass valve
- 6 Backcheck range for manual operation
- 7 Adjustable door opening angle, adjustable hold-open time

Drive unit and control	
Microprocessor control	●
Function programs	
– Off	●
– Automatic	●
– Permanent open	●
– Exit only	▲
– Night-bank facility	▲
– Push-and-Go	○
De-energised or switched off = Door closer function	●
Adjustable opening time	≥ 1.5 s
Adjustable closing time	≥ 3 s
Adjustable hold-open time	0 – 30 s
Adjustable backcheck	●
Adjustable delayed closing action	●
Connection for infra-red safety sensors for pull and push side	●
Connection for electro-mechanical door lock	●
Connection for electric strike plate	●
Connection for access control system	●
Prepared for double doors	●
Module for connection to EIB building control system	○

### Control options

Connections for two different activators	▲
Connection for smoke detector	●
Power supply for smoke detector, 24 V DC, 100 mA, stabilised	▲
Connection for DORMA SVP emergency escape motor lock with automatic locking action	▲
Activation via radio remote control	○
Shutdown of the push-side infra-red sensors when door closed	▲
Additional power supply unit, SM 201 for 12/24 V, 1.5 A	○

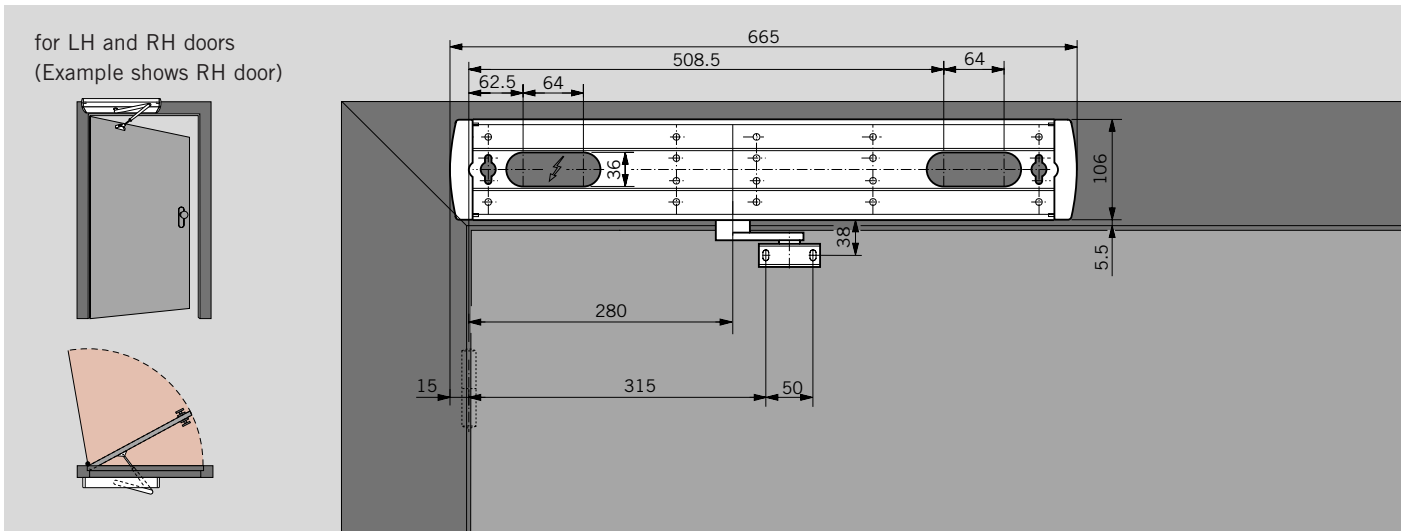
### Accessories

Continuous or extended cover	○
Infra-red safety sensor DORMA IRS 70, 90 or 120, on the pull side	○
Infra-red safety sensor DORMA IRS 35 on the push side	○
Smoke detector DORMA RMZ 2	○
Smoke detector DORMA RM	○
Door co-ordinator DORMA G 93 GSR	○
Electric strike plate (fail-secure principle)	○

- standard    ○ accessory    ■ option  
▲ only in conjunction with comfort control system

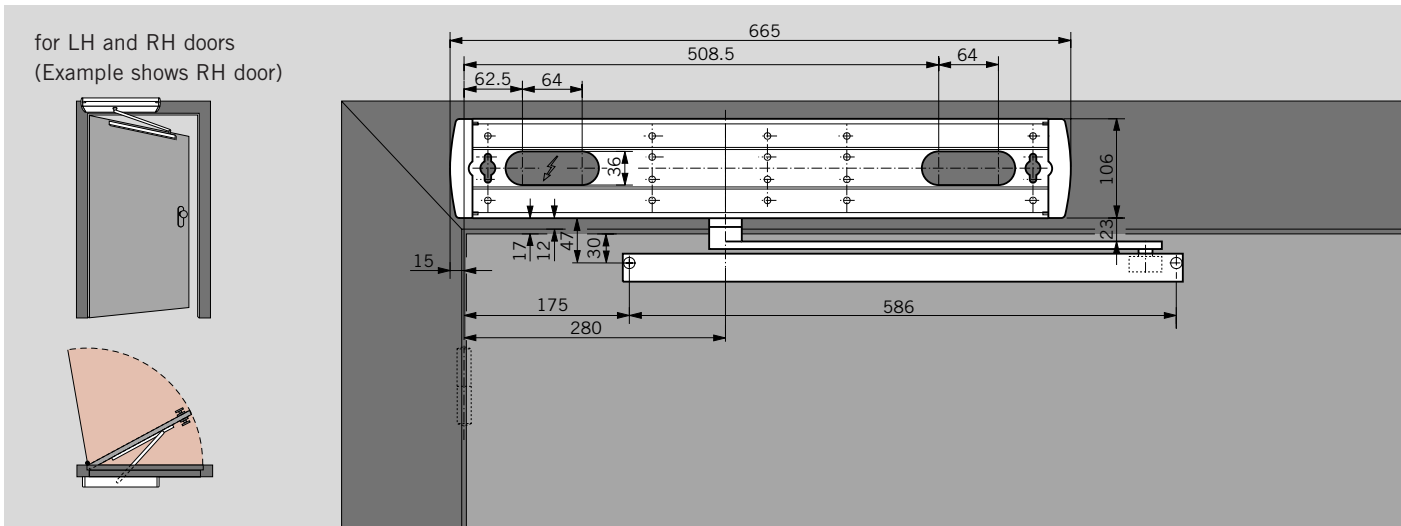
### Push-side fixing

for LH and RH doors  
(Example shows RH door)



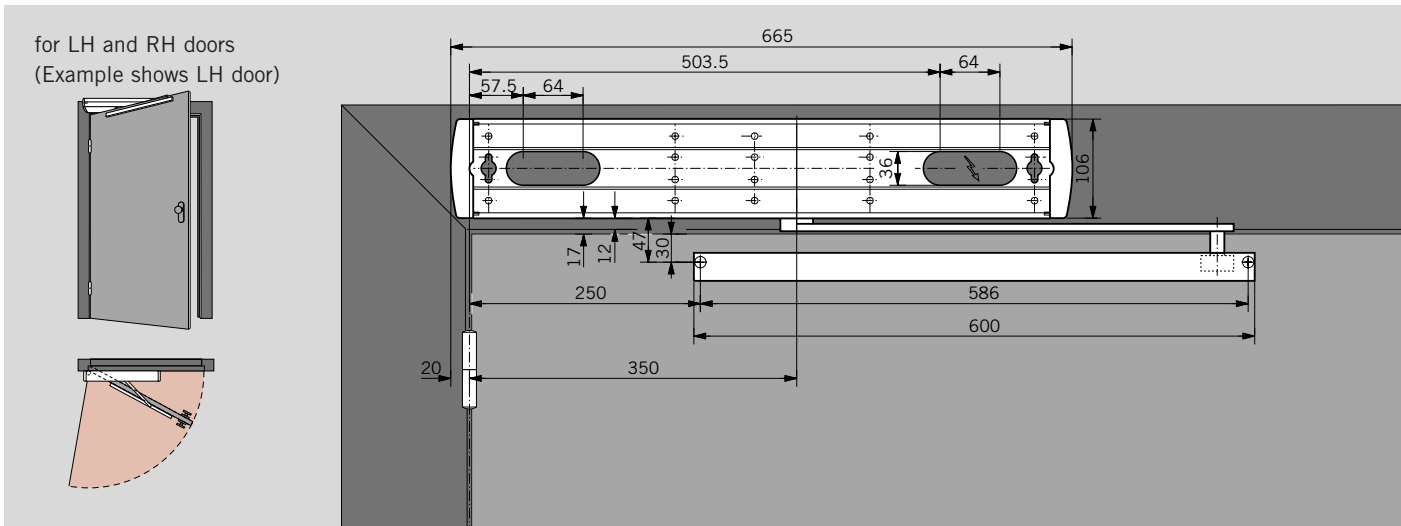
### Fixing on the push side (not approved for fire and smoke check doors)

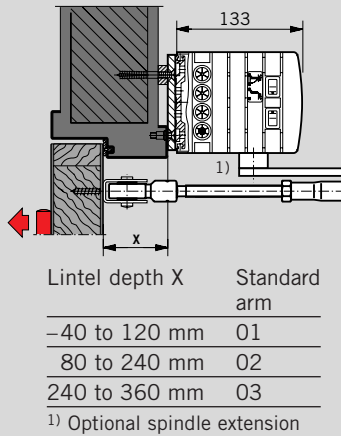
for LH and RH doors  
(Example shows RH door)



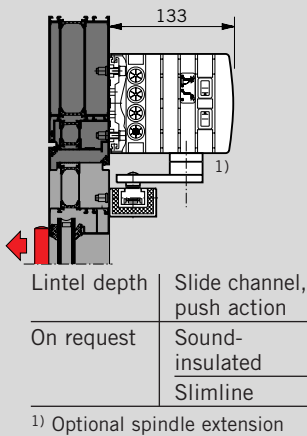
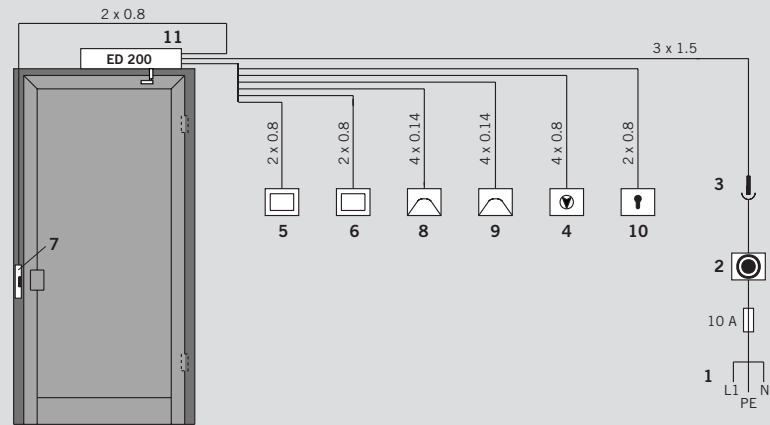
### Fixing on the pull side (not approved for fire and smoke check doors)

for LH and RH doors  
(Example shows LH door)



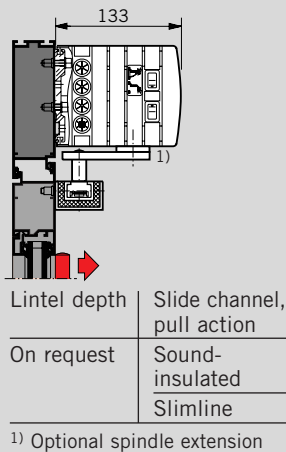


### Connections



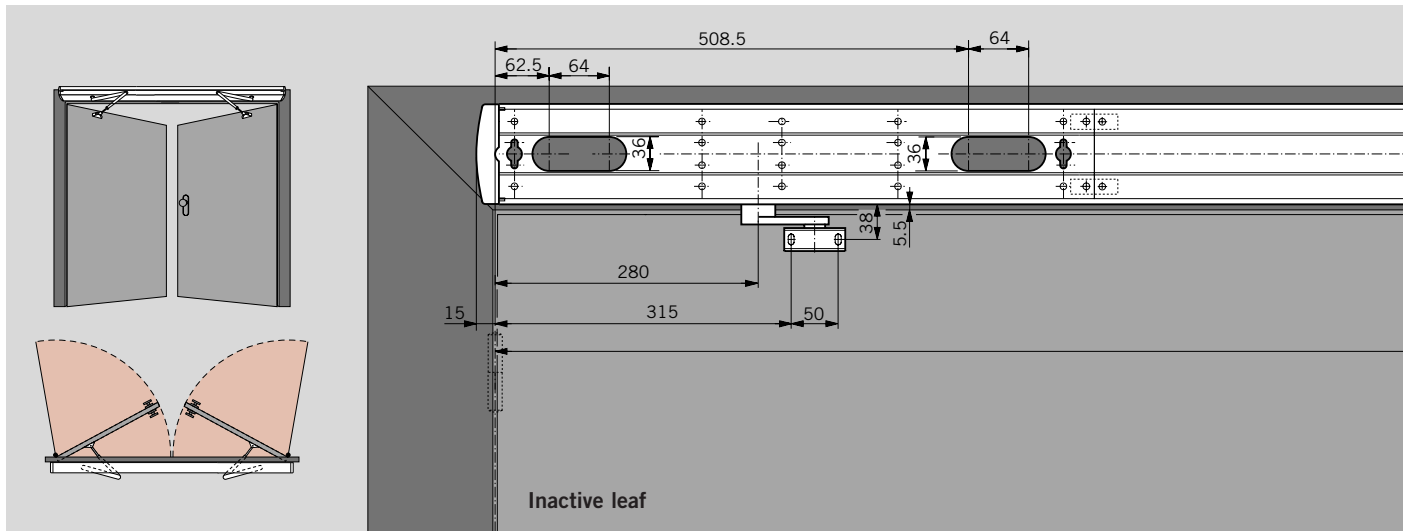
### Connections

- 1 Power supply line: 230 V, 50/60 Hz
- 2 Emergency stop pushbutton to DIN VDE, mounted close to the door
- 3 Two-pole-and-earth socket, by others; if no socket to be used, lockable main switch to be fitted by others
- 4 External program switch, optional with standard control (3-position), necessary with comfort control unit (4-position); cable length max. 100 m
- 5 Pushbutton/switch, internal
- 6 Pushbutton/switch, external
- 7 Electric strike plate
- 8 Activator, internal
- 9 Activator, external
- 10 Key switch
- 11 DORMA ED 200

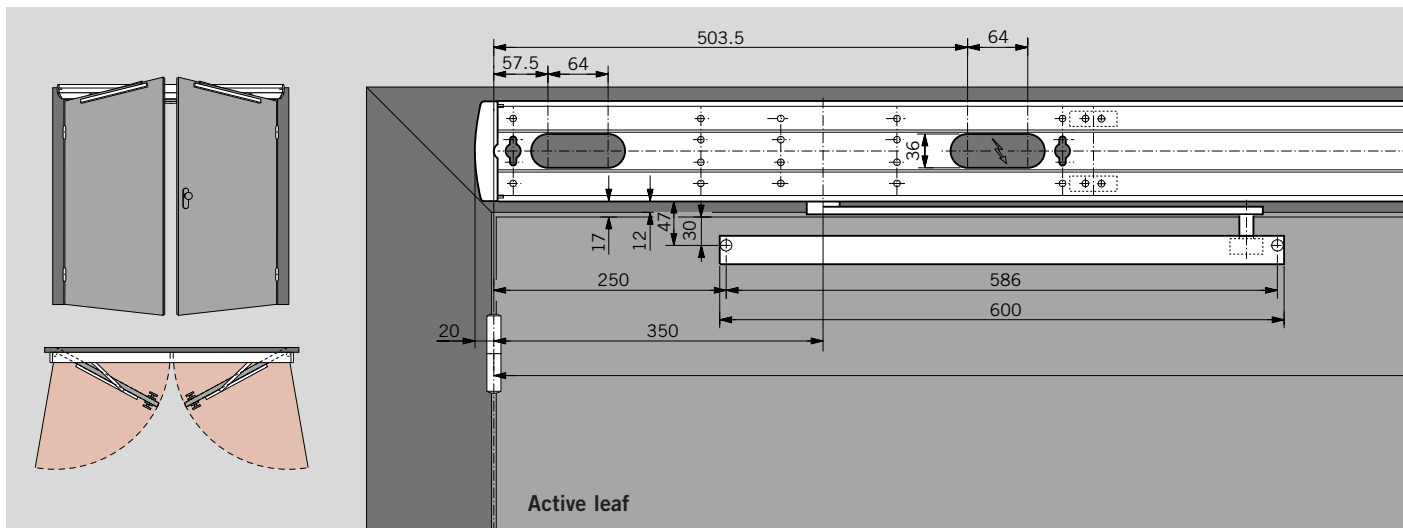




### Push-side fixing

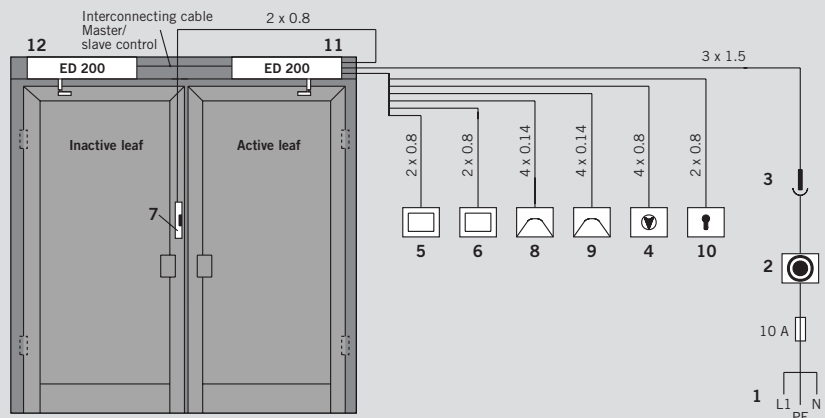


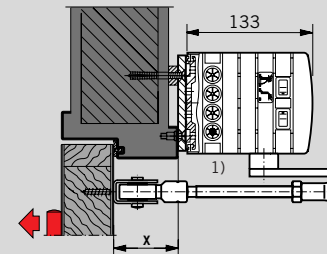
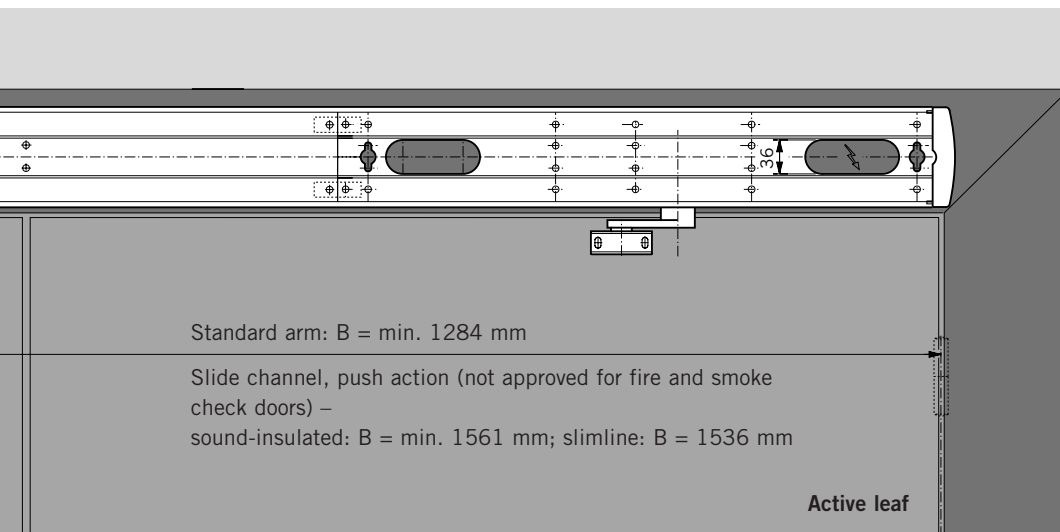
### Pull-side fixing (not approved for fire and smoke rated doors)



The two swing door operators function on the master-slave principle: The control system for the active leaf operator controls all the parameters of the door such as the opening, closing and hold-open times, and also the functions triggered by the safety sensors. The power supply to the inactive leaf operator is provided by the standard control unit. The mechanical settings are individually adjusted for each operator.

#### Connections

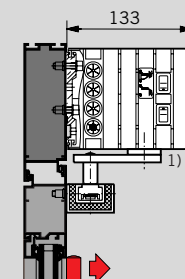
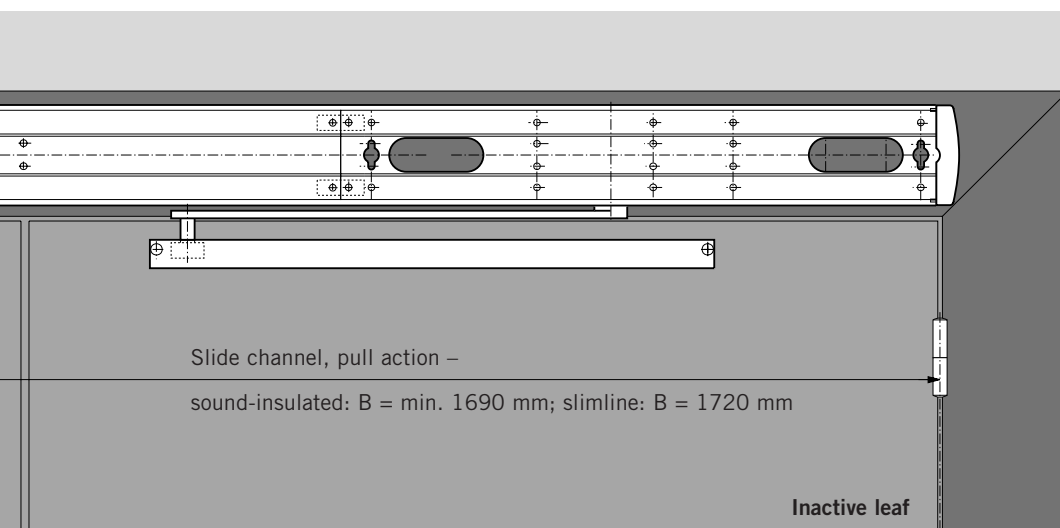




Lintel depth X Standard arm, push action

-40 to 120 mm	01
80 to 240 mm	02
240 to 360 mm	03

<sup>1)</sup> Optional spindle extension



Lintel depth Slide channel, pull action

On request Sound-insulated  
Slimline

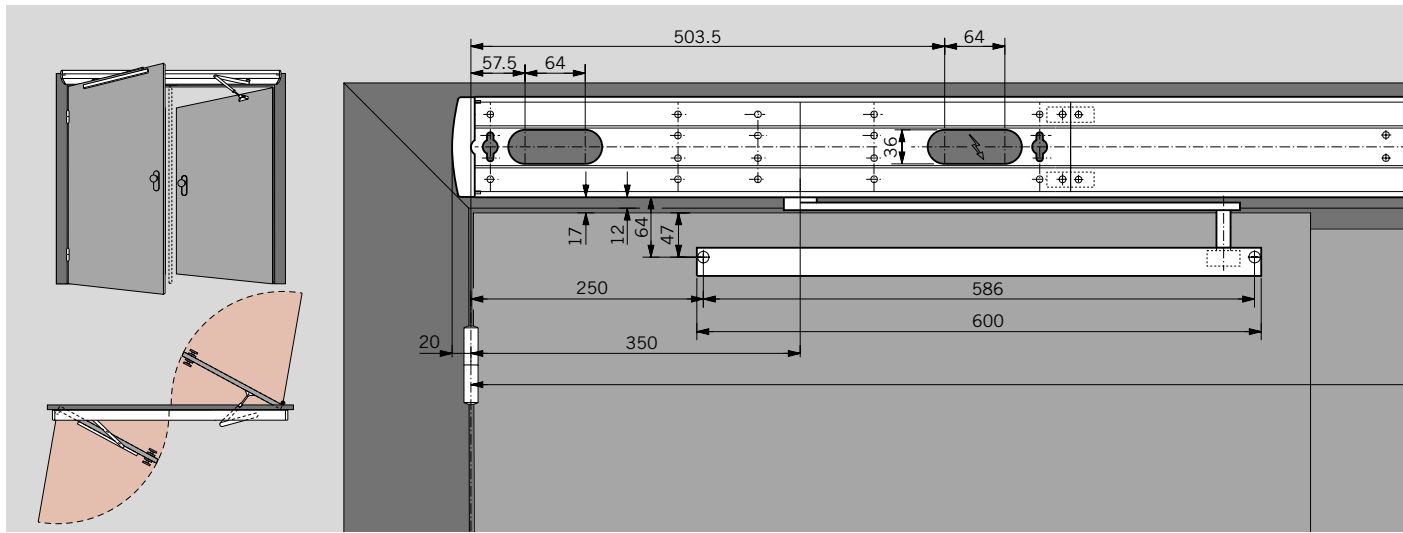
<sup>1)</sup> Optional spindle extension

### Connections

- |  |  |
|--|--|
| 1 Power supply line: 230 V, 50/60 Hz   | 7 Electric strike plate                                |
| 2 Emergency stop pushbutton to DIN VDE, mounted close to the door  | 8 Activator, internal                                  |
| 3 Two-pole-and-earth socket, by others; if no socket to be used, lockable main switch to be fitted by others | 9 Activator, external                                  |
| 4 External program switch, 4-position; cable length max. 100 m   | 10 Key switch  |
| 5 Pushbutton/switch, internal  | 11 DORMA ED 200 with comfort control unit, active leaf |
| 6 Pushbutton/switch, external  | 12 DORMA ED 200 with standard control, inactive leaf   |



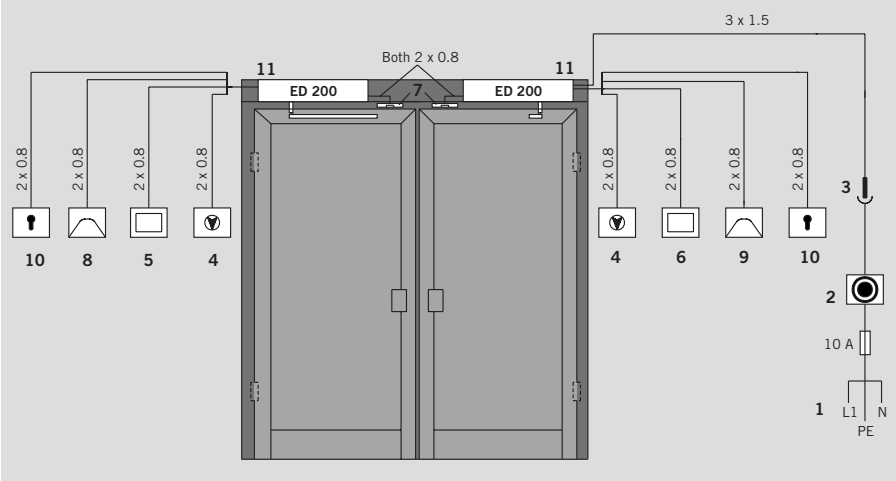
## Fixing on the pull and push side (not approved for fire and smoke check doors)



The decisive advantage of the double door "contraflow traffic" configuration lies in the fact that each door leaf controls just one direction, so separating the ingress and egress flows as users enter or leave the building or area. There is also the advantage that passage through the doors takes place immediately because they always open in the walking direction.

This solution is therefore particularly suitable for doors in which there is a constant or occasionally heavy flow of users. For example, the entrances to department stores, leisure facilities and administration buildings, and also the kitchen entrances of large restaurants and hotels. The two swing door operators operate individually: The control system of each operator governs all the parameters such as the opening, closing and hold-open times, and also the functions triggered by the safety sensors.

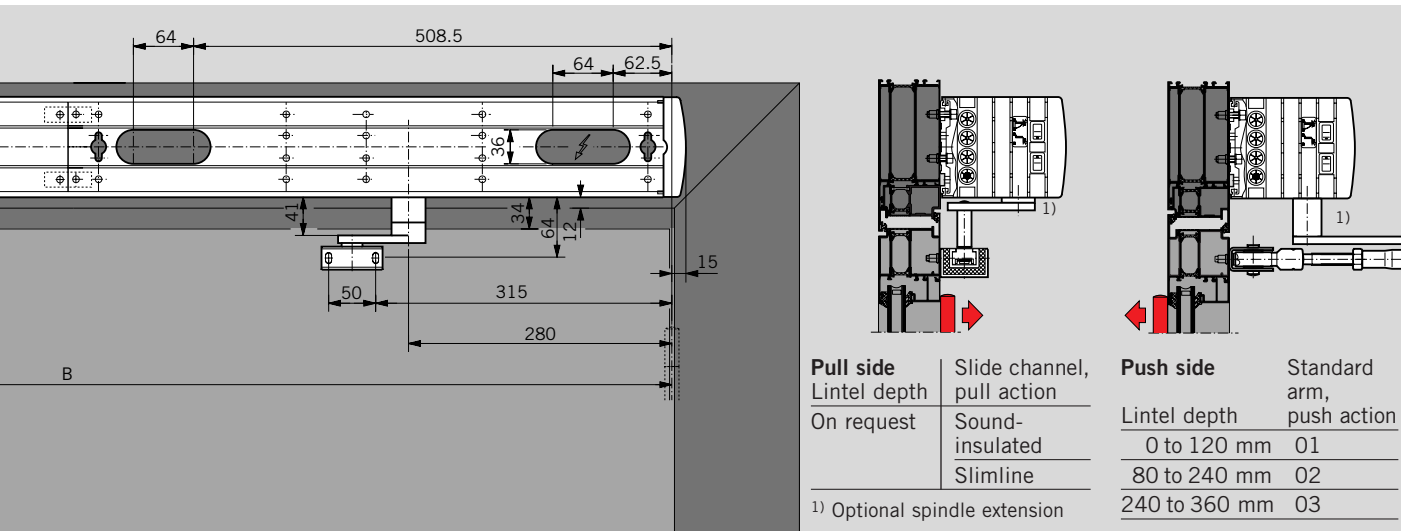
### Connections



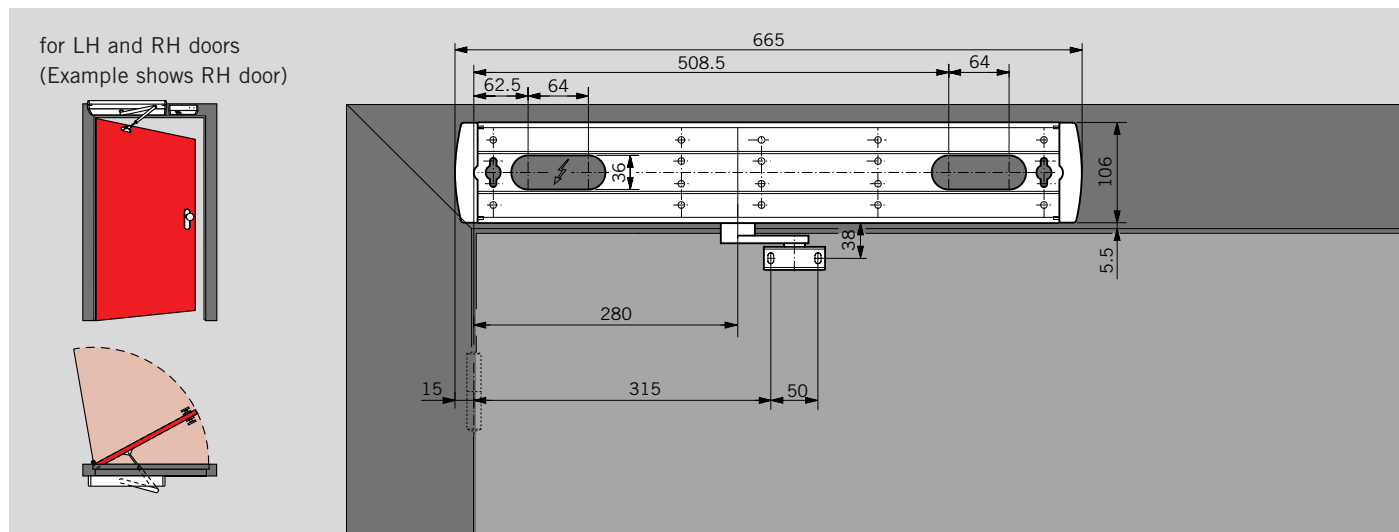
### Connections

- |   |  |
|---|--|
| 1 Power supply line:<br>230 V, 50/60 Hz   | 4 External program switch,<br>4-position; cable length<br>max. 100 m |
| 2 Emergency stop pushbutton<br>to DIN VDE, mounted close<br>to the door   | 5 Pushbutton/switch, internal  |
| 3 Two-pole-and-earth socket,<br>by others; if no socket to be<br>used, lockable main switch<br>to be fitted by others | 6 Pushbutton/switch, external  |
|   | 7 Electric strike plate  |
|   | 8 Activator, internal  |
|   | 9 Activator, external  |
|   | 10 Key switch  |
|   | 11 DORMA ED 200 with<br>comfort unit or standard<br>control unit     |





## Push-side fixing

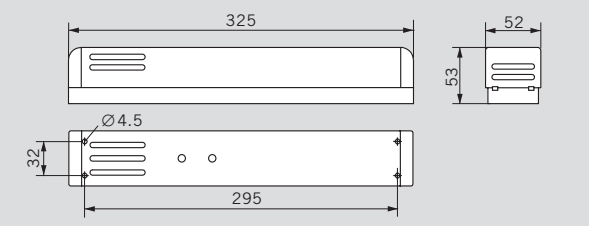


In the case of single fire and smoke rated doors, the DORMA ED 200 automatic swing door operator is always fixed on the push side. In the event of a fire, it can be actuated to close both by the DORMA RMZ 2 and the DORMA RM smoke detector. The power supply of the DORMA RM smoke detectors is provided by the DORMA ED 200 swing door operator with comfort control unit or the DORMA RMZ 2 smoke detector. The DORMA ED 200 can also be connected to smoke detector systems of other approved manufacturers.

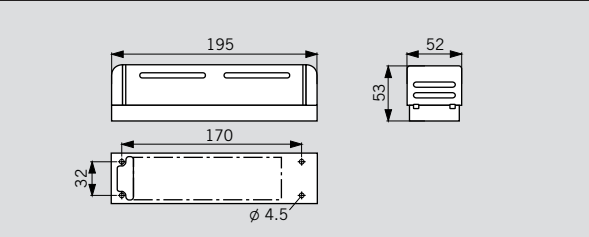
As a rule, at least one smoke detector must be fixed to the lintel or frame above the top edge of the clear opening on one side of the door. In addition, ceiling-mounted smoke detectors should also be appropriately positioned in accordance with local regulations and guidelines for hold-open systems.

Depending on requirements, individual or several electric strike plates or electro-mechanical locks may also be connected. These must operate in accordance with the fail-secure principle. In addition, it must be ensured that they are installed in the correct (approved) position. A manual release push-button/switch must also be fitted. For all components, including the electric strike plates, approvals must be obtained in accordance with local regulations.

### DORMA RMZ 2 smoke detectors



### DORMA RM smoke detectors

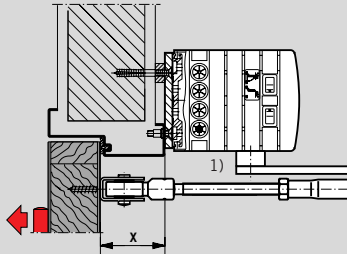


#### DORMA RMZ 2 smoke detector

The DORMA RMZ 2 smoke detector consists of an optical smoke sensor for frame mounting, and an integrated stabilised power supply unit. The equipment includes connections for other DORMA RM smoke detectors, a floating change-over contact, a connection for a manual release device and an operating status indicator. The RMZ 2 must not be mounted on the cover of the DORMA ED 200.

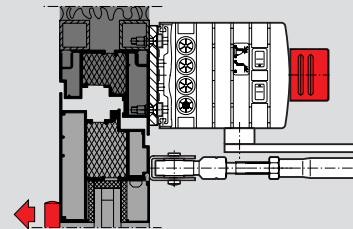
#### DORMA RM smoke detector

The DORMA RM is a universal optical smoke detector designed for both frame and ceiling installation. It is connected to a DORMA RMZ 2 smoke detector or a DORMA ED 200 swing door operator with comfort control unit. The equipment includes connections for other DORMA RM smoke detectors, a connection for a manual release device and an operating status indicator.



Lintel depth X	Standard arm
-40 to 120 mm	01
80 to 240 mm	02
240 to 360 mm	03

<sup>1)</sup> Optional spindle extension



DORMA ED 200 with DORMA RM smoke detector mounted on the cover (the DORMA RMZ 2 smoke detector must not be mounted on the cover)

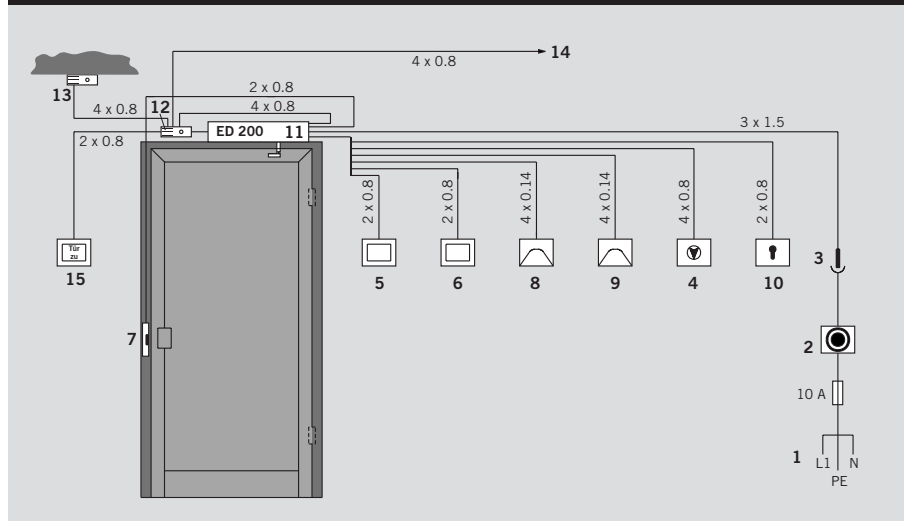
### Approval certification

The DORMA ED 200 automatic swing door operator is approved in Germany by the MPA NRW Dortmund (State Material Testing Authority) in accordance with DIN 18263, Part 4, and is subject to third-party quality assurance verification. In conjunction with DORMA frame and ceiling mounted smoke detectors, it is approved by the DIBt of Berlin (German Institute for Building Technology) for use on single and double fire and smoke rated doors provided that this is allowed by the approval certificate for the door concerned.

The DORMA ED 200 has been tested as a hold-open device for single and double doors in accordance with German guidelines governing hold-open systems.

The DORMA RMZ 2 smoke detector and also the DORMA RM smoke detector are approved by the DIBt, Berlin (German Institute for Building Technology), and are subject to third-party quality assurance verification.

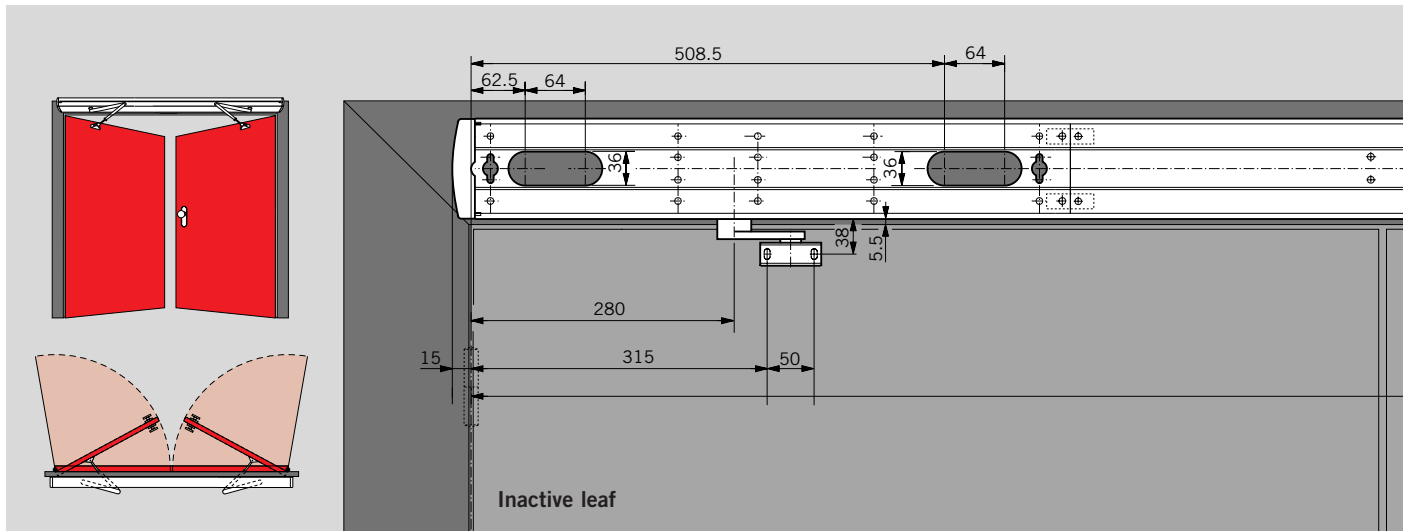
### Connections



### Connections

- |   |  |   |
|---|--|---|
| 1 Power supply line:<br>230 V, 50/60 Hz   | 4 External program switch,<br>optional with standard<br>control (3-position),<br>necessary with comfort<br>control unit (4-position);<br>cable length max. 100 m | 10 Key switch   |
| 2 Emergency stop pushbutton<br>to DIN VDE, mounted close<br>to the door   | 5 Pushbutton/switch, internal  | 11 DORMA ED 200   |
| 3 Two-pole-and-earth socket,<br>by others; if no socket to be<br>used, lockable main switch<br>to be fitted by others | 6 Pushbutton/switch, external  | 12 DORMA RMZ 2 smoke<br>detector or DORMA RM<br>smoke detector (3 x 1.5 for<br>230 V, 50/60 Hz only for<br>DORMA RMZ 2) |
|   | 7 Electric keep, open-circuit<br>(fail-secure)   | 13 DORMA RM smoke detector<br>(Frame or ceiling mounted)  |
|   | 8 Activator, internal  | 14 Connection to smoke<br>detector on the pull side   |
|   | 9 Activator, external  | 15 Manual release push-<br>button/switch  |

## Push-side fixing



In the case of double fire and smoke rated doors, the two DORMA ED 200 automatic swing door operators are always fixed to the push side, while on the pull side there is a DORMA G 93 GSR slide channel door co-ordinator with two pivot blocks. In addition, the door is also equipped with a manual unlocking device for the inactive leaf. The two swing door operators operate according to the master-slave principle: The control system for the active leaf operator controls all the parameters of the door such as the opening, closing and hold-open times, and also the functions triggered by the safety sensors.

The power supply to the inactive leaf operator is provided by the standard control unit. The mechanical settings are individually adjusted for each operator. In the event of a fire, it can be actuated to close both by the DORMA RMZ 2 and the DORMA RM smoke detector. The DORMA ED 200 can also be connected to smoke detector systems of other approved manufacturers.

### Further information

See page 10 for further information relating to the power supply system, the positioning of the smoke detectors and also providing the door with electric strike plate or locks.

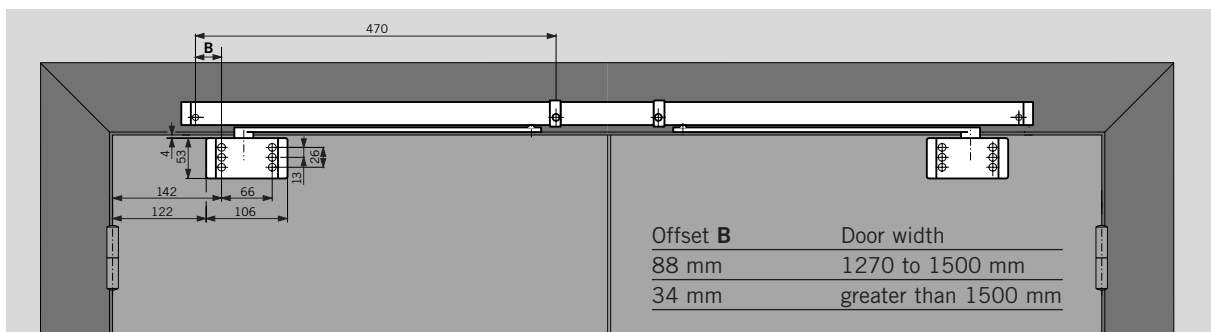
### Door co-ordinator

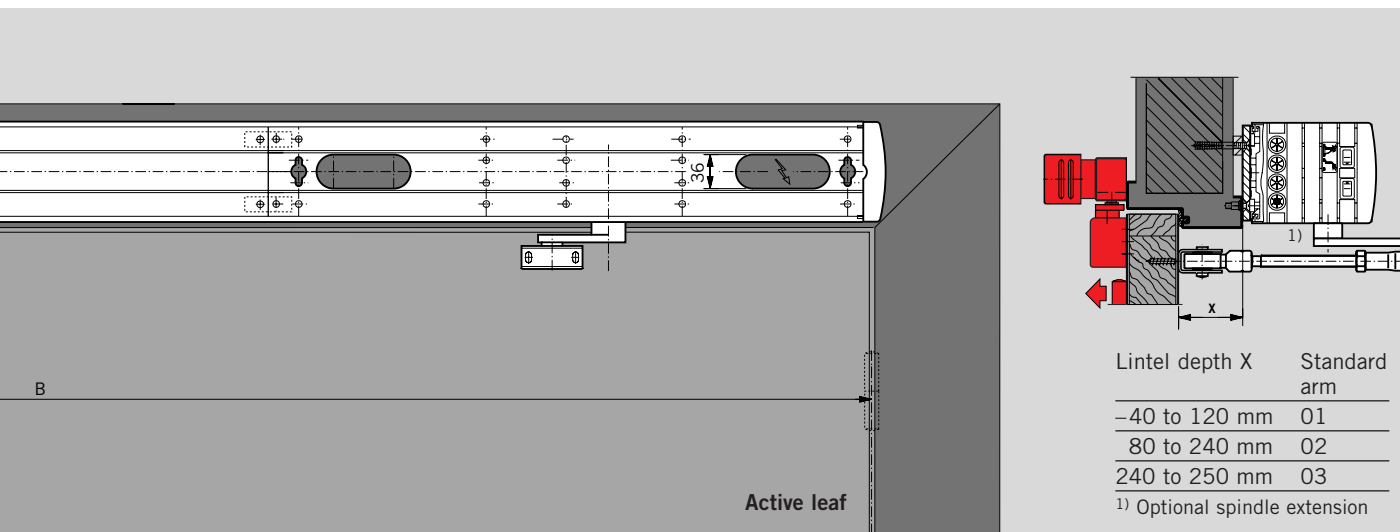
The DORMA G 93 GSR slide channel door co-ordinator with two pivot blocks ensures that, in the event of an alarm, the two door leaves close in the correct sequence (inactive leaf before active leaf) so producing a tight barrier seal.

The DORMA G 93 GSR with pivot blocks is approved by the MPA NRW, Dortmund (State Material Testing Authority) for use on double fire and smoke rated doors. An approval certificate for the fire and smoke rated door is also necessary.

### Approval certification

The DORMA ED 200 automatic swing door operator is approved in Germany by the MPA NRW Dortmund (State Material Testing Authority) in accordance with DIN 18263, Part 4, and is subject to third-party quality assurance verification. In conjunction with DORMA frame and ceiling mounted smoke detectors, it is approved by the DIBt of Berlin (German Institute for Building Technology) for use on single and double fire and smoke rated doors provided that this is allowed by the approval certificate for the door concerned. The DORMA ED 200 has been tested as a hold-open device for single and double doors in accordance with German guidelines governing hold-open systems.

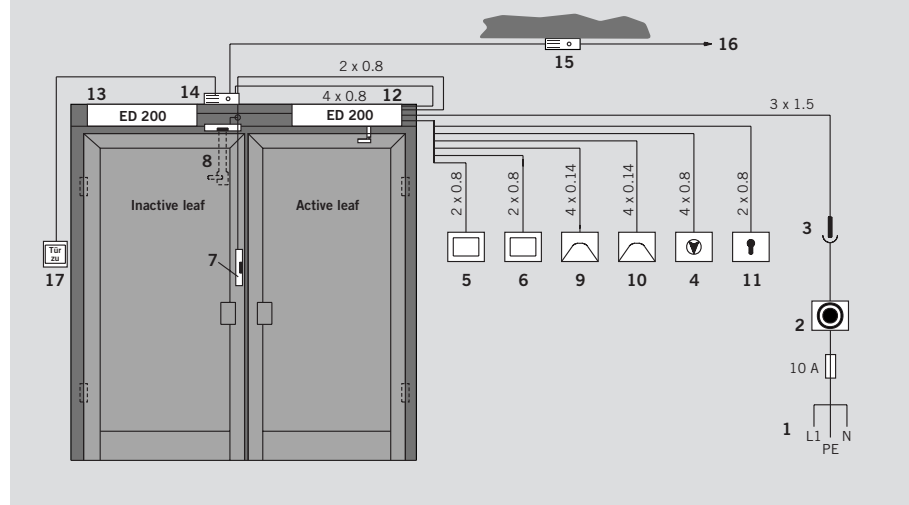




### Connections

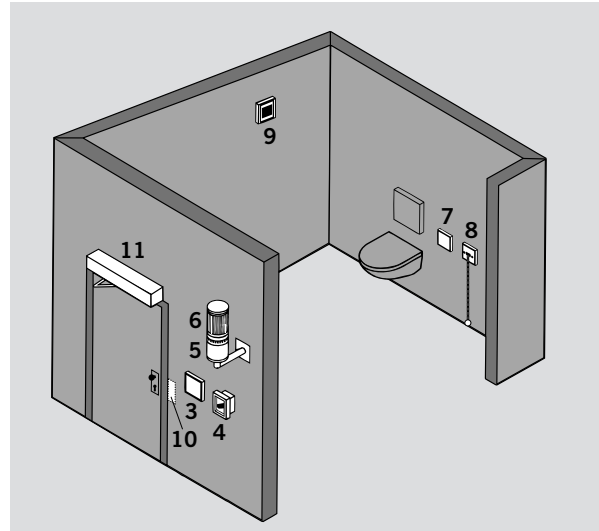
- 1 Power supply line: 230 V, 50/60 Hz
- 2 Emergency stop pushbutton to DIN VDE, mounted close to the door
- 3 Two-pole-and-earth socket, by others; if no socket to be used, lockable main switch to be fitted by others
- 4 External program switch, 4-position; cable length max. 100 m
- 5 Pushbutton/switch, internal
- 6 Pushbutton/switch, external
- 7 Electric strike plate, open-circuit (fail-secure)
- 8 Manual unlocking
- 9 Activator, internal
- 10 Activator, external
- 11 Key switch
- 12 DORMA ED 200 with comfort control, active leaf
- 13 DORMA ED 200 with standard control, inactive leaf
- 14 DORMA RMZ 2 or DORMA RM smoke detector
- 15 DORMA RM smoke detector (frame or ceiling mounted)
- 16 Connection to smoke detector on the pull side
- 17 Manual release push-button/switch

### Connections



Thanks to its wide range of adjustment and connection possibilities, the DORMA ED 200 swing door operator with its smooth, highly reliable operation is ideal for the automation of special-

purpose doors. In particular, it can be used to optimise facilities in buildings designed for the aged and the disabled. A typical example is the access to a rest room equipped in accordance with DIN 18 224/25.



#### Functional sequence of an automated WC door

In order to enter the rest room, the user has to operate the externally positioned palm pushbutton (3). This releases the electric strike plate (10) which operates in accordance with the fail-safe mode. The DORMA ED 200 swing door operator (11) then receives an actuating signal and opens the door following a short delay. On expiry of the preset hold-open time, the DORMA ED 200 (11) then closes the door which is then locked.

Once inside the rest room, the user switches off the external palm pushbutton (3) using palm switch/pushbutton (7), at the same time switching on the occupied light located on the outside (5). The signal lamp (9) inside the rest room also lights up for confirmation purposes.

In order to leave the rest room, palm switch/pushbutton (7) is first operated. This releases the palm switch (3) and switches off the occupied lamp (5). The signal lamp (9) inside the rest room also goes out. At the same time, the electric strike plate (10) is activated and a delayed opening signal is transmitted to the ED 200 (11).

In the event of an emergency, the user can operate the emergency switch (8) from the inside in order to de-activate the electric keep (10) so that the door can be opened from the outside. At the same time, the audible signal transmitter (6) is switched on; further operation of the emergency switch (8) switches it off again.

By operating the emergency pushbutton (4) located behind the emergency break glass on the outside, the electric keep (10) can be switched off and the door opened manually. In the event of a power failure, the electric keep (10) is again switched off to allow access.

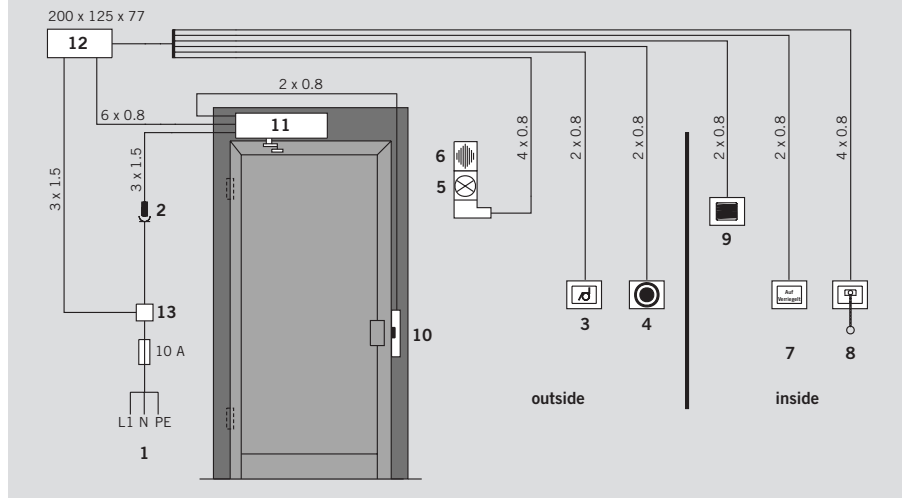
Sensors ensure that the sweep range of the door is effectively protected.



### Connections

- 1 Power supply line:  
230 V, 50/60 Hz
- 2 Two-pole-and-earth socket,  
by others; if no socket to be  
used, lockable main switch  
to be fitted by others
- 3 Palm switch, external,  
stainless steel design, with  
disabled symbol
- 4 Emergency pushbutton,  
external, with emergency  
break glass
- 5 Occupied signalling lamp,  
external
- 6 Audible alarm
- 7 Palm switch/pushbutton,  
internal, stainless steel  
finish, with lettering  
"Open/Locked"
- 8 Emergency switch, internal
- 9 Signal lamp, internal
- 10 Electric strike plate

### Connections



- 11 DORMA ED 200
- 12 Auxiliary control unit,  
external, in control box or  
housed in extended cover
- 13 Junction box by others

According to German standard  
DIN 18224/25, the door  
must open outwards and have  
a width of min. 900 mm.

### Specification text – DORMA ED 200 for buildings designed for the aged and disabled

Electro-hydraulic swing door operator for special applications in buildings designed for the aged and disabled

#### Door parameters:

Door leaf width max. 1400 mm  
Door leaf weight max. 250 kg  
Opening angle max. 115°

#### Drive unit:

Size EN 4 – 6, adjustable  
 Size EN 7

Opening and closing speed, backcheck and delayed closing action independently adjustable; automatic closing action.

Manufactured in accordance with German guidelines for power-operated windows, doors and gates, ZH 1/494 latest edition, and VDE (German Association of Engineers) standards.

Type approved by the German technical inspectorate (TÜV); tested and approved in accordance with low-voltage directives; manufactured on the basis of a quality management system registered to ISO 9000.

#### Power supply:

230 V, 50/60 Hz

#### Standard control:

Microprocessor control, 24 VAC/DC, 12 VAC, 800 mA (AC), 400 mA (DC)

Function programs: Off; Permanent open (rated for continuous duty); Automatic; Hold-open time adjustable between 0 and 30 s. Connection for pull side/push side safety sensors.

Connection for electric strike plate.

#### Comfort control unit:

Microprocessor control as above, but 1500 mA (AC), 800 mA (DC), and also additional Exit only and Night-bank facility. Push-side safety sensor can be switched off in door-closed position. Stabilised power supply unit 24 V DC for smoke detectors.

#### Equipment for both control options:

External visual and audible alarm facility; switch-off of the external activators from the inside with visual indication of the lock status, release from the outside in the event of an emergency, alarm initiation and unlocking signal from the inside. Installation in accordance with DIN 18224/25.

#### Cover design:

Standard, dimensions (H x D x B) 103 x 166 x 665 mm  
 Extended cover, dimensions: ..... mm

#### Arm:

Standard arm for lintel depth of  
 –40–120 mm  80–240 mm  240–360 mm  
 Spindle extension (13, 21, 30, 48, 73, 95 mm)  
 Slide channel  
 Pull side  Push side  
 Sound-insulated  
 Spindle extension (21, 30, 48 mm)

#### Switches, pushbuttons:

Program switch:

lockable  non-lockable  
 external, concealed  external, surface-mounted

Emergency off pushbutton:

external, concealed  external, surface-mounted  
 double box  
 main switch lockable

#### Activators:

Switch/pushbutton, stainless steel, internal  
 Switch/pushbutton, stainless steel, external  
 Visual and audible alarm, external  
 Signal lamp, internal  
 Infra-red safety sensor (35, 70, 90, 120 mm)

#### Electric keep:

Type 22/32 WD, eE 24 DC

#### Power supply unit:

Auxiliary power supply, SM 201, 12/24 V, 1.5 A

#### Surface finish:

silver anodised (Eloxal E6/C0)  
 dark-brown anodised (Eloxal E6/C34)  
 RAL .....

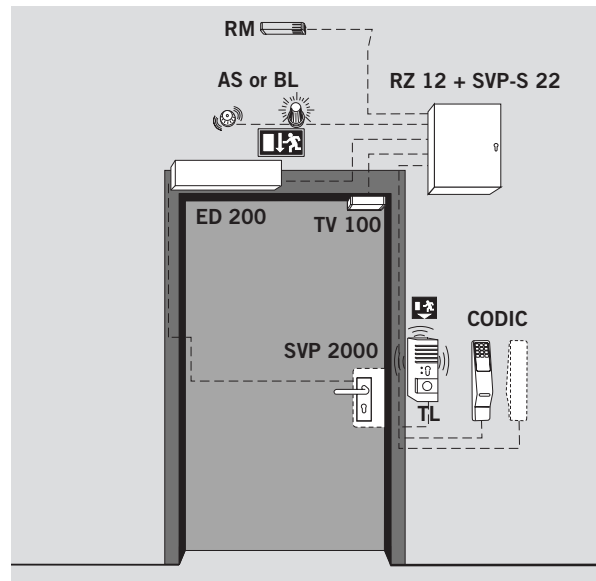
#### Make:

DORMA ED 200

### Emergency exit security system

Under normal conditions, the door is locked (TV 100, TV 500 electro-mechanical lock). Operation of the emergency push-button in the DORMA TL door terminal causes the lock to be switched off and the lock bolt and latch of the DORMA SVP 2000 (emergency escape motor lock with automatic locking action) to be retracted; at the same time a system alarm is triggered. The DORMA ED 200 simultaneously receives its opening signal. Authorised personnel can initiate this sequence of operations by means of the key switch/momentary contact facility of the DORMA TL or a

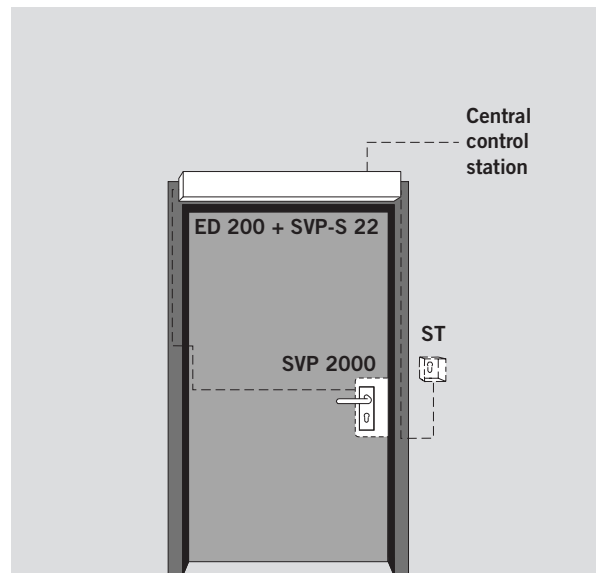
DORMA access control system such as the CODIC facility. If the DORMA RM smoke detector responds, the DORMA TV lock is unlocked, the DORMA SVP 2000 is locked and the DORMA ED 200 is de-energised. In the event of activation from a central control station, the TV electro-mechanical lock is unlocked, the SVP 2000 disengages and the ED 200 opens the door. An approval certificate from the NRW MPA (State Material Testing Authority) and also a VdS approval certificate (German Association of Property Insurers) have both been issued for this system for use in emergency exit and escape routes.



### Insurance-compliant security locking system

In its closed state, the door is locked by the DORMA SVP 2000 emergency escape motor lock with automatic locking action (insurance-compliant security locking system). The door can be opened at any time from the inside, with the unlocking action of the DORMA SVP 2000 and the delayed operation of the DORMA ED 200 initiated either manually or by means of positive activators. Activation from a central control station is also

possible. Following closure of the door, insurance-compliant locking is re-instated fully automatically as the bolt of the DORMA SVP 2000 is automatically thrown each time the door is closed. The DORMA SVP 2000 is additionally controlled by the DORMA SVP-S22 motor lock control system which is installed in the extended cover of the ED 200.



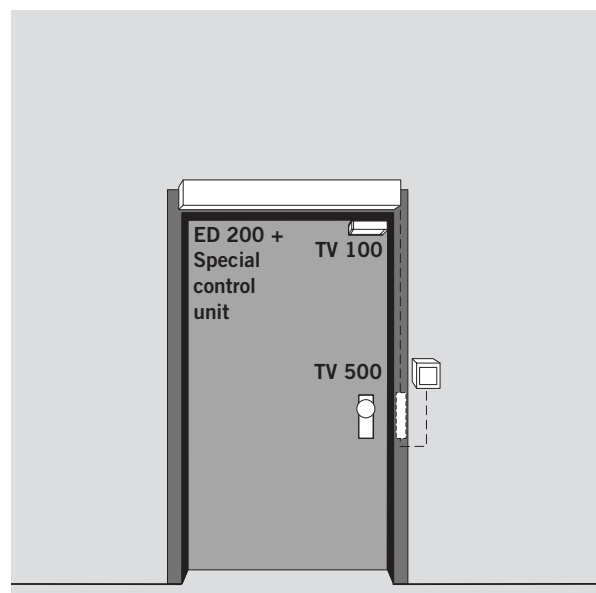
### Doors designed to open when de-energised (fail-safe)

The door (single or double) is closed and locked by the DORMA TV 100 or TV 500 electro-mechanical lock. The DORMA ED 200 is equipped with a special control system and designed so that it opens under spring load and closes under motor power. There are two possibilities modes of door operation:

1. Unlocking and opening by one signal; closing and locking by a repeat signal.
2. Unlocking and opening by signal; automatic closing and locking on expiry of adjustable preset hold-open

time. With this system, the door automatically opens in the event of a power failure. The door cannot be manually operated.

Only type-approved systems may be employed in emergency exit and escape routes (e.g. DORMA RZ 12, TL-G with TL-S control PCB, TV 100, TV 500).





DORMA IRS infra-red safety sensors minimise the risk of people, animals or other obstructions being hit by automatically opening and closing swing doors. The sensors operate with an active infra-red light and thus detect any change which occurs within their scanning range.

**DORMA IRS 70, 90, 120**



Mounted on the pull side, the DORMA IRS 70, 90 and 120 infra-red sensors monitor the opening sweep of the door. In the event that someone coming from the push side initiates an opening pulse while a person or obstruction is located in the sweep range, they disable the opening action.

**DORMA IRS 35**



The DORMA IRS 35 infra-red sensor is mounted on the push side and performs three tasks: In the area closest to the door, it acts as an activator to open the door. When the door is opened, it prevents it from closing again – irrespective of the preset hold-open time – while there are persons or obstructions located in the passage zone. If a door is stopped by a pull-side sensor,

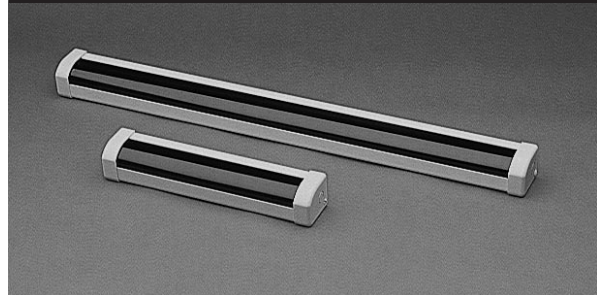


it ensures that the door is only released for operation again once the passage is free. Where it is necessary to prevent passers-by from triggering an opening pulse (e.g. in doors located in corridor walls), the sensors can be switched off when the door is closed by DORMA ED 200 swing operators featuring the enhanced control system.

**Features and benefits**

- Pre-assembled complete ready for installation and connection, with infra-red permeable plastic lens
- Integrated activating and control electronics
- Sensitivity potentiometer-adjustable
- Available in four lengths to suit all door widths
- Monitored zone adjustable in the vertical direction in three stages, and in the horizontal direction by sliding the sensors within their housing; range adjustable up to approx. 1000 mm in front of the door for an installation height of max. 2100 mm
- Hinge/opposite hinge side
- Suitable for installation on the push and pull side of the door
- Power supply via DORMA ED 200

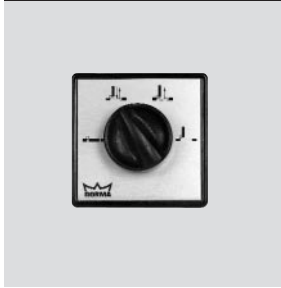
**IRS safety sensors**



**Technical data**

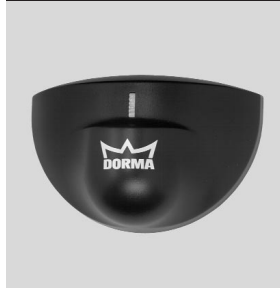
Type DORMA	Length	Sensors
IRS 35	350 mm	1 sensor
IRS 70	700 mm	1 sensor
IRS 90	900 mm	2 sensors
IRS 120	1200 mm	2 sensors

**Program switches**



- For external installation
- Concealed or surface-mounted
- Lockable or with rotary knob
- Suitable for concealed box
- Frames in various colours

**Radar motion detectors**



- Eagle system
- Directionally sensitive
- Non-directionally sensitive (standard model)
- Black finish
- Comprehensive range of accessories
- Ceiling installation sets
- Weather-resistant cover

**Switches, pushbuttons**



- Concealed/surface-mounted installation
- Stainless steel finishes
- Water-resistant models
- Key switches and push-buttons
- Foot switch for wall or floor installation
- Elbow pads and palm switches for wall installation

**Radio remote controls**



- Various transmitters and receivers for VHF and UHF operation
- Single-channel
  - Multi-channel

**CODIC**



Electronic access control system, activation by inputting a secret code via the keypad and/or insertion of an electronically coded CODIC key

**SENSIC**



Proximity access control system, activation on the basis of a show-and-go system with a key fob or clip-on identification device shown to a reader/sensor unit.

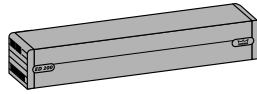
**Push switches**



- Large operating surface
- Surface-mounted version
- No concealed box necessary

**Swing door operator and arm assemblies**

**DORMA ED 200**



Size EN 4 – 6 (standard control)  
 – For single door  
 – For double door

Size EN 7  
 – For single door  
 – For double door

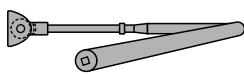
Size EN 4 – 6 (enhanced control)  
 – For single door  
 – For double door

Size EN 7  
 – For single door  
 – For double door

	Installation		Installed in extended cover	Lintel depth mm
	Pull side	Push side		

●	●	●
●	●	●
●	●	●
●	●	●
●	●	●
●	●	●

**Standard arm**



01  
02  
03

●
●
●

–40 to 120  
80 to 240  
240 to 360

**Slide channel**



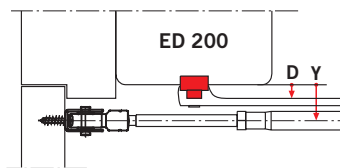
– Sound-insulated  
 – Slimline design  
 – Standard arm  
 – Standard arm for contraflow double doors

●	●
●	●
●	●
●	●

On application

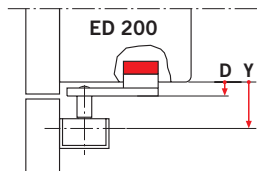
**Spindle extensions**

**For standard arm**



Height H mm	..... D mm	.....Y mm
13	6	30
21	14	38
30	23	47
48	41	65
73	66	90
95	88	112

**For slide channel**



21	22	55
30	31	64
48	49	82

**Mounting backplate**

	Length mm	Depth mm	Height mm
Standard arm and slide channel	659	8	100
Extended cover	per specification	8	100
Double door	per specification	8	100

### Specification text

#### Electro-hydraulic swing door operator for:

- Standard door  
 Single  Double  
 Fire and smoke rated door  
 Single  Double

#### Door parameters:

Door leaf width max. 1400 mm  
 Door leaf weight max. 250 kg  
 Opening angle max. 115°

#### Drive unit(s):

- Size EN 4 – 6, closing force adjustable, ...units  
 Size EN 7, ...units

Opening and closing speed, backcheck and delayed closing action independently adjustable; automatic closing action.

Manufactured in accordance with German guidelines for power-operated windows, doors and gates, ZH 1/494 latest edition, German UVV (accident prevention) regulations and VDE (German Association of Engineers) standards. Type approved by the German technical inspectorate (TÜV); tested and approved in accordance with low-voltage directives; manufactured on the basis of a quality management system registered to ISO 9000.

#### Power supply:

230 V, 50/60 Hz

#### Standard control:

Microprocessor control,  
 24 vAC/DC, 12 vAC, 800 mA (AC), 400 mA (DC)  
 Function programs: Off; Permanent open (rated for continuous duty); Automatic; Hold-open time adjustable between 0 and 30 s.  
 Connection for pull side/push side safety sensors.  
 Connection for electric keep; Push-and-Go optional

#### Comfort control unit:

Microprocessor control,  
 24 vAC/DC, 12 vAC, 1500 mA (AC), 800 mA (DC)  
 Function programs: Off; Permanent open (rated for continuous duty); Automatic; Exit only (external program switch); Night-bank facility; Hold-open time adjustable between 0 and 30 s.  
 Connection for safety sensors on pull and push side, push-side safety sensor switched off in door-closed position, Push-and-Go optional.  
 Plus stabilised power supply unit 24 V DC for DORMA RM smoke detector; connection for approved electric strike plate; connection for DORMA SVP 2000 emergency exit motor lock with automatic locking action.

#### Cover design:

- Standard, dimensions (H x D x B) 103 x 166 x 665 mm  
 Extended cover, size: ..... mm  
 Full-width cover for double door,  
 Size: ..... mm, Hinge centres: ..... mm

#### Gestänge:

- Arm:  
 Lintel depth –40 – 120 mm, ...units  
 Lintel depth 80 – 240 mm, ...units  
 Lintel depth 240 – 360 mm, ...units  
 Spindle extension for standard arm  
 13 mm, ...units  21 mm, ...units  
 30 mm, ...units  48 mm, ...units  
 73 mm, ...units  95 mm, ...units

- Slide channel, sound-insulated  
 Slide channel, slimline design  
 Spindle extension for slide channel  
 13 mm, ...units  21 mm, ...units  
 30 mm, ...units  48 mm, ...units  
 Mounting backplate  
 DORMA G 93 GSR slide-channel door co-ordinator with 2 pivot blocks

#### Switches, pushbuttons:

- Integrated program switch:  
 3-position (external)  4-position (external)  
 Program switch, external:  
 lockable  non-lockable  
 concealed  surface-mounted  
 Emergency stop pushbutton, external:  
 concealed  surface-mounted  
 concealed with double box  
 Main switch, external, lockable

#### Activators:

- Radar movement detector, type ..., ... units  
 Pushbutton, type ..., ... units  
 Radio remote control E 43-1, including hand-held transmitter, ... units  
 SENSIC  
 CODIC ATL  
 Other: ..., ... units  
 DORMA IRS infra-red safety sensor on the pull side  
 700 mm, ... units  900 mm, ... units  
 1200 mm, ... units  
 DORMA IRS infra-red safety sensor on the push side, 35 mm, ... units

#### Electric strike plate:

- effeff Type 141, 24 vAC, vertical only  
 effeff Type 142, 24 vAC, vertical only  
 effeff 142.12/13, vertical and horizontal  
 effeff 131, vertical and horizontal  
 Type 22/32 WD, eE 24 DC

#### Smoke detectors:

- DORMA RMZ smoke detector, ... units  
 (not to be mounted on the cover of the ED 200!)  
 DORMA RM smoke detector, ... units

#### Accessories for operators installed on fire and smoke check doors:

- Pushbutton for manual release, ... units  
 surface-mounted  concealed

#### Surface finish:

- silver anodised (Eloxal EV6/C0)  
 dark-brown anodised (Eloxal EV6/C34)  
 RAL .....

#### Make:

DORMA ED 200