DORMA

# ED 100
# ED 250

## Swing door operators in modular design

# Swing door operators in modular design

With their ED 100 and ED 250 swing door operators, DORMA offers electro-mechanical swing door operators for various fields of application. Simply select the suitable version according to your prevailing door-leaf width and weight: While the ED 100 is suitable for doors with a weight of up to 100 kg and a door width of 1,100 mm, the ED 250 is designed for doors with a width of 1,600 mm and a door weight of 250 kg. Both operators may be installed as push-version with standard arm and as pull-version with slide channel.

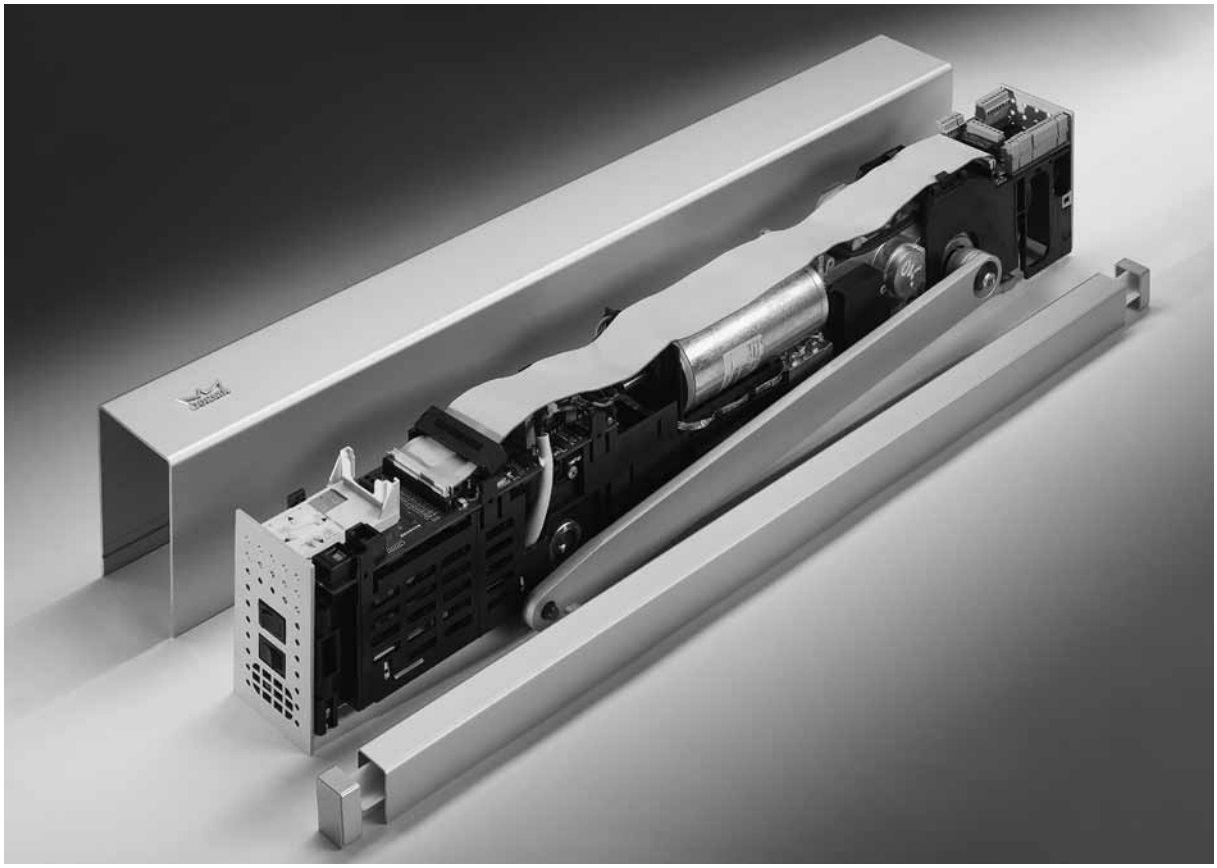
Apart from the extended cover, DORMA also provides an integrated door coordinator that may easily be installed inside double-leaf operators. With the aid of the DORMA Upgrade Cards, the system's functional range may be adapted to various door versions. The large scope of integrated functions furthermore ensures that the majority of possible applications may easily be realised.

**Benefits:**

- Flexible configuration: Customers only pay for the functions they actually require.
- Cheap transport and easy mounting thanks to the system's reduced weight.
- Low-noise application thanks to multi-stage gear.
- Elegant visual appearance: DORMA Contur design provides an operator height of only 70 mm.
- Various functions as standard.

**Fields of application:**

- For single- or double-leaf swing doors. Choose between the ED 100 and the ED 250 in accordance with your prevailing door-leaf width and weight.
- The pull-version with slide channel and the push-version with standard arm are suitable for application at fire and smoke doors.
- Thanks to its low- and full-energy version, the system is suitable to automate both rarely and heavily frequented internal and external doors.
- The DORMA cam technology provides a sharply dropping opening torque, thus the system is perfectly suitable for swing doors that are mainly accessed by hand.
- High torque for full-automatic swing doors with radar motion control.



| Required operating conditions | |
|---|---|
| Ambient temperature | –15 to +50° C |
| Only suitable for dry environments | Relative humidity max. 93 % |
| Power supply | 230 V AC 50 Hz +/– 10 %<br>115 V AC 60 Hz +/– 10 % |

| General specifications | |
|---|---|
| Dimensions (W x H x D) | 700 x 70 x 130 mm |
| Min. distance between hinges (double-leaf systems) | 1,450 mm |
| Min. distance between hinges for ESR (double-leaf systems) | 1,450 mm |
| Weight of single-leaf version | 12 kg |
| Power supply for external accessories | 24 V DC +/– 10 %, 1.5 A |

| Parameters | |
|---|---|
| Opening angle | Max. 110° |
| Latching action | Adjustable from 7° – 0° |
| Hold-open time | 30 s |
| Hold-open time<br>Blocking behaviour with Night-/Bank Function | Reversing/Door closer function |
| Locking feedback contact | Motor lock/Electric strike |
| Working point of wind load control | Total load of max. 50 Nm |
| Voltage-independent braking circuit | Adjustable via potentiometer |
| Electronic latching action pulse | Force adjustable |

| Integrated functions | | |
|---|---|---|
| LED status indicator | green | – Operating voltage indicator |
| | red | –Malfunction |
| | yellow | – Service interval expired |
| Integrated program switch | | OFF<br>AUTOMATIC<br>PERMANENT OPEN<br>EXIT ONLY (only for single-leaf systems) |
| User interface with information display | | Status indicator and parameterisation |
| Slot for DORMA Upgrade Cards | | Extension of functional range |
| Update interface | | Firmware update |
| TMP – Temperature Management Program | | Temperature-related overload protection |
| IDC – Initial Drive Control | | Driving phase optimisation |
| Cycle counter | | 0 – 1,000,000 (reasonably subdivided) |

| Inputs, terminals max. 1.5 mm² | |
|---|---|
| Potential-free activator | Inside and outside |
| Energised activator | Max. 24 V DC/AC +/– 10% |
| Night-/Bank (key switch) | NO contact |
| Safety sensor | Hinge side and opposite hinge side |
| Test signal for safety sensor | Hinge side and opposite hinge side |
| Emergency-Off pushbutton/ Lock switch | NC contact |

| Outputs, terminals max. 1.5 mm² | |
|---|---|
| Potential-free door status contact | Door closed |
| | Door open |

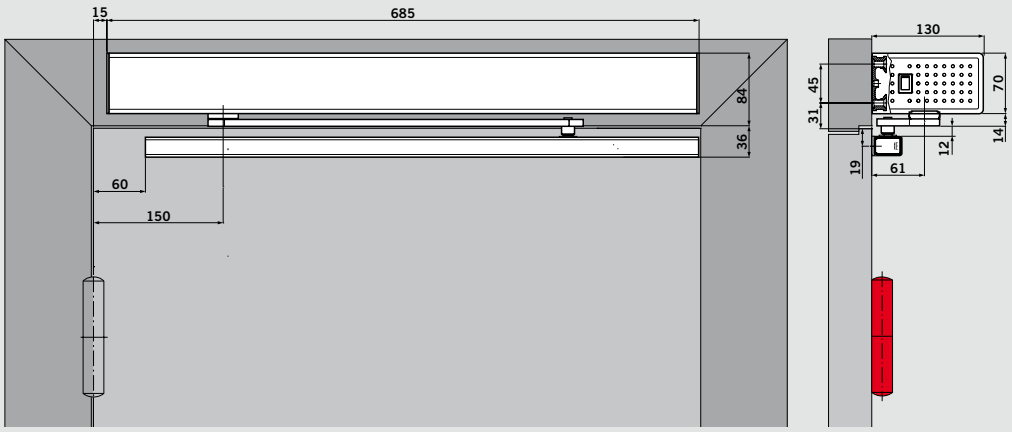
| ED 100 | |
|---|---|
| Power consumption | 120 Watts |
| Closing force EN 1154 | EN 2–4, adjustable |
| Max. door-leaf weight for lintel depths of up to 225 mm | 100 kg |
| Door-leaf width for single-leaf version | 700–1,100 mm |
| Door-leaf width for double-leaf version | 1,450–2,200 mm |
| Max. opening speed | 45° (25°*)/second |
| Max. closing speed | 45° (25°*)/second |
| Axle extension | 30 mm/60 mm |
| Lintel depth for slide channel | +/– 30 mm |
| Lintel depth for standard arm | 0–225 mm |

* The values in brackets indicate the maximum speed in Low-Energy Mode without Full-Energy or Fire Protection Upgrade Cards.

| ED 250 | |
|---|---|
| Power consumption | 240 Watts |
| Closing force | EN 4–6, adjustable |
| Max. door-leaf weight for lintel depths of up to 225 mm | 250 kg |
| Max. door-leaf weight for lintel depths from 226 mm to 500 mm | 120 kg |
| Door-leaf width for single-leaf version | 700–1,600 mm |
| Door-leaf width for double-leaf version | 1,450–3,200 mm |
| Max. opening speed | 60° (25°*)/second |
| Max. closing speed | 60° (25°*)/second |
| Axle extension | 30/60/90 mm |
| Lintel depth for slide channel | +/– 30 mm |
| Lintel depth for standard arm | 0–500 mm |

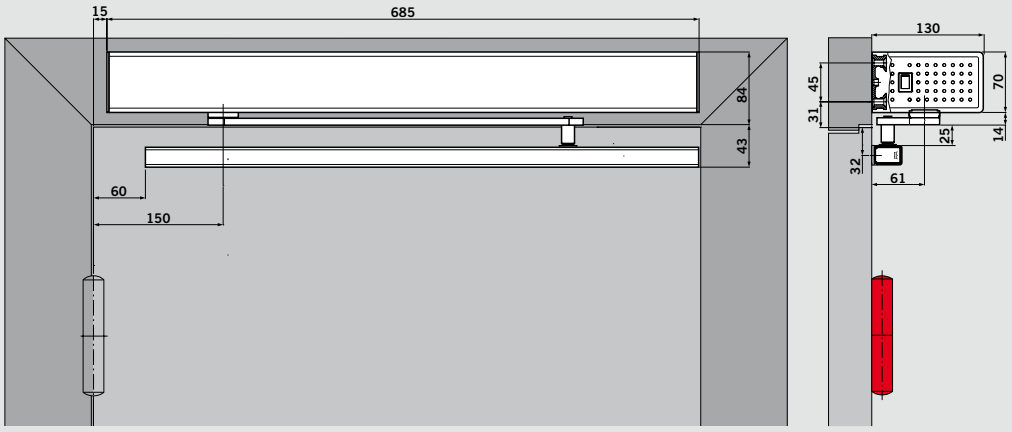
* The values in brackets indicate the maximum speed in Low-Energy Mode without Full-Energy Upgrade Card.

## View: BASIC cover, pull-version, 12.5 mm pivot pin



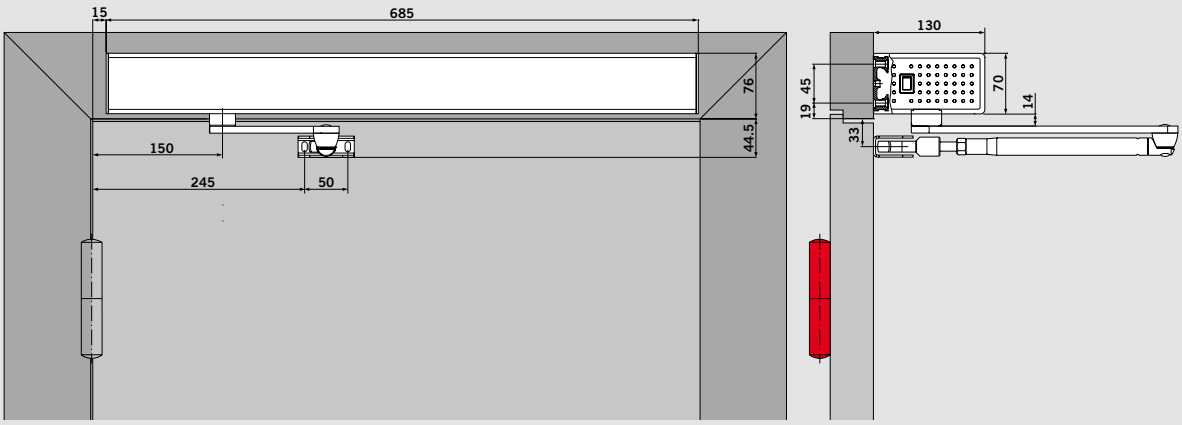

Standard axle extension

## View: BASIC cover, pull-version, 25 mm pivot pin



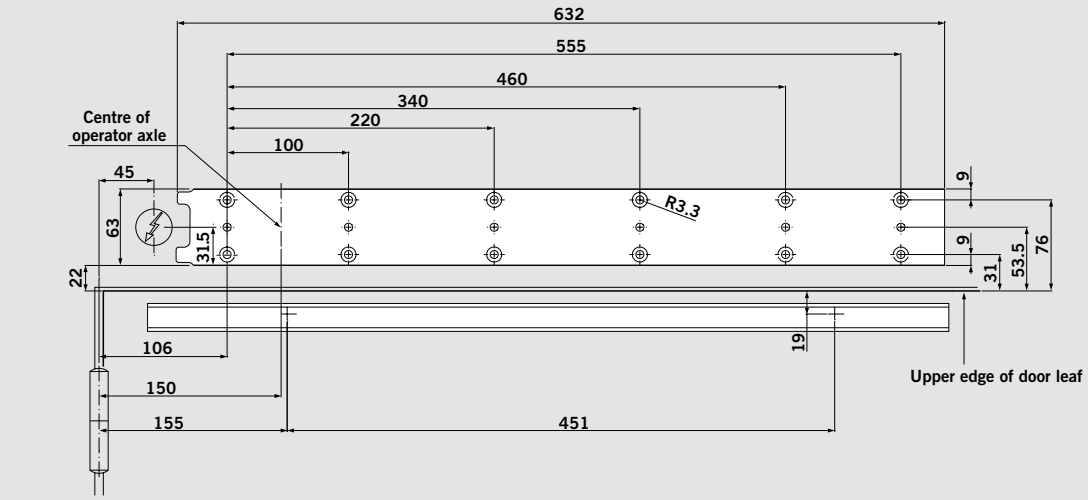

Standard axle extension

## View: BASIC cover, push-version



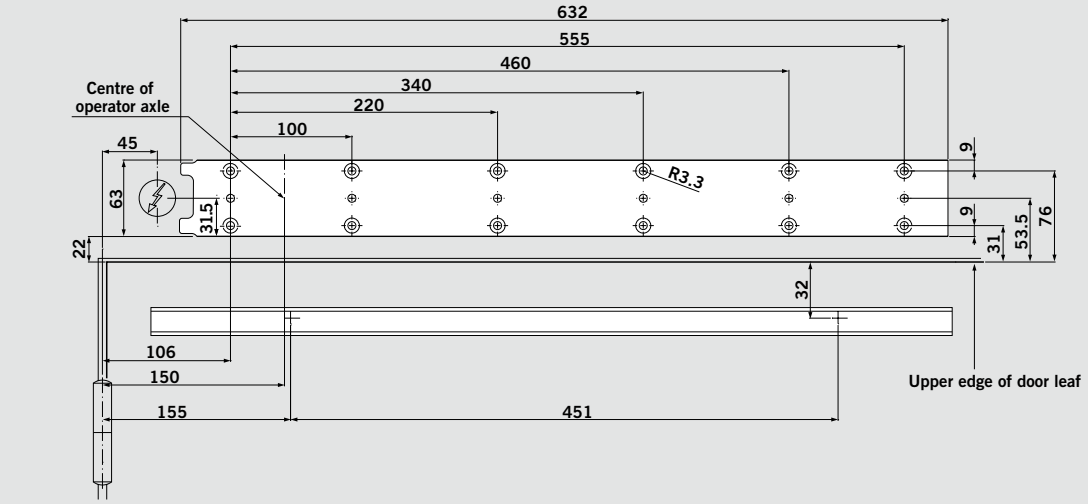

Standard axle extension

## Drilling template: BASIC cover, pull-version, 12.5 mm pivot pin



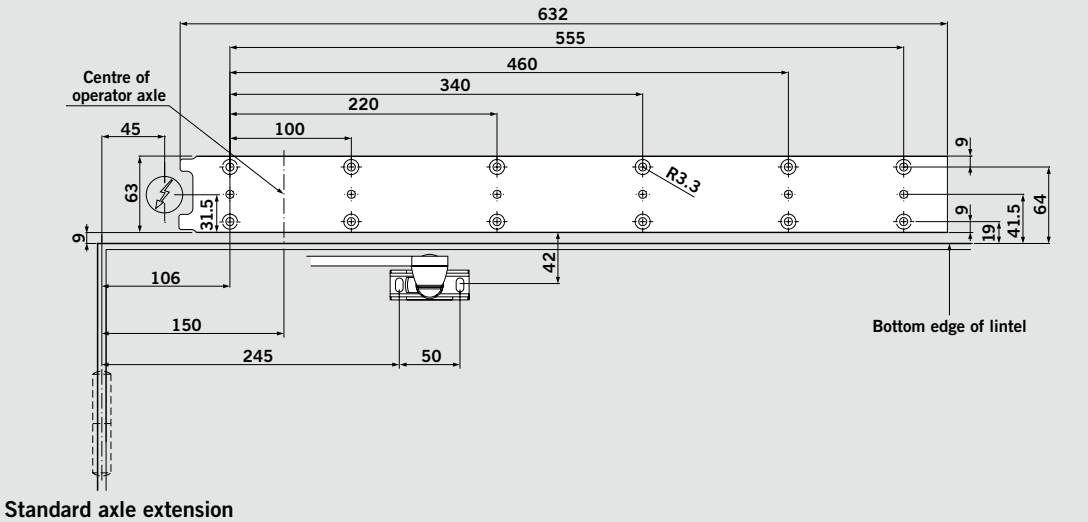

Standard axle extension

## Drilling template: BASIC cover, pull-version, 25 mm pivot pin



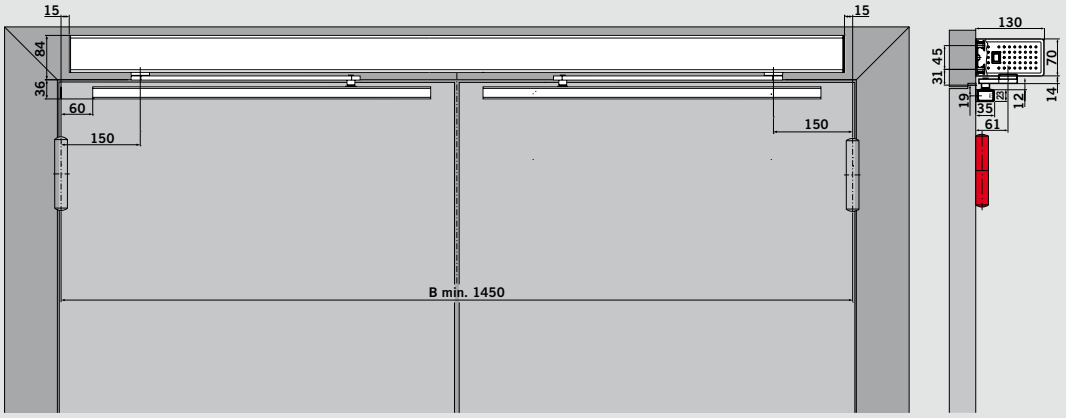

Standard axle extension

## Drilling template: BASIC cover, push-version



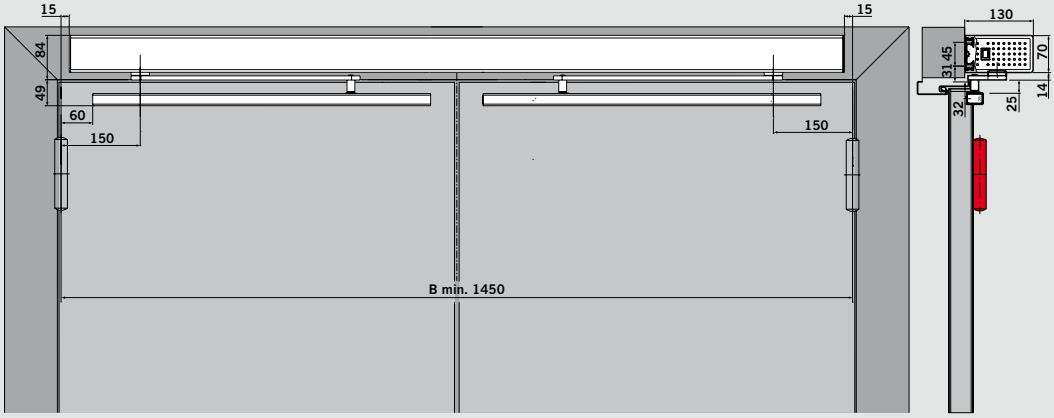

Standard axle extension

## View: PROFESSIONAL cover, pull-version, 12.5 mm pivot pin



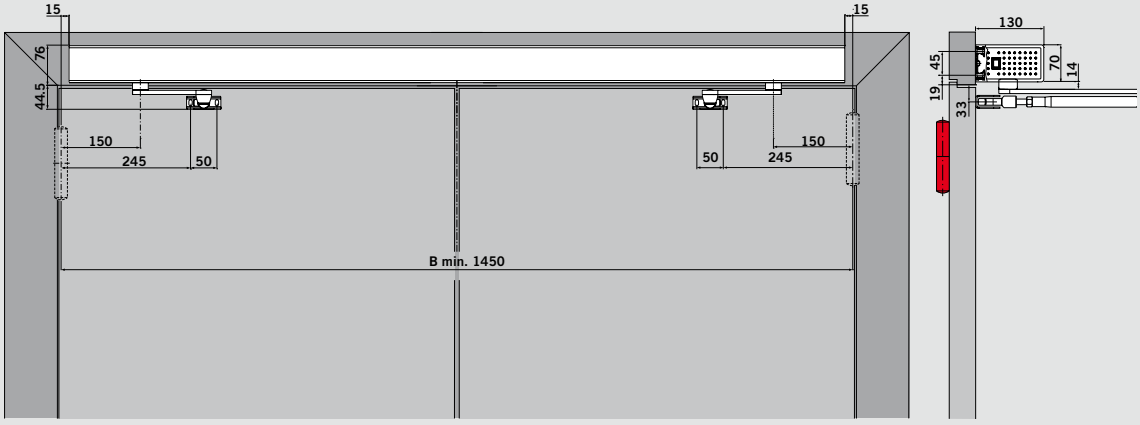

**Standard axle extension**

## View: PROFESSIONAL cover, pull-version, 25 mm pivot pin



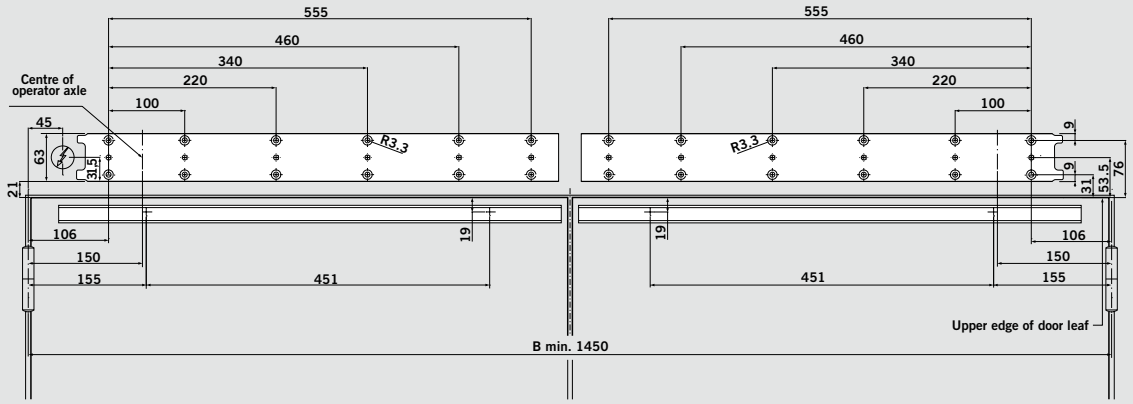

**Standard axle extension**

## View: PROFESSIONAL cover, push-version



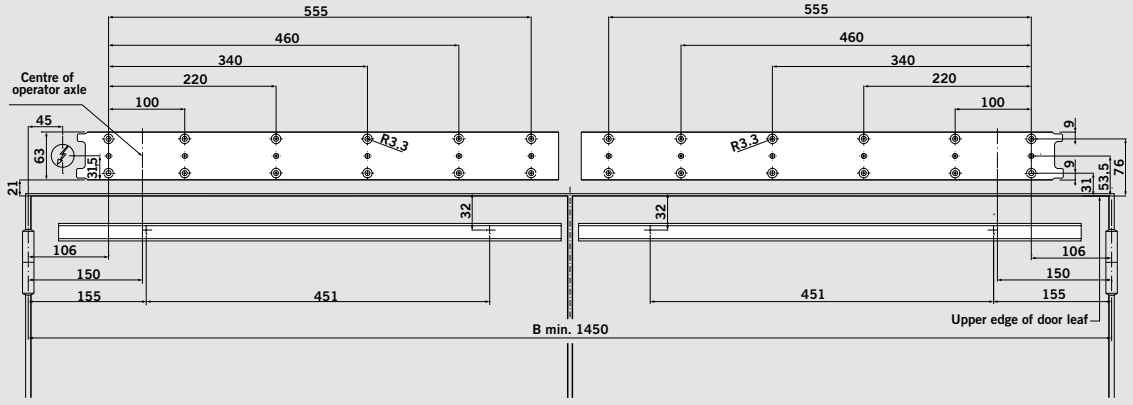

**Standard axle extension**

## Drilling template: PROFESSIONAL cover, pull-version, 12.5 mm pivot pin



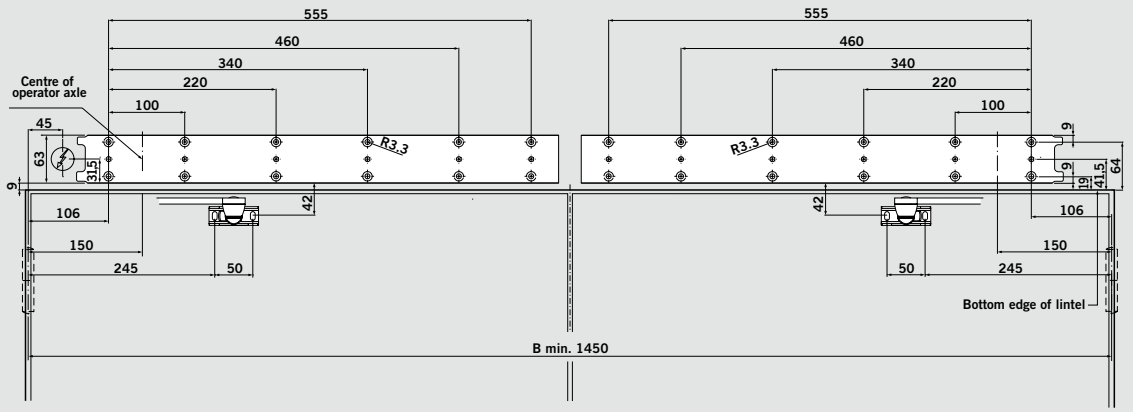

**Standard axle extension**
**The cable entry may be realised on the left or on the right side.**

## Drilling template: PROFESSIONAL cover, pull-version, 25 mm pivot pin



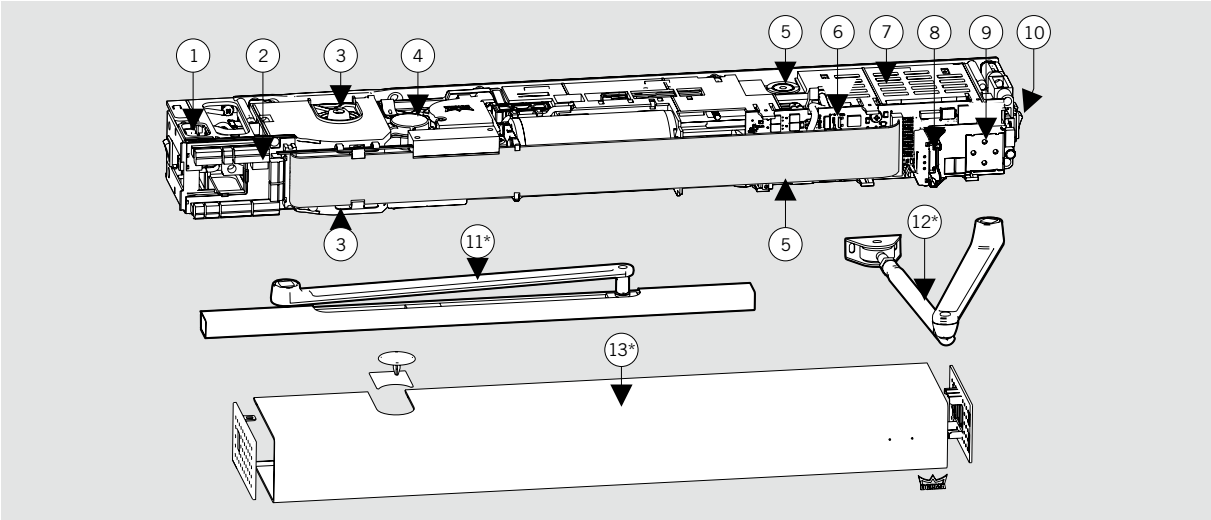

**Standard axle extension**
**The cable entry may be realised on the left or on the right side.**

## Drilling template: PROFESSIONAL cover, push-version




**Standard axle extension**
**The cable entry may be realised on the left or on the right side.**

# System setup




**The example system is equipped with all possible components.**
**It is selected in accordance with the door-leaf width and the door-leaf weight.**

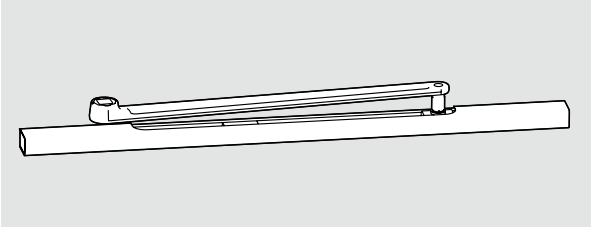
① Mains connection
② Connection unit
③ Axle connection on both sides
④ Drive system (motor/gear/spring)
⑤ Adjustment of closing force
⑥ Control unit
⑦ Switching power supply unit
⑧ Slot for DORMA Upgrade Cards
⑨ User interface with information display
⑩ Internal program switch
⑪ Slide channel (Set)*
⑫ Standard arm*
⑬ Complete cover*

*supplied separately

| Article No. | |
|---|---|
| ED 100 swing door operator 230 V | 29222301 |
| ED 250 swing door operator 230 V | 29202301 |

# Arm

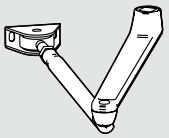
## ED slide channel set – pull-version



The slide channel set is suitable for doors with a weight of up to 250 kg; however, the admissible door-leaf width of 1,100 mm for the ED 100 and 1,600 mm for the ED 250 must not be exceeded. The maximum lintel depth amounts to +/– 30 mm.

| Article No. | |
|---|---|
| ED slide channel set (silver-coloured) | 29275001 |
| ED slide channel set (white) | 29275002 |
| ED slide channel set (special colour) | 29275003 |

## ED standard arm 225 – push-version

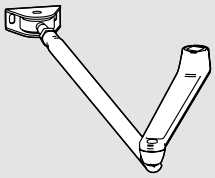


The standard arm 225 is suitable for lintel depths of up to 225 mm and a maximum door-leaf weight of 250 kg; however, the admissible door-leaf width of 1,100 mm for the ED 100 and 1,600 mm for the ED 250 must not be exceeded.

**ED 100 und ED 250: For lintel depths from 0 to 225 mm**

| Article No. | |
|---|---|
| ED standard arm 225 (silver-coloured) | 29271001 |
| ED standard arm 225 (white) | 29271002 |
| ED standard arm 225 (special colour) | 29271003 |

## ED standard arm 500 – push-version

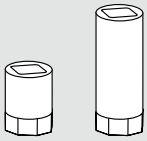


The standard arm 500 must not be combined with the ED 100.
Thanks to the reinforced axle bearings of the ED 250, the standard arm 500 is suitable for lintel depths of up to 500 mm, a maximum door-leaf weight of 120 kg as well as door-leaf widths of 1,400 mm.
The reduced door-leaf weight of 120 kg has to be observed!

**ED 250:**
**For lintel depths from 0 to 500 mm**

| Article No. | |
|---|---|
| ED standard arm 500 (silver-coloured) | 29272001 |
| ED standard arm 500 (white) | 29272002 |
| ED standard arm 500 (special colour) | 29272003 |

## ED axle extensions



The axle extensions are suitable for all arm versions of the ED 100 & ED 250.

The ED axle extensions are available in chromated black.

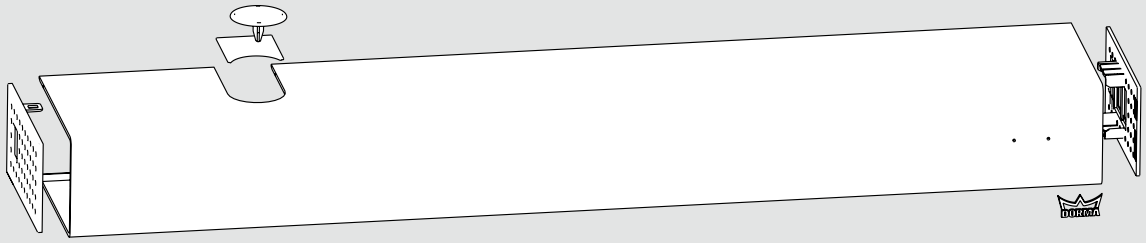
| Article No. | |
|---|---|
| ED axle extension 30 mm | 29278001 |
| ED axle extension 60 mm | 29278101 |

# Covers

The operator covers are packed separately from the operator system, which makes it easy to select the respectively required cover. DORMA provides covers for single- and double-leaf systems. All covers are designed for on-site mounting and realised in DORMA Contur design. They are furthermore suitable for both the ED 100 and the ED 250 version. When creating double-leaf systems, the four-position internal programswitch has to be replaced by a three-position switch, which means that the EXIT ONLY function is only available in combination with the external program switch. Double-leaf systems are required for doors where the distance between the hinges exceeds 1,450 mm.

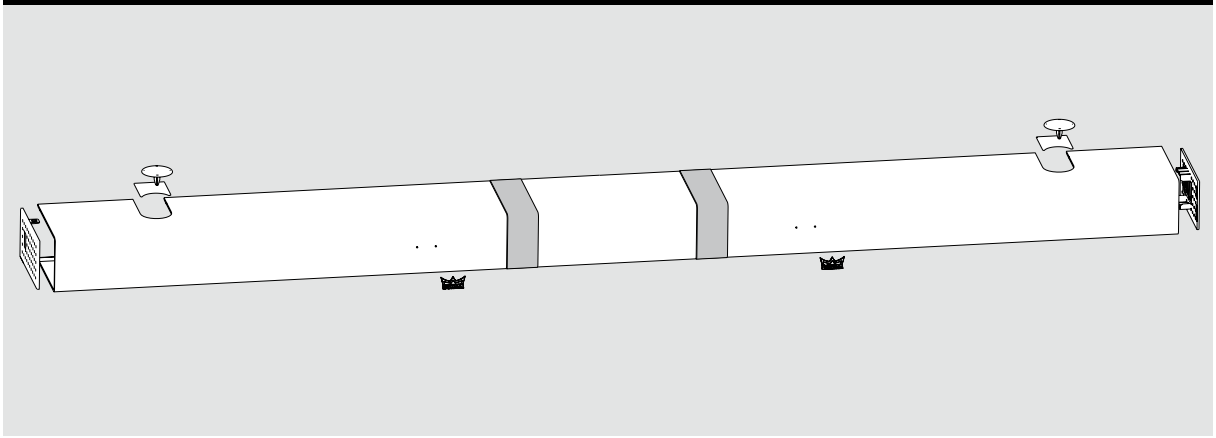
Please note that in this case the ED linking cable is required to ensure the proper communication between the two operators.

## ED BASIC Cover – Aluminium cover for single-leaf swing door systems



| Article No. | |
|---|---|
| ED BASIC cover (silver-coloured) | 29241001 |
| ED BASIC cover (white) | 29241002 |
| ED BASIC cover (special colour) | 29241003 |

## ED VARIO cover



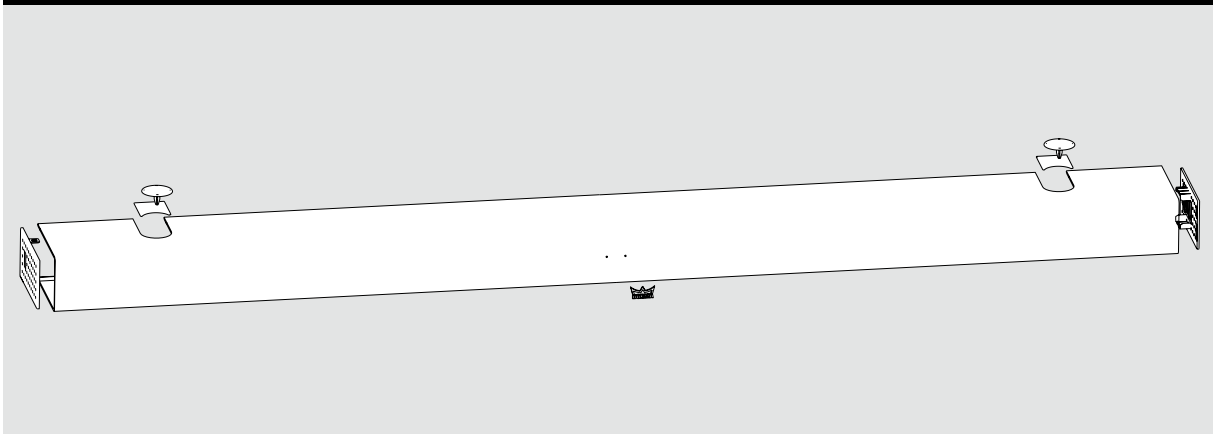
This aluminium cover is designed to create a continuous cover for double-leaf swing door systems. In addition to the VARIO cover, you will require two ED BASIC covers, which are mounted on the right and on the left of the operator system. The ED VARIO cover is designed to hide the gap between the two covers and may be sawed to the appropriate size on site. DORMA furthermore offers cutting edge covers in order to improve the system's visual appearance.

The VARIO cover is silver-coloured and available in two versions: One for double-leaf doors with a hinge distance of up to 2,200 mm and one for doors with a maximum hinge distance of 2,800 mm. Please note that the minimum hinge distance for a double-leaf system amounts to 1,450 mm, while the PROFESSIONAL cover is required to create systems with a hinge distance of more than 2,800 mm.

| Article No. | |
|---|---|
| ED VARIO cover, 2,200 mm, silver-coloured* | 29242001 |
| ED VARIO cover, 2,800 mm, silver-coloured* | 29242002 |

*Available from end of 2009

## ED PROFESSIONAL cover



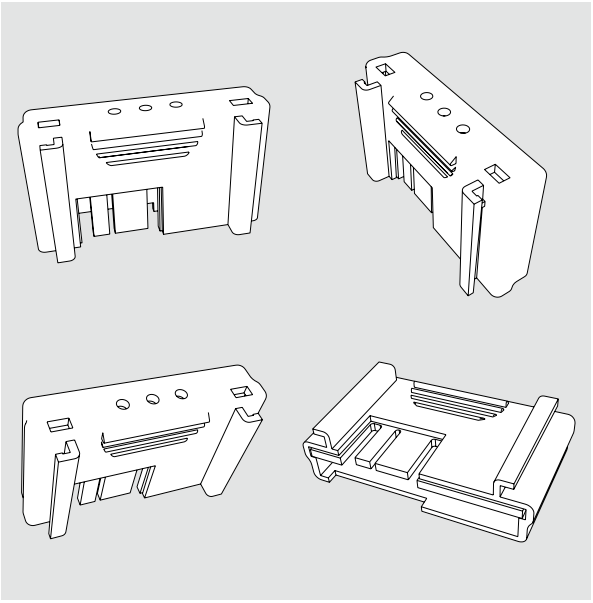
This aluminium cover is designed to create double-leaf swing door systems. The ED PROFESSIONAL cover is a continuous and seamless cover and available in lengths from 1,450 mm to 3,200 mm.

The cover is cut to length and painted according to your individual requirements.

| Article No. | |
|---|---|
| ED PROFESSIONAL cover | 29243003 |

# DORMA Upgrade Cards

DORMA Upgrade Cards are designed to increase the functional range of our swing door operators. The installation of the cards is very easy: Just insert the respective Upgrade Card into the proper slot at the control unit and the software will be transferred automatically. DORMA offers different Upgrade Cards, which may either be combined or installed as individual components. Please note that the respective function of the Upgrade Card is only available as long as the card is connected to the control unit. The Full-Energy and Fire Protection Upgrade Cards are installed in the ED 100 or ED 250 – depending on the field of application.



## Upgrade Card Full-Energy – blue

All operator systems are supplied as Low-Energy version, which means that the adjustable opening and closing speed range is restricted to a certain limit. The respective limits depend on the prevailing door-leaf width and door-leaf weight and may vary between 1° and 30° per second. These limits furthermore comply with DIN 18650 (German Industrial Standard), ANSI 156.19 (American Standard) and BS 7036 (British Standard). Depending on their field of application, such swing door operators might not require safety sensors when operated in Low-Energy Mode. If you need a higher driving speed, you will require the respective Full-Energy Upgrade Card. The driving speed may then be increased to a maximum of 45°/second with the ED 100 and to 60°/second with the ED 250. In this case the swing path has to be monitored by safety sensors (mounted onto the door leaf).

| Article No. | |
|---|---|
| ED Upgrade Card Full-Energy ED 100 blue | 29251022 |
| ED Upgrade Card Full-Energy ED 250 blue/transparent | 29251020 |

## Upgrade Card Fire Protection ED 100 – red

When the ED 100 is installed at fire and smoke doors with application in preventive fire protection, the Upgrade Card Fire Protection is required for compliance with the guidelines for hold-open devices. Apart from its smoke detector connection (as monitored current loop), the card also offers a manual reset function (by opening the door), a full-energy function and the system may be triggered at the door leaf.

Thanks to the card's integrated full-energy function, no additional Full-Energy Upgrade Card is required.

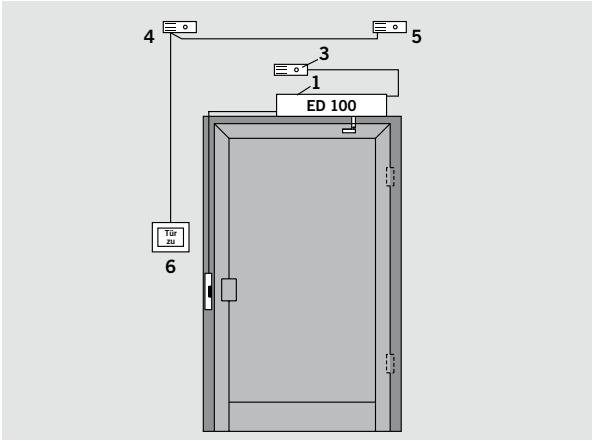
**Manual reset by opening the door**
A triggered hold-open system has to be reactivated manually. When the function has been activated, it suffices to open the door until it has almost reached the adjusted opening width.

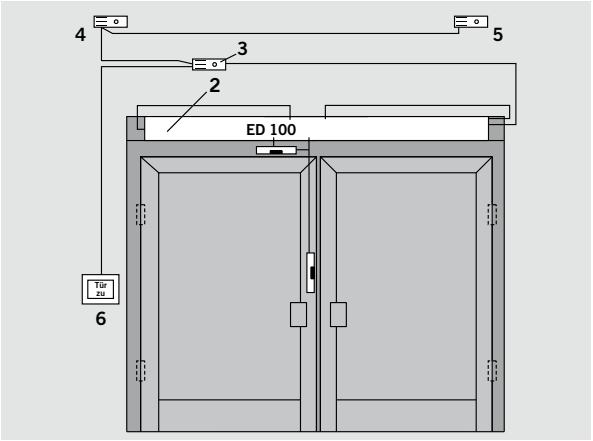
**Triggering at door leaf**
It must be possible to trigger a hold-open device manually in order to close the door – for example with the aid of a manual release pushbutton with "Tür schließen" (German for "close door") lettering. However, you do not require the manual release pushbutton as long as the system may be triggered (closed) by pushing the door leaves in closing direction, which is the case provided that the function has been activated.

| Article No. | |
|---|---|
| ED Upgrade Card Fire Protection ED 100 red | 29252022 |

## Functional characteristics

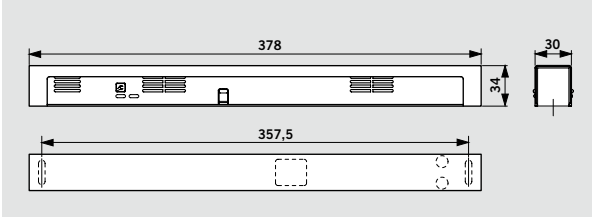
In the event of a fire, the ceiling-mounted or lintel-mounted smoke detectors detect emitted smoke and deactivate the automatic opening of the door. In this case, the operator will close the door via the integrated spring and can no longer open it automatically. Apart from the automatic activation via smoke detector, the system may also be triggered manually via the optional manual release pushbutton or when the door is closed by hand. In order to reactivate the system, the door has to be opened manually.



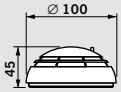

**1** ED 100
**2** ED 100 with continuous cover
**3** RM-ED smoke detector
**4** RM smoke detector, opposite hinge side
**5** RM smoke detector, hinge side
**6** Optional manual release pushbutton “Tür zu” (German for “close door“)

## DORMA RM-ED lintel-mounted smoke detector



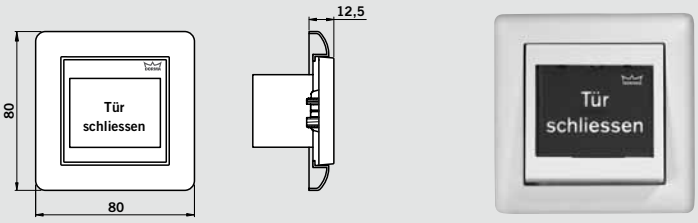

| | |
|---|---|
| E 6/C 0 (silver-coloured) | Article No. 64840001 |
| RAL 9016 (white) | Article No. 64840011 |
| Special colour | Article No. 64840009 |

## DORMA RM-N ceiling-mounted smoke detector




White
Article No. 64830000

## DORMA HT manual release pushbutton




**Flush-mounted version**
Article No. 19144601175

**Box for surface-mounting for DORMA HT**
Article No. 05158533332
(No picture)

## ESR – Integrated door coordinator

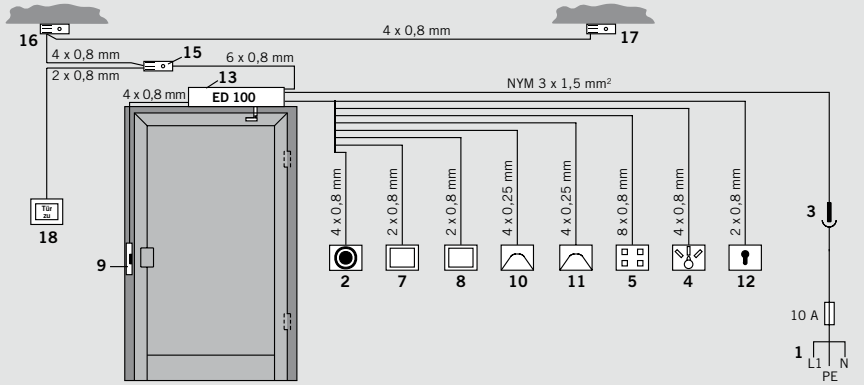
The ESR set is installed inside the double-leaf operator on site. It is available as individual component and easy to install. The system works similar to a drum brake and thereby ensures the proper functioning of the system. Its brake works on the motor shaft of the operator on the active door leaf and transfers the switching signal via a shaft.

| | Article No. |
|---|---|
| ED ESR Set | 29261001 |

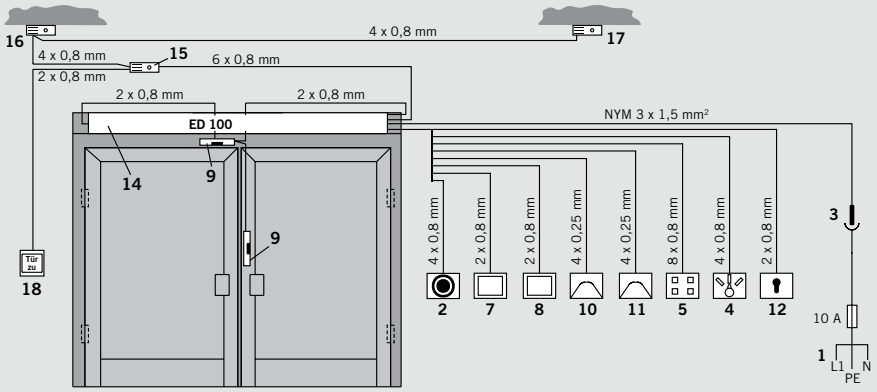
## Connections

**1** Power supply
**2** Emergency pushbutton, function: Emergency Off
**3** Two-pole-and-earth socket
**4** External PGS, mechanical
**5** External PGS, electronic
**6** Pushbutton
**7** Pushbutton, inside
**8** Pushbutton, outside
**9** Locking device
**10** Radar motion detector, inside
**11** Radar motion detector, outside
**12** Key switch
**13** ED 100
**14** ED 100 with continuous cover
**15** RM-ED smoke detector
**16** RM-N smoke detector, opposite hinge side
**17** RM-N smoke detector, hinge side
**18** Optional manual release pushbutton “Tür zu” (German for “close door“)

## ED 100, single-leaf doors



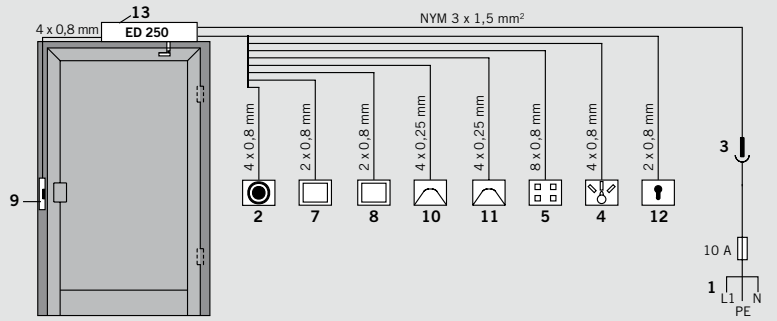

## ED 100, double-leaf doors



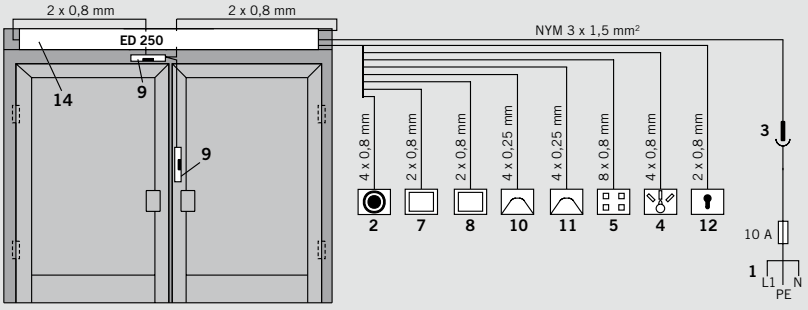
## Connections

**1** Power supply
**2** Emergency pushbutton, function: Emergency Off
**3** Two-pole-and-earth socket
**4** External PGS, mechanical
**5** External PGS, electronic
**6** Pushbutton
**7** Pushbutton, inside
**8** Pushbutton, outside
**9** Locking device
**10** Radar motion detector, inside
**11** Radar motion detector, outside
**12** Key switch
**13** ED 250
**14** ED 250 with continuous cover

## ED 250, single-leaf doors



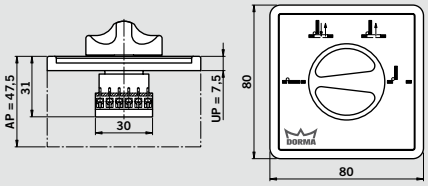

## ED 250, double-leaf doors



# Program switches

External program switches are available in different designs and have been conceived for all kinds of demands. 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. These switches are designed to replace the internal program switch.

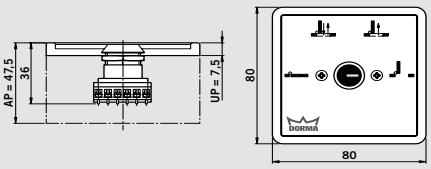
## PG-D1




**Program switch PG-D1**
4-position, aluminium, white, flush-mounted version, Gira S-Color

Article No. 19135404150
Box for surface-mounting: 5080531332

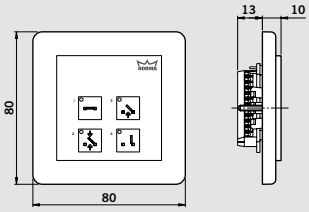
## PG-D3




**Program switch PG-D3**
4-position, lockable, aluminium, white, flush-mounted version, Gira S-Color

Article No. 19135604150
Box for surface-mounting: 5080531332

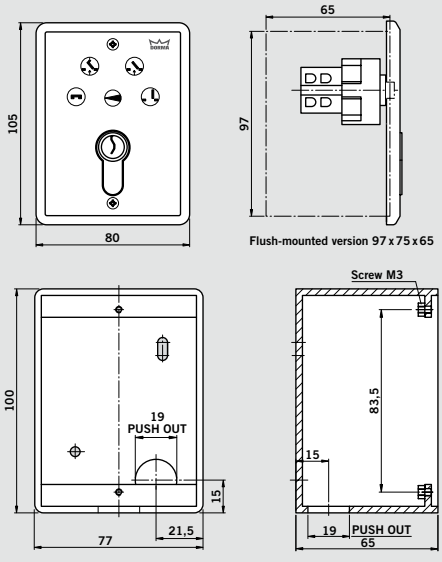
## EPS-D




**EPS-D full-electronic program switch**
In System 55 design, 4-position, lockable via code or additional TL-ST S55 key switch, membrane keypad, aluminium-coloured, white, flush-mounted version

Article No. 16557001150
Box for surface-mounting: 5158533332

## PG-D4

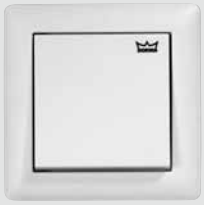


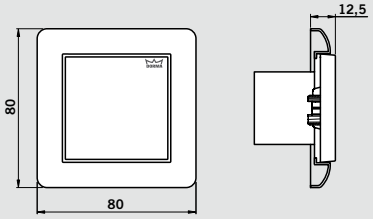

**Program switch PG-D4**
4-position, lockable via Euro profile half-cylinder, white, flush-mounted version.

Article No. 19141801170
Box for surface-mounting: 19142201170

# Pushbuttons

## Pushbutton



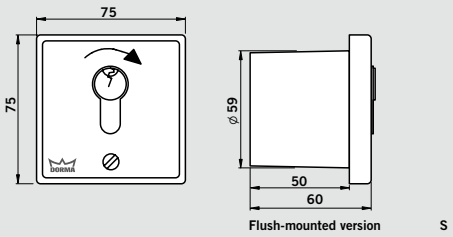


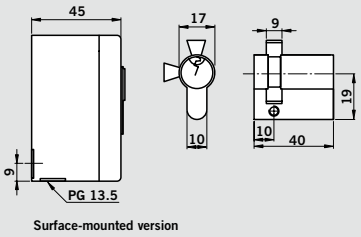

**Pushbutton**
Single-pole changeover contact, standard frame, white, flush-mounted version, System 55

Article No. 19144701170

## Key switch

**KT 3-1**
**Surface-mounted version**
**Flush-mounted version**



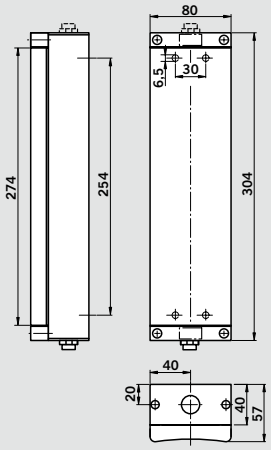



**KT 8**
**Surface-mounted version**
**Flush-mounted version**

**Key switch KT 3-1**
1 NO contact, with Euro profile half-cylinder (may be replaced by any standard Euro profile half-cylinder), key only retractable in neutral position, aluminium, metal, 75 x 75 x 60 mm
KT 3-1, flush-mounted version
Article No. 05054531332
KT 3-1, surface-mounted version
Article No. 05054631332

**KT 8 key switch**
Lettering “Zu” and “Auf”, (German for “close“ and “open“) 2 NO contacts, with Euro profile half-cylinder (may be replaced by any standard Euro profile half-cylinder), key only retractable in neutral position, aluminium, metal, 75 x 75 x 60 mm
KT 8, flush-mounted version
Article No. 05054831332
KT 8, surface-mounted version
Article No. 05054931332

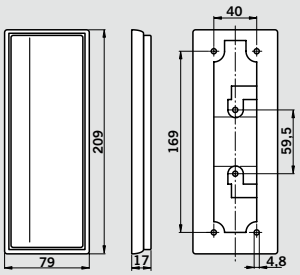
## Large-sized pushbutton (elbow)




**Large-sized pushbutton (elbow)**
Flush-mounted version/ surface-mounted version, electrical, silver anodised CO, 304 x 80 mm

Article No. 90410015

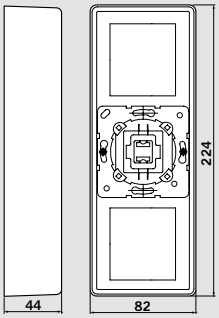
## Large-sized pushbuttons (elbow)



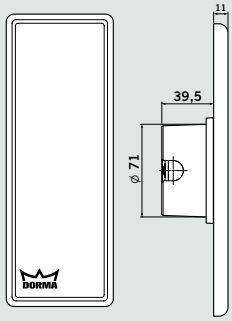

**Large-sized pushbutton (elbow)**
Surface-mounted version, extra-flat design, plastic, grey,
209 x 79 x 17 mm

Article No. 05080231332

## Large-sized pushbuttons



Surface-mounted version



Flush-mounted version

**Large-sized pushbutton**
With box for flush-mounting, without switch pad,
incl. switch, 224 x 82 mm
Article No 05095531332

**Large-sized pushbutton**
With box for surface-mounting, without switch pad,
incl. 2 switches, paint sprayed for aluminium effect,
224 x 82 x 44 mm
Article No. 05095231332

**Switch pad**
Aluminium, suitable for surface-mounted version/ flush-mounted version,
214 x 70 mm
Article No. 05095431332

**Switch pad**
Aluminium, suitable for surface-mounted version/ flush-mounted version,
214 x 70 mm,
lettering “Tür auf“ (German for “open door“)
Article No. 05095331332
(No picture)

## CT 4/1 code keypad as control for locking devices (keypad and electronic module have to be combined)

The code keypad does not require optional software for simple access authorisations. The water resistant metal keypad is also suitable for installation in the exterior of a building. Thanks to Plug&Play, the 4- or 6-digit code may be changed directly with the aid of the keypad. The respective control unit is installed within the security zone and may be connected to all DORMA operators.
Surface-mounted version, 230 V/50 Hz, 1.5 V A, 1 x UM potential-free relay contact 8 A, 250 V,
connections: max. 2.5 mm, 75 x 75 x 11.5 mm

**MTB 4/1 metal keypad**
to enter the activation code (to open the door) and for programming purposes,
surface-mounted version
75 x 75 x 11.5 mm

Article No. 05079331332

**EB 4/1**
Electronic module,
incl. 2 m connection cable,
plastic cover, black,
surface-mounted version

Article No. 05063431332

# DORMA RC remote system

The new DORMA RC system operates with a bi-directional BidCoS wireless protocol. In contrast to unidirectional systems, the receiver sends a message to the hand-held transmitter that the signal has been received. The hand-held transmitter indicates the prevailing status via a LED. Thus a short keystroke is enough to trigger an opening pulse in a reliable way within the system's typical field range of 100 meters. The RC-W and RC-T transmitters are also of bi-directional design; however, the status indicator is not visible as the transmitters are integrated in pushbuttons.

## RC-R

The new DORMA RC-R radio receiver may easily be installed inside the operator as its size is adapted to the available space. Simply fix it on the motor-gear-unit with two screws. We offer three different types of transmitters. Up to 1024 transmitters may be allocated to a DORMA RC-R.

| Article No. | |
|---|---|
| RC-R receiver | 29300201 |

## RC-H

The hand-held transmitter provides two individually allocatable channels. Feedback via integrated LED: orange, red and green. Shock proof design and DORMA keychain.

| Article No. | |
|---|---|
| RC-W receiver | 29301001 |

## RC-W

The battery-operated wall transmitter in 55 mm design is made of white plastic and may easily be adhered to the wall or fixed with screws. It is suitable for light indoor-use.

| Article No. | |
|---|---|
| RC-W receiver | 29301002 |

## RC-T

Battery-operated transmitter, designed for installation into a pushbutton with deep box for flush-mounting or into a surface-mounted large-sized pushbutton. In connection with the DORMA stainless-steel large-sized pushbutton it is also suitable for heavier conditions.

| Article No. | |
|---|---|
| RC-T receiver | 29301003 |

# Radar motion detector

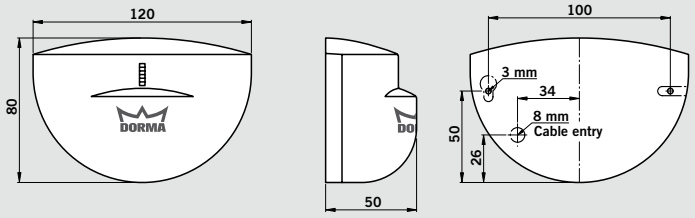
Radar motion detectors respond to movements. They detect approaching people within their detection range and trigger the activation (opening) signal at the door operator. Thanks to their various adjustments, also difficult installations may be realised.

## Radar motion detectors with direction recognition

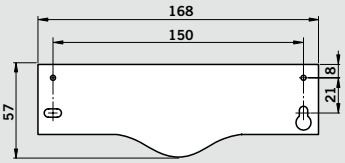
Eagle, black

Eagle, white

Eagle, silver-coloured



Merkur




**Eagle 1**
With direction recognition,
black
Article No. 16503101170

white
Article No. 16503103170

silver-coloured
Article No. 16503102170

**Merkur**
Cross traffic suppression
with direction recognition,
black
Article No. 16532201170

## Safety

## Reversing

## Stop

DORMA infrared safety sensors are active infrared sensors and designed to detect all static and moving obstructions, either people or objects, within their detection range.
On the opposite hinge side, the infrared safety sensor fulfils the function of an activator, which means that the sensor will institute the door to reverse and open as soon as an obstruction is detected in the course of a closing cycle. Then the hold-open times starts anew.
On the hinge side, the infrared safety sensor will interrupt the automatic movement of the door whenever it detects an obstruction; the door closes on expiry of the adjusted hold-open time. DORMA infrared safety sensors are available in different lengths and may be supplied in the same colour as the operator.
We offer two different types of infrared safety sensors: The DORMA IRS-4, which is required for areas where compliance with DIN 18650 (German Industrial Standard) is essential and the DORMA IRS-2, a moving infrared safety sensor, which is suitable for areas that are not subject to DIN 18650.

## IRS-4 active infrared safety sensor

**DORMA IRS-4**
According to DIN 18650, which describes safety-related requirements to automatic door systems, a risk assessment is to be performed before you bring the automatic door system into service in order to ensure the safe installation and operation of the automatic door system.
In case the risk assessment reveals that contactless safety sensors are required, the swing path of the door has to be safeguarded by moving active infrared safety sensors such as the DORMA IRS-4. These sensors prevent the door leaf from hitting people or objects. Moreover, the control unit performs cyclical tests in order to ensure the proper functioning of the DORMA IRS-4 sensor.

| IRS-4 active infrared safety sensor | | Colour | Article No. |
|---|---|---|---|
| **IRS-4-35** | With one sensor, length: 350 mm | silver-coloured | 294350 |
| | Type approved in accordance with DIN 18650 | special colour | 294351 |
| **IRS-4-110** | With two sensors, length: 1,100 mm | silver-coloured | 294110 |
| | Type approved in accordance with DIN 18650 | special colour | 294111 |
| **IRS-4-160** | With three sensors, length: 1,600 mm | silver-coloured | 294160 |
| | Type approved in accordance with DIN 18650 | special colour | 294161 |

## ESM Energy Saving Mode

The Energy Saving Mode is available when the IRS-4 is installed in combination with ED 100 and ED 250 swing door operators. The sensors automatically switch to Stand-By Mode as soon as the program switch at the operator is adjusted to OFF.

## IRS-2 active infrared safety sensor

**DORMA IRS-2**
With the aid of the DORMA IRS-2, danger spots within the swing path of the door may be safeguarded via moving active infrared safety sensors. The DORMA IRS-2 is available in different lengths and with a variable number of infrared sensors. It furthermore prevents the door leaf from hitting people in the most relevant danger zones.

| IRS-2 active infrared safety sensor | | Colour | Article No. |
|---|---|---|---|
| **IRS-2-33** | With one sensor, length: 330 mm | silver-coloured | 16521701150 |
| | | white | 16521704150 |
| | | special colour | 16521705150 |
| **IRS-2-70** | With one sensor, length: 700 mm | silver-coloured | 16521706150 |
| | | white | 16521709150 |
| | | special colour | 16521710150 |
| **IRS-2-90** | With two sensors, length: 900 mm | silver-coloured | 16521711150 |
| | | white | 16521714150 |
| | | special colour | 16521715150 |
| **IRS-2-120/2** | With two sensors, length: 1,200 mm | silver-coloured | 16521716150 |
| | | white | 16521719150 |
| | | special colour | 16521720150 |
| **IRS-2-120/3** | With three sensors, length: 1,200 mm | silver-coloured | 16521721150 |
| | | white | 16521724150 |
| | | special colour | 16521725150 |

# Further accessories

## Red-green display

The red-green display indicates the status of the door system. The extravagant, semicircular designer light indicator is made of acryl, manufactured according to the latest LED technology and equipped with a high-grade LED display (24 V, brilliancy according to DIN VDE 0834, part 1).
Its light signals are visible from both sides and the front – even from a large distance.
Light indicator, 24 V DC, LED display (red, green, white).

Article No. 05111631332

## Emergency power supply unit

In order to provide unlimited safety to all visitors of a building, existing door systems have to remain fully functional even in the event of a power failure. This is achieved with the aid of the DORMA MT 700 USV emergency power supply unit. Depending on the connected accessories, this unit may keep the system operational for up to one hour by providing emergency power supply for the complete door system. Thus there is sufficient time for countermeasures and securing the building.
USV MT 700 V A emergency power supply unit, integrated in 230 V power supply line
Dimensions: 160 x 120 x 360 mm (H x W x D)

Article No. 05094531332

DORMA

www.dorma.com

Door Control

Automatic

Glass Fittings
and Accessories

Security/Time
and Access (STA)

Movable Walls


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


**Automatic Division worldwide**

**Region Australasia**

Australia
DORMA Automatics Pty. Ltd.
Phone +61 3 97964111
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 van Duin 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 AKS
Automatic 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.com

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


WN 053 741 51532, 10/09, ED100/ED250, GB, x. XX. xx/09



Subject to change without notice