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 or 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 easy-to-install integrated door coordinator. With the aid of the DORMA Upgrade Card, 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 due 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.
- High torque for full-automatic swing doors with radar motion control.
- For interior and exterior doors.
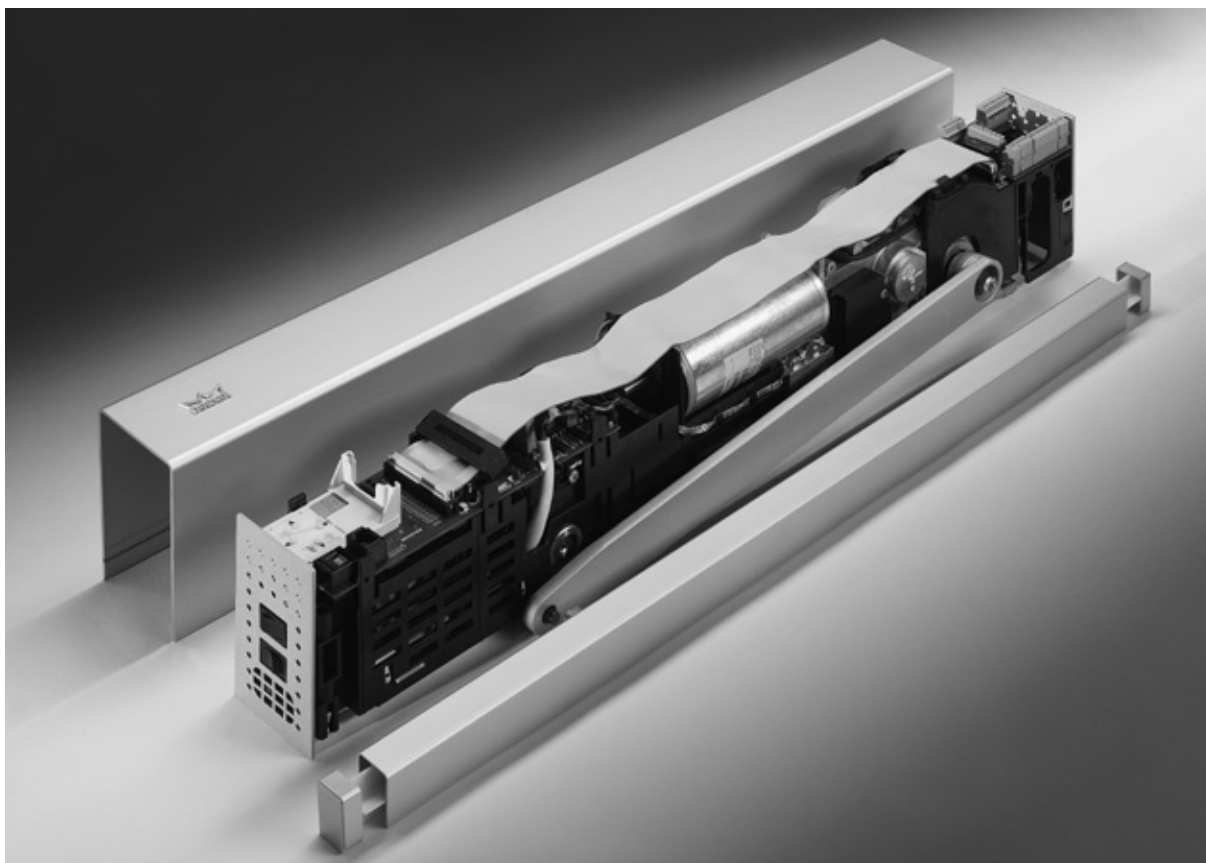
Required operating conditions	
Ambient temperature	–15 to +50 °C
Only suitable for dry environments	Relative humidity max. 93 % (non condensing)
Power supply	230 V AC 50 Hz +/– 10 %
Class of protection	IP 20

General specifications	
Dimensions (W x H x D)	685 x 70 x 130 mm
Min. clearance between hinges (double-leaf systems)	1,400 mm
Min. clearance 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
Opening angle	Max. 110°

Integrated functions	
Latching action	Adjustable from 7° – 0°
Hold-open time	30 s, 180 s (optional)
Blocking behaviour	Reversing/Door closer function
Locking feedback contact	Motor lock
Wind load control	up to 150 N
Voltage-independent braking circuit	Adjustable via potentiometer
Electronic latching action pulse	Force adjustable
LED status indicator green	– Operating voltage indicator
red	– Malfunction indicator
yellow	– Service interval indicator
Integrated program switch	OFF
	AUTOMATIC
	PERMANENT OPEN
	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)
Power Assist Funktion	Servo-supported when opened manually
Push & Go Function	Door opens when moved manually by 4°

Inputs, terminals max. 1.5 mm²	
Potential-free activator	Inside and outside (NO contact)
Energised activator	8 – 24 V DC/AC + 10 %
Night-/Bank (key switch)	NO contact/NC contact
Safety sensor	Hinge side and opposite hinge side (NC contact)
Test signal for safety sensor	Hinge side and opposite hinge side
Emergency-Off pushbutton/ Lock switch	NC contact/NO contact

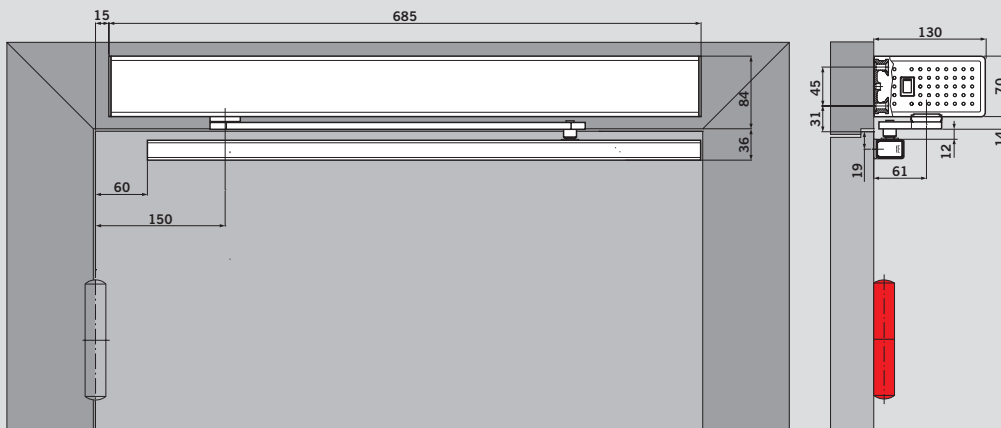| Outputs, terminals max. 1.5 mm²	
Potential-free door status contact, alternatively	Door closed
	Door open
	Malfunction

ED 100	
Max. power consumption	120 Watts
Closing force EN 1154	EN 2 – 4, adjustable
Max. door-leaf weight for lintel depths of up to 300 mm	100 kg
Door-leaf width	700 – 1,100 mm
Max. opening speed	**50° (27°*)/second
Max. closing speed	**50° (27°*)/second
Axle extension	30/60 mm
Lintel depth for slide channel	+/– 30 mm
Lintel depth for standard arm	0 – 300 mm

ED 250	
Max. power consumption	240 Watts
Closing force	EN 4 – 6, adjustable
Max. door-leaf weight for lintel depths of up to 300 mm	250 kg to 1,400 mm Door-leaf width 190 kg for 1,600 mm Door-leaf width
Max. door-leaf weight for lintel depths from 301 mm to 500 mm	160 kg
Door-leaf width	700 – 1,600 mm
Door-leaf width for fire protection doors	700 – 1,400 mm
Max. opening speed	60° (27°*)/second
Max. closing speed	60° (27°*)/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 or Fire Protection Upgrade Card.
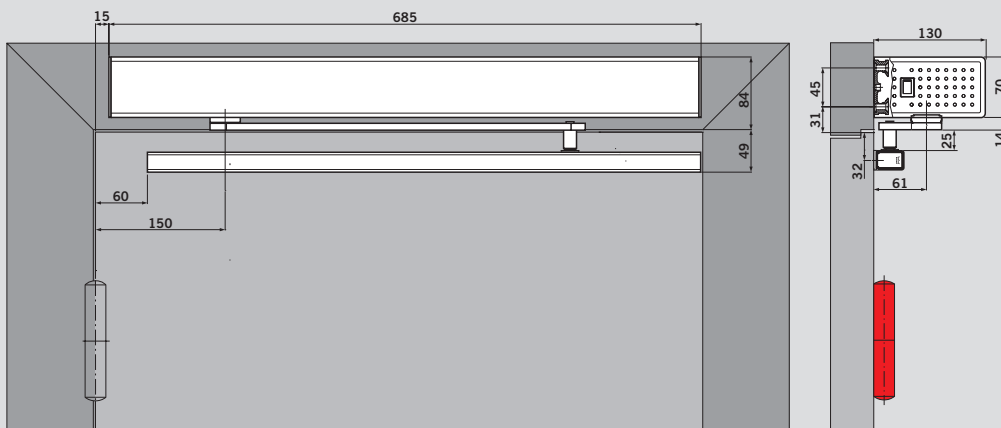
** Depending on the door leaf weight, it is limited automatically in accordance with DIN 18650, BS 7036-4 and ANSI 156.19.
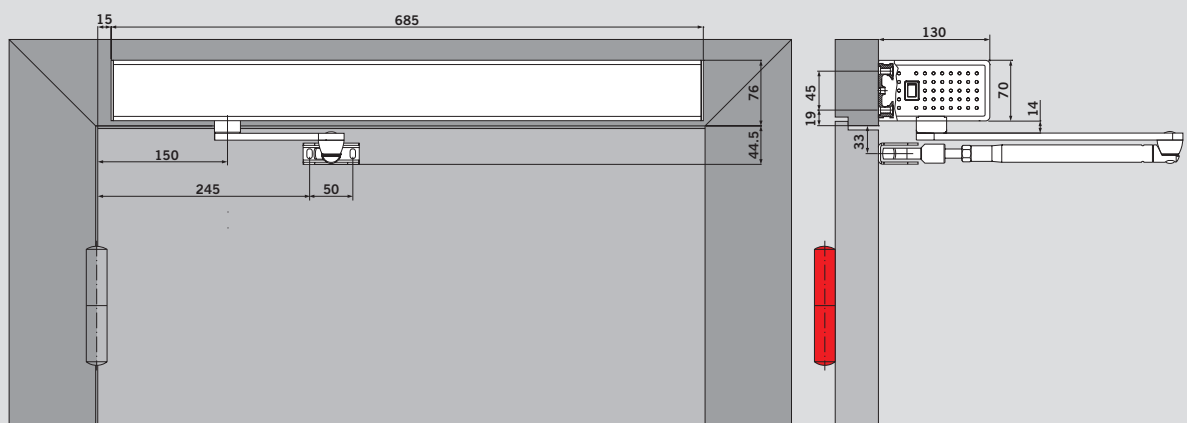
View: BASIC cover, pull-version, 12.5 mm pivot pin

15 685 84 36 60 150 130 31 45 70 14 19 61 12

Standard axle extension

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

15 685 84 49 60 150 130 31 45 70 14 32 61 25

Standard axle extension

View: BASIC cover, push-version

15 685 76 44.5 150 245 50 130 19 45 70 14 33

Standard axle extension

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

632
555
460
340
220
100

Centre of operator axle

45
63
31.5
22
9
9
31
53.5
76

R3.3

106
150
155
451
19

Upper edge of door leaf

Standard axle extension

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

632
555
460
340
220
100

Centre of operator axle

45
63
31.5
22
9
9
31
53.5
76

R3.3

106
150
155
451
32

Upper edge of door leaf

Standard axle extension

Drilling template: BASIC cover, push-version

632
555
460
340
220
100

Centre of operator axle

45
63
31.5
9
9
9
19
41.5
64

R3.3

106
150
245
50
42

Bottom edge of lintel

Standard axle extension

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

15   15

84
36
60
150

130
31 45
70
19
35 12
61
14

150

B min. 1,400 (1,450 with ESR)

Standard axle extension

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

15   15

84
49
60
150

130
31 45
70
32
25
14

150

B min. 1,400 (1,450 with ESR)

Standard axle extension

View: PROFESSIONAL cover, push-version

15   15

76
44.5
150
245   50

130
19 45
70
33
14

50   245
150

B min. 1,400 (1,450 with ESR)

Standard axle extension

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

555
460
340
220
100

Centre of
operator axle

45
63
31.5
21

R3.3
R3.3

9
9
31
53.5
76

106
150
155
451
19
19
451
106
150
155

B min. 1,400 (1,450 with ESR)
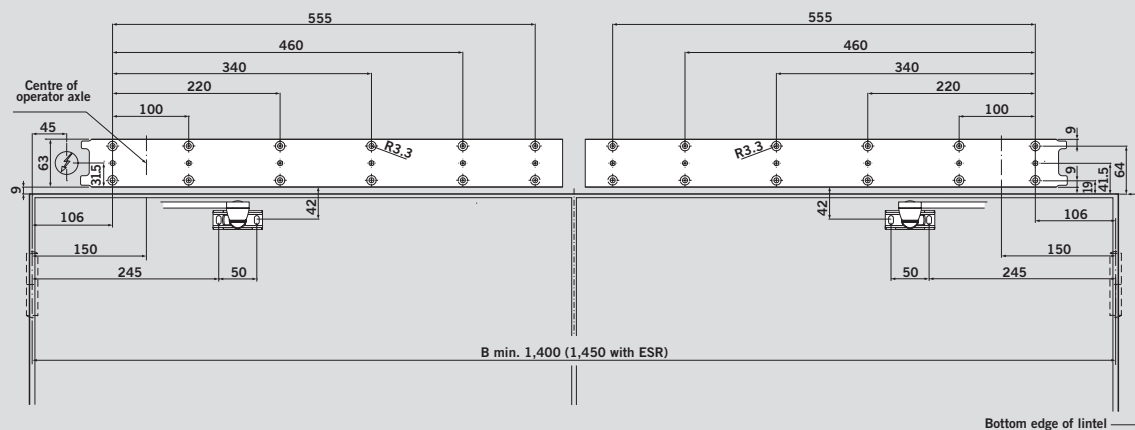
Upper edge of door leaf

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**

555
460
340
220
100

Centre of
operator axle

45
63
31.5
21

R3.3
R3.3

9
9
31
53.5
76

106
150
155
451
32
32
451
106
150
155

B min. 1,400 (1,450 with ESR)

Upper edge of door leaf

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

Drilling template: PROFESSIONAL cover, push-version

555
460
340
220
100

Centre of
operator axle

45
63
31.5
9

R3.3
R3.3

9
9
19
41.5
64

106
150
245
50
42
42
50
106
150
245

B min. 1,400 (1,450 with ESR)

Bottom edge of lintel

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

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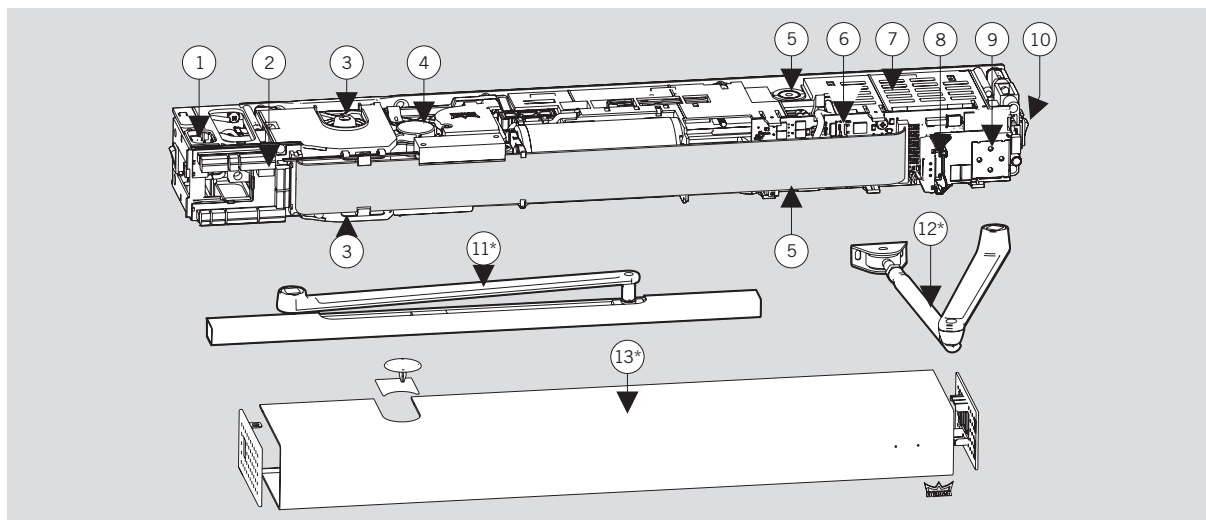
The example system is equipped with all available components.
It is selected in accordance with the door-leaf width and the door-leaf weight.

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

Artikel-Nr.		
ED 100 swing door operator 230 V	EN 2 - 4, push-version, fire protection;	
	EN 2 - 4, pull-version, fire protection	29222301
ED 250 swing door operator 230 V	EN 4 - 6, push-version, fire protection;	
	EN 4 - 6, pull-version, nor special requirements	29202301
	EN 4 - 6; pull-version; fire protection	29202302
	EN 4 - 5; pull-version; fire protection	29202303

Opening and closing torque

ED 100				
Way of mounting	Lintel mounting on hinge side with slide channel (pull-version)		Lintel mounting on opposite hinge side Standard arm (push-version)	
	minimum	maximum	minimum	maximum
Closing force EN 1154	EN 2	EN 4	EN 2	EN 4
Manual closing torque (Nm)	13	34	13	37
Closing torque in AUTOMATIC mode (Nm)**	20	FE: 150/LE: 67	20	FE: 150/LE: 67
Manual opening torque (Nm)	30	50	35	55
Opening torque in AUTOMATIC mode (Nm)**	20	FE: 150/LE: 67	20	FE: 150/LE: 67
Opening torque of manually-activated Power-Assist Function (Nm) *	23	23	23	23

ED 250				
Way of mounting	Lintel mounting on hinge side with slide channel (pull-version)		Lintel mounting on opposite hinge side Standard arm (push-version)	
	minimum	maximum	minimum	maximum
Closing force EN 1154	EN 4	EN 6	EN 4	EN 6
Manual closing torque (Nm)	26	65	26	70
Closing torque in AUTOMATIC mode (Nm)**	20	FE: 150/LE: 67	20	FE: 150/LE: 67
Manual opening torque (Nm)	55	85	60	90
Opening torque in AUTOMATIC mode (Nm)**	20	FE: 150/LE: 67	20	FE: 150/LE: 67
Opening torque of manually-activated Power-Assist Function (Nm) *	23	23	23	23

FE = With Full-Energy or Fire Protection Upgrade Card,   **LE** = Low-Energy standard operator without upgrade card

* Power-Assist Function is adjusted to maximum (function is activated at approx. 3° opening width)

** The torque is activated by an automatic opening in AUTOMATIC mode.

Door closer mode & AUTOMATIC mode

Users may choose between two operation modes: door closer and AUTOMATIC mode. While adjusted to door closer mode (parameter Hd = 1), the system is optimised for manual operation. With its optional Power-Assist Function, the door closer mode is tailored to predominantly manually-operated doors where a door closer function is desired. The AUTOMATIC mode (parameter Hd = 0) in turn is especially suitable for mainly automatic access via motion detector or push-button. In addition, the door reverses as soon as it runs into an obstruction while closing. On activation of the AUTOMATIC mode, also the wind load control is available. Although in AUTOMATIC mode, the doors are still ready for manual access. In this case we would recommend the Push & Go function.

Wind load control

ED 100 and ED 250 operators are especially suitable for application at exterior doors that are subject to varying wind loads and for interior doors separating rooms where different pressure prevails.

While the system is in AUTOMATIC mode, the wind load control monitors the driving speed and adjusts the speed correspondingly if it exceeds or falls below the adjusted value.

In conjunction with the Full-Energy Upgrade Card, the operator provides a force of up to 150 N at the main closing edge – which is then used to compensate environmental influences.

The electronic latching action is activated during the last 5° of the closing cycle in order to support the closing action.

Power-Assist Function

The Power-Assist Function may be activated while the door is in door closer mode (parameter Hd = 1). As soon as a user opens the door by some degrees, the servo-function supports the manual opening cycle. In addition, the servo support automatically adapts to the adjusted size of the door closer. The level of servo support is adjustable in order to meet the requirements of DIN 18040, DIN Spec 1104, CEN/TR 15894, BS 8300/2100 and document "M", even up to class EN 6. The smallest adjustable opening torque amounts to 23 Nm/5 lbf - unless the hold-open device is triggered or in the event of a power failure. With the aid of the Power-Assist Function, the system meets the requirements of the European standard EN 1154 and provides barrier-free access during standard operation. However, it is not possible to use the system in conjunction with the Push & Go Function or the wind load control as these functions may affect the easy manual opening of the door.

Arm

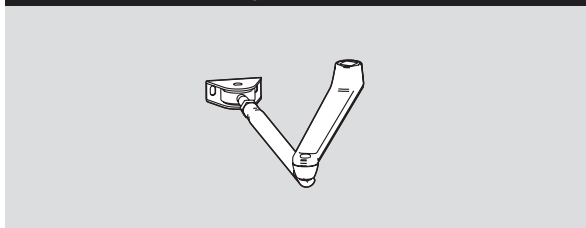### ED slide channel set – pull-version
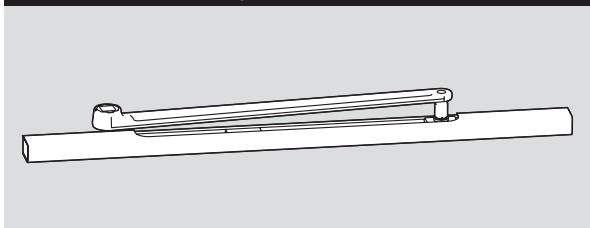
ED 100 and ED 250:
For lintel depths +/- 30 mm

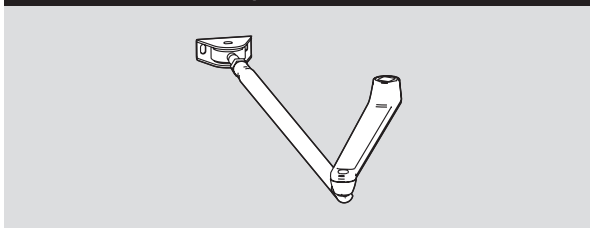| Article No.	
ED slide channel set (silver-coloured)	29275001
ED slide channel set (white)	29275002
ED slide channel set (special colour)	29275003

ED standard arm 225 – push-version

ED 100 and 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

ED 250:
For lintel depths from 226 to 300 mm and a weight of 250 kg
For lintel depths from 301 to 500 mm and a weight of 160 kg

ED 100:
For lintel depths from 226 to 300 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
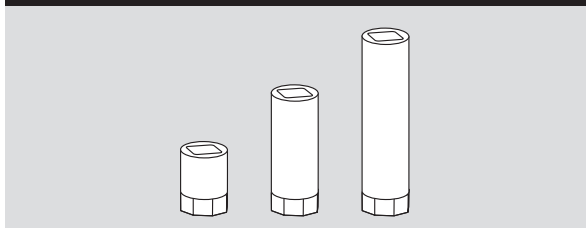
The axle extensions 30 and 60 mm are suitable for all arm versions of the ED 100 & ED 250.

The axle extensions 90 mm is only suitable for all arm versions of the ED 250. The axle extensions are available in chromated black.

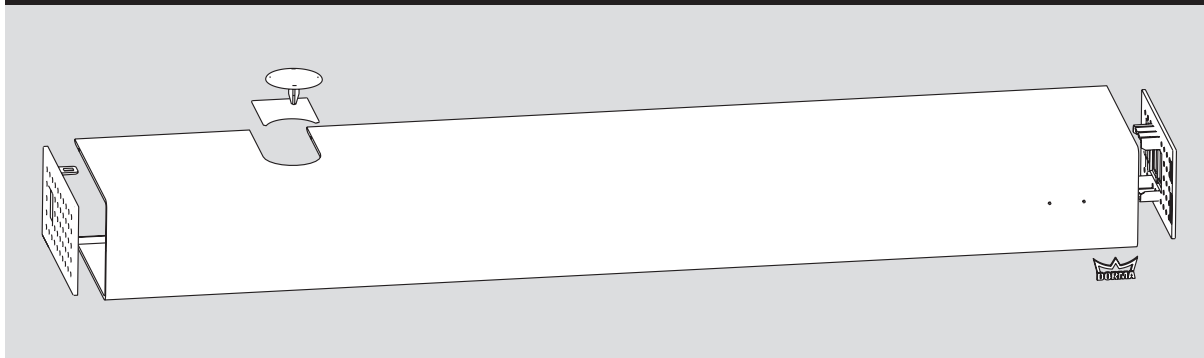| Article No.	
ED axle extension 30 mm	29278001
ED axle extension 60 mm	29278101
ED axle extension 90 mm	29278201

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 program switch 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 clearance between the hinges exceeds 1,400 mm (1,450 mm with ESR).

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
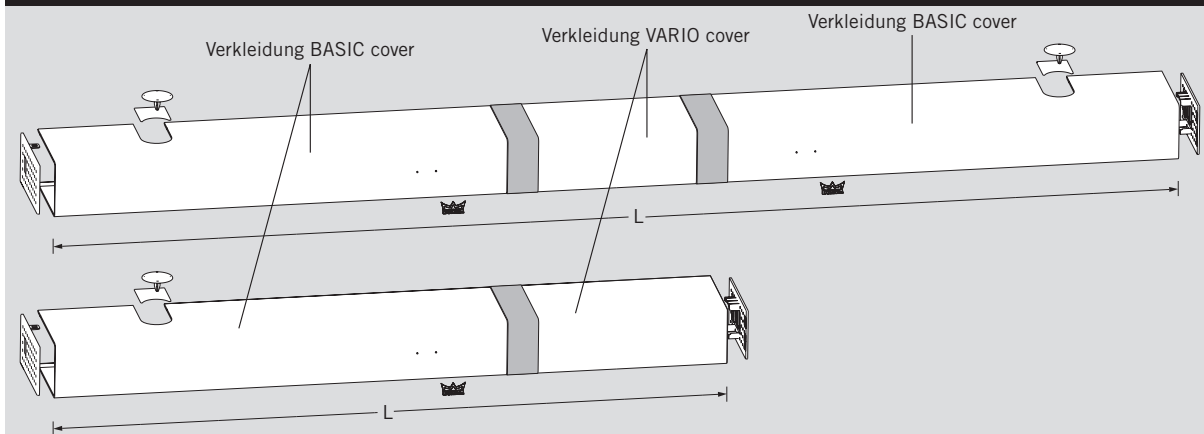
This aluminium cover is designed to create a continuous cover for double-leaf swing door systems. In addition to the VARIO cover, you will require two ED BASIC covers, which are mounted on the right and on the left of the operator system. The ED VARIO cover is designed to hide the gap between the two covers and may be sawed to the appropriate size on site. With the aid of the VARIO cover, you may also increase the length of single-leaf operators. The cover may be installed on the left or on the right side and can be sawed to the appropriate size on site. The VARIO cover is silver-coloured and available in two versions.

Article No.		double-leaf version	single-leaf version
ED VARIO cover, 2,200 mm (silver-coloured)	29242001	1,500 mm – 2,200 mm	800 mm – 1,600 mm
ED VARIO cover, 2,800 mm (silver-coloured)	29242002	1,500 mm – 2,800 mm	800 mm – 1,600 mm

ED PROFESSIONAL cover
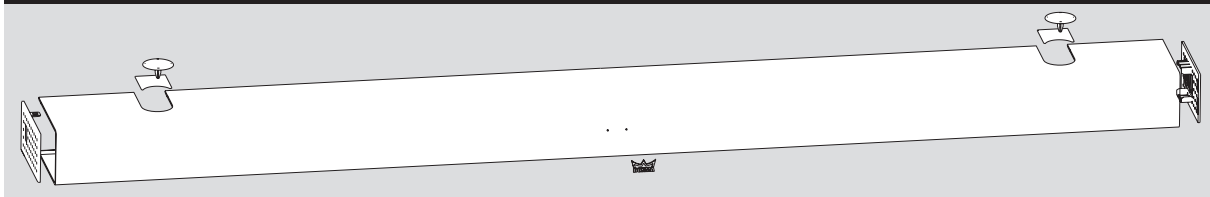
This aluminium cover is designed to create double-leaf swing door systems. The ED PROFESSIONAL

cover is a continuous and seamless cover and available in lengths from 1,400 mm (1,450 mm with ESR) to

3,200 mm.
With the PROFESSIONAL cover, also single-leaf operators may be extended to a

length of up to 3,000 mm towards the main closing edge.

Article No.

ED PROFESSIONAL cover
(siver-coloured or as special colour)   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.
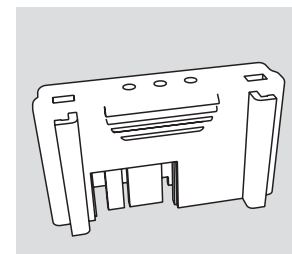
Upgrade Card Full-Energy – blue

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 27° 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 50°/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   29251022
blue

ED Upgrade Card
Full-Energy
ED 250   29251020
blue/transparent

Recommended weight/dimensions for the installation of the Full-Energy Upgrade Card
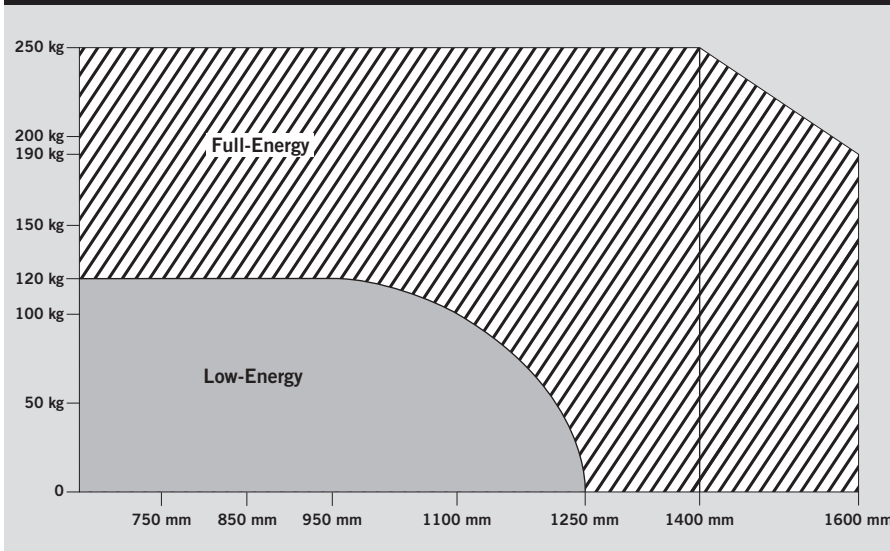
Upgrade Card Fire Protection ED 100 – red

| | Article No. |

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. As soon as 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. With ED 100 & ED 250, users may deactivate the hold-open function by a slight push against the door leaf. So no pushbutton is required to trigger a closing cycle; however, it is still available as an option.

ED Upgrade Card
Fire Protection
ED 100   29252022
red

ED 250   29252020
red/transparent

Upgrade Card Professional

| | Article No. |

The Upgrade Card Professional provides functions for swing door operators that used to be realised with the aid of external components.

– **Extended hold-open time of 180 s**
The hold-open time of up to 30 seconds, which is already integrated in the basic system, is sufficient for most applications. However, an extended hold-open time of up to 180 seconds may easily be realised with the aid of the Full-Energy Upgrade Card.

– **Flip-Flop-Function**
In standard mode, the operator opens the door after a Night-/Bank pulse has been triggered (via the key switch) and closes it on expiry of the hold-open time. When the flip-flop-function is activated, the door opens and remains in

PERMANENT OPEN position as soon as the Night-/Bank function is triggered at the respective input. The door will close when the Night-/Bank function is activated again. The hold-open period in PERMANENT OPEN position is not limited, and the standard hold-open time is available at all other activator inputs. Please note that smoke detectors always have priority to the PERMANENT OPEN function.

– **Nurse-Bed-Function (only for double-leaf door systems)**
As soon as a pulse is triggered, both door leaves of the double-leaf system will open.
Sometimes this may not be necessary, as the full passage width is not required.

Whenever this is the case, the Nurse-Bed-Function is perfectly suitable to control the two door leaves separately.
The activator that is connected to the external detector only institutes the active door leaf to open. The resulting passage width is sufficiently big to allow people to use the door.
The other activator (the one that is connected to the internal detector) is used to open the door to the full opening width.
In this case, both door leaves open so that the full passage width is accessible.
This function reduces the energy consumption and may help to avoid draughts and thus heat loss.

ED Upgrade Card
Professional
ED 100/ED 250 29253001
green

Upgrade Card DCW

| | Article No. |

The Upgrade Card DCW provides the operator with a DCW Bus connection.
The integrated DCW driver supports the following accessory:

– **Emergency exit motor lock with self-locking action DORMA SVP DCW**
The required procedure is controlled by the operator while the operator and the motor lock communicate via the DCW bus.

– **ST 32 DCW**
The key switch to trigger the Night-/Bank function is suitable for application as activator outside the secured area (if you turn the key clockwise).
When the key switch is used in conjunction with the DCW program switch: the program switch is adjusted to OFF by turning the key counter-clockwise in order to deny access

after closing of business or during work breaks.
Turn the key to the right for more than 3 seconds in order to trigger the AUTOMATIC function.*

* Depending on regional standards, provisions and regulations regarding the safeguarding of buildings, further measures to shut off the building may be required.

ED Upgrade Card DCW
ED 100/ED 250 29254001
yellow

Upgrade Card Barrier-Free Toilet

With the aid of the upgrade card, the required special functions are allocated to the in- and outputs of the control unit to facilitate the connection of the respective components.

System overview
The system requires an electric strike, a motor lock or similar devices to keep the door closed. Furthermore, the door is equipped with a lever handle on the inside and a knob on the outside so that the door may only be opened from the inside and the outside with the corresponding key. In addition, large-surface pushbuttons are installed on the inside and on the outside of the toilet while a status indicator (vacant/occupied) on the outside and an occupied light indicator on the inside of the toilet indicate the current status. As an option, we provide an emergency push-button (to be mounted on the outside), which allows to open the door immediately in the event of an emergency. Please note that DORMA recommends connecting the barrier-free toilet to an additional emergency call system (by others).

Article No.

Upgrade Card   29253002
Barrier-Free Toilet

Functional characteristics

– **Entering the barrier-free toilet**
While the toilet is vacant, the status indicator on the outside is green. Use the pushbutton on the outside to trigger an automatic opening cycle. The door will close automatically on expiry of the adjusted hold-open time. As soon as the door is fully closed, users may deactivate the external pushbutton via the pushbutton on the inside so that the door is no longer accessible from the outside. At the same time, the external status indicator switches from green to red in order to indicate that the toilet is occupied. Also the internal status indicator turns red to show the user inside the toilet that the door is now locked.

– **Leaving the barrier-free toilet**
Users may open the door either automatically via the internal pushbutton or manually by using the lever handle. At the same time, the system emits a 24 V DC message, which may be used to flush the toilet automatically. The door closes on expiry of the adjusted hold-open time. The status indicator on the outside switches from red to green and the light indicator on the inside goes out as soon as the door has reached its "closed" position.

– **Emergency opening from the outside**
The system is ready for connection of an emergency pushbutton so that, in the event of an emergency, users may deactivate the locking function and the door can only be opened by hand. In this case the door not longer operates automatically.
As an alternative, the door may be opened with the aid of a key from the outside (in the event of an emergency). In both cases, the status indicator on the outside switches from red to green and the light indicator on the inside goes out.
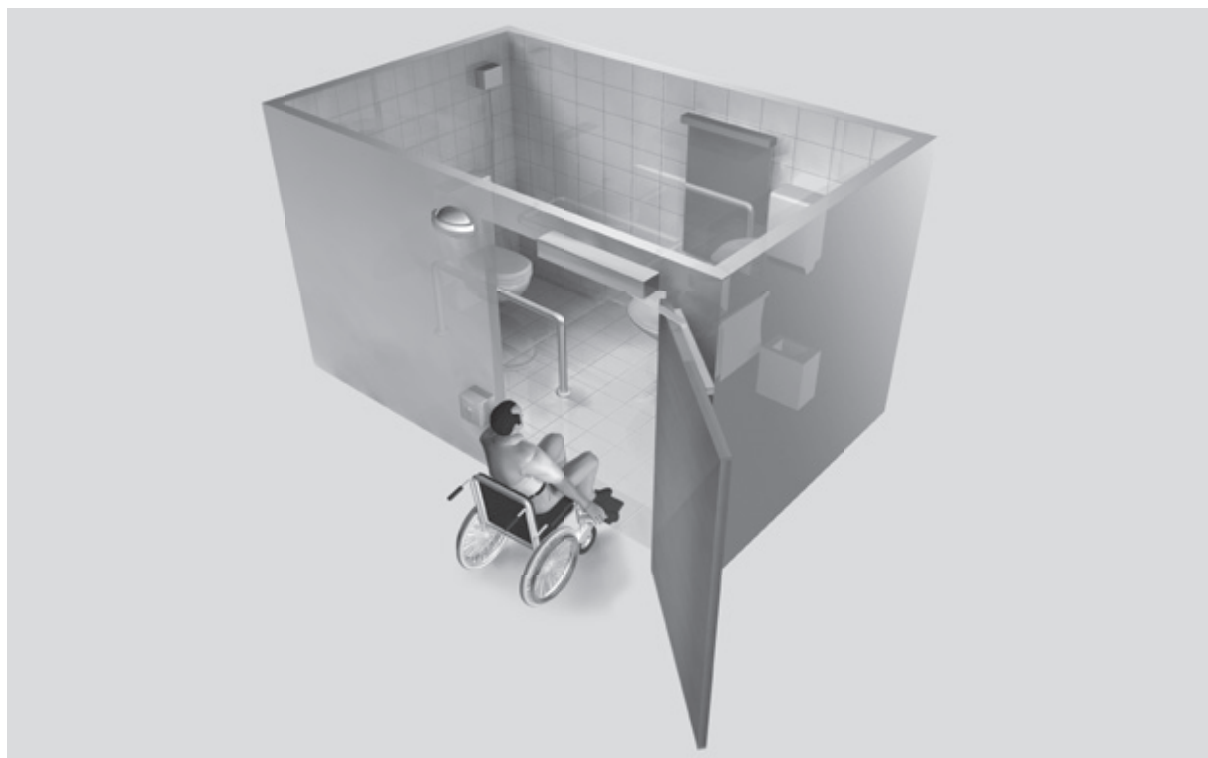
Functional characteristics

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.
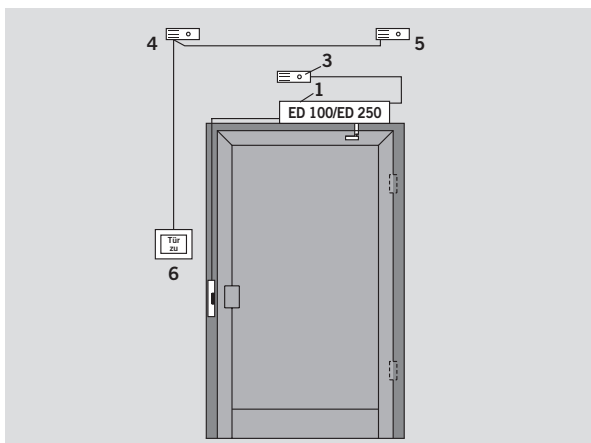
1 ED 100/ED 250
2 ED 100/ED 250 with continuous cover
3 RM-ED smoke detector
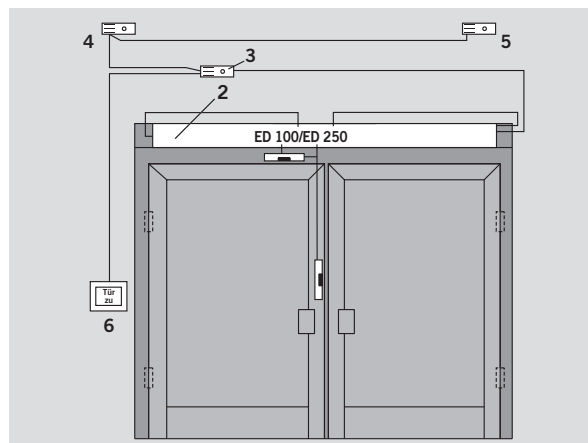
4 RM-N smoke detector, opposite hinge side
5 RM-N smoke detector, hinge side
6 Optional manual release pushbutton "Tür zu"
   (German for "close door")

DORMA RM-ED lintel-mounted smoke detector
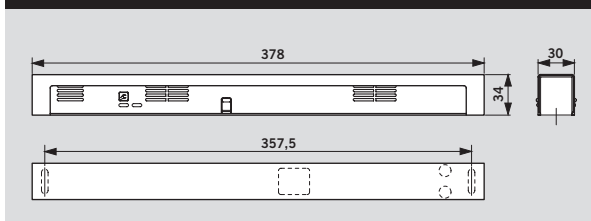
RM-ED (silver-coloured)   Article No. 64840001
RM-ED (white)   Article No. 64840011
RM-ED (special colour)   Article No. 64840009

DORMA RM-N ceiling-mounted smoke detector
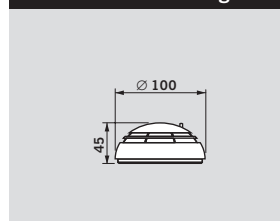
2 x RM-N
white
Article No. 64830900

DORMA HT manual release pushbutton
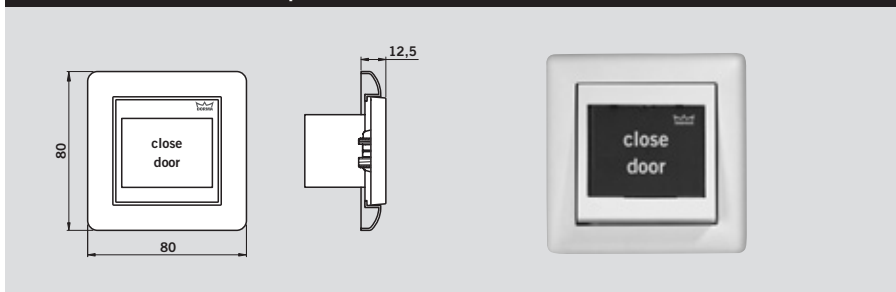
Flush-mounted version

white
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. The system does not require any maintenance.

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, inside

7 Pushbutton, outside

8 Locking device

9 Radar motion detector, inside

10 Radar motion detector, outside

11 Key switch

12 ED 100/ED 250

13 ED 100/ED 250 with continuous cover

14 RM-ED smoke detector

15 RM-N smoke detector, opposite hinge side

16 RM-N smoke detector, hinge side

17 Optional manual release pushbutton "Tür zu" (German for "close door")

18 red-green-display

ED 100/ED 250, single-leaf doors
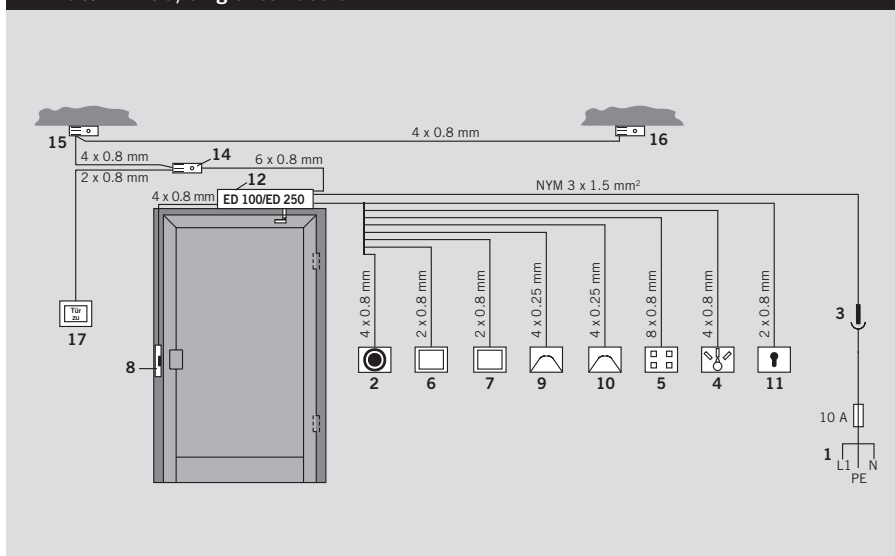
ED 100/ED 250, double-leaf doors
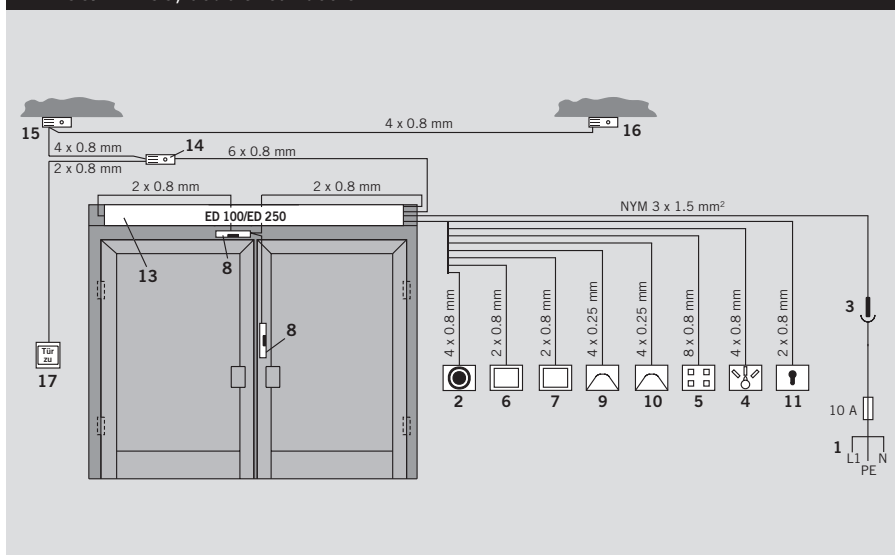
### ED 100/ED 250, single-leaf doors, barrier-free toilet
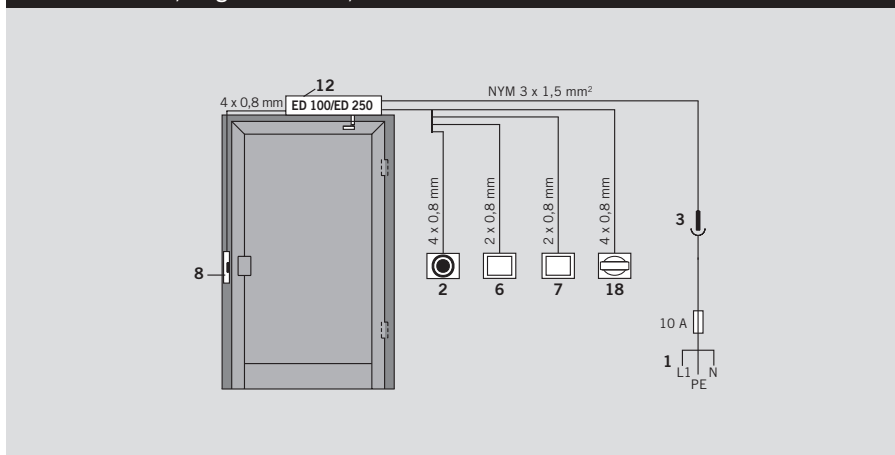
Program switches

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.
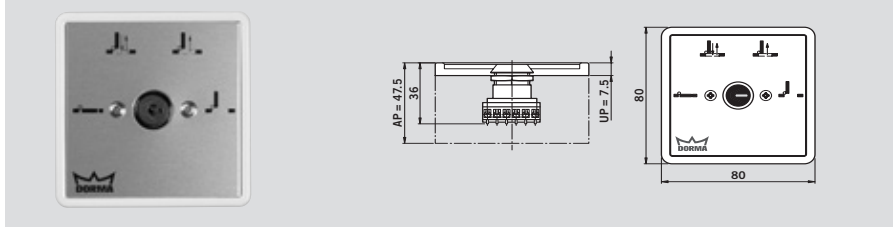
Mechanical
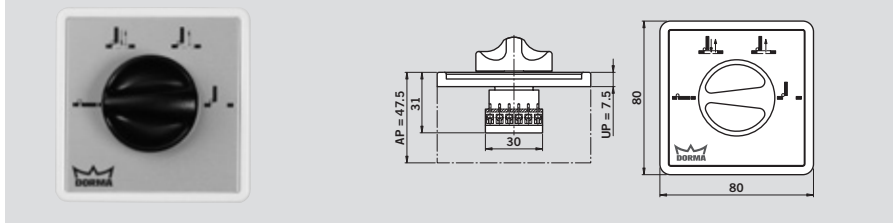
Program switch
4-position, aluminium, white, flush-mounted version, Gira S-Color

Article No. 19135404150
Box for surface-mounting: 5080531332
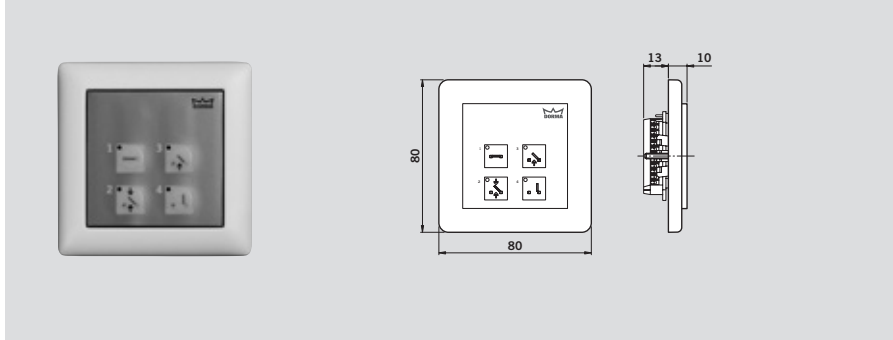
Mechanical and lockable

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

Article No. 19135604150
Box for surface-mounting: 5080531332
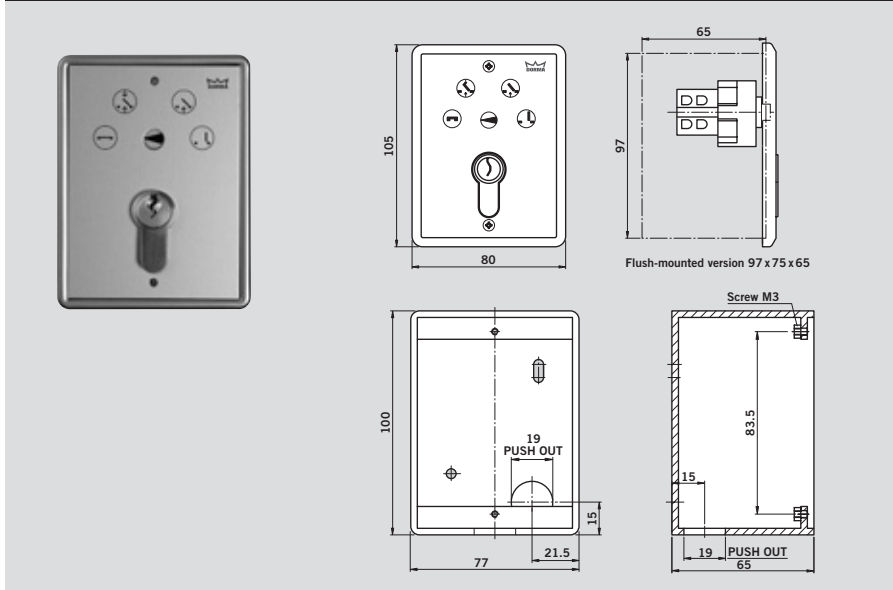
Electronic

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

Mechanical with Euro profile half-cylinder

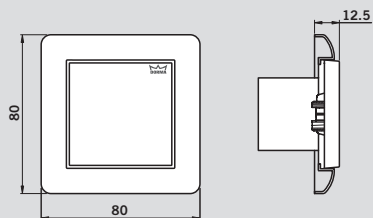

Flush-mounted version 97 x 75 x 65

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

Article No. 19141801170
Box for surface-mounting: 19142201170

Pushbuttons

Pushbutton

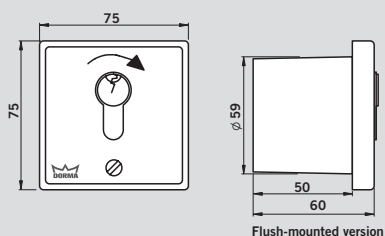
Pushbutton
Single-pole changeover contact, standard frame, white, flush-mounted version, System 55
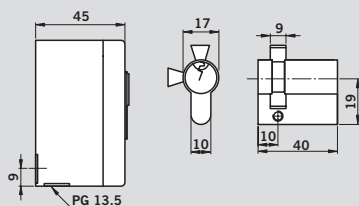
Article No. 19144701170

Key switches

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

Flush-mounted version

Surface-mounted version

ST 32
(without illustration)

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

ST 32 tamper-proof key switch with LED display
Silver-coloured aluminium cover with face plate, suitable for flush- and surface-mounting, to lock/unlock the door system from the outside
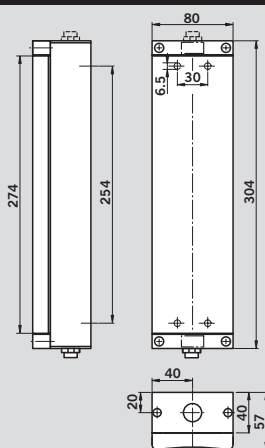Approximate dimensions of housing (W x H x D):
75 x 75 x 67 mm
Face plate (flush-mounted):
90 x 100 x 2 mm
Article-No. 56043201
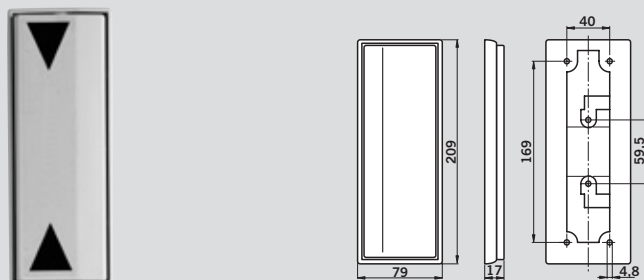
Large-sized pushbutton (elbow)

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

Article No. 90410015
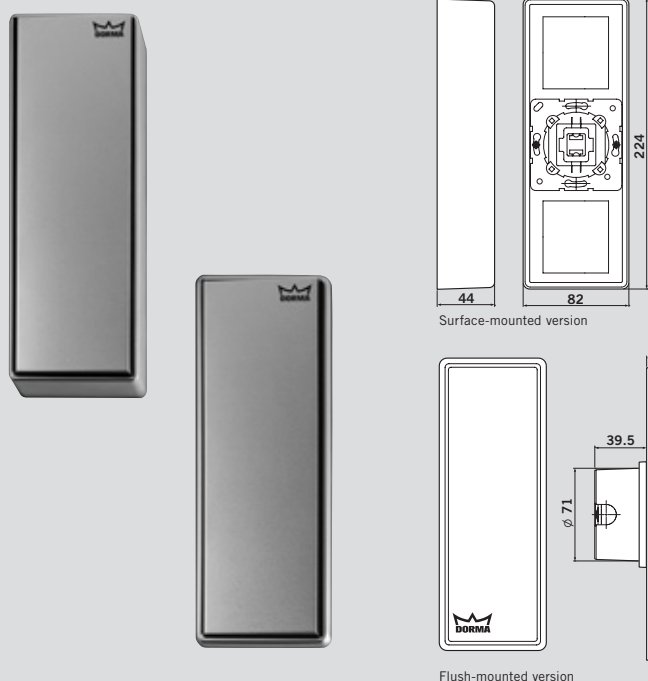
Large-sized pushbuttons (elbow)

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

Article No. 05095431332

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. switch, paint box for surface-mounting (silver-coloured),
224 x 82 x 44 mm
Article No. 05095231332

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

Switch pad
Stainless-steel, 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 BRC remote system

The new DORMA BRC 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 BRC-W and BRC-T transmitters are also of bi-directional design; however, the status indicator is not visible as the transmitters are integrated in pushbuttons.

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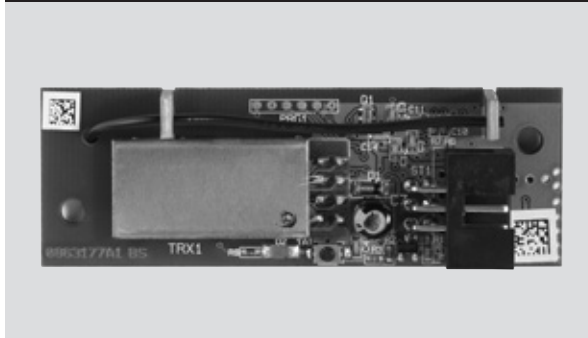
The new DORMA BRC-R radio receiver may easily be installed inside the operator as its size is adapted to the available space. Simply fix it on the motor-gear-unit with two screws. We offer three different types of transmitters. Up to 1024 transmitters may be allocated to a DORMA BRC-R.

Article No.
BRC-R receiver   29302002

BRC-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.
BRC-H
hand-held transmitter
29301001

BRC-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.
BRC-W
wall transmitter   29301002

BRC-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.
BRC-T
Battery-operated
transmitter   29301003

Radar motion detectors

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.

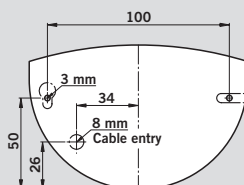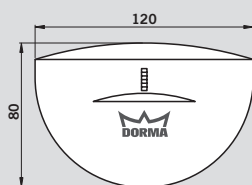## Radar motion detectors with direction recognition
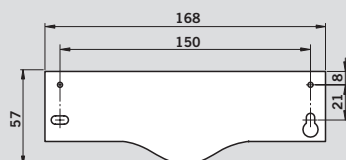
Eagle, black

Eagle, white

Eagle, silver-coloured

Eagle 1
With direction recognition, black
Article No. 16503101170
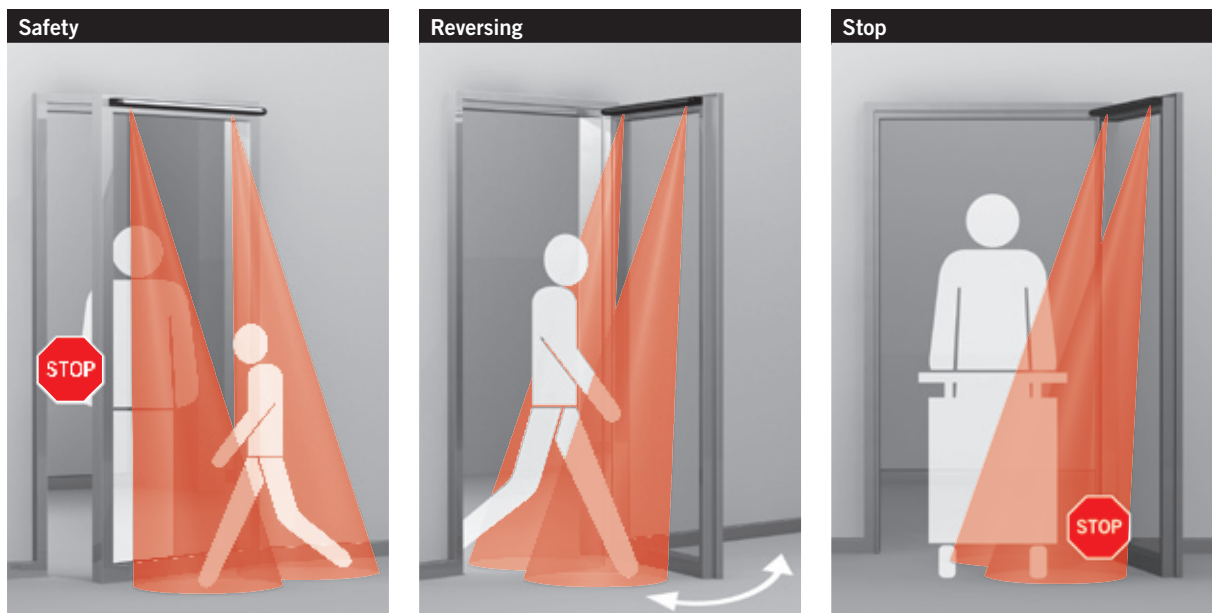
white
Article No. 16503103170

silver-coloured
Article No. 16503102170

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

Merkur

Infrared safety sensors

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
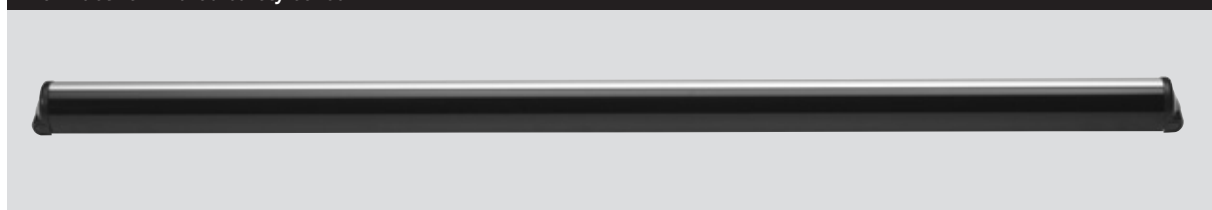
DORMA IRS-4
IRS-4 safety sensors are excelled by their easy commissioning and adjustment. The sensors' monitoring quality within the driving path depends on the condition of

the floor in the close range of the door system.
IRS-4 sensors are suitable to monitor standard floors and floors with low reflectance levels, gratings or floor mats. The operator and the IRS-4

communicate bidirectionally via the integrated communication interface. The system performs the cyclical sensor test and activates the Energy Saving Mode (ESM) in a fast and reliable way, while the

operator automatically assesses its utilisation degree and switches the IRS-4 to Energy Saving Mode as soon as it is not required.

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

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

Door Control

Automatic

**Glass fittings
and Accessories**

**Security Time
and Access (STA)**

Movable Walls