



ES 400 System

Hospital sliding door
operator

ES 400 System – reliable and powerful in compact design, especially suitable for application in hospitals



As a compact and innovative sliding door operator, the DORMA **ES 400** is especially suitable for application in hospitals, institutes or laboratories. Thanks to its simple and low-maintenance design, it guarantees easy handling and reliable function as well as a long life cycle.

For single- and double-panel doors

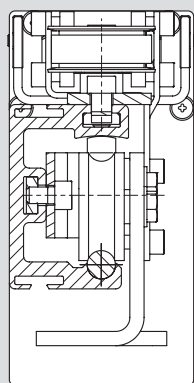
The DORMA **ES 410** effortlessly operates single-panel doors with a weight of up to 200 kg at a passage width of up to 3 m, while the DORMA **ES 420** is especially suitable for double-panel doors with a door-panel weight of up to 2 x 125 kg.

We have just added the telescopic **ES 415** sliding door operator to our program range. Thanks to its slender dimensions and its various **ES 410** components, this operator for single-panel doors perfectly complements our **ES 400** system.

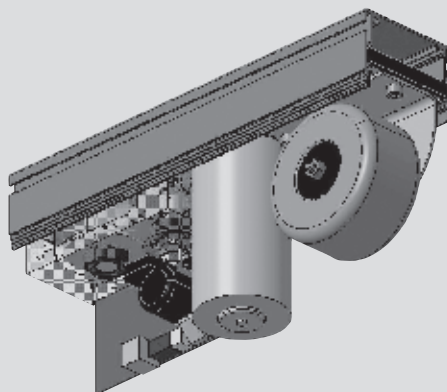
Due to their high operating dynamics, all operators provide smooth operating behaviour combined with excellent operating characteristics.

The respective risk assessment will show which safety devices according to DIN 18650 (Germany) are required. German type approval according to DIN 18650: 21201004.

Cross section



Drive unit



Features and benefits

- Compact design
- Excellent operating dynamics
- Applicable for heavy doors in stainless steel design
- Self-learning
- Parameterisation via software
- Push & Go function
- Separate input for control via fire detection system
- Integrated airlock function for up to 3 door sets
- Automatic changeover to manual closing

Door parameters	
Single-panel sliding door (ES 410) – Clear passage width (LW) – Max. weight per door panel	700 – 3000 mm 1 x 200 kg
Double-panel sliding door (ES 420) – Clear passage width (LW) – Max. weight per door panel	800 – 3000 mm 2 x 125 kg
Telescopic sliding door (ES 415) – Clear passage width (LW) – Max. weight per door panel	1000 – 2500 mm 2 x 125 kg

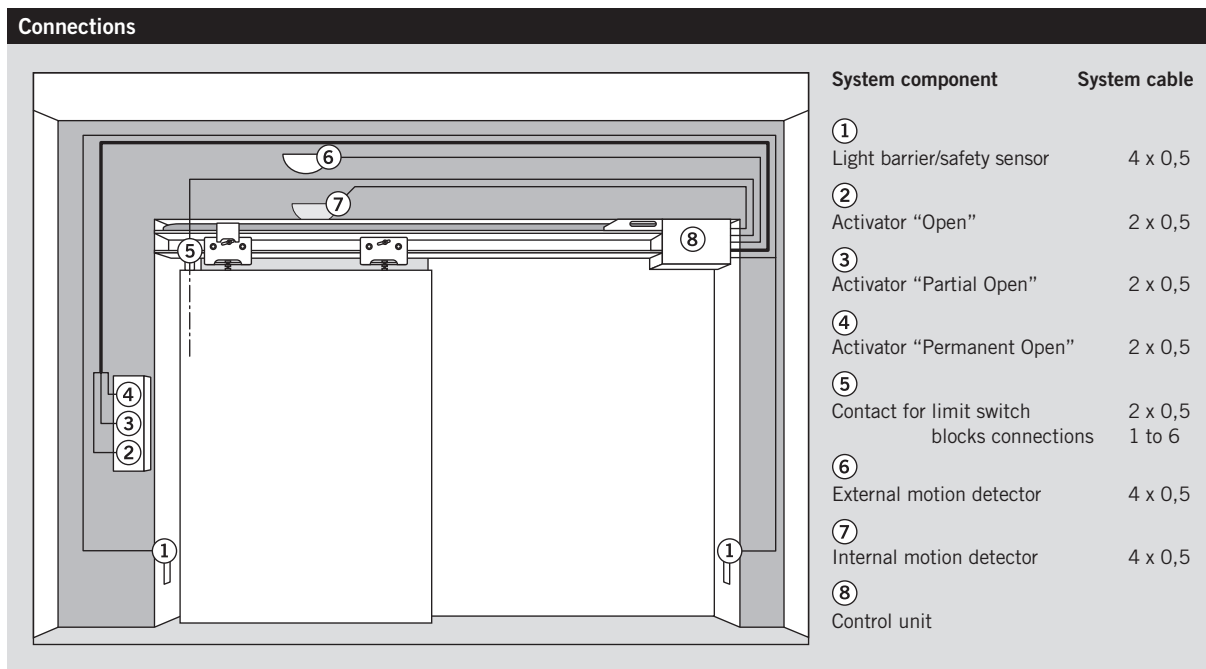
Technical operator data	
Height	132 mm
Installation depth	ES 410/ES 420 65 mm ES 415 138 mm
Max. opening and closing force 150 N	●
Opening speed (adjustable)	10 – 50 cm/s
Closing speed (adjustable)	10 – 50 cm/s
Hold-open time	
– Nurse opening of Nurse-Bed-Function (partial open)	0 – 60 sec.
– Bed opening of Nurse-Bed-Function	0 – 60 sec.
Supply voltage, frequency	230 V, 50/60 Hz
Power consumption	180 W
Class of protection	IP 20
Temperature range	0° to 40°
Compliant with the Low Voltage Directive	●
Manufactured to ISO 9001:2000	●

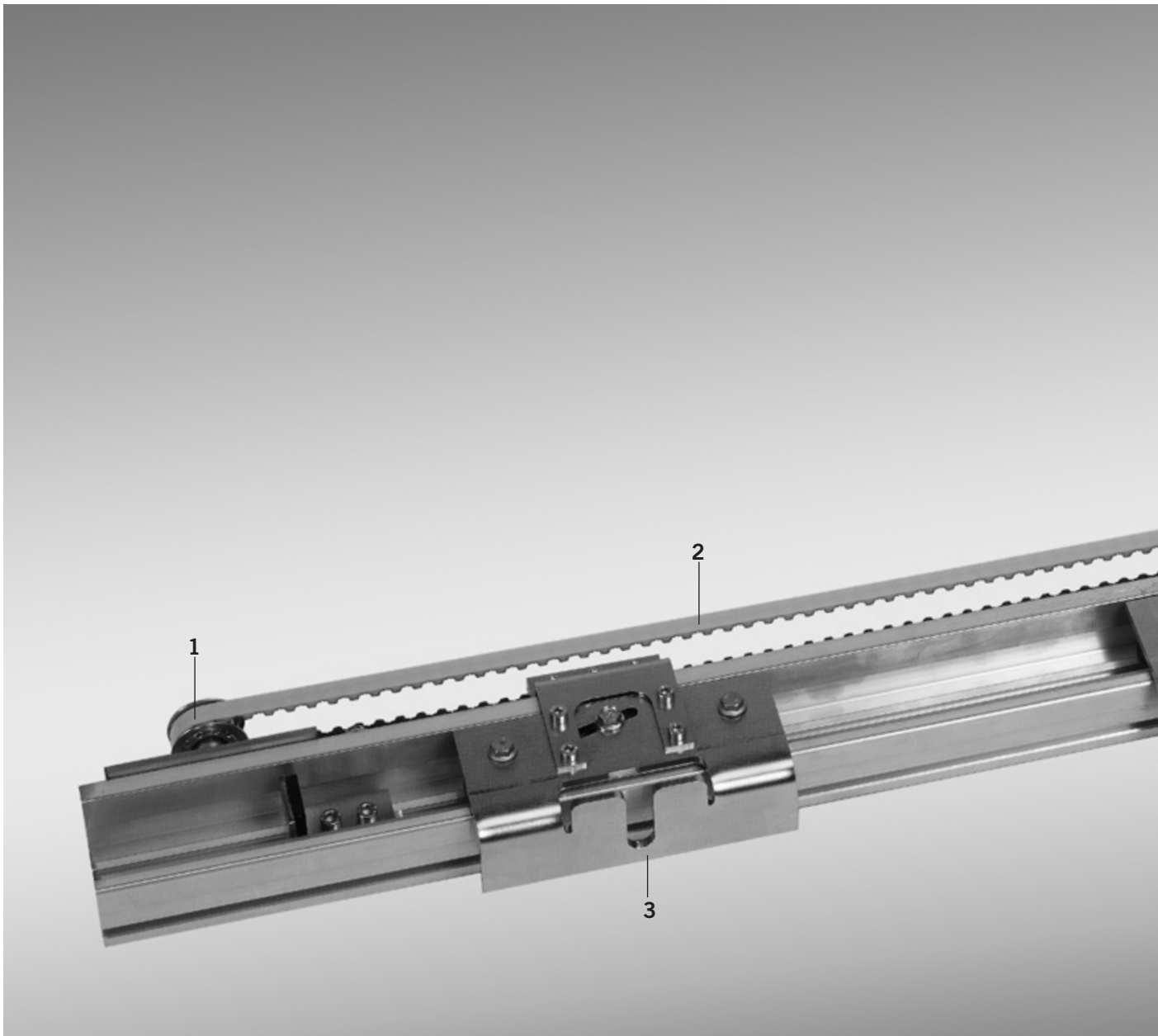
Control unit	
Microprocessor control	●
Function programs	
– Off	●
– Permanent Open	●
– Nurse opening of Nurse-Bed-Function (partial open)	●
– Bed opening of Nurse-Bed-Function (full opening width)	●
– Changeover (open/closed)	●
Self-learning	●
Automatic reversing	●
Light barriers (max. 2 pairs)	●
24 V-output for external accessories	●

Accessories	
Light barriers	○
Emergency power supply unit USV	○

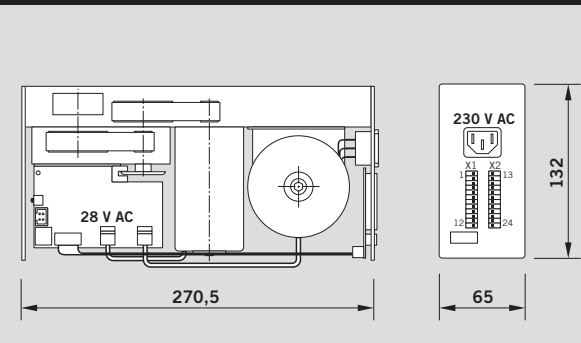
For structural heights of less than 2500 mm, a protective cover has to be installed by others.

- Standard
- Optional

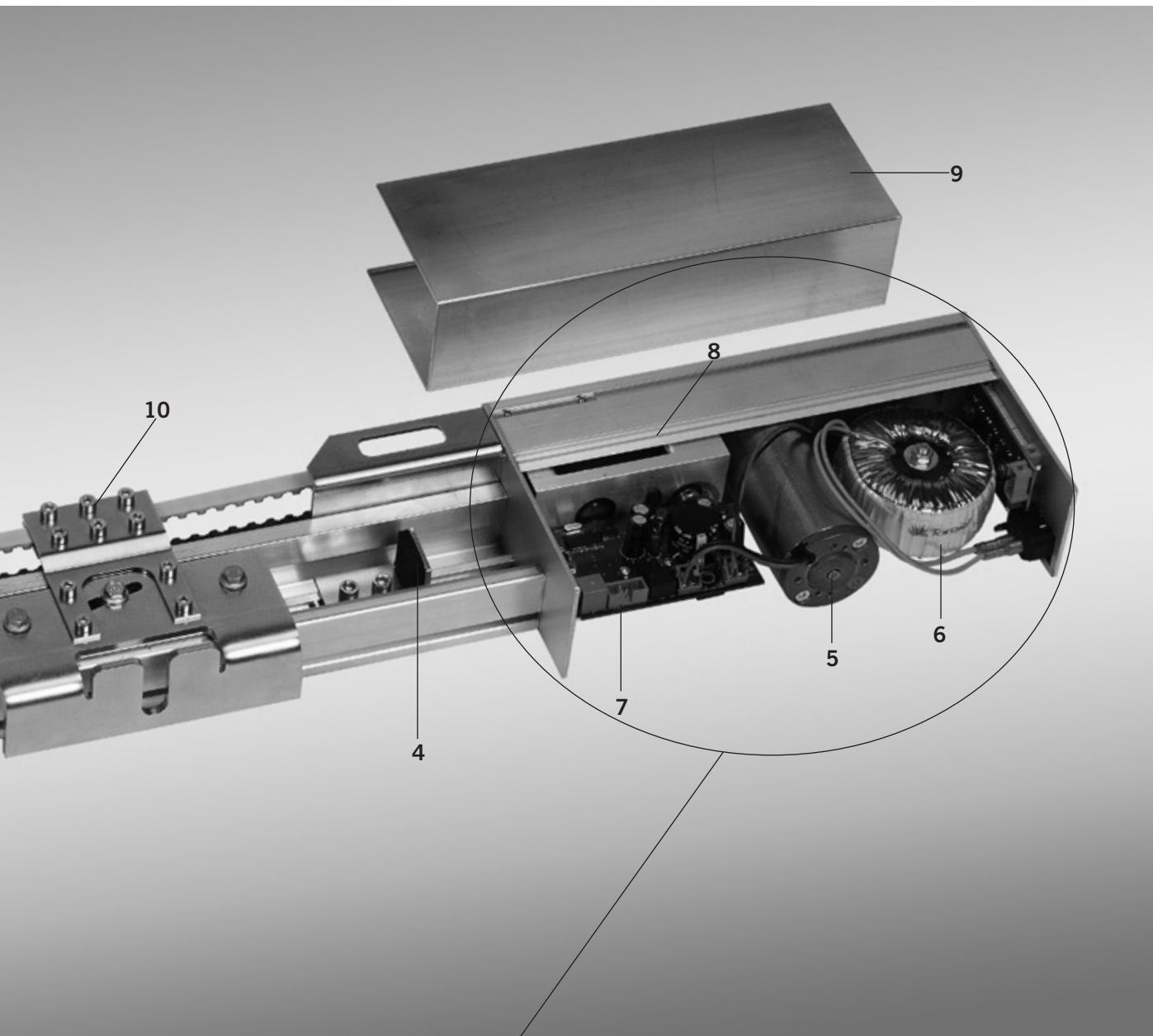




Control unit



Thanks to its especially compact design, the operator may be installed in all buildings with standard door frames.



The core piece of the ES 400:
The prefabricated **drive unit** consists of all required electrical components and is tested individually thus facilitating the assembly and maintenance of the operator.

Components

- 1 Pulley (locking device)
- 2 Toothed belt
- 3 Carrier head
- 4 End stop
- 10 Tapped

Operator

- 5 Motor
- 6 Transformer
- 7 Control unit
- 8 Gear
- 9 Cover



Large-sized, palm and elbow pushbuttons

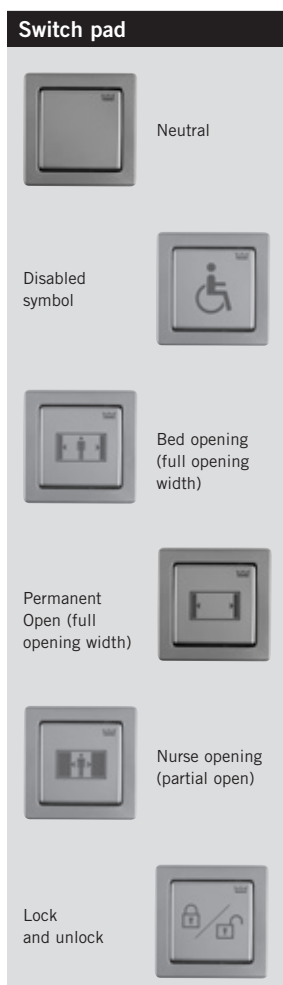
Designation	Specification	Order No
Large-sized pushbutton	silver anodised CO, for flush-/surface-mounting, 304 x 80 mm	90410015
Large-sized pushbutton	very flat design, plastic, grey, for surface-mounting, 209 x 79 x 17 mm	05080231332

Large-sized pushbuttons (switch and switch pad must be combined)

Designation	Specification	Installation system	Order No
Large-sized pushbutton	incl. box for flush-mounting, without switch pad, incl. switch, 224 x 82 mm	Jung	5095531332
Large-sized pushbutton	incl. box for surface-mounting, without switch pad, incl. 2 switches, paint sprayed for aluminium effect, 224 x 82 x 44 mm	Jung	05095231332
Switch pad	Aluminium, for flush-/surface-mounting, 214 x 70 mm	Jung	05095431332
Switch pad	Aluminium, for flush-/surface-mounting, 214 x 70 mm with "Tür auf" lettering (German for "open door")	Jung	05095331332

Stainless steel pushbuttons (Component system)

Centre insert consisting of switch pad and frame must be combined and ordered separately.



Designation	Specification	Installation system	Order No
Centre insert*	Centre insert, pushbutton with single-pole changeover contact, for flush-mounting		5157633332
Frame*	Single-type, stainless steel 81 x 81 mm	stainless steel	5157833332
Switch pads	Neutral	stainless steel	5157233332
	Lettering "Tür auf" * (German for "open door")	stainless steel	5157033332
	Disabled symbol	stainless steel	5157433332
	Full opening width for "bed opening" of Nurse-Bed-Function (Automatic function)	stainless steel	5157533332
	Permanent full opening width for "Permanent Open" function	stainless steel	5157333332
	Partial opening for "nurse-opening" of Nurse-Bed-Function	stainless steel	5157133332
	To lock and unlock, used in toilets for the disabled in conjunction with a switch, lock symbols for locked/unlocked	stainless steel	5156933332
Sealing kit IP 44*	Sealing kit IP 44 (only for stainless steel range)	stainless steel	5157733332

Box for surface-mounting for stainless steel range

Designation	Specification	Installation system	Order No
Box for surface mounting*	Single-type, paint sprayed for stainless steel effect	stainless steel	5119633332

* no picture

Special switches

Designation	Specification	Order No
Foot switch	Foot switch in heavy design with black plastic housing. Mushroom-style pushbutton with a diameter of 94 mm. Impact resistant plastic for application in heavily used areas, class of protection: IP 67	
	Equipped with one NO contact, 98 x 83 x 85 mm (height x length x width)	5026931332

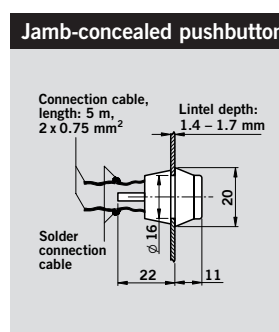


Designation	Specification	Order No
Pull switch ZT	10 A, 380 V DC, IP 65, incl. fixing brackets and cord, plastic ball end, for surface-mounting	90410020



Small-sized pushbutton for frame installation

Designation	Specification	Order No	Order No
Pushbutton	Single-pole NO contact for snap-in mounting, frame depth 1.4 – 1.7 mm		
	colour	excl. cable	incl. cable (5 m)
	grey	5020633332	90410021
	black*	5043833332	90410022
	orange*	5043933332	90410023
	white*	5132833332	90410024



Code switch CT 4/1 (Keypad and electronics module have to be combined)

Designation	Specification	Order No
	The CT 4/1 code switch is a modern and safe alternative to common key switches. The CT is ready for use after two simple programming steps. The data is transferred coded and is thus protected against manipulation. The respective control unit must be ordered separately 230 V/50 Hz, 1.5 VA, 1 x UM potential-free (floating) relay contact 8 A, 250 V, Connections: max. 2.5 mm	
MTB 4/1	Metal keypad for entering the opening code and for programming purposes, for surface-mounting, 75 x 75 x 11.5 mm	5079331332
EB 4/1*	Electronics module, incl. connection cable (2 m), plastic housing, black, for surface-mounting	5063431332



* no picture

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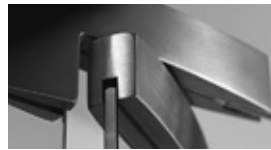
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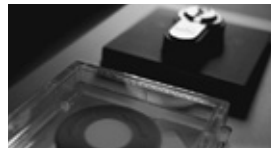
Door Control



Automatic



**Glass fittings
and Accessories**



**Security Time
and Access (STA)**



Movable Walls