



### **ES 200**

Sliding door operator

### Flexible, simple and modular – with drive power to spare.

The new, innovative DORMA ES 200 sliding door operator system offers the perfect solution for all applications and service requirements. The ES 200, equipped with the DORMA *PowerDrive* technology, fulfills every demand imposed on operators in terms of adaptability to different door widths, door weight capacity and functionality.

### The modular system

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

The identical mechanical components may be installed in all three versions of the operator (ES 200, ES 200-2D and ES 200 *Easy*).

DORMA has also opened up a new dimension with its control system. Now there is no longer any need to replace components when you want to expand the functionality of your system. In future, "docking" will be the order of the day. The modular control system comprises of the basic module (BM) and the function module (FM). Consequently, upgrading in accordance with individual customer requirements may be carried out without problem. Particularly impressive is the prefabricated MiniDriveUnit, industrially tested and equipped with all the necessary electrical and electronic components.

### Integrated power

With its extra-powerful motor and a dynamic driving phase control, the integrated *PowerDrive* system ensures safe and reliable operation. And it can readily cope with sliding door weights of up to 2 x 160 kg per door panel weight.

Exceptional cost-efficiency
With the ES 200, DORMA
offers a drive system of
modular design capable of
covering every application
on the basis of just a few
components. The system
offers easy assembly and
installation, reduced storage
and stocking costs, and
simple maintenance for
enhanced operational cost
efficiency.

### A system for the future

With this system you are investing in the future. You also have the security derived from our decades of experience in the automatics business – a history that sets DORMA apart as the market leader in drive and control systems for doors. The ES 200 corresponds to all the latest European and German standards and safety regulations.

### **Delivery formats**

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

### **Accessories**

DORMA furthermore provides program switches, activators and door profiles all perfectly matched to the operator as ideal complementary components.



### Features and benefits

- Modular, flexible system
- With DORMA PowerDrive:
   Dynamic driving phase control for particularly powerful operation and with emergency power backup in the form of a rechargeable battery pack
- Industrially prefabricated and tested *MiniDriveUnit*
- Modular control system upgradeable with additional function modules
- Integrated DCW (DORMA Connect and Work) bus system for easy integration of DORMA DCW sensors and activators

- Easy commissioning via the integrated display
- May be combined with all customary door profiles
- Fully comprehensive range of accessories
- Reliable investment due to compliance with all relevant European and German standards



Door parameters	ES 200
Single-panel sliding door  – Clear passage width LW  – Door panel weight, max.	700 – 3000 mm 1 x 200 kg
Double-panel sliding door  - Clear passage width LW  - Door panel weight, max.	800 – 3000 mm 2 x 160 kg

Technical data of operator	
Height	100 and 150 mm
Installation depth	180 mm
Opening and closing force, max. 150 N	•
Opening speed (incremental setting)	10 - 70 cm/s
Closing speed (incremental setting)	10 - 50 cm/s
Hold-open time	0 – 180 sec.
Supply voltage, frequency	230 V, 50/60 Hz
Power consumption	250 W
Class of protection	IP 20
Compliant with EU Low Voltage Directive and EMC Directive	•
Manufactured to ISO 9001:2000	•

Basic module (BM)	
Modular design	•
Microprocessor-controlled function programs  Off  Automatic  Permanent Open  Partial Open  Exit Only  Night-/Bank Function	•
Connections for  - electro-mechanical locking device  - light barriers	•
Adjustment of all basic parameters via integrated display and pushbuttons	•
24 V output for external accessory	•
Read-out error memory with error codes	•
DCW bus interface	•
Rechargeable battery pack for emergency operation	•

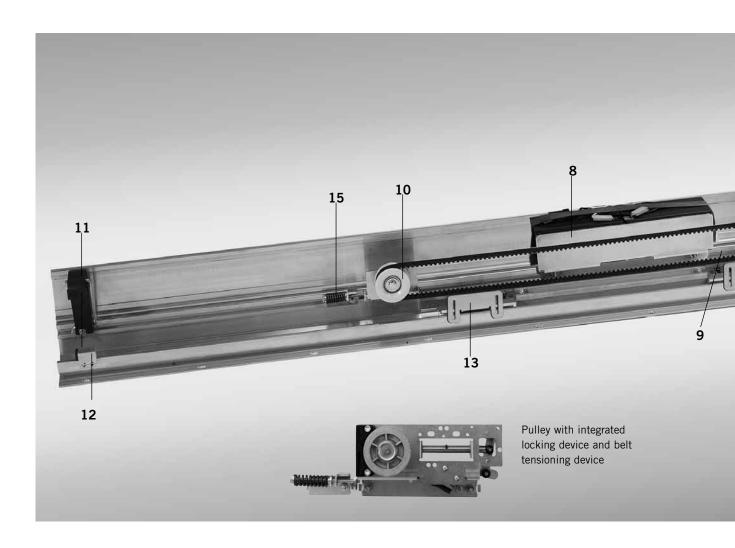
Function module (FM) – optional extra	
Pharmacy Function	•
Door status contact (three)	•
Main and secondary closing edge protection	•
Panic Closing Function	•
Bell contact	•
Airlock control	•
Synchronous operation	•

DIN 18650 function module – optional	
The DIN 18650 function module* enables the tested monitoring of the secondary closing edges in order to comply with the German standard DIN 18650.	0

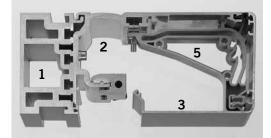
Additional equipment	
Electro-mechanical locking device (bistable)	0
Manual lock release for electro-mechanical locking device	0
Light barriers	0
Rechargeable battery pack (emergency opening, emergency closing)	0
Module for coupling to EIB or LON building management systems*	0

<sup>\*</sup> Please ask your Sales Consultant for series start date.

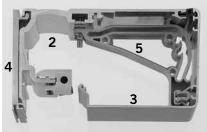
- standard
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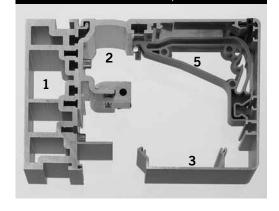
Profiles for wall installation, 100 mm



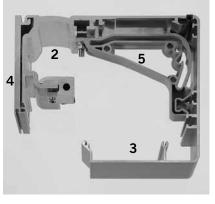
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Our profiles for installation heights of 100 mm and 150 mm, which are suitable for both corridor or wall installation, make the system suitable for all kinds of applications. The basic mechanical system, with a low number of components, is the same for both installation heights.

### Profiles for corridor installation, 150 mm

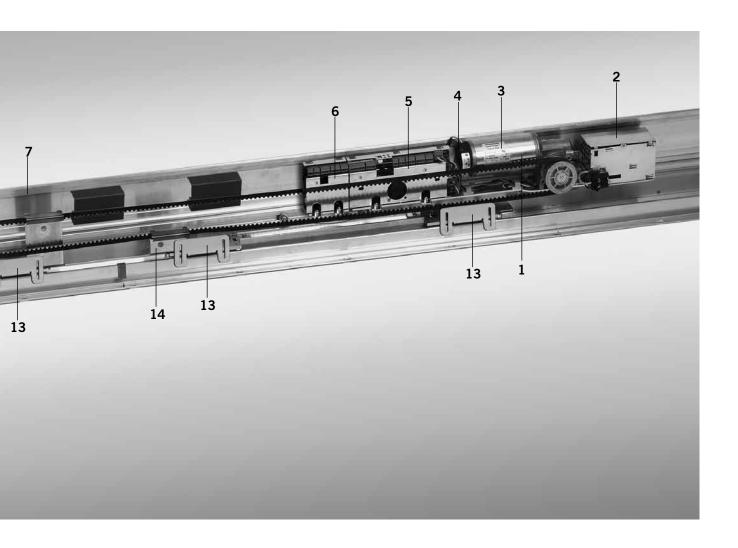


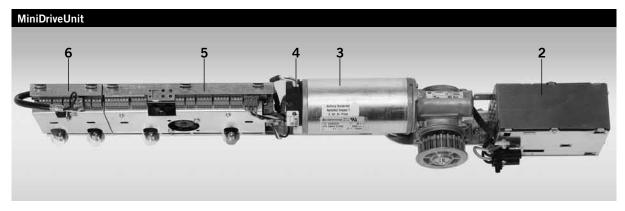
Profiles for wall installation, 150 mm



- 1 Aluminium girder (LM)
- 2 Basic operator profile
- **3** Internal cover, 100 mm or 150 mm high
- 4 Wall connection profile
- **5** Service cover bracket







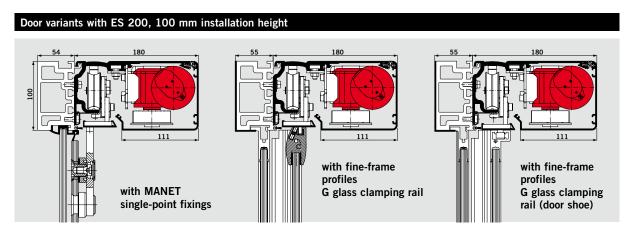
At the core of the **ES 200**: the prefabricated *MiniDriveUnit*. It has been industrially tested with all the requisite electrical and electronic components, thus greatly facilitating the assembly, installation and maintenance of the operator.

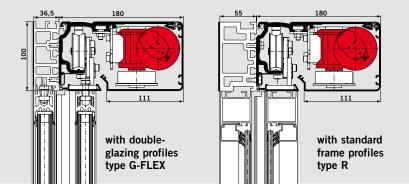
### Components

### 1 MiniDriveUnit

- 2 Power supply unit
- 3 Motor
- 4 Decoder
- 5 Basic module (BM)
- 6 Function module (FM)
- **7** Track rail and mounting profile
- **8** Rechargeable battery pack (optional)
- 9 Carrier head
- 10 Pulley (locking device)
- 11 Service cover bracket
- 12 End stop
- 13 Door connection with adjustment device
- 14 Belt connection
- 15 Belt tensioning device

### ES 200 - the professional operator for individual door design





with double-

glazing profiles

DORMA *PowerDrive* System for particularly punchy performance

The door variants on this page are shown as corridor installation with aluminium girder (LM).
See page 5 for profiles for wall installation.

with thermo

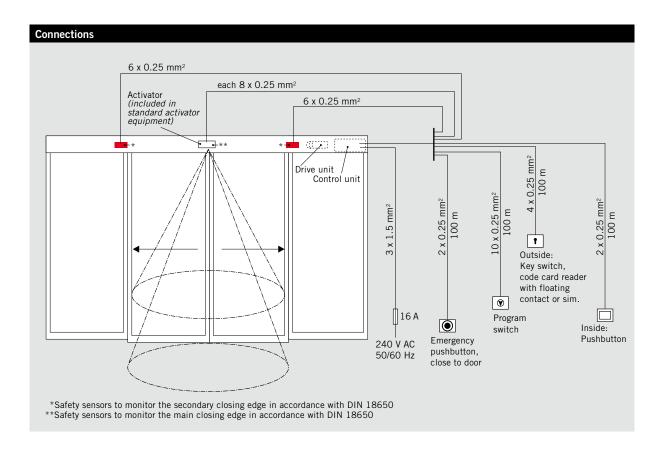
profiles

# Door variants with ES 200, 150 mm installation height and special "profile" version with fine-frame profiles G glass clamping rail single-point fixings glass clamping rail single-point fixings

with standard

frame profiles





### **Program switch**

When combining the system with a program switch out of the DORMA accessory range, the automatic door system even meets individual requirements and offers easy handling.

These program switches are available in various designs have been conceived for all kinds of demands.

Furthermore 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.

- Up to 5 different functions: Off, Automatic,
   Exit Only, Partial Open,
   Permanent Open
- Electronic program switches in System 55 design to cope with the highest aesthetic demands

### Program switches for sliding door operators

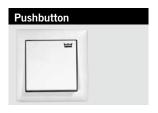
Program switche	s
bonns	PG-S1
HH 2 ● 2 HH	
inent	PG-S2
는 <sup>™</sup> 와 단 와 당	
No.	EPS-S

Program switches for sliding door operators			
Designation	Specification	Installation system	Order No.
PG-S1	5-position, aluminium, white, flush-mounting, 80 x 80 x 40 mm	Gira S-Color	19135401150
PG-S2	5-position, lockable, aluminium, white, flush-mounting, 80 x 80 x 40 mm	Gira S-Color	19135602150
EPS-S	Full-electronic program switch in System 55 design, 5-position, lockable via code or additional key switch TL-ST S55, membrane keypad, aluminium-coloured, white, flush-mounting, 80 x 80 mm	System 55	16556901150
For header installation** PS-FST3	5-position, lockable, also suitable for FST systems		25006014150

<sup>\*\*</sup> no illustration

### **Pushbuttons**

### Pushbuttons



Designation	Specification	Installation system	Order No.
Pushbutton	Single-pole changeover contact, standard frame, white, flush-mounting	System 55	19144701170

### Key switches

## Key switch KT 3-1 AP/UP

Designation	Specification	Order No.
KT 3-1	1 NO contact, with Euro profile half-cylinder (may be replaced by any half-cylinder of a master-key system), key only retract neutral position, aluminium, metal, 75 x 75 x 60 mm	
KT 3-1 UP	flush-mounting	05054531332
KT 3-1 AP	surface-mounting	05054631332

Key switch TL-ST out of our STA product range

# Key switch TL-ST S55

Designation	Specification	Installation system	Order No.
TL-ST S55	Switch with single-pole changeover contact, for Euro profile half-cylinder by others to DIN 18252, locking cam centre 30 – 32.5 mm, overall length 40.5 – 43.5 mm, Locking cam position left (90°), incl. cover for System 55, not suitable for box for surface-mounting, without Euro profile half-cylinder, without frame		
TL-ST S55 W	white	System 55	56330710
TL-ST S55 S	silver	System 55	56330701
TL-ST S55 A	anthracite	System 55	56330715

### **Switches**

### Switches



Radar switch "MAGIC SWITCH", proximity-type radar switch responds to movement,	Designation	Specification	Installation system	Order No.
radar switch responds to movement,	On/Off switch	,	Gira S-Color	19135403150
for main mounting, or x or min	Radar switch			05076831332

### Key switches

	tches		
1	DOR	MA	
1	(3	1	
ı	AUS	EIN	
	_	-	
KT	3-2		

Designation	Specification	Order No.
KT 3-2	1 NO contact with Euro profile half-cylinder, may be replaced by any half-cylinder of a master-key system, key only retraction neutral position, changeable cover, lettering "Ein, Aus" (German for "On/Off"), aluminium, for flush-mounting: 125 x 100 mm, for surface-mounting: 70 x 90 mm	
KT 3-2.1*	2 changeover contacts, with Euro profile half-cylinder, replated half-cylinder of a master-key system, key only retractable in lettering "Ein, Aus" (German for "On/Off"), aluminium, for 125 x 100 mm, for surface mounting: 70 x 90 mm	neutral position,

<sup>\*</sup>no illustration



### **Emergency pushbuttons**



### Designation Specification Installation system Order No. To interrupt the automatic movement of the door. Emergency pushbutton (Function: Emergency Off) for automatic door operators. Manufactured according to ZH 1/494 (German Guidelines for power-operated windows, doors and gates) and BGR 232 (German Employer's Liability Insurance Association Rule) as well as DIN 18650 (German Industrial Standard). Red knob with yellow centre insert. Maximum load current: 10 A at 230 V AC. NAT 1 NO contact: 1, NC contact: 1, white frame, 90400025 flush-mounting, 80 x 80 mm System 55 **NAT 2\*** Function: "Emergency Open" with green knob, NO contact: 1, NC contact: 1, Maximum load current: 10 A at 230 V AC, white frame, flush-mounting, 80 x 80 mm System 55 90400035 Highly-illuminated emergency pushbutton environment with visual locking status indication, optical and acoustic alarm via yellow flashlight and integrated alarm siren, sabotage-proof, behind glass, without frame **TL-N S55** NO contact: 1, NC contact: 1, Maximum load current: 1 A at 24 V DC, flush-mounting, 80 x 80 mm System 55 56330500 **NAT 3\*** Behind glass, NO contact: 1, NC contact: 1 flush-mounting, 120 x 87 mm 90400023 NAT 4 NO contact: 1, NC contact: 1, surface-mounting, 68 x 68 mm 05027031332

### Infrared detectors

These detectors are designed to safeguard automatic doors by detecting moving people or objects

### Light barriers

\* no illustration



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Designation	Designation Specification	
	To safeguard the passage area of sliding doors by detecting the presence of people and objects	
LB 03	Counter light barrier comprising transmitter and receiver	05102331332

### Active infrared detector

Active infrared detector			
Боем			
AIR 30/31			
AIR 30-H/31			

ACTIVE	iiiiiaicu	uctcctoi	
Design	nation	Specification	Order No.
		Active infrared system to safeguard the passage area and the secondary closing edges of sliding doors. Designed to detect the presence of people and objects	
AIR 3	0/31	Including background evaluation, black	16503601170
AIR 3	0-H/31	Including background suppression, black	16503701170
WH 3	0	Rain protection cover, black	16500901170
Crystal	Drocon	<b>^</b>	

Crystal Presence				
	1 1			
Crystal Pres	ence			
System for mounting	ceiling			

Crystal Presence		
Designation	Specification	Order No.
	<ul><li>For improved protection of passage areas and secondary closing edges of sliding doors</li><li>Designed to detect the presence of people and objects</li></ul>	
Crystal Presence	Presence detection curtain for improved protection thanks to exactly adjustable detection range, black	16504301170
System for ceiling mounting	for Crystal Presence, white	05094731332

### **Infrared detectors**

### Combined sensors



Designation	Specification	Order No.		
To activate (open) and protect automatic sliding doors. This system is designed to substitute light barriers with the aid of an integrated of anintegrated active infrared function. This combined sensor opens sliding doors via radar and protects the main and secondary closing edges via an active infrared system.  Activ8.2 Direction recognition, black 16518				
Activ8.3-N	Direction recognition, self-monitoring, suitable for application on FST doors (fire and smoke doors), black	16555001170		
Jupiter	Direction recognition with cross-traffic suppression, black	16563201170		
Jupiter SE	Direction recognition with cross-traffic suppression, self-monitoring, suitable for application on FST doors (fire and smoke doors), black	16563301170		

### Radar motion detectors



Designation	Spezification	Colour	Order No.
what kind of The DORMA for the difference level of user	ndliness of automatic doors depends a lot on activator is used and its construction. sensor range combines the flexibility that is required ent fields of application with reliability and the higher friendliness. Furthermore it effectively detects moving jects in order to activate (open) automatic doors.	est	
Standard mo	tion detectors		
Eagle 2	Standard	black	16503201170
		white	16503203170
		silver	16507502170
Merkur M	Standard	black	16537501170
Direction rec	etors with direction recognition ognition for perfectly controlled opening and closing Direction recognition	cycles. black	16503101170
Direction rec	ognition for perfectly controlled opening and closing		16503101170 16503103170 16503102170
Direction reco	ognition for perfectly controlled opening and closing	black white silver	16503103170
Direction reco Eagle 1 Merkur Merkur SE/R	ognition for perfectly controlled opening and closing Direction recognition	black white silver	16503103170 16503102170
Direction reco Eagle 1 Merkur Merkur SE/R	ognition for perfectly controlled opening and closing Direction recognition  Cross-traffic suppression with direction recognition  Self-monitoring, direction recognition with	black white silver black	16503103170 16503102170 16532201170
Direction reco Eagle 1 Merkur Merkur SE/R	ognition for perfectly controlled opening and closing Direction recognition  Cross-traffic suppression with direction recognition  Self-monitoring, direction recognition with cross traffic suppression	black white silver black	16503103170 16503102170 16532201170 16532201170
Direction reco Eagle 1 Merkur Merkur SE/R	ognition for perfectly controlled opening and closing Direction recognition  Cross-traffic suppression with direction recognition  Self-monitoring, direction recognition with cross traffic suppression  or Eagle detectors  System for ceiling mounting  Rain protection cover	black white silver black black white	16503103170 16503102170 16532201170 16532201170
Direction reco Eagle 1 Merkur Merkur SE/R	ognition for perfectly controlled opening and closing Direction recognition  Cross-traffic suppression with direction recognition  Self-monitoring, direction recognition with cross traffic suppression  or Eagle detectors  System for ceiling mounting  Rain protection cover  Infrared remote control to adjust all	black white silver black black white transparent	16503103170 16503102170 16532201170 16532201170 16502901170 05090731332
Direction reco Eagle 1 Merkur Merkur SE/R	ognition for perfectly controlled opening and closing Direction recognition  Cross-traffic suppression with direction recognition  Self-monitoring, direction recognition with cross traffic suppression  or Eagle detectors  System for ceiling mounting  Rain protection cover	black white silver black black white	16503103170 16503102170 16532201170 16532201170 16502901170 05090731332
Direction reco Eagle 1 Merkur Merkur SE/R	ognition for perfectly controlled opening and closing Direction recognition  Cross-traffic suppression with direction recognition  Self-monitoring, direction recognition with cross traffic suppression  or Eagle detectors  System for ceiling mounting  Rain protection cover  Infrared remote control to adjust all radar motion detectors	black white silver black black white transparent black	16503103170 16503102170 16532201170 16532201170 16502901170



### **DORMA AutoSwitch transponder**



Designation	Specification	Order No.
control unit as soon a approx. 2.5 m. This s operation of the system	nder system. The transponder sends a pulse to the as it enters the receiver range, which amounts to system is especially suitable for areas where a manual em is to be excluded. Thanks to its range it is the I system for doors used by wheelchair drivers.	
DORMA AutoSwitch	Receiver/control unit, surface-mounted version, white	16571101175
	Programming-(Transponder-) key, yellow	16571201175
	Standard-(Transponder-) key, blue	16571301175

### Frames and boxes for surface-mounted pushbuttons and switches



Designation	Specification	All dimensions in mm (W x H x D)	Installation system	Order No.
System 55 FR-S55 1 FR-S55 2 FR-S55 3	Cover frame (STA range) Single-type frame, Standard 55, white Double-type frame, Standard 55, white Triple-type frame, Standard 55, white	151.8 x 80.7	System 55	56391210
FR-E2W 1 FR-E2W 2 FR-E2W 3	Single-type frame, E2 55, white Double-type frame, E2 55, white Triple-type frame, E2 55, white	80.8 x 80.8 151.9 x 80.8 223.4 x 80.8	System 55	56392110 56392210 56392310
FR-E2S 1 FR-E2S 2 FR-E2S 3	Single-type frame, E2 55, silver Double-type frame, E2 55, silver Triple-type frame, E2 55, silver	80.8 x 80.8 151.9 x 80.8 223.4 x 80.8	System 55	56392201
FR-E2A 1 FR-E2A 2 FR-E2A 3	Single-type frame, E2 55, anthracite Double-type frame, E2 55, anthracite Triple-type frame, E2 55, anthracite	80.8 x 80.8 151.9 x 80.8 223.4 x 80.8	System 55	56392115 56392215 56392315

Please see STA price list for further frames and versions.

Designation	Specification	All dimensions in mm (W x H x D)	Installation system	Order No.	
System 55	Boxes for surface-mounting for Standard 55 frames				
ST-AP 55-1* ST-AP 55-2*	Single-type frame, pure white, RAL 9010 Double-type frame,	81.0 x 52.5 x 44.5	System 55	515853332	
ST-AP 55-3*	,	152.0 x 81.0 x 44.5	System 55	515863332	
31-Ai 33-3	pure white RAL 9010	224.0 x 81.0 x 44.5	System 55	515873332	
Box for surface- mounting	For mechanical program switch PG-FST2 with Euro profile half-cylinder Single-type frame, white	100 x 80 x 65	Deutsche Solenoid	19142201170	

<sup>\*</sup> no illustration

052





**Door Control** 



**Automatic** 



Glass Fittings and Accessories



Security/Time and Access (STA)



Movable Walls

### Region China

DORMA GmbH + Co. KG Hong Kong

DORMA Platz 1 D-58256 Ennepetal Phone +49 2333/793-0 Fax +49 2333/793-495

### Division Automatic worldwide

### Region Australasia

Australia DORMA Automatics Pty. Ltd. Phone +61 3 8795 0666 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 Subsidiary Automatic Phone +49 2333 793-216 www.dorma.de

Netherlands DORMA 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

DORMA Representation Greece Phone: +30 21 09944388 www.dorma.com

India DORMA Door Controls India Pvt. Ltd. Phone +91 44 28585097 www.dorma.com

DORMA GmbH + Co. KG Phone +49 2333 793-0 www.dorma.com

DORMA Polska sp. z o.o. Phone +48 22 7365900 www.dorma.pl

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

Ukraine DORMA Sales Representative Vasyl Stuchylin Phone +38 44 5183526 www.dorma.com

China DORMA China Ltd. Phone +86512 67612481 www.dorma.com.sg

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

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 Kingdom of Saudi Arabia Phone +9663 847 2394

United Arab Emirates DORMA Gulf Door Controls 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. Phone +52 55 5272-6937 www.dorma.com

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

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

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

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

### Region UK/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

