

Economy  
Sliding Door Operator

# DORMA ES 90-EC

## High quality, low price

With its ES 90-EC, DORMA is able to offer a particularly low-cost sliding door operator based on the mechanism and design of the proven DORMA ES 90.



The DORMA ES 90-EC is ideally suited to a wide range of applications and can be combined with all common door frame profiles. It offers a range of adjustment possibilities, exhibits exceptional operating capabilities and is easy to maintain.

The self-learning micro-processor control system ensures reliable, smooth

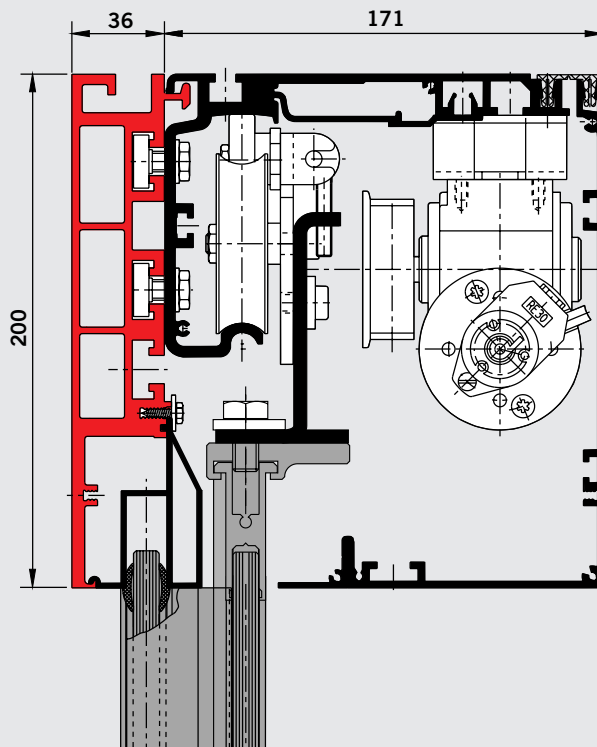
operation as well as fulfilling high safety and reliability requirements. The settings of the basic parameters can be quickly and easily adjusted by potentiometer and DIL switch.

As an ideal complement, DORMA is also able to supply program switches, activators and a range of door profiles matched to the requirements of this operator.

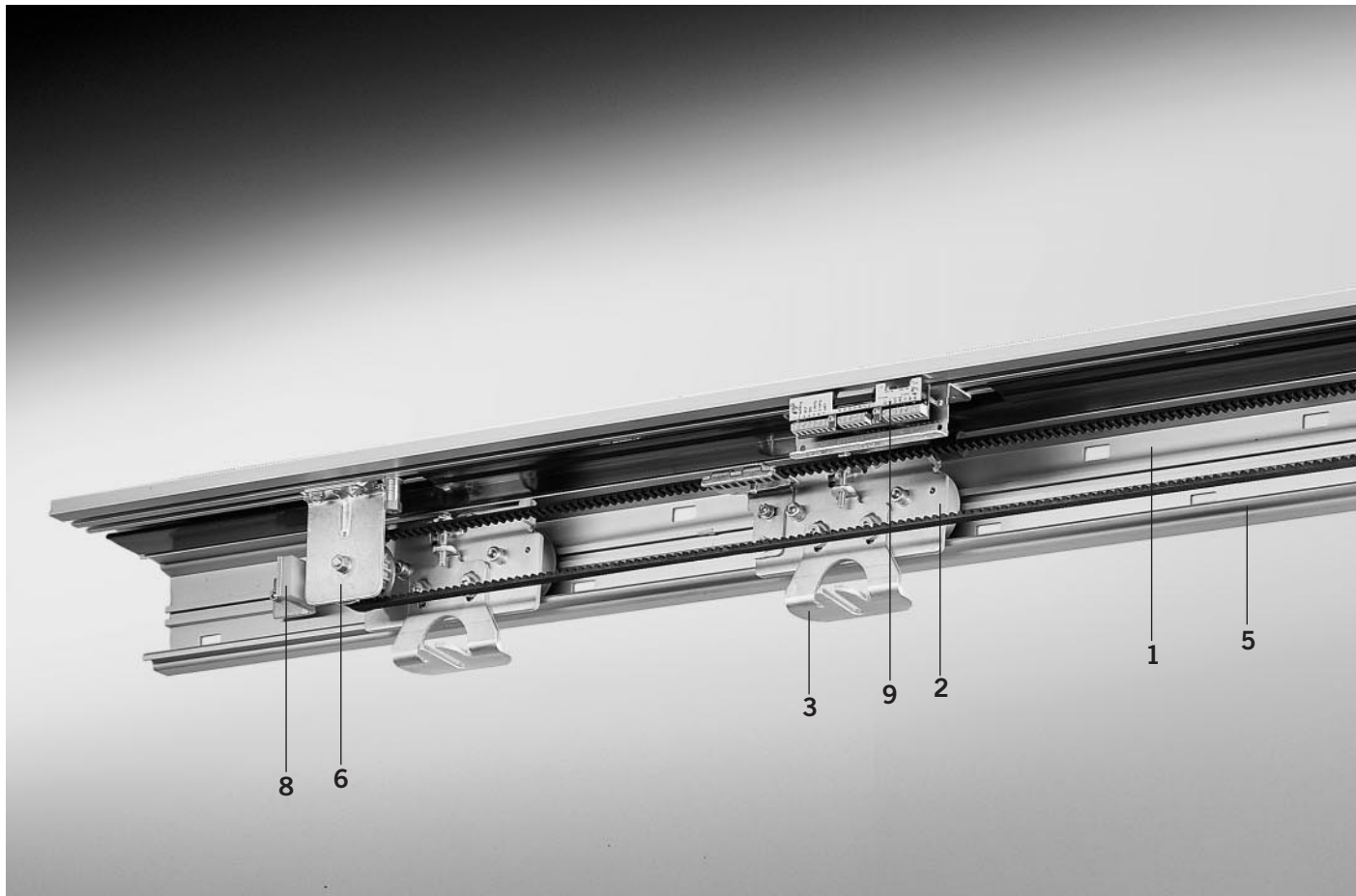
### Features and benefits

- Suitable for use with all common door frame profiles
- Easy to install and commission
- Problem-free adaptability to individual requirements
- Reliable function and high safety standard
- Smooth operation
- Numerous standard connections available
- Fully comprehensive range of program switches, activators and door frame profiles

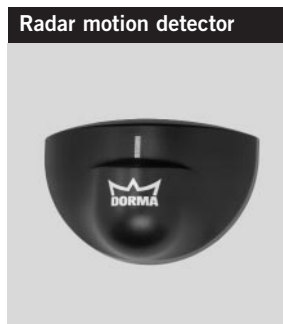
### Design and dimensions



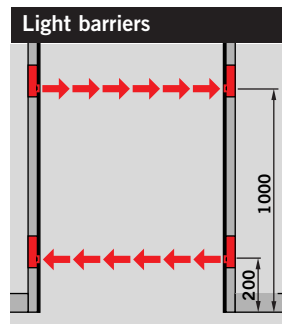
- Other fixing possibilities:
- MSH girder
  - Direct fixing



- Internal/external installation
- Concealed or surface-mounted
- Lockable/Rotary knob
- Suitable for standard flush-type boxes
- Can be integrated with an emergency-stop switch in frame
- Key switch/Concealed or surface-mounted switches



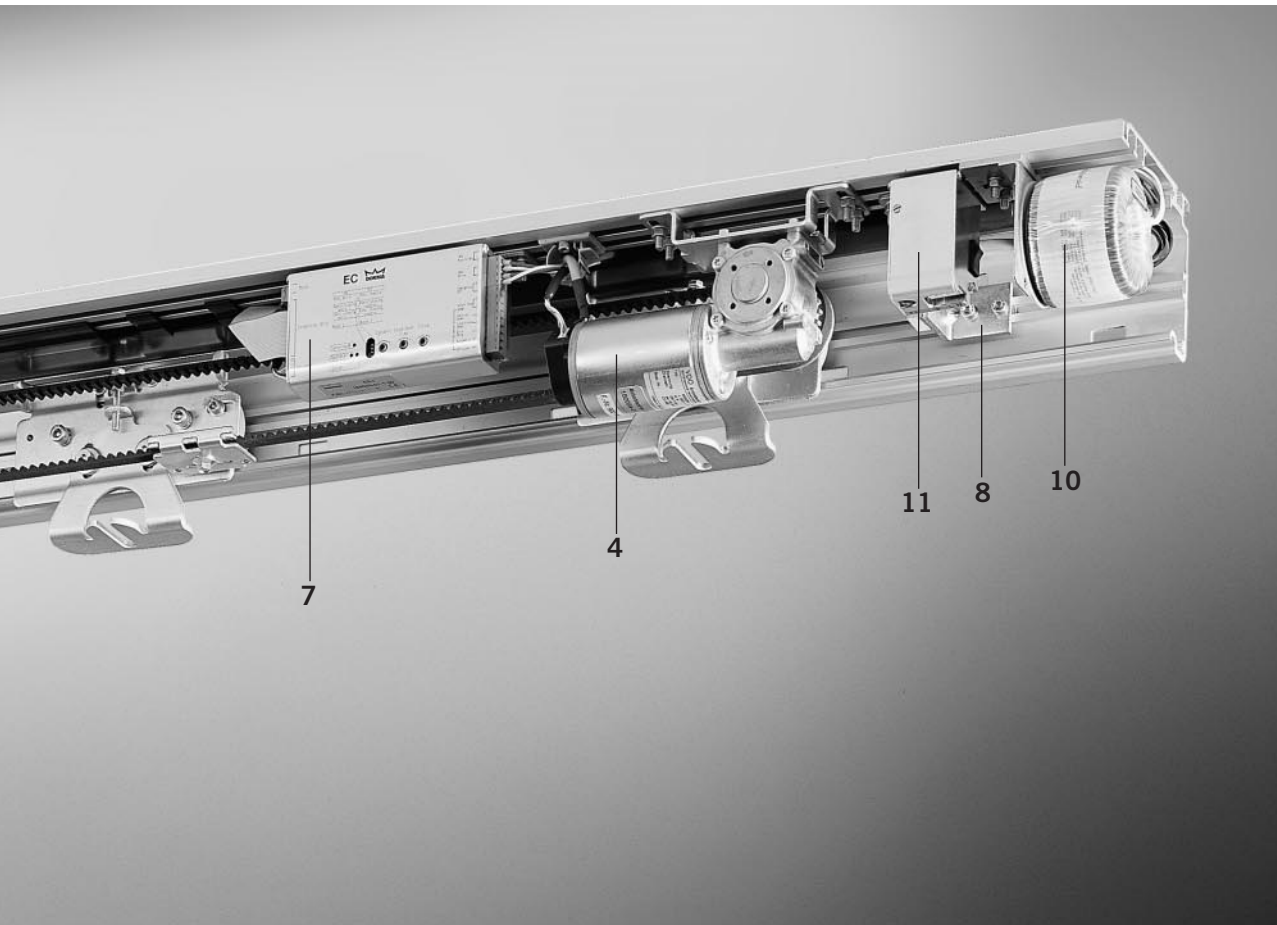
- Eagle system
- Directionally sensitive
- Non-directionally sensitive (standard model)
- Radar detectors in any combination
- No official licence fees (in most countries)
- No effect on pacemakers
  - very low output of just approx. 2 mW



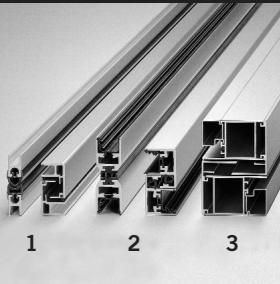
- AIR principle
- Additional protection of the closing range; photocells installed at heights of 200 and 1000 mm above FFL



- Concealed and surface-mounted
- Stainless steel finishes
- Water-resistant models
- Keypads for access control systems
- Pushbuttons/Switches

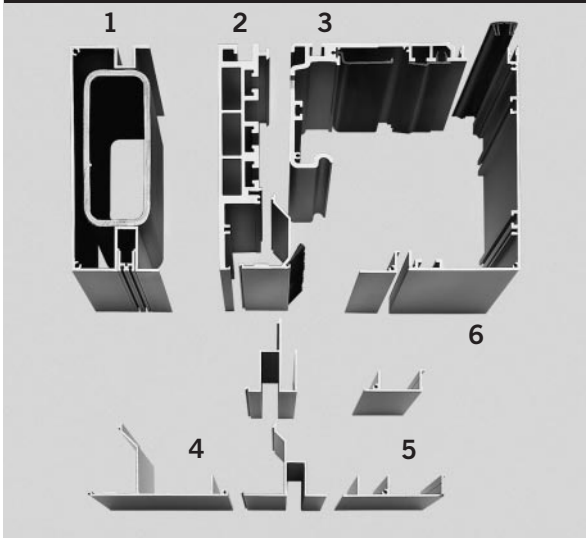


**Door frame profiles**



- 1 S 90 slimline (toughened glass) profile system
- 2 G-Iso double glazing profile system
- 3 R 91 standard frame profile system

**Special profiles**



- 1 MSH steel girder with cover
- 2 LM (aluminium) girder
- 3 DORMA ES 90 profile
- 4 LM girder cover extrusion
- 5 Adapter profiles for internal cover
- 6 Internal cover

**Components**

- 1 Track and mounting profile
- 2 Carrier head
- 3 Door bracket with adjustable fixture
- 4 Motor with decoder
- 5 Track rail
- 6 Return pulley
- 7 Control module
- 8 Door stop
- 9 Link PCB
- 10 Transformer
- 11 Power connection unit

Door parameters	DORMA ES 90-EC
Single-leaf sliding door	
– Clear passage width LW	700 – 1400 mm
– Door leaf weight, max.	1 x 100 kg
Double-leaf sliding door	
– Clear passage width LW	800 – 2000 mm
– Door leaf weight, max.	2 x 85 kg

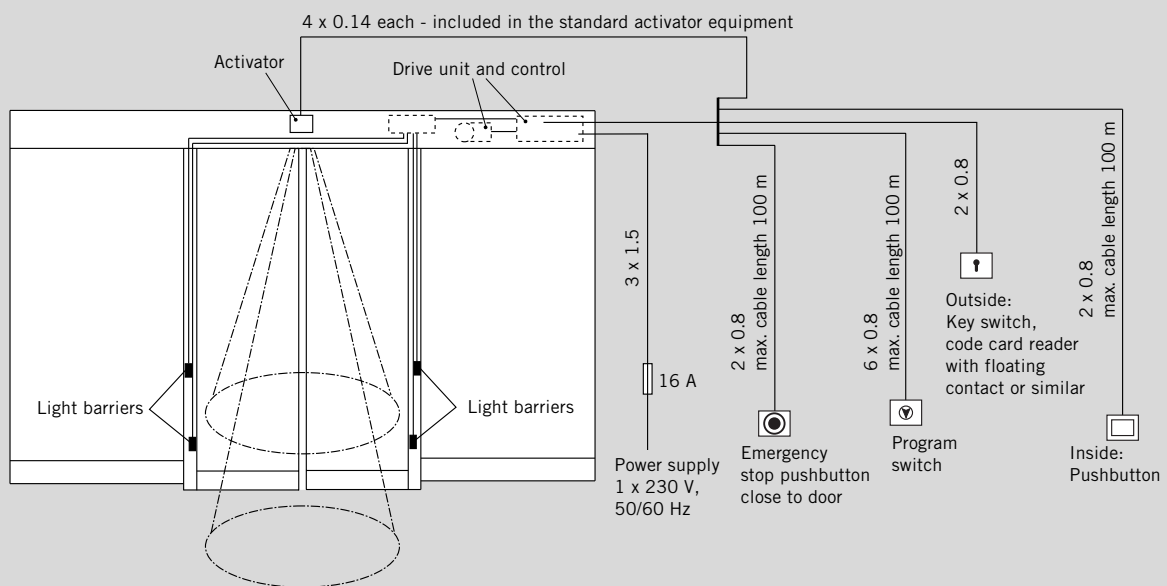
Technical data	
Height	200 mm
Structural depth	171 mm
Adjustable opening and closing force	max. 150 N
Adjustable opening and closing speed	30 – 50 cm/s
Power supply data	230 V, 50/60 Hz
Power consumption	180 W
Degree of protection	IP 20
Type approved (German technical inspectorate TÜV)	●
Tested and approved in accordance with low voltage directives (CE)	●
Quality-assured manufacture to ISO 9000	●

- standard
- optional

Control module	
Microprocessor control	●
Function programs	
– Off	●
– Automatic	●
– Permanent open	●
– Partial opening	●
– Exit only	●
– Night-bank facility	●
Connection for emergency stop	●
Self-learning	●
Automatic reversal	●
Connection for panic closing (comply with local regulations)	●
Opens when de-energised (with optional battery pack)	○
Closes when de-energised (with optional battery pack)	○
Connection for bistable electro-mechanical lock	●
Connection for light barriers (max. 2 pairs)	●
Adjustment of the basic parameters by potentiometer and DIL switch	●
Module for connection to EIB building control system	○

Accessories	
Electro-mechanical hook lock (bistable)	○
Manual unlocking device for electro-mechanical lock	○
Light barriers (3-wire)	○
Battery pack (reachable)	○
Emergency power module (UPS)	○

## Connections



### Specification text

#### Automatic sliding door operator for

single-leaf door                       double-leaf door

Dimensions (H x D): 200 x 171 mm.

Microprocessor control, self-learning, with automatic reversal on contact with an obstruction. Panic closing facility (ensure compliance with local regulations).

#### Clear passage width:

Single leaf 700 – 1400 mm

Double leaf 800 – 2000 mm

#### Door weight:

Single leaf max. 1 x 100 kg

Double leaf max. 2 x 85 kg

#### Function programs:

Off; Automatic; Permanent open; Exit only; Partial open; Night-bank control; Emergency stop. Basic parameters of the door adjustable via potentiometer. Choice between battery powered opening or closing in the event of a power failure (battery pack option required for both).

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

#### Power supply:

230 V, 50/60 Hz

#### Switches and pushbuttons:

Program switch installation:

external, concealed    external, surface    internal  
 lockable

Emergency stop pushbutton installation:

external, concealed    external, surface    internal  
 double box, external (Program switch combined with emergency stop)

#### Accessories:

Battery pack installed in transom for opening or closing on power failure

#### Activators:

Radar detection systems VGO 37 CD/87 CD

Directionally sensitive .....units

Non-directionally sensitive ..... units

Other .....units

Light barriers comprising receiver and transmitter (3-wire system) ..... units

#### Locking system:

Electro-mechanical hook lock, bistable

Door status signal, lock status signal

Manual unlocking

#### Finish for aluminium parts:

silver anodised (Eloxal E6/C0)

dark-brown anodised (Eloxal E6/C34)

RAL .....

#### Operator dimensions:

Total length B ..... mm

Clear passage width LW ..... mm

#### Make:

DORMA ES 90-EC