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ES PRO Easy Automatic sliding door operators

dormakaba

Technical Product Brochure



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ES PRO Easy The new generation of sliding door operators – powerful, quick and networked.

The new ES PRO Easy drive system for automatic sliding doors is the ideal solution in almost all applications and areas of use. It features many enhanced functions and attributes compared to the previous drive system. The modular structure of the system enables it to be used classic sliding doors and telescopic sliding doors.

The ES PRO Easy is a sound investment for the future. This drive system addresses current topical issues such as sustainability and digitisation. The ES PRO Easy also complies with the current European and German standards and safety regulations DIN 18650 and EN 16005.





Powerful

The ES PRO Easy is equipped with modern dormakaba Direct Drive motor technology for the dynamic opening and closing of sliding doors. The ES 250 PRO Easy drive model can be used for door leaves with a weight of up to 2 x 125 kg.



Durable Verified dormakaba quality is the

goal of the ES PRO Easy. This drive system successfully passed tests involving **1.5 million opening and closing cycles**. This extends the service life of doors by 50%.



Quick

The ES PRO Easy opens and closes automatic sliding doors swiftly. This ensures a smooth flow of users even in areas with a high volume of traffic. It also contributes to reducing energy losses caused by open doors.



ES PRO Easy for telescopic sliding door systems TST



Modular

The adaptable ES PRO Easy can be used to satisfy varying requirements for automatic sliding doors.

The modular kit can be universally combined with standard doors, escape route doors and telescopic sliding doors. Converting existing systems (dormakaba ES 200 and ES 200 Easy Plus) is quite straightforward.

ES PRO Easy

For standard sliding doors with door leaves weighing up to 2 ${\rm x}$ 125 kg.





Sustainable

The ES PRO Easy modular system is economical and utilises dormakaba Direct Drive motor technology. In addition, the packaging material is 100% recyclable.

∢》

Quiet

Its gearless motor means that the ES PRO Easy opens and closes sliding doors extremely quietly.

Making it ideal for use in applications particularly sensitive to noise.



Connected

The ES PRO Easy drive can be equipped with a module that enables it to be controlled by an app. The app also provides useful additional information and a direct link to dormakaba Service.

ES PRO Easy Data and features

| | | ES 250 PRO EASY ES 250 PRO T |
|---|-------------------------------------|------------------------------------|
| Control module | | EASY |
| Modular design | | • |
| | – Off | • |
| Function programs | – Automatic | • |
| | – Permanent open – Partial open | • |
| | – Exit | • |
| Automatic reversing | | ٠ |
| Connection for securing | g the passageway (on both sides) | • |
| Tested in accordance w | ith EN 16005/DIN 18650 | • |
| Securing main and secc EN 16005/DIN 18650 | ondary closing edge(s) according to | ٠ |
| Basic parameters set us | sing integrated display and buttons | • |
| Parameterisation via Operator Service Interface (OSI) | | ٠ |
| Door Pilot interface (Bluetooth) | | 0 |
| Automatic opening/closing in the event of a power failure | | ●/● |
| Battery set | | • |
| 24 V DC output for acce | essories | • |
| Readable fault memory with fault codes | | ٠ |
| CAN interface for connecting a program switch | | • |
| Multiports for connecting accessory components | | 2 |
| Door status signal contacts | | • |
| Night/bank function | | • |
| Emergency open | | • |
| Configurable partial opening distance | | • |

| ES 250 PRO EASY ES 250 PRO T EASY |
|--------------------------------------|
| |
| 0 |
| 0 |
| 0 |
| 0 |
| |

ullet as standard $\,\, \odot \,\, optional$



Sliding door operators



The innovative ES PRO Easy sliding door drive system can be used for classic single-leaf or double-leaf sliding door applications without a hitch. suitable for use on escape route and emergency exit doors.

System dimensions and max. door leaf weight

| | 1-leaf | 2-leaf |
|----------------------------|--|-----------------|
| Door parameters | ES 250 PRO EASY | ES 250 PRO EASY |
| Max. door leaf weight | 1 x 125 kg | 2 x 125 kg |
| Clear passage width LW* | 700 – 3000 mm | 800 – 3000 mm |
| Clear passage height LH | 2000 – 3000 mm | 2000 – 3000 mm |
| Estimated door leaf weight | | |
| Door leaf weight | LH [m] x LW [m] x weight of glass [kg/m²] Number of door leaves | |

Normal glass weights: 10 mm glass thickness e.g. toughened safety glass 10: 25 kg/m², 12 mm glass thickness e.g. double glazing 22, 2 x laminated safety glass 6: 30 kg/m²

*The minimum clear passage width for escape route sliding doors is specified in the relevant regional building codes and may vary. The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the selected profile system.



Battery
Door Pilot interface
Drive unit
Power supply unit



Technical data

| | Standard Sliding door | | |
|--|---------------------------|--|--|
| Door parameters | ES 250 PRO EASY | | |
| Min. operator length | 2 LW | | |
| Operator depth in mm | 180 | | |
| Operator height in mm | 100 | | |
| Use in escape routes and emergency exits | - | | |
| Force limitation in accordance with EN 16005/DIN 18650 | • | | |
| Operating noise | <47 dB(A) | | |
| Settings | | | |
| Opening speed (adjustable in increments) | 10 – 70 cm/s | | |
| Closing speed (adjustable in increments) | 10 – 70 cm/s | | |
| Low speed OPEN | - | | |
| Low speed CLOSE | - | | |
| Hold-open time, night/bank hold-open time | 0 – 180 s | | |
| Night/bank opening delay | - | | |
| Partial opening | 25 – 300 cm | | |
| Low-speed travel OPEN/CLOSE | 0 – 30 cm | | |
| Power supply | | | |
| Supply voltage | 230 V, 50/60 Hz | | |
| Power consumption | 130 W | | |
| On-site line fuse | 10 A | | |
| Degree of protection | IP 20 | | |
| Power supply for peripheral equipment under network conditions | 27 V DC/1A | | |
| Power supply for peripheral equipment in the event of a power failure (battery operation) | Optional 21–27 V DC/1A | | |
| Temperature range | -20 – + 60 °C | | |
| Permissible air humidity (relative) (non-condensing) | max. 93 % | | |
| Standardisation and testing | | | |
| Compliant with the Low Voltage Directive and the EMC Directive | • | | |
| Monitoring of secondary closing edges verified to fulfil German standard DIN 18650 and EN 16005. | • | | |
| Manufactured to ISO 9001 | • | | |
| Environmental product declaration according to ISO 14025; declaration holder: Institut Bauen und Umwelt e.V. | • | | |

Header profiles

Profiles for 100 mm and 150 mm drive heights, for corridor or wall installation, enable the system to be adapted to all conceivable areas of application. The basic mechanical system has a low number of components and is the same for both drive heights.

Profiles for corridor installation: 100 mm



Profiles for corridor installation: 150 mm



Profiles for wall installation: 100 mm



Profiles for wall installation: 150 mm



- 01 Aluminium girder
- 02 Mounting profile
- 03 Header profile
- **04** Internal casing for 100 mm drive height
- **05** Internal casing for
- 150 mm drive height **06** Cover bracket

Schematic illustration of door cross-section (operator and sliding panel)

Schematic illustration of door cross-section: wall mounted, drive height 100 mm



Schematic illustration of door crosssection: wall mounted, drive height 150 mm



Conventional technology connections



Telescopic sliding door operators



Automatic telescopic sliding door operators can be used to construct wide passageways with comparatively slim systems. And that is not the only reason they are so versatile: they can also be used for escape route and emergency exit doors with opening widths of up to 4000 mm.

System dimensions and max. door leaf weight

| | 2-leaf | 4-leaf |
|----------------------------|--|-------------------|
| Door parameters | ES 250 PRO T EASY | ES 250 PRO T EASY |
| Max. door leaf weight | 2 x 65 kg | 4 x 65 kg |
| Clear passage width LW* | 800 – 2400 mm | 1400 – 4000 mm |
| Clear passage height LH | 2000 – 3000 mm | 2000 – 3000 mm |
| Estimated door leaf weight | | |
| Door leaf weight | LH [m] x LW [m] x weight of glass [kg/m²] Number of door leaves | |

Normal glass weights: 10 mm glass thickness e.g. toughened safety glass 10: 25 kg/m², 12 mm glass thickness e.g. double glazing 22, 2 x laminated safety glass 6: 30 kg/m² A drive suspension is required from a leaf weight of 2 x 75 kg or 4 x 75 kg.

*The minimum clear passage width for escape route sliding doors is specified in the relevant regional building codes and may vary. The maximum practicable dimensions are subject to the respective door plans and door requirements and also depend on the selected profile system.



 $B \geq$ 1,5 x LW + 2 x PÜ, but at least 1,5 x LW + 100 mm

01 Battery02 Door Pilot interface03 Drive unit04 Power supply unit



Technical data

| | Standard Sliding Doo |
|---|---------------------------|
| Door parameters | ES 250 PRO T EASY |
| Vin. operator length | 1,5 LW+100 |
| Operator depth in mm | 252 |
| Operator height in mm | 100 |
| Use in escape routes and emergency exits | - |
| Force limitation in accordance with EN 16005/DIN 18650 | • |
| Operating noise | <47 dB(A) |
| Settings | |
| Opening speed (adjustable in increments) | 10 – 70 cm/s |
| Closing speed (adjustable in increments) | 10 – 70 cm/s |
| Low speed OPEN | - |
| Low speed CLOSE | - |
| Hold-open time, night/bank hold-open time | 0,5 – 30 s |
| Night/bank opening delay | - |
| Partial opening | 25 – 400 cm |
| Low-speed travel OPEN/CLOSE | 0 – 30 cm |
| Power supply | |
| Supply voltage | 230 V, 50/60 Hz |
| Power consumption | 130 W |
| On-site line fuse | 10 A |
| Degree of protection | IP 20 |
| Power supply for peripheral equipment under network conditions | 27 V DC/1A |
| Power supply for peripheral equipment in the event of a power failure (battery operation) | Optional 21–27 V DC/1A |
| Temperature range | -20 – + 60 °C |
| Permissible air humidity (relative) (non-condensing) | max. 93 % |
| Standardisation and testing | |
| Compliant with the Low Voltage Directive and the EMC Directive | • |

| Compliant with the Low Voltage Directive and the EMC Directive | • |
|--|---|
| Monitoring of secondary closing edges verified to fulfil German standard DIN 18650 and EN 16005. | • |
| Manufactured to ISO 9001 | • |
| Environmental product declaration according to ISO 14025; declaration holder: Institut Bauen und Umwelt e.V. | • |

Header profiles

Profiles for 100 mm and 150 mm installation heights, for corridor or wall installation, enable the system to be adapted to all conceivable areas of application. The basic mechanical system, with a low number of components, is the same for both installation heights.

- 01 Aluminium girder
- 02 Mounting profile
- 03 Header profile
- 04 Internal casing for 100 mm drive height
- 05 Internal casing for 150 mm drive height
- 06 Cover bracket



Schematic illustration of door cross-section (operator and sliding panel)

Schematic illustration of door cross-section: wall mounted, drive height 100 mm



Schematic illustration of door cross-section: wall mounted, drive height 150 mm



Conventional technology connections



Locking devices

dormakaba offers a range of locking device variants for the ES PRO Easy to prevent unauthorised access to buildings by opening the sliding door.

Electro-mechanical belt locking device

The self-adjusting locking device is attached directly to the drive unit of the operator. The standard lock status signal contacts increase the operational safety of the door.

The locking device function is configured ex works to be bistable; this means that the locking device status is maintained in the event of a power failure. Versions with other functions (monostable with Failsafe: opens the locking device in the event of a power failure and Failsecure: closes the locking device in the event of a power failure) are also available.



Magnetic locking device (FIA) for escape route and emergency exit doors

When using the magnetic locking device and the ES PRO easy control variant, you can lock an escape route sliding door in all automatic program switch positions, even when persons are present in the building.

The locking device system has been type-approved by the German Technical Inspectorate and does not require approval in each individual case.

This variant is suitable for all properties that are used 24 hours a day, such as self-service areas in banks, hotels, hospitals, schools, etc. Any person can leave the building safely in case of an emergency and the door provides protection against uninvited guests.



Casing variants



Standard casing

The standard casing for ES PRO Easy operators is available in two different versions (height 100 mm, 150 mm). A cover bracket is supplied as standard and allows the casing to be opened in three different positions.



Integrated casing

Integrated casing allows the ES PRO Easy operator to be elegantly concealed in suspended ceilings. The operator cover can be detached from below to allow easy access to all the components when carrying out maintenance tasks. Special accessories sets make it possible to integrate the safety sensors in the cover so that the entire height of the passage area can be used.

Additional track rail suspension

Optionally available, for instance, for particularly heavy skylight weights.





Master controller functions

A wide variety of functions can already be tapped into just using the master controller for the ES PRO Easy sliding door operators.

| Master controller | PRO EASY |
|---|----------|
| Door status signal contacts This function issues door statuses. E.g. Door open/closed/locked, System OK, Current door position. | • |
| Night/bank function Allows the connection of access controls, key switches etc. with the program switch in the "Off" position. The door unlocks – opens – closes – locks. | • |
| Emergency open | • |
| Configurable partial opening distance | • |

• Function can be implemented via the four programmable inputs and outputs.

Door Pilot App

The dormakaba Door Pilot app allows automatic doors to be easily controlled from a smartphone. Operators from the ES PRO Easy series can be equipped with the Door Pilot interface as an option. The app is available in iOS and Android versions and can be obtained from the respective app store.

Program switch functions

Use 6 different functions:

| automatic | Opens from the inside and outside – perfect for nor- mal opening hours. |
|-----------------|---|
| Partial opening | Opens from the inside and outside with reduced opening width – ideal for cold winter days. |
| Output | Opens from the inside only – ideal for use shortly before closing time. |
| Permanent Open | Door is permanently open – suitable for deliveries or ventilation. |
| Off | Door remains closed (and perhaps locked) and can only be opened by changing the program switch position or by an externally controlled impulse. |
| Open-once | For easy opening in close proximity (not possible with the program switch in the "Off" position). |
| | |

Door status signal contacts

| \checkmark | | \otimes |
|--------------|-----------------|---|
| System OK! | Service due! | Error detected, system check necessary! |
| System OK | Maintenance due | Fault detected, service due |

Customer benefits

- Complement to the program switch, convenient operation from a smartphone.
- Check functions easily without needing specialist knowledge.
- No need to incorporate into existing building network.
- Direct contact function for simplified/direct access to dormakaba Service.







Wide range of accessories from dormakaba

Program switches

When combined with a program switch from the dormakaba accessories range, the automatic door system can satisfy all kinds of individual operating requirements and is easy to use. The program switches have been designed in various versions and for a wide range of requirements. The options range from mechanical to fully electronic versions locked by your choice of profile cylinders, round cylinders or fully electronic coding.

- Up to 5 different functions: Off, automatic, exit only, partially open, permanent open
- Electronic program switches in System 55 design for the most discerning aesthetic demands

For sliding door operators without escape route and emergency exit requirements

Article no.













EPS fully electronic program switch

System 55 design, 5 positions, lockable using coding or additional TL-ST S55 key switch, membrane keypad, concealed, 80 x 80 mm

| EPS | White | 16556901150 |
|--------------------------|-------|-------------|
| EPS CAN | White | 16712501150 |
| Box for surface mounting | | 5158533332 |
| EPS CAN (44 x 50 mm) | | 16712401150 |

PG-S1 program switch

5 positions, aluminium, concealed, 80 x 80 x 40 mm

| PG-S1 | White, Gira S-Color | 19135401150 |
|--------------------------|---------------------|-------------|
| Box for surface mounting | | 5080531332 |

PG-S2 program switch

5 positions, lockable, aluminium, concealed, 80 x 80 x 40 mm

| PG-S2 | weiss, Gira S-Color | 19135602150 |
|--------------------------|---------------------|-------------|
| Box for surface mounting | | 5080531332 |









Activation switches

CleanSwitch

12,5

12,5

É

Ē

contactless radar push-button, System 55, flush-mounted, detection zone adjustable 10 - 50 cm, dimensions: 80 x 80 x 40 mm, switch insert 55 x 55 mm, colour: white

| CleanSwitch | neutral | 16737401170 |
|-------------|------------|-------------|
| | wheelchair | 16737501170 |
| | door open | 16737601170 |



Manual release switch Single-pole change-over contact, single frame, concealed, System 55

White Manual release switch

19144701170











Key switch

KT 3-1

1 NO contact with Europrofile half-cylinder in line with DIN 18252, half 30–32.5 mm, length 40.5–43.5 mm, locking cam position left (90°) (interchangeable with master-key system half-cylinder), key can only be removed in neutral position, aluminium, metal, 75 x 75 x 60 mm

| KT 3-1 UP | Concealed | 05054531332 |
|-----------|-----------------|-------------|
| KT 3-1 AP | Surface-mounted | 05054631332 |

KT 8

Labelled "Open"/"Closed", 2 NO contacts with Europrofile half-cylinder in line with DIN 18252, half 30–32.5 mm, length 40.5–43.5 mm, locking cam position left (90°) (interchangeable with master-key system half-cylinder), key can only be removed in neutral position, aluminium, metal, 75 x 75 x 60 mm

| KT 8 UP | Concealed | 05054831332 |
|---------|-----------------|-------------|
| KT 8 AP | Surface-mounted | 05054931332 |

TL-ST S55

Push button with single-pole changeover contact for on-site Europrofile halfcylinder in line with DIN 18252, half 30–32.5 mm, length 40.5–43.5 mm, locking cam position left (90°), with cover for System 55, not suitable for surfacemounted boxes, without Europrofile half-cylinder, **without frame**.

| TL-ST S55 W | White | 56330710 |
|-------------|------------|----------|
| TL-ST S55 S | Silver | 56330701 |
| TL-ST S55 A | Anthracite | 56330715 |

KT 3-2

1 NO contact with Europrofile half-cylinder, interchangeable with master-key system half cylinder, key can only be removed in neutral position, cover panel for replacement, labelled "Open"/"Closed", aluminium, concealed: 125 x 100 mm, surface-mounted: 70 x 90 mm

KT 3-2

LED touch key

Article no.

05054731332



Manual actuator with plastic frame in white, similar to RAL 9016 and traffic grey similar to RAL 7043 $\,$

| LED touch key | 16672601170 |
|---------------|-------------|
|---------------|-------------|

LED hygienic touch key

Manual actuator, tempered glass encapsulated, glass button surface, hygienic version in line with EN 1672-1/2

LED touch key

16672901170





Emergency activation buttons









TL-N S55 conventional

The area around the emergency button is brightly illuminated and has a visual display of the locking status, an acoustic and visual alarm siren, is tamperprotected under glass, without frame, one NO contact and one NC contact, concealed, 80 x 80 mm, System 55

TL-N S55 56330500

Conventional emergency switch

Emergency activation button (Emergency Off function with red knob and Emergency Open function with green knob) with yellow central plate

| NAT 1 | One NO contact and one NC contact, white frame, concealed, 80 x 80 mm, System 55 | 90400025 |
|-------|---|-------------|
| NAT 2 | Emergency Open version with green knob, white frame, concealed, 80 x 80 mm, System 55 | 90400035 |
| NAT 4 | One NO and one NC contact, surface-mounted 68 x 68 mm Concealed | 05027031332 |

Cover frame for buttons and switches

| | | Article no. |
|-------------|---|-------------|
| Standard Sy | ystem 55 | |
| FR-S55 1 | Single frame, white, 80.7 x 80.7 | 56391110 |
| FR-S55 2 | Double frame, white, 151.8 x 80.7 | 56391210 |
| FR-S55 3 | Triple frame, white, 223.3 x 80.7 | 56391310 |
| E2 System § | 55 (not shown) | |
| FR-E2W 1 | Single frame, E2 55, white, 80.8 x 80.8 | 56392110 |
| FR-E2W 2 | Double frame, E2 55, white, 151.9 x 80.8 | 56392210 |
| FR-E2W 3 | Triple frame, E2 55, white, 223.4 x 80.8 | 56392310 |
| FR-E2S 1 | Single frame, E2 55, silver, 80.8 x 80.8 | 56392101 |
| FR-E2S 2 | Double frame, E2 55, silver, 151.9 x 80.8 | 56392201 |
| FR-E2S 3 | Triple frame, E2 55, silver, 223.4 x 80.8 | 56392301 |
| FR-E2A 1 | Single frame, E2 55, anthracite, 80.8 x 80.8 | 56392115 |
| FR-E2A 2 | Double frame, E2 55, anthracite, 151.9 x 80.8 | 56392215 |
| FR-E2A 3 | Triple frame, E2 55, anthracite, 223.4 x 80.8 | 56392315 |



Active infrared sensor and combined sensors







Combined sensor IXIO-DT1

Combined sensor featuring radar detector with direction recognition and safety curtain for non-escape route systems

| IXIO-DT1 | Black Silver White | 86800001 86800002 86800003 |
|----------|--------------------------|----------------------------------|
| | | |

Article no.

Safety curtain IXIO-ST

Safety curtain (tested) IXIO-ST for monitoring closing edges

| Black | 86800010 |
|--------|----------|
| Silver | 86800011 |
| White | 86800012 |
| | Silver |

Accessories for active infrared sensor and combined sensors

White



| | <u>Article no.</u> |
|---|--------------------|
| Ceiling installation set Ceiling installation system for IXIO-DT and IXIO-S | |
| Ceiling installation set Black | 86800019 |



Rain protection cover

Rain protection cover for IXIO-DT and IXIO-ST

Rain protection cover Black

86800021

86800020

Fixing bracket

Fixing bracket for IXIO-DT and IXIO-ST

| Fixing bracket | Black | 86800016 |
|----------------|-------|----------|
| 5 | | |





Door Hardware

Electronic Access & Data





Mechanical Key Systems



Systems





Entrance Systems



Our commitment to sustainability

At dormakaba, we are committed to sustainable development along our entire value chain.

To give quantified data on the environmental effects of a product and its ecological footprint, dormakaba provides Environmental Product Declarations (EPD). You can find our EPDs and further information on our commitment to sustainability here or by scanning the QR code.

www.dormakaba.com/sustainability



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