ECO ETS
Electromotive drives

■ SYSTEM TECHNOLOGY FOR THE DOOR

1. Force – up to 400 kg

The ECO ETS has a strong power unit that safely opens and closes door leafs and up to 1.600 mm in width (EN 7).

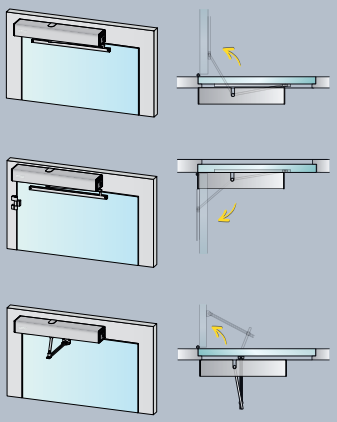
ETS 73 – up to 400 kg (for door leafs up to 1100 mm)
ETS 64-R – up to 250 kg (for suitable for fire- and smoke control doors)
ETS 42 – up to 150 kg

This provides secure automation for external doors that may experience strong wind loads as well as heavy fire protection doors.

With its integrated, high-performance switching power supply (ETS 73 and ETS 64-R: 24 V, 2 A output power) several external operating and safety elements, and even motorised locks, can be supplied. This way external power supplies can be omitted in many applications.

In addition to these parameters, the ETS, with its new electromotive power unit, is extremely quiet and has a well engineered, harmonious movement. It is these properties that make the ETS such an all-rounder for public buildings, hospitals, elderly homes and clinics.

2. Model with slide rail on hinge side and hinge-opposite side / also fire protection!



The ETS can be combined as follows:

Lintel installation with standard arm, hinge-opposite side push

Lintel installation with slide rail, hinge-opposite side push

Lintel installation with slide rail, hinge side pull

All mounting options are available in both standard and fire protection variations.

This gives planners and architects a comprehensive range of design options with sliding rails for all assembly applications, whether that is hinge side or hinge-opposite side, T0 or fire or smoke protection!

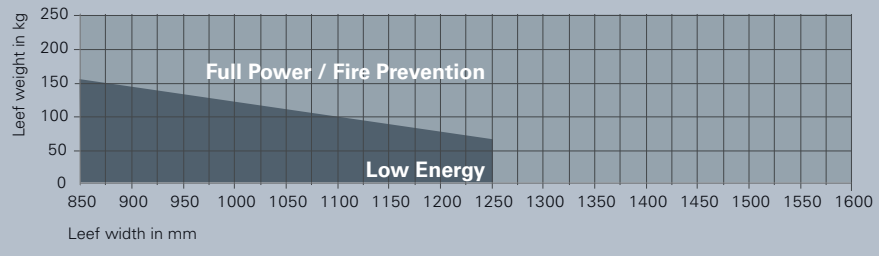
For door manufacturers it also opens up new possibilities for the production of fire or smoke protection doors.

3. Low energy and full power in a single power unit

The ETS can be set for two functions on site with one and the same drive. An additional upgrade card is not necessary.

Low energy and full power
The Full Power setting enables automation in heavy, highly frequented public doors, for example, with quick movement sequences. To do this, a surveillance of the movement area with safety sensors is necessary.

The Low Energy setting is specially developed for private households or office and work areas with limited public frequency. Safety sensors can be dispensed with here, there are limitations, however, on door weights and movement speed.



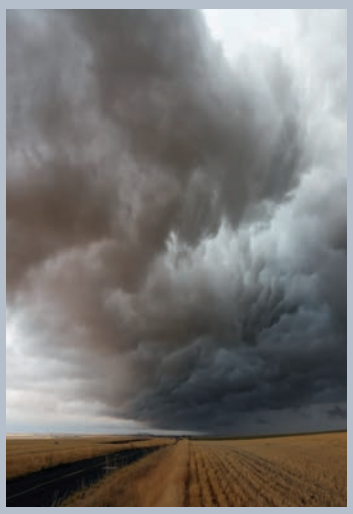
4. Fire and smoke protection / Inverse function / Interlock function

The ETS model ETS 64-R is approved as a hold-open device for fire and smoke protection doors. In combination with a lintel switch it triggers the fire protection closer in the case of an alarm (smoke activated) or power failure.

The inverse function has been specially developed for smoke extraction from buildings. The fire/smoke protection function is reversed here when the alarm is triggered, which means that the door is opened by spring force to enable a smoke extraction. This is also ensured with a power cut, so an emergency power supply is not necessary. This inverse function has already been pre-installed at ETS and is consequently also adjustable on site.

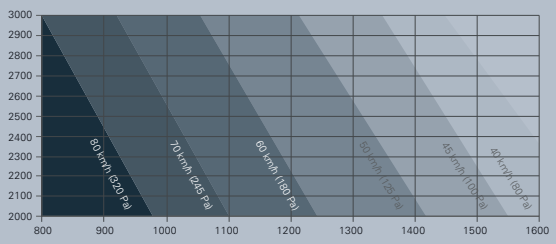
The interlock function regulates the complex automation sequences of double doors in safety areas (controlled and directional flow control).

5. Wind load compensation (ETS 73 / ETS 64-R)

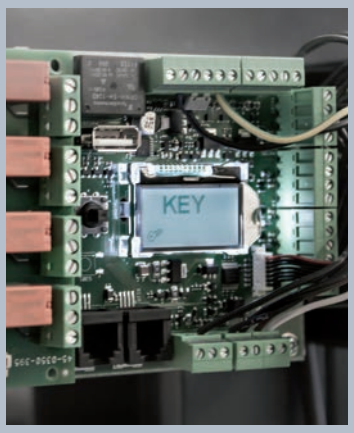


The wind load control is there to adapt the smooth operation of outer doors to different air pressure conditions (to wind force 9, for example (or 320 Pa) / with a door size of 900 x 2,400 mm). A briefly occurring increased wind load (e.g. a strong gust) is recognised by the drive. The control now calculates the additional motor performance for amplifying or retarding the drive, so the door can operate in a virtually unimpeded way.

The strength of the wind load depends on the size of the door and the type of arm deployed. For doors that open outwards in areas with regularly increased wind loads (in coastal areas for example) the normal arm (pushing on the opposite hinge side) should be used as far as possible.



6. Simple assembly and service



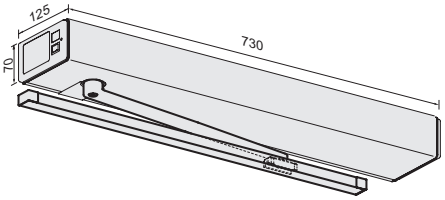
The ETS has a simple, user-friendly setting function for all parameters. This is provided by the display panel with joystick function on the control board. A menu style checklist makes it easy to configure the initial operation on site. All parameters can also be configured at a later date or to suit any new operational requirements (password protected) with no need for an external control module or laptop.

This makes the ETS particularly interesting for assembly and service companies, who do not want to have to use a specific external programming device or special software for every type of drive.

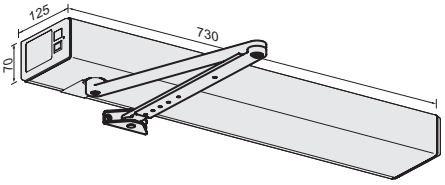
Performance criteria			ETS 42	ETS 73	ETS 64-R
Closing force (continuously adjustable)	Size acc. to EN		2 – 4	3 – 7	3 – 6
Door width acc. to EN	Interior and exterior doors	≤ 1.100 mm	■		
	Interior and exterior doors	≤ 1.600 mm		■	
	Fire protection doors	≤ 1.400 mm			■
Dimensions (incl. mounting plate)	Length in mm Building depth in mm Height in mm		730 125 70	690 120 95	690 120 95
Ambient temperature			-15 to +50° C		
Relative humidity			max. 85%		
Power consumption			max. 350 W	max. 560 W	
				Stand-by 4 W	
DIN left / right			■	■	■
Adjustable opening speed			max. 40°/s		
Closing speed adjustable with main operation, fixed in case of power failure			max. 40°/s		
Adjustable hold open time			0 - 60s		
Max. door opening angle			105°		
Tested acc. to EN			DIN 18650 EN 16005	DIN 18650 EN 16005	DIN 18263-4 DIN 18650 EN 16005
Suitable for fire- and smoke control doors			-	-	F (DIBt)
Certified acc. to EU-Directives			CE	CE	CE

■ Yes
- No
◘ Option

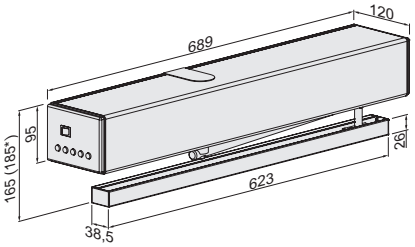
Wooden door | Steel door | Profile frame door



Dimensions: ETS 42 with slide rail



Dimensions: ETS 42 with standard arm



Dimensions: ETS 73 / ETS 64-R with slide rail

* In case of rebated doors please use the long pin (included in delivery)

ECO ETS ▪ Harmonious door movement – motor-powered opening – controlled closing

Versions and functions:

- Slide rail pushing (Hinge-opposite side) and pulling (Hinge side)
- Standard arm pushing (Hinge-opposite side)
- Single and double leaf systems with continuous cover
- Integrated, concealed closing sequence control for fire/smoke protection doors (located in the continuous casing)
- Integrated, concealed smoke detector (integrated in the cover, can be rerofitted (DIBt, EN 54-7))
- Adjustable spring closing force (in currentless mode)
- Easy operation with illuminated program selection keys in the side cover (automatic, always on, manual, exit and night)
- All-pole isolating main switch integrated in the side cover (for ETS 73 nad ETS 64-R)
- Push + Go Function, easy responsiveness
- Servo function, drive detects a mechanical opening and supports with motor power as long as the door is opened
- Adjustable starting power and closing power amplification (for pressing shut into the lock)
- Adjustable start delay (motorized lock, closing sequence)
- Plug + Play, setup of functions with LCD display
- Low energy operation without safety sensor technology
- Very low standy consumption (4 Watts)
- Connectable wind load compensation, max. wind speed 80 km/h (320 Pa) (not for ETS 42)
- Connectable acoustic signal of opening and/ or closing movement

Double leaf swing door system type ECO ETS 64-R IRM-SRI (GSZ) (with integrated closing sequence control and integrated smoke detector)

ECO ETS 42 / ETS 73 / ETS 64-R ▪ Product description

Single leaf drives (without linkage)

ETS 42

ETS 73

ETS 64-R IRM

Single leaf drives for interior and exterior doors	Colour	Article number
ETS 42	Stainless steel	5030053933
ETS 73	Stainless steel	5030014715

Single leaf drives for FS/RS doors (and inverse)	Colour	Article number
ETS 64-R	Stainless steel	5030014716
ETS 64-R (GSD)	Stainless steel	5030014717
ETS 64-R IRM	Stainless steel	5030014712
ETS 64-R IRM (GSD)	Stainless steel	5030014714

Linkage types for ETS

Slide rail for ETS	Colour	Article number
GS-ETS 620-ÖB*	Stainless steel	5030054059
GS-ETS 830**	Stainless steel	5030014713

* Mounting type GSZ or GSD (up to 30 mm lintel depth/ fire protection)
** Mounting type GSZ, GSD or leaf mounting (up to 200 mm lintel depth/no fire protection)

Standard arm for ETS (up to 250 mm lintel depth)	Colour	Article number
SGS ETS 250-ER*	Stainless steel	5030054061

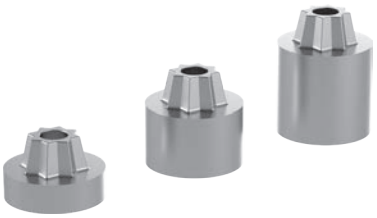
*For lintel depth up to 250 mm (fire protection)

Axis extensions

Clamping pieces (axis extension)

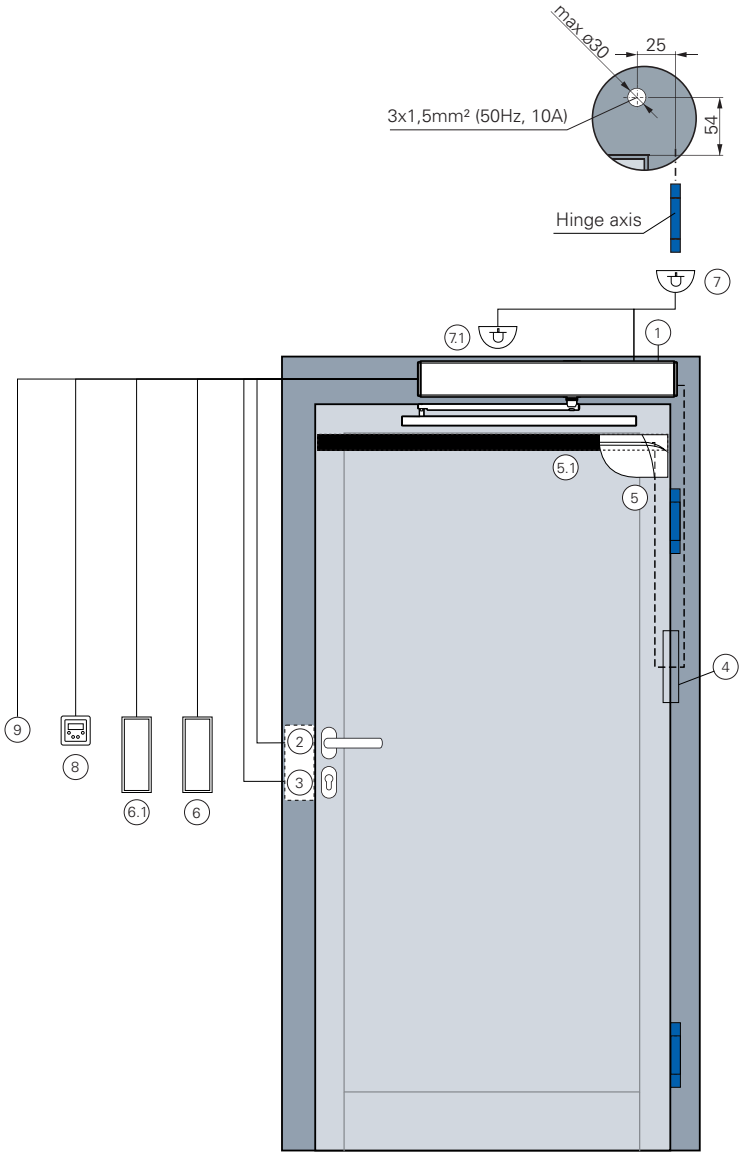
For use with special mountings

Clamping piece (axis extension)	Article number
AVE 10 (+ 10mm, incl. screw)	5030054517
AVE 20 (+ 20mm, incl. screw)	5030054519
AVE 30 (+ 30 mm, incl. screw)	5030054520

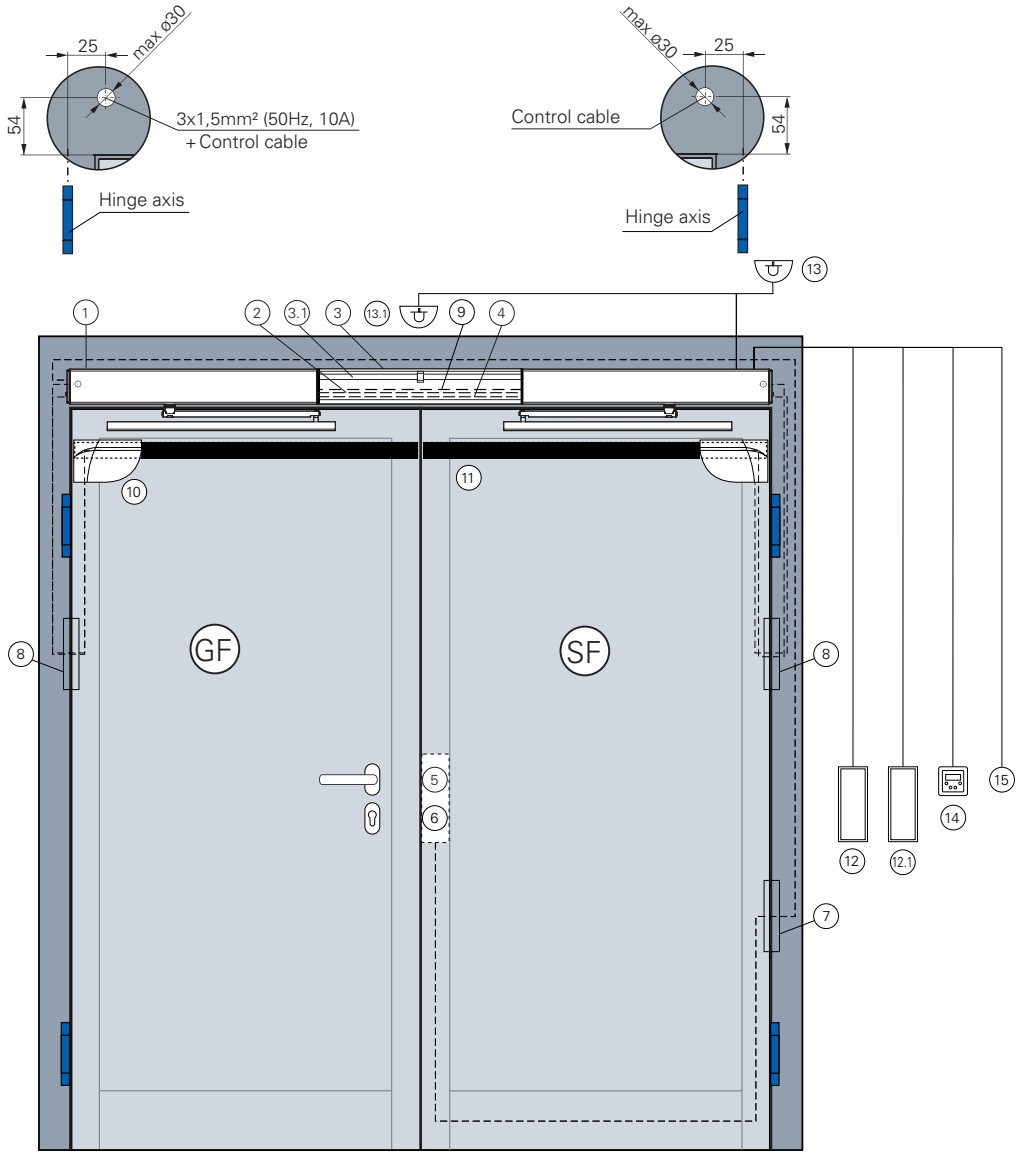


Please order any safety elements to provide additional protection at contact points and closing edges at the same time.
Sensor bars or Flatscan in compliance with DIN 18650 and EN 16005!
Please order any accessories, such as ceiling smoke sensors, sensor bars and control devices, separately (from page 10 onwards).

NG = Version for normal arms pushing (head mounting on opposite hinge side)
GSD = Version for slide rails pushing (head mounting on opposite hinge side)
GSZ = Version for slide rails pulling (normal mounting on opposite hinge side)
IRM = Integrated smoke sensor
SRI = Integrated door control



Pos.	Designation	Cable	Note
1	Power supply	NYM 3 x 1,5mm²	Motor needs a power supply of 230 V
2	E-Strike 24V DC 100% ED, protection diode	J-Y(ST)Y 4 x 0,6 or 0,8mm²	Cable laying by customer
3	Dead bolt switch contact	J-Y(ST)Y 4 x 0,8mm²	Cable laying by customer
4	Concealed cable transition	for safety element	As option, on site
5	Flatscan set	Cable by ECO	Concealed cable transition by customer, otherwise, the cable laying will be made on the surface with cable transition
5.1	Sensor bar set	Cable by ECO	Concealed cable transition by customer, otherwise, the cable laying will be made on the surface with cable transition
6	Large surface button (inside)	J-Y(ST)Y 4 x 0,6 or 0,8mm²	Flush-mounting box, cable laying by the customer
6.1	Large surface button (outside)	J-Y(ST)Y 4 x 0,6 or 0,8mm²	Flush-mounting box, cable laying by the customer
7	Radar (inside) e.g. BS – (50 cm above the hinges)	J-Y(ST)Y 4 x 0,6 or 0,8mm²	Cable laying by the customer (flush-mounted if necessary)
7.1	Radar (outside) e.g. BGS – (Middle of the door)	J-Y(ST)Y 4 x 0,6 or 0,8mm²	Cable laying by the customer (flush-mounted if necessary)
8	Bedix-program selector switch	J-Y(ST)Y 4 x 0,6 or 0,8mm²	Flush-mounting box, cable laying by the customer
9	Alternative control device	J-Y(ST)Y 4 x 0,6 or 0,8mm²	Flush-mounting box, cable laying by the customer



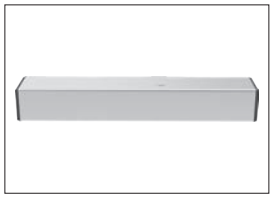
Pos.	Description	Cable	Note
1	Power supply active leaf (GF)	NYM 3 x 1,5mm²	Both motors must be supplied with 230 V
2	Power supply bridge to passive leaf (SF)	NYM 3 x 1,5mm²	Bridge for the power supply of the passive leaf
3	Middle cover	–	As option
3.1	Closing sequence control (SRI)	Closing sequence control	As option, closing sequence control
4	System cable for controlling the closing sequence control (for T0 doors) and communication of the doors	Scope of delivery ECO (system cable)	Cable laying in the frame (by customer) or in the continuous drive casing (as option)
5	E-Strike 24V DC 100 % ED, protective diode	4 x 0,6 or 0,8mm² Laying to the Master	Cable laying by customer in the passive leaf to the Master
6	Dead bolt switch contact	4 x 0,8mm² laying to the Master	Cable laying by customer in passive leaf to the Master
7	Concealed cable transition	For E-Strike and Dead bolt switch contact	As option, by customer
8	Concealed cable transition	For safety elements	As option, by customer
9	ECO dual locking or E-Strike in the passive leaf	For E-Strike 4 x 0,6mm² Laying to the Slave	Cable laying by customer in the frame to the Slave-drive
10	Flatscan set	Cable supplied by ECO, laying to the Master- Active leaf / Laying to the Slave- Passive leaf	Concealed cable transition by customer, otherwise, the cable laying will be made on the surface with cable transition
11	Sensor bar set	Cable supplied by ECO, laying to the Slave- Passive leaf / laying to the Master- Active leaf	Concealed cable transition by customer, otherwise, the cable laying will be made on the surface with cable transition
12	Large surface button (inside)	4 x 0,6 or 0,8mm² layin to the Slave	Flush-mounting box, cable laying by the customer
12.1	Large surface button (outside)	4 x 0,6 or 0,8mm² layin to the Slave	Flush-mounting box, cable laying by the customer
13	Radar (inside) e.g. BS – (50 cm above the hinges)	4 x 0,6 or 0,8mm² layin to the Slave	Cable laying by the customer (flush-mounted if necessary)
13.1	Radar (outside) e.g. BGS – (Middel of the door)	4 x 0,6 or 0,8mm² layin to the Slave	Cable laying by the customer (flush-mounted if necessary)
14	Bedix-program selector switch	4 x 0,6 or 0,8mm² layin to the Slave	Flush-mounting box, cable laying by the customer
15	Alternative control element	4 x 0,6 or 0,8mm² layin to the Slave	Flush-mounting box, cable laying by the customer

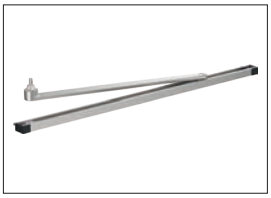
Checklist for orders - ETS

Pos.	Linkage type	Fire protection		Leafs		Bedix		Button		Radar		Radio		Safety elements			Emergency off		E-Strike		RSK*	
		yes	no	1	2	yes	no	inside	outside	inside	outside	yes	no	Sensor bars	Finger protection	Flatscan	yes	no	yes	no	yes	no

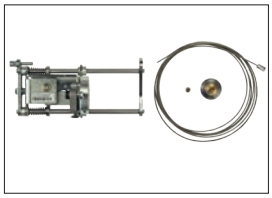
*Dead bolt switch contact

Hardware


Drive


Slide rail


Standard arm

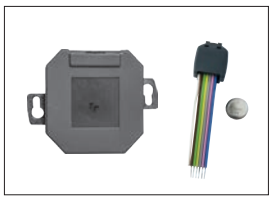

Integrated closing sequence control (SRI)

Control elements

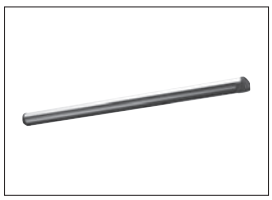

Bedix (external control and programming element)

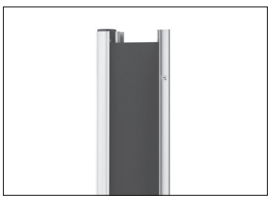

Large surface button GFT


Radar


Set for radio

Safety elements

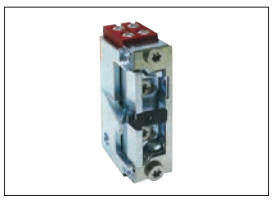

Sensor bars

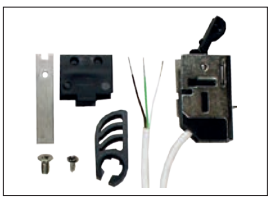

Finger protection

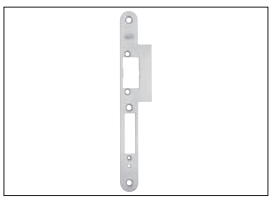

Flatscan

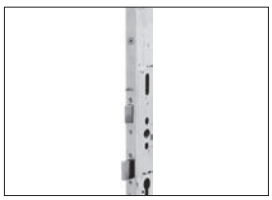

Emergency buttons

Lock accessories


E-Strike


Dead bolt switch contact


Strike plate

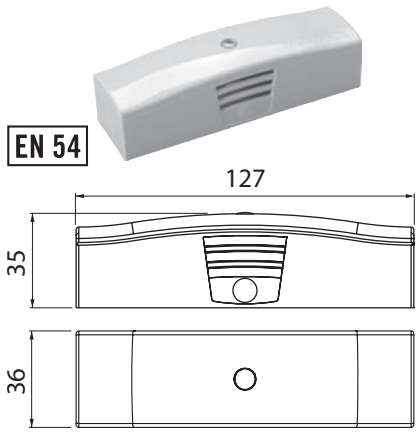

Motor locks

Stuttgart trade fair,
Germany

ECO **Schulte**
Global confidence.

All over the world, wherever people value quality, reliability and safety, ECO Schulte products have been in use for many years. The combination of functionality and design have brought the ECO systems international recognition.

At this point we would like to say thank you for the global confidence that has been shown in ECO Schulte products. We see this as a challenge to continue to satisfy the demands of our customers and the market through constant development and carefully tailored production.



Smoke switch ORS 142 ECO (Lintel mounting)

- **For use as separate lintel detector or as spare part (board) for the** ECO **FSA**
- **Function:** Scattered light
- **Alarm level adjustment:** acc. to **EN 54** part 7
- **Response level temperature:** 70 ± 5° C
- **Operating voltage:** 18 to 24 V DC
- **Power consumption:** at 28 V DC Max. 22 mA
- **Degree of protection:** IP 42
- **Ambient temperature:** -20 up to +75° C
- Incl. Cover RZO

ORS 142 ECO (Lintel detector)	Colour	Article number
Smoke switch ORS 142 ECO	Silver RAL 9006	5030022730
Smoke switch ORS 142 ECO	White RAL 9016	3550005722

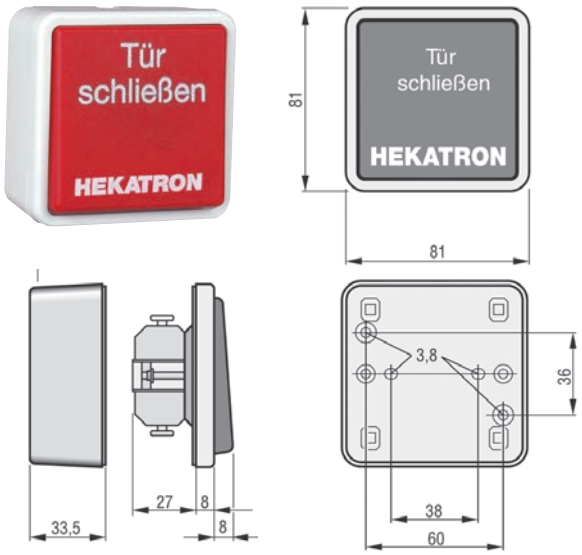
ORS 142 Set

- With cable monitoring as option acc. to **DIN EN 14637**

Set consists of:

- **2 x ORS 142**
- **2 x Base 143 A**
- **1 x Terminating resistor AM 142**

Ceiling smoke switch	Colour	Article number
ORS 142 Set	White RAL 9010	5030042530



HAT 02

Hand-operated button for mounting in dry environments, for the manual activation of hold-open mechanisms in accordance with DIBt guidelines

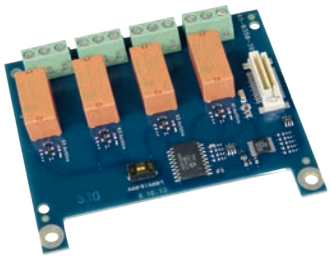
- **Mounting:** On-wall / flush
- **Relay contact:** Opener
- **Switching voltage:** 30 V DC
- **Switching current:** Max. 1 A
- **Protection type:** IP 20
- **Note:** For applications with cable monitoring in accordance with **EN 14637** (e.g. for ECO FAS III), the **AM 142** terminating module must also be ordered.

Manual release button	Article number
HAT 02	5030000748
AM 142	5030015352

Relay board (RSP)

Relay board (plug-in board) for retrofitting to the control system of ETS 42. Freely configurable relays for controlling acoustic or optical signalling devices or signalling door states (e.g. opened, closed, locked, error)

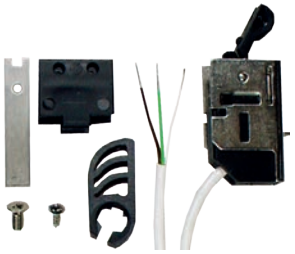
- Can be mounted retrospectively



Relay board	Article number
RSP	5030014720

Dead bolt switch contact (RSK)

Dead bolt switch contact for installation in the strike plate. Switches off the power unit as soon as the lock is mechanically locked. This prevents a failure of the power unit when locking. Includes 6m cable.



Dead bolt switch contact	Article number
Dead bolt switch contact (RSK)	5030019315

Standard E-Strike with smoke protection approval

For the use on smoke protection doors or doors without fire protection requirements. E-Strike with red connection blocks are designed for 12 or 24 Volt (each ± 15%) continuous operation.

Standard E-Strike with smoke protection approval	Article number
A-5002-B	5030014724
A-5002-FB (Latch guidance)	5030023741

Fire protection E-Strike

For the use on doors with fire protection requirements. E-Strikes with red connection blocks are designed for 12 or 24 Volt (each ± 15%) continuous operation.

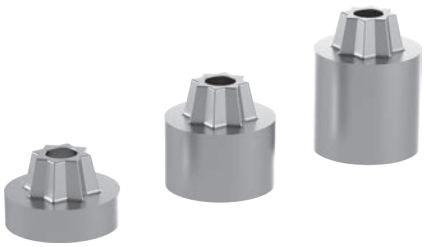
Fire protection E-Strike	Article number
FT-502-B	5030014726
FT-502-FB (Latch guidance)	5030036502

Mounting plate for ETS 73 / ETS 64-R

Mounting plate for **ETS** (MPL)

Necessary for use in fire protection and for mounting on walls or narrow frame facings.

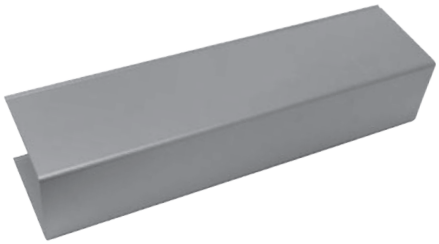
Mounting plate	Article number
MPL ETS 73 / ETS 64-R	358500450548358



Clamping pieces (Axis extension)

For use with special mountings

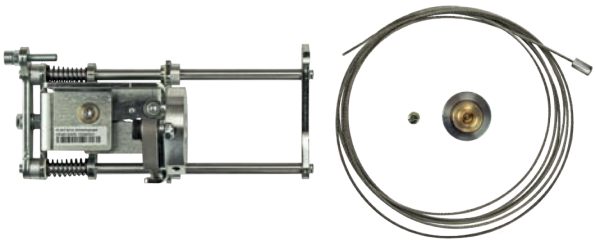
Clamping piece (axis extension)	Article number
AVE 10 (+ 10mm, incl. screw)	5030054517
AVE 20 (+ 20mm, incl. screw)	5030054519
AVE 30 (+ 30 mm, incl. screw)	5030054520



Middle casing set

consisting of assembly profile, stainless steel cladding and accessories. Set 1 1.200 mm long for two-leaf doors up to 2.600 mm.

Casing	Total length	Article number
V-ETS 73/64	1.200 mm	358500450548214
V-ETS 42	780 mm	5030055468



Integrated closing sequence control (SRI)

Assembly set for retrofitting an ETS 64-R double-leaf catch system with an integrated, mechanical closing sequence control. Approved by the DIBt.
(Middle casing set necessary).

Integrated closing sequence control	Article number
SRI	5030025059

Operating device D-BEDIX for **ETS**

With the D-BEDIX, the different types of operation can be chosen directly. In addition, the most important door settings can be implemented with ease. The display clearly shows the types of operation, menu settings and possible faults.

Operating device	Article number
D-Bedix, flush mounting	5030024838
Surface-mounted frame for D-Bedix	5030026428
Combi-Bedix, flush mounting	5030035366
Combi-Bedix, surface mounting	5030037345

Large surface button (GFT)

- Function door "OPEN"
- Operating voltage 250 V AC / 30 V DC
- Power consumption max. 10 A AC / 2 A DC
- Degree of protection IP 40
- 174 x 93 mm

Large surface button	Colour	Article number
GFT ECO AP/UP	White like RAL 9016	5030045153

Contactless surface switch (BFT)

- also for exterior application
- Protection type IP 65
- responds at a proximity of around 10 cm or less
- incl. 80 x 80mm stainless steel plate
- indirectly illuminated (24V from the ETS)
- vandalism-proof

Contactless surface switch	Article number
BFT (flush-mounted)	5030024865
BFT (surface-mounted, incl. stainless steel surface mounting box)	5030024866

Contactless motion detector (Magic Switch)

- only for interior applications
- responds from 10 to 50 cm
- Adjustment of detection field by potentiometer
- incl. 84 x 84mm nylon cover
- suitable for flush-mounted assembly

Contactless motion detector	Article number
Magic Switch (white with hand symbol)	5030033582
Surface mount box for Magic Switch (white)	5030034181

Radar “Eagle One”

Radar motion detector as the opening impulse provider for automatic doors, identifies direction. Incl. 5 m prepared connection cable.

Radar	Article number
Radar BEA “Eagle One” black	5030027729
Radar BEA “Eagle One” white	5030049467
Radar BEA “Eagle One” silver	5030055077
ORA rain hood for “Eagle One”	5030033583

Radio set for **ETS**

For the remote control of the motor, for disabled-friendly opening of the door.

Remote print for easy instertion on the control board of the ETS.

Handheld radio transmitter with a range of up to 10 m.

Remote control	Article number
Flush mounted / built-in radio receiver RCJ01	5030026336
Built-in radio receiver RTS03 (e.g. in GFT-ECO)	5030026335
4 channel hand transmitter (for RCJ01)	5030049002

Key switch for **ETS**

For one time release of the drive, e.g. for night function. The door-open time can be adjusted from 0 to 180 sec. (Version for surface mounting with IP44).

Profile half cylinder by customer.

Key switch	Article number
ST-02 UP	5030055331
ST-03 AP (IP 44)	5030029467

Program switch for **ETS**

To set the functions “automatic- night- manual- continuous open”.

Mechanical, four-position locking toggle switch, not lockable, for inside applications only, suitable for surface and flush mounting. Colour white (matt).

Program switch	Article number
PRS-04-AP/UP	5030055198

Sensor strips

Active infrared safety sensor for automatic doors. Secures the movement area. Stops or reverses when obstacles are identified.

- Incl. cable and external, flexible cable transition.
- **Set III** consisting of 2 sensor strips per leaf (BEA), up to max. 1.200 mm
- **Set IV** consisting of 2 sensor strips per leaf (BEA), up to max. 1.600 mm

DIN 18650 EN 16005

Rain cover hood

Sensor strips	Article number
Set III	5030019133
Set IV	5030018592
Rain cover hood (for outside deployment) with sensor bars up to 1100 mm	5030030550
Rain cover hood (for outside deployment) with sensor bars up to 1500 mm	5030034175
Fire protection doors adapter (6mm bore) (terminal block + slave cable)	5030041660

Flatscan

Sensor for swing doors to secure the entire width and height of the door leaf on the hinge side or opposite hinge side, as well as the secondary closing edge.

- Laser Scanner (to measure radiated light)
- Electricity supply 12 to 24 V AV DC ± 15%
- Power consumption <= 2W
- IP 54
- Dimensions: 142 x 55 x 23 mm
- Set consisting of 2 sensors, for hinge and opposite hinge sides

DIN 18650 EN 16005

Sensor	Colour		Article number
Flatscan Set	White	RAL 9010	5030033585
Flatscan Set	Black	RAL 9005	5030033586
Flatscan Set	Silver	RAL 9006	5030033584

Flatscan protection

Protective cover against weather influences and radar radiation. The protective cover can be mounted or plugged in without dismantling the Flatscan.

Sensor	Colour		Article number
Flatscan protection DIN left	Aluminium anodized		5030053303
Flatscan protection DIN right	Aluminium anodized		5030053304
Flatscan protection DIN left	Black	RAL 9005	5030053305
Flatscan protection DIN right	Black	RAL 9005	5030053306

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