



Panic, Lock and Bolting Technology

**Always on the safe side.**



## If panic breaks out

Panic bolting technology ensures that people can get out of a danger zone at any time, even in a panic situation. One push on the horizontal activation element is all it takes and the door springs open – irrespective of whether it was locked or not.



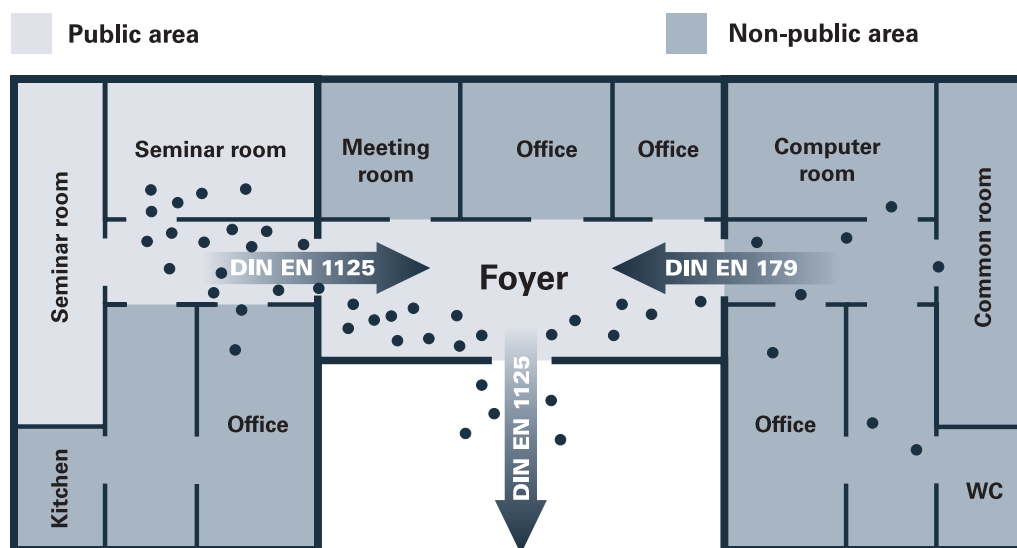
ECO unlocking solutions also open up the escape route when a crowd of people press against the door. And even the strength of a child is sufficient to open the door to escape from a fire or toxic smoke.

ECO bolting technology satisfies European standards **EN 1125** (Panic locks with horizontal activation bars) and **EN 179** (Emergency exit locks with handles or impact plates) – and demonstrates the company's expertise. The lock and release element are developed and manufactured in coordination with one another.

With panic systems in particular, it is important to perceive the door as a system, because it's not only the panic lock, door lock and fitting that have to interact perfectly so that the door can help in a life-threatening situation. The door closer and hinges have a decisive influence on the ability to satisfy the high demands set by the standard.

## Differentiation by building utilization

The type of room and utilization of the building are decisive when choosing the right panic door combination. European standards **DIN EN 1125** and **DIN EN 179** define the fittings of panic doors and emergency exits. Emergency exit locks in compliance with **DIN EN 179** are not normally subjected to use by the general public. It is assumed here that the users of the building are acquainted with the escape routes, so conventional panic lock technology with a handle or impact plate are sufficient here. Panic locks with a horizontal activation bar in accordance with **DIN EN 1125**, on the other hand, are intended for use in buildings frequented by the general public. Our panic systems in conformance with **DIN EN 1125** ensure that persons who have panicked and are not acquainted with the functions of the door can always get out of the building safely.



### Panic locks with a horizontal activation bar

**EN 1125** 

Panic locks in accordance with **DIN EN 1125** are used in public buildings in which the users are not acquainted with the functioning of the escape door but must nevertheless be able to operate them without instruction.

Panic locks activated mechanically by means of a horizontal handle or push-bar.

#### Areas of application:

- Hospitals and clinics
- Escape routes in schools and training centres
- Public administration buildings
- Stadia, arenas and events buildings
- Shopping centres

Users have **no** advance knowledge of how to open the escape door.

### Emergency exit locks with door handle

**EN 179** 

Emergency exit locks in accordance with **DIN EN 179** for buildings or building sections not open to the general public and all areas where access by the general public can be excluded. Side entrances or doors in these buildings or building sections are only used by authorized persons.

Emergency exit locks operated mechanically by means of a handle or impact plate.

#### Areas of application:

- Private residential complexes
- School classrooms
- Non-public administration buildings or industrial companies
- Non-public areas of administrative buildings
- Non-public areas of airports, banks, shopping centres

Users have advance knowledge of how to open the escape door.

## Clarity through marking

Whether or not a product complies with the standard, thus acquiring approval for use in escape and rescue routes, can be seen from a classification code on the product

**Classification Code DIN EN 1125**

The standard requires that all products tested for compliance with it be classified with a 9-digit code. Here is the classification code of the ECO EPN 900 Pushbar:

	3	7	6	1	1	3	2	1	A
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1) Utilization category (Class 3)	←								
2) Suitability for permanent use (Class 6, 7)	←								
3) Mass of the test door (Class 5, 6)	←								
4) Fire resistance of FH / RS doors (Class 0, 1)	←								
5) Safety – Personal protection (Class 1)	←								
6) Corrosion resistance (Class 3, 4)	←								
7) Security – Break-in protection (Class 2)	←								
8) Protrusion of the fitting (Class 2)	←								
9) Activation type (Type A, B)	←								

### Example of a CE marking

The CE marking documents that a product complies with standards. The example given here is for the ECO panic lock system EPN 900 tested in accordance with **DIN EN 1125**. With the CE marking, the manufacturer documents that his product complies with the applicable EU directives.

The diagram illustrates the layout of a CE label with the following components and annotations:

- CE symbol**: Located in the top left corner.
- Manufacturer and address**: Located in the top right corner, including the text "ECO Schulte GmbH & Co. KG", "Iserlohner Landstraße 89", and "D-58706 Menden".
- Number of the certifying agency**: Located in the middle left, showing "0123-2317".
- Year in which the CE label was affixed**: Located in the middle right, showing "2010".
- Standard number and date**: Located in the bottom left, showing "EN 1125:2005".
- Identification of the emergency exit device**: Located in the bottom right, showing "A".
- Hazardous goods: release / content**: Located at the bottom center, showing "Stoff X: nµg/g".

## Panic door combinations

### ECO panic door fittings: Screw-on safety and security

ECO Schulte fittings for escape and rescue route doors guarantee easy opening in an emergency. Even if the doors are locked shut, they can be opened without a key in accordance with standards with only one simple hand movement using a force of max. 80 N. The door fittings are designed in such a way that there is no risk of clothing getting caught in them when people flee the building. The free end of the door handle is returned in the direction of the door surface at an angle of at least 30 degrees in order to preclude the obstruction of fleeing persons and the risk of injury by the door handle.



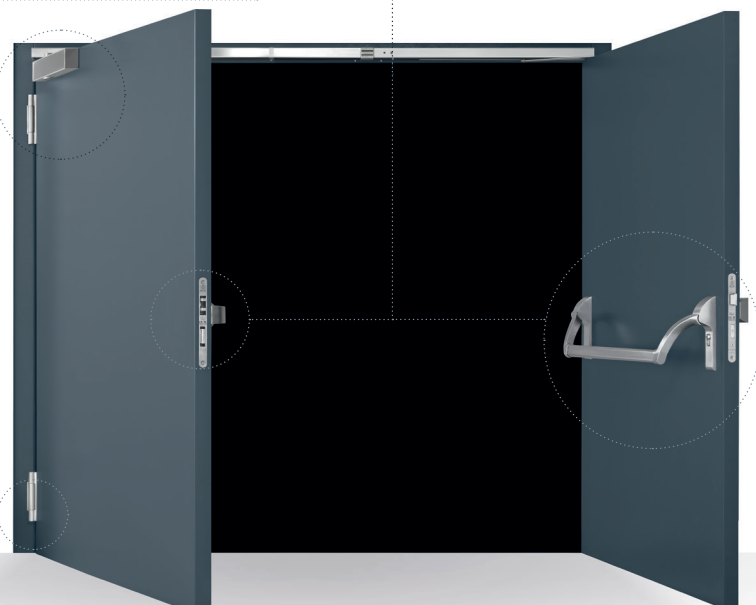
### Panic door combinations – tested jointly

ECO Schulte considers panic door combinations to be a perfectly coordinated system. Only the perfect interplay of all components guarantees perfect conformity with the standard right down to the last detail. Although the lock, fitting and triggering mechanism are the key functions of this panic door combination, the use of a coordinated door closer and high-quality hinges is of equal importance, because these functional elements of the ECO system also make a decisive contribution towards ensuring that a door can guarantee a safe way out if panic breaks out. Because safety and security are inseparable, ECO Schulte recommends the use of a complete system from a single source.

This ECO panic door combination consists of a fitting, horizontal panic bar, panic switch lock and counterpiece.



Safety and security are inseparable: only with ECO door closers and ECO hinges is the single source panic door combination complete.



## Panic lock functions

A panic lock functions in line with a defined principle: when the handle or panic bar is activated from the inside, the lock must spring open abruptly with a defined amount of force. Not only the latch but, if needed the entire bolt is pulled back here. This basic function can be refined and varied using ECO technology:

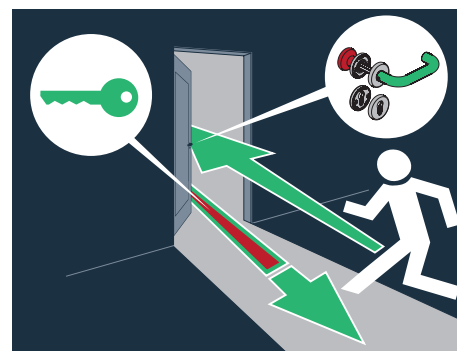
Watch  
movie



### Panic Function E – Alternating function

Panic Function E is intended for buildings with access for a defined group of people. A blind plate or knob is mounted on the outside and the door can only be opened with a key. Conventional panic function per handle from the inside.

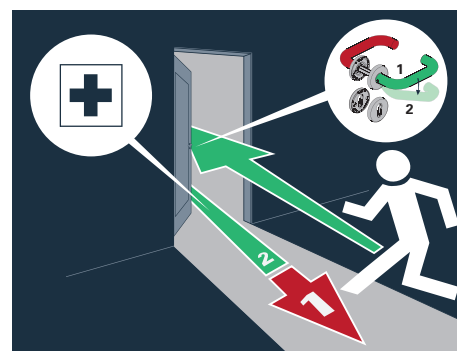
Area of application: heating room access doors, elevator systems, underground/ multi-storey car parks, storage and commercial buildings, entrance doors in rented apartment complexes and blocks of flats.



### Panic Function D – Transit function

Panic Function D is intended for doors with a pure escape function which are not used otherwise. When the conventional panic function is activated from the inside, the door is opened and the outer handle is engaged as well. In this setting, the door does not constitute an obstacle when entering the building or escaping from it. The original function can be reset with a key. The coupling is mechanical via a two-part hub.

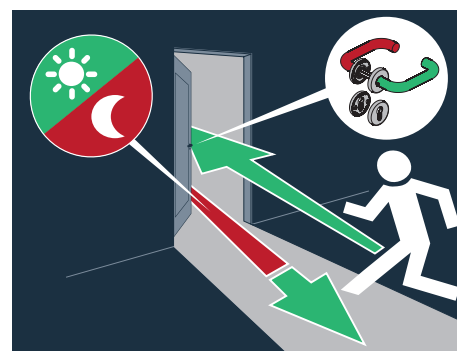
Area of application: escape doors in administration/ office buildings, retirement homes, side entrance doors (e.g. schools and hotels).



### Panic Function B – Switchover function

Panic Function B with a handle on both sides is designed for buildings open to the general public. While the handle on the inside has a conventional panic function, the outside handle can be engaged or disengaged mechanically as required. The two handles are coupled via a two-part hub.

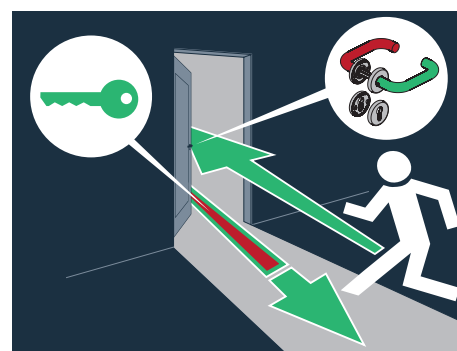
Area of application: escape doors in administration buildings, retirement homes, side entrance doors (e.g. schools and hotels).



### Panic Function C – Forced closure function

Panic Function C with a handle on both sides is designed for buildings open to the general public: While the handle on the inside has a conventional panic function, the handle on the outside is disengaged as standard (idle function) and a key position (open position) must be used to engage and disengage it (forced closure). However, the key can only be removed after the idle function has been set again.

Fields of application: doors in administration or office buildings, retirement homes, side entrance doors (schools or hotels)



## Two concepts for secure functioning

ECO Schulte offers two horizontal panic door locking systems which differ in their aesthetics and function. They are suitable for buildings in which the outbreak of panic is at least likely in the event of danger. The objective is to provide a safe escape opportunity with minimum effort and without any advance knowledge of the functioning of the escape door lock.

### Pushbar – Panic door lock with a tube

The ECO Pushbar is a Type A mechanical panic door lock in compliance with Euro standard **EN 1125**. This panic door lock unlocks reliably, even when a force is already acting on the door. Movement of the horizontally attached tube in the direction of escape in a downward arch releases the locking mechanism abruptly via a steel gear system. This function can be activated from every point along the bar. The ECO Pushbar can be bolted on or through the door and is protected against vandalism, depending on the construction and design. Available in standard or special lengths with a galvanized steel core with aluminium F1 or nylon coating or in high-grade stainless steel.

EPN 900 III ER



### Touchbar – Panic door lock with a pressure bar

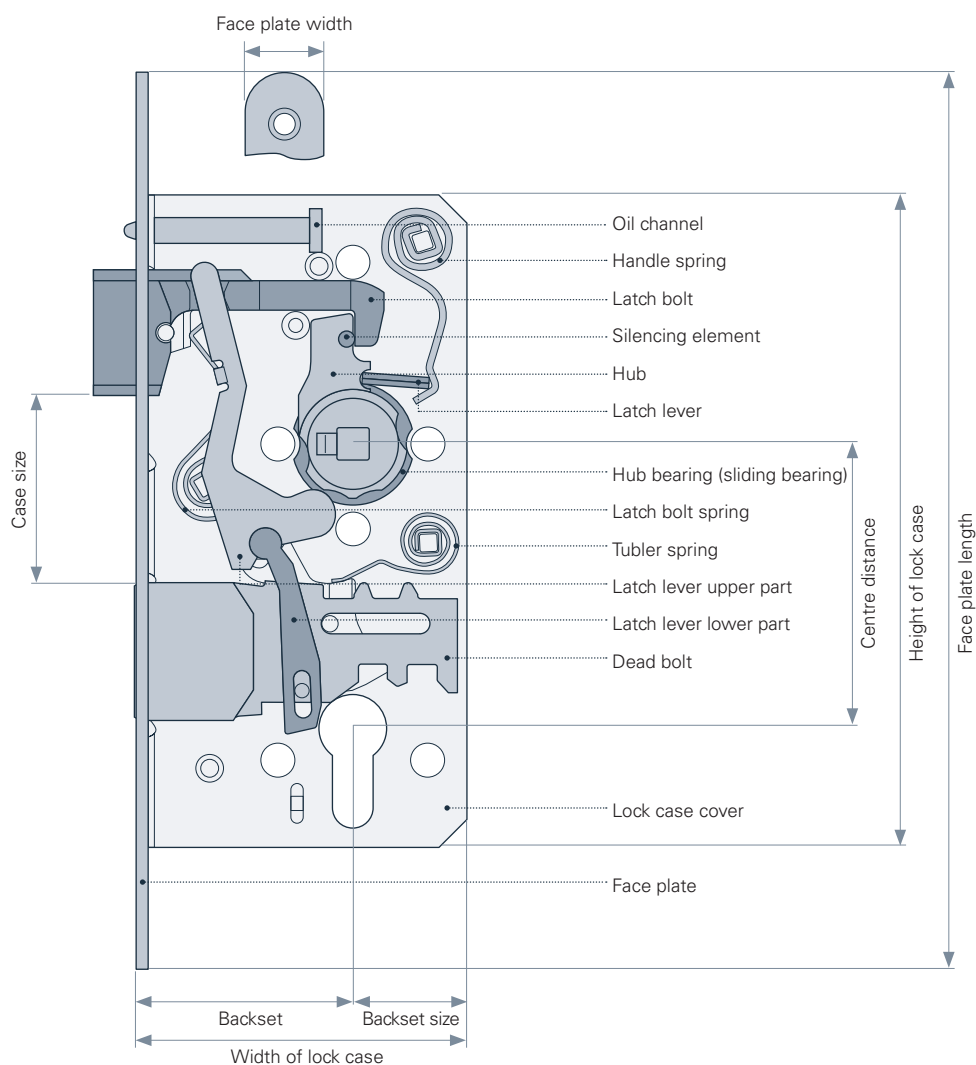
The ECO Touchbar is a Type B mechanical panic door lock in compliance with Euro standard **EN 1125**. This panic door lock unlocks reliably, even when a force is already acting on the door. Movement of the horizontally attached touch bar in the direction of escape releases the locking mechanism and lock abruptly. The release function can be activated from every point along the effective length of the touch profile. The ECO Touchbar can be bolted on or through the door and is protected against vandalism, depending on the construction and design. Available in standard or special lengths with a galvanized steel core with aluminium F1 or nylon coating or in high-grade stainless steel.

EPN 2000 II ER



## Reliable and precise as clockwork

ECO Schulte can look back on many years of experience in the development and manufacture of locks. ECO Schulte locks provide the highest possible level of security and reliability in all areas and function as precisely as clockwork. Long-lasting functionality and a long service life are guaranteed by state-of-the-art manufacture using high-quality materials and construction measures. As panic locks, ECO locks correspond with horizontal panic triggering elements and conventional ECO fittings in the ideal manner. A defined trigger impulse ensures that the door springs open abruptly.

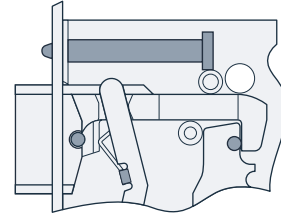




## Locks of the very best

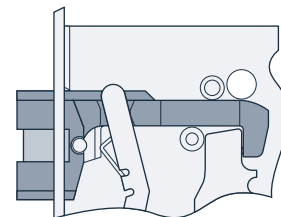
### Optional silencing

ECO locks have the option of silencing by means of a sound insulating rubber element on the latch bolt. Another ECO speciality is an integrated oil channel that lubricates all of the moving parts of the lock. No additional recesses in the lock pocket are required because all DIN dimensions are complied with.



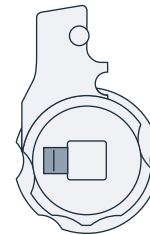
### Triple latch bolt

Instead of hitting the strike plate, the ECO triple latch bolt is pressed back into the lock by a lever mechanism. An additional milling groove should be cut in the lock pocket to install the crank latch.



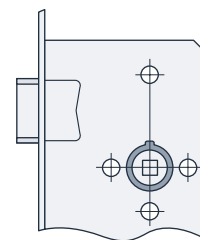
### Spring hub

A spring in the handle hub jams the pinion of the handle. This results in the precise guiding of the split spindle and thereby the door handle. Tolerances are compensated. The hub is smoothly mounted in a wear-resistant plastic bearing. ECO mortise locks with sliding bearings provide the best possible ease of operation, even when used intensively.



### Protection bushings

ECO offers locks with protection bushings fitted in the standard lock attachment drill holes to prevent wood or metal drill shavings from falling into the locking mechanism during assembly and impairing its functionality.



### Locks and strike plates for all notch types

Mortise locks with a face plate mounted on one side and angular striking plates are required for rebated doors. A mortise lock with a centred face plate and flat striking plate is required for flush edge doors.



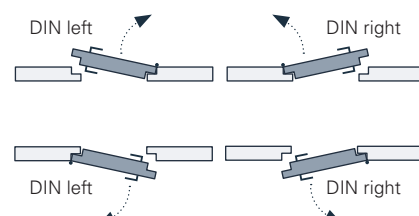
Profile rebated door



Profile unrebated door

### Mortise locks left/right

Mortise locks are designated in accordance with **DIN 107** from the side of the door where the hinges are visible. Hinges visible on the left side = DIN left, hinges visible on the right side = DIN right.



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