



ECO door closers and closing sequence selectors: Stainless steel design

SWISSDOOR
DØRTEKNIK FOR PROFESSIONELLE



■ SYSTEM TECHNOLOGY FOR THE DOOR



Innovative material Stainless steel design

Like other materials, stainless steel, so long the preserve of purely industrial construction, has become universally acceptable and can now be found in many sophisticated properties. This trend is backed up by new techniques and an architectural willingness to experiment. Stainless steel is used wherever there is a need for a high degree of reliability, functionality and hygiene. Although this material has a modern, technical image, it actually tends to have a fairly neutral appearance - the surfaces reflect light and the colours adapt to the surroundings. Stainless steel is definitely here to stay.



Exceptional stainless steel design - at no extra cost



The stainless steel that we use combines robustness and innovative technology with forward-looking environmental design: a sustainable material with glowing prospects - good for the environment and with almost lifelong durability.

We now use this high quality material as standard for our door closers and hold-open systems - at no additional cost to our customers!











Corrosion and environmental protection

At the end of the manufacturing process our products are polished and given a satin or mirror finish, not just for the sake of appearance but also to help with corrosion resistance: the finer the surface finish, the greater the resistance to corrosion.





Rustproof stainless steel scores highly in ecological terms. Even the production process uses fewer resources than other materials. In addition, this material is 100 percent recyclable, thus ensuring that the material cycle is complete.

ECO Newton system overview

Door closer with slide rails

| Description | Tests ¹ | Size acc. to EN ² | L x B x D in mm | Latching speed adjustment ³ | Back-check ⁴ | Closing force adjustment | Delayed action ⁵ | DIN L + R / BS + BG ⁶ |
|-------------|---|------------------------------|-----------------|--|-------------------------|--------------------------|-----------------------------|----------------------------------|
| TS-61 EN |  /  | 5–6 continuously | 267 x 62 x 49 | from the front | adjustable | from the front | optional | yes / yes ⁷ |
| TS-61 EN |  /  | 2–5 continuously | 287 x 62 x 49 | from the front | adjustable | from the front | optional | yes / yes ⁷ |
| TS-51 EN |  /  | 1–4 continuously | 265 x 61 x 46 | from the front | adjustable | from the front | – | yes / yes ⁷ |
| TS-41 EN |  /  | 1–4 continuously | 243 x 56 x 41 | from the side | fixed | from the side | – | yes / yes ⁷ |
| TS-31 EN |  /  | 1–3 continuously | 243 x 56 x 41 | from the side | fixed | from the side | – | yes / yes ⁷ |

Door closer with standard arm

| Description | Tests ¹ | Dimensions in accordance with EN ² | L x B x D in mm | Latching speed adjustment ³ | Back-check ⁴ | Closing force adjustment | Delayed action ⁵ | DIN L + R / BS + BG ⁶ |
|-------------|---|---|-----------------|--|-------------------------|--------------------------|-----------------------------|----------------------------------|
| TS-50 EN |  /  | 1–5 infinitely variable (6) | 243 x 56 x 41 | from the side | fixed | from the side | – | yes / yes |
| TS-20 EN |  /  | 3 / 5 | 243 x 56 x 41 | from the side | fixed | from the side | – | yes / yes |
| TS-15 EN | – | 2 / 3 / 4 / 5 | 209 x 56 x 38 | from the side | – | from the side | – | yes / yes |
| TS-14 EN | – | 1 / 2 / 3 / 4 | 209 x 56 x 38 | from the side | – | from the side | – | yes / yes |

Legend: **1)** EN 1154 - CE mark and fire protection tested **2)** Door closer sizes acc. to European Norm (EN) **3)** Increases the closing force to ensure that the door closes reliably **4)** Regulates the force which is necessary to open the door **5)** Convenience delayed action, e.g. for hotel room doors **6)** Available for DIN left and right (L + R) as well as for hinge side (BS) or hinge-opposite side (BG) **7)** Please order execution BG (= hinge-opposite side)



The door closer and slide rail form an integrated unit.



Turning Safety into a Product

Door closers have to cope with routine daily business and emergency situations: they soften the door strike and close the door securely. In emergency situations, they guarantee that fire compartments are separated reliably so that lives can be saved. In routine situations, the asymmetric transmission makes it easier to open the door.

Door closers from ECO Schulte work purely mechanically with hydraulically damped, stepped gear spring force. The mechanical principle ensures correct functioning under all conditions – even when there is a power cut. The special gearing geometry guarantees easy opening while at the same time producing sufficient standard-compliant closing power to overcome the lock resistance.

Door closers have a safety function, which makes them a part of the architecture. The ECO Schulte door closer portfolio reflects the complete spectrum of practical demands of modern architecture – no matter whether these are defined for aesthetic or functional reasons. They extend from the functional standard of the standard arm door closer through minimized, aesthetic slide rail closers and hold-open systems to „virtually invisible“ closing solutions integrated into the floor or door leaf.



The highlights of the ECO Newton range



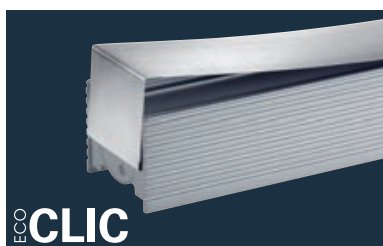
Two units for the entire building

The ECO Newton closer portfolio covers all door dimensions with only two basic closer units. In addition to this, end-mounted valve technology permits the mounting of the same closer on the hinge and hinge-opposite side (TS-41/31).



Combination of elegant materials

Elegant materials are standard with ECO Newton: the stainless steel cover and aluminium body unit of the new door closer generation are perfectly matched with one another - in an architecturally compatible form language.



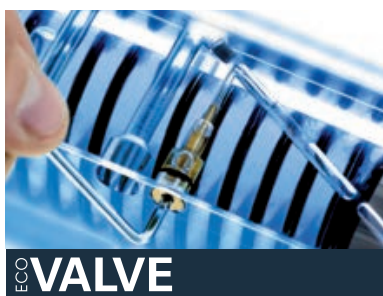
Intelligent stainless steel cover

ECOclíc envelops the aluminium body unit with the power of spring steel. The cover conceals all of the adjusting elements and cannot be removed without tools, thus securing the closer against unauthorized access.



Well-conceived assembly system

The special feature of the ECO Newton assembly system is that the mounting plate is completely concealed by the aluminium body of the closer, thus making it invisible. The mounting plate has standardized drill holes which guarantee time-saving, secure and simple attachment.



New valve technology

The new ECOvalve technology offers a wide and precisely adjustable setting range. This means the simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional allen key. As with all ECO Newton door closers, the closing speed and latching speed are regulated via the ECOvalve as a standard feature.

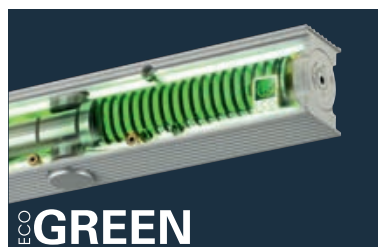
Stainless steel full cover

The full cover is an optional stainless steel covering for the ECO Newton door closers and related slide rails. The overall appearance is perfected by a lever arm with a stainless steel look. A cover on the closer body is available for standard arm closers.



Saves resources

ECO Newton door closers are up to 1,000 grammes lighter than comparable solutions. Their intelligent construction and carefully planned use of materials help considerably to save resources - without compromising functionality, safety, security or quality.



Uniform finishing edge and colour design

The mounted slide rail and door closer are flush when the door is closed. The colours of all materials are perfectly matched - right down to the end caps of the slide rail. In this way, ECO Newton door closers can be integrated harmoniously into every design context.



Combination talent

The ECO Newton Vario concept permits the use of all slide rail door closers and can even be combined with different door leaf widths. In this way, optimum value for money can be achieved for each individual door situation.



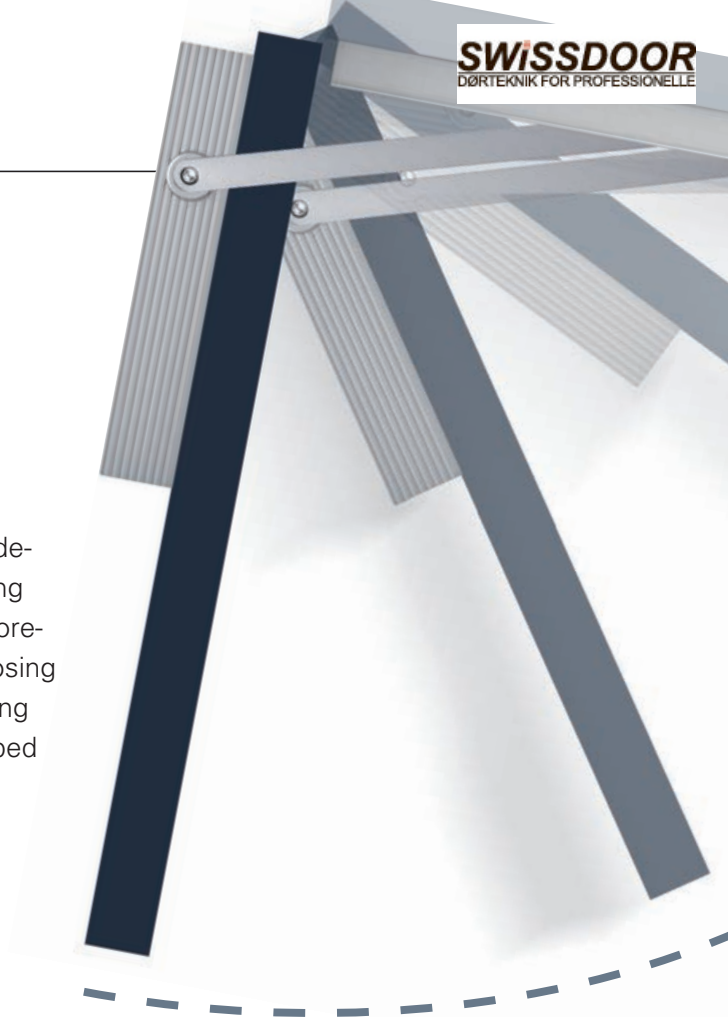
Standardized quality

As with all ECO Schulte products, the door closers are manufactured in a quality management process certified in accordance with **ISO 9001**. This guarantees that top quality is produced and installed. Many door closer versions are suitable for use with fire and smoke protection doors - and tested in line with **EN 1154 A**. All products tested in accordance with valid European directives have the CE mark applied to them



The Choreography of security

Door closing sequence selectors are highly complex systems which were developed to separate fire and smoke sections independently and purely mechanically. In the event of fire, a locking sequence is set in motion which is reminiscent of an exact choreography in its predetermined precision. A precisely defined closing sequence is prescribed with double-leaf doors: the passive wing must close first, then the active wing. A play of forces developed to save human life.



ECO FSA II System overview

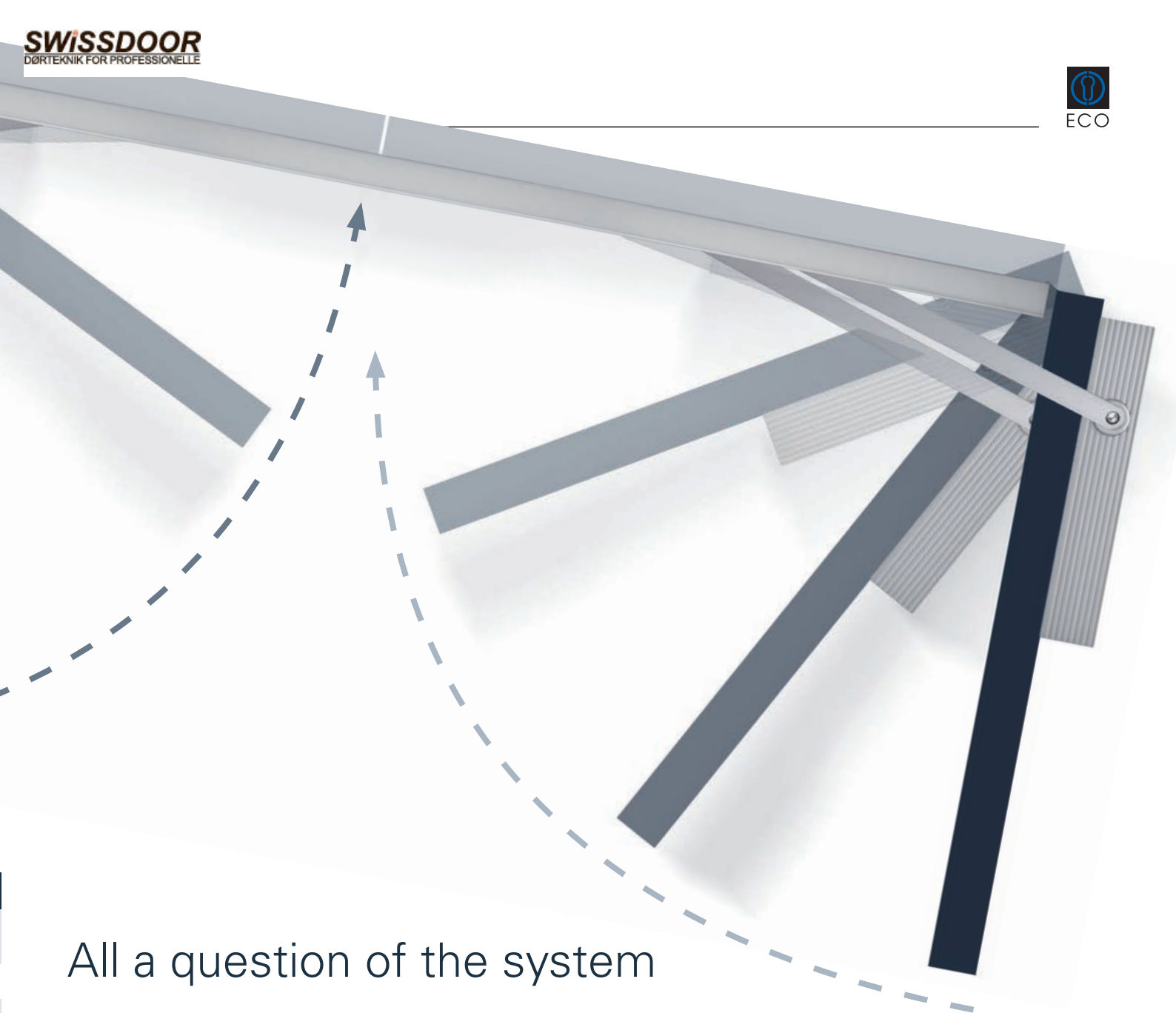
Slide rails for single-leaf door

| Description | Tests ¹ | Function | Max. door leaf width | Max. hold-open angle | Type of mounting ² |
|-------------|--|--|----------------------|----------------------|-------------------------------|
| EF |  / CE | electromagnetic hold open (24 V) | 1.400 mm | 145° | BS |
| EF-BG |  / CE | electromagnetic hold open (24 V) | 1.250 mm | 110° | BG |
| EFR |  / CE | electromagnetic hold open and integrated smoke detector (230V) | 1.400 mm | 145° | BS |
| EFR-BG |  / CE | electromagnetic hold open and integrated smoke detector (230V) | 1.250 mm | 110° | BG |

Slide rails for double-leaf door

| Description | Certificates ¹ | Function | Max. door leaf width | Max. hold-open angle | Type of mounting ² |
|-------------|--|---|----------------------|----------------------|-------------------------------|
| SR |  / CE | Closing sequence selector (SR) | 2.800 mm | – | BS |
| SR-BG |  / CE | Closing sequence selector (SR) | 2.500 mm | – | BG |
| SR-EF |  / CE | SR with hold-open function (24V) | 2.800 mm | 145° / 130° | BS |
| SR-EF-BG |  / CE | SR with hold-open function (24V) | 2.500 mm | 95° / 95° | BG |
| SR-EFR |  / CE | SR with hold-open function and integrated smoke detector (230V) | 2.800 mm | 145° / 130° | BS |
| SR-EFR-BG |  / CE | SR with hold-open function and integrated smoke detector (230V) | 2.500 mm | 95° / 95° | BG |

Legende: 1) EN 1155 – CE mark and fire protection authorization 2) BS = Hinge side / BG = Hinge opposite side



All a question of the system

The new ECO Newton door closers are a part of the comprehensive ECO Schulte door fittings system. ECO Schulte thinks in terms of complete solutions and is one of the very few system providers dealing in all aspects of the door. From hinges to handles and from locking technology to single and double-leaf door closing systems, the company provides all safety relevant components from a single source. A unique, logical overall concept in regard to technology, function, form and service, because safety is inseparable.

Life-saving - if the worst comes to the worst



ECO Schulte system technology for doors protects property and generates safety. The system philosophy at the door is universal: with system solutions from ECO Schulte, it is guaranteed that a door cannot become an obstacle when trying to escape. This claim is visualized in the company logo: it is the all-encompassing system technology that makes doors safe.



ECO closing sequence selector

Impressive in design, technology and installation



1. Design

- Continuous cover
- Continuously painted in RAL, or stainless steel full cover
- No visible smoke detector from front, slots only visible from the top and the bottom
- No visible release button, release from the bottom



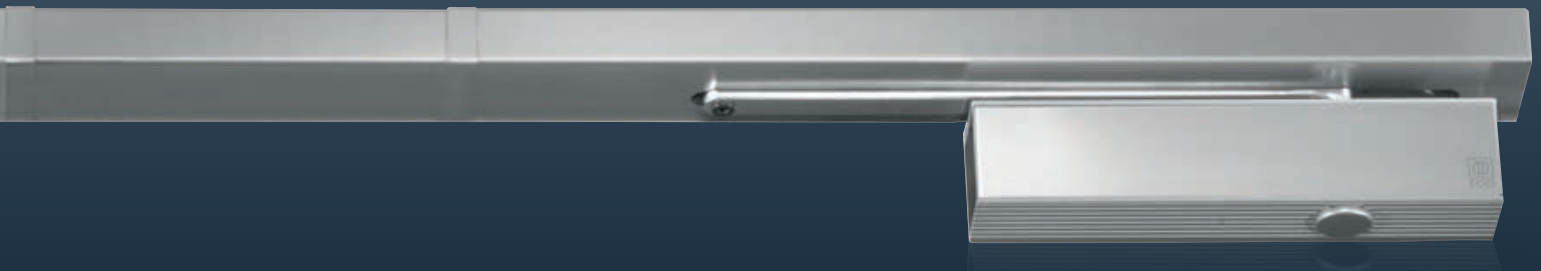
2. Technique

- New smoke detector technology acc. to **DIN 14677** (revision mandatory after 8 years)
- Alarm level monitoring / automatic calibration
- Dust indication (optical pre-information about dirt level)
- Approval for hinge side and hinge-opposite side. Power supply for connection of external magnets
- Compatible for connection of external fire alarm system, BUS-compatible, central building control systems (GLT)
- Compatible for smoke detector type ORS 142 and TDS 247



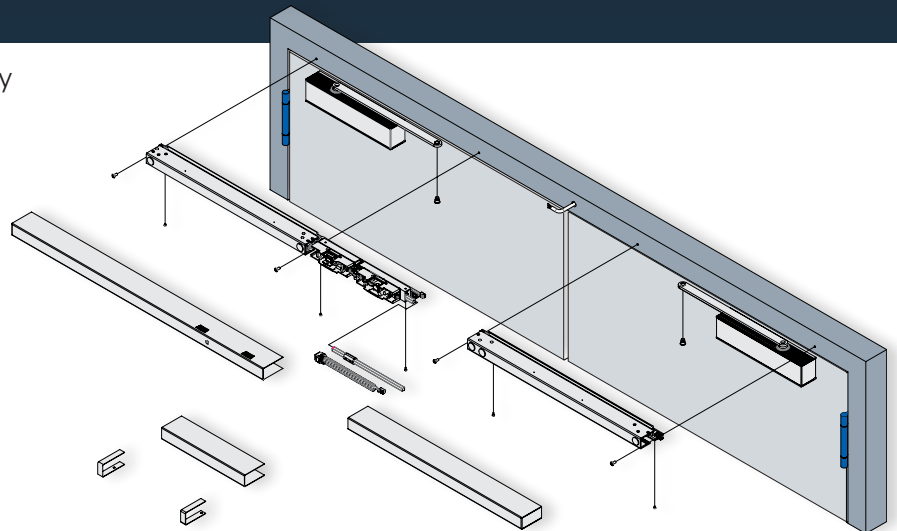


Scan QR-Code and view the
movie of our new
mounting technology



3. Mounting

- No calibration of the coordinator necessary
- Pre-mounted components
- Mounting with two screws per leaf only
- Continuous cover
- Wiring through easy plug- and play cable connection systems



4. Packing



- New complete packing, complete set including door closer and accessory
- No information about hinge distance necessary since all coordinators are delivered up to maximum length
- Set systems: e.g.
TS-41 up to 2.200 mm
TS-61 (2-5) up to 2.500 mm
TS-61 (5-6) up to 2.800 mm

ECOcover²

ECO **COVER²**

Stainless steel full cover

The full cover is an optional stainless steel cover for the ECO Newton door closer and the corresponding slide rail and is available for an additional charge. The overall appearance is finished off to perfection with a lever arm in stainless steel look. It is possible to order a cover for door closer units with jointed arm closers.



ECO
CLIC



Intelligent stainless steel cover:

ECOcllic envelops the aluminium body unit with the power of spring steel. The cover conceals all of the adjusting elements and cannot be removed without tools, thus securing the closer against unauthorized access.

ECOcllic for
body unit



Four surface finishes - One price



ECO closing sequence selectors - single or double leaf

Regardless of whether you choose the stainless steel option or one of our standard colours - silver, white or black - the cost of the ECO closing sequence selector remains the same.

Stainless steel finish:

Stainless steel slide rail, silver door closer with stainless steel ECOclic. (A stainless steel full cover is available for the door closer unit for an additional charge.)

Silver finish:

Slide rail RAL 9006, door closer with stainless steel ECOclic.

White or black finish (or RAL, as required):

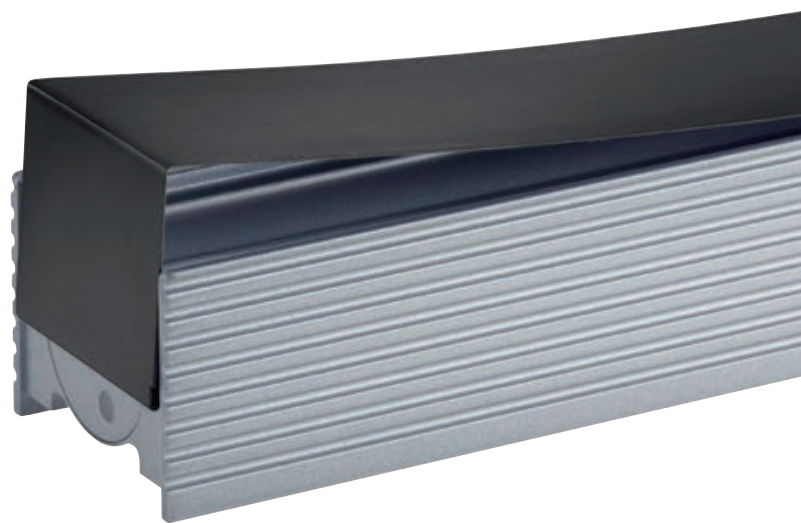
Slide rail, door closer and ECOclic painted in RAL.



The same applies to the ECO Newton door closers: four surface finishes - one price. (The stainless steel option with full cover for body unit and slide rail can be ordered for an additional charge.)

Mix and Match with body unit + ECOclic

ECOclic: the perfect match for your colour and design requirements: you can combine the individual colour of your ECO Newton door closer to suit any colour of door or doorframe.



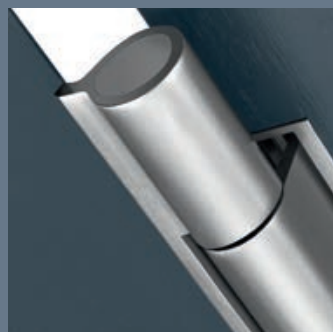
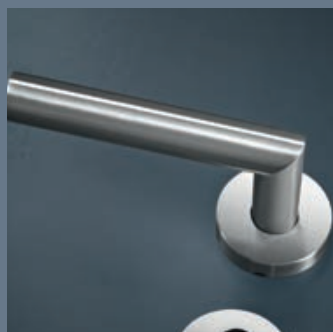
ECO Quality

All ECO door closers and systems are tested and authorized in accordance with the latest European standards and therefore comply with the most current European requirements in terms of functional reliability. They can therefore be used as overlying systems on all fire and smoke protection doors made of steel, aluminium or wood.

Further certificates of our products can be found on the internet at:
zertifikate.eco-schulte.de



Standardized finish pattern



ECO Schulte sees the door as a system. And this system consists of all the functional elements that make a door usable. ECO pays great attention to detail on all its stainless steel products and polishes the stainless steel surfaces of the door closers, fittings, panic locks and hinges to create a uniform structure. This means that the finely polished surface finish of a door closer or hinge exactly matches the handle fittings from the same company.

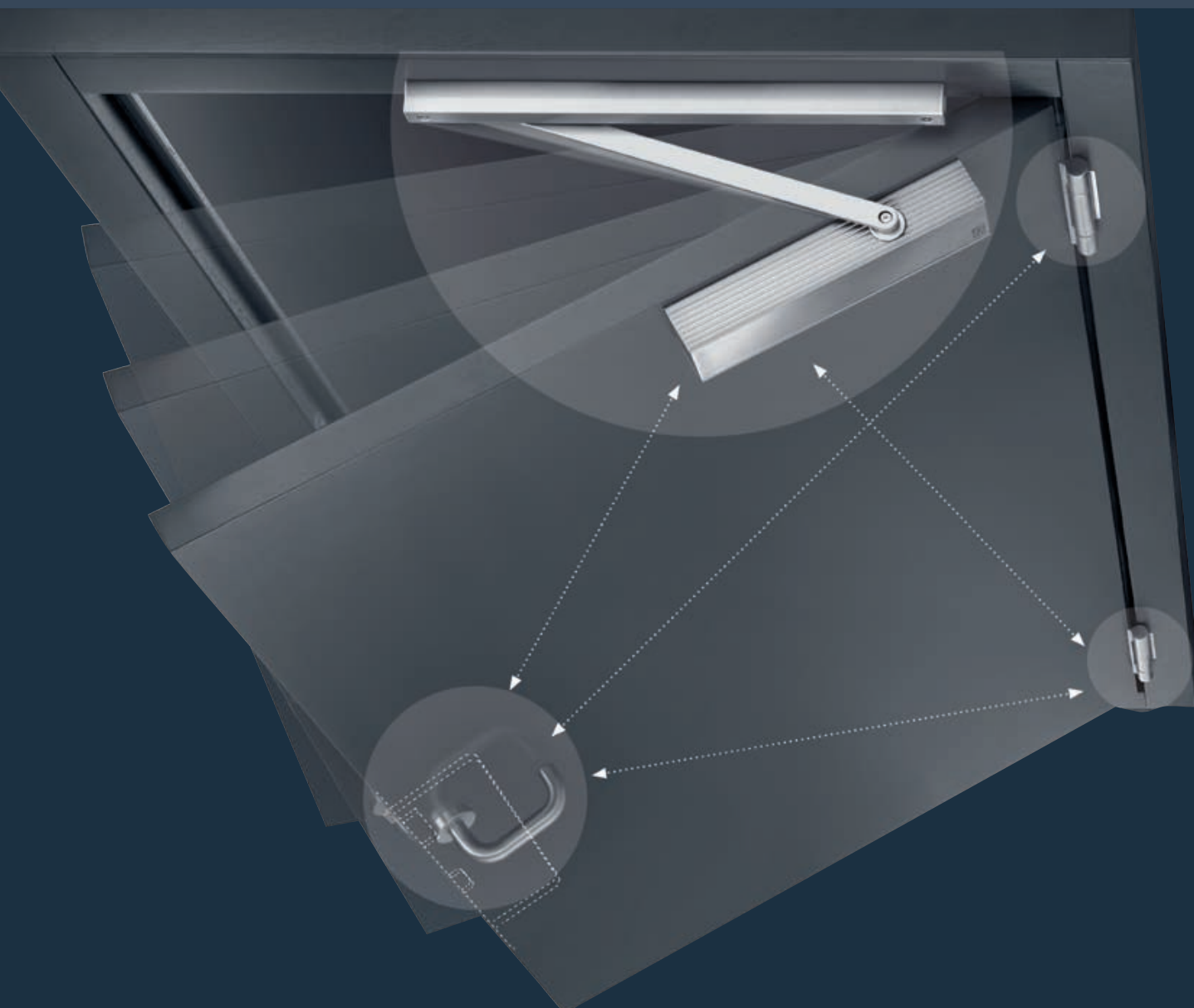


The door is a system

The interaction of forces

The security and ease of use of a door must not contradict each other: indeed, it is essential to see the door as a system – then it soon gets clear that only the optimized interaction of hinges, lock, fittings and door closer can provide maximum closing security with comfortable opening force. Poorly positioned hinges or stiff locks soon lead to closing difficulties – and bring door closers, which are designed for ease of use, to the limit of their reliability. ECO Schulte defines security and ease of use through

the ECO System – and builds in a safety margin, just in case. And naturally all the component parts of the system comply with European standards.



ECO Quality: Serves around the globe



All over the planet, contractors and investors are realizing ambitious projects together with architects and planners. Clever solutions for doors are always in demand. Our philosophy of system security and reliability in the door can be found in contemporary architecture as well as impressive hotels, public buildings, private residences, royal castles, private apartments and stadia.

Whether under our own trademark or as an OEM partner product of renowned door manufacturers, solutions from ECO Schulte make doors functional all over the world. Where there's a door, ECO Schulte is not far away.

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