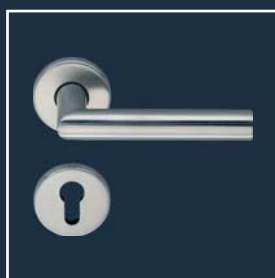
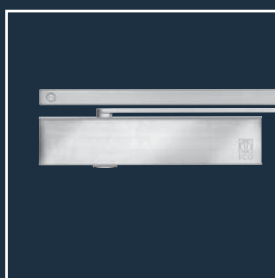


COMPENDIUM



■ SYSTEMTECHNOLOGY FOR THE DOOR





ECO

Printed on paper bleached without chlorine. Subject to technical changes.
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All previous ECO Schulte GmbH & Co. KG catalogues for all product groups lose their validity with the publication of the ECO Compendium.

This overall catalogue provides an overview of our entire program and helps to find articles quickly, along with their dimensions and other useful information. You will find more detailed information in the ECO gross price lists, in the data sheets on each article and in the internet under **www.eco-schulte.de**.

All information on materials, surfaces, dimensions and article numbers has been compiled conscientiously and complies with the state of the art. No legal claims can be derived from any erroneous information given, however, including printing errors. All measurements are listed in millimetres. Binding dimensions on request.

All listed or depicted information on products and their dimensions and features was valid on the day of printing. We reserve the right to make changes which serve technical progress and further development. Model and product claims cannot be asserted. Improper use or unauthorized alteration of our products release us from all obligations in the event of damage.

All deliveries are made in accordance with our General Terms of Sale and Delivery which you will find in the actual gross price list and on page 668 of this overall catalogue.

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The ECO Schulte product range



The ECO Schulte World

About our history	Page 8
About our family	Page 10
About our standards	Page 13
About our references	Page 14
About our locations.....	Page 16
The ECO Schulte world	Page 18



ECO Schulte Door closer technology

About the product	Page 26
Overview of contents	Page 37
ECO Door closer technology	Page 40



ECO Schulte Handle technology

About the product	Page 200
Overview of contents	Page 212
ECO Handle technology	Page 216
ECO Handle technology	
Hardware for sanitary partitions	Page 371

ECO Schulte Panic, lock and bolting technology

About the product Page 403
Overview of contents Page 412
ECO Panic, lock and bolting technology Page 418



ECO Schulte Hinge technology

About the productPage 559
Overview of contents Page 566
ECO Hinge technology Page 571



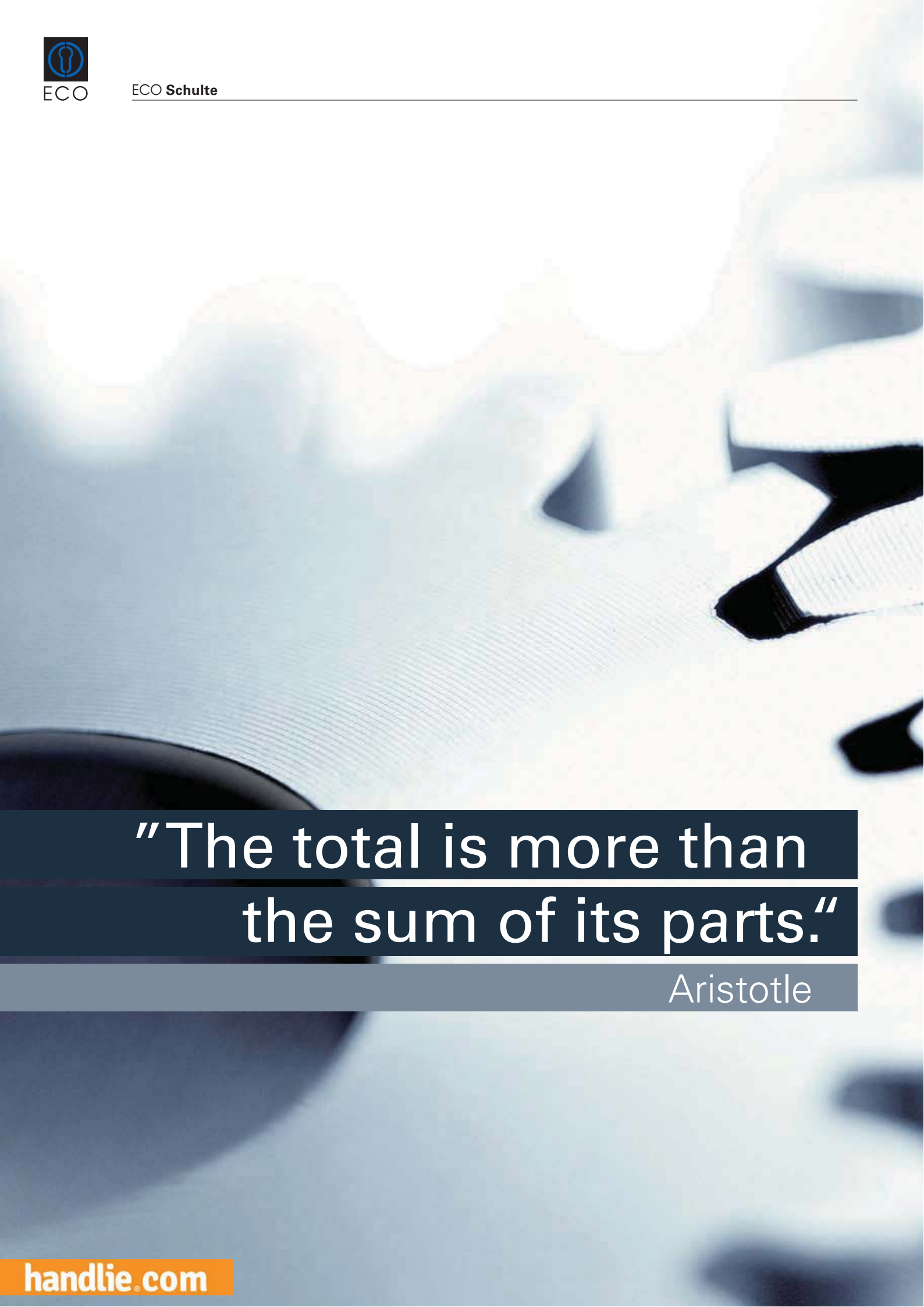
ECO Schulte Glass door technology

About the product Page 635
Overview of contents Page 638
ECO Glass door technology Page 640



ECO Schulte General information

Care notes Page 664
General terms of sale Page 668
Product liability Page 670
General notes Page 673
Keyword index Page 674



**“The total is more than
the sum of its parts.”**

Aristotle

The essence of a door is security

The Origins

ECO Schulte has its roots as a family business at the edge of the Ruhr district in the Sauerland region. The mineral deposits to be found here, the steel industry and the Industrial Revolution have produced many industrial enterprises, from global groups of companies to innovative medium-sized businesses which developed their international activities.



1986



Today

Skilful entrepreneurs and a self-assured workforce have enabled this stretch of land to develop into the most highly industrialized region in the world. In the pioneer days of the 1920s, Echt & Co started up as a metal-working business in the Westphalian town of Menden. Echt & Co. later became ECO. The Co., which stood for the co-partner in the business, was the Schulte family whose name has since been incorporated into the company's current name, ECO Schulte. This family business with a long tradition set itself the task of redefining the system technology of doors. The palette of manufacturing technologies used by ECO soon ranged from stamping and shaping to metal casting and this was to become the cornerstone of the company's subsequent specialization in door fittings. This is where the founder family and the company acquired the specialized skills and knowledge which ECO Schulte has nurtured and further developed to the present day: we know about metal in all of its shapes and forms. And about doors.

The Idea

Doors and windows are the basic functional elements of a house. Handles allow you to operate them as desired. The company's idea right from the start was standardization - all of the technology involved in a door from a single source. The simple fact here is that only the ideal interplay of all parts of the fittings can ensure that the door functions properly in all situations and conditions. The perfect final result can only be defined from within the system. A door has the function of restricting access to a specific area to authorized individuals. Doors must be able to deny access to trespassers, while ensuring at the same time that a house can be vacated safely at all times, in the event of fire, for instance. This is where the requirements are reversed; the door may no longer constitute an obstacle. We recognized at a very early stage that the essence of a door is safety and security, which are inseparable. They cannot be split into locks and hinges, latches and handles - a solution from a single source guarantees the best functionality.

The company started to produce fittings and hinges for fire protection doors in the 1960s. One of the first products was nylon fittings with a steel core. Using this as the basis, ECO continually expanded its range of door fittings. The uniform approach to lock, fittings, closer and hinge technology soon made ECO one of the most important development partners for the door industry. ECO Schulte demonstrates its traditional processing know-how with doors by combining modern materials with galvanized steel. Handles for fire protection doors remain essential products in the ECO range to this day.

International Expansion and Growth

The company adopts its current name ECO Schulte in 1972. ECO Schulte GmbH & Co. KG prospers – the boss is Ernst Schulte and he is convinced of the idea of system technology for doors - from a single source. The hinges and fittings come from the main production site in Menden. Specialized knowledge is gained in 1989 with the acquisition of the GBS (Gebrüder Betz, Schwelm) lock factory and integrated into the production process in Menden. High-quality mortise locks and bolting technology for steel, wood and profile doors have been developed and manufactured here ever since, from series products to panic locks and bar handles for escape route solutions. The main production site in Menden is the development, production, assembly and administration centre of the group of companies.



ECO Schulte founded its subsidiary ESB in Luckenwalde near Berlin in the 1980s. This production site is dedicated to stamping and forming technology. Plastic parts are processed here and a highly regarded laser welding technique is used for the manufacture of high-quality door hinges.

ECO supplies the emerging Asian markets directly from China, where the company operates its own factory and logistics centre. Together with other European distribution companies and global marketing partners, the ECO brand has built up an international distribution and service network in the course of the last decades.



The family business is geared to the future: Ernst Schulte, the founder of the group, continues to contribute his experience, ideas and extensive knowledge to the business. He maintains traditions while promoting and demanding innovation. The line of succession has been agreed within the family business: Schulte's daughter Andrea Widmann and his sons Heinz and Tobias are steering the company into the third generation as the managing partners.

"The Door is a System"

Doors turn architecture into something that people can use – hardly any other functional element of a building is used more intensively every day than the door. Because ECO Schulte is a system provider for all aspects of doors, it is one of a very few companies that have virtually all of the technological solutions at their fingertips which make doors useful and practicable. An interview with Ernst Schulte, founder of the ECO Schulte group, and his sons and co-directors Heinz and Tobias.



Ernst Schulte,
founder of the ECO Schulte
group of companies.

When you are asked what benefits your products produce, what is your answer?

Ernst Schulte: You can bring this down to one simple basic principle: what we sell is in essence safety and security. Our products make doors movable, thus making it possible to control access. Door system technology has to ensure that only authorized persons are allowed in but that all people can get out in an emergency.

Heinz Schulte: There are more or less basic fittings that come with every door. These include the hinges, which give the door leaf an axis, the handle and the lock. These are the basic fittings as we have always known them. The functional reliability of these parts over many years ensures that human lives and property are protected inside the building. Essentially,

there are two concepts which make these basic fittings even more reliable. The first is a door closer which closes doors securely so that they can separate different fire compartments in the event of a fire. The second is the panic opener, which ensures in several different ways that it is always possible to get out of a building in an emergency.

And why is the overall door system solution so important in your opinion?

Ernst Schulte: It goes without saying that the components of a system that has to save lives in an emergency should be perfectly matched with one another. The failure of one single link in the function chain can be fatal. Or to put it another way: if the system is perfectly matched, additional safety potential is created. The whole is more than the sum of its parts, as



Tobias Schulte

we all know. We also cooperate closely with the door manufacturers, because ultimately it's the doors that are the central element of the system.

Tobias Schulte: With a service life of roughly 20 years, a door system in a hospital has to withstand an awful lot. A large number of opening and closing cycles not only takes its toll on the door closer but also on the hinges and latch. We try to make it clear to our customers that safety and security are inseparable within the overall concept of a door: a poor-quality component can disrupt the system and cost human lives.

You are successful all over the world with German technology – what's the essential aspect in the export markets of the world where doors are concerned

Tobias Schulte: Our technology enjoys a very good reputation internationally and the entire industry here lives from this. This country is successful in the export of technology and know-how – from engineering projects to architecture. My experience has been that a convincing idea like our "All aspects of the door" concept is valued and appreciated in many markets. Along with the fact of course that we ensure the full range of functions of the door with our products, which makes us the only point of contact from the planning stage all the way through to the end of the service life of the system.

Ernst Schulte: German branded goods are also linked with another important idea: standards. Compliance with international standards is akin to a sacred

conformity and quality promise at ECO Schulte that we build into every product. This produces reliability with planners and processors: by using products that comply with standards, our customers, planners and architects reduce their liability risk in the event of damage or other problems. It is regrettable that the documented compliance with standards is not a matter of course internationally.

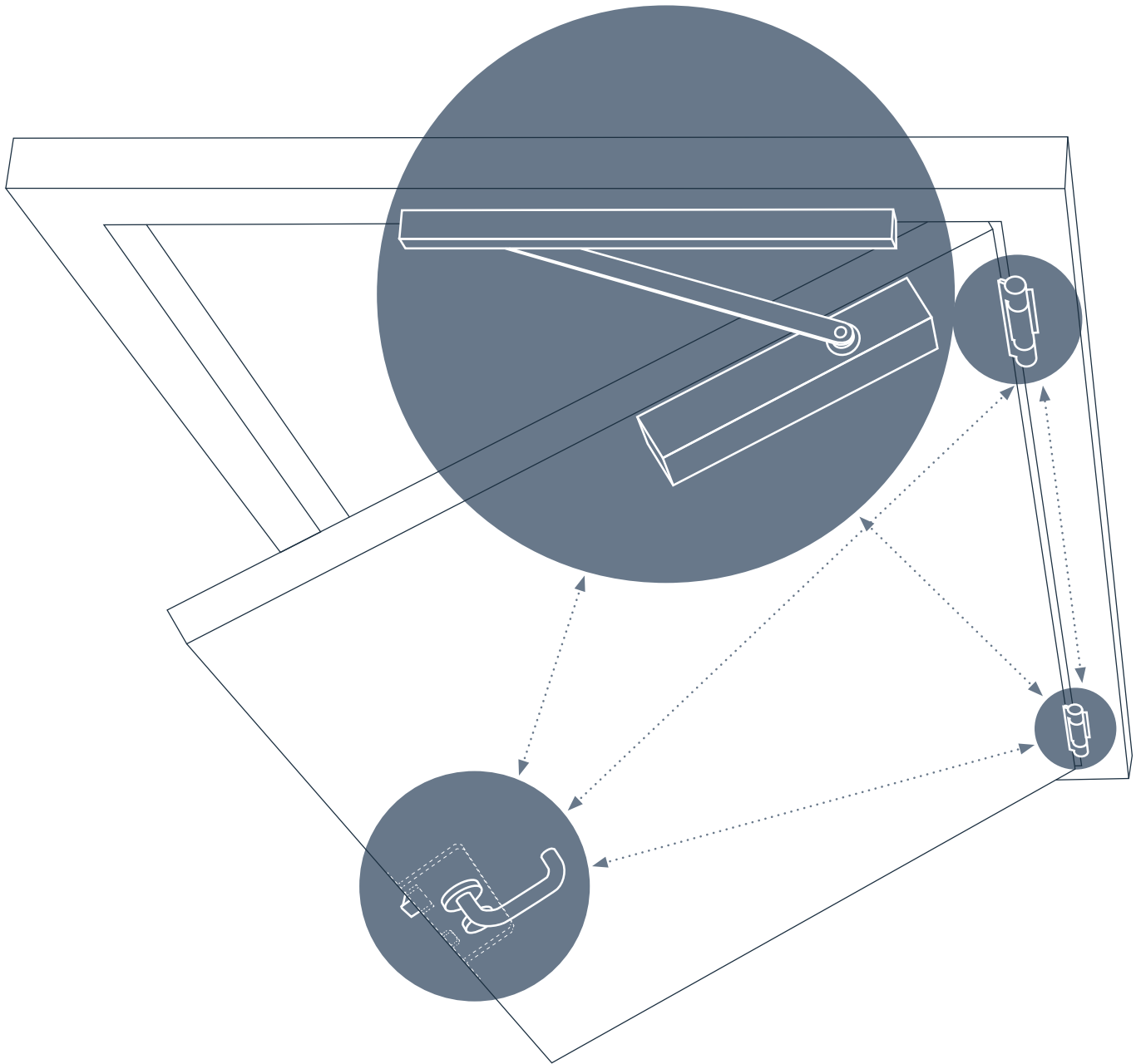
You are the manufacturer of standardized high-quality solutions - and products which serve us silently and reliably for decades. Is any leeway for innovation possible within the strict confines of the standards?

Ernst Schulte: The former General Secretary of ISO, Christian Favre, once said that although Concert A has been set at 440 vibrations per second, the possibilities open to music are still unlimited. More or less the same thing applies to the system technology in doors. We have produced many creative solutions within the confines of the standards.

Heinz Schulte: When I walk around a building fitted with ECO Schulte system technology, I know that the doors won't constitute an obstacle for me if a fire breaks out. We are here to produce a feeling of safety and security and not one of anxiety. You can believe me that our products are quite happy to play the role of the dumb waiter who provides reliable service over many years. We are pleased to give others the task of spreading anxiety.



Heinz Schulte



The Interplay of Forces

Safety, security and easy access do not have to contradict one another where doors are concerned. It is important to regard the door as a system, however, because it then becomes clear quickly that maximum closing security with simultaneous ease of opening can only be defined through the optimised interplay of the hinges, latch, fittings technology and closer. Poorly mounted hinges or stiff latches rapidly produce unfavourable closing forces and soon bring the door closers, which are supposed to provide easy entry and exit, to their safety limits. ECO Schulte defines safety, security and easy access through the ECO system – and builds in safety reserves just in case the unexpected happens. And it goes without saying that all of the system components comply with European standards.

Standards are Defined Safety and Security

The door and the technology that makes a door function properly form a highly complex system. The key to the functional reliability of the whole system is a standards concept which defines precise requirements and test procedures for the various products.

ECO Schulte regards standards as an unconditional guarantee which must be at least fulfilled - but which ECO often enough exceeds when it is of benefit to the processor, user or planner. The standards for door systems are recognized all over the world and help to guarantee a high level of safety, security and functionality across national frontiers and beyond the limits of individual product ranges. This applies to the individual components as well as the entire system.

The future of standards and norms is already reflected in the corporate philosophy of ECO Schulte: While it is mainly the individual functional elements that are described today, the standards of tomorrow will be dedicated more and more to conceptional units as well as the door as a complete system.



ECO products are manufactured in accordance with the following European standards:

DIN EN 1906:2012

Door handles and knobs

DIN EN 1125:2008

Panic door locks with a horizontal activation bar for doors in escape routes

DIN EN 1154:1996 + A1:2002

Door closing mechanisms with a controlled closing sequence

DIN EN 179:2008

Emergency exit locks with handles or impact plates for doors in escape routes

DIN EN 1158:1997 + A1:2002

Closing sequence regulators

DIN EN 1935:2002

Single axis door and window hinges

DIN EN 12209:2003

Mechanically operated locks and strike plates

Where there's a door...

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.

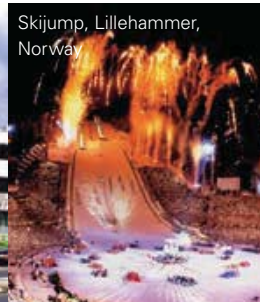
All over the planet, builders and investors are realizing demanding projects together with architects and planners. Clever solutions for doors are always in demand. Our philosophy of system security and reliability in the door is to be found just as much in contemporary architecture as in impressive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

Real estate symbolizes lasting value all over the world – and ECO products do justice to this aspiration with German quality consciousness, a product range based on international standards and the accompanying services with which we keep in close touch with our customers and markets.

Our customers are the manufacturers of doors and we develop and constantly refine our products in close coordination with them. Our customers are also architects, developers, planners and processors – and we provide all of these people with technical solutions for all aspects of the door. We provide both customer groups with the highest possible level of design, functionality, safety and security and thereby with a high value – a value you can rely on.



Ford, Aachen, Germany



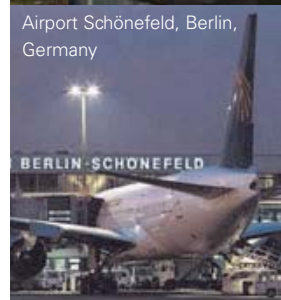
Skijump, Lillehammer, Norway



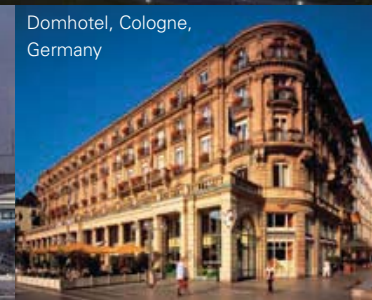
Millennium Tower, Vienna, Austria



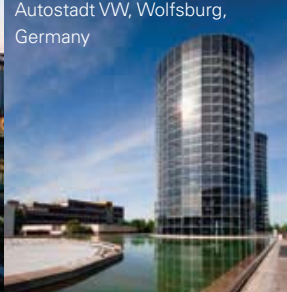
European Parliament, Brussels, Belgium



Airport Schönefeld, Berlin, Germany



Domhotel, Cologne, Germany



Sales offices and production sites

ECO is present all over the world. By keeping to a consistent course of expansion, ECO now has a production and marketing network in Europe and Asia.

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Produktionsstandort China

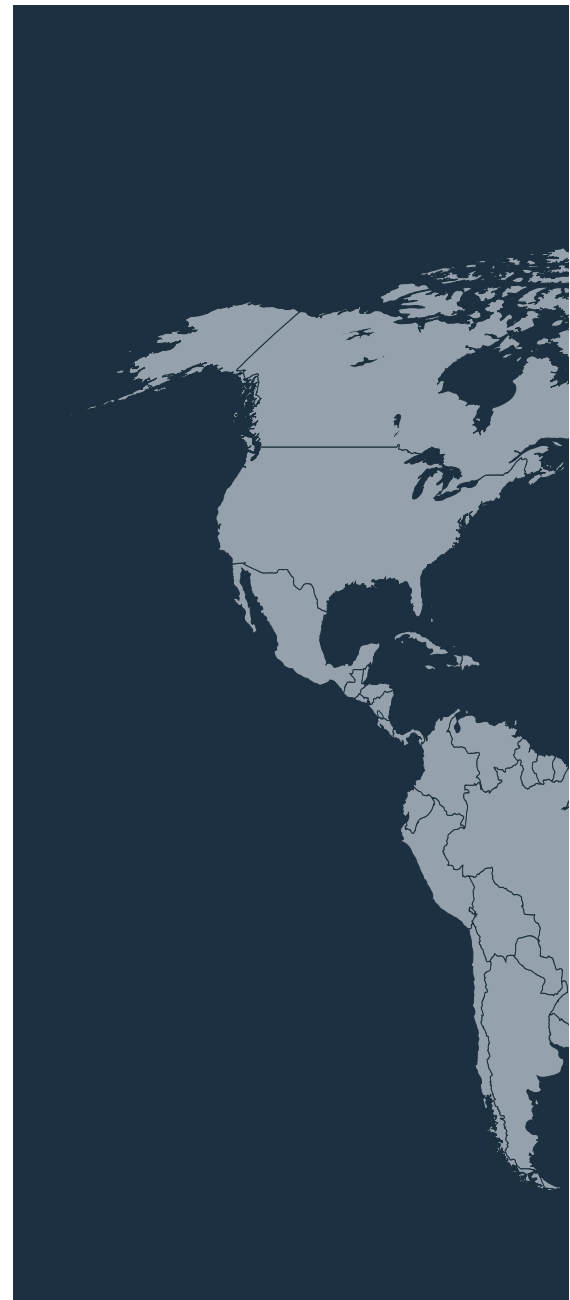
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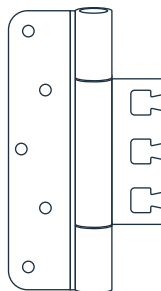
Please step in:

The World of ECO Schulte.



The ECO System: Safety and Security are Inseparable

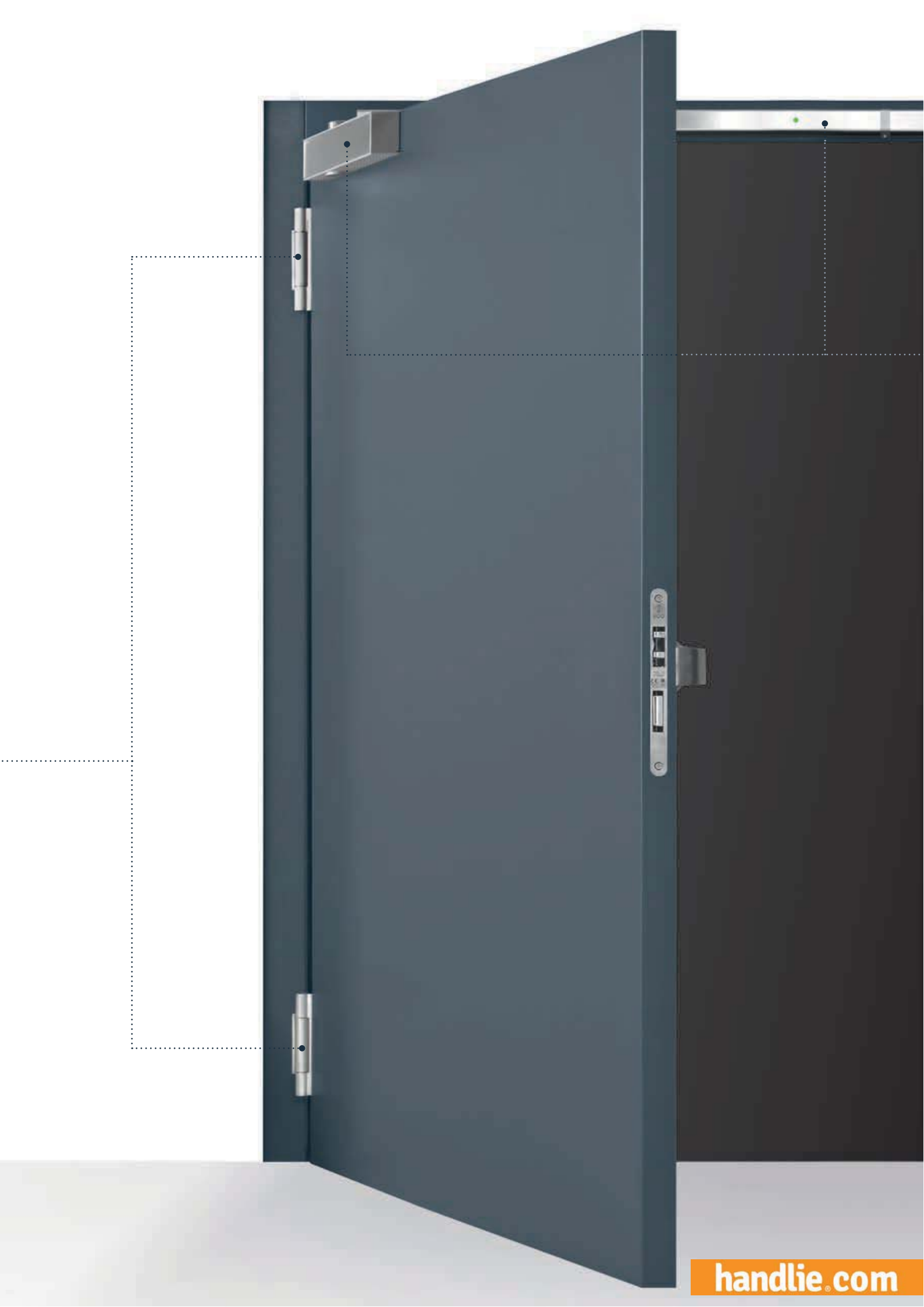
The world of ECO Schulte is the technology in and around doors. As one of a very few system suppliers in the world, the company pursues a universal approach. The technologies are developed and constantly refined in close coordination with the manufacturers of doors and the processing specialists in tradesman's businesses. ECO never focuses purely on the individual product here but always on the interplay of all components within the door system, from the closer to the hinge and from the lock to the fittings. The door is a complex structure of safety and security which protects life and limb – and values. All of these are valuable commodities which deserve the best quality and maximum functional reliability. Only the best is good enough where doors are concerned – ECO Schulte.



Hinge technology

Hinges are responsible for carrying the weight of the door and moving it from one position to another. ECO Schulte has a wide range of tailor-made solutions, from laser-welded industrial hinges to unique hinges mounted on ball bearings.

Page 559



Door closer technology

The company has set new standards with the ECO Newton door closer generation (photo). ECO also produces the ECO Multi Genius door closer, however. No matter whether standard arm, slide rail or internal systems for single and double-leaf doors are required, ECO Schulte can offer the complete programme for every door type.

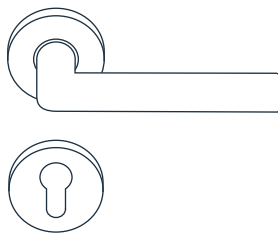
Page 26



Handle technology

ECO deliberately focuses on a classical form language in its fittings technology – and it does so consistently, all the way through the entire door handle range.

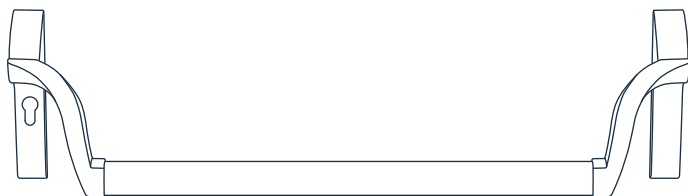
Page 200



Panic, lock and bolting technology

Products for the situation you hope will never happen: coordinated panic, lock and bolting technology which guarantees the safe opening of the door in panic situations. If you look at it this way, security means always being on the safe side - with ECO.

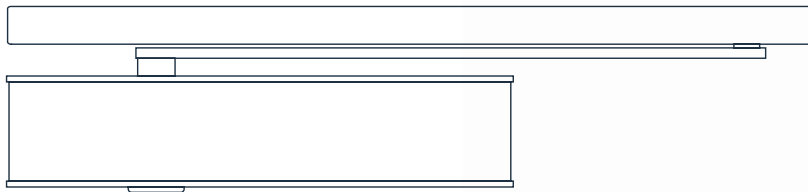
Page 403





ECO

Door closer technology



Door closer technology

Aesthetic

Powerhouses



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 Aesthete: ECO Newton





The new door closer generation from ECO Schulte: a meticulously well-conceived design consisting of a stainless steel cover and aluminium body. Concealed mounting plates, adjusting elements protected against vandalism, colour-matched materials and the variable combination of all slide rail door closers with closing sequence regulator systems are the distinguishing features of this new generation of door closer models. In addition to this, the new "ECOvalve" technology guarantees the simple and high-precision adjustment of all parameters of the closing process.



ECO Newton TS-61

ECO Newton overview

Door closer with slide rail							
Description	Tests ¹	Size acc. to EN ²	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	from the front	adjustable	from the front	optional	yes / yes ⁷
TS-61 EN	 / 	2-5 continuously	from the front	adjustable	from the front	optional	yes / yes ⁷
TS-51 EN	 / 	1-4 continuously	from the front	adjustable	from the front	-	yes / yes ⁷
TS-41 EN	 / 	1-4 continuously	from the side	fixed	from the side	-	yes / yes
TS-31 EN	 / 	1-3 continuously	from the side	fixed	from the side	-	yes / yes

Door closer with standard arm							
Description	Tests ¹	Size acc. to EN ²	Latching speed adjustment ³	Back-check ⁴	Closing force adjustment	Delayed action ⁵	DIN L + R / BS + BG ⁶
TS-50 EN	 / 	1-5 continuously (6)	from the side	fixed	from the side	-	yes / yes
TS-20 EN	 / 	3 / 5	from the side	fixed	from the side	-	yes / yes
TS-15 EN	-	2 / 3 / 4 / 5	from the side	-	from the side	-	yes / yes
TS-14 EN	-	1 / 2 / 3 / 4	from the side	-	from the side	-	yes / yes

Legend: **1)** EN 1154 - CE-sign 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)** Comfortable delayed action, for example for hotel rooms **6)** Available for DIN left and DIN right (L+R) as well as for hinge side (BS) or hinge-opposite side (BG) **7)** Please order execution G (=hinge-opposite side)

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).



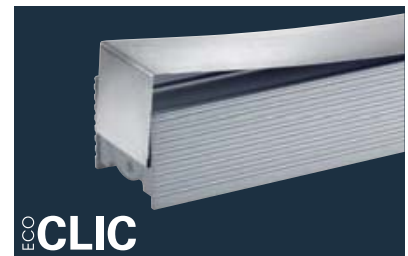
Combination of elegant materials

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.



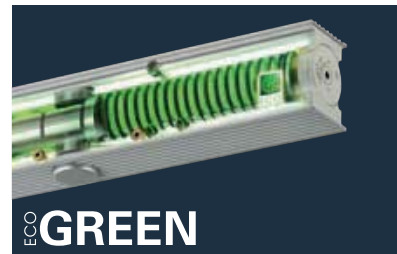
Stainless steel full cover

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.





ECO

Door closer technology ■ The product


The integration specialist: ECO Multi-Genius



ECO Multi-Genius
Installation version

The aesthetics of integration

This door closer makes itself invisible. The ECO Multi-Genius is extremely compact, and this makes it suitable for installation in doors with a leaf thickness of only 40 mm. This in turn means that the closer can be integrated virtually invisibly before the door even leaves the factory. Thanks to its distinctly decreasing opening torque, the Multi-Genius is the ideal easy-use door closer with a high level of user convenience - plus a unique opening angle of 165°.



The ECO Multi-Genius is one of the most compact door closers on the market - compact enough for installation in wooden, sheet steel and profile frame doors made of aluminium/steel ≥ 40 mm. The principle works with an eccentrically controlled pull mechanism and microhydraulic damping unit which guarantee optimum user convenience. A visible closing power display (**in line with EN 1154 A**) enables you to set the desired closing force before installation. The closing speed and hydraulic latching have an infinitely variable adjustment even after installation.





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 doors

Description	Tests ¹	Function	Max. door leaf width	Max. hold-open angle	Type of mounting ²
EFR	 / 	Electromagnetic hold open and integrated smoke detector (230V)	1.400 mm	145°	BS
EFR-BG	 / 	Electromagnetic hold open and integrated smoke detector (230V) - hinge-opposite side	1.250 mm	110°	BG

Slide rails for double-leaf doors

Description	Tests ¹	Function	Max. door leaf width	Max. hold-open angle	Type of mounting ²
SR	 / 	Closing sequence selector (SR)	2.800 mm	115° *	BS
SR BG	 / 	Closing sequence selector (SR) - hinge-opposite side	2.500 mm	–	BG
SR BGX		Closing sequence selector (SR) for special door dimensions - hinge-opposite side	2.500 mm	95° *	BG
SR-EFR	 / 	Closing sequence selector (SR) with hold-open function and integrated smoke detector (230V)	2.800 mm	145° / 130°	BS
SR-EFR -Short-	 / 	Closing sequence selector (SR) with hold-open function RSZ hinge-opposite side	1.700 mm	145° / 130°	BS
SR-EFR BG	 / 	Closing sequence selector (SR) with hold-open function and integrated smoke detector (230V) - hinge-opposite side	2.500 mm	95° / 95°	BG
SR-EFR BG -Short-	 / 	Closing sequence selector (SR) with hold-open function and integrated smoke detector (230V) - hinge-opposite side	1.700 mm	95° / 95°	BG

Legende: **1)** EN 1155 – CE mark and fire protection authorization **2)** BS = Hing-side / BG = Hinge-opposite side
 * (mechanical hold open FKL, not suitable for use on fire doors and smoke doors)

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.

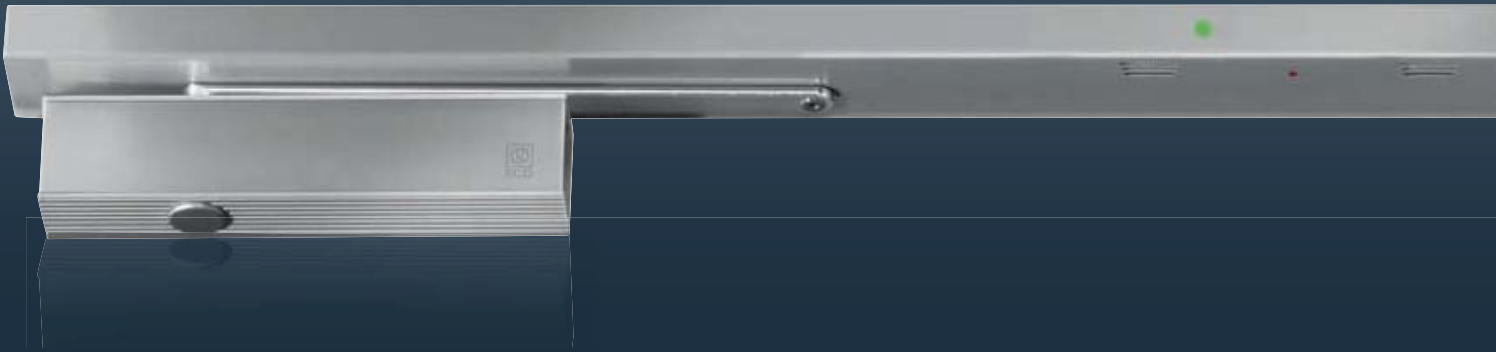
Life-saving - if the worst comes to the worst



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



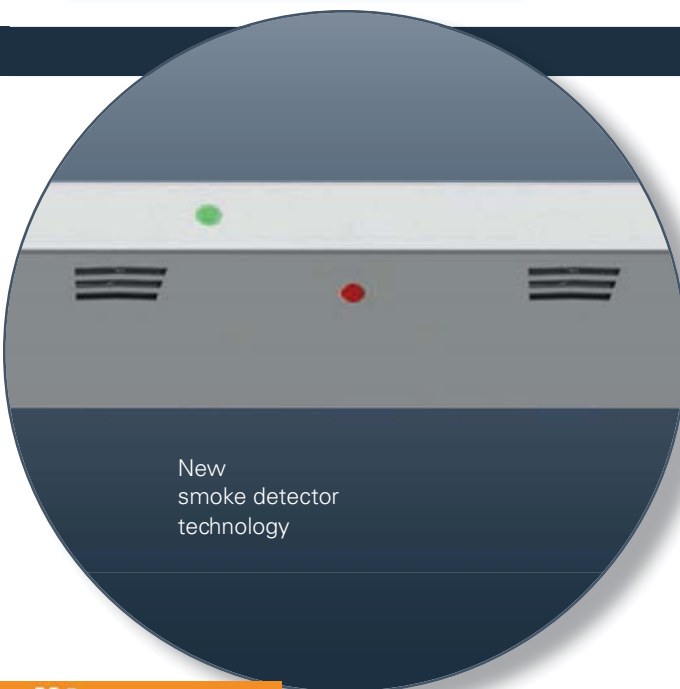
1. Design

- 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

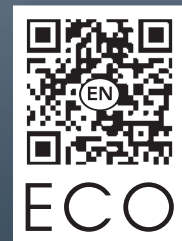


2. Technique

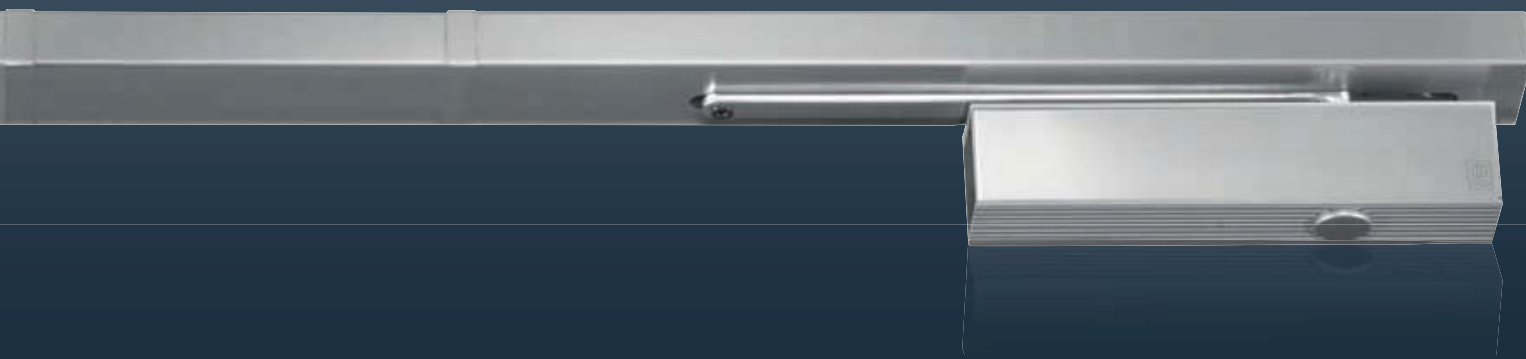
- New smoke detector technology acc. to **DIN 14677** (revision mandatory after 8 years)
- Alarm level monitoring /automatic calibration
- Dust indication (optical pre-information about dirt level)
- Approval for hinge side and hinge-opposite side. Power supply for connection of external magnets
- Compatible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



New
smoke detector
technology

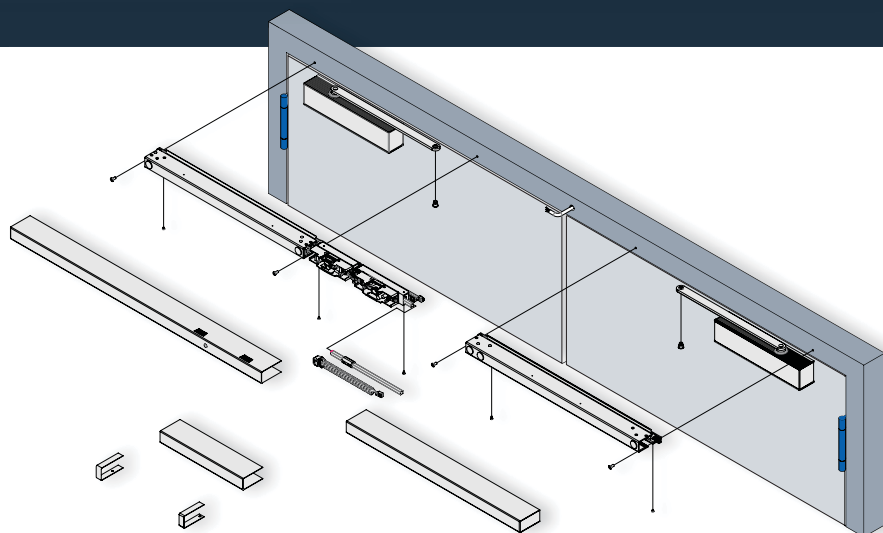


Scan QR-Code and view the movie of our new mounting technology



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

ECO Newton



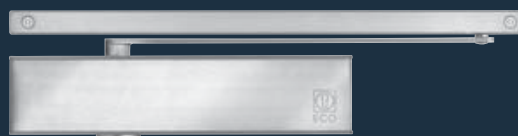
ECO Newton TS-61 (EN 5 – 6; EN 2 – 5)
Page 40



ECO Newton TS-51 (EN 1 – 4)
Page 48



ECO Newton TS-41 (EN 1 – 4)
Page 54



ECO Newton TS-31 (EN 1 – 3)
Page 62



ECO Newton TS-15 K (EN 1 / 2)
Page 70



ECO Newton TS-50 (EN 1 – 5; (6))
Page 96



ECO Newton TS-20 (EN 2 / 3 / 5)
Page 102



ECO Newton TS-15
(EN 2 / 3 / 4 / 5)
Page 110



ECO Newton TS-14
(EN 1 / 2 / 3 / 4)
Page 116

Concealed door closer

NEU!



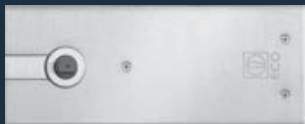
ITS Multi-Genius (EN 1 – 4; EN 2 – 5)
Page 122



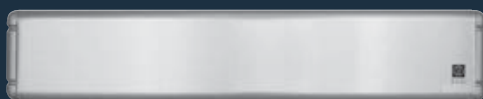
ITS 420
Page 152



FTS-63 / FTS-63 R (EN 2 – 5 / EN 5 – 6)
Free-swinging door closer
Page 156



BTS (EN 3, EN 4)
Floor spring
Page 160



FDC / -B
Swing-door drive unit (EN 3 – 6)
Page 164

NEW!



ETS 73
ETS- 64-R (EN 3 – 7 / EN 4 – 6)
Electromechanical swing-door drive unit
Page 172

Slide rails

NEW!



Slide rail SR-EFR-2
with ECO Newton door closer TS-61



Slide rails for single-leaf doors

Slide rail B	Page 77
Slide rail B-FKL	Page 77
Slide rail K	Page 77
Slide rail EF	Page 80
Slide rail EF BG	Page 81
Slide rail EFR	Page 82
Slide rail EFR BG	Page 83

Slide rails for double-leaf doors

Slide rail SR	Page 86
Slide rail SR BG	Page 87
Slide rail SR-EF-1S	Page 88
Slide rail SR-EF-1S BG	Page 89
Slide rail SR-EF-2	Page 90
Slide rail SR-EF-2 BG	Page 91

Slide rails for double-leaf doors with integrated smoke detector

Slide rail SR-EFR-1S	Page 92
Slide rail SR-EFR-1S BG	Page 93
Slide rail SR-EFR-2	Page 94
Slide rail SR-EFR-2 BG	Page 95

Concealed slide rails for single-leaf doors

Slide rail IS	Page 127
Slide rail IS-MFA	Page 127
Slide rail IS-EF	Page 128

Concealed slide rails for double-leaf doors

Slide rail IS-SR	Page 129
Slide rail IS-SR-EF	Page 129

Accessories

Mounting plate for ECO Newton	Page 178	Mounting base	Page 191
Fullcover for door closer body ECO Newton	Page 179	Electromagnetic door retainer	Page 192
Fullcover for slide rail B	Page 179	Anchor plate	Page 194
Arms	Page 179	Test gas P-250	Page 195
Standard arm	Page 180		
Hold-open arm	Page 180		
Accessories set parallel arm mounting	Page 180		
Under-lintel angle	Page 181		
Panic flap MK Basis	Page 182		
Glass clamping device	Page 182		
Adaptor for arm	Page 183		
Accessories set tandem	Page 183		
Complete set tandem door closer	Page 183		
Adaptor profile	Page 184		
Metal drilling template	Page 185		
Axis bolt extension FTS	Page 185		
Accessories set FKL hold open devices	Page 186		
Accessories set MOL	Page 187		
Pivot hinge	Page 187		

Accessories FDC

Mounting plate	Page 196
Door stop	Page 196
Brake for holding magnet	Page 196
Axis extension	Page 196
Finger protection shade	Page 196

Accessories ETS

Mounting plate	Page 197
Door stop	Page 197
Clamp piece	Page 197
Casing	Page 197
Relay board	Page 197

Accessories for hold-open devices

ECO RSZ (smoke inducting system)	Page 188
RSZ Standard (smoke inducting system)	Page 188
Power supply	Page 188
Smoke switch	Page 188
Interrupt button	Page 189
Smoke switch	Page 190
Thermo switch	Page 190
ORS 142 Set	Page 190

Operating and safety elements

Control device BEDIS / BEDIX	Page 198
Flip switch	Page 198
Radar	Page 199
Radio control set	Page 199
Sensor strip	Page 199

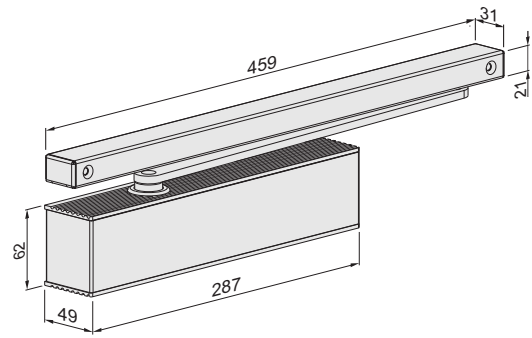
ECO **Newton** TS-61



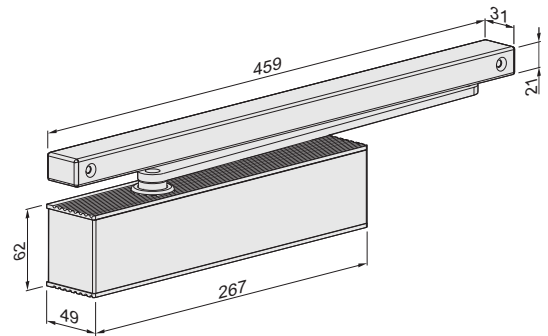
Product characteristics

Closing force (continuously adjustable)	Size acc. to EN	2 – 5	5 – 6
		F	F
Door width	≤ 1.250 mm	■	■
acc. to EN	≤ 1.400 mm	-	■
Dimensions (incl. mounting plate)	Length in mm	287	267
	Depth in mm	49	49
	Height in mm	62	62
Mounting plate acc. to EN 1154 A (supplementary sheet 1)		■	■
Hinge side and hinge-opposite side		□	□
DIN left / right		■	■
Latching speed (continuously adjustable)		■	■
Closing speed (continuously adjustable)		■	■
Back-check (continuously adjustable)		■	■
Delayed action (continuously adjustable)		□	□
Tested acc. to EN		EN 1154 A	
Suitable for fire- and smoke control doors		F	
Certified according to EU-Directive		CE	

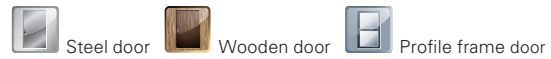
- Yes
- No
- Option



Dimensions: TS-61 (2 – 5)



Dimensions: TS-61 (5 – 6)



ECO Newton TS-61 ■ Highlights at a glance

ECO UNITY

ECO PHYSIS

ECO CLIC

ECO MOUNT

ECO VALVE

ECO COVER²

ECO GREEN

ECO LINE

ECO VARIO

Details regarding the ECO Newton Highlights can be found in the intro of this chapter.

Body: Silver RAL 9006 ECOcllic: Stainless steel polished or satin	Body + ECOcllic: White RAL 9016	Body + ECOcllic: Black RAL 9005	Body + ECOcllic: Brown RAL 8014

Slide rail and arm are always delivered in the same colour as the ordered door closer body.

Under-lintel angle for door closer
Page 181

Under-lintel angle for slide rail
Page 181

Adaptor profile
Page 184

Order information

ECO Newton TS-61 ▪ Door closer with slide rail

Product information

Closing force 2 – 5 (5 – 6) tested acc. to **EN 1154 A** (for door width up to 1.250 mm (1.400 mm) continuously adjustable. Latching speed, closing speed and back-check continuously adjustable. **Delayed action as option.** Same version DIN left and DIN right. Mounting height with mounting plate only 49 mm. Door opening angle: 180°

- ECOunity: The ECO Newton closer portfolio covers all door dimensions with only two basic closer units.
- ECOphysis: Door closer and slide rail build a unit in aluminium and stainless steel
- ECOclic: The stainless steel cover encloses the aluminium body with the power of spring steel and conceals all of the adjusting elements, thus securing the closer against unauthorized access.
- ECOmount: Mounting plate according to **EN 1154** is completely covered by the door closer
- ECOvalve: Simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional allen key.
- ECOgreen: The intelligent construction and carefully planned use of materials help considerably to save resources.
- ECOcover²: Optional stainless steel cover for the ECO Newton door closers and related slide rails. Please order the lever arm in stainless steel look for the perfect overall appearance.
- ECOline: 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.
- ECOvario: perwiths 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.

New packaging:

Set incl. door closer body, slide rail B, arm for slide rail B, allen key, mounting plate, mounting instructions, paper template and fixing material.



ECO LINE



ECO Newton Highlights in detail.

Uniform edges 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.

Hinge side

Without delayed action

TS-61 B (5 – 6)



Hinge side slide rail B	Colour	Article number	Hinge side without slide rail	Colour	Article number
TS-61 B (5 – 6)	Silver RAL 9006*	306153CB1A01010	TS-61 B (5 – 6)	Silver RAL 9006*	356153CB1A00010
TS-61 B (5 – 6)	White RAL 9016	306153CB3E01010	TS-61 B (5 – 6)	White RAL 9016	356153CB3E00010
TS-61 B (5 – 6)	Brown RAL 8014	306153CB3D01010	TS-61 B (5 – 6)	Brown RAL 8014	356153CB3D00010
TS-61 B (5 – 6)	Black RAL 9005	306153CB3G01010	TS-61 B (5 – 6)	Black RAL 9005	356153CB3G00010

TS-61 B (2 – 5)



Hinge side slide rail B	Colour	Article number	Hinge side without slide rail	Colour	Article number
TS-61 B (2 – 5)	Silver RAL 9006*	306153AB1A01010	TS-61 B (2 – 5)	Silver RAL 9006*	356153AB1A00010
TS-61 B (2 – 5)	White RAL 9016	306153AB3E01010	TS-61 B (2 – 5)	White RAL 9016	356153AB3E00010
TS-61 B (2 – 5)	Brown RAL 8014	306153AB3D01010	TS-61 B (2 – 5)	Brown RAL 8014	356153AB3D00010
TS-61 B (2 – 5)	Black RAL 9005	306153AB3G01010	TS-61 B (2 – 5)	Black RAL 9005	356153AB3G00010

With delayed action

TS-61 B-SV (2 – 5)



Hinge side slide rail B	Colour	Article number	Hinge side without slide rail	Colour	Article number
TS-61 B-SV (2 – 5)	Silver RAL 9006*	306154AB1A01010	TS-61 B-SV (2 – 5)	Silver RAL 9006*	356154AB1A00010
TS-61 B-SV (2 – 5)	White RAL 9016	306154AB3E01010	TS-61 B-SV (2 – 5)	White RAL 9016	356154AB3E00010
TS-61 B-SV (2 – 5)	Brown RAL 8014	306154AB3D01010	TS-61 B-SV (2 – 5)	Brown RAL 8014	356154AB3D00010
TS-61 B-SV (2 – 5)	Black RAL 9005	306154AB3G01010	TS-61 B-SV (2 – 5)	Black RAL 9005	356154AB3G00010

Hinge-opposite side

Without delayed action

TS-61 G (5 – 6)



Hinge-opposite side slide rail B	Colour	Article number	Hinge-opposite side without slide rail	Colour	Article number
TS-61 G (5 – 6)	Silver RAL 9006*	306163CB1A01010	TS-61 G (5 – 6)	Silver RAL 9006*	356163CB1A00010
TS-61 G (5 – 6)	White RAL 9016	306163CB3E01010	TS-61 G (5 – 6)	White RAL 9016	356163CB3E00010
TS-61 G (5 – 6)	Brown RAL 8014	306163CB3D01010	TS-61 G (5 – 6)	Brown RAL 8014	356163CB3D00010
TS-61 G (5 – 6)	Black RAL 9005	306163CB3G01010	TS-61 G (5 – 6)	Black RAL 9005	356163CB3G00010

TS-61 G (2 – 5)



Hinge-opposite side slide rail B	Colour	Article number	Hinge-opposite side without slide rail	Colour	Article number
TS-61 G (2 – 5)	Silver RAL 9006*	306163AB1A01010	TS-61 G (2 – 5)	Silver RAL 9006*	356163AB1A00010
TS-61 G (2 – 5)	White RAL 9016	306163AB3E01010	TS-61 G (2 – 5)	White RAL 9016	356163AB3E00010
TS-61 G (2 – 5)	Brown RAL 8014	306163AB3D01010	TS-61 G (2 – 5)	Brown RAL 8014	356163AB3D00010
TS-61 G (2 – 5)	Black RAL 9005	306163AB3G01010	TS-61 G (2 – 5)	Black RAL 9005	356163AB3G00010

With delayed action

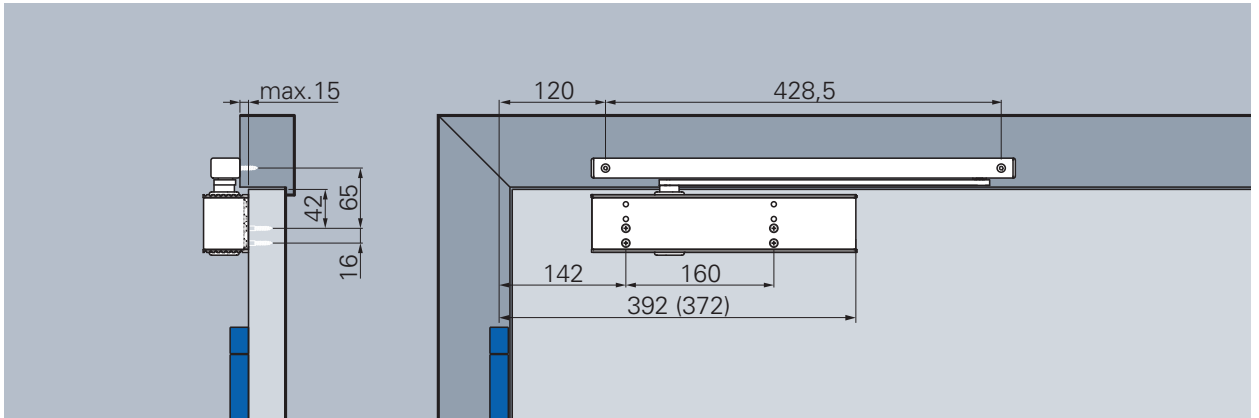
TS-61 G-SV (2 – 5)



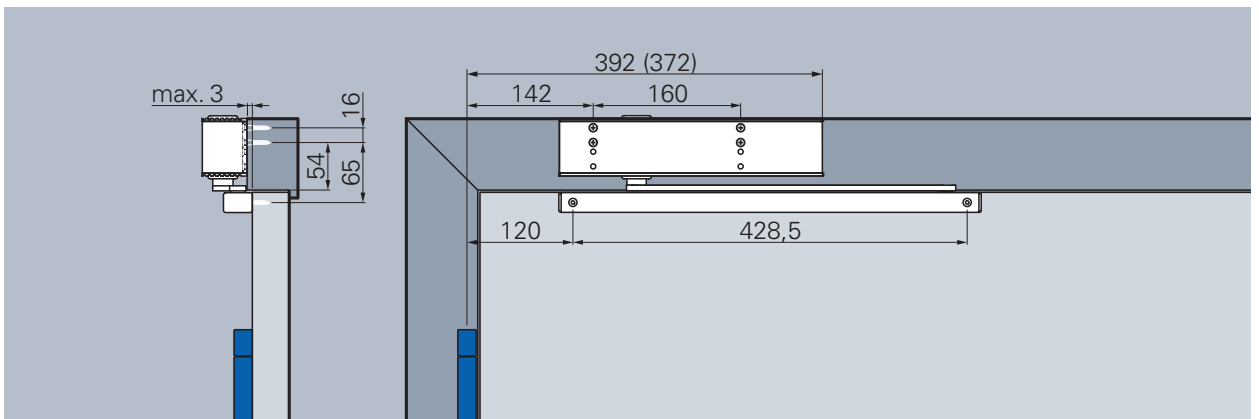
Hinge-opposite side slide rail B	Colour	Article number	Hinge-opposite side without slide rail	Colour	Article number
TS-61 G-SV (2 – 5)	Silver RAL 9006*	306164AB1A01010	TS-61 G-SV (2 – 5)	Silver RAL 9006*	356164AB1A00010
TS-61 G-SV (2 – 5)	White RAL 9016	306164AB3E01010	TS-61 G-SV (2 – 5)	White RAL 9016	356164AB3E00010
TS-61 G-SV (2 – 5)	Brown RAL 8014	306164AB3D01010	TS-61 G-SV (2 – 5)	Brown RAL 8014	356164AB3D00010
TS-61 G-SV (2 – 5)	Black RAL 9005	306164AB3G01010	TS-61 G-SV (2 – 5)	Black RAL 9005	356164AB3G00010

Hinge side

Mounting with slide rail B, illustration DIN left door, DIN right laterally reversed



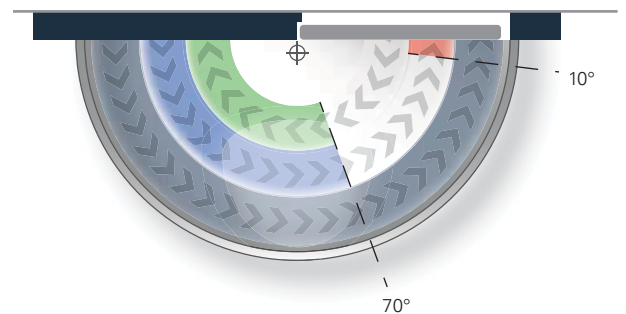
Standard mounting TS-61 with slide rail B, hinge side



Head mounting TS-61 G with slide rail B, hinge side

- Closing speed**
 Continuously adjustable closing speed from approx. 180° to 0°
- Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°
- Back-check**
 Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check continuously adjustable
- Delayed action (as option)**
 Reduces the closing speed and allows a safer passing for people and transports. Especially suitable for the use in nursing homes and hospitals. Delay action continuously adjustable. Works between 180° to 70°.

Closing force diagram ECO Newton TS-61, hinge side

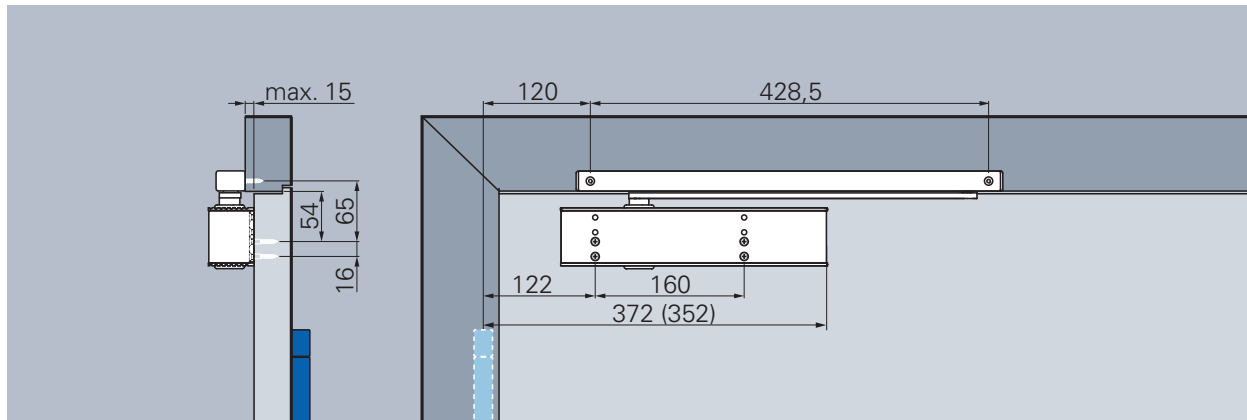


Closing force:	
Continuously adjustable TS-61 (5 - 6)	min. size 5 max. size 6
bzw.	
Continuously adjustable TS-61 (2 - 5)	min. size 2 max. size 5
Default delivery condition:	size 3

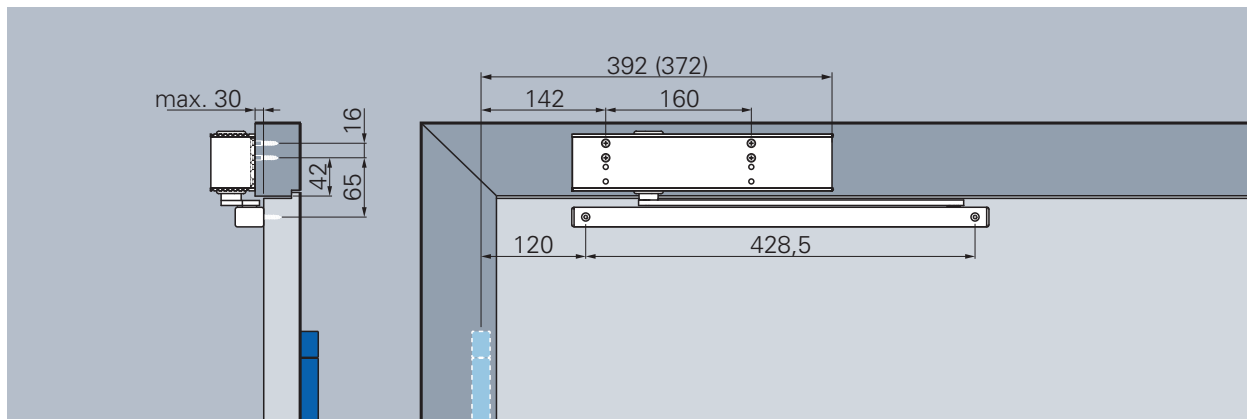
Back-check out of order for head mounting.

Hinge-opposite side

Mouting with slide rail B, illustration DIN right door, DIN right laterally reversed



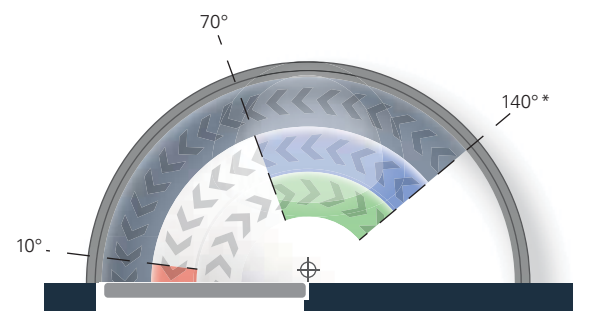
Standard mounting TS-61 G with slide rail B, hinge-opposite side



Head mounting TS-61 with slide rail B, hinge-opposite side

- Closing speed**
Continuously adjustable closing speed from approx. 140°* to 0°
- Latching speed**
Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°
- Back-check**
Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check continuously adjustable
- Delayed action (as option)**
Reduces the closing speed and allows a safer passing for people and transports. Especially suitable for the use in nursing homes and hospitals. Delay action continuously adjustable. Works between 140°* to 70°

Closing force diagram ECO Newton TS-61, hinge-opposite side



*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

Back-check is not working when using head mounting

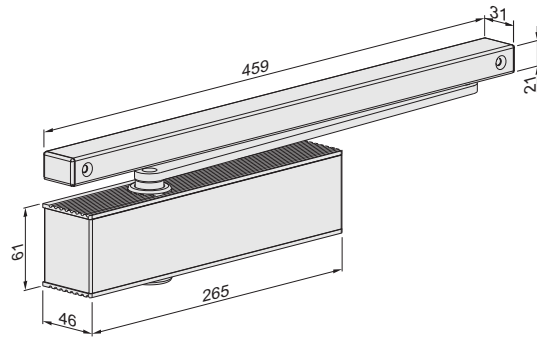
ECO **Newton** TS-51



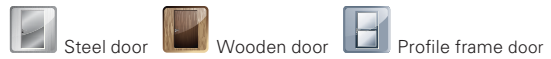
Product characteristics

Closing force (continuously adjustable)	Size acc. to EN	1 - 4
Door width	acc. to EN ≤ 1.100 mm	■
Dimensions (incl. mounting plate)	Length in mm	265
	Depth in mm	46
	Height in mm	61
Mounting plate acc. to EN 1154 A (supplementary sheet 1)		■
Hinge side and hinge-opposite side		□
DIN left / right		■
Latching Speed (continuously adjustable)		■
Closing speed (continuously adjustable)		■
Back-check (continuously adjustable)		■
Tested acc. to EN	EN 1154 A	
Suitable for fire- and smoke control doors	F	
Certified according to EU-Directive	CE	

- Yes
- No
- Option



Dimensions: TS-51



ECO Newton TS-51 ■ Order information



*optional

Details regarding the ECO Newton Highlights can be found in the intro of this chapter.



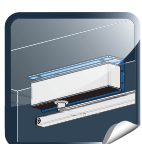
Body: Silver RAL 9006
 ECOcllic: Stainless steel polished or satin

Body + ECOcllic: White RAL 9016

Body + ECOcllic: Black RAL 9005

Body + ECOcllic: Brown RAL 8014

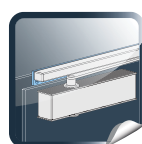
Slide rail and arm are always delivered in the same colour as the ordered door closer body.



Under-lintel angle for door closer
Page 181



Under-lintel angle for slide rail
Page 181



Adaptor profile
Page 184

Order information

ECO Newton TS-51 ▪ Door closer with slide rail

Product information

Closing force 1 – 4, tested acc. to **EN 1154 A** (for door widths up to 1.100 mm) continuously adjustable. Latching speed, closing speed and back-check continuously adjustable. Same version DIN left and DIN right. Mounting height with mounting plate only 46 mm. Door opening angle: 180°

- **ECOunity:** The ECO Newton closer portfolio covers all door dimensions with only two basic closer units.
- **ECOphysis:** Door closer and slide rail build a unit in aluminium and stainless steel
- **ECOcllic:** The stainless steel cover encloses the aluminium body with the power of spring steel and conceals all of the adjusting elements, thus securing the closer against unauthorized access.
- **ECOmout:** Mounting plate according to **EN 1154** is completely covered by the door closer
- **ECOvalve:** Simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional allen key.
- **ECOcover²:** Optional stainless steel cover for the ECO Newton door closers and related slide rails. Please order the lever arm in stainless steel look for the perfect overall appearance.
- **ECOline:** 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.
- **ECOvario:** perwiths 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.

New packaging:

Set incl. door closer, slide rail B, arm for slide rail B, mounting plate, mounting instructions, paper template and fixing material.

Article numbers



Hinge side slide rail B	Colour	Article number	Hinge side without slide rail	Colour	Article number
TS-51 B (1 – 4)	Silver RAL 9006*	305153EA1A01010	TS-51 B (1 – 4)	Silver RAL 9006*	355153EA1A00010
TS-51 B (1 – 4)	White RAL 9016	305153EA3E01010	TS-51 B (1 – 4)	White RAL 9016	355153EA3E00010
TS-51 B (1 – 4)	Brown RAL 8014	305153EA3D01010	TS-51 B (1 – 4)	Brown RAL 8014	355153EA3D00010
TS-51 B (1 – 4)	Black RAL 9005	305153EA3G01010	TS-51 B (1 – 4)	Black RAL 9005	355153EA3G00010

Hinge-opposite side slide rail B	Colour	Article number	Hinge side without slide rail B	Colour	Article number
TS-51 G (1 – 4)	Silver RAL 9006*	305163EA1A01010	TS-51 G (1 – 4)	Silver RAL 9006*	355163EA1A00010
TS-51 G (1 – 4)	White RAL 9016	305163EA3E01010	TS-51 G (1 – 4)	White RAL 9016	355163EA3E00010
TS-51 G (1 – 4)	Brown RAL 8014	305163EA3D01010	TS-51 G (1 – 4)	Brown RAL 8014	355163EA3D00010
TS-51 G (1 – 4)	Black RAL 9005	305163EA3G01010	TS-51 G (1 – 4)	Black RAL 9005	355163EA3G00010

*Door closer body in silver RAL 9006, ECOcllic stainless steel satin or polished as option

ECO MOUNT



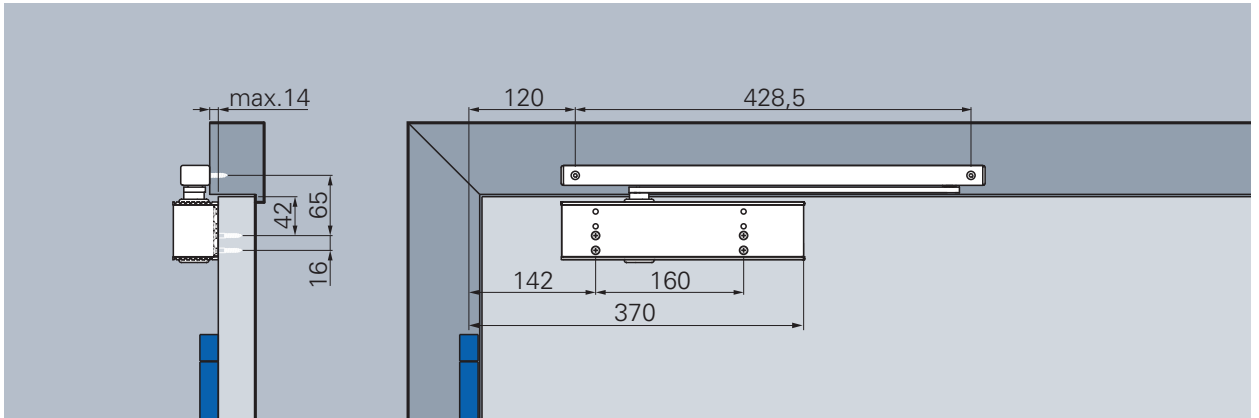
ECO Newton Highlights in detail.

Well-conceived assembly system

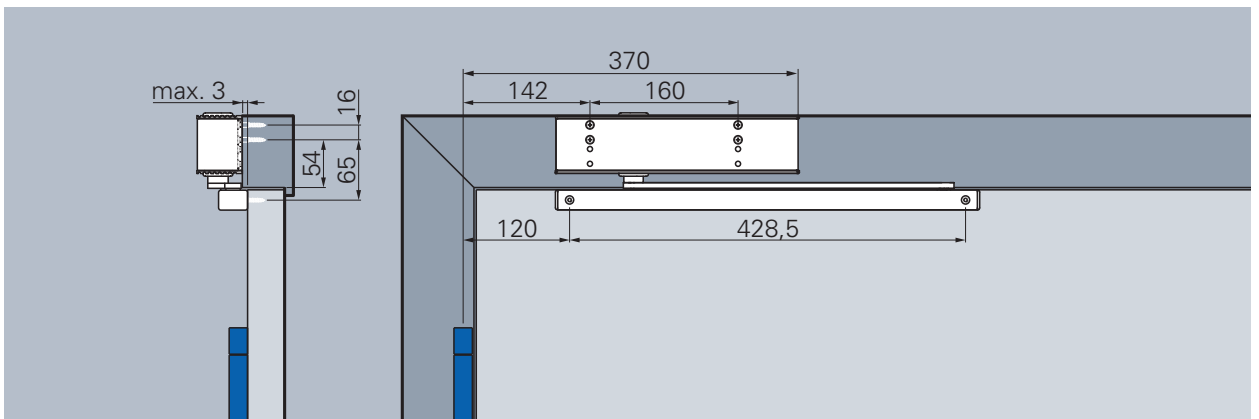
The special feature of the ECO Newton assembly system is that the mounting plate is completely concealed by the aluminium body of the closer, thus making it invisible. The mounting plate has standardized drill holes which guarantee time-saving, secure and simple attachment.

Hinge side

Mounting with slide rail B, illustration DIN left door, DIN right laterally reversed



Standard mounting TS-51 with slide rail B, hinge side



Head mounting TS-51 G with slide rail B, hinge side

Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

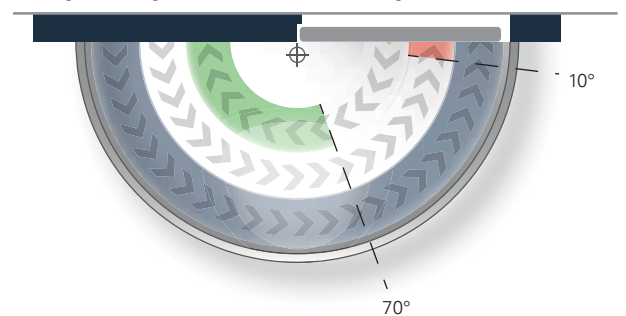
Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Back-check

Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check continuously adjustable

Closing force diagram ECO Newton TS-51, hinge side



Closing force:

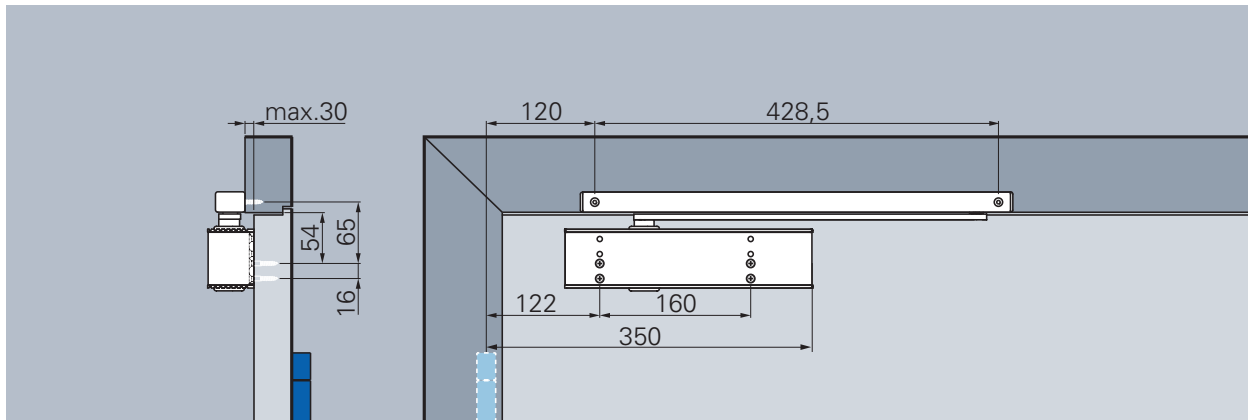
Continuously adjustable min. size 1
max. size 4

Default delivery condition: size 3

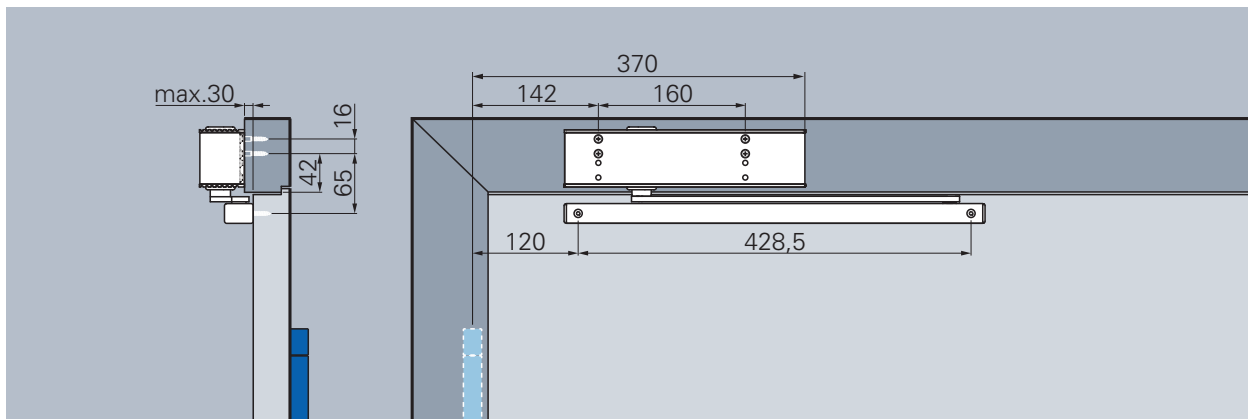
Back-check out of order for head mounting.

Hinge-opposite side

Mouting with slide rail B, illustration DIN right door, DIN right laterally reversed



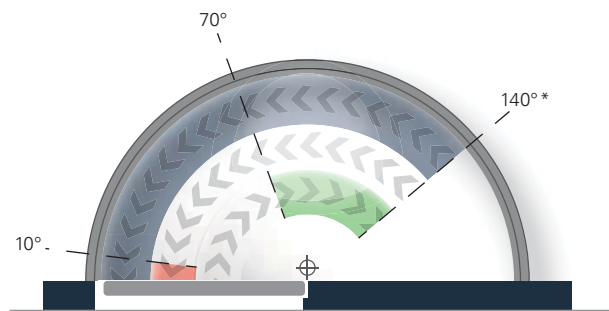
Standard mounting TS-51 G with slide rail B, hinge-opposite side



Head mounting TS 51 with slide rail B, hinge-opposite side

- **Closing speed**
 Continuously adjustable closing speed from approx. 140°* to 0°
- **Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°
- **Back-check**
 Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check continuously adjustable


Closing force diagram ECO Newton TS-51, hinge-opposite side



Note!:
Back-check out of order for head-mounting / mounting on hinge-opposite side

*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

Back-check out of order for head mounting. 

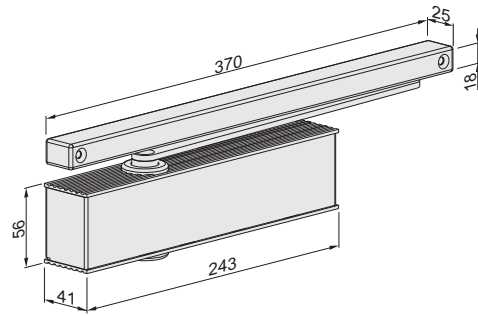
ECO **Newton** TS-41



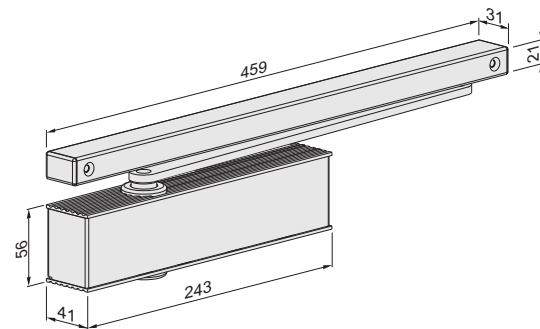
Product characteristics

Closing force (continuously adjustable)	Size acc. to EN	1 – 4
Door width	acc. to EN ≤ 1.100 mm	■
Dimensions (incl. mounting plate)	Length in mm Depth in mm Height in mm	243 41 56
Mounting plate acc. to EN 1154 A (supplementary sheet 1) with GS B		□
Hinge side and hinge-opposite side		■
DIN left / right		■
Latching Speed (continuously adjustable)		■
Closing speed (continuously adjustable)		■
Back-check (constant)		■
Delayed action (continuously adjustable)		-
Tested acc. to EN	EN 1154 A	
Suitable for fire- and smoke control doors	F	
Certified according to EU-Directive	CE	

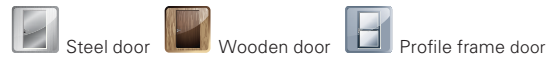
- Yes
- No
- Option



Dimensions: TS-41 with slide rail K



Dimensions: TS-41 with slide rail B



ECO Newton TS-41 ■ Highlights at a glance



*optional

Details regarding the ECO Newton Highlights can be found in the intro of this chapter.



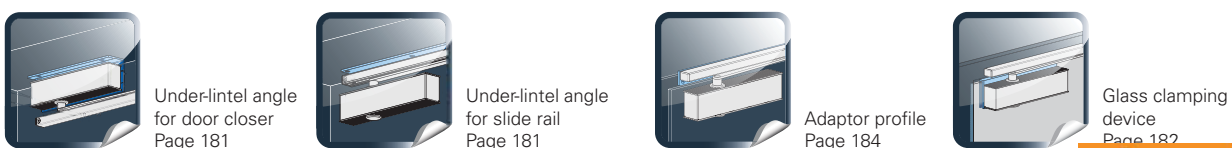
Body: Silver RAL 9006
ECOcllic: Stainless steel polished or satin

Body + ECOcllic: White RAL 9016

Body + ECOcllic: Black RAL 9005

Body + ECOcllic: Brown RAL 8014

Slide rail and arm are always delivered in the same colour as the ordered door closer body.



Under-lintel angle for door closer
Page 181

Under-lintel angle for slide rail
Page 181

Adaptor profile
Page 184

Glass clamping device
Page 182

Order information

ECO Newton TS-41 ■ Door closer with slide rail

Product information

Closing force 1 – 4, tested acc. to **EN 1154 A** (for door width up to 1.100 mm) continuously adjustable. Latching speed and closing speed continuously adjustable. Back-check fixed. Same version DIN left and DIN right. Mounting height only 41 mm. Weight: 1.380g. Max. door opening angle: 180°

- **ECOunity:** The ECO Newton closer portfolio covers all door dimensions with only two basic closer units. One execution for all four mounting types.
- **ECOphysis:** Door closer and slide rail build a unit in aluminium and stainless steel
- **ECOcllic:** The stainless steel cover encloses the aluminium body with the power of spring steel and conceals all of the adjusting elements, thus securing the closer against unauthorized access.
- **ECMount:** Optional mounting plate, acc. to **EN 1154**, supplementary sheet 1 – nur with slide rail B
- **ECOvalve:** Simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional Allen key.
- **ECOcover²:** Optional stainless steel cover for the ECO Newton door closers and related slide rails. Please order the lever arm in stainless steel look for the perfect overall appearance.
- **ECOfreen:** The intelligent construction and carefully planned use of materials help considerably to save resources
- **ECOline:** 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 K
- **ECOfario:** perwits 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.

New packaging:

TS-41 B: (Mounting acc. DIN holes) Set incl. door closer, slide rail B, arm for slide rail B, mounting plate, mounting instructions, paper template and fixing material.

TS-41 K: (Mounting set incl. door closer, slide rail K, arm for slide rail K, paper template and fixing material)

Article numbers

Door closer** slide rail B	Colour	Article number
TS-41 B (1 – 4)	Silver RAL 9006*	304152F11A00590
TS-41 B (1 – 4)	White RAL 9016	304152F11E00590
TS-41 B (1 – 4)	Brown RAL 8014	304152F11D00590
TS-41 B (1 – 4)	Black RAL 9005	304152F11G00590

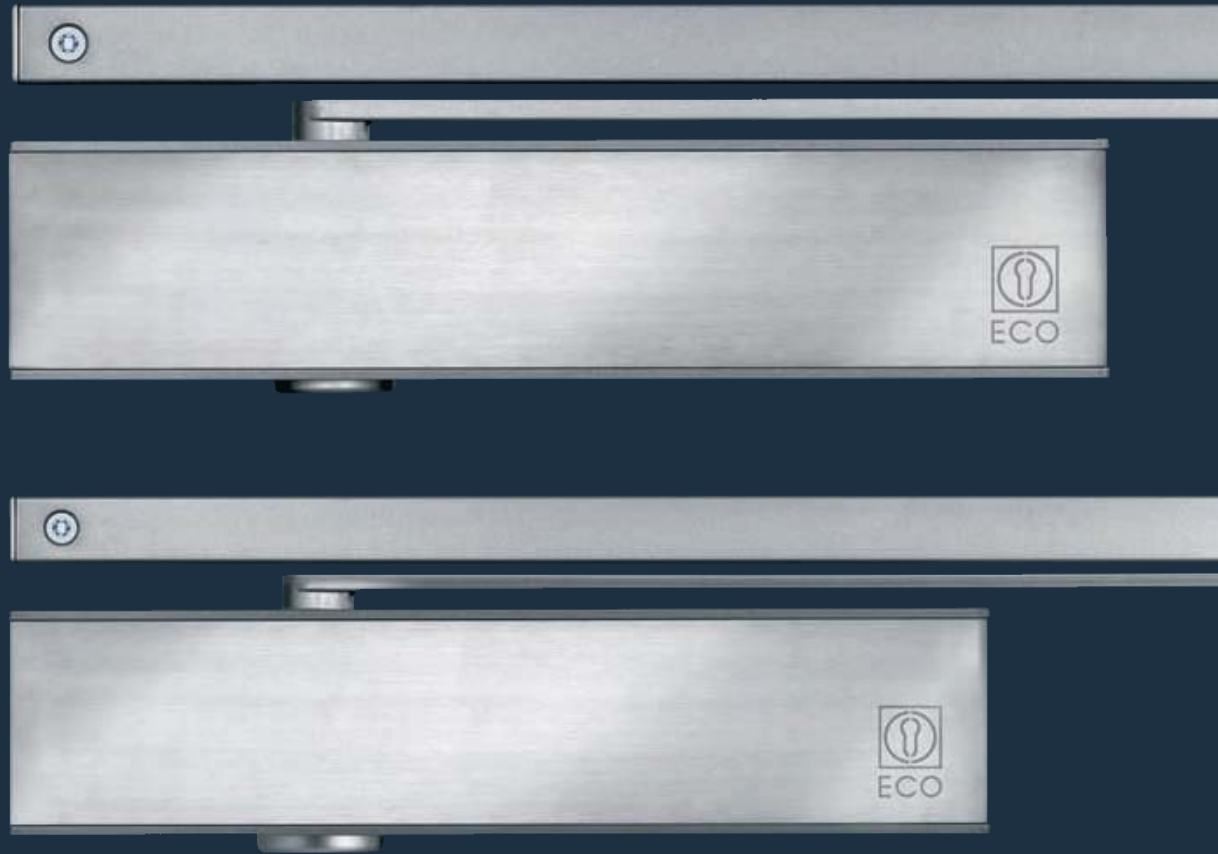


Door closer*** slide rail K	Colour	Article number	Door closer*** without slide rail	Colour	Article number
TS-41 K (1 – 4)	Silver RAL 9006*	304152F11A00910	TS-41 (1 – 4)	Silver RAL 9006*	354152F11A00010
TS-41 K (1 – 4)	White RAL 9016	304152F11E00910	TS-41 (1 – 4)	White RAL 9016	354152F11E00010
TS-41 K (1 – 4)	Brown RAL 8014	304152F11D00910	TS-41 (1 – 4)	Brown RAL 8014	354152F11D00010
TS-41 K (1 – 4)	Black RAL 9005	304152F11G00910	TS-41 (1 – 4)	Black RAL 9005	354152F11G00010

*Door closer body in silver RAL 9006, ECOcllic stainless steel satin, polished on request.

**Scope of delivery: Incl. mounting plate for DIN holes.

***Scope of delivery: Without mounting plate.



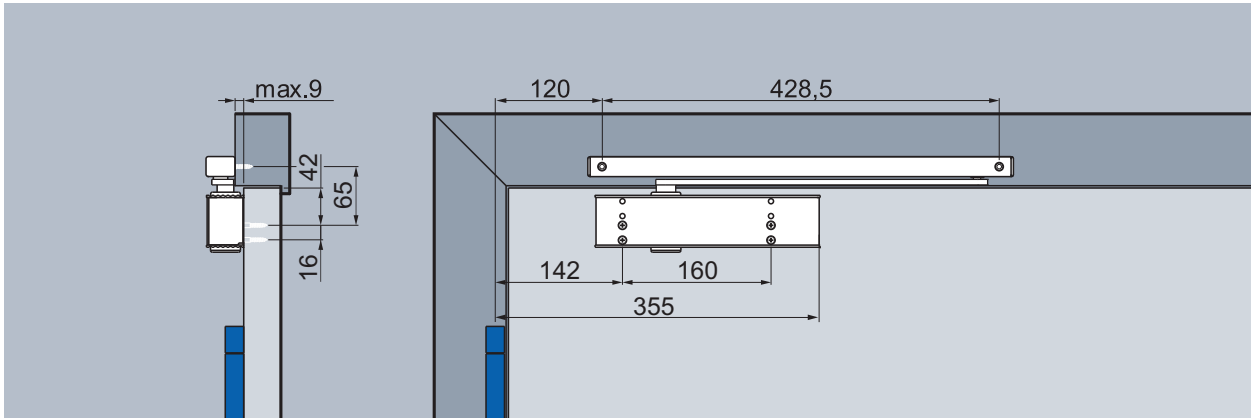
ECO Newton Highlights in detail.

Two units for the entire building

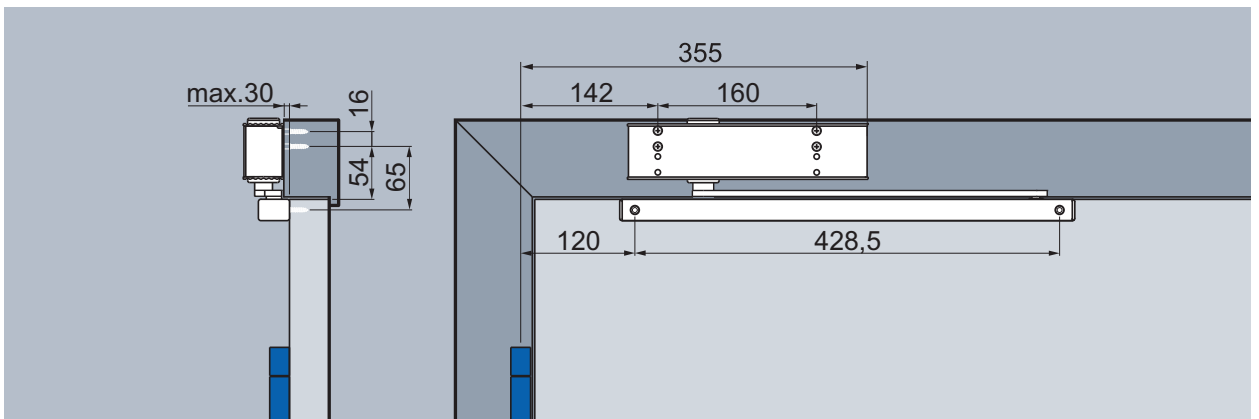
The ECO Newton closer portfolio covers all door dimensions with only two basic closer units. In addition to this, end-mounted valve technology permits the mounting of the same closer on the hinge- and hinge-opposite side (TS-31/41).

Hinge side

Mounting with slide rail B, illustration DIN left door, DIN right laterally reversed



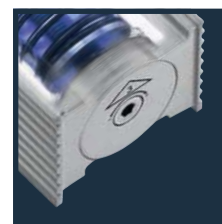
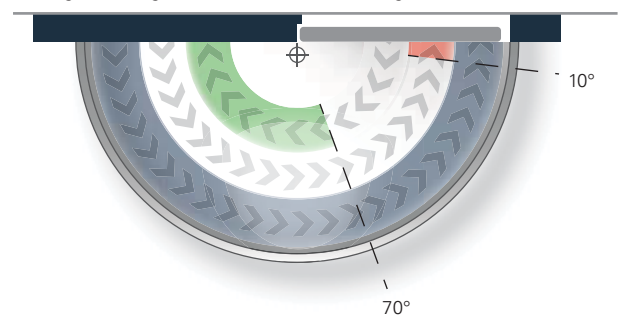
Standard mounting with slide rail B, hinge side (Mounting, with mounting plate)



Head mounting with slide rail B, hinge side (Mounting, with mounting plate)

- Closing speed**
 Continuously adjustable closing speed from approx. 180° to 0°
- Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°
- Back-check**
 Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing force diagram ECO Newton TS-41, hinge side

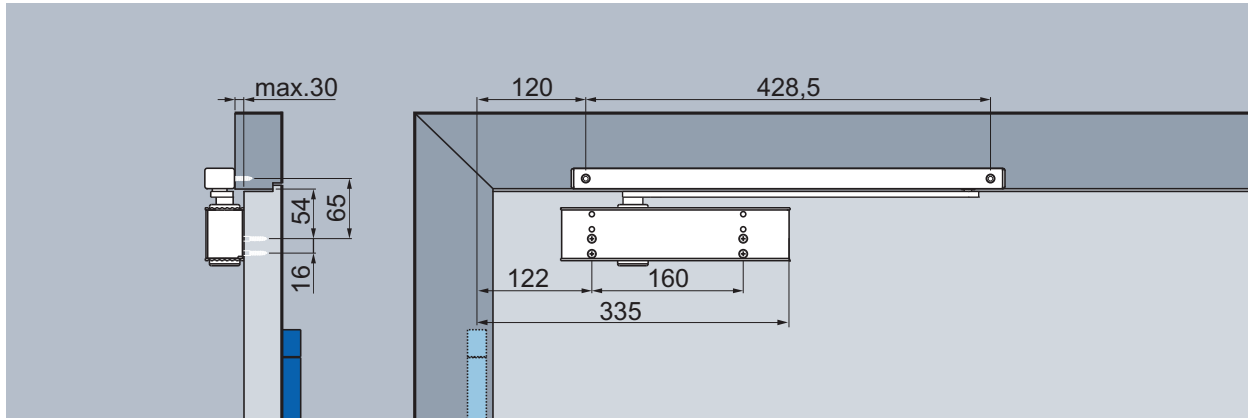


Closing force:	
Continuously adjustable	min. size 1 max. size 4
Default delivery condition:	size 3

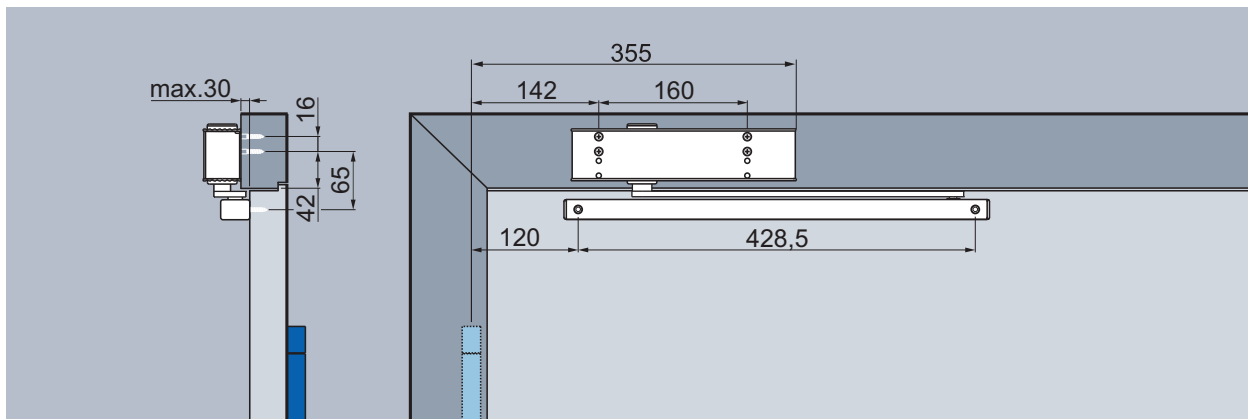
Back-check out of order for head mounting.

Hinge-opposite side

Mounting with slide rail B, illustration DIN right door, DIN right laterally reversed



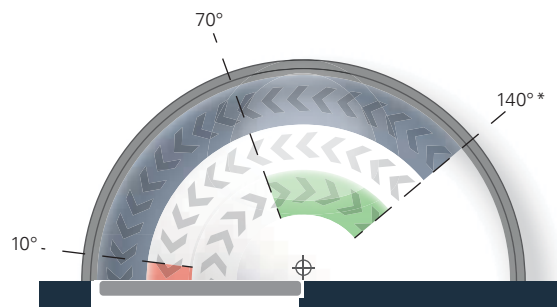
Standard mounting with slide rail B, hinge-opposite side (Mounting, with mounting plate)



Head mounting with slide rail B, hinge-opposite side (Mounting, with mounting plate)

- Closing speed**
 Continuously adjustable closing speed from approx. 140°* to 0°
- Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°
- Back-check**
 Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing force diagram ECO Newton TS-41, hinge-opposite side



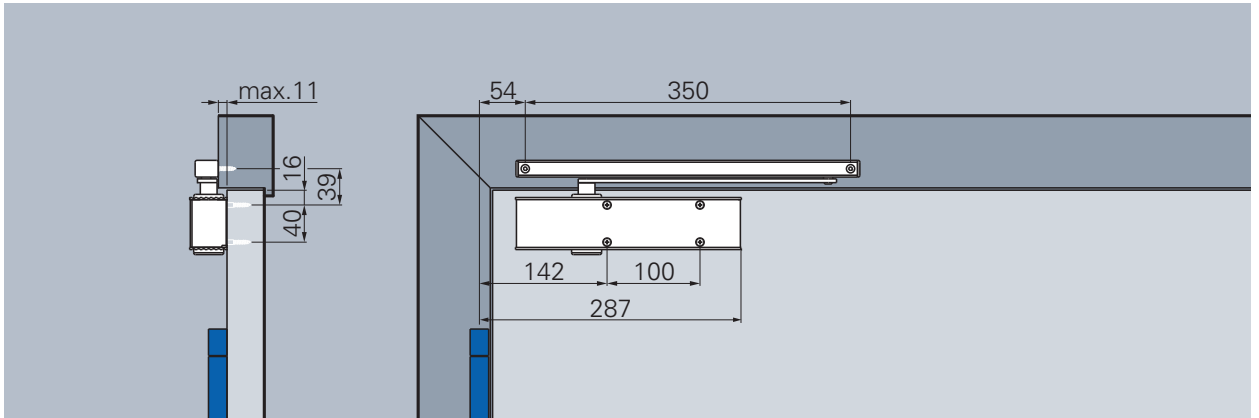
*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

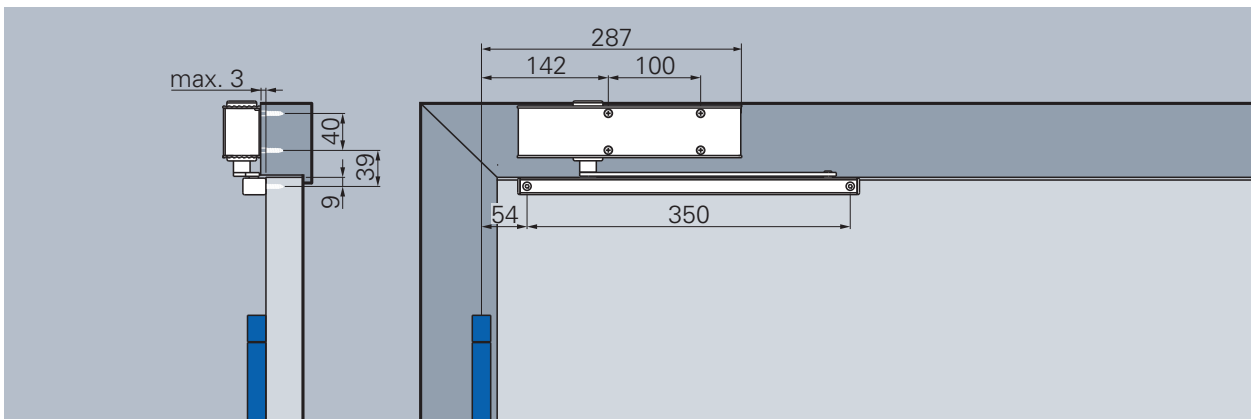
Back-check out of order for head mounting.

Hinge side

Mounting with slide rail K, illustration DIN left door, DIN right laterally reversed



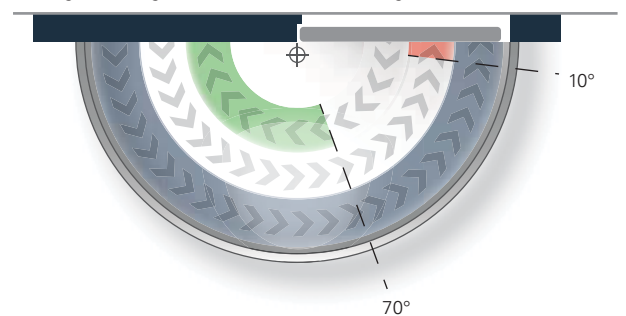
Standard mounting with slide rail K, hinge side (direct mounting, without mounting plate)



Head mounting with slide rail K, hinge side (direct mounting, without mounting plate)

- Closing speed**
 Continuously adjustable closing speed from approx. 180° to 0°
- Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°
- Back-check**
 Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing force diagram ECO Newton TS-41, hinge side

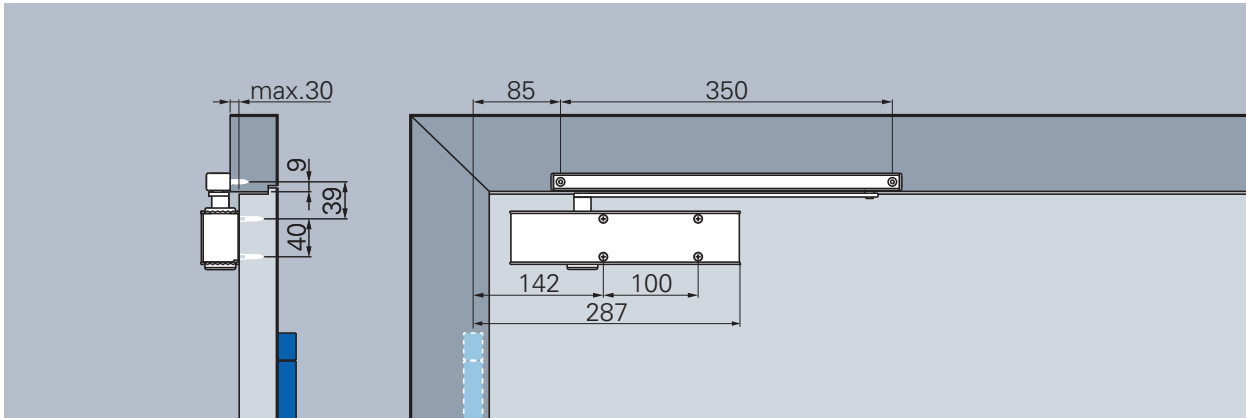


Closing force:	
Continuously adjustable	min. size 1 max. size 4
Default delivery condition:	size 3

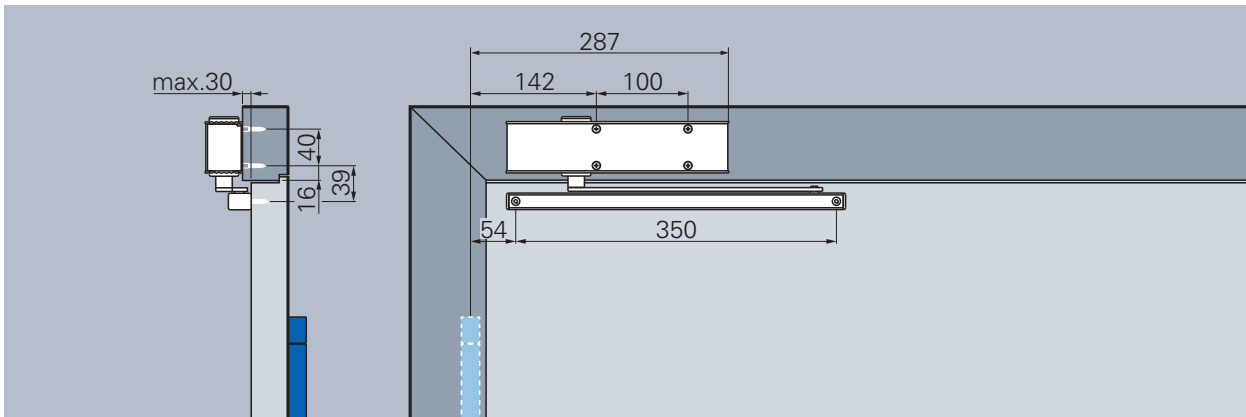
Back-check out of order for head mounting.

Hinge-opposite side

Mounting with slide rail K, illustration DIN right door, DIN right laterally reversed



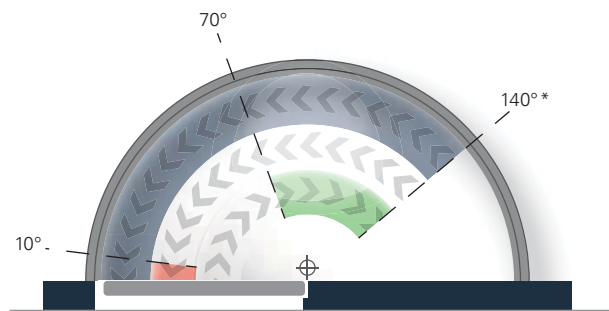
Standard mounting with slide rail K, hinge-opposite side (direct mounting, without mounting plate)



Head mounting with slide rail K, hinge-opposite side (direct mounting, without mounting plate)

- Closing speed**
Continuously adjustable closing speed from approx. 140°* to 0°
- Latching speed**
Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 140°
- Back-check**
Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing force diagram ECO Newton TS-41, hinge-opposite side



*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

Back-check out of order for head mounting.

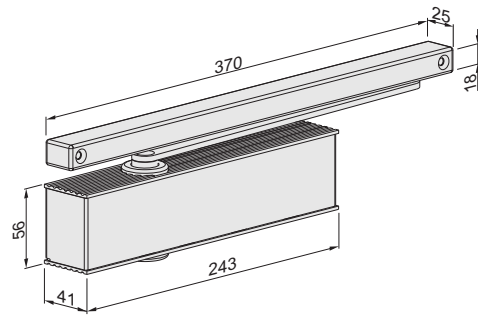
ECO **Newton** TS-31



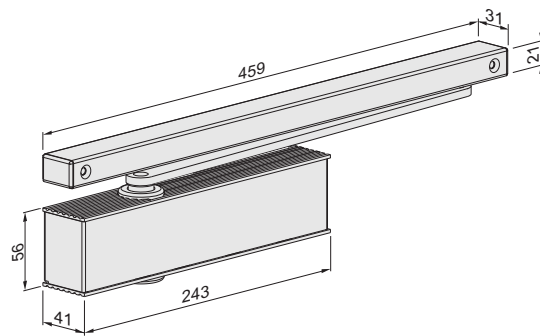
Product characteristics

Closing force (continuously adjustable)	Size acc. to EN	1 – 3
Door width	acc. to EN ≤ 950 mm	■
Dimensions (incl. mounting plate)	Length in mm	243
	Depth in mm	41
	Height in mm	56
Mounting plate acc. to EN 1154 A (supplementary sheet 1) with GS B		□
Hinge side and hinge-opposite side		■
DIN left / right		■
Latching speed (continuously adjustable)		■
Closing speed (continuously adjustable)		■
Back-check (constant)		-
Delayed action (continuously adjustable)		-
Tested acc. to EN	EN 1154 A	
Suitable for fire- and smoke control doors	F	
Certified according to EU-Directive	CE	

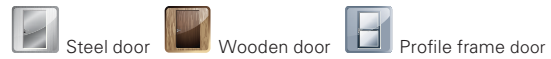
- Yes
- No
- Option



Dimensions: TS-31 with slide rail K



Dimensions: TS-31 with slide rail B



Newton TS-31 ■ Highlights at a glance



*optional

Details regarding the ECO Newton Highlights can be found in the intro of this chapter.



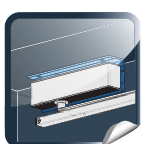
Body: Silver RAL 9006
 ECOcllic: Stainless steel polished or satin

Body + ECOcllic: White RAL 9016

Body + ECOcllic: Black RAL 9005

Body + ECOcllic: Brown RAL 8014

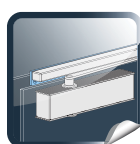
Slide rail and arm are always delivered in the same colour as the ordered door closer body.



Under-lintel angle for door closer
Page 181



Under-lintel angle for slide rail
Page 181



Adaptor profile
Page 184

Order information

ECO Newton TS-31 ▪ Door closer with slide rail

Product information

Closing force 1 – 3, tested acc. to **EN 1154 A** (for door widths up to 950 mm) continuously adjustable. Latching speed and closing speed continuously adjustable from the side. Same version DIN left and DIN right. Mounting height only 41 mm. Weight: 1.380. Max. door opening angle: 180°

- **ECOunity:** The ECO Newton closer portfolio covers all door dimensions with only two basic closer units. One execution for all four mounting types
- **ECOphysis:** Door closer and slide rail build a unit in aluminium and stainless steel
- **ECOcllic:** The stainless steel cover encloses the aluminium body with the power of spring steel and conceals all of the adjusting elements, thus securing the closer against unauthorized access.
- **ECMount:** Optional mounting plate, acc. to **EN 1154**, supplementary sheet 1 – nur with slide rail B
- **ECOvalve:** Simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional Allen key.
- **ECOcover²:** Optional stainless steel cover for the ECO Newton door closers and related slide rails. Please order the lever arm in stainless steel look for the perfect overall appearance.
- **ECOfreen:** The intelligent construction and carefully planned use of materials help considerably to save resources
- **ECOline:** 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 K
- **ECOvario:** 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.

New packaging:

TS-31 B: (Mounting acc. DIN holes) Set incl. door closer, slide rail, arm for slide rail B, mounting plate, mounting instructions, paper template and fixing material.

TS-31 K: (Mounting set incl. door closer body, slide rail K, arm for slide rail K, paper template and fixing material)

Article numbers

Door closer** slide rail B	Colour	Article number
TS-31 B (1 – 3)	Silver RAL 9006*	303155F11A00590
TS-31 B (1 – 3)	White RAL 9016	303155F11E00590
TS-31 B (1 – 3)	Brown RAL 8014	303155F11D00590
TS-31 B (1 – 3)	Black RAL 9005	303155F11G00590



Door closer*** slide rail K	Colour	Article number	Door closer *** without slide rail	Colour	Article number
TS-31 K (1 – 3)	Silver RAL 9006*	303155F11A09010	TS-31 (1 – 3)	Silver RAL 9006*	353155F11A00010
TS-31 K (1 – 3)	White RAL 9016	303155F11E09010	TS-31 (1 – 3)	White RAL 9016	353155F11E00010
TS-31 K (1 – 3)	Brown RAL 8014	303155F11D09010	TS-31 (1 – 3)	Brown RAL 8014	353155F11D00010
TS-31 K (1 – 3)	Black RAL 9005	303155F11G09010	TS-31 (1 – 3)	Black RAL 9005	353155F11G00010

*Door closer body in silver RAL 9006, ECOcllic stainless steel satin, polished on request.

**Scope of delivery: Incl. mounting plate for DIN holes.

***Scope of delivery: Without mounting plate.

ECO COVER²



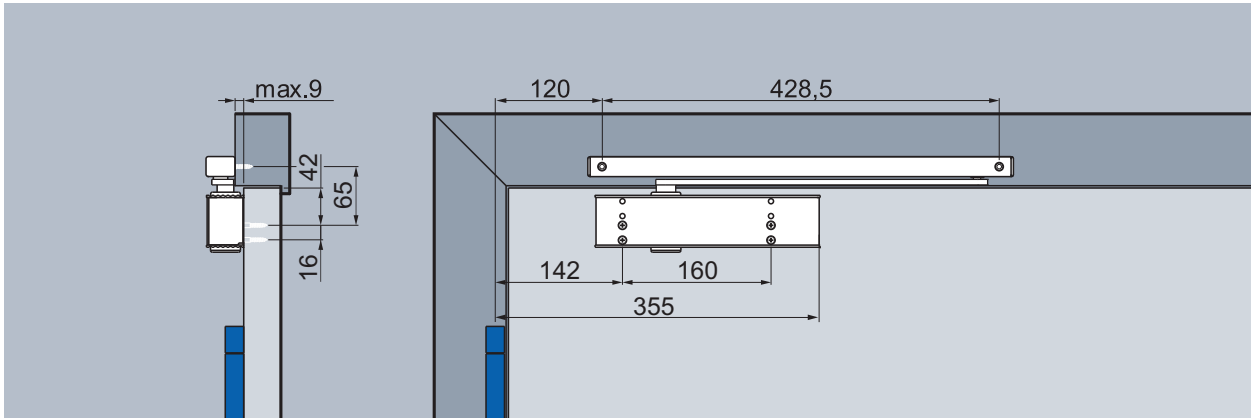
ECO Newton Highlights in detail.

Stainless steel full cover:

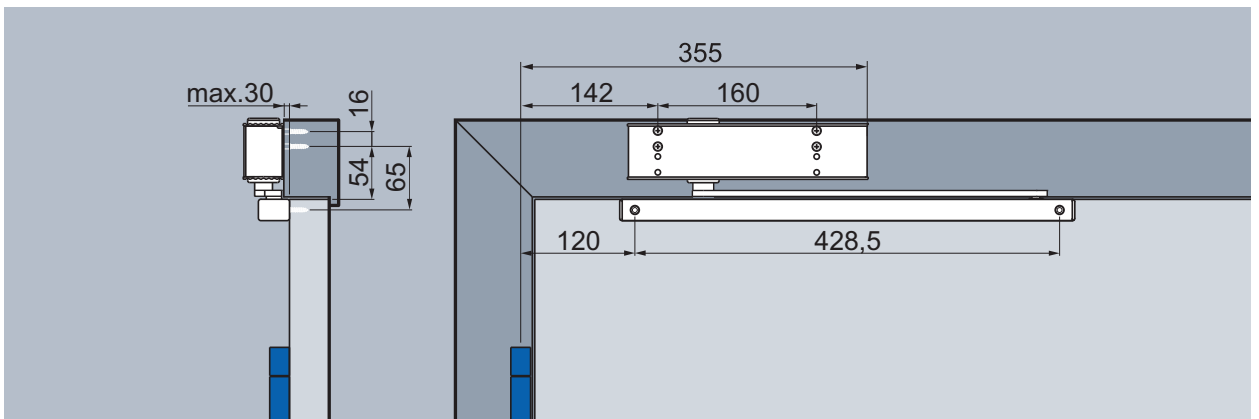
The full cover is an optional stainless steel cover for the ECO Newton door closers and related slide rails. The overall appearance is perfected by a lever arm with a stainless steel look. A cover for the closer body is available for standard arm door closers.

Hinge side

Mounting with slide rail B, illustration DIN left door, DIN right laterally reversed



Standard mounting with slide rail B, hinge side (Mounting, with mounting plate)



Head mounting with slide rail B, hinge side (Mounting, with mounting plate)

Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Closing force diagram ECO Newton TS-31, hinge side



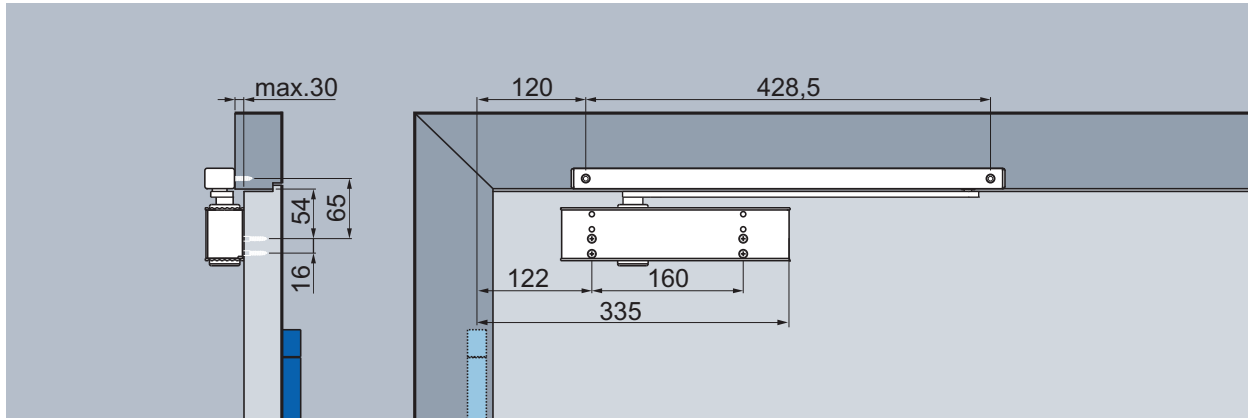
Closing force:

Continuously adjustable min. size 1
max. size 3

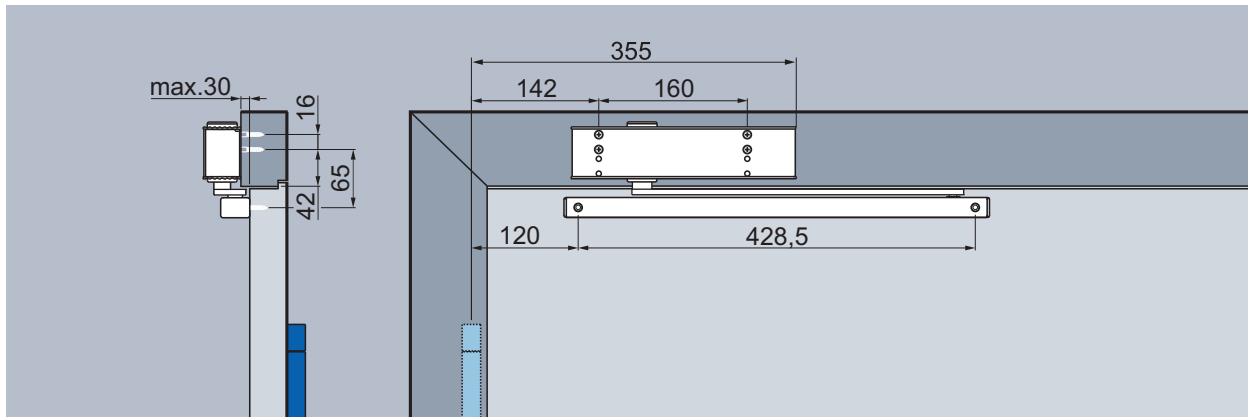
Default delivery condition: size 3

Hinge-opposite side

Mouting with slide rail B, illustration DIN right door, DIN right laterally reversed



Standard mounting with slide rail B, hinge-opposite side (Mounting, with mounting plate)



Head mounting with slide rail B, hinge-opposite side (Mounting, with mounting plate)

- **Closing speed**
 Continuously adjustable closing speed from approx. 140°* to 0°
- **Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Closing force diagram Newton TS-31, hinge-opposite side

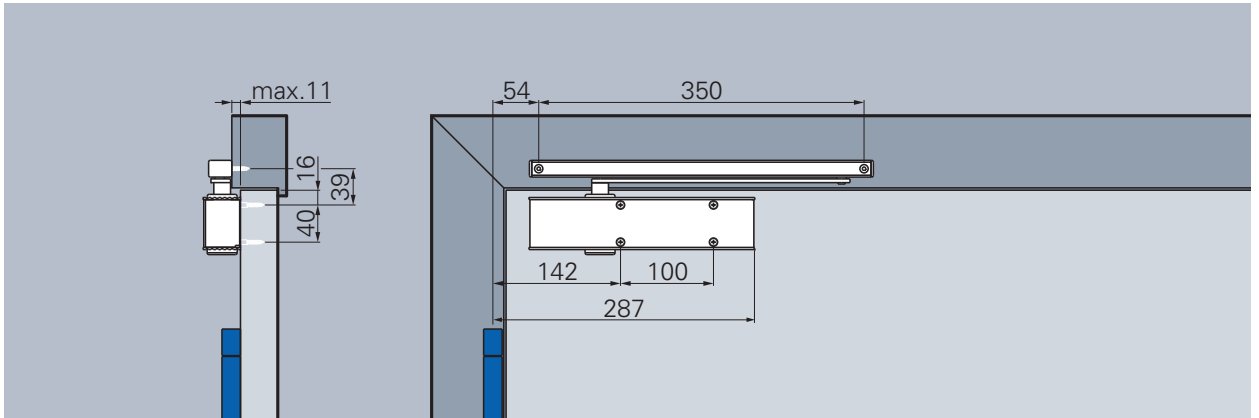


*Varies according to door thickness and type of hinge

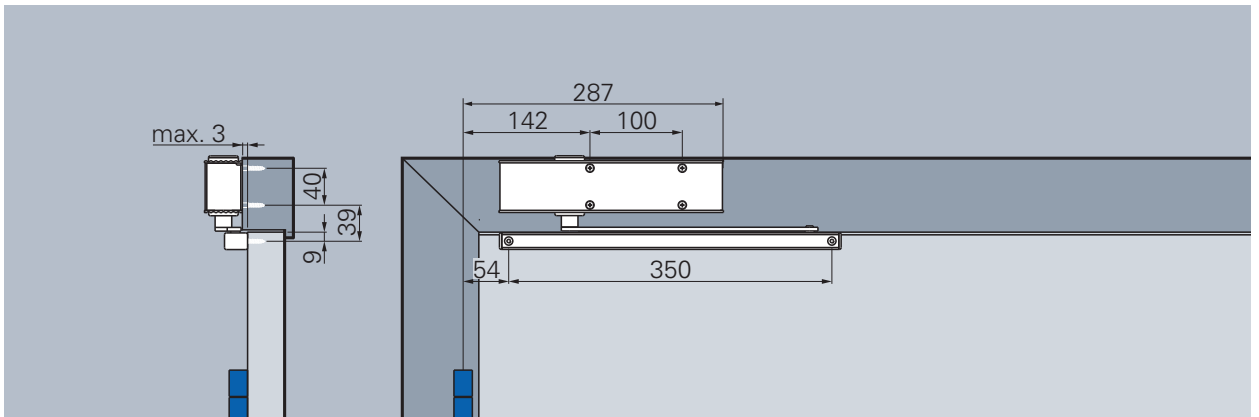
A door stopper for opening limit is a must!

Hinge side

Mounting with slide rail K, illustration DIN left door, DIN right laterally reversed



Standard mounting with slide rail K, hinge side (direct mounting, without mounting plate)



Head mounting with slide rail K, hinge side (direct mounting, without mounting plate)

Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Closing force diagram ECO Newton TS-31, hinge side



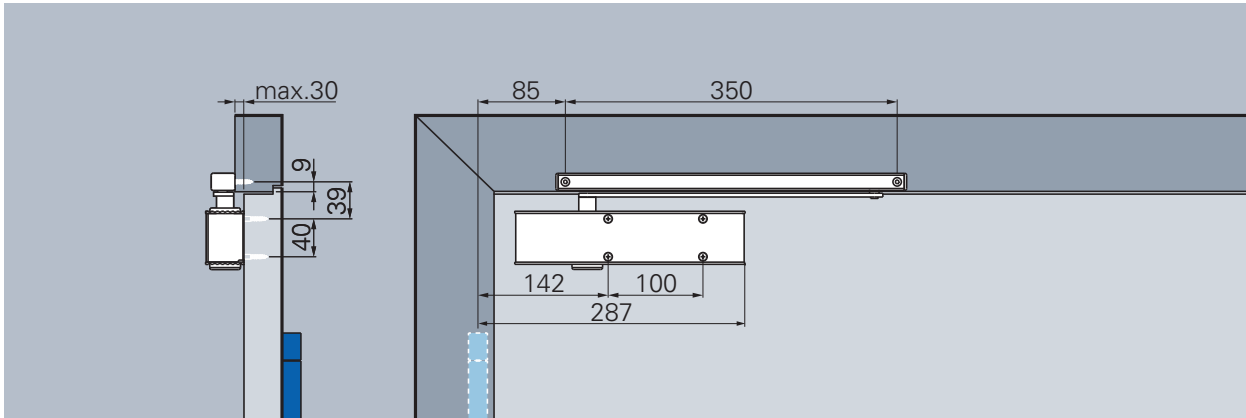
Closing force:

Continuously adjustable min. size 1
max. size 3

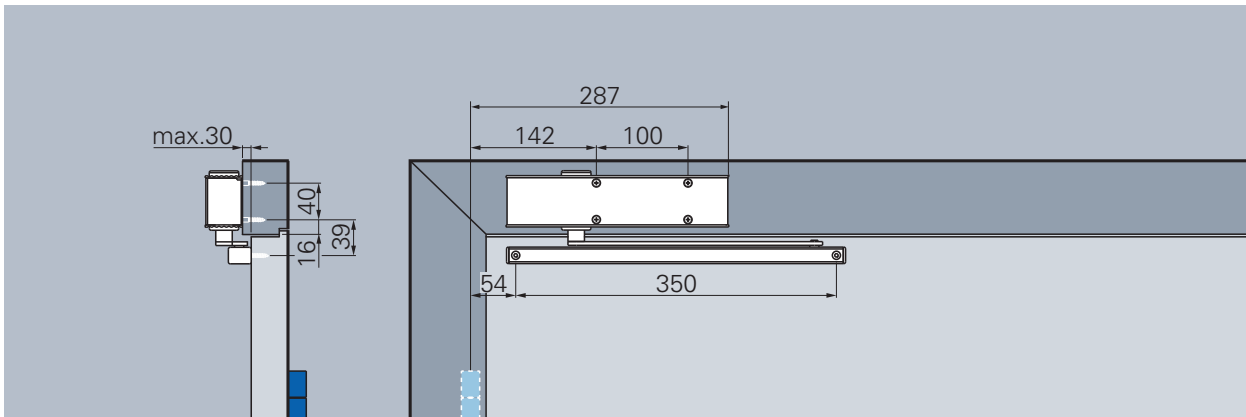
Default delivery condition: size 3

Hinge-opposite side

Mounting with slide rail K, illustration DIN right door, DIN right laterally reversed



Standard mounting with slide rail K, hinge-opposite side (direct mounting, without mounting plate)



Head mounting with slide rail K, hinge-opposite side (direct mounting, without mounting plate)

- Closing speed**
 Continuously adjustable closing speed from approx. 140°* to 0°
- Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Closing force diagram Newton TS-31, hinge-opposite side



*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

ECO **Newton** TS-15 K

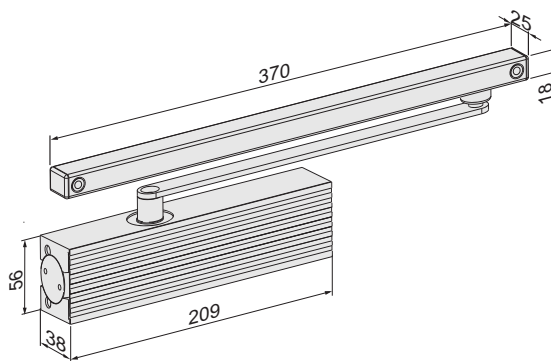


Product characteristics

TS-15 K

Closing force	Size acc. to EN	1/2
Door width	≤ 800 mm	■
Dimensions	Length in mm	209
	Depth in mm	38
	Height in mm	56
Mounting plate		-
Hinge side and hinge-opposite side		■
DIN left / right		■
Latching speed (adjustable from the side)		■
Closing speed (adjustable from the side)		■

- Yes
- No
- Option



Dimensions: TS-15 K



Body + ECOslide:
Silver RAL 9006



Body + ECOslide:
White RAL 9016



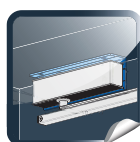
Body + ECOslide:
Black RAL 9005



Body + ECOslide:
Brown RAL 8014

Slide rail and standard arm are always delivered in the same colour as the ordered door closer body.

ECO Newton TS-15 with slide rail K



Under-lintel angle
for door closer
Page 181



Under-lintel angle
for slide rail
Page 181



Adaptor profile
Page 184

Order information

ECO Newton TS-15 K ▪ Door closer with slide rail

Product information

- Closing force 1 / 2 acc. to EN (for door width to 800 mm)
- Latching speed and closing speed continuously adjustable from the side
- Same version DIN left and DIN right
- Height only 38 mm
- Max. door opening angle: 180°

New packaging:

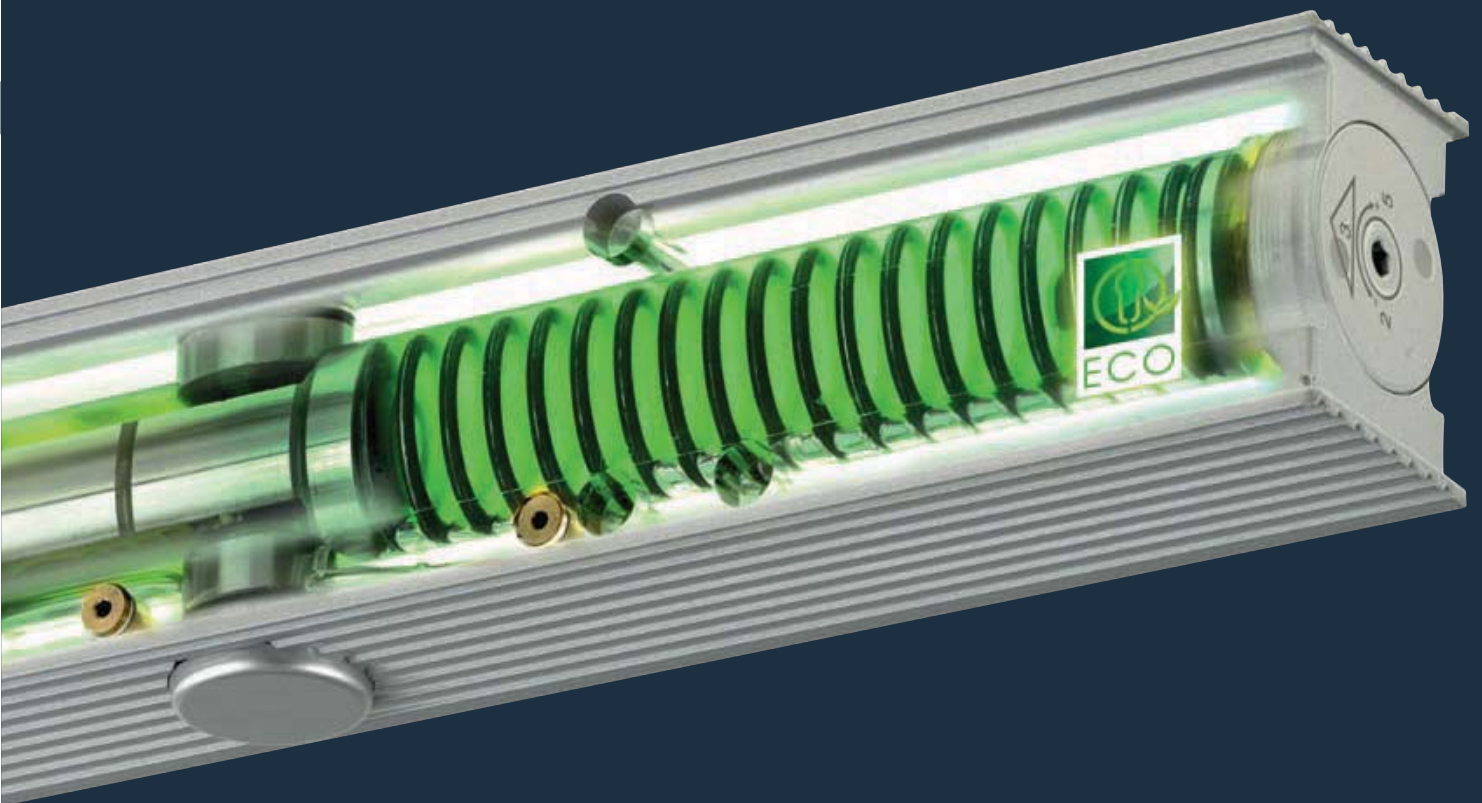
Set incl. door closer body, slide rail and arm K.

Article numbers



Door closer with slide rail K	Colour	Article number
TS-15 K (1/2)	Silver RAL 9006	301552E11A09010
TS-15 K (1/2)	White RAL 9016	301552E11E09010
TS-15 K (1/2)	Brown RAL 8014	301552E11D09010
TS-15 K (1/2)	Black RAL 9005	301552E11G09010

ECO GREEN



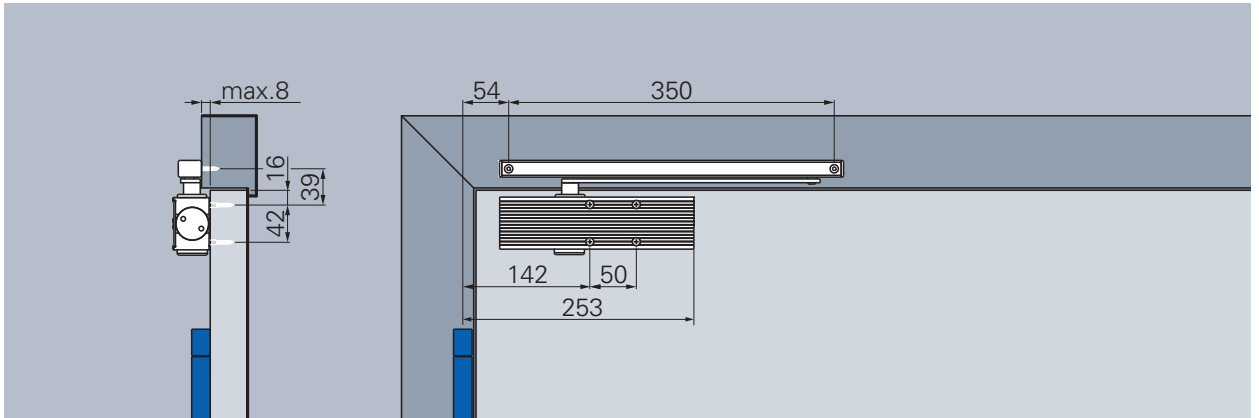
ECO Newton Highlights in detail.

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.

Hinge side

Mounting with slide rail K, illustration DIN left door, DIN right laterally reversed



With slide rail K

- Closing speed**
 Continuously adjustable closing speed from approx. 180° to 0°
- Latching speed**
 Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure.
 Continuously adjustable, works between 10 to 0°

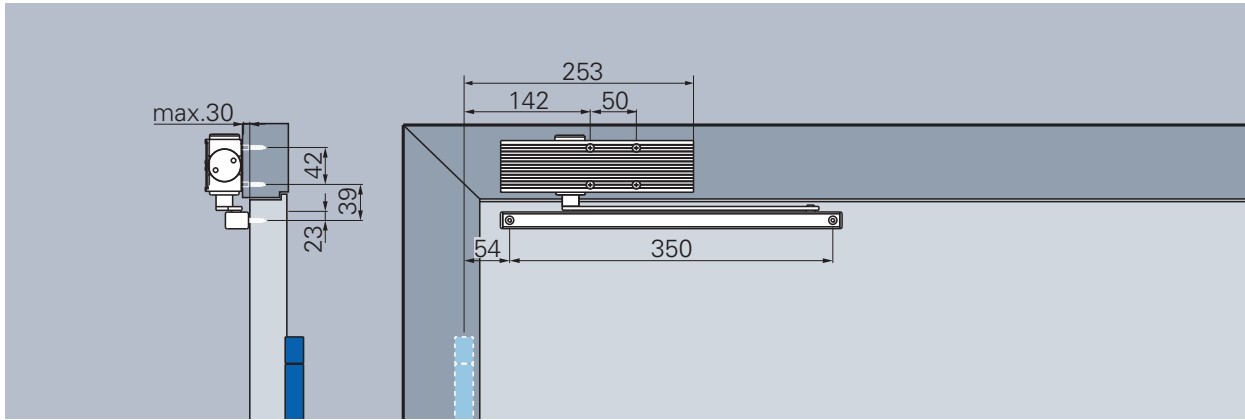
Closing force diagram ECO Newton TS-15 K, hinge side



The use of a mounting plate is recommended for rebated doors.

Hinge-opposite side

Mounting with slide rail K, illustration DIN right door, DIN right laterally reversed



Head mounting with slide rail K, hinge-opposite side

Closing speed

Continuously adjustable closing speed from approx. 140°* to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Closing force diagram ECO Newton TS-15 K, hinge-opposite side

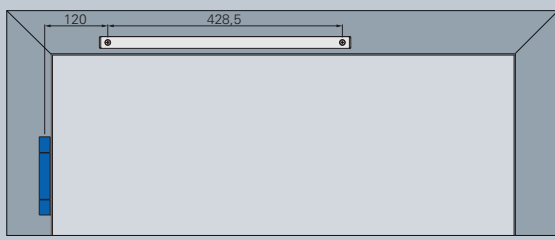


*Varies according to door thickness and type of hinge

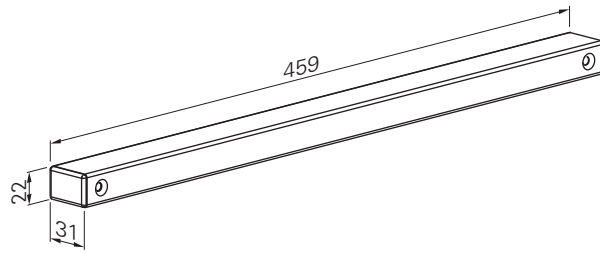
A door stopper for opening limit is a must!

ECO **Newton** Slide rails





Mounting slide rail B



Slide rail - Basis (GS B)

For surface fixed

For the use in preventive fire-protection. Slide rail is tested acc. to EN 1154 A.

Slide rail for ECO Newton TS-61/51, Multi-Genius (surface mounted)	Colour	Article number
GS B (Si)	Silver RAL 9006	350120000A00010
GS B (W)	White RAL 9016	350120000E00010
GS B (Br)	Brown RAL 8014	350120000D00010
GS B (S)	Black RAL 9005	350120000G00010

Scope of delivery incl. arm for slide rail B for TS-61/51

Slide rail for ECO Newton TS-41/31	Colour	Article number
GS B (Si)	Silver RAL 9006	350120000A00510
GS B (W)	White RAL 9016	350120000E00510
GS B (Br)	Brown RAL 8014	350120000D00510
GS B (S)	Black RAL 9005	350120000G00510

Scope of delivery incl. arm for slide rail B for TS-41/31

Slide rail with mechanical hold open (GS B-FKL)

Hold-open angle adjustable from approx. 70° to 150°. For surface fixed

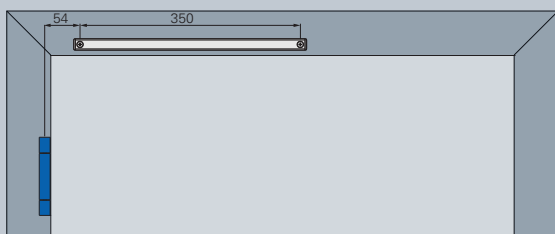
This version can be achieved afterwards by using slide rail B and accessory set FKL.
Not suitable for the use in fire-protection. Please specify DIN direction when ordering.

Slide rail for ECO Newton TS-61/51, Multi-Genius (surface mounted)	Colour	Article number
GS B (Si)	Silver RAL 9006	350120000A56210
GS B (W)	White RAL 9016	350120000E56210
GS B (Br)	Brown RAL 8014	350120000D56210
GS B (S)	Black RAL 9005	350120000G56210

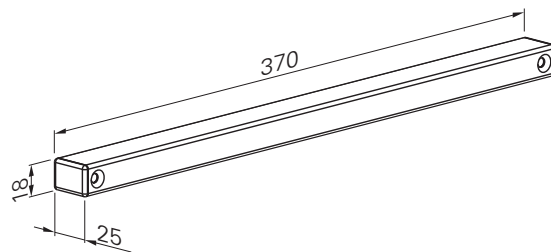
Scope of delivery incl. arm for slide rail B for TS-61/51

Slide rail for ECO Newton TS-41/31	Colour	Article number
GS B (Si)	Silver RAL 9006	350120000A56510
GS B (W)	White RAL 9016	350120000E56510
GS B (Br)	Brown RAL 8014	350120000D56510
GS B (S)	Black RAL 9005	350120000G56510

Scope of delivery incl. arm for slide rail B for TS-41/31



Mounting slide rail K



Slide rail K

for door closer ECO Newton TS-41, TS-31 and TS-15 K

For surface fixed

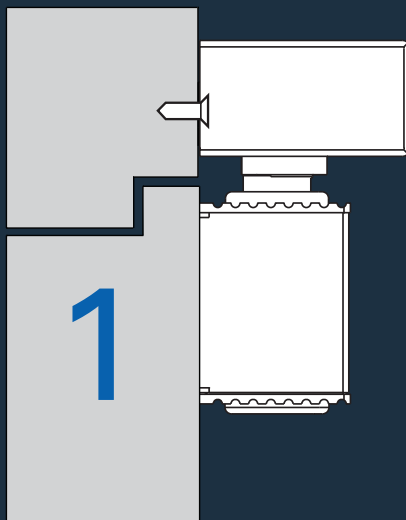
For the use in preventive fire-protection only with ECO Newton TS-41 and TS-31. Slide rail is tested acc. to EN 1154 A.

Scope of delivery incl. arm for slide rail K.

Slide rail	Colour	Article number
GS K Si	Silver RAL 9006	350150000A00000
GS K W	White RAL 9016	350150000E00000
GS K Br	Brown RAL 8014	350150000D00000
GS K S	Black RAL 9005	350150000G00000

ECO Mounting versions

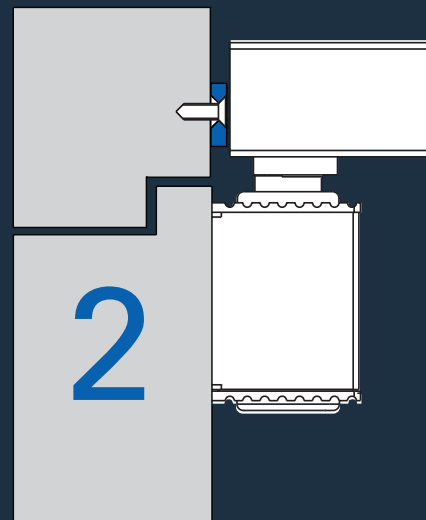
Direct mounting



Direct mounting is the standard mounting at ECO. Slide rails is mounted directly onto the door frame. The ECO mounting holes need to be prepared. The respective mounting holes are shown on the next pages.

A paper drilling template is included in each box. Additionally, a metal drilling template (accessories, page 185) or respective mounting holes as PDF or DXF files are available.

Mounting with standard profile

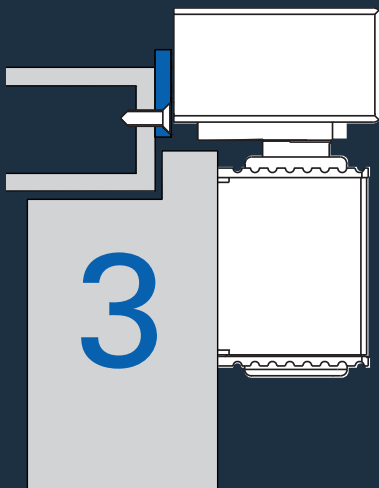


The mounting with the standard profile (SP) is used when the door frame is already equipped with the mounting drill holes 120/428,5 mm - e.g. for steel door frames or when exchanging / retrofitting.

The standard profile is mounted directly to the door frame and adapts the ECO drill holes to the prepared drill holes. It can be ordered separately as accessory.

The drawings of the slides on the following pages show the direct assembly.

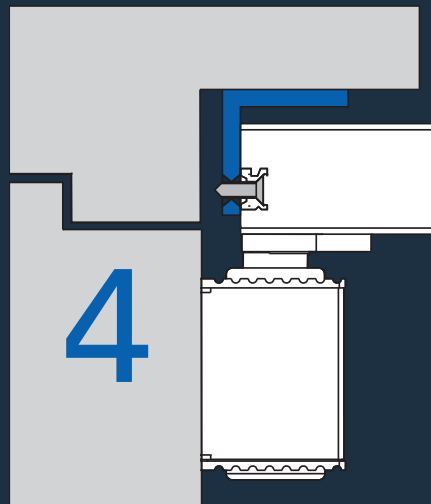
Mounting with adaptor profile



The adaptor profile (ADP) is being used when a stable mounting of the slide rail is not possible due to constructions (e.g. steel frame doors with double rebated notches). The adaptor profile is mounted directly to the door frame. The slide rail can be mounted onto the ADP and will be stable. It can be ordered separately as accessory.

The drilling dimensions for the adaptor profiles are included on the attached paper drilling template. Additionally, a metal drilling template (accessory page) or respective PDF or DXF files containing the dimensions can be available (www.eco-schulte.de)

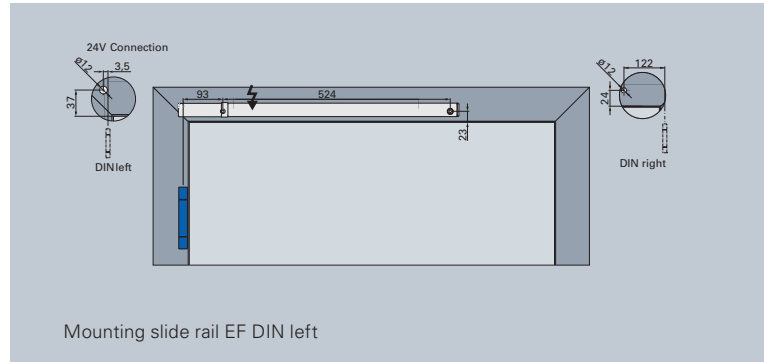
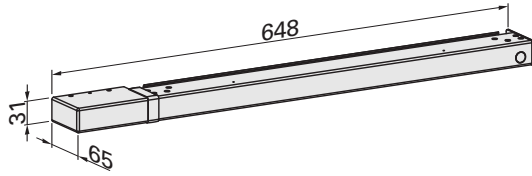
Mounting with under-lintel angle



The under-lintel angle (SFW) is being used for installation on the hinge-opposite side if the slide rail needs to be mounted under the door frame (for doors with deep door lintels).

The under-lintel angle is screwed bottom-up to the door frame and the slide rails is fixed to the under-lintel angle.

The drilling dimensions for the SFW are mentioned in the mounting instruction or can be available as PDF or DXF file (www.eco-schulte.de). The under-lintel angle can be ordered separately as accessory.



EF

Slide rail with electromagnetic hold-open for ECO Newton TS-61, TS-41**

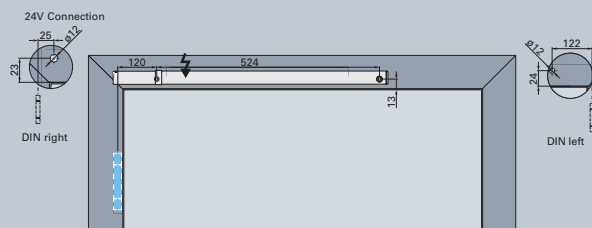
- **Controlled by:** External fire alarm system.
- **Hold open angle:** Approx. 70° to 145°
- **Supply voltage:** 24 V DC
- **Scope of delivery:** Incl. arm for slide rail B for TS-61**
- **Mounting:** Only hinge side
- **Slide rail:**
Tested acc. to **EN 1155**

Slide rail EF

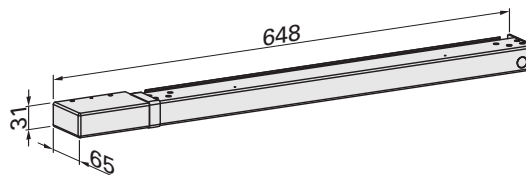
DIN left	Colour	Article number	DIN right	Colour	Article number
GS-EF (Si)	Silver RAL 9006	350100000A03511	GS-EF (Si)	Silver RAL 9006	350100000A03512
GS-EF (W)	White RAL 9016	350100000E03511	GS-EF (W)	White RAL 9016	350100000E03512
GS-EF (Br)	Brown RAL 8014	350100000D03511	GS-EF (Br)	Brown RAL 8014	350100000D03512
GS-EF (S)	Black RAL 9005	350100000G03511	GS-EF (S)	Black RAL 9005	350100000G03512
GS-EF (ER M)	Stainless steel satin	350100000Q03511	GS-EF (ER M)	Stainless steel satin	350100000Q03512
GS-EF (ER P)	Stainless steel polished	On request	GS-EF (ER P)	Stainless steel polished	On request

Accessories for slide rail EF

DIN left / right	Colour	Article number
Standard profile SP-EF	Steel zinc plated	350300U40O00000
Adaptor profile ADP-EF	Steel zinc plated	350300T40O00000



Mounting slide rail EF BG DIN right



EF BG (Hinge-opposite side)

Slide rail with electromagnetic hold-open hinge-opposite side for ECO Newton TS-61 G, TS-41**

- **Controlled by:** External fire alarm system.
- **Hold open angle:** max. 110°
- **Supply voltage:** 24 V DC
- **Scope of delivery:** Incl. arm for slide rail B for TS-61**
- **Mounting:** Only hinge-opposite side.
- **Slide rail:**
Tested acc. to **EN 1155**

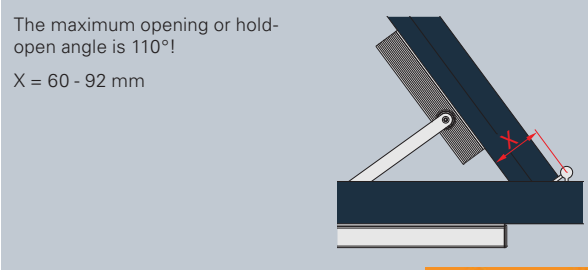
Slide rail EF BG

DIN left	Colour	Article number	DIN right	Colour	Article number
GS-EF BG (Si)	Silver RAL 9006	3501BG000A03511	GS-EF BG (Si)	Silver RAL 9006	3501BG000A03512
GS-EF BG (W)	White RAL 9016	3501BG000E03511	GS-EF BG (W)	White RAL 9016	3501BG000E03512
GS-EF BG (Br)	Brown RAL 8014	3501BG000D03511	GS-EF BG (Br)	Brown RAL 8014	3501BG000D03512
GS-EF BG (S)	Black RAL 9005	3501BG000G03511	GS-EF BG (S)	Black RAL 9005	3501BG000G03512
GS-EF BG (ER M)	Stainless steel satin	3501BG000Q03511	GS-EF BG (ER M)	Stainless steel satin	3501BG000Q03512
GS-EF BG (ER P)	Stainless steel polished	On request	GS-EF BG (ER P)	Stainless steel polished	On request

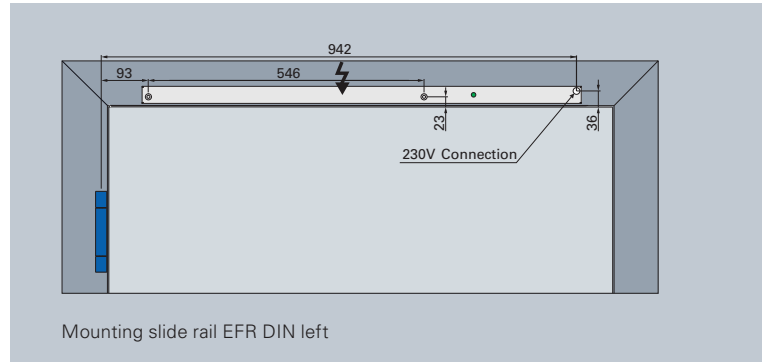
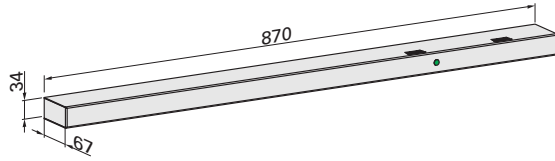
Accessories slide rail EF BG

DIN left / right	Colour	Article number
Adaptor profile ADP-EF	Steel zinc plated	350300T40000000
Under-lintel angle SFW-EF	Aluminium anodized	350300R40000000

For special dimensions (door leaf thickness, notches) please contact our technical support.



*When using the door closer TS-41, the correct arm has to be ordered. Suitable arms on page 179.



EFR

Slide rail with continuous cover, electromagnetic hold-open, integrated smoke detector with optical pre-information about dirt level and automatic calibration to avoid false alarms for ECO Newton TS-61, TS-41**

- **Compatible for smoke detector type:**
DRM ORS 142, TDS 247
- **Controlled by:**
Integrated smoke detector with power supply). Supply voltage: 230 V AC
- **Hold open angle:**
Approx. 70° to 145°
- **Scope of delivery:** Incl. arm for slide rail B for TS-61**
- **Mounting:** Only hinge side
- **Slide rail:**
Tested acc. to **EN 1155** and approved by DIBt.

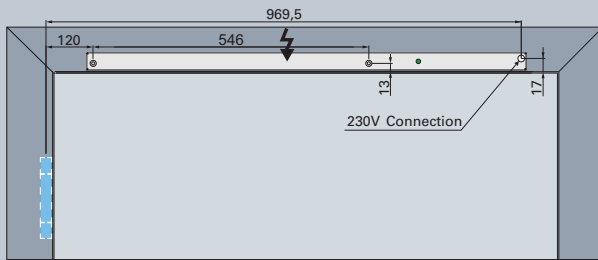
Slide rail EFR

DIN left	Colour	Article number	DIN right	Colour	Article number
GS-EFR (Si)	Silver RAL 9006	350100000A05611	GS-EFR (Si)	Silver RAL 9006	350100000A05612
GS-EFR (W)	White RAL 9016	350100000E05611	GS-EFR (W)	White RAL 9016	350100000E05612
GS-EFR (Br)	Brown RAL 8014	350100000D05611	GS-EFR (Br)	Brown RAL 8014	350100000D05612
GS-EFR (S)	Black RAL 9005	350100000G05611	GS-EFR (S)	Black RAL 9005	350100000G05612
GS-EFR (ER M)	Stainless steel satin	350100000Q05611	GS-EFR (ER M)	Stainless steel satin	350100000Q05612
GS-EFR (ER P)	Stainless steel polished	On request	GS-EFR (ER P)	Stainless steel polished	On request

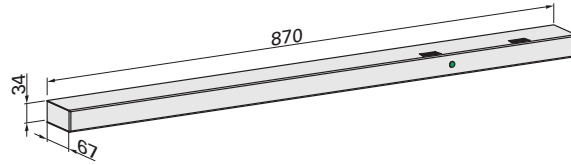
Accessories for slide rail EFR

DIN left / right	Colour	Article number
Standard profile SP-EFR	Steel zinc plated	350300U60O00000
Adaptor profile ADP-EFR	Steel zinc plated	350300T60O00000

Note!
For full panic doors, the use of ECO panic flap MK base 1 is required!



Mounting slide rail EFR BG DIN right



EFR BG (Hinge-opposite side)

Slide rail with continuous cover, electromagnetic hold-open, integrated smoke detector with optical pre-information about dirt level and automatic calibration to avoid false alarms for ECO Newton TS-61 G, TS-41**

- **Compatible for smoke detector type:**
DRM ORS 142, TDS 247
- **Controlled by:**
Integrated smoke detector with power supply). Supply voltage 230 V AC.
- **Hold open angle:**
max. 110°.
- **Scope of delivery:** Incl. arm for slide rail B for TS-61**
- **Mounting:** Only hinge-opposite side.
- **Slide rail:**
Tested acc. to **EN 1155** and approved by DIBt.

Slide rail EFR BG

DIN left	Colour	Article number	DIN right	Colour	Article number
GS-EFR BG (Si)	Silver RAL 9006	3501BG000A05611	GS-EFR BG (Si)	Silver RAL 9006	3501BG000A05612
GS-EFR BG (W)	White RAL 9016	3501BG000E05611	GS-EFR BG (W)	White RAL 9016	3501BG000E05612
GS-EFR BG (Br)	Brown RAL 8014	3501BG000D05611	GS-EFR BG (Br)	Brown RAL 8014	3501BG000D05612
GS-EFR BG (S)	Black RAL 9005	3501BG000G05611	GS-EFR BG (S)	Black RAL 9005	3501BG000G05612
GS-EFR BG (ER M)	Stainless steel satin	3501BG000Q05611	GS-EFR BG (ER M)	Stainless steel satin	3501BG000Q05612
GS-EFR BG (ER P)	Stainless steel polished	On request	GS-EFR BG (ER P)	Stainless steel polished	On request

Accessories slide rail EFR BG

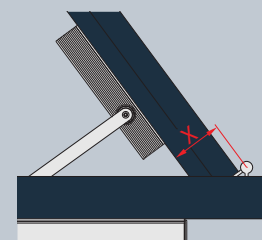
DIN left / right	Colour	Article number
Adaptor profile ADP-EFR	Steel zinc plated	350300T60O00000
Under-lintel angle SFW-EFR	Aluminium anodized	350300L00O00000



Note!
The maximum opening angle of the leaves has to be limited by the use of bottom stoppers. For full panic doors, the use of ECO panic flap MK base 2 is required!

For special dimensions (door leaf, thickness notches) please contact our technical support.

The maximum opening or hold-open angle is 110°!
X = 60 - 92 mm




*When using the door closer TS-41, the correct arm has to be ordered. Suitable arms on page 179.



ECO

Slide rails for double-leaf doors (surface mounted)

A photograph showing a stainless steel fullcover for a door closer installed on a dark door. The cover is a long, rectangular, brushed metal piece that fits over the door closer and its slide rail. The door closer is a Newton model, and the cover has the ECO logo on its side. The door is dark grey or black, and the background is a plain white wall.

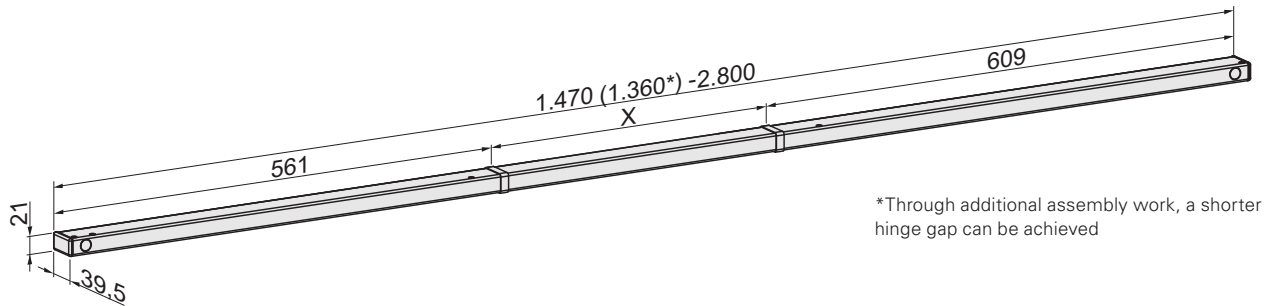
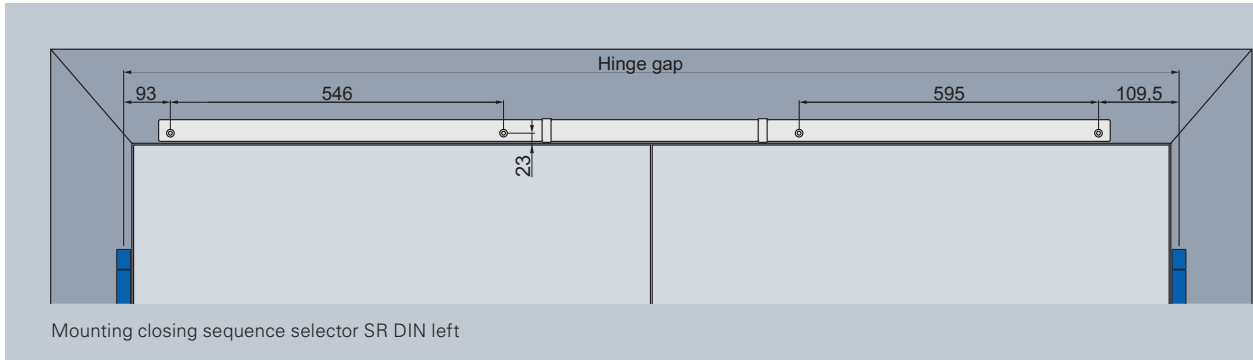
Stainless steel fullcover for door closer

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. (Page 179)

TS-61 SR-EFR-2 (ER)

Execution: Stainless steel standard:
Slide rail and door closer cover in stainless steel,
door closer body silver





SR

Closing sequence selector hinge side for ECO Newton TS-61, TS-41**

- **Hold open angle for active leaf**
at 160°-175°, an additional assembly work is necessary
- **Hold open angle for passive leaf**
max. 175° (depending on the fold-and frame geometry)
- **Minimum size passive leaf:**
360 mm (for TS-41) / 400 mm (for TS-61)
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Mounting:** Only hinge side.

- **Slide rail closing sequence selector:**
The closing sequence selector ensures that the door leaves are closing in the correct order. E.g.: the passive leaf first, the active leaf last. When opening the passive leaf, chocks in the active leaf slide rail (mechanical independent from the hydraulics of the door closer) make sure that the active leaf stops as soon as the passive leaf is opened. Tested acc. to EN 1158.

Closing sequence selector hinge side

Hinge gap standard 1.470 (1.360*) – 2.800 mm

For smaller hinge gap (1.250 – 1.360 mm), a special variant can be used. Please contact our technical support.

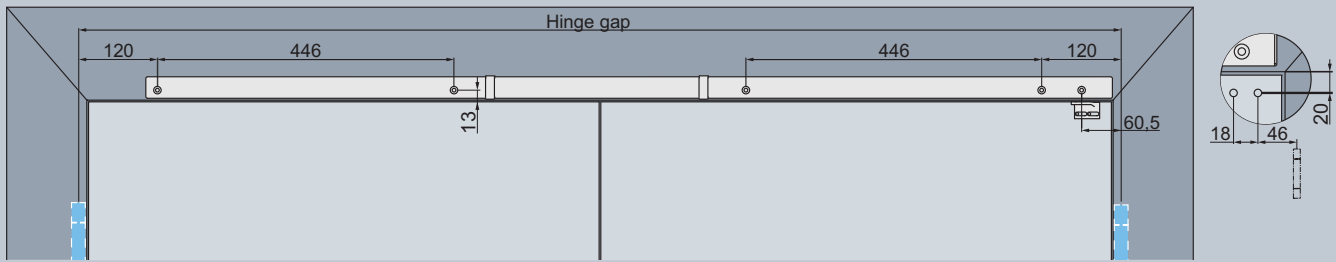
DIN left	Colour	Article number	DIN right	Colour	Article number
SR (Si)	Silver RAL 9006	350100000AK1511	SR (Si)	Silver RAL 9006	350100000AK1512
SR (W)	White RAL 9016	350100000EK1511	SR (W)	White RAL 9016	350100000EK1512
SR (Br)	Brown RAL 8014	350100000DK1511	SR (Br)	Brown RAL 8014	350100000DK1512
SR (S)	Black RAL 9005	350100000GK1511	SR (S)	Black RAL 9005	350100000GK1512
SR (ER M)	Stainless steel satin	350100000QK1511	SR (ER M)	Stainless steel satin	350100000QK1512
SR (ER P)	Stainless steel polished	On request	SR (ER P)	Stainless steel polished	On request

Accessories SR for double-leaf doors

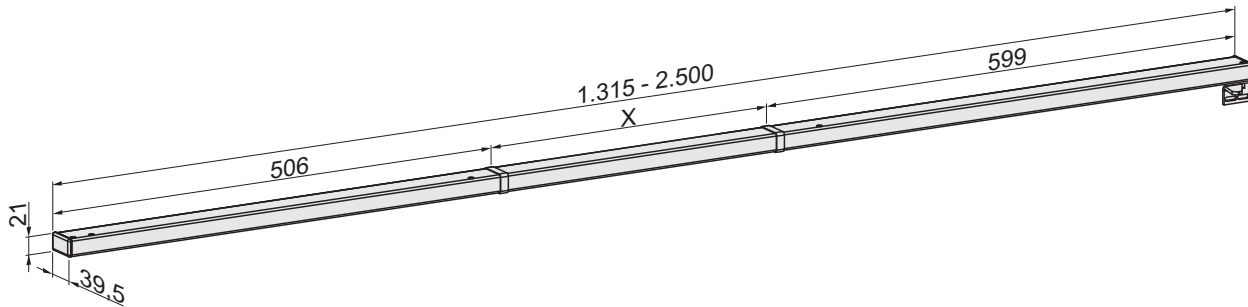
DIN left / right	Colour	Article number
Standard profile SP-SR	Steel zinc plated	350300U20000000
Adaptor profile ADP-SR	Steel zinc plated	350300T20000000

Note:
For full panic doors, the use of ECO panic flap MK base 1 is required!





Mounting closing sequence selector SR BG DIN right



SR BG (Hinge-opposite side)

Closing sequence selector hinge-opposite side for ECO Newton TS-61 G, TS-41**

- **Hold open angle:**
max. 110° (depending on the fold-and frame geometry)
- **Minimum size passive leaf:**
500 mm.
- **Scope of delivery:**
Incl. arm for slide rail B for TS-61**
Please specify DIN direction of active leaf when ordering (DIN left or DIN right).
- **Mounting:** Only hinge-opposite side.

- **Slide rail closing sequence selector:**
The closing sequence selector ensures that the door leaves are closing in the correct order. E.g.: the passive leaf first, the active leaf last. When opening the passive leaf, chocks in the active leaf slide rail (mechanical independent from the hydraulics of the door closer) make sure that the active leaf stops as soon as the passive leaf is opened. Tested acc. to **EN 1158**.

Closing sequence selector hinge-opposite side

Hinge gap: 1.315 – 2.500 mm

DIN left	Colour	Article number	DIN right	Colour	Article number
SR BG (Si)	Silver RAL 9006	350100000AK9411	SR BG (Si)	Silver RAL 9006	350100000AK9412
SR BG (W)	White RAL 9016	350100000EK9411	SR BG (W)	White RAL 9016	350100000EK9412
SR BG (Br)	Brown RAL 8014	350100000DK9411	SR BG (Br)	Brown RAL 8014	350100000DK9412
SR BG (S)	Black RAL 9005	350100000GK9411	SR BG (S)	Black RAL 9005	350100000GK9412
SR BG (ER M)	Stainless steel satin	350100000QK9411	SR BG (ER M)	Stainless steel satin	350100000QK9412
SR BG (ER P)	Stainless steel polished	On request	SR BG (ER P)	Stainless steel polished	On request

Accessories SR BG for double-leaf doors

DIN left / right	Colour	Article number
Adaptor profile ADP-SR	Steel zinc plated	350300T50000000
Under-lintel angle SFW-SR	Aluminium anodized	350300K50000000

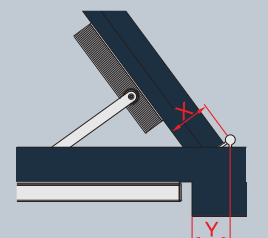
The use of an interrupt button for releasing the closing sequence selector is recommended.

For special dimensions (door leaf thickness, notches) please contact our technical support.

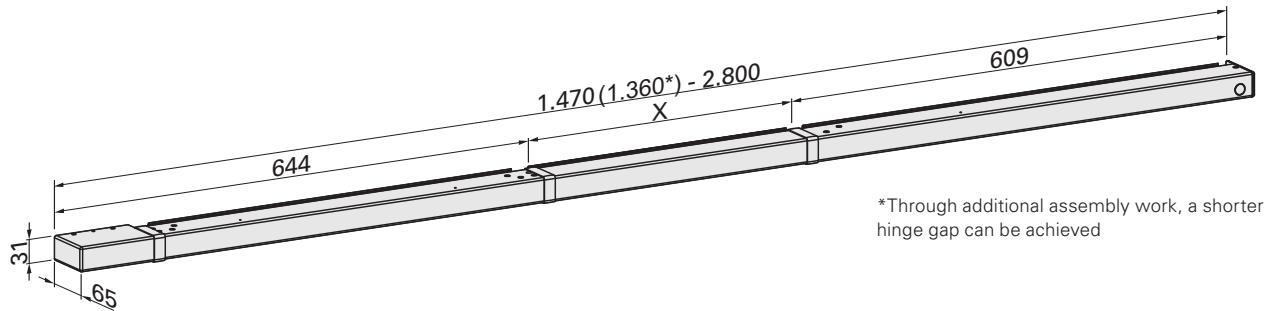
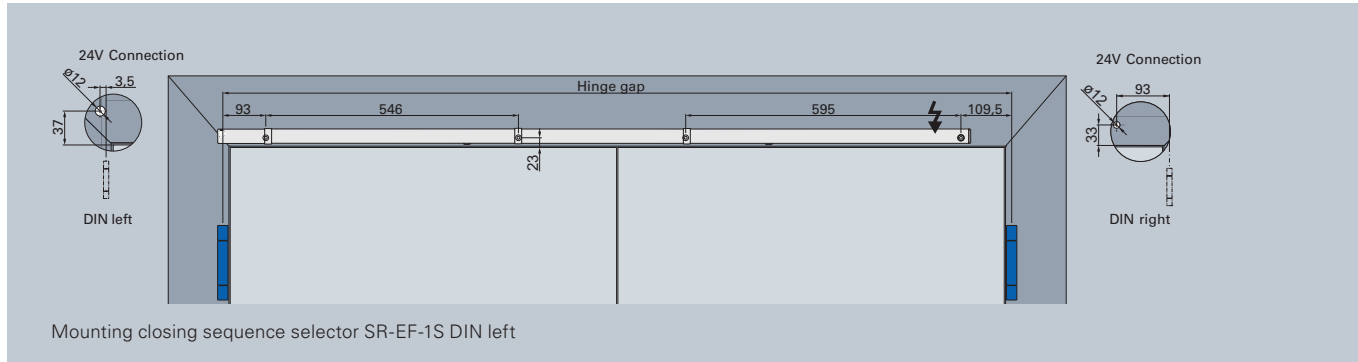


The maximum opening angle of the active and passive leaf is 110°!
Frame overhang max. 8 mm!

X = 60 - 92 mm
Y = ≤ 33 mm



*When using the door closer TS-41, the correct arm has to be ordered. Suitable arms on page 179.



*Through additional assembly work, a shorter hinge gap can be achieved

SR-EF-1S

Closing sequence selector with electromagnetic hold-open in the passive leaf for ECO Newton TS-61, TS-41**

- **Hold open angle for passive leaf and active leaf**
Active leaf: Approx. 70° to 145°, Passive leaf: 70° to 130°
- **Power consumption in hold-open position:**
Supply voltage 24 V DC
- **Minimum size passive leaf:**
360 mm (for TS-41) / 400 mm (for TS-61)
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Mounting:** Only hinge side.

- **Slide rail closing sequence selector:**
The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- **Electromagnetic hold-open:**
In passive leaf. The active leaf is not held open separately. If the passive leaf is opened additionally, it will be held open electromagnetically and the integrated closing sequence is activated. It now locks the active leaf in every desired position (70 - 145°). Thus, both door leaves stay open during operation (IBO).
- **Tested acc. to: EN 1155 and EN 1158**

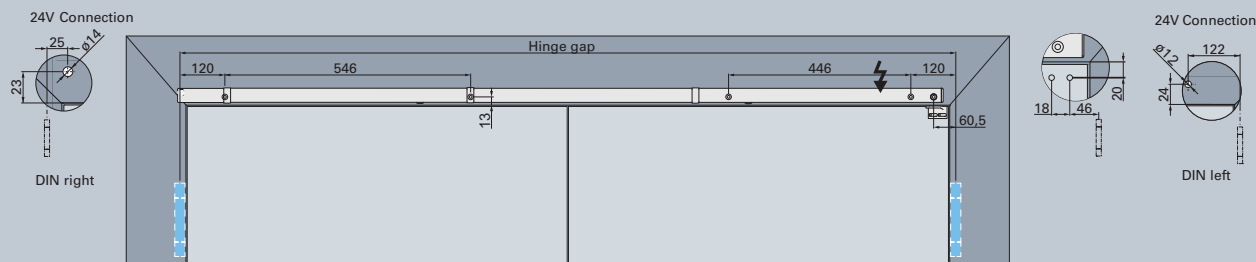
Closing sequence selector EF-1S
Hinge gap standard 1.470 (1.360*) – 2.800 mm

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EF-1S (Si)	Silver RAL 9006	350100000AK3511	SR-EF-1S (Si)	Silver RAL 9006	350100000AK3512
SR-EF-1S (W)	White RAL 9016	350100000EK3511	SR-EF-1S (W)	White RAL 9016	350100000EK3512
SR-EF-1S (Br)	Brown RAL 8014	350100000DK3511	SR-EF-1S (Br)	Brown RAL 8014	350100000DK3512
SR-EF-1S (S)	Black RAL 9005	350100000GK3511	SR-EF-1S (S)	Black RAL 9005	350100000GK3512
SR-EF-1S (ER M)	Stainless steel satin	350100000QK3511	SR-EF-1S (ER M)	Stainless steel satin	350100000QK3512
SR-EF-1S (ER P)	Stainless steel polished	On request	SR-EF-1S (ER P)	Stainless steel polished	On request

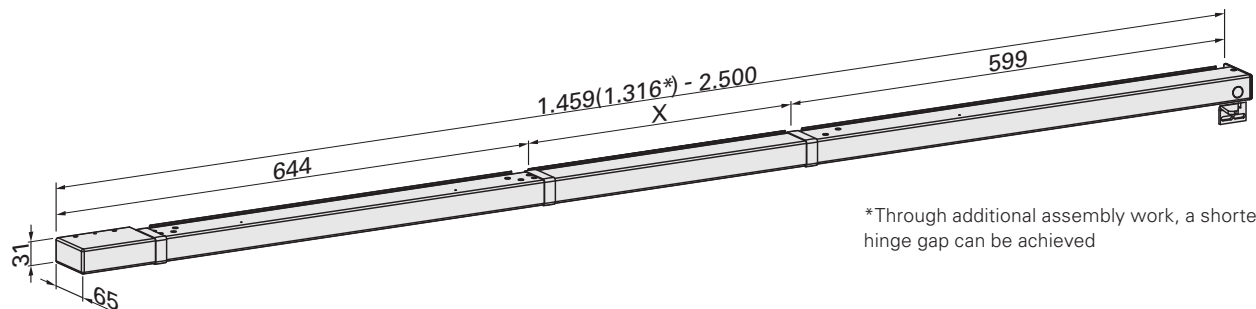
Accessories SR-EF-1S for double-leaf doors

DIN left / right	Colour	Article number
Standard profile SP-SR	Steel zinc plated	350300U10000000
Adaptor profile ADP-SR	Steel zinc plated	350300V10000000

Note!
When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of electromagnetic door retainers. For full panic doors, the use of ECO panic flap MK base 1 is required!



Mounting closing sequence selector SR-EF-1S BG DIN right



SR-EF-1S BG (Hinge-opposite side)

Closing sequence selector with electromagnetic hold-open in the passive leaf hinge-opposite side for ECO Newton TS-61 G, TS-41**

- **Hold open angle for passive leaf and active leaf**
Active leaf: max. 95°, Passive leaf: max. 95°
- **Power consumption in hold-open position:**
Supply voltage 24 V DC
- **Minimum size passive leaf:**
500 mm
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Mounting:** Only hinge-opposite side

- **Slide rail closing sequence selector:**
The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- **Electromagnetic hold-open:**
In passive leaf. The active leaf is not held open separately. If the passive leaf is opened additionally, it will be held open electromagnetically and the integrated closing sequence is activated. It now locks the active leaf in every desired position (95°). Thus, both door leaves stay open during operation (IBO).
- **Tested acc. to:** EN 1155 and EN 1158

Closing sequence selector EF-1S BG
Hinge gap standard 1.459 (1.316*) – 2.500 mm

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EF-1S BG (Si)	Silver RAL 9006	3501BG000AK3511	SR-EF-1S BG (Si)	Silver RAL 9006	3501BG000AK3512
SR-EF-1S BG (W)	White RAL 9016	3501BG000EK3511	SR-EF-1S BG (W)	White RAL 9016	3501BG000EK3512
SR-EF-1S BG (Br)	Brown RAL 8014	3501BG000DK3511	SR-EF-1S BG (Br)	Brown RAL 8014	3501BG000DK3512
SR-EF-1S BG (S)	Black RAL 9005	3501BG000GK3511	SR-EF-1S BG (S)	Black RAL 9005	3501BG000GK3512
SR-EF-1S BG (ER M)	Stainless steel satin	3501BG000QK3511	SR-EF-1S BG (ER M)	Stainless steel satin	3501BG000QK3512
SR-EF-1S BG (ER P)	Stainless steel polished	On request	SR-EF-1S BG (ER P)	Stainless steel polished	On request

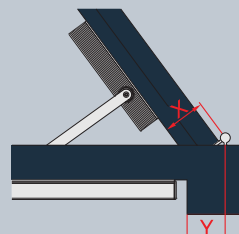
Accessories SR-EF-1S BG for double-leaf doors

DIN left / right	Colour	Article number
Adaptor profile ADP-SR	Steel zinc plated	350300V10O00000
Under-lintel angle SFW-SR	Aluminium anodized	350300M10O00000

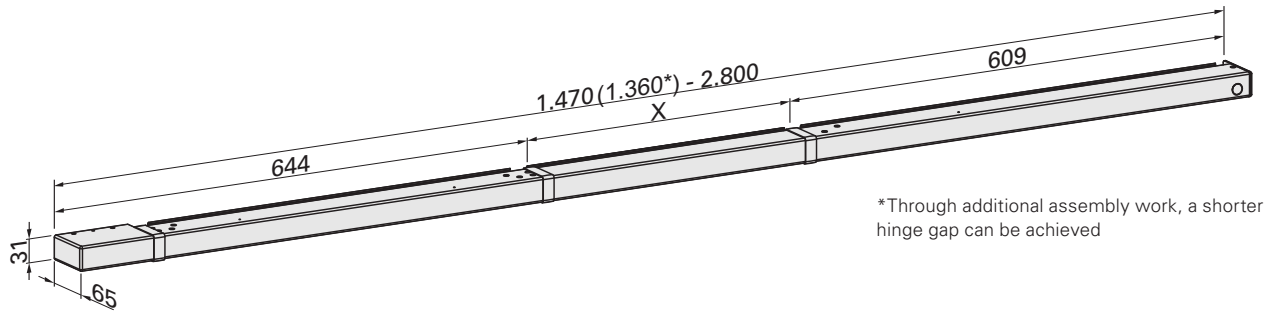
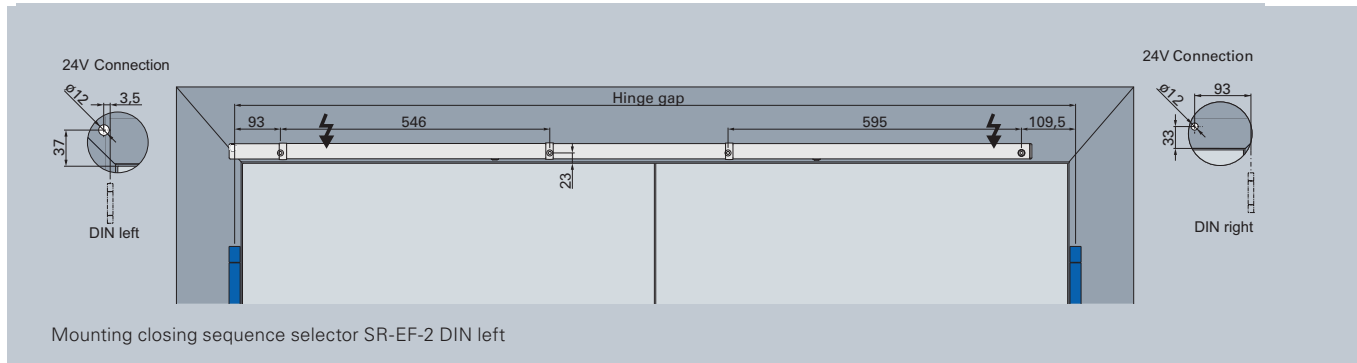
Note!: The use of an interrupt button for releasing the closing sequence selector is recommended. The maximum opening angle of the leaves has to be limited by the use of bottom stoppers. When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of electromagnetic door retainers. For full panic doors, the use of ECO panic flap MK base 2 is required!

The maximum opening or hold-open angle of the active and passive leaf is 95°!
Frame overhang max. 8 mm!

X = 60 - 92 mm
Y ≤ 33 mm



*When using the door closer TS-41, the correct arm has to be ordered. Suitable arms on page 179.



SR-EF-2

Closing sequence selector with electromagnetic hold-open in the active and passive leaf for ECO Newton TS-61, TS-41**

- **Hold open angle for passive leaf and active leaf**
Active leaf: Approx. 70° to 145°, Passive leaf: 70° to 130°
- **Power consumption in hold-open position:**
Supply voltage 24 V DC
- **Minimum size passive leaf:**
360 mm (for TS-41) / 400 mm (for TS-61)
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Mounting:** Only hinge side.

- **Slide rail closing sequence selector:**
The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- **Electromagnetic hold-open:**
In active and passive leaf. Active leaf is held open electromagnetically when opened. If passive leaf is opened additionally, it will be held open electromagnetically, too. At the same time the integrated closing sequence is activated which locks the active leaf. The magnet of the active leaf disconnects, both door leaves stay open.
- **Tested acc. to: EN 1155 and EN 1158.**

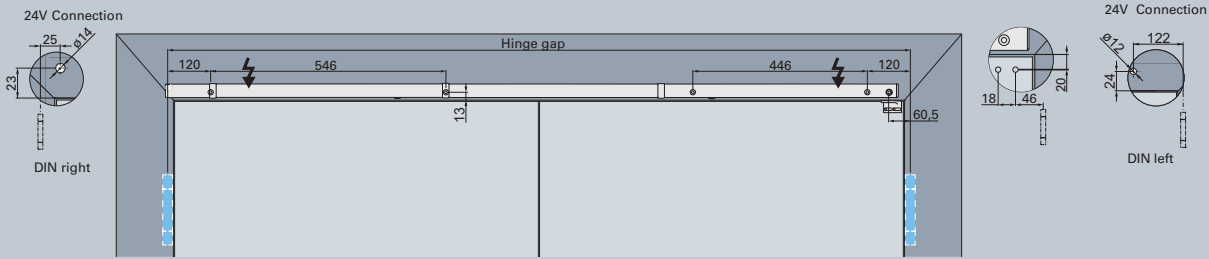
Closing sequence selector EF-2
Hinge gap standard 1.470 (1.360*) – 2.800 mm

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EF-2 (Si)	Silver RAL 9006	350100000AK2511	SR-EF-2 (Si)	Silver RAL 9006	350100000AK2512
SR-EF-2 (W)	White RAL 9016	350100000EK2511	SR-EF-2 (W)	White RAL 9016	350100000EK2512
SR-EF-2 (Br)	Brown RAL 8014	350100000DK2511	SR-EF-2 (Br)	Brown RAL 8014	350100000DK2512
SR-EF-2 (S)	Black RAL 9005	350100000GK2511	SR-EF-2 (S)	Black RAL 9005	350100000GK2512
SR-EF-2 (ER M)	Stainless steel satin	350100000QK2511	SR-EF-2 (ER M)	Stainless steel satin	350100000QK2512
SR-EF-2 (ER P)	Stainless steel polished	On request	SR-EF-2 (ER P)	Stainless steel polished	On request

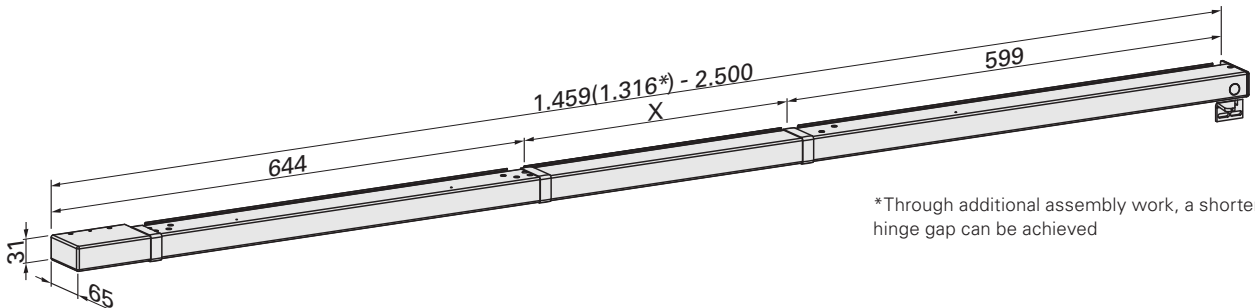
Accessories SR-EF-2 for double-leaf doors

DIN left / right	Colour	Article number
Standard profile SP-SR	Steel zinc plated	350300U10000000
Adaptor profile ADP-SR	Steel zinc plated	350300V10000000

When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of electromagnetic door retainers.



Mounting closing sequence selector SR-EF-2 BG DIN right



SR-EF-2 BG (Hinge-opposite side)

Closing sequence selector with electromagnetic hold-open in the active and passive leaf for ECO Newton TS-61 G, TS-41**

- **Hold open angle for passive leaf and active leaf**
Active leaf: max. 95°, Passive leaf: max. 95°
- **Power consumption in hold-open position:**
Supply voltage 24 V DC
- **Minimum size passive leaf:**
500 mm.
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Mounting:** Only hinge-opposite side.
- **Slide rail closing sequence selector:**
The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- **Electromagnetic hold-open:**
In active and passive leaf. Active leaf is held open electromagnetically when opened. If passive leaf is opened additionally, it will be held open electromagnetically, too. At the same time the integrated closing sequence is activated which locks the active leaf. The magnet of the active leaf disconnects, both door leaves stay open.
- **Tested acc. to: EN 1155 and EN 1158**

Closing sequence selector EF-2 BG
Hinge gap standard 1.459 (1.316*) – 2.500 mm

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EF-2 BG (Si)	Silver RAL 9006	3501BG000AK2511	SR-EF-2 BG (Si)	Silver RAL 9006	3501BG000AK2512
SR-EF-2 BG (W)	White RAL 9016	3501BG000EK2511	SR-EF-2 BG (W)	White RAL 9016	3501BG000EK2512
SR-EF-2 BG (Br)	Brown RAL 8014	3501BG000DK2511	SR-EF-2 BG (Br)	Brown RAL 8014	3501BG000DK2512
SR-EF-2 BG (S)	Black RAL 9005	3501BG000GK2511	SR-EF-2 BG (S)	Black RAL 9005	3501BG000GK2512
SR-EF-2 BG (ER M)	Stainless steel satin	3501BG000QK2511	SR-EF-2 BG (ER M)	Stainless steel satin	3501BG000QK2512
SR-EF-2 BG (ER P)	Stainless steel polished	On request	SR-EF-2 BG (ER P)	Stainless steel polished	On request

Accessories SR-EF-2 BG for double-leaf doors

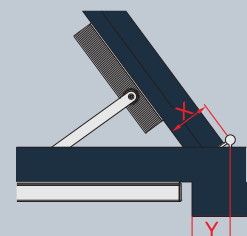
DIN left / right	Colour	Article number
Adaptor profile ADP-SR	Steel zinc plated	350300V10O00000
Under-lintel angle SFW-SR	Aluminium anodized	350300M10O00000

The use of an interrupt button for releasing the closing sequence selector is recommended. When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of eletromagnetic door retainers

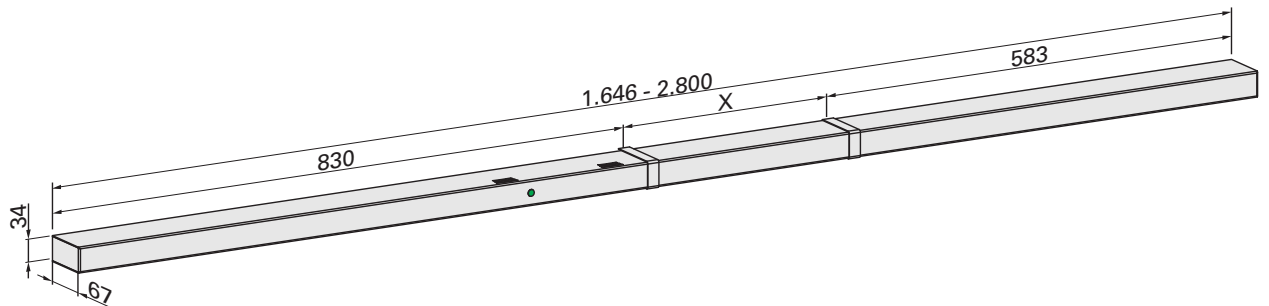
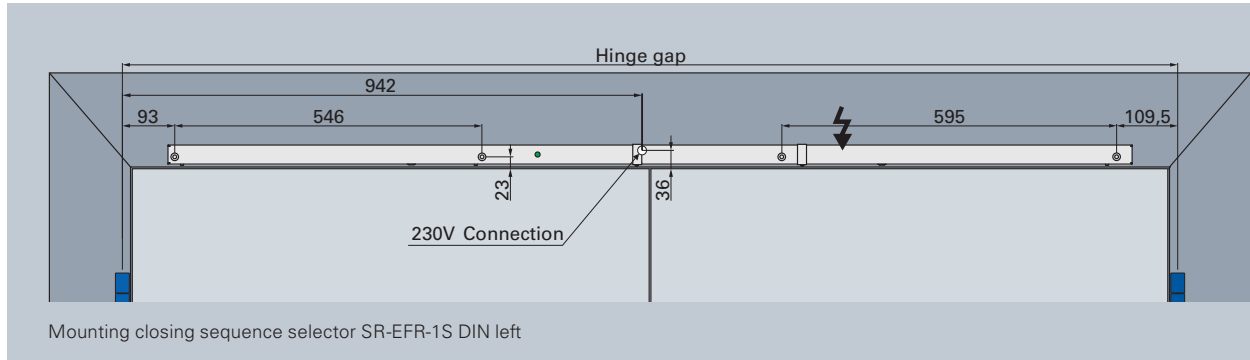


The maximum opening or hold-open angle of the active and passive leaf is 95°!
Frame overhang max. 8 mm!

X = 60 - 92 mm
Y = ≤ 33 mm



*When using the door closer TS-41, the correct arm has to be ordered. Suitable arms on page 179.



SR-EFR-1S

Closing sequence selector with continuous cover, electromagnetic hold-open in the passive leaf, integrated smoke detector with optical pre-information about dirt level and automatic calibration to avoid false alarms for ECO Newton TS-61, TS-41**

- **Compatible for smoke detector type:**
DRM ORS 142, TDS 247
- **Hold open angle for active leaf / passive leaf**
Active leaf approx. 70° to 145°, Passive leaf: 70° to 130°
- **Power supply :**
Power supply 230 V AC, 50 Hz
- **Minimum size passive leaf:**
360 mm (for TS-41) / 400 mm (for TS-61)
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Mounting:** Only hinge side

- **Slide rail closing sequence selector:**
The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- **Electromagnetic hold-open:**
In passive leaf. The active leaf is not held open separately. If the passive leaf is opened additionally, it will be held open electromagnetically and the integrated closing sequence is activated. It now locks the active leaf in every desired position (70 - 145°). Thus, both door leaves stay open during operation (IBO).
- **Tested acc. to: EN 1155 and EN 1158** and approved by DIBt.

Closing sequence selector EFR-1S

Hinge gap standard 1.646 – 2.800 mm

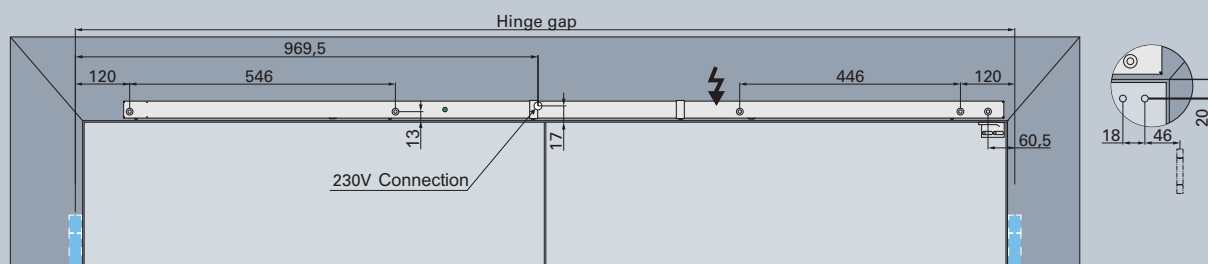
For smaller hinge gap 1.360 – 1.646 mm the SR-EF-1S can be used in combination with the ECO RSZ (Accessories Page 188).

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EFR-1S (Si)	Silver RAL 9006	350100000AL3611	SR-EFR-1S (Si)	Silver RAL 9006	350100000AL3612
SR-EFR-1S (W)	White RAL 9016	350100000EL3611	SR-EFR-1S (W)	White RAL 9016	350100000EL3612
SR-EFR-1S (Br)	Brown RAL 8014	350100000DL3611	SR-EFR-1S (Br)	Brown RAL 8014	350100000DL3612
SR-EFR-1S (S)	Black RAL 9005	350100000GL3611	SR-EFR-1S (S)	Black RAL 9005	350100000GL3612
SR-EFR-1S (ER M)	Stainless steel satin	350100000QL3611	SR-EFR-1S (ER M)	Stainless steel satin	350100001QL3612
SR-EFR-1S (ER P)	Stainless steel polished	On request	SR-EFR-1S (ER P)	Stainless steel polished	On request

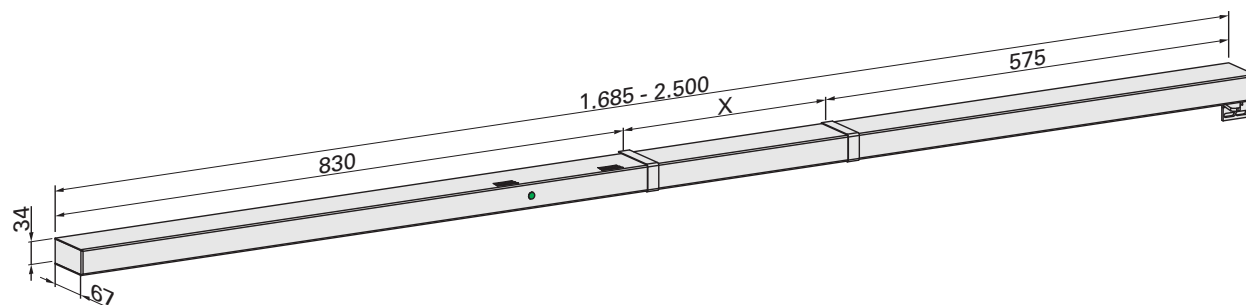
Accessories SR-EFR-1S for double-leaf doors

DIN left / right	Colour	Article number
Standard profile SP-SR	Steel zinc plated	350300U00000000
Adaptor profile ADP-SR	Steel zinc plated	350300T00000000

Note!
When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of electromagnetic door retainers. For full panic doors, the use of ECO panic flap MK base 1 is required!



Mounting closing sequence selector SR-EFR-1S BG DIN right



SR-EFR-1S BG (Hinge-opposite side)

Closing sequence selector with continuous cover, electromagnetic hold-open in the passive leaf, integrated smoke detector with optical pre-information about dirt level and automatic calibration to avoid false alarms for ECO Newton TS-61 G, TS-41**

- **Compatible for smoke detector type:**
DRM ORS 142, TDS 247
- **Hold open angle for active leaf**
Active leaf: max. 95°, Passive leaf: max. 95°
- **Power supply :**
Power supply 230 V AC, 50 Hz
- **Minimum size passive leaf:**
500 mm.
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Mounting:** Only hinge-opposite side.

- **Slide rail closing sequence selector:**
The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- **Electromagnetic hold-open:**
In passive leaf. The active leaf is not held open separately. If the passive leaf is opened additionally, it will be held open electromagnetically and the integrated closing sequence is activated. It now locks the active leaf in every desired position (95°). Thus, both door leaves stay open during operation (IBO).
- **Tested acc. to:** EN 1155 and EN 1158 and approved by DIBt.

Closing sequence selector EFR-1S BG
Hinge gap standard 1.685 – 2.500 mm

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EFR-1S BG (Si)	Silver RAL 9006	3501BG000AL3611	SR-EFR-1S BG (Si)	Silver RAL 9006	3501BG000AL3612
SR-EFR-1S BG (W)	White RAL 9016	3501BG000EL3611	SR-EFR-1S BG (W)	White RAL 9016	3501BG000EL3612
SR-EFR-1S BG (Br)	Brown RAL 8014	3501BG000DL3611	SR-EFR-1S BG (Br)	Brown RAL 8014	3501BG000DL3612
SR-EFR-1S BG (S)	Black RAL 9005	3501BG000GL3611	SR-EFR-1S BG (S)	Black RAL 9005	3501BG000GL3612
SR-EFR-1S BG (ER M)	Stainless steel satin	3501BG000QL3611	SR-EFR-1S BG (ER M)	Stainless steel satin	3501BG000QL3612
SR-EFR-1S BG (ER P)	Stainless steel polished	On request	SR-EFR-1S BG (ER P)	Stainless steel polished	On request

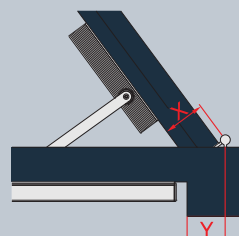
Accessories SR-EFR-1S BG for double-leaf doors

DIN left / right	Colour	Article number
Adaptor profile ADP-SR	Steel zinc plated	350300T00O000000
Under-lintel angle SFW-SR	Aluminium anodized	350300L02O000000

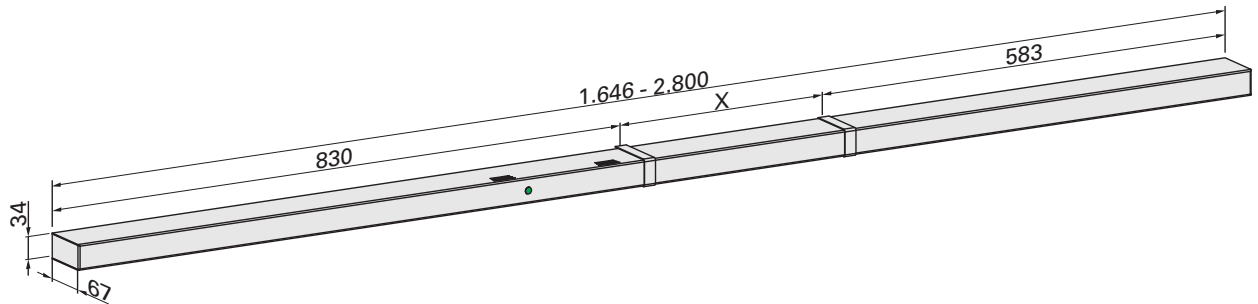
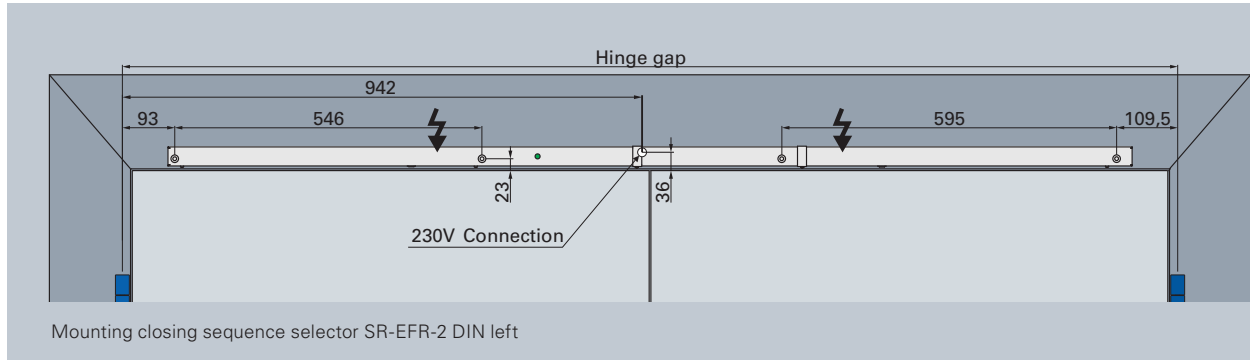
Note! The use of an interrupt button for releasing the closing sequence selector is recommended. The maximum opening angle of the leaves has to be limited by the use of bottom stoppers. When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of electromagnetic door retainers. For full panic doors, the use of ECO panic flap MK base 2 is required!

The maximum opening or hold-open angle of the active and passive leaf is 95°!
Frame overhang max. 8 mm!

X = 60 - 92 mm
Y ≤ 33 mm



*When using the door closer TS-41, the correct arm has to be ordered. Suitable arms on page 179.



SR-EFR-2

Closing sequence selector with continuous cover, two electromagnetic hold-open in the active and passive leaf, integrated smoke detector with optical pre-information about dirt level and automatic calibration to avoid false alarms for ECO Newton TS-61, TS-41**

- Compatible for smoke detector type:**
 DRM ORS 142, TDS 247
- Hold open angle for active leaf / passive leaf**
 Active leaf: Approx. 70° to 145°, Passive leaf: 70° to 130°
- Power supply**
 Power supply 230 V AC, 50 Hz
- Minimum size passive leaf:**
 360 mm (for TS-41) / 400 mm (for TS-61)
- Scope of delivery:**
 Incl. corresponding cover profile and arm for slide rail B for TS-61**
- Slide rail closing sequence selector:**
 The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- Electromagnetic hold-open:**
 In active and passive leaf. Active leaf is held open electromagnetically when opened. If passive leaf is opened additionally, it will be held open electromagnetically, too. At the same time the integrated closing sequence is activated which locks the active leaf. The magnet of the active leaf disconnects, both door leaves stay open.
- Tested acc. to: EN 1155 and EN 1158 and approved by DIBt.**

Closing sequence selector EFR-2 (Mounting only on hinge side)

Hinge gap standard 1.646 – 2.800 mm

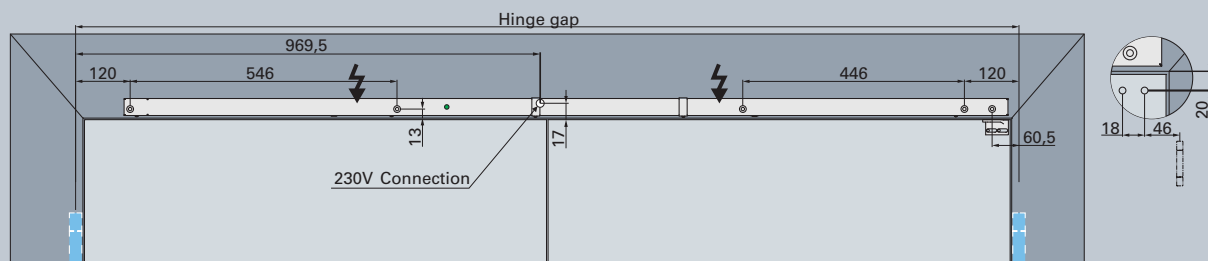
For smaller hinge gap 1.360 – 1.646 mm the SR-EF-2 can be used in combination with the ECO RSZ (Accessories Page 188).

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EFR-2 (Si)	Silver RAL 9006	350100000AL2611	SR-EFR-2 (Si)	Silver RAL 9006	350100000AL2612
SR-EFR-2 (W)	White RAL 9016	350100000EL2611	SR-EFR-2 (W)	White RAL 9016	350100000EL2612
SR-EFR-2 (Br)	Brown RAL 8014	350100000DL2611	SR-EFR-2 (Br)	Brown RAL 8014	350100000DL2612
SR-EFR-2 (S)	Black RAL 9005	350100000GL2611	SR-EFR-2 (S)	Black RAL 9005	350100000GL2612
SR-EFR-2 (ER M)	Stainless steel satin	350100000QL2611	SR-EFR-2 (ER M)	Stainless steel satin	350100000QL2612
SR-EFR-2 (ER P)	Stainless steel polished	On request	SR-EFR-2 (ER P)	Stainless steel polished	On request

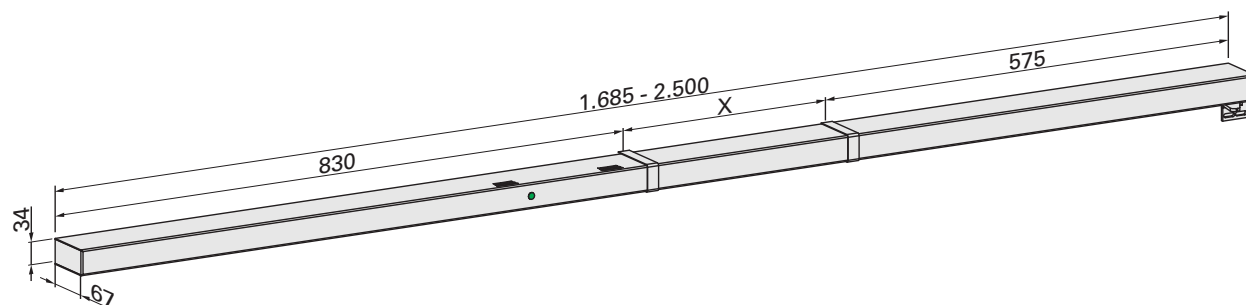
Accessories SR-EFR-2 for double-leaf doors

DIN left / right	Colour	Article number
Standard profile SP-SR	Steel zinc plated	350300U00000000
Adaptor profile ADP-SR	Steel zinc plated	350300T00000000

Note!
 When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of electromagnetic door retainers. For full panic doors, the use of ECO panic flap MK base 1 is required!



Mounting closing sequence selector SR-EFR-2 BG DIN right



SR-EFR-2 BG (Hinge-opposite side)

Closing sequence selector with continuous cover, two electromagnetic hold-open in the active and passive leaf, integrated smoke detector with optical pre-information about dirt level and automatic calibration to avoid false alarms for ECO Newton TS-61 G, TS-41**

- **Compatible for smoke detector type:**
DRM ORS 142, TDS 247
- **Hold open angle for active leaf / passive leaf**
Active leaf: max. 95°, Passive leaf: max. 95°
- **Power supply**
Power supply 230 V AC, 50 Hz
- **Minimum size passive leaf:** 500 mm
- **Scope of delivery:**
Incl. corresponding cover profile and arm for slide rail B for TS-61**
- **Slide rail closing sequence selector:**
The closing sequence selector ensures, that the door leaves are closing in the correct order. E.g.: the passive leaf first, active leaf last.
- **Electromagnetic hold-open:**
In active and passive leaf. Active leaf is held open electromagnetically when opened. If passive leaf is opened additionally, it will be held open electromagnetically, too. At the same time the integrated closing sequence is activated which locks the active leaf. The magnet of the active leaf disconnects, both door leaves stay open.
- **Tested acc. to:** EN 1155 and EN 1158 and approved by DIBt.

Closing sequence selector EFR-2 BG
Hinge gap standard 1.685 – 2.500 mm

DIN left	Colour	Article number	DIN right	Colour	Article number
SR-EFR-2 BG (Si)	Silver RAL 9006	3501BG000AL2611	SR-EFR-2 BG (Si)	Silver RAL 9006	3501BG000AL2612
SR-EFR-2 BG (W)	White RAL 9016	3501BG000EL2611	SR-EFR-2 BG (W)	White RAL 9016	3501BG000EL2612
SR-EFR-2 BG (Br)	Brown RAL 8014	3501BG000DL2611	SR-EFR-2 BG (Br)	Brown RAL 8014	3501BG000DL2612
SR-EFR-2 BG (S)	Black RAL 9005	3501BG000GL2611	SR-EFR-2 BG (S)	Black RAL 9005	3501BG000GL2612
SR-EFR-2 BG (ER M)	Stainless steel satin	3501BG000QL2611	SR-EFR-2 BG (ER M)	Stainless steel satin	3501BG000QL2612
SR-EFR-2 BG (ER P)	Stainless steel polished	On request	SR-EFR-2 BG (ER P)	Stainless steel polished	On request

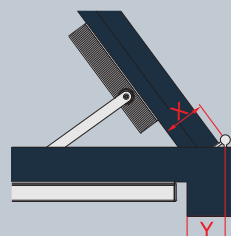
Accessories SR-EFR-2 BG for double-leaf doors

DIN left / right	Colour	Article number
Adaptor profile ADP-SR	Steel zinc plated	350300T00O00000
Under-lintel angle SFW-EF	Aluminium anodized	350300L02O00000

Note! The use of an interrupt button for releasing the closing sequence selector is recommended. The maximum opening angle of the leaves has to be limited by the use of bottom stoppers. When using in schools, caserns and stadiums as well as in areas with a high potential of vandalism, we recommend the use of electromagnetic door retainers. For full panic doors, the use of ECO panic flap MK base 2 is required!

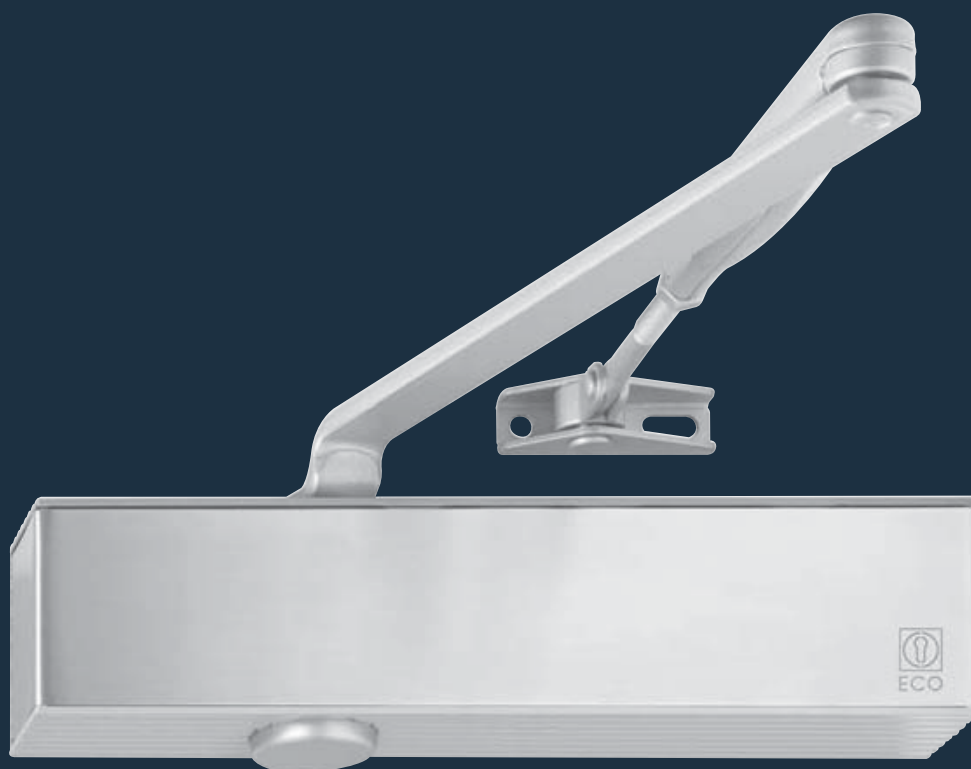
The maximum opening or hold-open angle of the active and passive leaf is 95°!
Frame overhang max. 8 mm!

X = 60 - 92 mm
Y = ≤ 33 mm



*When using the door closer TS-41, the correct arm has to be ordered. Suitable arms on page 179.

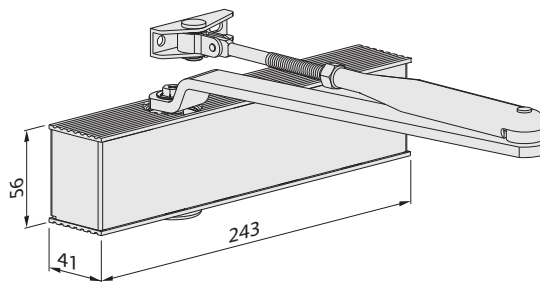
ECO **Newton** TS-50



Product characteristics

Closing force (continuously adjustable)	Size acc. to EN	1 – 5	6
Door width	acc. to EN ≤ 1,250 mm	■	
Door width (acc. separate mounting position)	acc. to EN ≤ 1,400 mm		■
Dimensions (incl. mounting plate)	Length in mm	243	243
	Depth in mm	41	41
	Height in mm	56	56
Mounting plate acc. to EN 1154 A (supplementary sheet 1)		□	
Hinge side and hinge-opposite side		■	■
DIN left / right		■	■
Latching speed (continuously adjustable)		■	■
Closing speed (continuously adjustable)		■	■
Back-check (constant)		■	■
Delayed action not fire certified (continuously adjustable)		-	-
Tested acc. to EN	EN 1154 A		-
Suitable for fire- and smoke control doors	F		-
Certified according to EU-Directive	CE		-

■ Yes
- No
□ Option



Dimensions: TS-50

2



ECO Newton TS-50 ■ Highlights at a glance



*optional

Details regarding the ECO Newton Highlights can be found in the intro of this chapter.



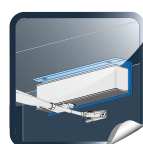
Body: Silver RAL 9006
ECOcllic: Stainless steel polished or satin

Body + ECOcllic: White RAL 9016

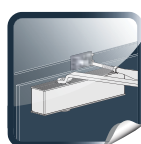
Body + ECOcllic: Black RAL 9005

Body + ECOcllic: Brown RAL 8014

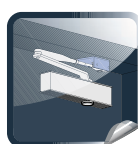
Slide rail and arm are always delivered in the same colour as the ordered door closer body.



Under-lintel angle for door closer
Page 181



Adaptor profile
Page 184



Angle bracket for parallel arm mounting
Page 180

Order information

ECO Newton TS-50 ▪ Door closer with standard arm

Product information

Closing force 1 - 5, tested acc. to **EN 1154 A** (Size 6 for door widths up to 1.400 mm)** continuously adjustable. Latching speed and closing speed continuously adjustable. Back-check constant. Same version DIN left and DIN right. Mounting height only 41 mm. Weight: 1.280 g. Max. door opening angle: 180°

- ECOunity: The ECO Newton closer portfolio covers all door dimensions with only two basic closer units.
- ECOcllic: The stainless steel cover encloses the aluminium body with the power of spring steel and conceals all of the adjusting elements, thus securing the closer against unauthorized access.
- ECOMount: Optional mounting plate according to **EN 1154**, supplementary sheet 1
- ECOvalve: Simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional Allen key.
- ECOcover²: Optional stainless steel cover for the ECO Newton door closers
- ECOgreen: The intelligent construction and carefully planned use of materials help considerably to save resources

Hinge side: Standard mounting on door leaf. Hinge-opposite side: Head mounting on door frame.

New packaging:

TS-50 Standard: (Standard mounting set) incl. door closer body, standard arm, paper template and fixing material.
 TS-50 DIN: (Mounting acc. DIN holes) Set with door closer body, standard arm, incl. mounting plate, mounting instructions, paper template and fixing material.

Article numbers



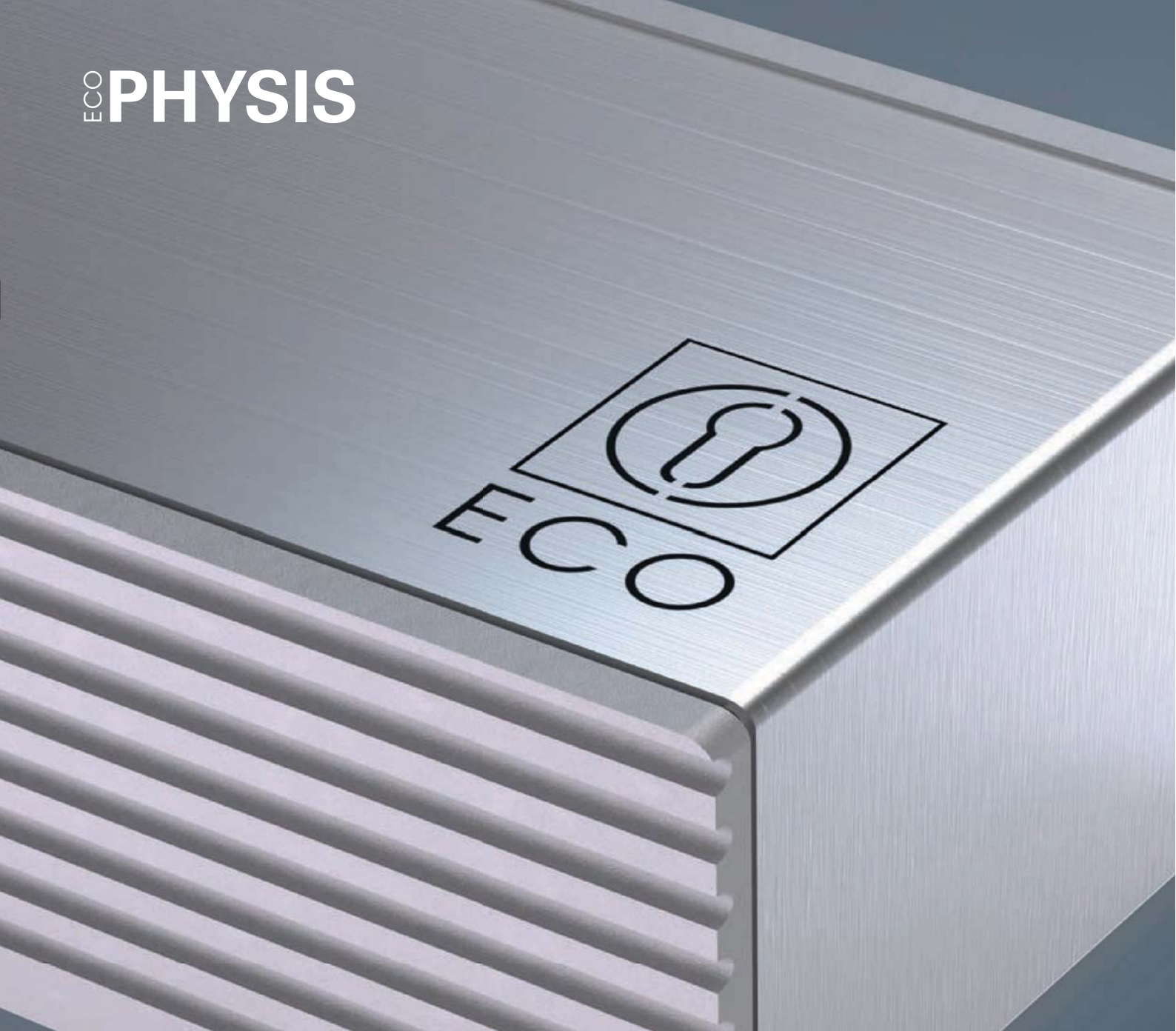
Door closer with standard arm	Colour	Article number		Door closer without standard arm	Colour	Article number	
TS-50 (1 - 5; (6))**	Silver RAL 9006*	305052F11A71010		TS-50 (1 - 5; (6))**	Silver RAL 9006*	355052F11A00010	
TS-50 (1 - 5; (6))**	White RAL 9016	305052F11E71010		TS-50 (1 - 5; (6))**	White RAL 9016	355052F11E00010	
TS-50 (1 - 5; (6))**	Brown RAL 8014	305052F11D71010		TS-50 (1 - 5; (6))**	Brown RAL 8014	355052F11D00010	
TS-50 (1 - 5; (6))**	Black RAL 9005	305052F11G71010		TS-50 (1 - 5; (6))**	Black RAL 9005	355052F11G00010	

Door closer DIN with standard arm incl. mounting plate	Colour	Article number	
TS-50 DIN (1 - 5)	Silver RAL 9006*	305052F11A71080	
TS-50 DIN (1 - 5)	White RAL 9016	305052F11E71080	
TS-50 DIN (1 - 5)	Brown RAL 8014	305052F11D71080	
TS-50 DIN (1 - 5)	Black RAL 9005	305052F11G71080	

*Door closer body in silver RAL 9006, ECOcllic in stainless steel satin, optional polished

**size 1 - 5 certified acc. to EN 1154 A, size 6 (by moving the door closer) not certified acc. to EN 1154 A

ECO PHYSIS



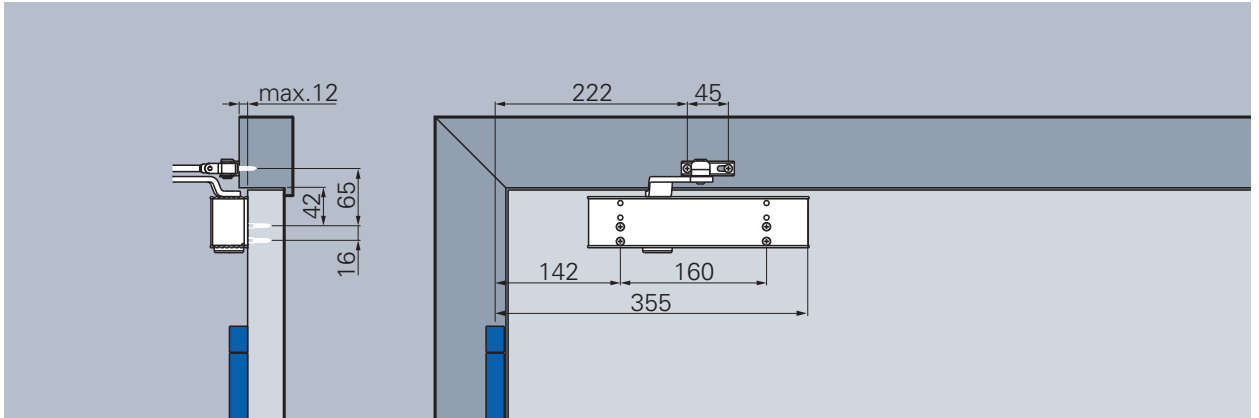
ECO Newton Highlights in detail.

Stainless steel and aluminium:

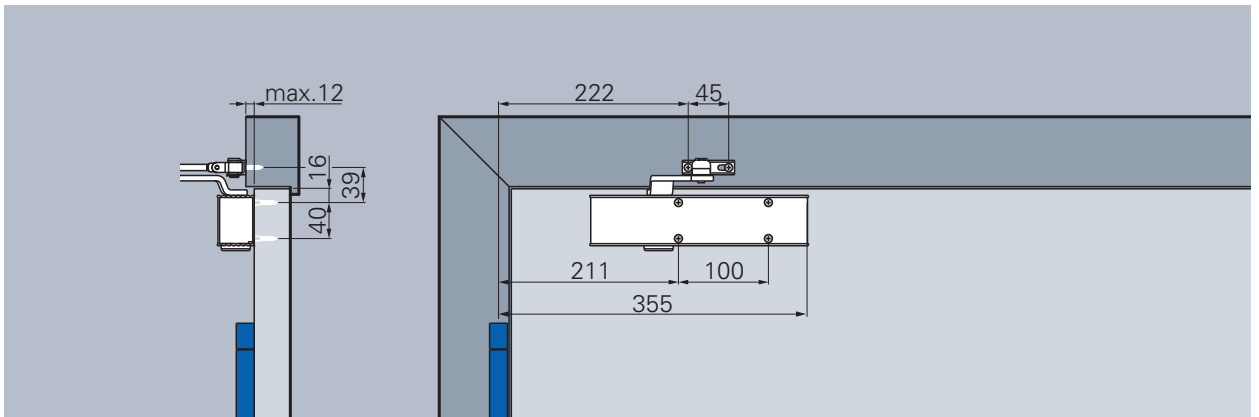
Elegant materials are standard with ECO Newton: the stainless steel cover and aluminium body unit of the new door closer generation are perfectly matched with one another – in an architecturally compatible form language.

Hinge side

Illustration DIN left door, DIN right laterally reversed



Standard mounting, hinge side (with mounting plate, with DIN holes)



Standard mounting, hinge side (direct mounting, without mounting plate)

Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

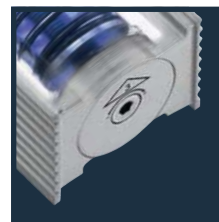
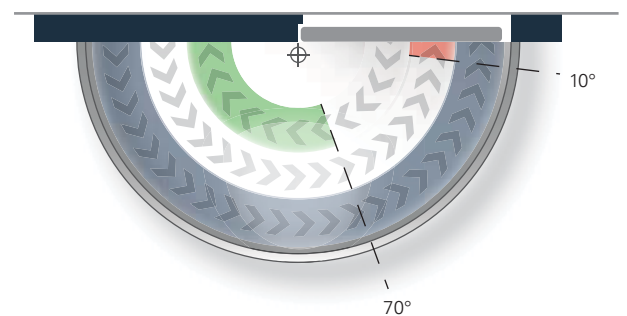
Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Back-check

Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing force diagram Newton TS-50, hinge side



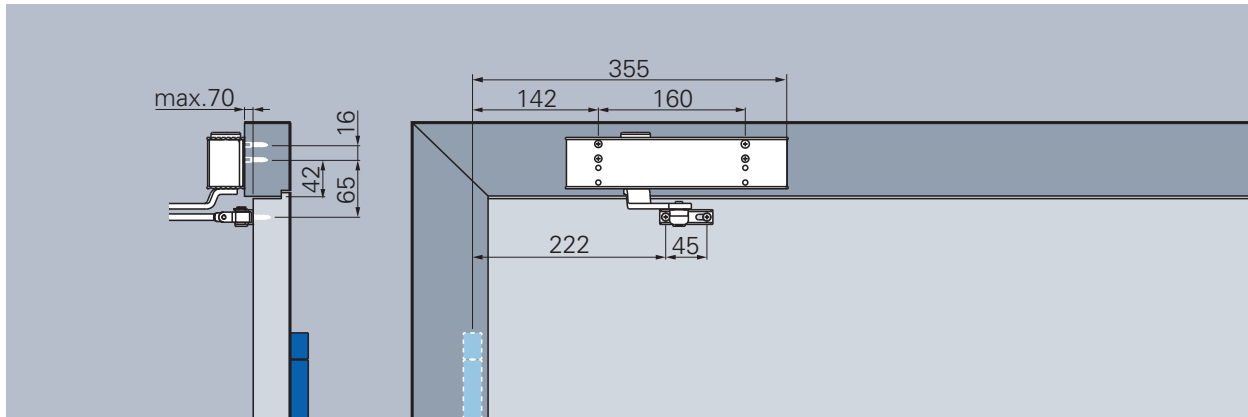
Closing force:

Continuously adjustable min. size 1
max. size 5

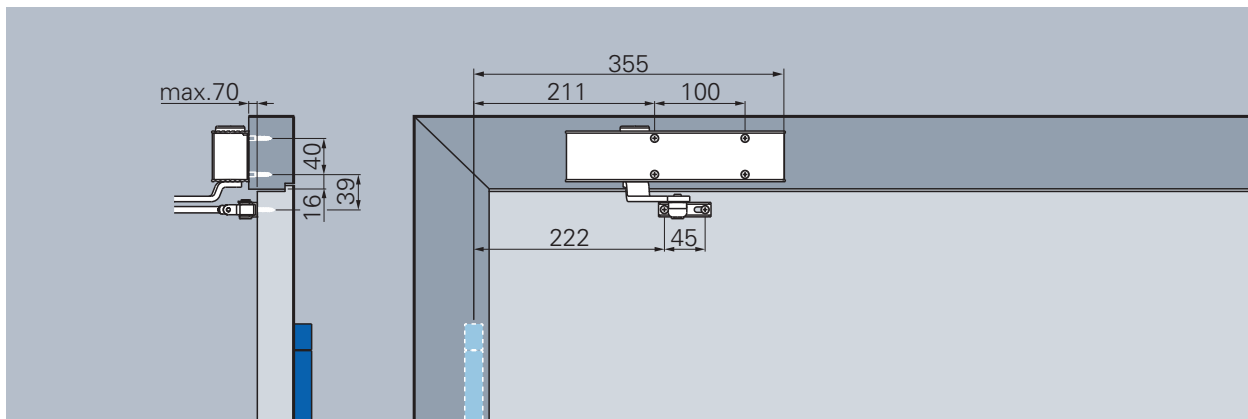
Default delivery condition: size 3

Hinge-opposite side

Illustration DIN right door, DIN right laterally reversed



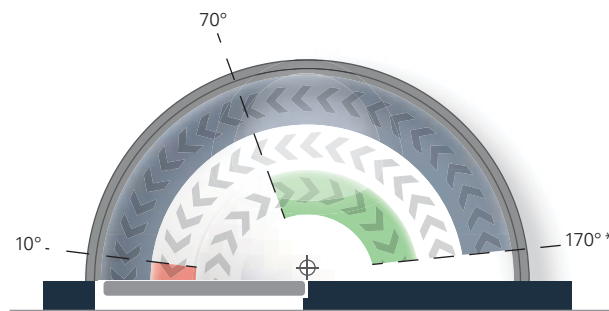
Head mounting, hinge-opposite side (with mounting plate, with DIN holes)



Head mounting, hinge-opposite side (direct mounting, without mounting plate)

- Closing speed**
Continuously adjustable closing speed from approx. 170°* to 0°
- Latching speed**
Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°
- Back-check**
Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing force diagram ECO Newton TS-50, hinge-opposite side



Note!:
Back-check out of order for head-mounting / mounting on hinge-opposite side

*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

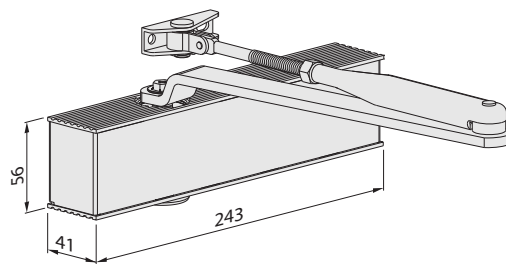
ECO **Newton** TS-20



Product characteristics

Closing force (stepwise adjustable)	Size acc. to EN	2/3/5
Door width	acc. to EN ≤ 1.250 mm	■
Dimensions (incl. mounting plate)	Length in mm	243
	Depth in mm	41
	Height in mm	56
Mounting plate acc. to EN 1154 A (supplementary sheet 1) □		
Hinge side and hinge-opposite side ■		
DIN left / right ■		
Back-check (constant) ■		
Latching Speed (continuously adjustable) ■		
Closing speed (continuously adjustable) ■		
Delayed action (continuously adjustable) -		
Tested acc. to EN		EN 1154 A
Suitable for fire- and smoke control doors		F
Certified according to EU-Directive		CE

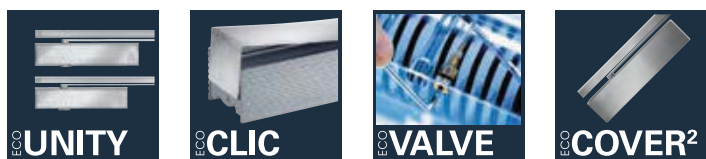
- Yes
- No
- Option



Dimensions: TS-20



ECO Newton TS-20 ■ Highlights at a glance



*optional

Details regarding the ECO Newton Highlights can be found in the intro of this chapter.



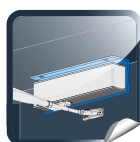
Body: Silver RAL 9006
ECOcllic: Stainless steel polished or satin

Body + ECOcllic: White RAL 9016

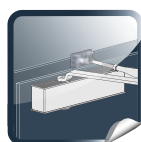
Body + ECOcllic: Black RAL 9005

Body + ECOcllic: Brown RAL 8014

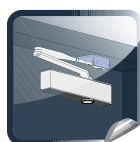
Slide rail and arm are always delivered in the same colour as the ordered door closer body.



Under-lintel angle for door closer Page 181



Adaptor profile Page 184



Angle bracket for parallel arm mounting Page 180.

Order information

ECO Newton TS-20 ▪ Door closer with standard arm

Product information

Closing force 2 / 3 / 5, tested acc. to **EN 1154 A** (for door widths up to 1.250 mm) adjustable by moving the door closer. Latching speed and closing speed continuously adjustable. Back-check constant. Same version DIN left and DIN right. Mounting height only 41 mm. Weight: 1.320g. Max. door opening angle: 180°

- ECOunity: The ECO Newton closer portfolio covers all door dimensions with only two basic closer units.
- ECOcllic: The stainless steel cover encloses the aluminium body with the power of spring steel and conceals all of the adjusting elements, thus securing the closer against unauthorized access.
- ECOvalve: Simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional Allen key.
- ECOcover²: Optional stainless steel cover for the ECO Newton door closers.
- ECOgreen: The intelligent construction and carefully planned use of materials help considerably to save resources

Pull side: standard mounting on door leaf. Push side: head mounting on door frame.



The different sizes are reached by moving the door closer on the door leaf. Additional drilling only necessary for size EN 5.

Article numbers



Door closer with standard arm		Colour		Article number	Door closer without standard arm		Colour		Article number
TS-20	(2/3/5)	Silver	RAL 9006*	302052F11A71010	TS-20	(2/3/5)	Silver	RAL 9006*	352052F11A00010
TS-20	(2/3/5)	White	RAL 9016	302052F11E71010	TS-20	(2/3/5)	White	RAL 9016	352052F11E00010
TS-20	(2/3/5)	Brown	RAL 8014	302052F11D71010	TS-20	(2/3/5)	Brown	RAL 8014	352052F11D00010
TS-20	(2/3/5)	Black	RAL 9005	302052F11G71010	TS-20	(2/3/5)	Black	RAL 9005	352052F11G00010

*Door closer body in silver RAL 9006, ECOcllic stainless steel satin or polished as option



The different sizes are reached by moving the door closer on the door leaf. Additional drilling only necessary for size EN 5.

ECO **CLIC**



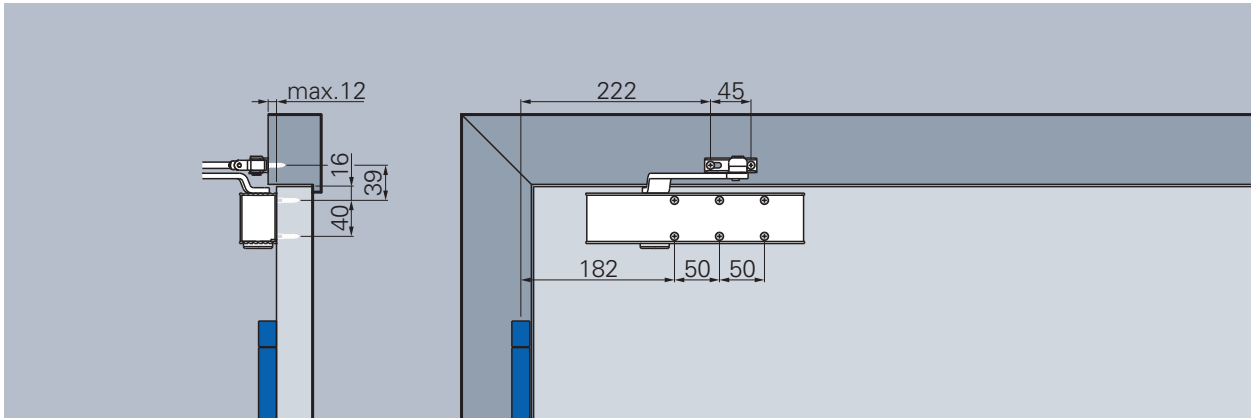
ECO Newton Highlights in detail.

Intelligent stainless steel cover:

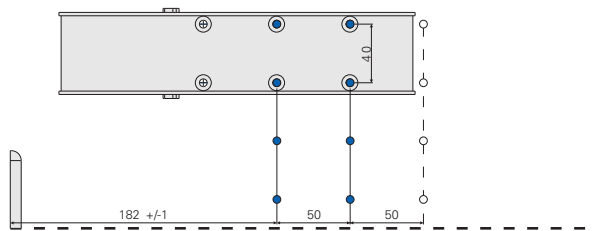
ECOclic envelops the aluminium body unit with the power of spring force. The cover conceals all of the adjusting elements and cannot be removed without tools, thus securing the closer against unauthorized access.

Hinge side

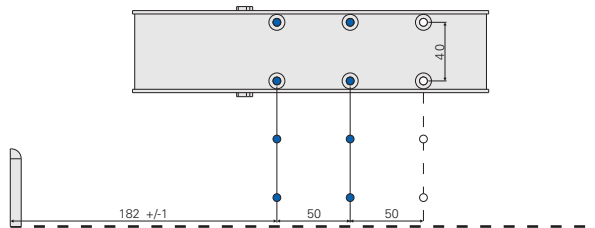
Illustration DIN left door, DIN right laterally reversed



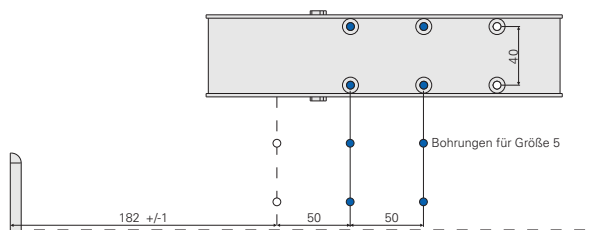
Standard mounting, hinge side (direct mounting, without mounting plate)



Closing force EN 2



Closing force EN 3

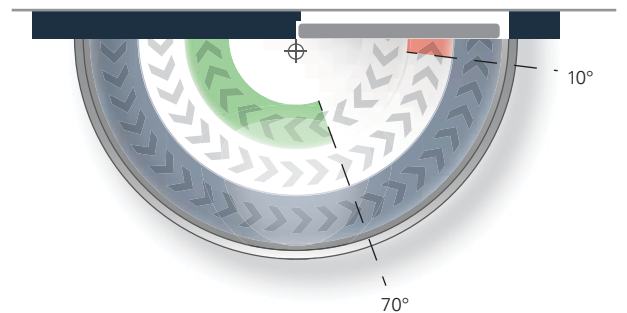


Closing force EN 5

Closing force

The different sizes are reached by moving the door closer on the door leaf. Additional drilling only necessary for size **EN 5**.

Closing force diagram ECO Newton TS-20, hinge side



Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

Latching speed

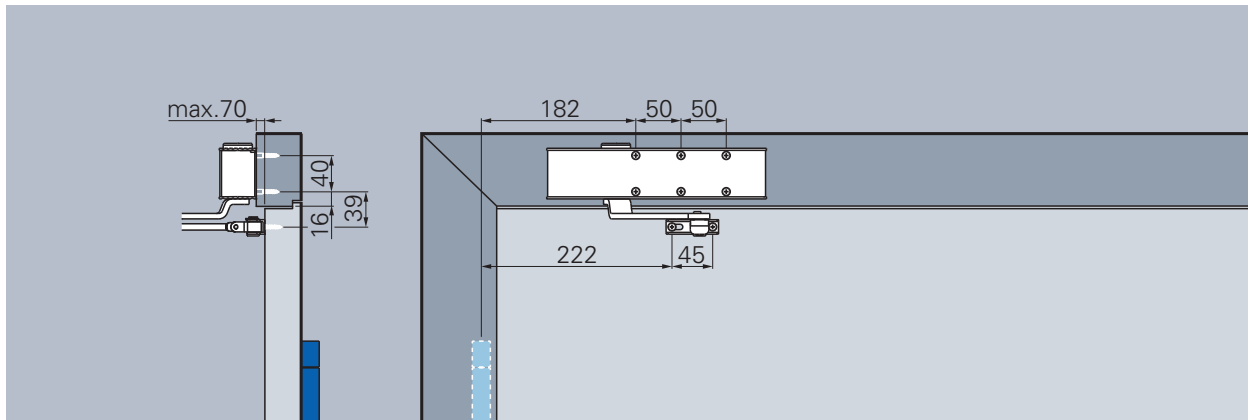
Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Back-check

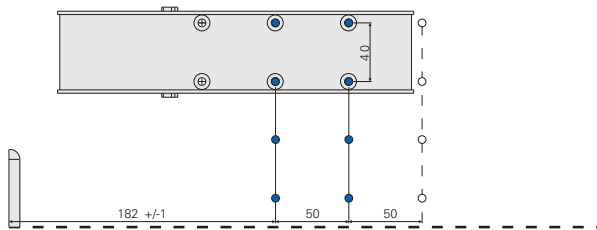
Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Hinge-opposite side

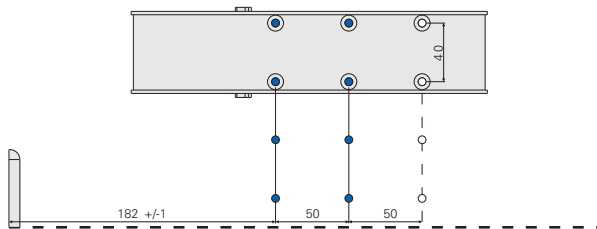
Illustration DIN right door, DIN right laterally reversed



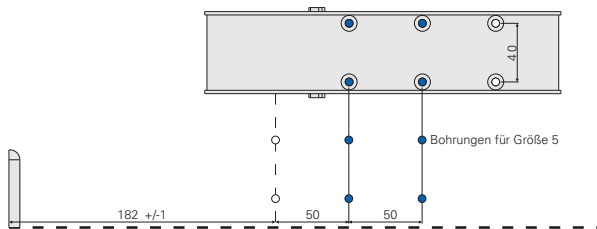
Head mounting, hinge-opposite side (direct mounting, without mounting plate)



Closing force EN 2



Closing force EN 3

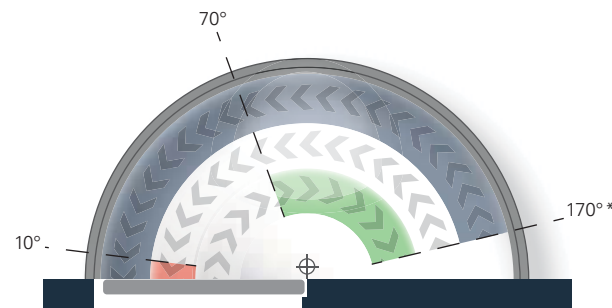


Closing force EN 5

Closing force

The different sizes are reached by moving the door closer on the door leaf. Additional drilling only necessary for size EN 5.

Closing force diagram Newton TS-20, hinge-opposite side



Closing speed

Continuously adjustable closing speed from approx. 170°* to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Back-check

Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Note!:

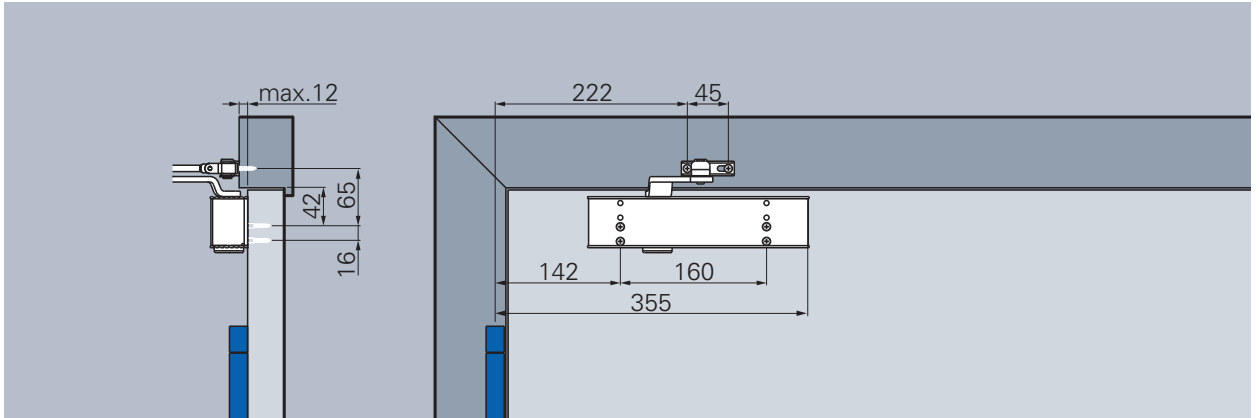
Back-check out of order for head-mounting / mounting on hinge-opposite side

*Varies according to door thickness and type of hinge

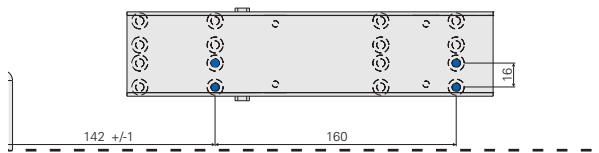
A door stopper for opening limit is a must!

Hinge side

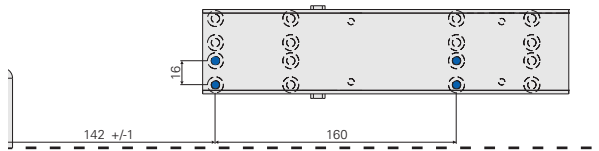
Illustration DIN left door, DIN right laterally reversed



Standard mounting, hinge side (with optional mounting plate, with DIN holes)

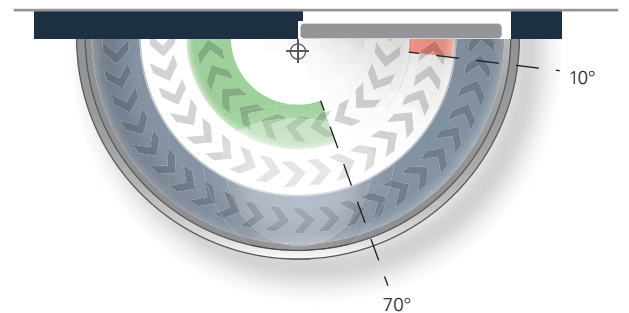


Closing force EN 3



Closing force EN 5

Closing force diagram ECO Newton TS-20, hinge side



Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Back-check

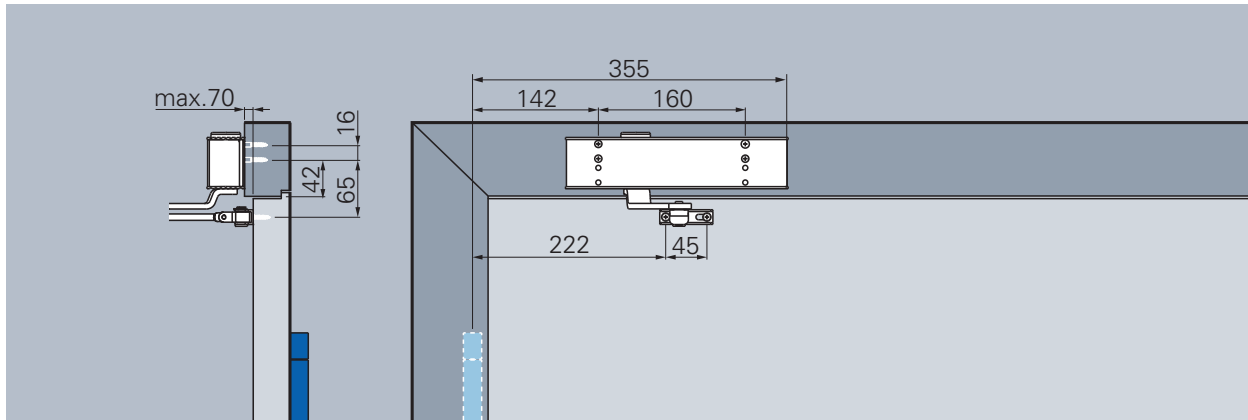
Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing forces

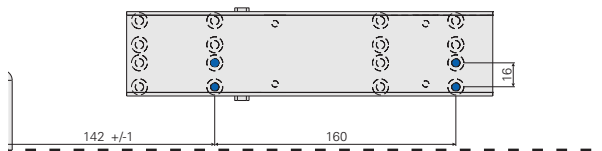
The different sizes are reached by moving the door closer on the door leaf. Additional drilling only necessary for size **EN 5**.

Hinge-opposite side

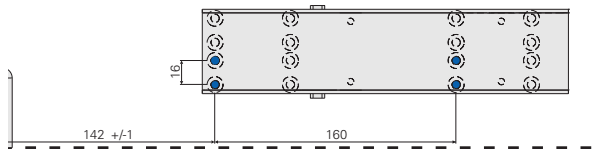
Illustration DIN right door, DIN right laterally reversed



Head mounting, hinge-opposite side (with optional mounting plate, with DIN holes)

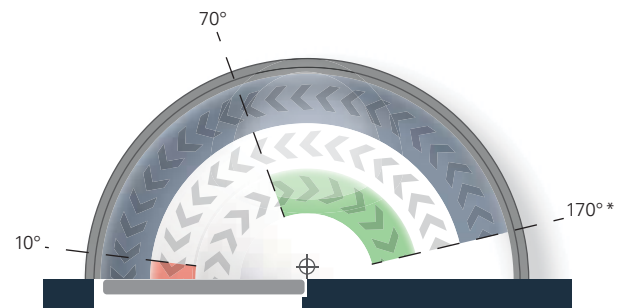


Closing force EN 3



Closing force EN 5

Closing force diagram Newton TS-20, hinge-opposite side



Closing speed

Continuously adjustable closing speed from approx. 170°* to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Back-check

Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing forces

The different sizes are reached by moving the door closer on the door leaf. Additional drilling only necessary for size EN 5.

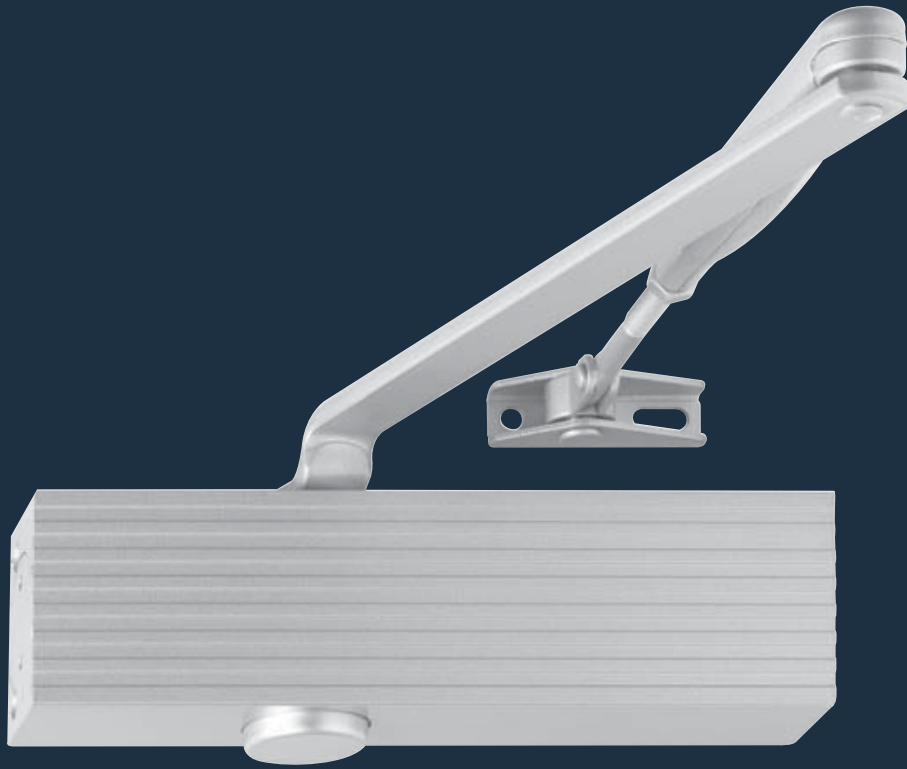
Note!:

Back-check out of order for head-mounting / mounting on hinge-opposite side

*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

ECO **Newton** TS-15

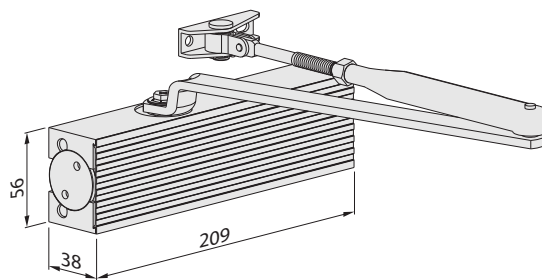


Product characteristics

TS-15

Closing force	Size acc. to EN	2/3/4/5
Door width	≤ 1.250 mm	■
Dimensions	Length in mm	209
	Depth in mm	38
	Height in mm	56
Mounting plate		-
Hinge side and hinge-opposite side		■
DIN left / right		■
Latching speed (adjustable from the side)		■
Closing speed (adjustable from the side)		■

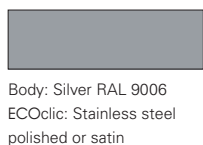
- Yes
- No
- Option



Dimensions: TS-15



! The different door closer sizes for the type TS-15 are reached by moving the door closer on the door leaf.



Body: Silver RAL 9006
ECOcllic: Stainless steel polished or satin



Body + ECOcllic: White RAL 9016



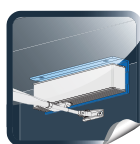
Body + ECOcllic: Black RAL 9005



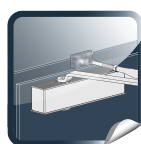
Body + ECOcllic: Brown RAL 8014

Slide rail and standard arm are always delivered in the same colour as the ordered door closer body.

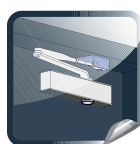
ECO Newton TS-15 with standard arm:



Under-lintel angle for door closer
Page 181



Adaptor profile
Page 184



Angle bracket for parallel arm mounting
Page 180.

Order information

ECO Newton TS-15 ▪ Door closer with standard arm

Product information

- Closing force 2 / 3 / 4 / 5 acc. to EN (for door width to 1.250 mm)
Adjustable by moving the door closer.
- Latching speed and closing speed continuously adjustable from the side
- Same version DIN left and DIN right
- Height only 38 mm
- Max. door opening angle: 180°

Article numbers



Door closer with standard arm		Colour		Article number		Door closer without standard arm		Colour		Article number	
TS-15	(2/3/4/5)	Silver	RAL 9006	301552E11A71000		TS-15	(2/3/4/5)	Silver	RAL 9006	351552E11A00010	
TS-15	(2/3/4/5)	White	RAL 9016	301552E11E71000		TS-15	(2/3/4/5)	White	RAL 9016	351552E11E00010	
TS-15	(2/3/4/5)	Brown	RAL 8014	301552E11D71000		TS-15	(2/3/4/5)	Brown	RAL 8014	351552E11D00010	
TS-15	(2/3/4/5)	Black	RAL 9005	301552E11G71000		TS-15	(2/3/4/5)	Black	RAL 9005	351552E11G00010	

ECO VALVE

A close-up photograph of a hand adjusting a valve on a door closer mechanism. The hand is on the right side, with the thumb and index finger gripping a metal adjustment screw. The mechanism is made of polished metal and has a blue-tinted background. The lighting is bright, creating highlights on the metal surfaces.

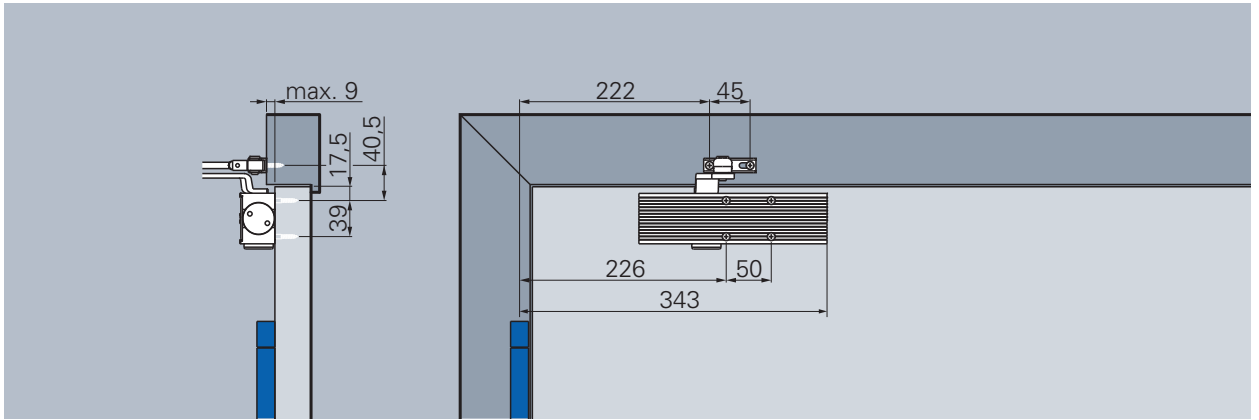
ECO Newton Highlights in detail.

New ECOvalve technology:

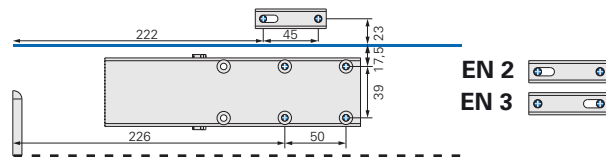
The new ECOvalve technology offers a wide and precisely adjustable setting range. This means the simple, high-precision and permanently secure adjustment of all parameters of the closing process with one conventional Allen key. As with all ECO Newton door closers, the closing speed and latching are regulated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

Hinge side

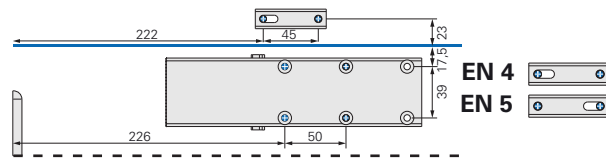
Illustration DIN left door, DIN right laterally reversed



Standard mounting, hinge side (EN 5)



Closing force EN 2/3



Closing force EN 4/5

Closing force

The different sizes are reached by moving the door closer on the door leaf and by turning the standard arm reception by 180°.

Closing force diagram ECO Newton TS-15, hinge side



Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

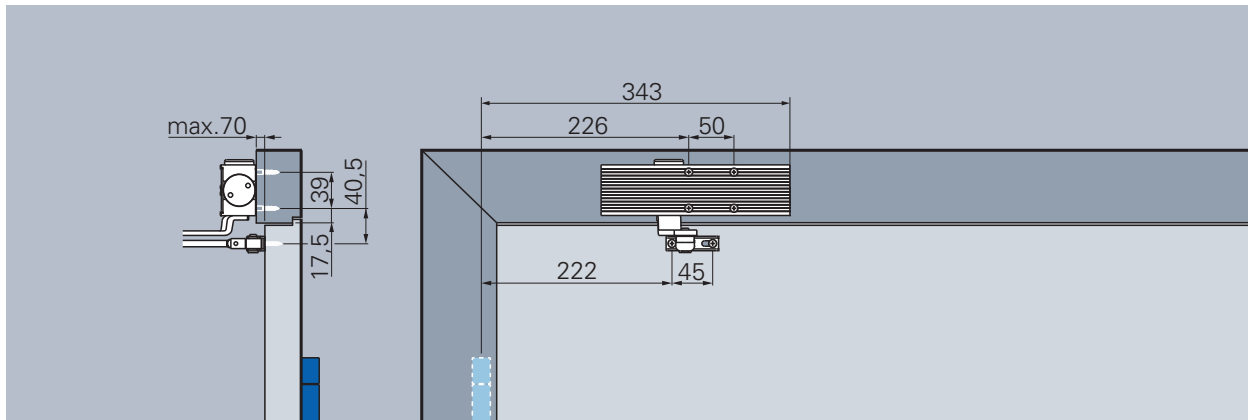
Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure.

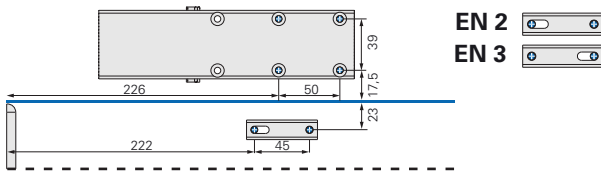
Continuously adjustable, works between 10 to 0°

Hinge-opposite side

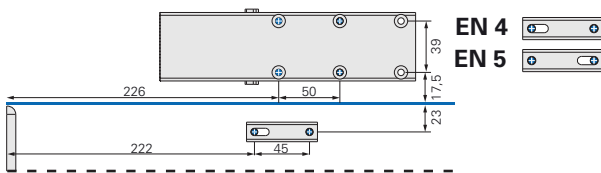
Illustration DIN right door, DIN right laterally reversed



Head mounting, hinge-opposite side (EN 5)



Closing force EN 2/3



Closing force EN 4/5

Closing force

The different sizes are reached by moving the door closer on the door leaf and by turning the standard arm reception by 180°.

Closing force diagram ECO Newton TS-15, hinge-opposite side



Closing speed

Continuously adjustable closing speed from approx. 170°* to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure.

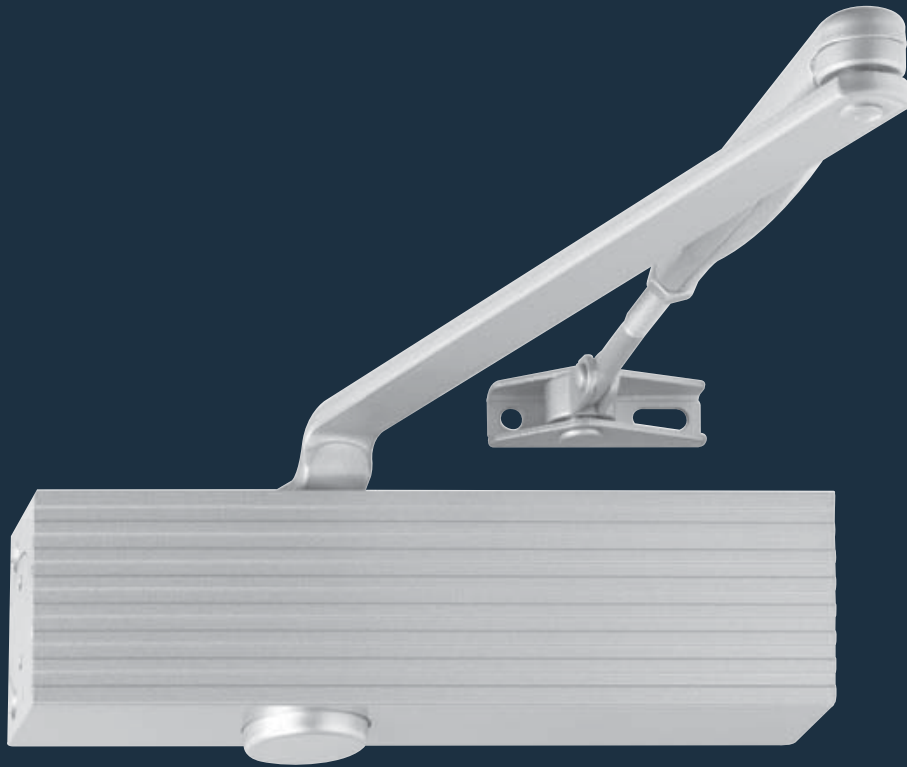
Continuously adjustable, works between 10 to 0°

Note:

*Varies according to door thickness and type of hinge

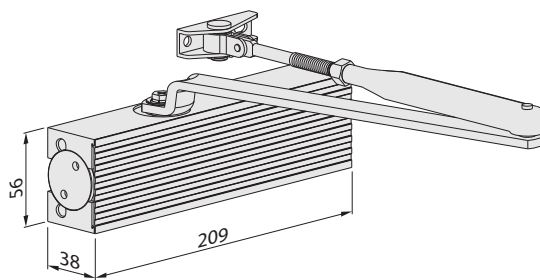
A door stopper for opening limit is a must!

ECO **Newton** TS-14



Product characteristics

Closing force (continuously adjustable)	Size acc. to EN	1/2/3/4
Door width	≤ 1.100 mm	■
Dimensions	Length in mm	209
	Depth in mm	38
	Height in mm	56
Mounting plate		-
Hinge side and hinge-opposite side		■
DIN left / right		■
Latching speed (adjustable from the side)		■
Closing speed (adjustable from the side)		■

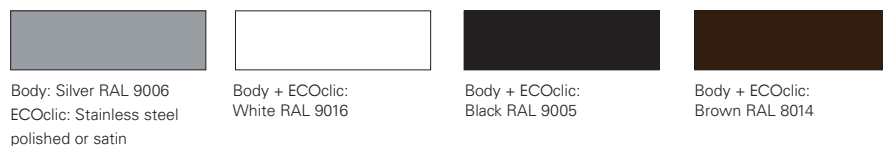


Dimensions: TS-14

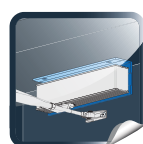
- Yes
- No
- Option



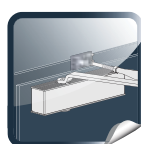
! The different sizes are reached by moving the door closer on the door leaf.



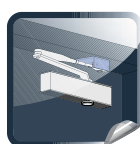
Slide rail and arm are always delivered in the same colour as the ordered door closer body.



Under-lintel angle for door closer
Page 181



Adaptor profile
Page 184



Angle bracket for parallel arm mounting
Page 180.

Order information

ECO Newton TS-14 ■ Door closer with standard arm

Product information

- Closing force 1 / 2 / 3 / 4 acc. to EN (for door width up to 1.100 mm)
Adjustable by moving the door closer.
- Latching speed and closing speed continuously adjustable from the side
- Same version DIN left and DIN right
- Height only 38 mm
- Max. door opening angle: 180°

Article numbers



Door closer with standard arm		Colour		Article number	Door closer without standard arm		Colour		Article number
TS-14	(1/2/3/4)	Silver	RAL 9006	301452E11A71010	TS-14	(1/2/3/4)	Silver	RAL 9006	351452E11A00010
TS-14	(1/2/3/4)	White	RAL 9016	301452E11E71010	TS-14	(1/2/3/4)	White	RAL 9016	351452E11E00010
TS-14	(1/2/3/4)	Brown	RAL 8014	301452E11D71010	TS-14	(1/2/3/4)	Brown	RAL 8014	351452E11D00010
TS-14	(1/2/3/4)	Black	RAL 9005	301452E11G71010	TS-14	(1/2/3/4)	Black	RAL 9005	351452E11G00010

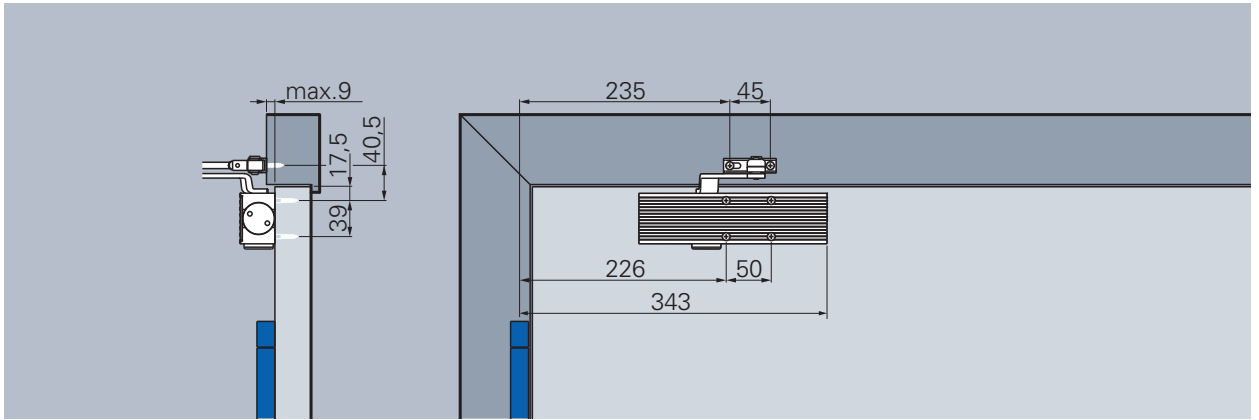


ECO Newton All a question of the system.

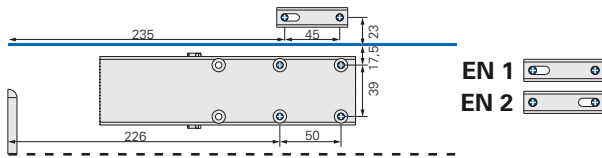
The new ECO Newton door closers are a part of the comprehensive ECO Schulte door fittings system. ECO Schulte thinks in terms of complete solutions and is one of the very few system providers dealing in all aspects of the door. From hinges to handles and from locking technology to single and double-leaf 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.

Hinge side

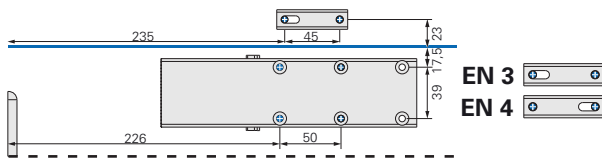
Illustration DIN left door, DIN right laterally reversed



Standard mounting, hinge side (EN 3)



Closing force EN 1/2



Closing force EN 3/4

Closing force

The different sizes are reached by moving the door closer on the door leaf and by turning the standard arm reception by 180°.

Closing force diagram ECO Newton TS-14, hinge side



Closing speed

Continuously adjustable closing speed from approx. 180° to 0°

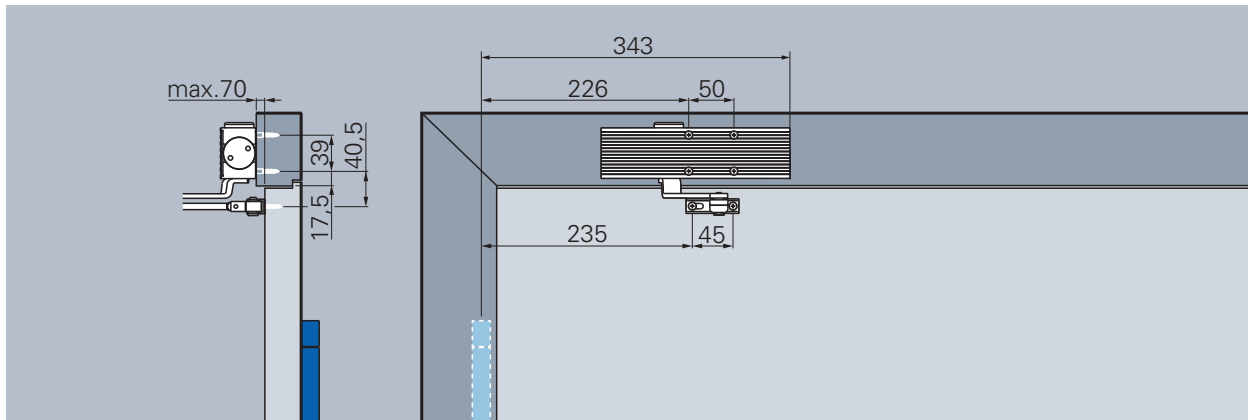
Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure.

Continuously adjustable, works between 10 to 0°

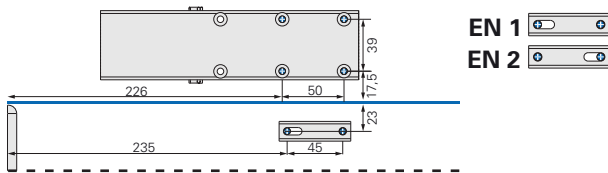
Hinge-opposite side

Illustration DIN right door, DIN right laterally reversed



Head mounting, hinge-opposite side (EN 3)

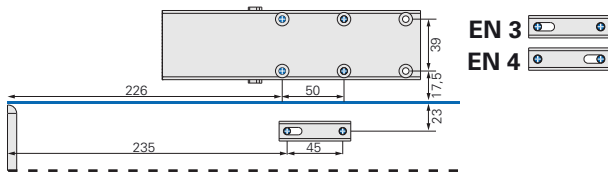
2




EN 1 
EN 2 

Closing force diagram ECO Newton TS-14, hinge-opposite side

Closing force EN 1/2



EN 3 
EN 4 

Closing force EN 3/4



Closing speed

Continuously adjustable closing speed from approx. 170°* to 0°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Closing force

The different sizes are reached by moving the door closer on the door leaf and by turning the standard arm reception by 180°.

*Varies according to door thickness and type of hinge

A door stopper for opening limit is a must!

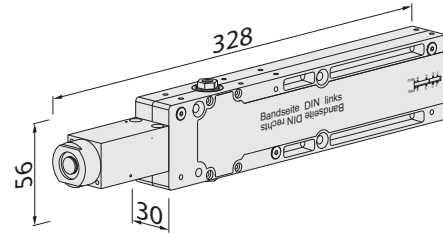
ECO ITS Multi-Genius



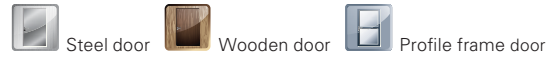
Product characteristics

Closing force (with closing force display, continuously adjustable)	Size acc. to EN	1 – 4	2 – 5
Door width	≤ 1.100 mm	■	■
acc. to EN	≤ 1.250 mm	-	■
Dimensions (incl. mounting plate for Multi-Genius)	Length in mm	328	328
	Depth in mm	30	30
	Height in mm	56	56
DIN left / right		■	■
Latching speed (continuously adjustable)		■	■
Closing speed (continuously adjustable)		■	■
Door opening angle (*depends on the notch of the door)		140 – 165°*	
Tested acc. to EN		EN 1154 A	
Suitable for fire- and smoke control doors (no permission for head mounting on hinge-opposed sided, concealed ITS)			
Certified according to EU-Directive			

■ Yes
- No
□ Option



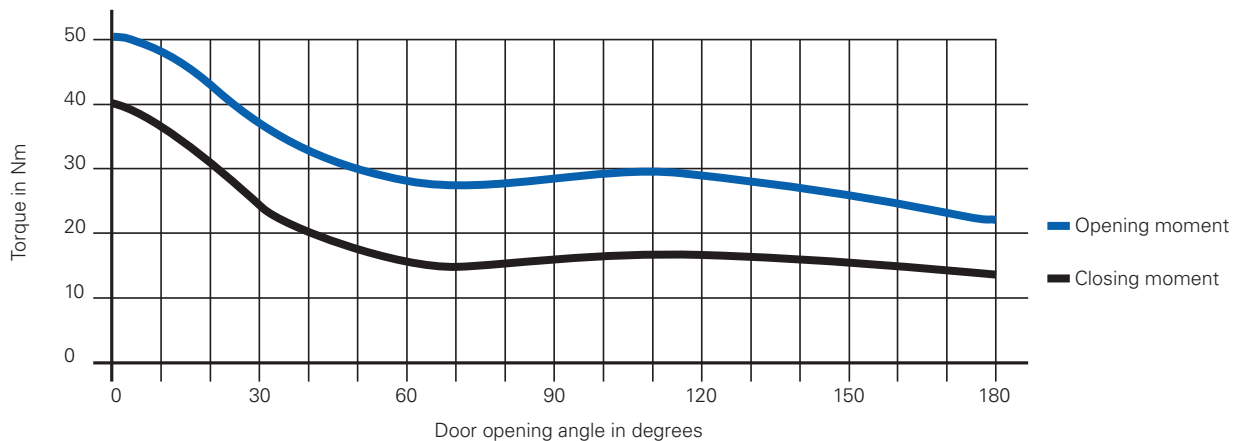
Dimensions: ITS Multi-Genius



ECO Multi-Genius ■ Find out the trick!

With a simple 90° rotation of the micro-hydraulic damping unit, the ITS Multi-Genius can be used either as an integrated or as a top-mounted door closer. By this, the ITS Multi-Genius connects intelligent door closer technology with practical use. One system for two different areas of application. Owing to the integrated eccentric link pull, the door can be opened without larger efforts of force. The construction of the ITS Multi-Genius ensures that the opening moment is falling rapidly. Result is a problem-free comwithting of the door which can be opened easily!

Moment curve Multi-Genius (EN 2 – 5, max. closing force)



Order information

ECO ITS Multi-Genius ■ Concealed door closer

Product information

- ITS Multi-Genius for use in wooden doors, profile frame doors made of aluminium/steel and doors made of sheet steel starting from ≤ 40 mm door thickness, only 30 mm depth, enables an unproblematic and invisible mounting in the door leaf without any additional reinforcement.
- Hydraulic cylinder containing only 12 ml oil has a huge advantage when it comes to the use in fire-protection doors
- The strongly decreasing opening moment allows an easier opening of the door
- Visible closing force display. A continuous adjustment of the closing force is possible before installation
- Easy handling of adjusting the closing speed and latching speed, even in mounted condition.
- Default delivery condition with pre-adjustment of size **EN 3** and slide rail IS, offered in 20 x 20 mm and 20 x 12 mm

Article numbers



Door closer (concealed)		Article number
ITS M-G (1 - 4)	- integrated	358038M00000000
ITS M-G (2 - 5)	- integrated	358038A00000000

La Roche, Basel,
Switzerland



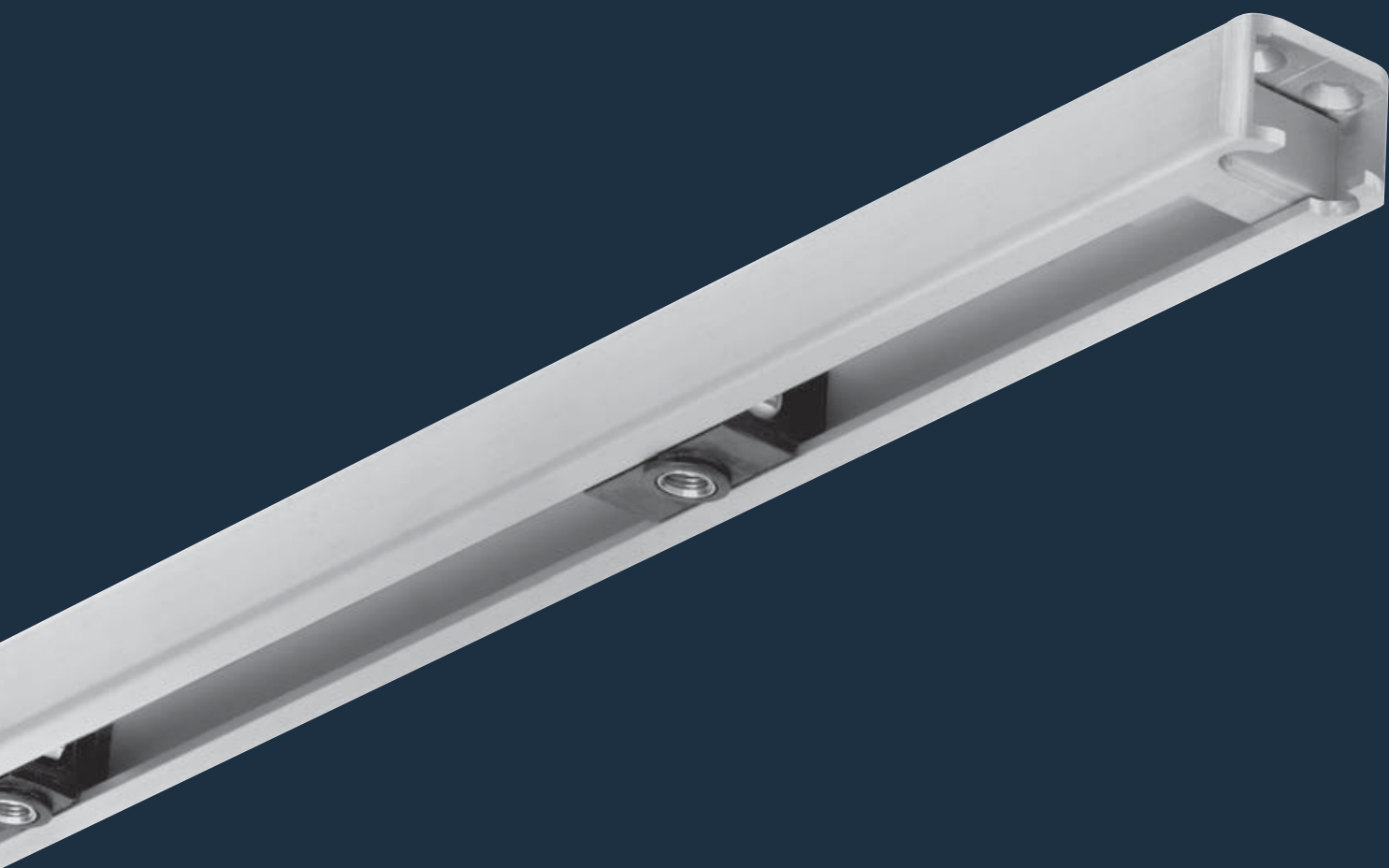
ECO Multi-Genius

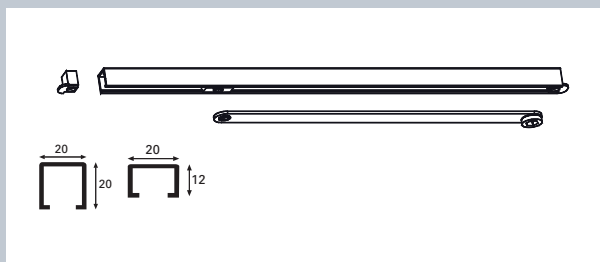
Small. Compact. Flexible.

As integrated door closer system the ITS Multi-Genius fulfills all requirements regarding functionality and timeless elegance. By its slim construction it can be integrated without problems invisibly into the door leaf. And this already starting from a door leaf thickness of 40 mm!

Due to the different available slide rails (see following pages), the ITS Multi-Genius can be installed in every door frame shape and adapts to every constructional challenge.

ECO **ITS Multi-Genius** slide rails





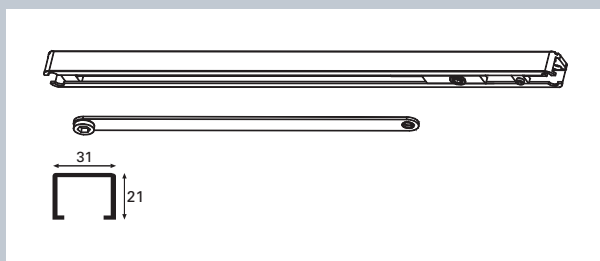
IS

Slide rail IS for ITS Multi-Genius (concealed door closer)

- **Same execution:** DIN left and DIN right
- **Slide rail height:** in 20 mm or 12 mm height available
- **Scope of delivery:**
Slide rail IS, arm, lock plate and fixing material

- **Slide rail IS:**
Slide rail IS is tested in combination with ITS Multi-Genius according to **EN 1154 A** for the use in fire- and smoke control doors.

Slide rail IS	Profile	*Counter-flap length x	Article number	Slide rail IS	Profile	*Nusslänge X	Article number
IS 20 (8/12)	20 x 20 mm	8 – 12 mm	350100000O93000	IS 12 (8/12)	20 x 12 mm	8 – 12 mm	350100000O92000
IS 20 (12/16)	20 x 20 mm	12 – 16 mm	350100000O93100	IS 12 (12/16)	20 x 12 mm	12 – 16 mm	350100000O92100
IS 20 (16/20)	20 x 20 mm	16 – 20 mm	350100000O93200	IS 12 (16/20)	20 x 12 mm	16 – 20 mm	350100000O92200



Mounting slide rail IS-MFA



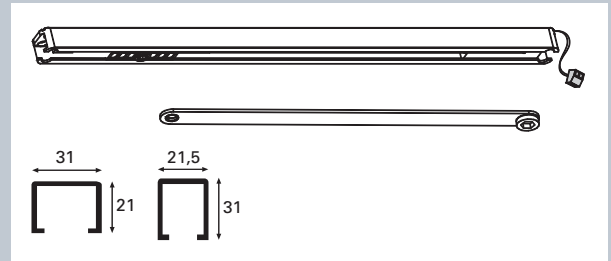
IS-MFA

Slide rail IS with mechanic hold-open for ITS Multi-Genius (concealed door closer)

- **Manually switch off hold-open:**
adjustable from 70° - 150°.
- **Same execution:** DIN left and DIN right.
- **Scope of delivery:**
Slide rail IS-MFA, arm, lock plate and fixing material
- **Not approved** for fire- and smoke control doors.

Slide rail MFA	Profile	*Counter-flap length x	Article number
IS MFA (8/12)	31 x 21 mm	8 – 12 mm	350100000O94000
IS MFA (12/16)	31 x 21 mm	12 – 16 mm	350100000O94001
IS MFA (16/20)	31 x 21 mm	16 – 20 mm	350100000O94002

*Please mention the correct counterflap length when ordering
See related information on page 150.



Mounting slide rail IS-EF

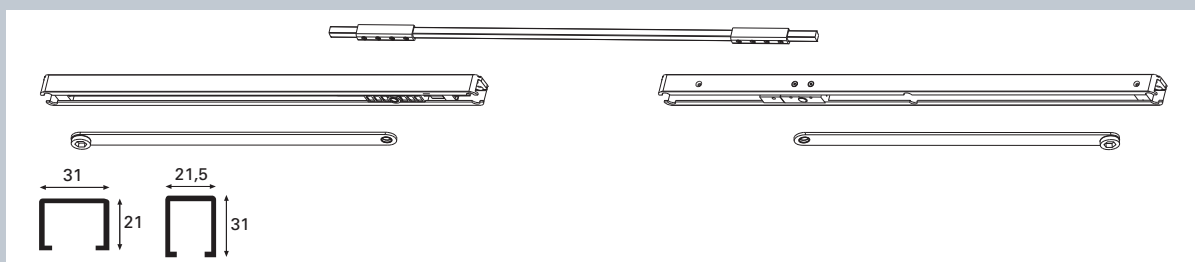
IS-EF

Slide rail IS with electromagnetic hold-open for ITS Multi-Genius

- **Power consumption:**
24 V DC max. 1,8 W
- **Same execution:** DIN left and DIN right
- **Two profiles:** (31 x 21 or 21,5 x 31) for different frame types
- **Arms:** Three different counterflap length for the exact adaptation to the rebat space of the door.
- **Scope of delivery:**
Slide rail IS-EF
Arm
Lock plate
Fixing material

- **Slide rail IS-EF:**
Is allowed for the use on fire- and smoke-control doors in combination with ITS Multi-Genius. Tested acc. to **EN 1155** and allowed to be used as hold open device with ECO RSZ (approved by DIBt).
- **Electromagnetic hold-open:**
Adjustable from 70° to 110°. In case of fire the hold-open function is being released and the door is being closed by the door closer. The action is controlled by the external smoke inducing system ECO RSZ. (Accessories Page 150).

Slide rail IS	Profile	*Counterflap length x*	Article number	Slide rail IS	Profile	*Counterflap length x*	Article number
IS-EF 31 (8/12)	31 x 21 mm	8 – 12 mm	350100000097001	IS-EF 21,5 (8/12)	21,5 x 31 mm	8 – 12 mm	3501100000097001
IS-EF 31 (12/16)	31 x 21 mm	12 – 16 mm	3501000000097101	IS-EF 21,5 (12/16)	21,5 x 31 mm	12 – 16 mm	3501100000097101
IS-EF 31 (16/20)	31 x 21 mm	16 – 20 mm	3501000000097201	IS-EF 21,5 (16/20)	21,5 x 31 mm	16 – 20 mm	3501100000097201



Mounting slide rail IS-SR



IS-SR

Slide rail closing sequence selector for ITS Multi-Genius

- **Same execution:** DIN left and DIN right
- **Two profiles:** (31 x 21 or 21,5 x 31) for different frame types
- **Arms:** Three different counterflap length for the exact adaptation to the rebat space of the door.
- **Scope of delivery:**
Slide rail closing sequence selector IS-SR
2 arms
2 lock plates
Fixing material

- **The slide rail closing sequence selector IS-SR:**
The slide rail IS-SR is tested in combination with ITS MULTI-GENIUS according to **EN 1158** for the use in fire- and smoke control doors.
- The closing sequence selector ensures that the door leaves are closing in the correct order. E.g.: the passive leaf first, the active leaf last. When opening the passive leaf, chocks in the active leaf slide rail (mechanical independent from the hydraulics of the door closer) make sure that the active leaf stops as soon as the passive leaf is opened.

Slide rail IS	Profile	*Counterflap length x*	Article number	Slide rail IS	Profile	*Counterflap length x*	Article number
IS-SR 31 (8/12)	31 x 21 mm	8 – 12 mm	35M200000AK1401	IS-SR 21,5 (8/12)	21,5 x 31 mm	8 – 12 mm	35M210000AK1201
IS-SR 31 (12/16)	31 x 21 mm	12 – 16 mm	35M200000AK1402	IS-SR 21,5 (12/16)	21,5 x 31 mm	12 – 16 mm	35M210000AK1211
IS-SR 31 (16/20)	31 x 21 mm	16 – 20 mm	35M200000AK1403	IS-SR 21,5 (16/20)	21,5 x 31 mm	16 – 20 mm	35M210000AK1221

EN 1155 EN 1158 F CE

IS-SR-EF

Slide rail closing sequence selector with electromagnetic hold-open for ITS Multi-Genius (concealed door closer)

- **Power consumption:**
24 V DC, max. 1,8 W.
- **Same execution:** DIN left and DIN right
- **Two profiles:** (31 x 21 or 21,5 x 31) for different frame types
- **Arms:** Three different counterflap length for the exact adaptation to the rebat space of the door.
- **Scope of delivery:**
Slide rail closing sequence selector IS-SR-EF
2 arms
2 lock plates
Fixing material

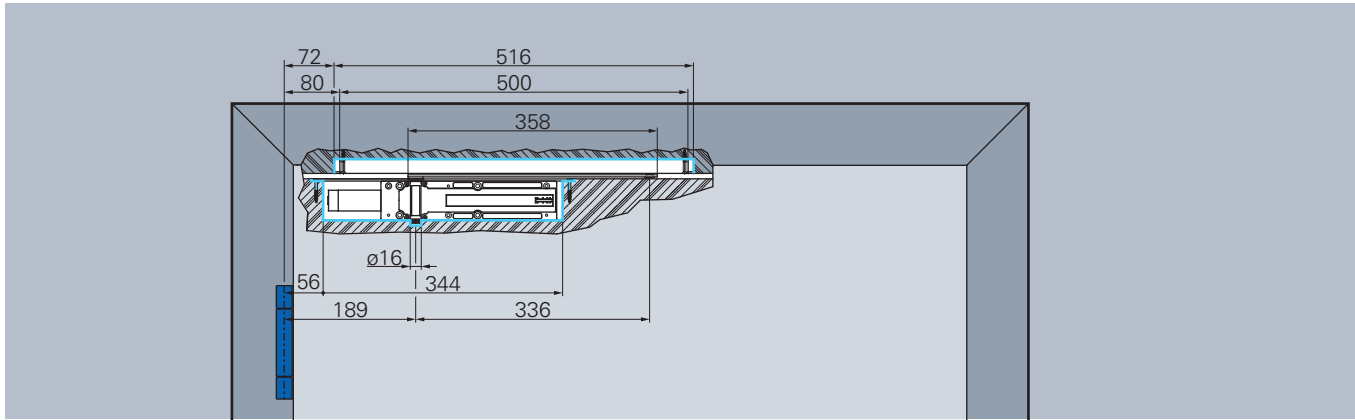
- **The slide rail closing sequence selector IS-SR-EF:**
Is allowed for the use on fire- and smoke-control doors in combination with ITS Multi-Genius. Tested acc. to **EN 1155** and **EN 1158** and allowed to be used as hold open device with ECO RSZ (approved by DIBt).
- **The closing sequence selector**
The closing sequence selector ensures that the door leaves are closing in the correct order. E.g.: the passive leaf first, the active leaf last.
- **Electromagnetic hold-open:**
Adjustable from 70° to 110°, hold-open in the passive leaf (IS-SR-EF-1S), active leaf is held open via the door coordinator. In case of fire, the door coordinator releases and the door is being closed. This action is controlled by the external smoke inducting system ECO RSZ. (Accessories Page 188).

Slide rail IS	Profile	*Counterflap length x*	Article number	Slide rail IS	Profile	*Counterflap length x*	Article number
IS-SR-EF 31 (8/12)	31 x 21 mm	8 – 12 mm	35M200000AK3401	IS-SR-EF 21,5 (8/12)	21,5 x 31 mm	8 – 12 mm	35M210000AK3201
IS-SR-EF 31 (12/16)	31 x 21 mm	12 – 16 mm	35M200000AK3402	IS-SR-EF 21,5 (12/16)	21,5 x 31 mm	12 – 16 mm	35M210000AK3202
IS-SR-EF 31 (16/20)	31 x 21 mm	16 – 20 mm	35M200000AK3403	IS-SR-EF 21,5 (16/20)	21,5 x 31 mm	16 – 20 mm	35M210000AK3203

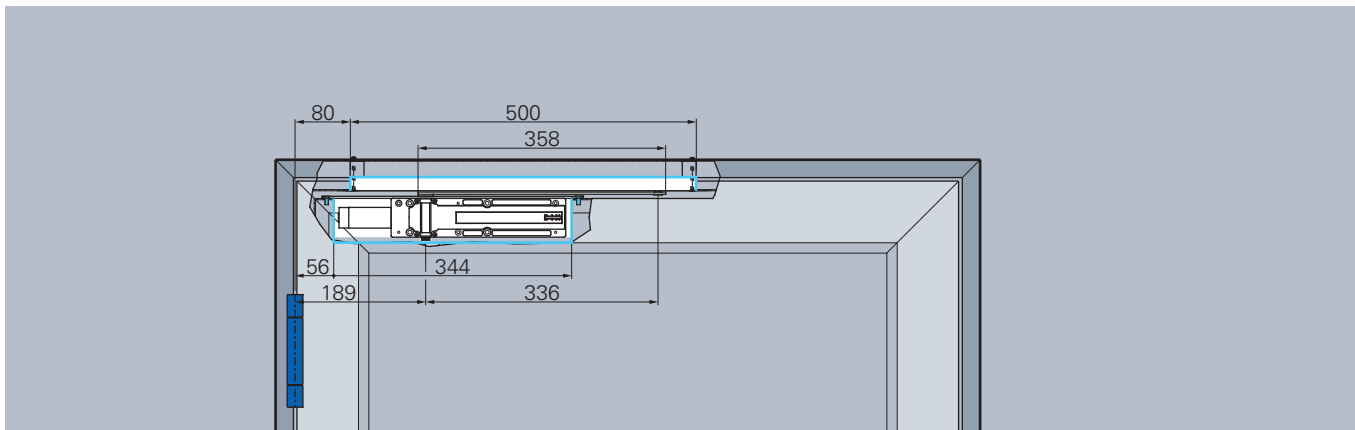
*Please mention the correct counterflap length when ordering
See related information on page 150.

Installation drawing

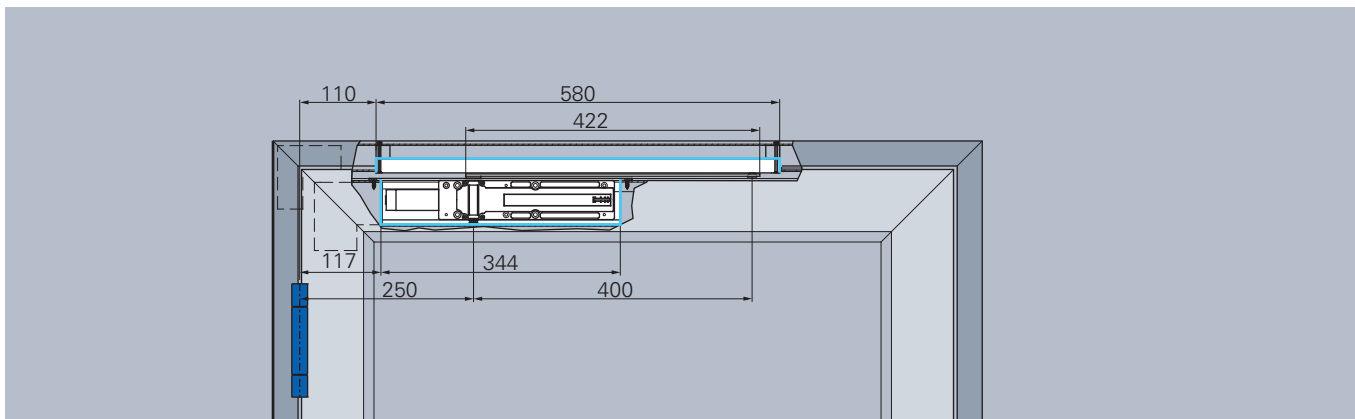
with slide rail 20 x 20 (20 x 12), illustration DIN left door, DIN right laterally reversed



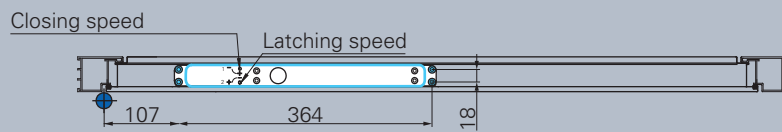
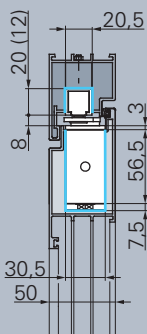
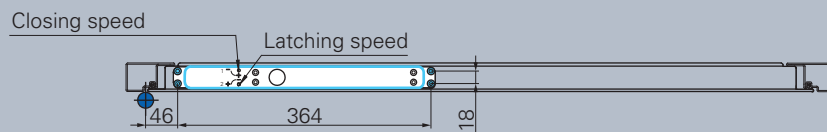
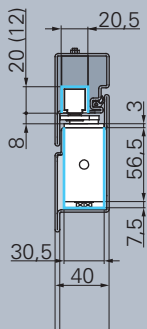
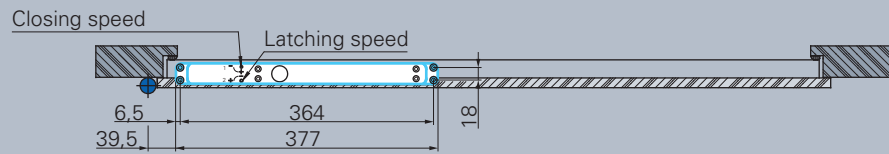
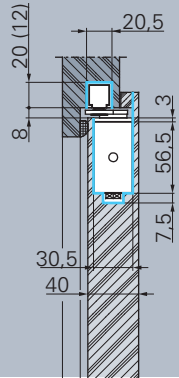
Installation Multi-Genius with slide rail 20 x 20 (20 x 12) in a wooden door



Installation Multi-Genius with slide rail 20 x 20 (20 x 12) in a profile frame door

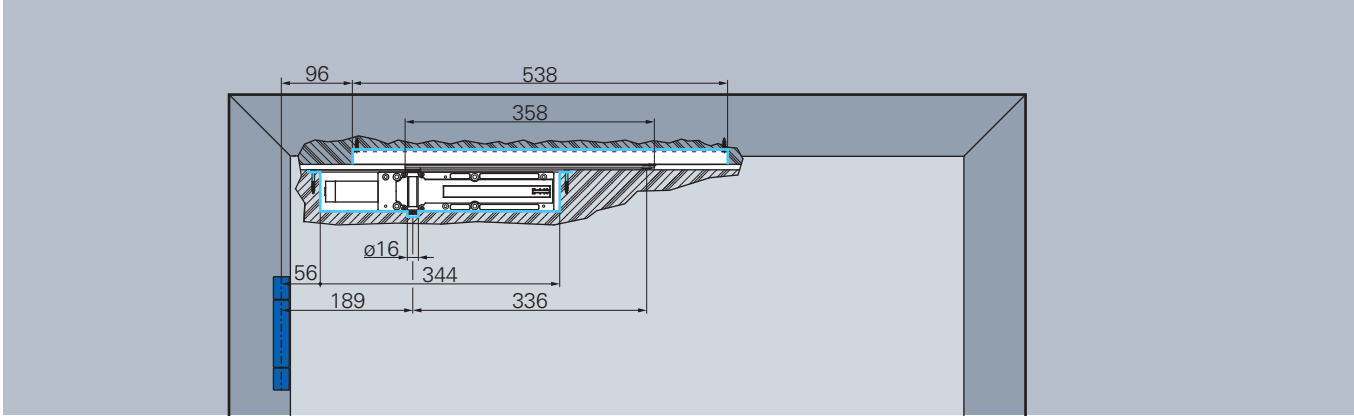


Installation Multi-Genius with slide rail 20 x 20 (20 x 12) in a profile frame door with angle brackets

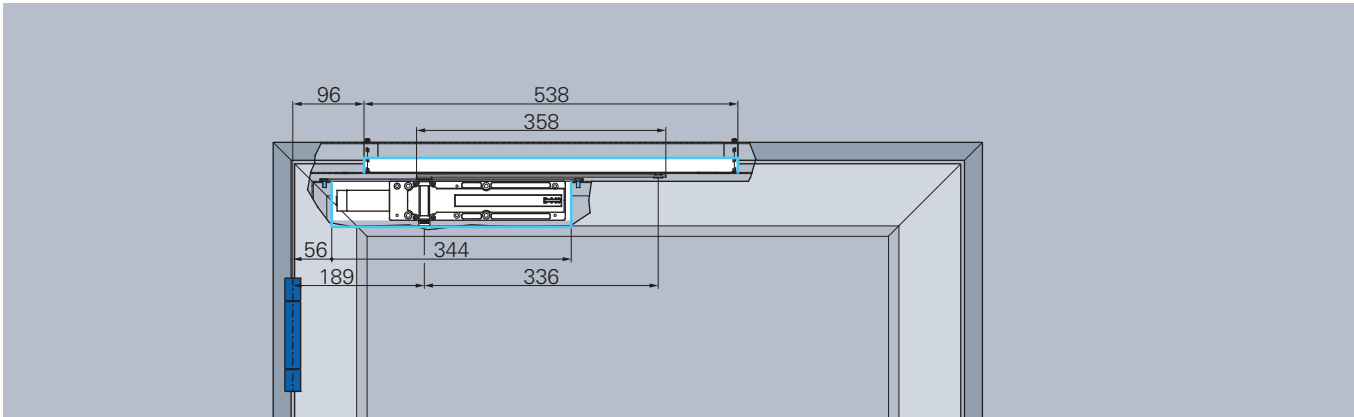


Installation drawing

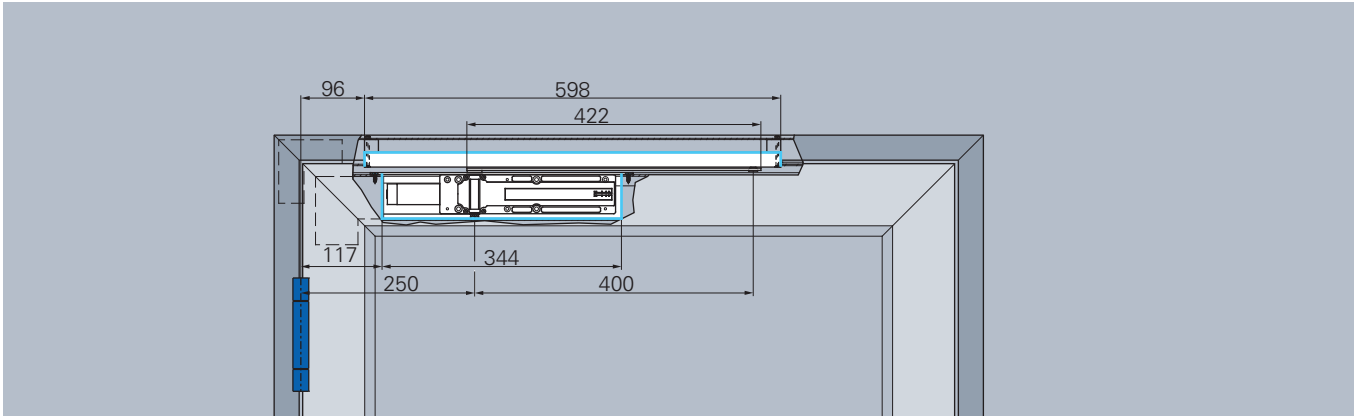
with slide rail 31 x 21 with MFA, illustration DIN left door, DIN right laterally reversed



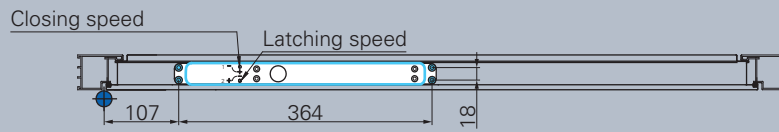
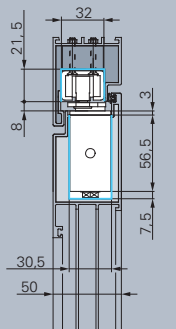
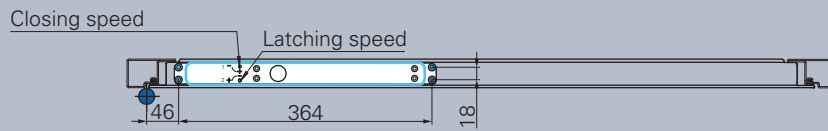
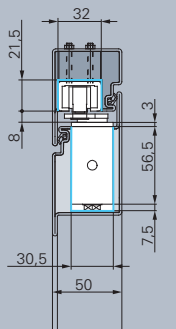
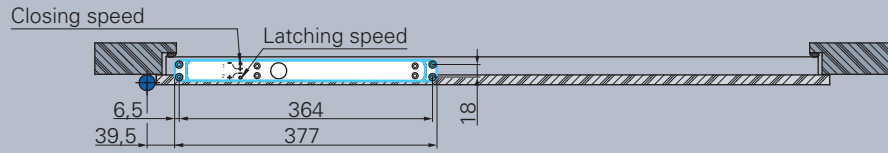
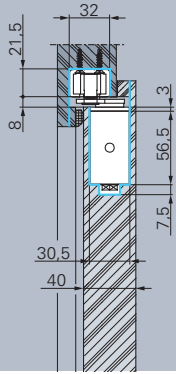
Installation Multi-Genius with slide rail 31 x 21 with MFA in a wooden door



Installation Multi-Genius with slide rail 31 x 21 with MFA in a profile frame door

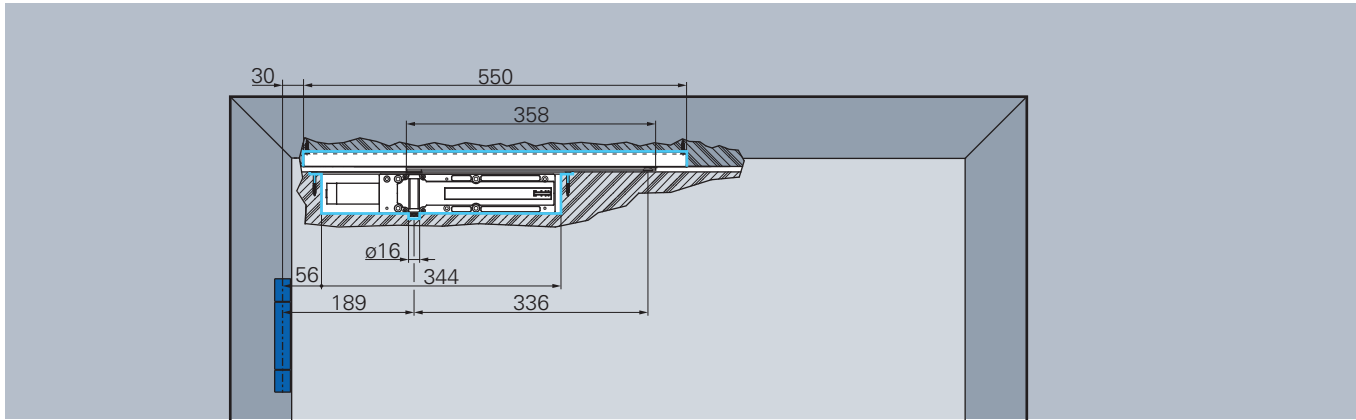


Installation Multi-Genius with slide rail 31 x 21 with MFA in a profile frame door with angle brackets

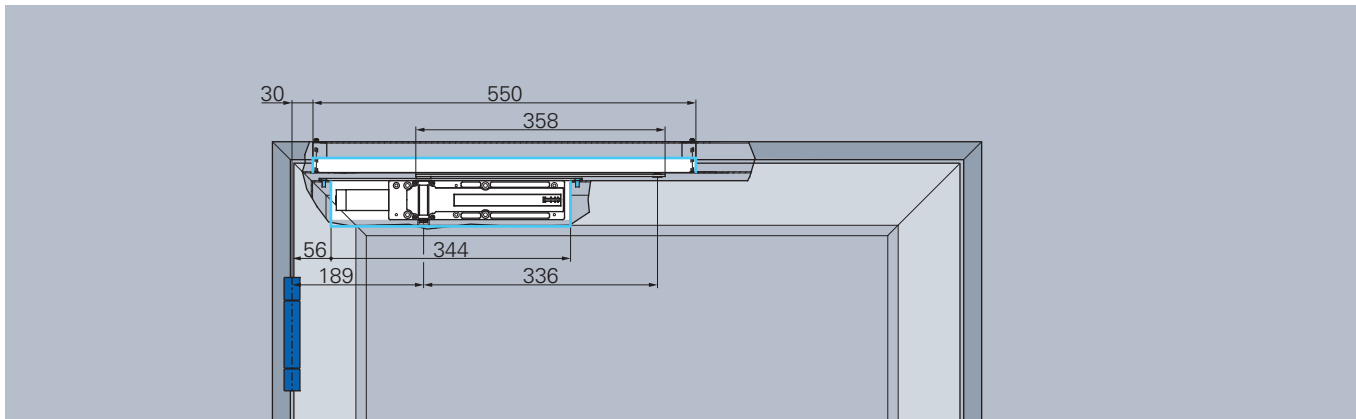


Installation drawing

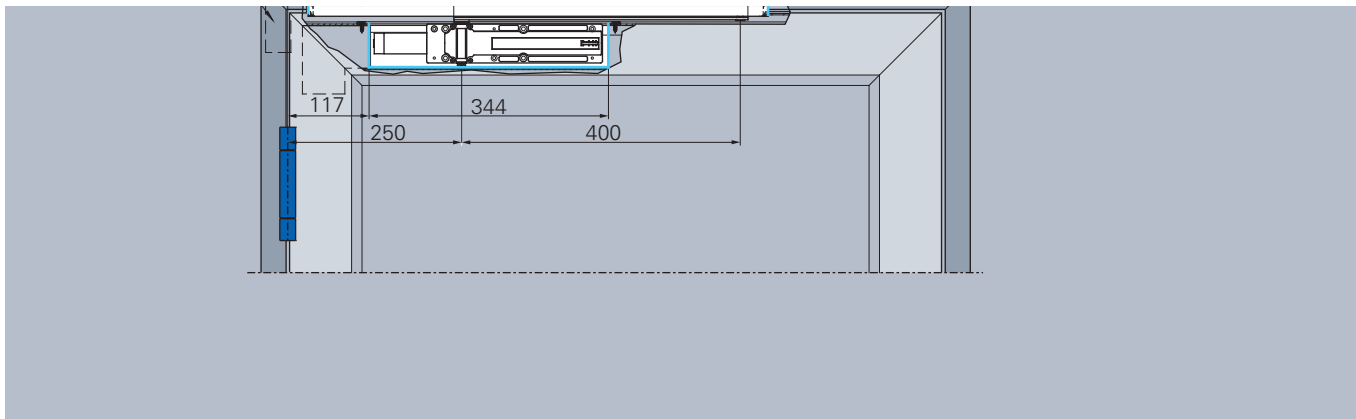
with slide rail 31 x 21 with EF, illustration DIN left door, DIN right laterally reversed



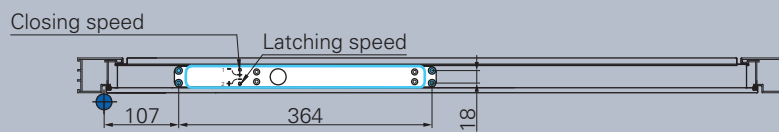
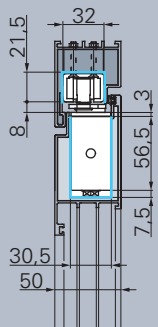
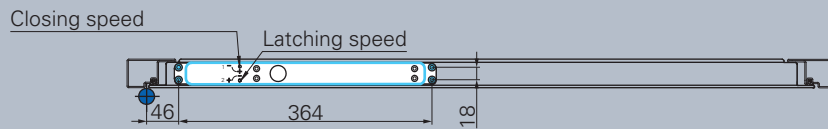
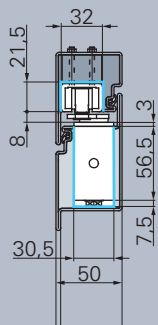
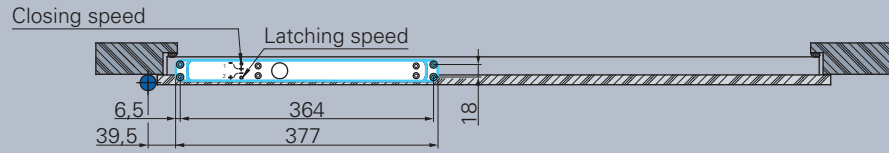
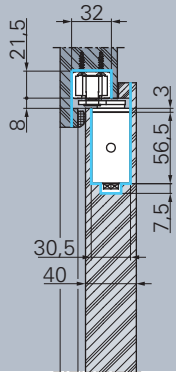
Installation Multi-Genius with slide rail 31 x 21 with EF in a wooden door



Installation Multi-Genius with slide rail 31 x 21 with EF in a profile frame door

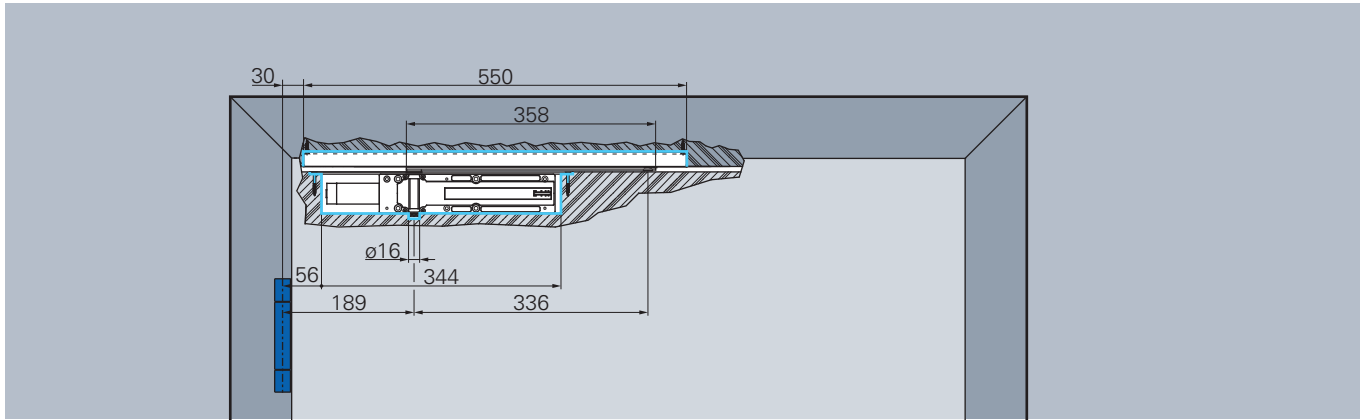


Installation Multi-Genius with slide rail 31 x 21 with EF in a profile frame door with angle brackets

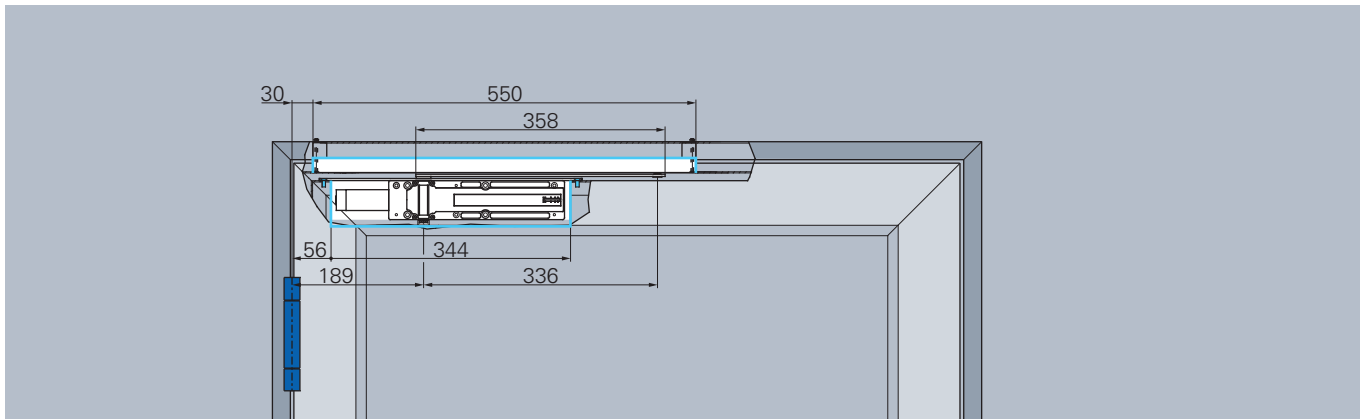


Installation drawing

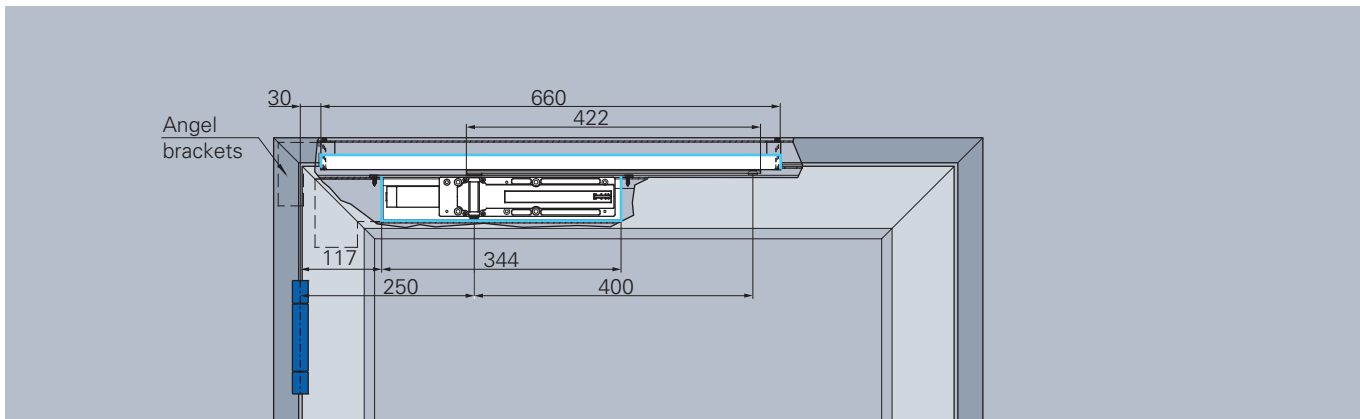
with slide rail 21,5 x 31 with EF, illustration DIN left door, DIN right laterally reversed



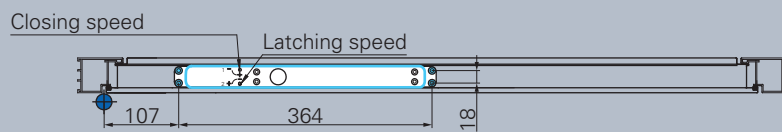
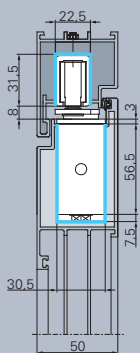
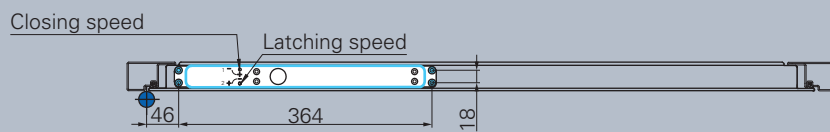
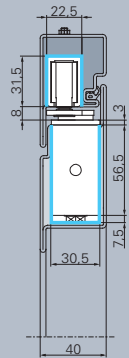
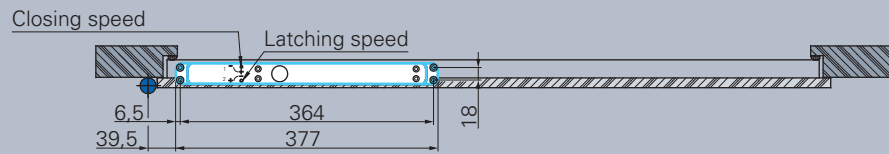
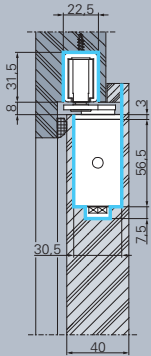
with slide rail 21,5 x 31 with EF in a wooden door



with slide rail 21,5 x 31 with EF in a profile frame door

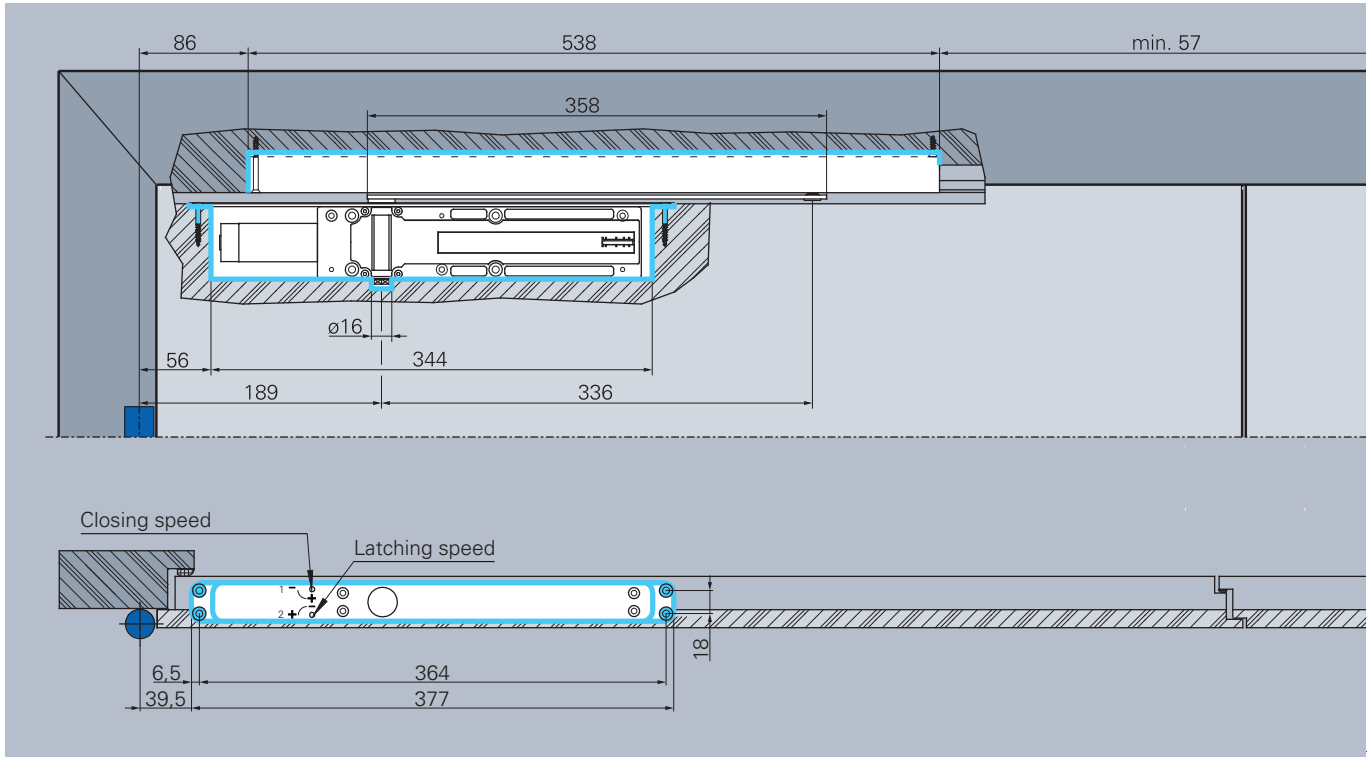


Installation Multi-Genius with slide rail 21,5 x 31 with EF in a profile frame door with angle brackets

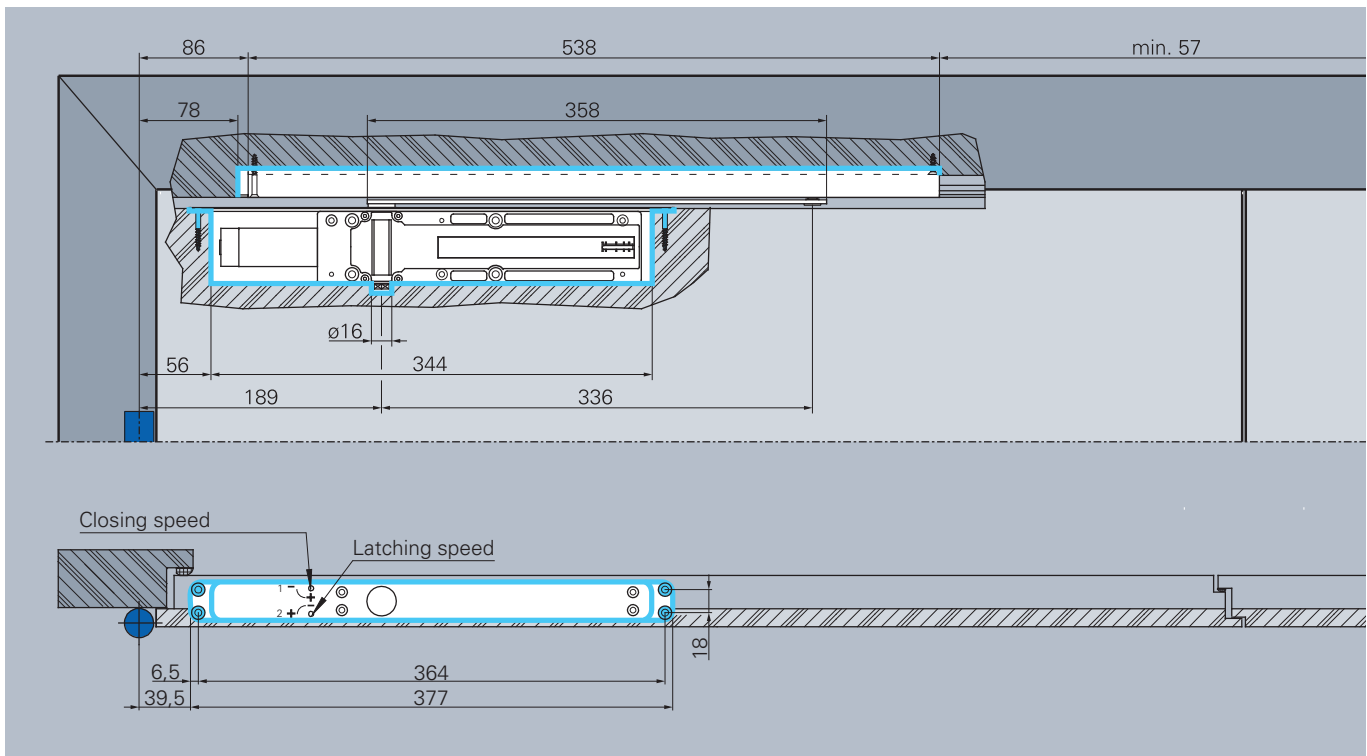


Installation drawing

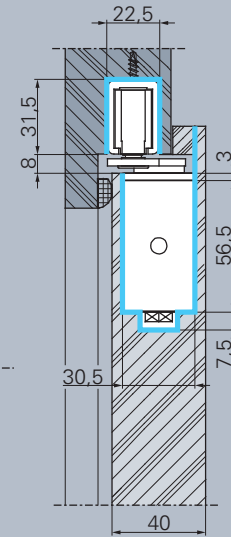
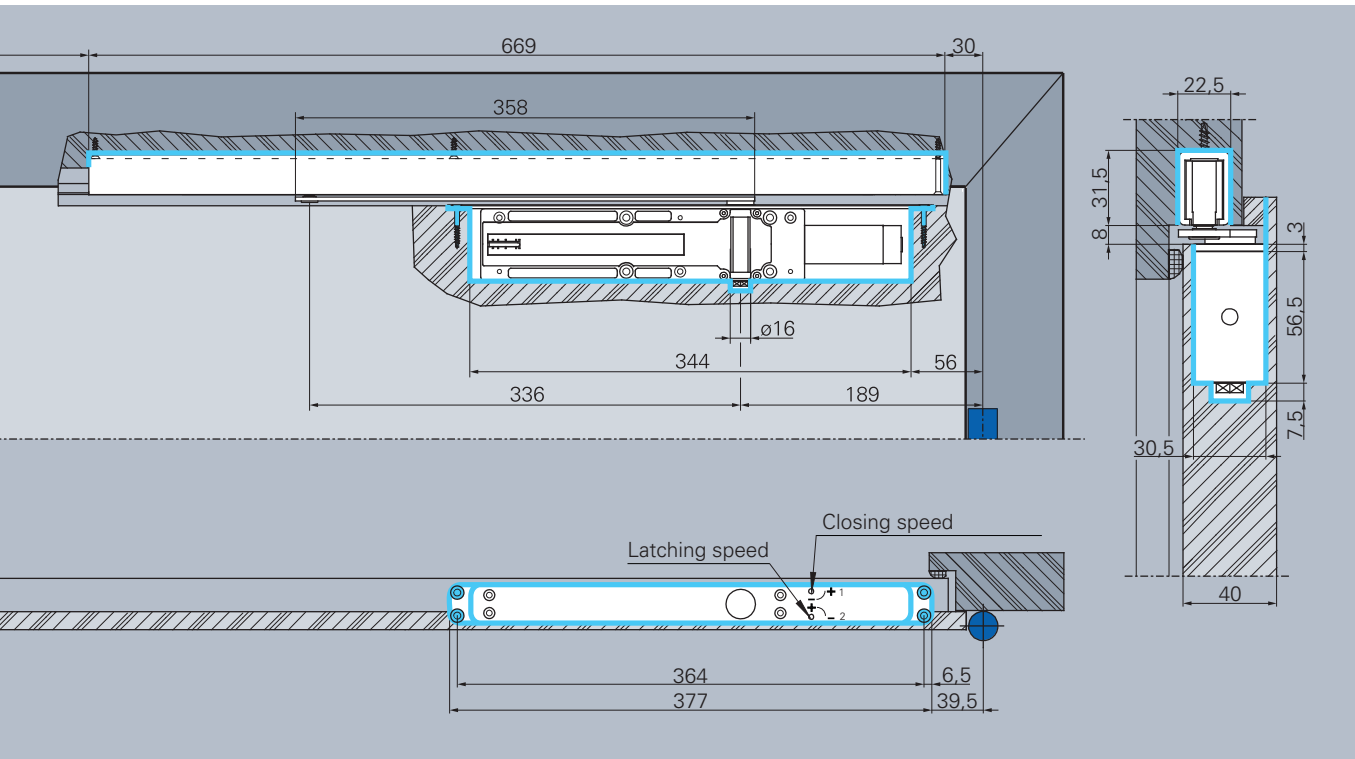
SR in a wooden door



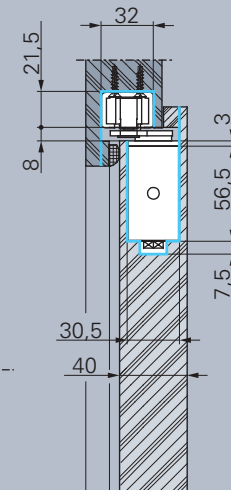
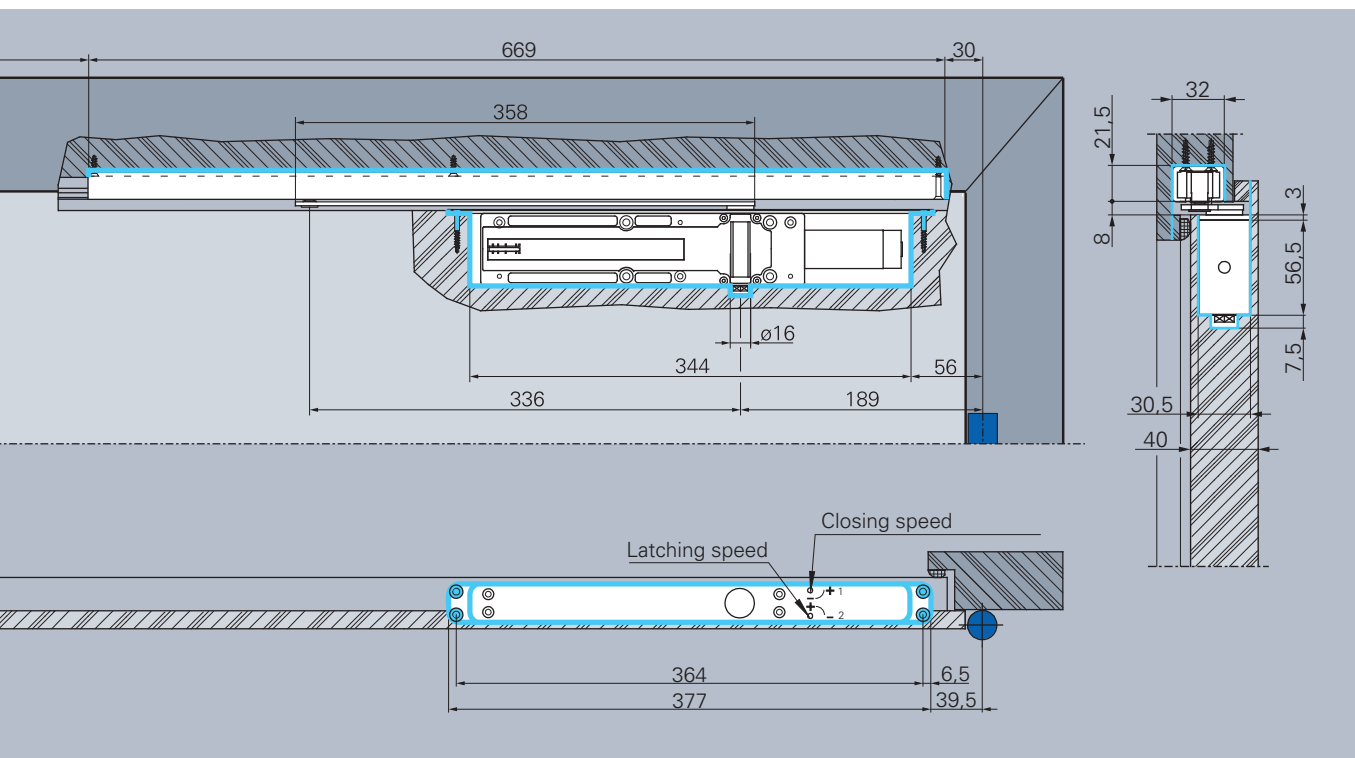
Installation Multi-Genius with slide rail 21,5 x 31 with SR in a wooden door, illustration DIN left door, DIN right laterally reversed



Installation Multi-Genius with slide rail 31 x 21 with SR in a wooden door, illustration DIN left door, DIN right laterally reversed

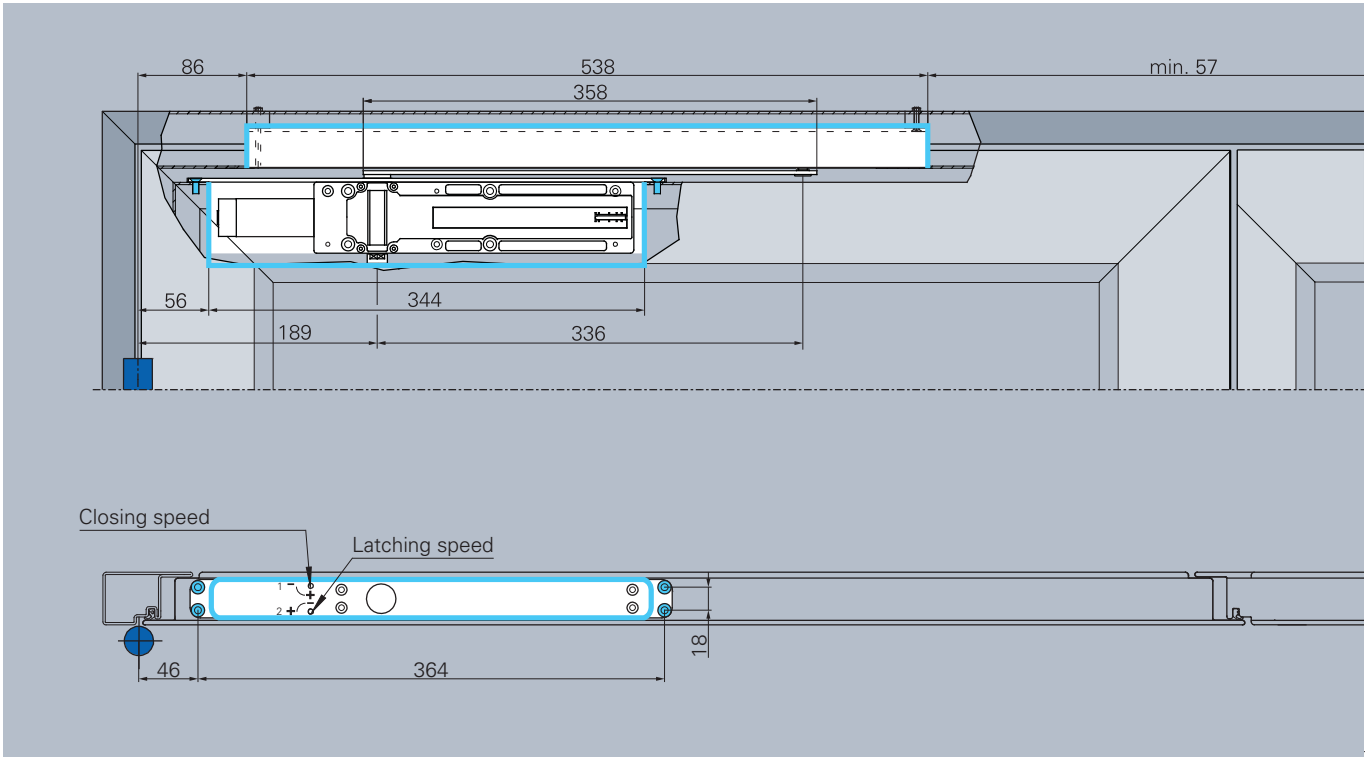


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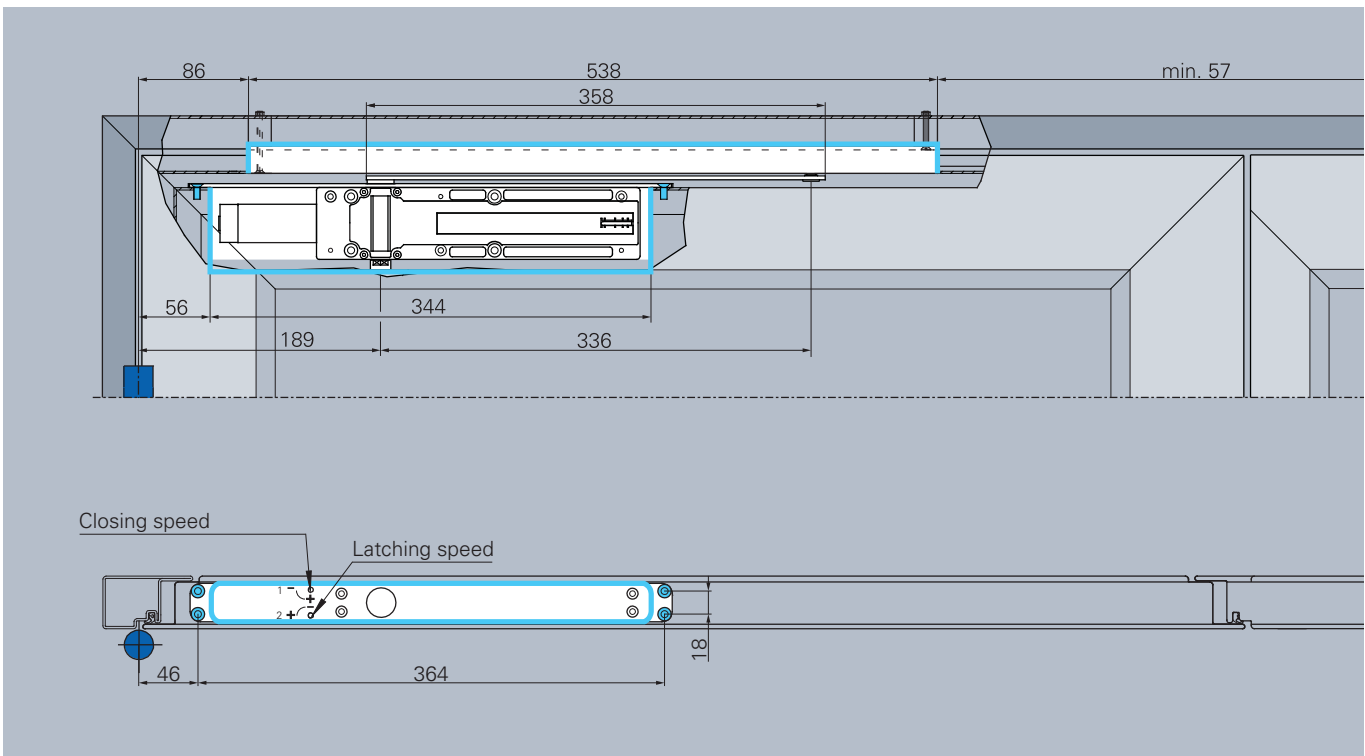


Installation drawing

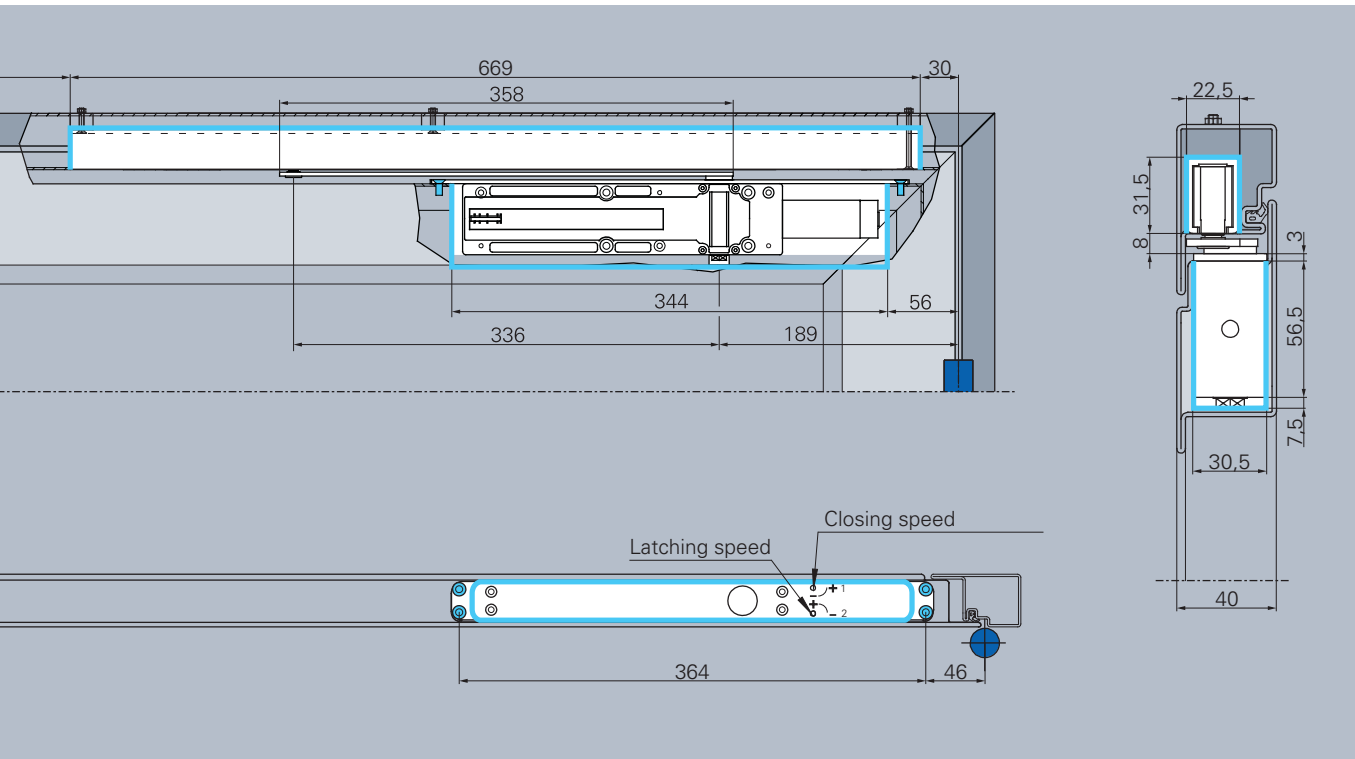
SR in a profile frame door



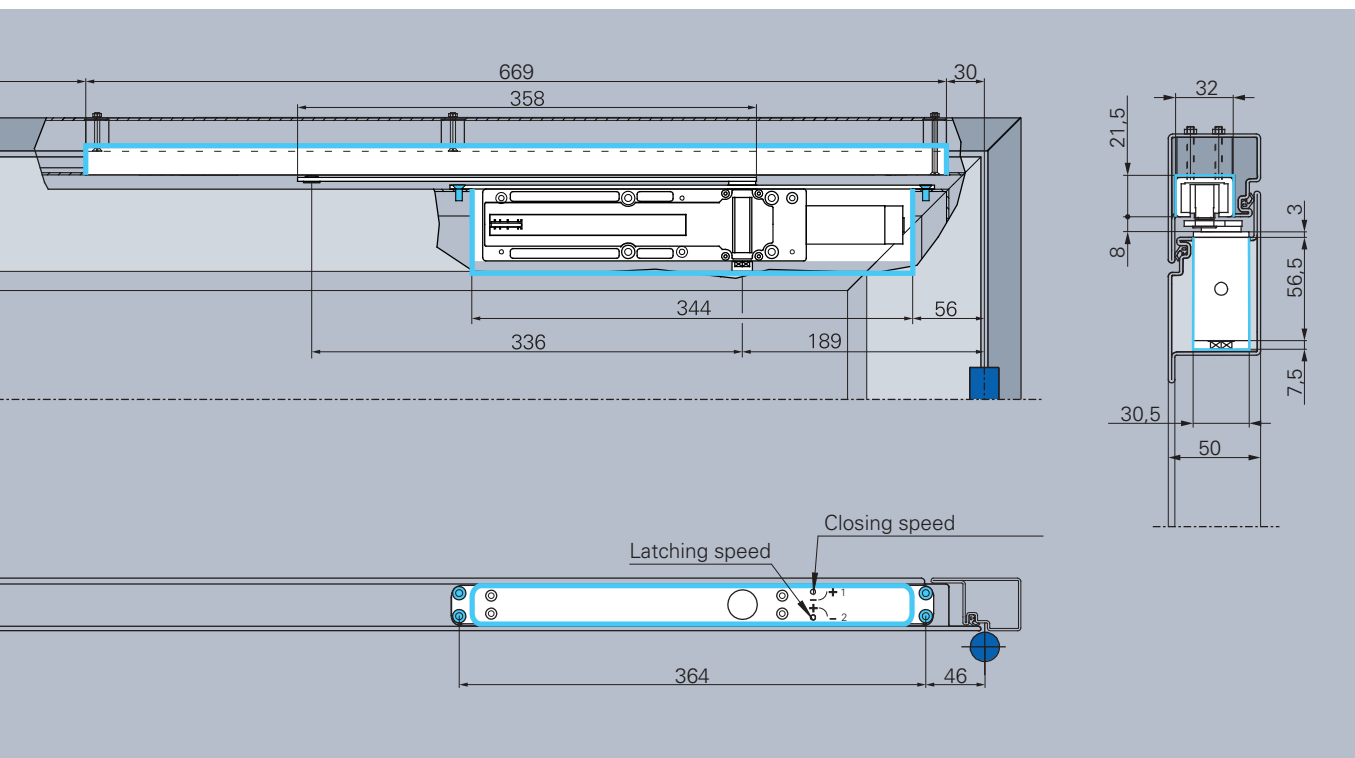
Installation Multi-Genius with slide rail 21,5 x 31 with SR in a profile frame door, illustration DIN left door, DIN right laterally reversed



Installation Multi-Genius with slide rail 31 x 21 with SR in a profile frame door, illustration DIN left door, DIN right laterally reversed

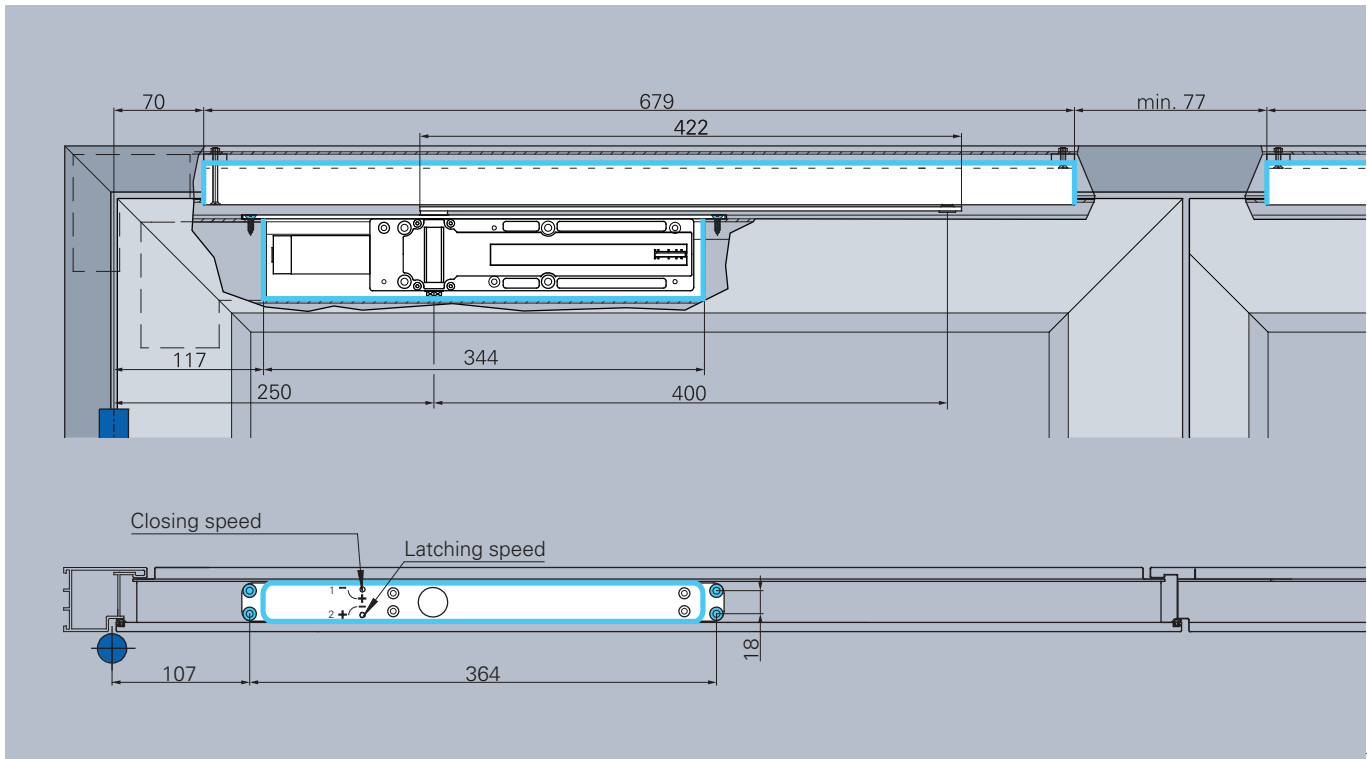


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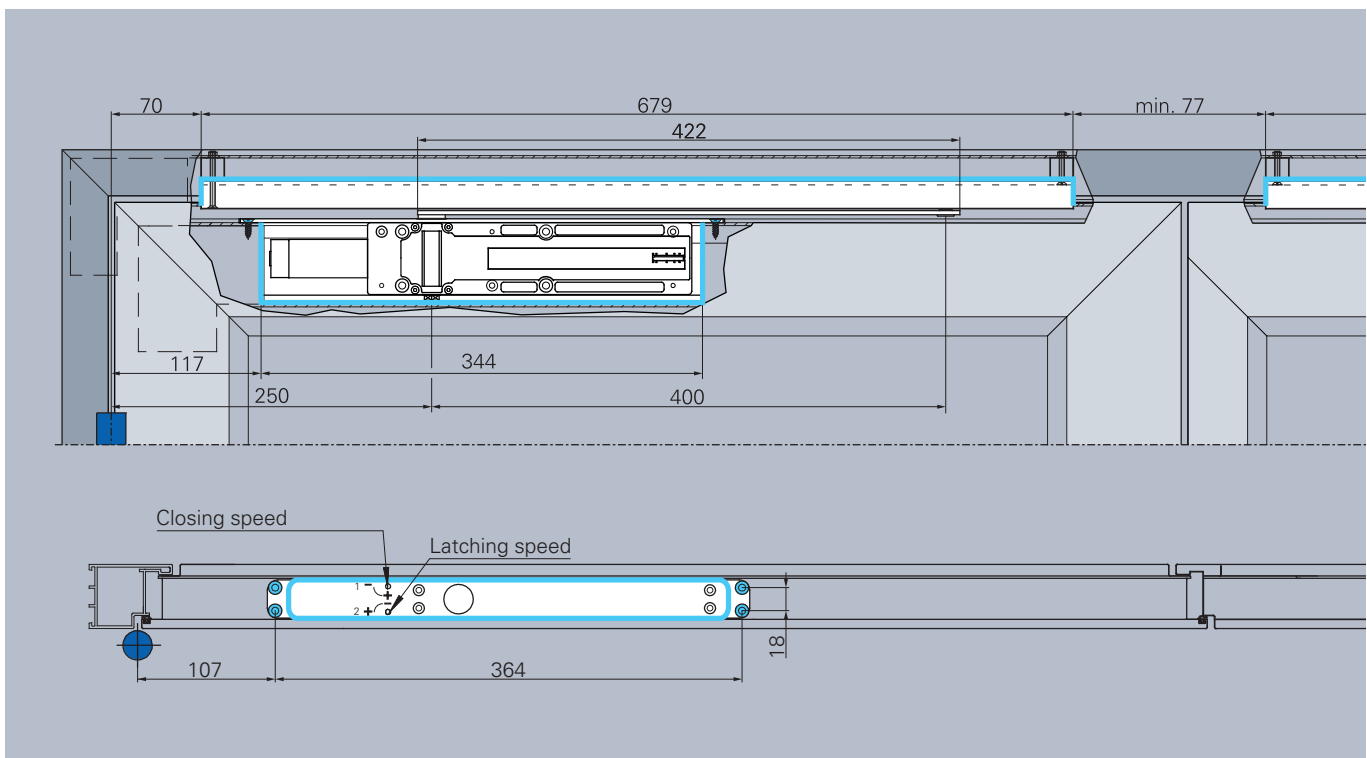


Installation drawing

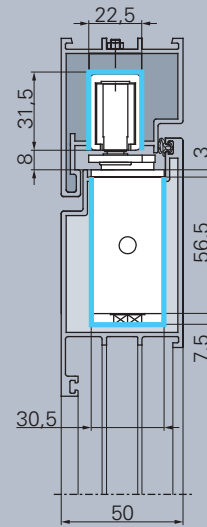
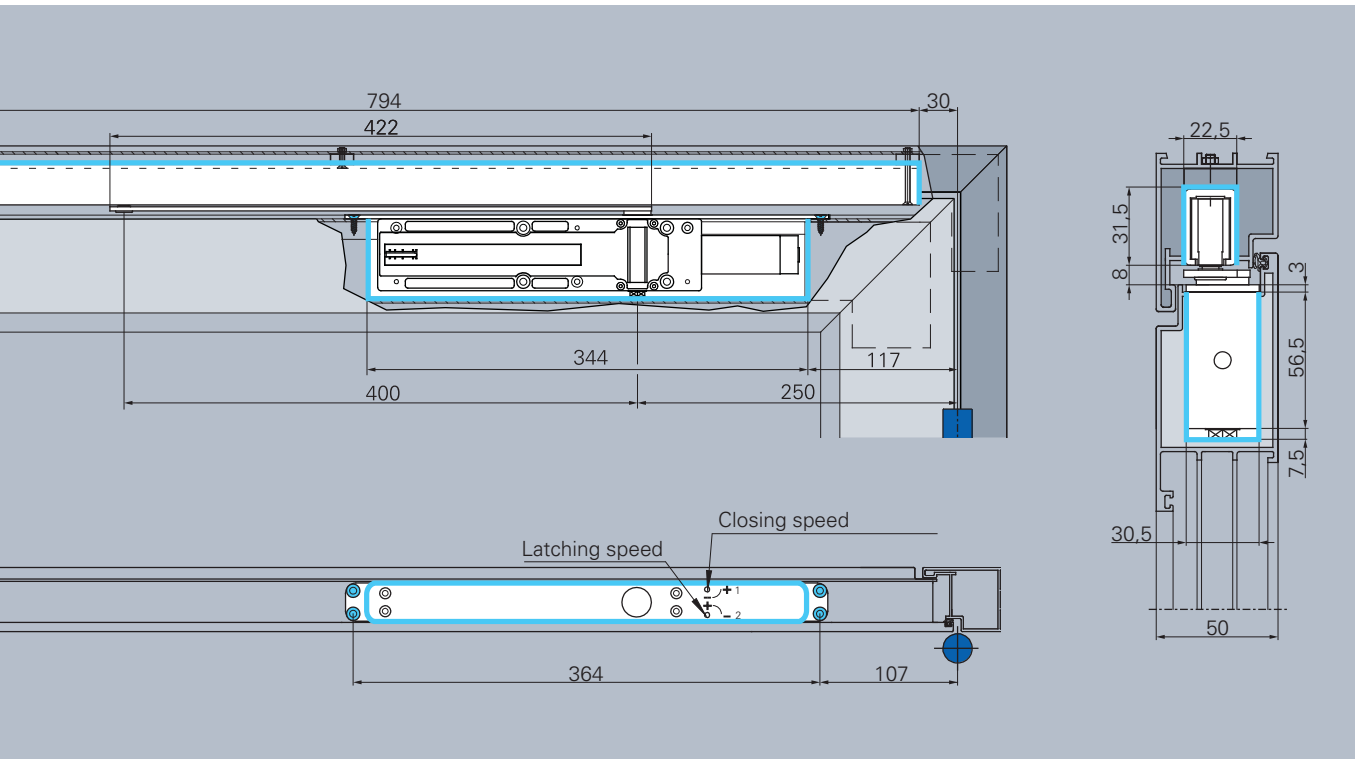
SR in a profile frame door with angle brackets



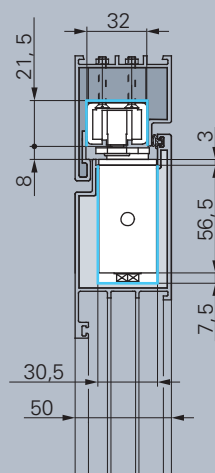
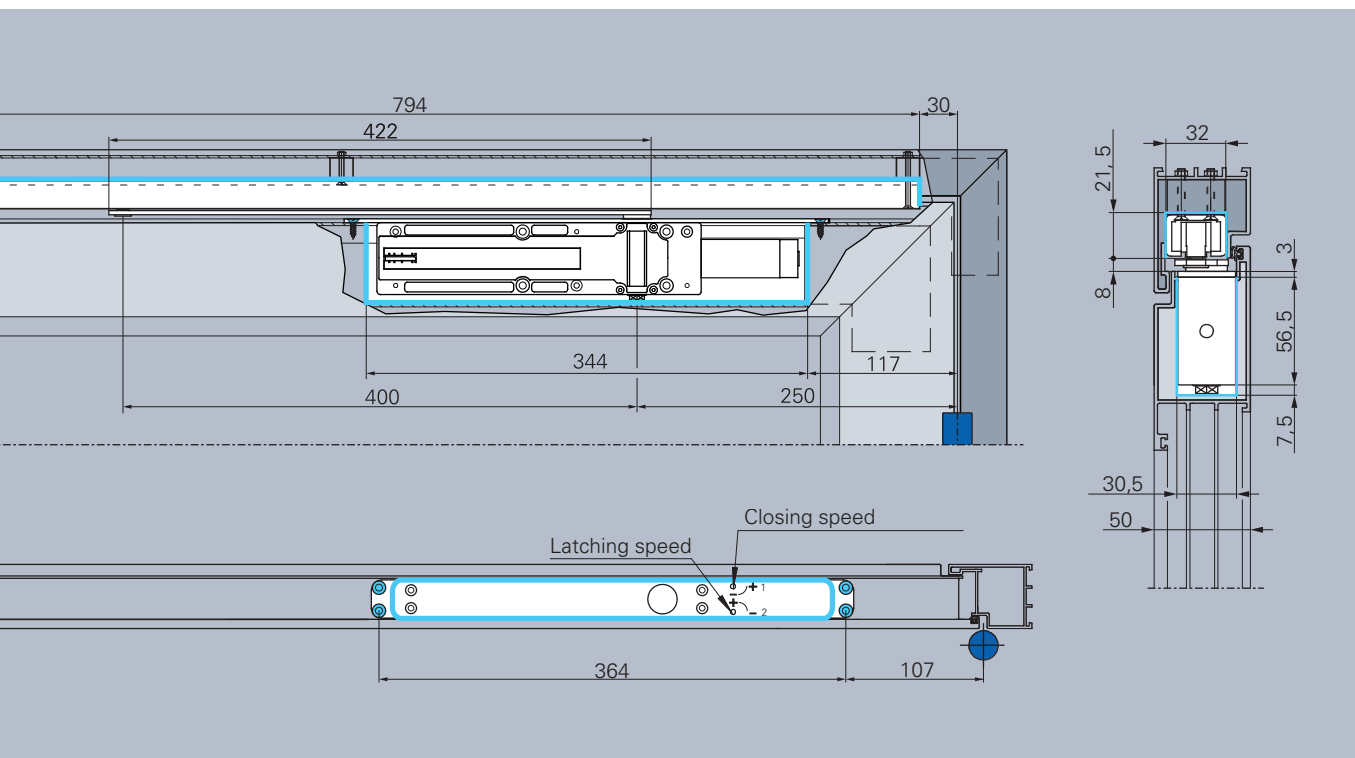
Installation Multi-Genius with slide rail 21,5 x 31 with SR in a profile frame door with angle brackets, Illustration DIN left door, DIN right laterally reversed



Installation Multi-Genius with slide rail 31 x 21 with SR in a profile frame door with angle brackets, Illustration DIN left door, DIN right laterally reversed

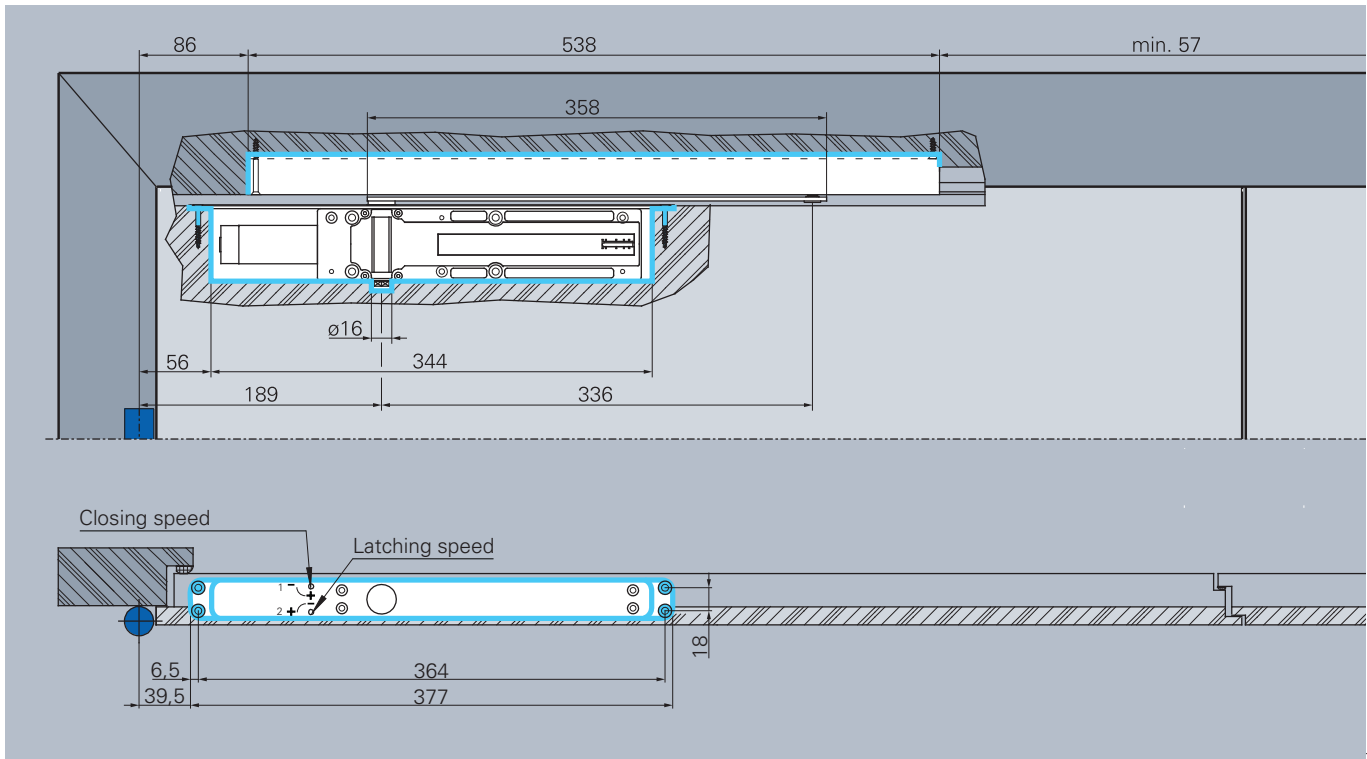


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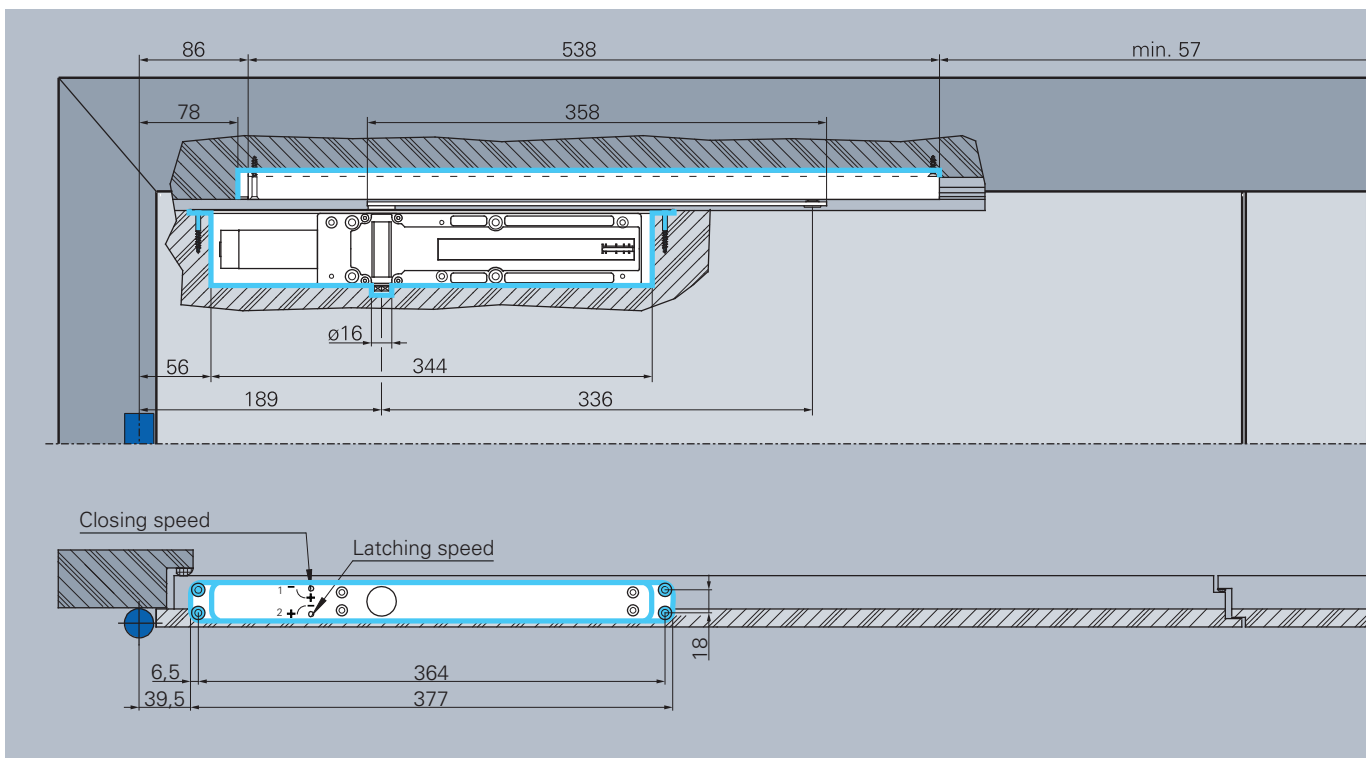


Installation drawing

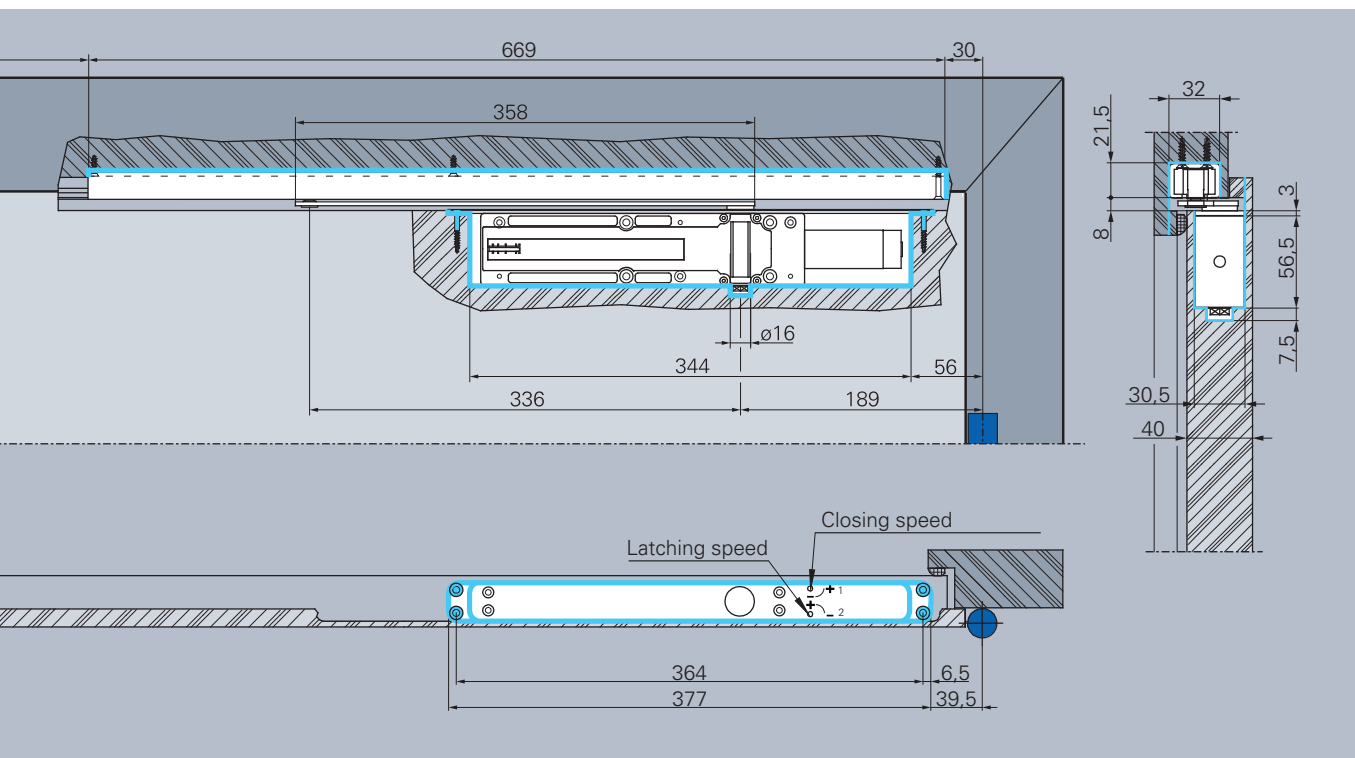
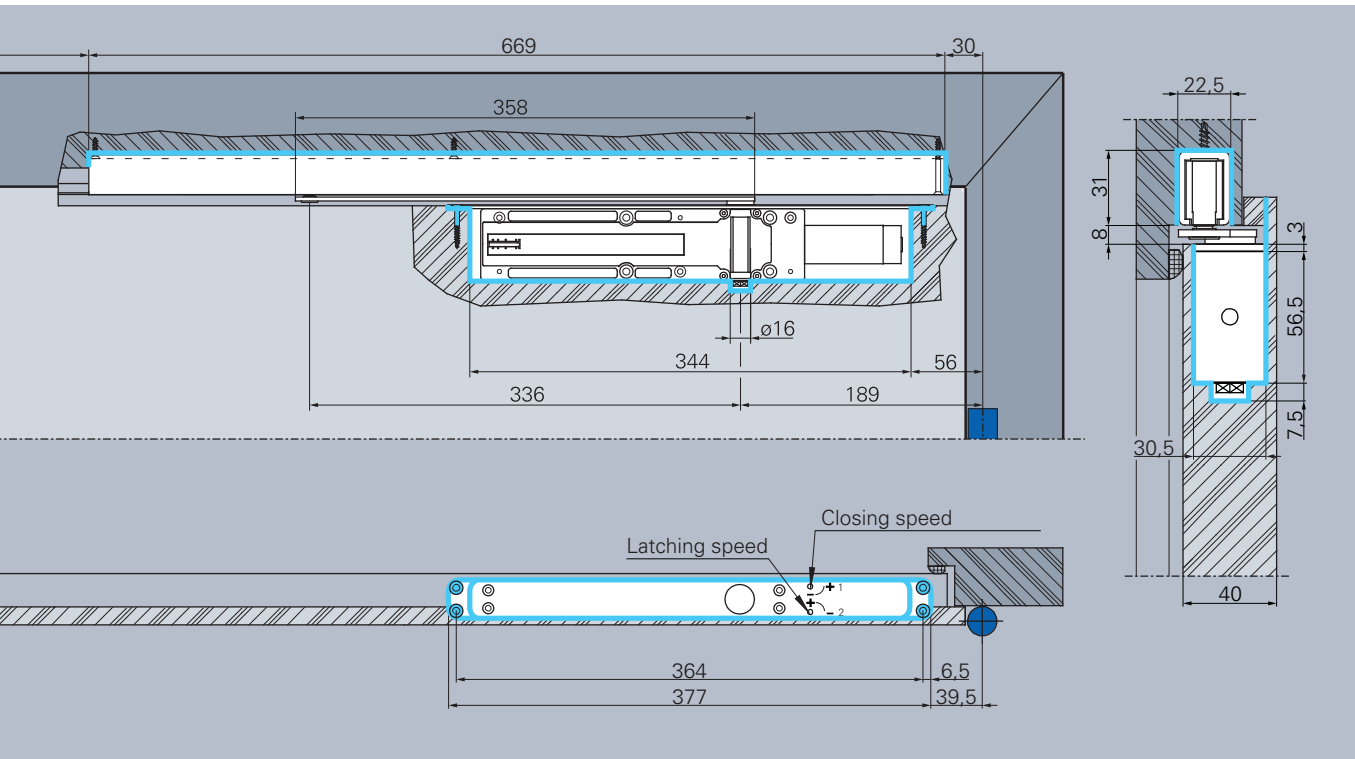
SR-EF in a wooden door



Installation Multi-Genius with slide rail 21,5 x 31 with SR-EF in a wooden door, illustration DIN left door, DIN right laterally reversed

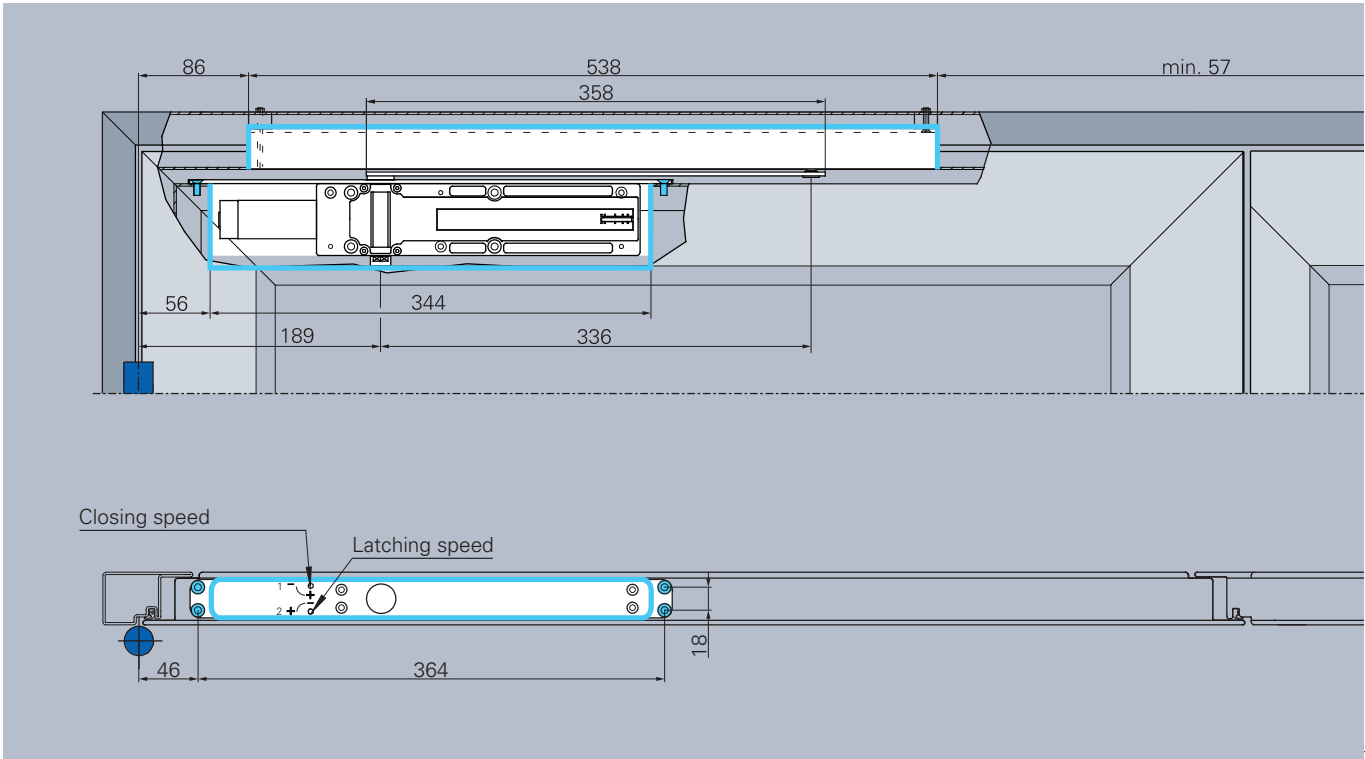


Installation Multi-Genius with slide rail 31 x 21 with SR-EF in a wooden door, illustration DIN left door, DIN right laterally reversed

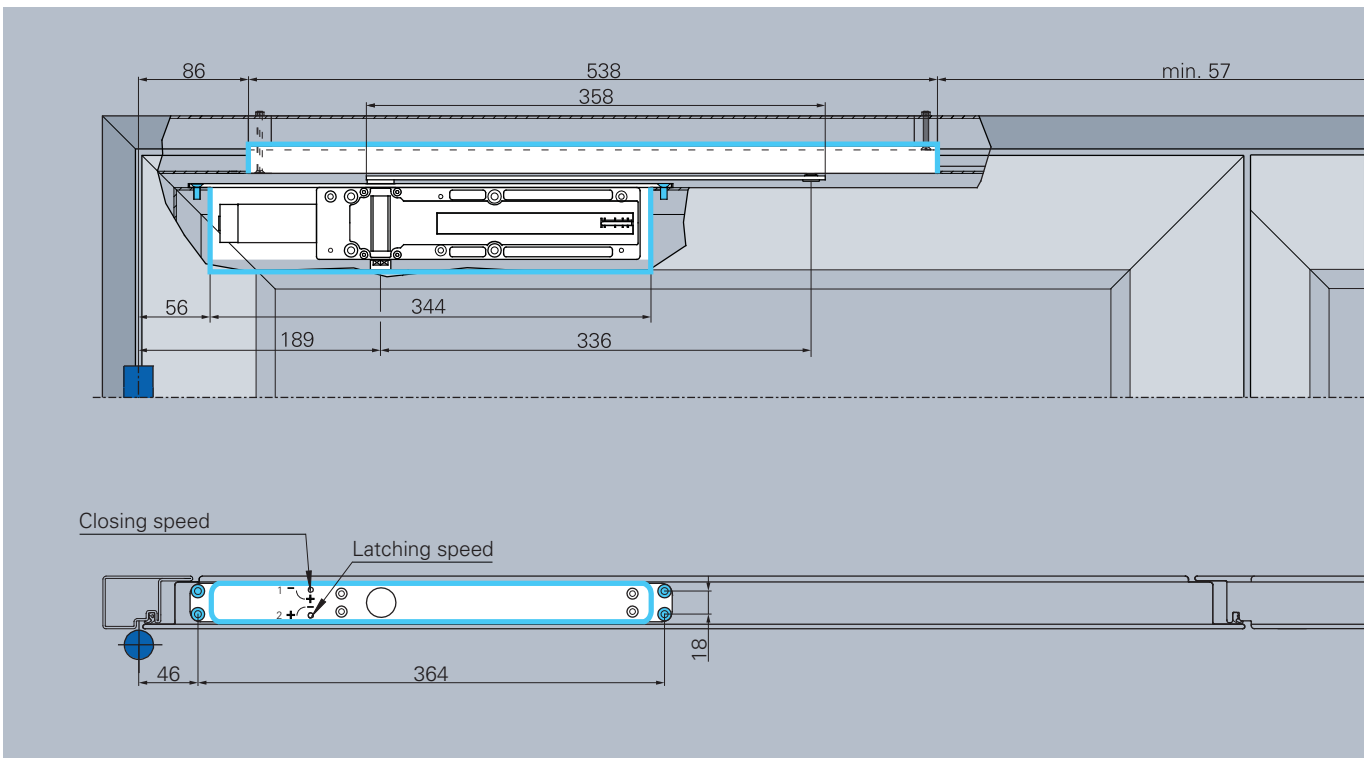


Installation drawing

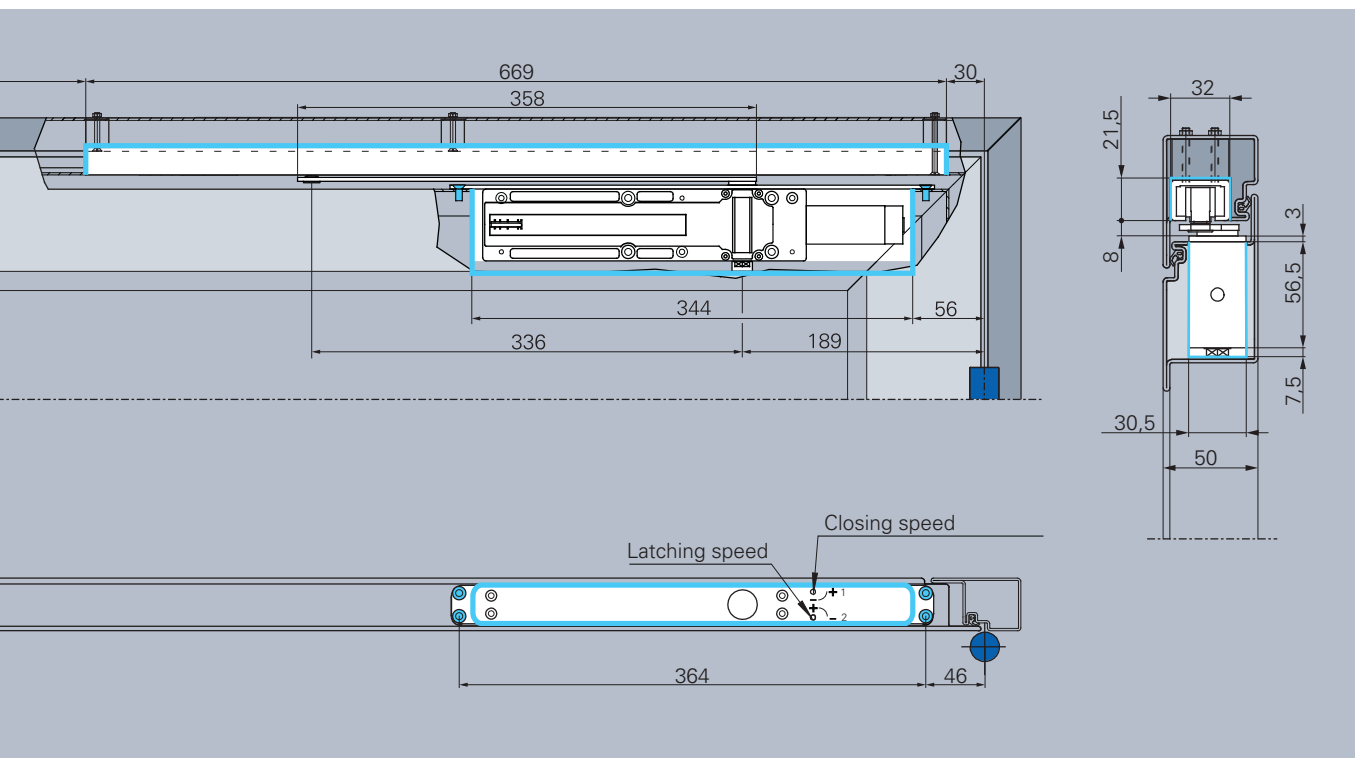
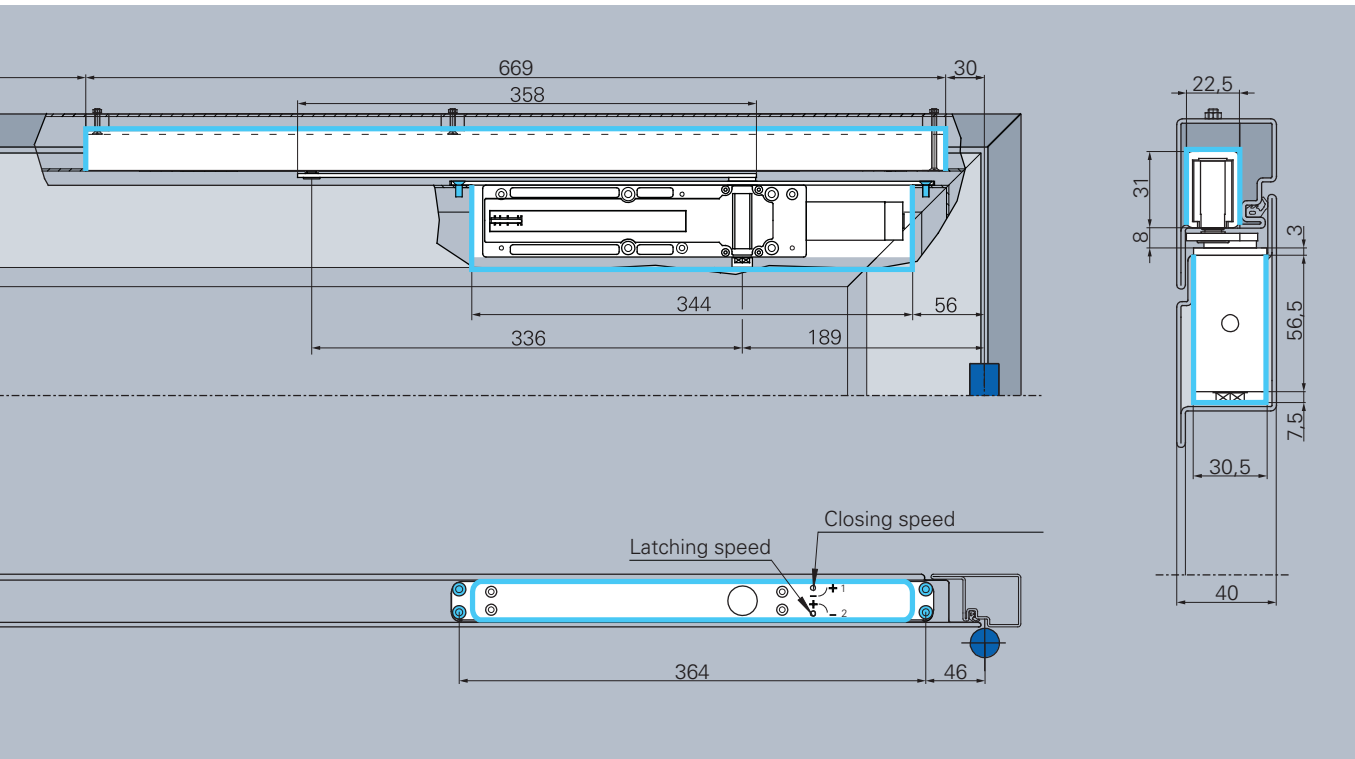
SR-EF in a profile frame door



Installation Multi-Genius with slide rail 21,5 x 31 with SR-EF in a profile frame door, illustration DIN left door, DIN right laterally reversed

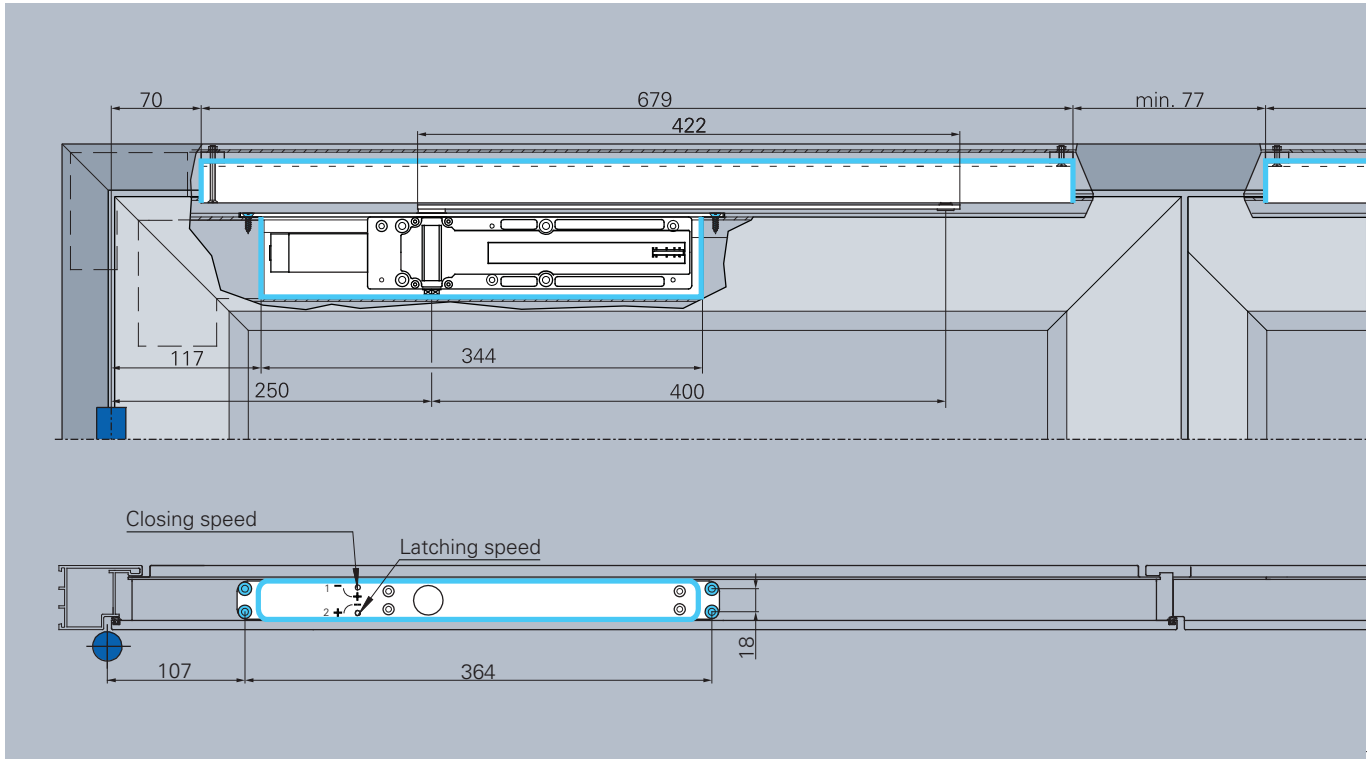


Installation Multi-Genius with slide rail 31 x 21 with SR-EF in a profile frame door, illustration DIN left door, DIN right laterally reversed

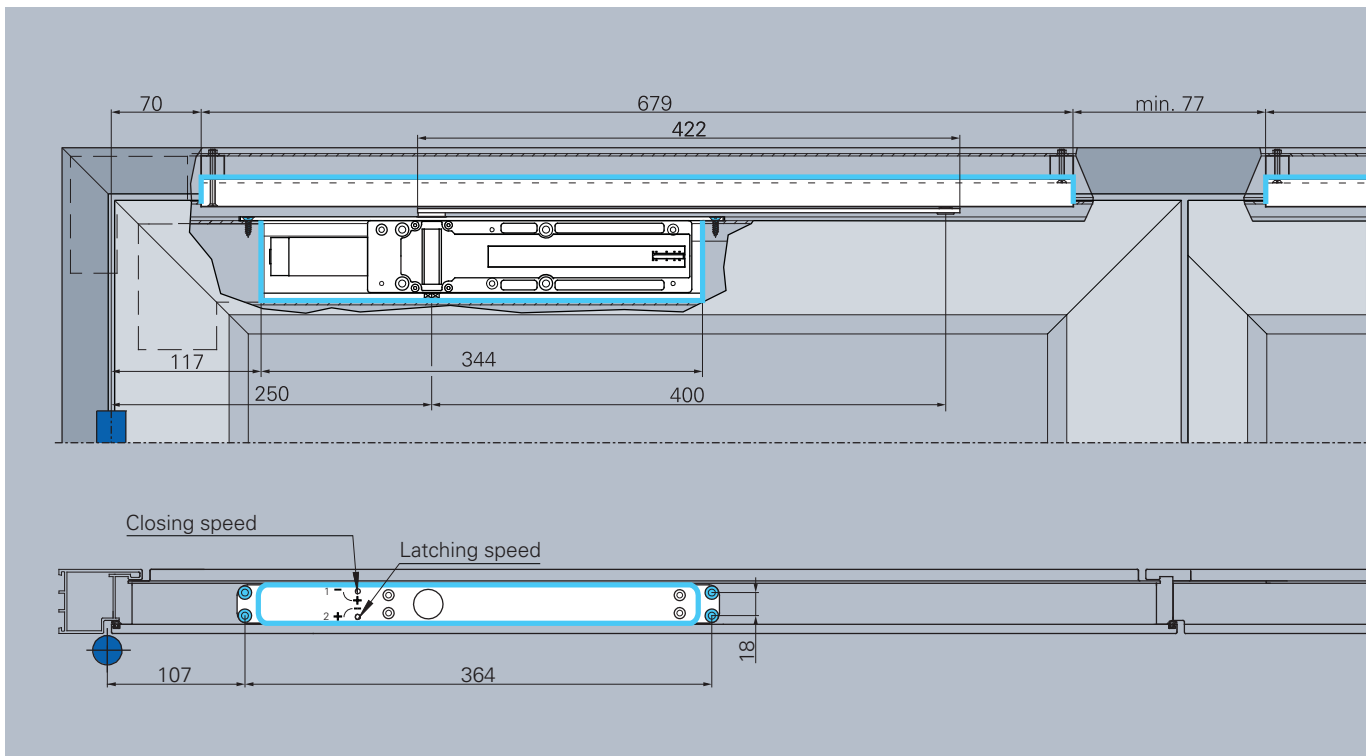


Installation drawing

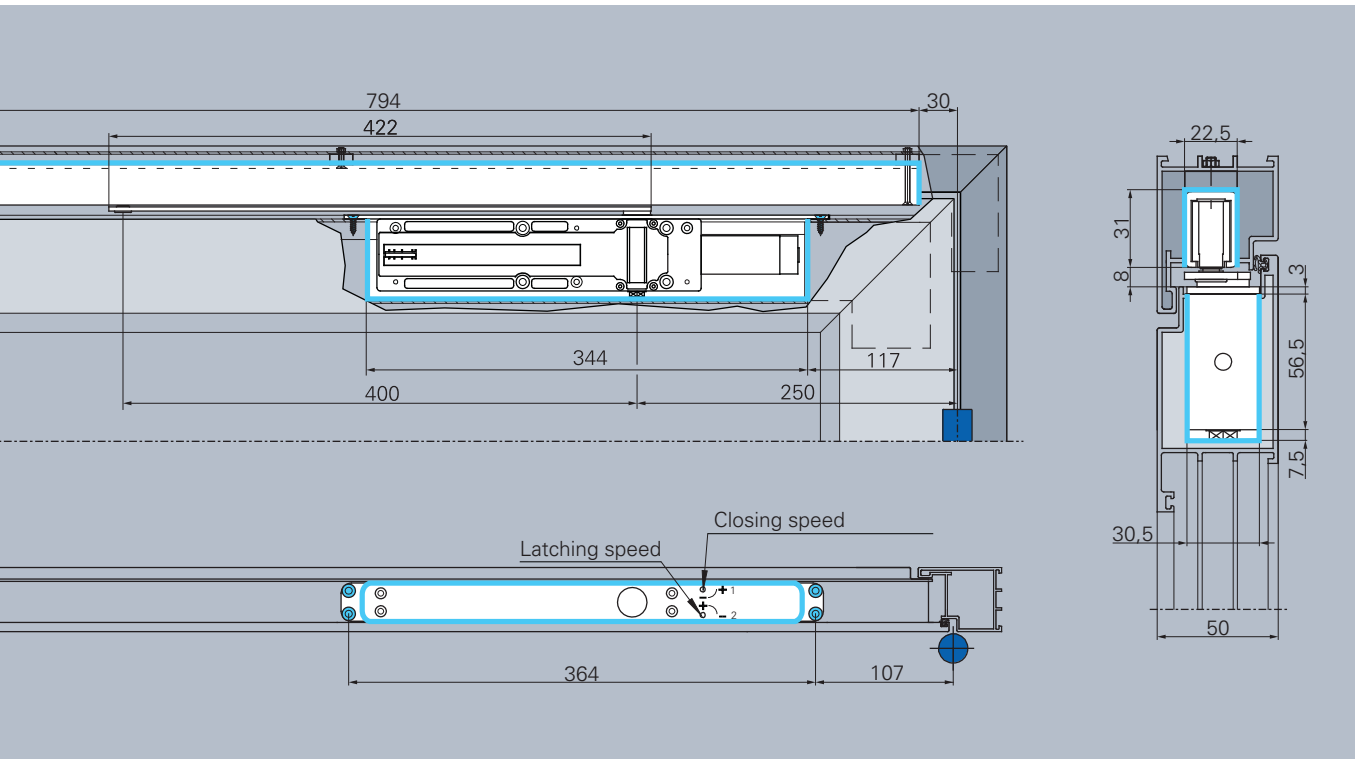
SR-EF in a profile frame door with angle brackets



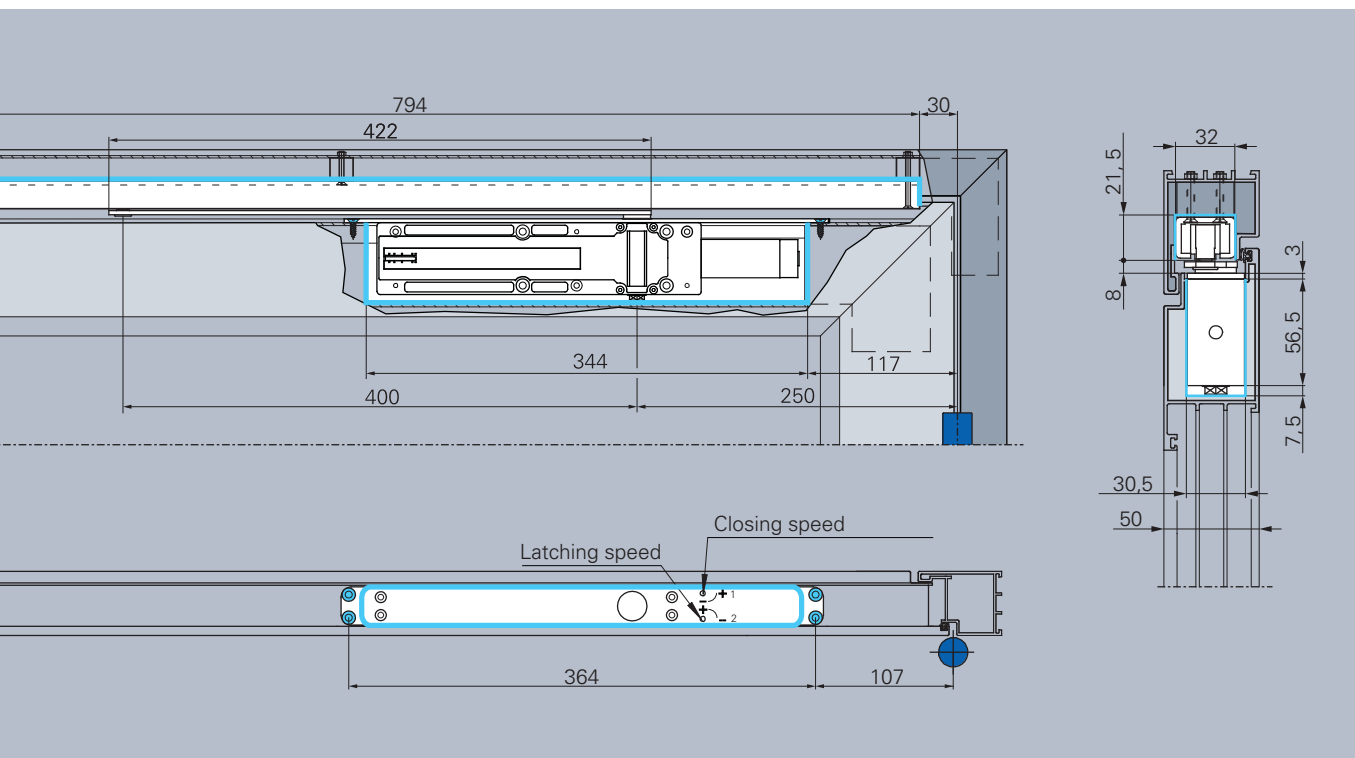
Installation Multi-Genius with slide rail 21,5 x 31 with SR-EF in a profile frame door with angle brackets, illustration DIN left, DIN right laterally reversed



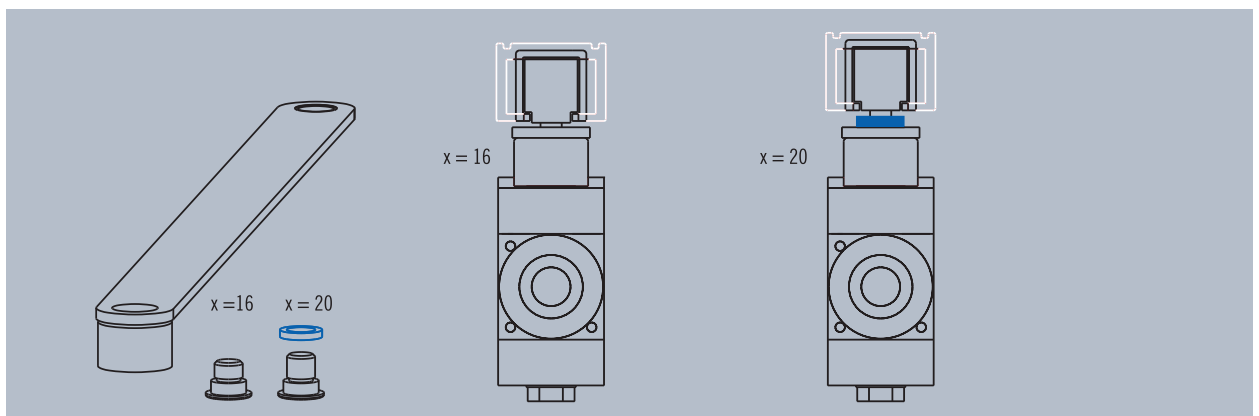
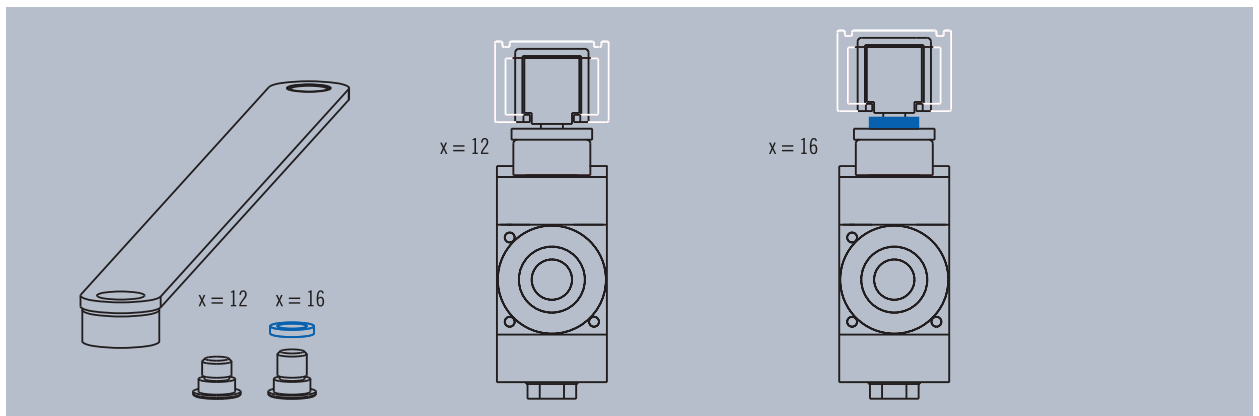
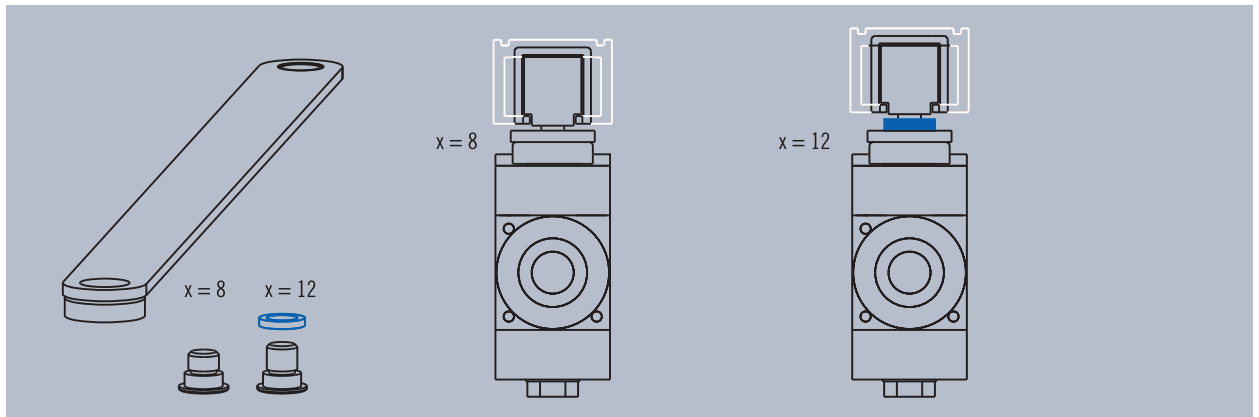
Installation Multi-Genius with slide rail 31 x 21 with SR-EF in a profile frame door with angle brackets, illustration DIN left, DIN right laterally reversed



2



Rebate space measurements



The integrated ITS Multi-Genius door closer system can be used in different door profiles with different rebate space measurements. This is enabled by different counterflap lengths (x) on the arm.

Scope of delivery: Pivot screw including spacer (Inset spacer optional).

The closer body remains unchanged.

Please mention the correct counterflap length when ordering slide rails for Multi-Genius.

Milleniumtower, Vienna,
Austria

ECO Schulte Worldwide trust.

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.

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

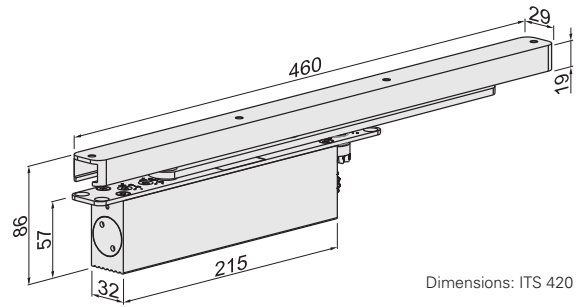
ECO ITS 420



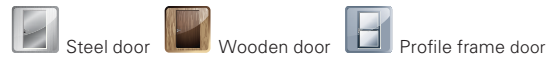
Product characteristics

Closing force (with closing force display, continuously adjustable)	Size acc. to EN	2 - 4
Door width	≤ 1.100 mm	■
Dimensions	Length in mm	215
	Depth in mm	32
	Height in mm	56
DIN left / right		■
Latching speed (continuously adjustable)		■
Closing speed (continuously adjustable)		■
max. door opening angle (*depends on the notch of the door / A door stopper for opening limit is a must!)		120°*
Tested acc. to EN	EN 1154 A	
Suitable for fire- and smoke control doors (no permission for head mounting on hinge-opposited sidet, concealed ITS)	F	
Certified according to EU-Directive		

- Yes
- No
- Option



Dimensions: ITS 420

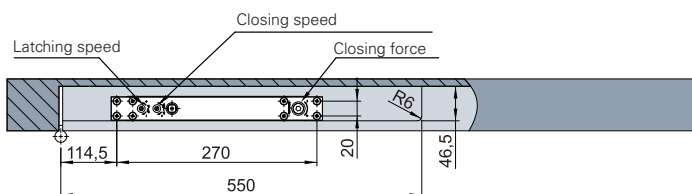
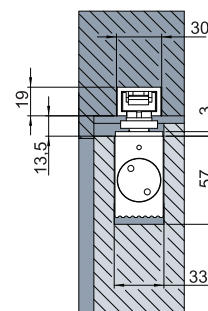
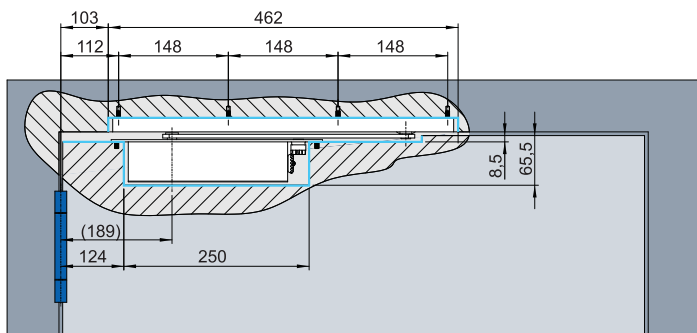


ITS 420

The ITS 420 is specially designed for light interior doors weighing up to 80 kg with a max. opening angle of 120°. Thanks to its transmission construction, it can be used as a DIN left or DIN right pendulum closer.

The closing force is adjusted from above and adjustment is also possible after the door has been installed.

ITS 420



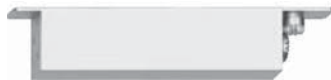
Order information

ECO ITS 420 ■ Concealed door closer

Product information

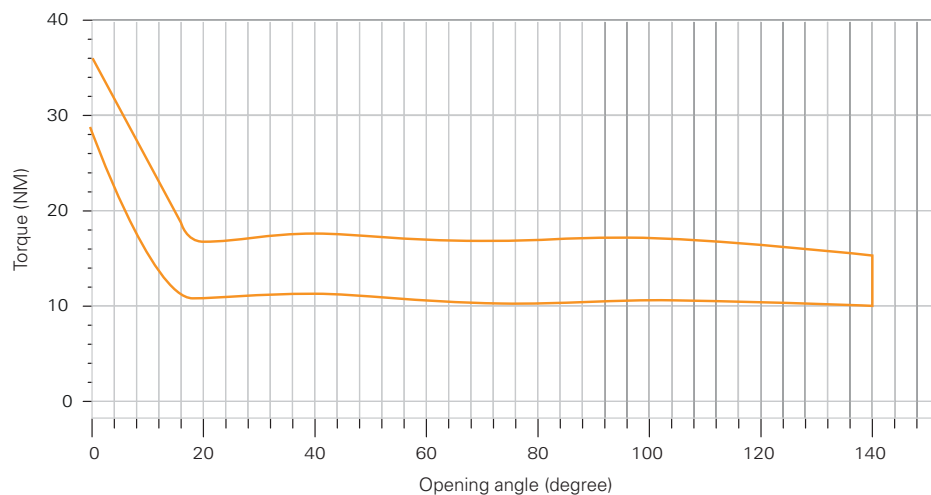
- ITS 420 for use in wooden doors, profile frame doors made of aluminium/steel and doors made of sheet steel starting from ≤ 40 mm door thickness, only 32 mm depth, enables an unproblematic and invisible mounting in the door leaf without any additional reinforcement.
- The strongly decreasing opening moment allows an easier opening of the door
- Adjustment of closing force, even in mounted condition.
- Easy handling of adjusting the closing speed and latching speed, even in mounted condition.
- Default delivery condition with pre-adjustment of size **EN 3** and slide rail IS 30 or IS 30 MFA (mechanic hold-open).

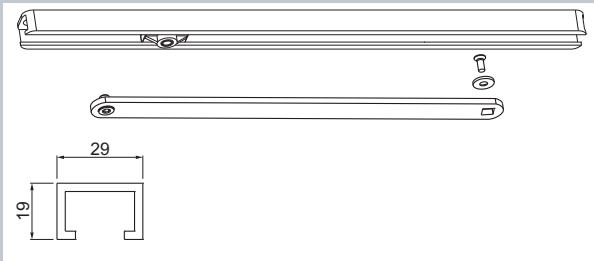
Article numbers



Door closer (concealed)		Article number
ITS 420 (2 - 4)	- integrated	358040M00000000

Range of application ITS 420





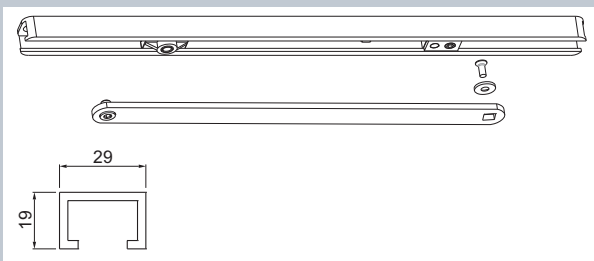
IS 30

**Slide rail IS 30
for ITS 420 (concealed door closer)**

■ **Scope of delivery:**

Slide rail IS 30, arm, lock plate and fixing material.

Slide rail IS	Profile	Article number
IS 30	29 x 19 mm	350140000O98000



Mounting slide rail IS 30 MFA

IS 30 MFA

**Slide rail IS with mechanic hold-open
for ITS 420 (concealed door closer)**

■ **Mechanical hold open:**

adjustable from 70° - 150°. Same execution DIN left and DIN right.

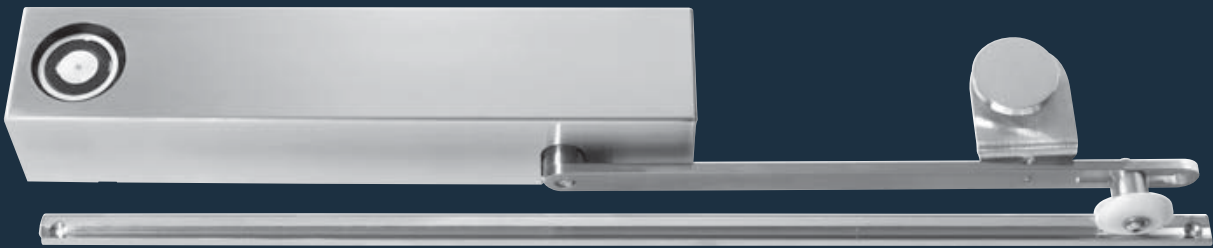
■ **Scope of delivery:**

Slide rail IS 30 MFA, arm, lock plate and fixing material.

■ **Not suitable for fire- and smoke control doors**

Slide rail MFA	Profile	Article number
IS MFA 30	29 x 19 mm	350140000O95000

ECO **FTS** -63 / R

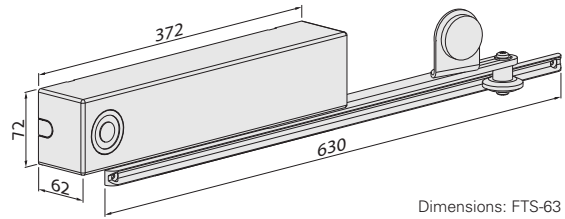


Product characteristics

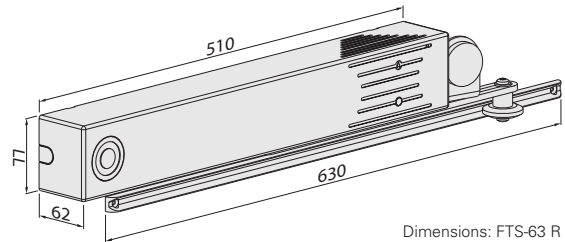
		FTS-63	FTS-63 R
Closing force (continuously adjustable)	Size acc. to EN	2 - 5 5 - 6	2 - 5 5 - 6
Door width acc. to EN	≤ 1.250 mm	■	■
	≤ 1.400 mm	□	□
Dimensions (incl. mounting plate)	Length in mm	372	510
	Depth in mm	62	62
	Height in mm	72	77
DIN left / right (please order corresponding execution)		■	■
Latching speed (continuously adjustable)		■	■
Back-check (continuously adjustable)		■	■
Closing speed (continuously adjustable)		■	■
Door opening angle	Standard	85° - 115°*	
	With special arm	115° - 145°*	
Tested acc. to EN		EN 1155	
Suitable for fire- and smoke control doors		F	
Certified according to EU-Directive		CE	

*depending on door construction

- Yes
- No
- Option



Dimensions: FTS-63



Dimensions: FTS-63 R



ECO FTS-63 / R ■ ... for special applications

With the FTS-63 / R hold-open door closer, ECO Schulte has developed a product for use in special-purpose buildings. Accordingly, the hold-open door closer is used mainly in retirement homes, kindergartens, schools, hospitals and other buildings in which doors have to be opened and closed with as little force as possible.

The FTS-63 / R is designed in such a way that an electromagnet holds the lever arm of the door closer in the open position. This means that the door is separated from the hold-open system, thus guaranteeing the free-running function. In combination with a separate and/or integrated smoke switching system, the magnet is deactivated either automatically or by means of a manual switch when smoke is detected, so that the door closer can assume its normal function and the lever arm closes the door.

FTS-63 / R is available in size 2 - 5 and 2 - 6 (tested acc. to **EN 1155**) for doors with max. 1.400 mm width.

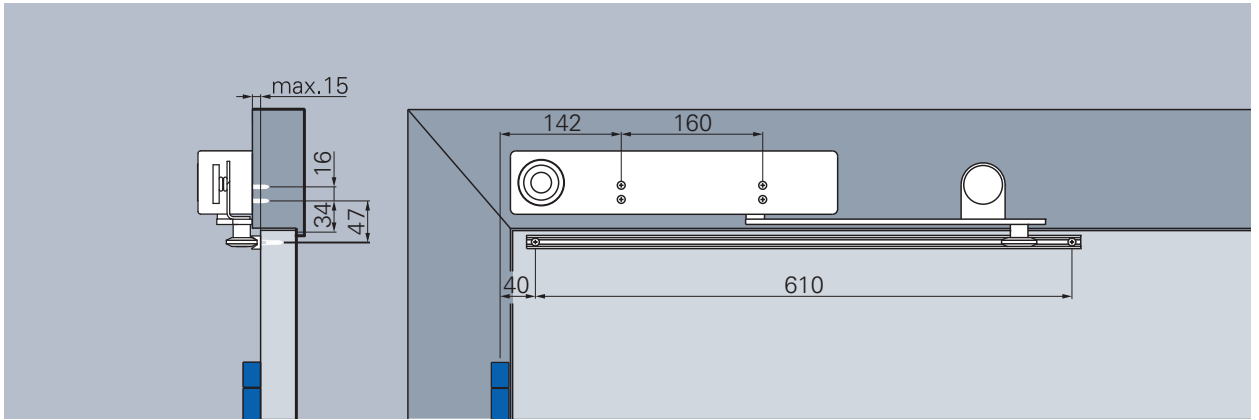
For double-leaf doors, the FTS 63-R can be combined with the closing sequence selector ECO SR-BG (with pivot hinge on the active leaf and TS 61/41 on the passive leaf). The free-running function is only active for the active leaf, the passive leaf does not have any hold-open or free-running function and closes automatically.



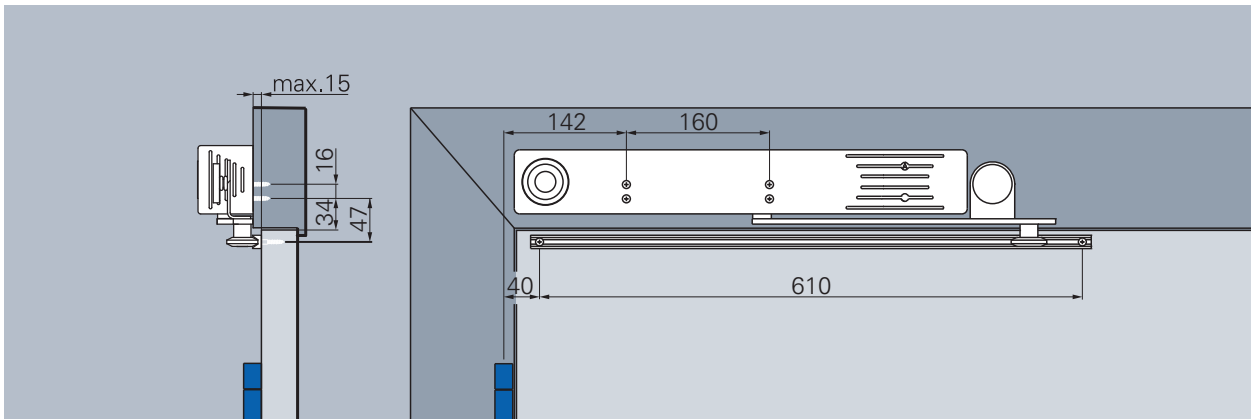
According to the DIBt (German Construction Technology Institute) guidelines for hold-open systems for fire-retarding and smoke protection doors, a red manual switch with the inscription "Close Door" must be installed in a clearly visible, easily accessible place in their immediate proximity. More information on page 189.

Mounting

Illustration DIN left door, DIN right laterally reversed



Standard mounting, hinge side – FTS-63



Standard mounting, hinge side – FTS-63 R

Closing speed

Continuously adjustable closing speed from 115° to 0°.

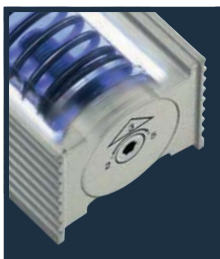
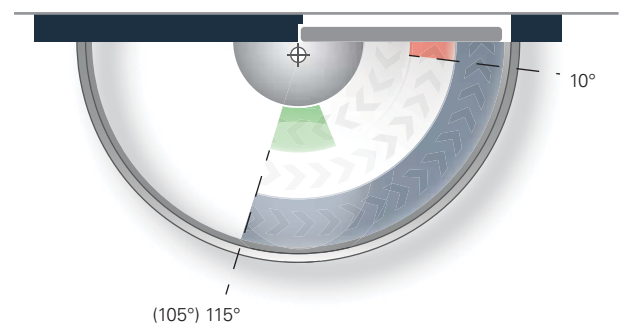
Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10 to 0°

Back-check

Reduces the opening speed starting at 70° and avoids the slamming of the door. Back-check fixed

Closing force diagram FTS, hinge side



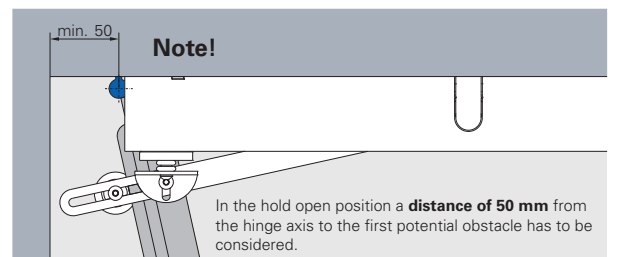
Closing force:

Continuously adjustable min. size 2
max. size 5

or

Continuously adjustable min. size 5
max. size 6

Default delivery condition: size 3



Note!

In the hold open position a **distance of 50 mm** from the hinge axis to the first potential obstacle has to be considered.

Order information

ECO FTS-63 / -63 R ■ Product description

Door closer with free-swinging function ECO FTS 63

- The free-swinging function is activated by locking the arm when opening once
- Opening angle, depending on notch of the door: 85° - 115° (115° - 145° on request)
- External power supply 24 V DC, in order to connect to an external smoke detector
- Closing force, closing speed and latching speed continuously adjustable
- Head-mounting on hinge side, guiding rail on door leaf (optional)
- Adaptor profiles and axis extension for special structural conditions available

Door closer with free-swinging function ECO FTS 63 R

- The free-swinging function is activated by locking the arm when opening once
- Integrated smoke detector
- Opening angle, depending on notch of the door: 85° - 115° (115° - 145° on request)
- Power supply 230 V AC
- Closing force, closing speed and latching speed continuously adjustable
- Head-mounting on hinge side, guiding rail on door leaf (optional)
- Adaptor profiles for special structural conditions available



According to the rules for closing sequence selectors of the DBIt, an interrupt button stating „Close door“ (red) has to be placed nearby, visible and freely accessible when using the free-swinging door closer. For further information, please refer to page 189.

FTS-63 / R



Door closer without smoke switch	Colour	DIN	Article number
FTS-63 (2 – 5)	Stainless steel satin	DIN left	306153AB5Q05001
FTS-63 (2 – 5)	Stainless steel satin	DIN right	306153AB5Q05002
FTS-63 (5 – 6)	Stainless steel satin	DIN left	306113CB5Q05001
FTS-63 (5 – 6)	Stainless steel satin	DIN right	306113CB5Q05002



Door closer with smoke switch	Colour	DIN	Article number
FTS-63 (2 – 5)	Stainless steel satin	DIN left	306153AB5Q05017
FTS-63 (2 – 5)	Stainless steel satin	DIN right	306153AB5Q05018
FTS-63 (5 – 6)	Stainless steel satin	DIN left	306113CB5Q05013
FTS-63 (5 – 6)	Stainless steel satin	DIN right	306113CB5Q05014



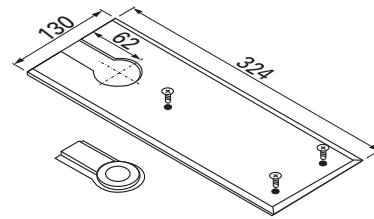
The free-swinging function de-activates closing force, closing speed, back-check and latching speed

ECO **BTS**

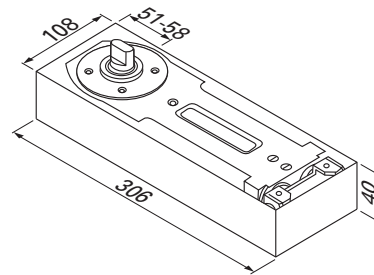


Product characteristics		BTS 843	BTS 844
Closing force (with closing force display, continuously adjustable)	Size acc. to EN	3	4
Door width acc. to EN	≤ 950 mm	■	■
	≤ 1.100 mm	-	■
Door weight acc. to EN	max. in kg	120	150
Dimensions (incl. mounting plate)	Length in mm	306	306
	Depth in mm	108	108
	Height in mm	40	40
Latching speed (adjustable)		■	■
Closing speed (adjustable)		■	■
Hold open 90° or 105°		□	□
Not fire proved (continuously adjustable)			
DIN left / right		■	■
Door opening angle		130°	
Tested acc. to EN		EN 1154 A	
Suitable for fire- and smoke control doors (no permission when using with hold-open)		F	
Certified according to EU-Directive		CE	

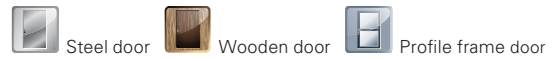
■ Yes
 - No
 □ Option



Dimensions: Cover



Dimensions: Cement case



ECO BTS ■ ... flattens itself!

The BTS-FH floor spring is distinguished by its particularly flat design which makes it the ideal door closer for single-leaf latching and swinging doors. The overall height of only 40 mm enables easy installation.

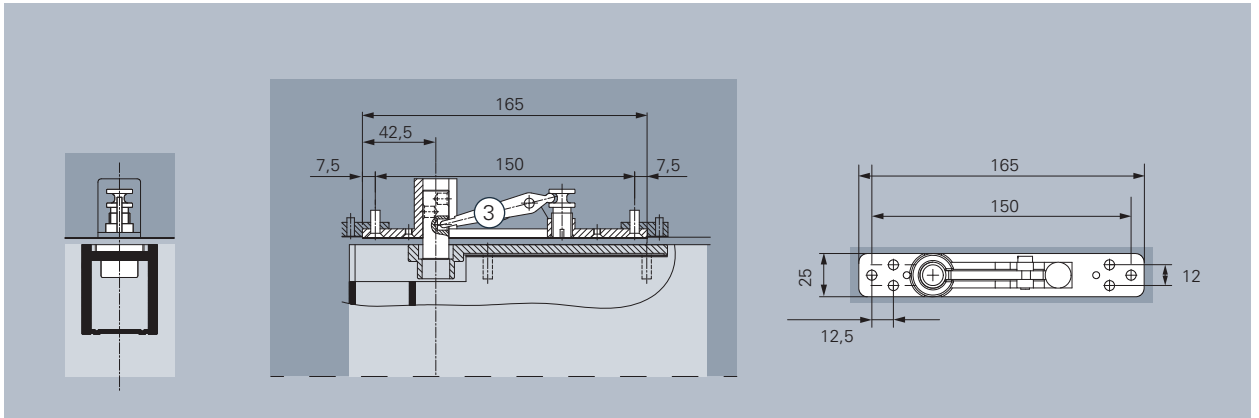
The BTS-FH is available in size 3 and size 4. It is tested acc. to **EN 1154 A** and therefore meets all requirements.



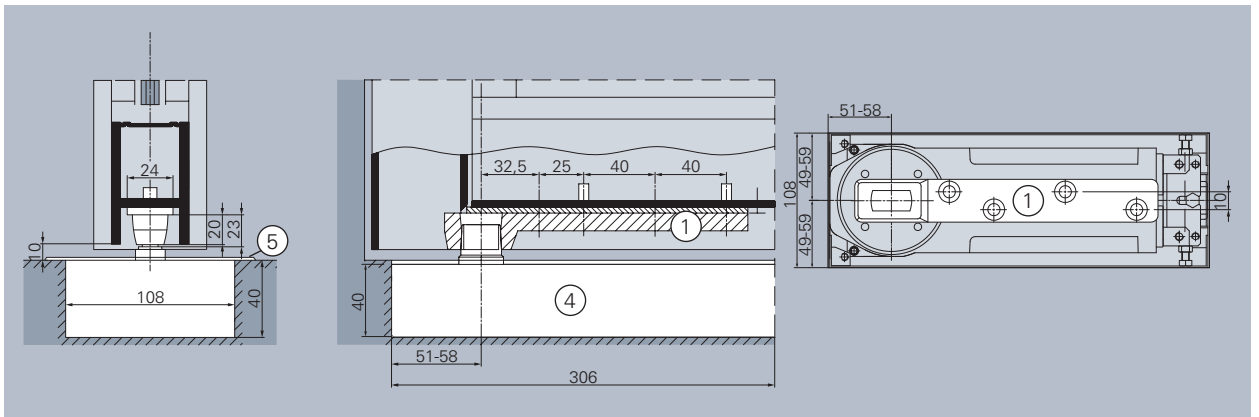
For the use on solid glass doors you need the respective fittings. You can get more information in the chapter "Glass door fittings".

Installation drawing for patch handles

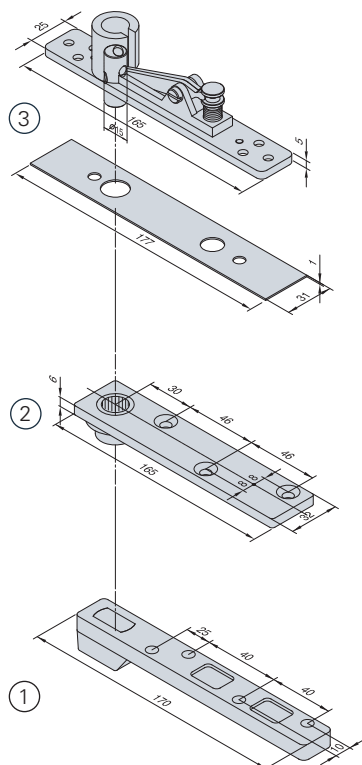
Illustration DIN left door, DIN right laterally reversed



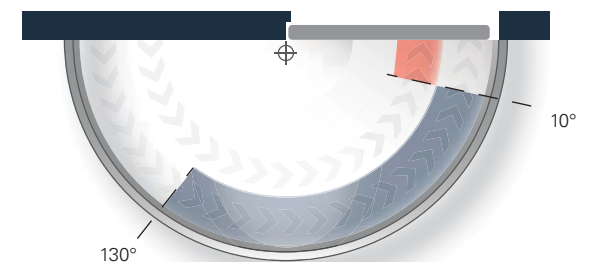
Frame installation, reception on top



Floor mounting



Closing force diagram BTS, hinge side



Closing speed

Continuously adjustable closing speed from approx. 130° to 10°

Latching speed

Increases the closing speed and thus the safe closing of the door, for example to overcome door seals, door locks and high air pressure. Continuously adjustable, works between 10° to 0°

Illustration: Accessories sets

Order information

ECO BTS ▪ Product description

Floor spring ECO BTS

Door closer for single-leaf single action doors / double swing door. Installation in the floor incl. accessory set containing

- ① slide rail for metal and wooden doors
- ② reception for pivot hinge
- ③ adjustable pivot hinge
- ④ cement case
- ⑤ and cover made of stainless steel

- Dimensions: 306 / 108 / 40 mm
- Closing force: 3 or 4, not adjustable
- Back-check: optional, adjustable
- Closing speed: adjustable
- Latching speed: adjustable
- Opening angle: 130°
- Hold-open as option, 90° or 105°

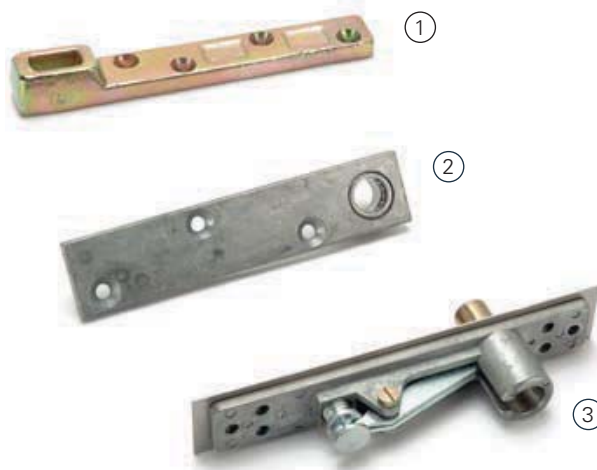


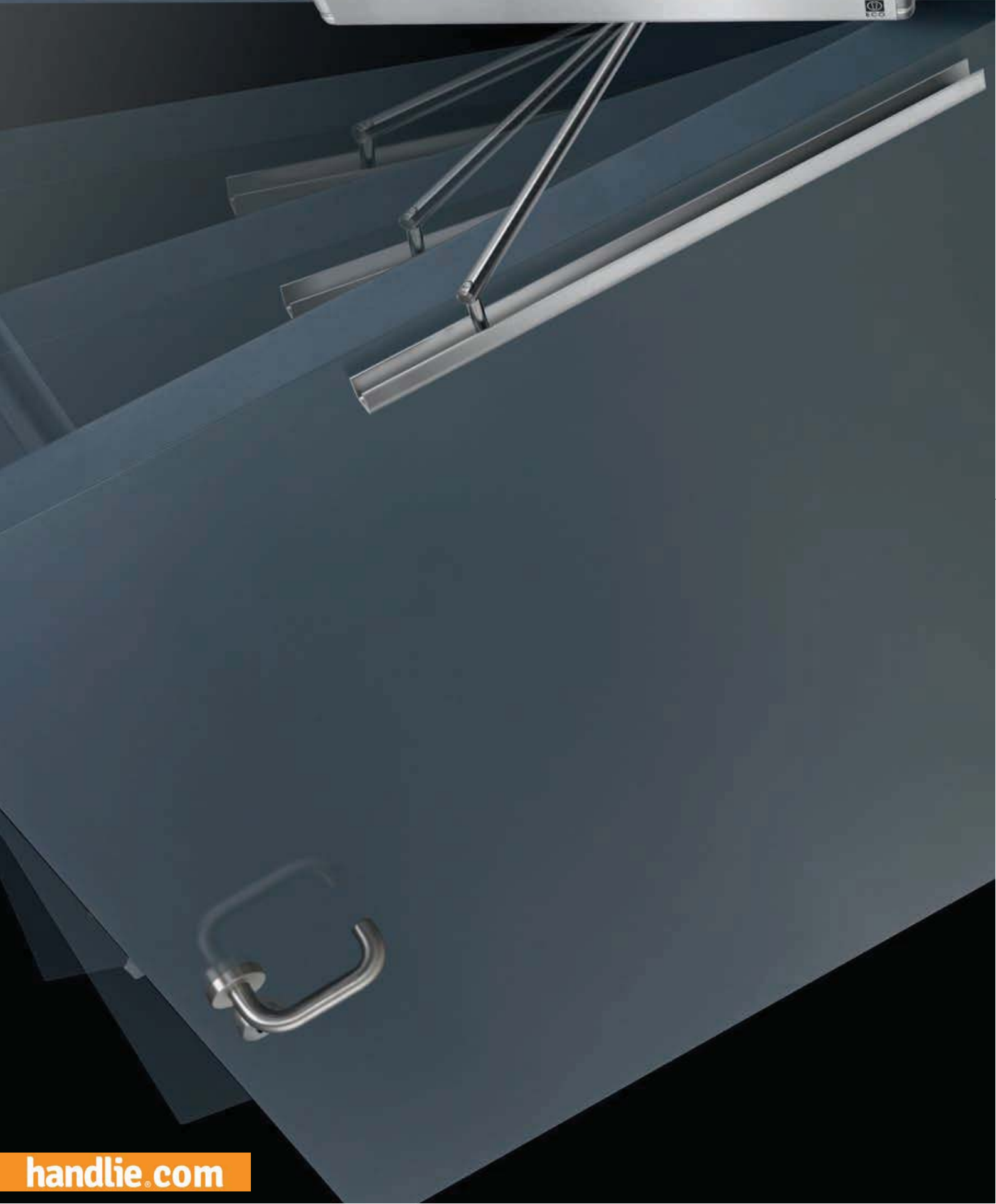
Illustration: Accessories sets

Article numbers



Door-closer FH 843	Hold-open	Article number	Door-closer FH 844	Hold-open	Article number
FH 843 (3)	-	307048000O00000	FH 844 (4)	-	307048000O20000
FH 843 (3)	90°	307048000O00001	FH 844 (4)	90°	307048000O20001
FH 843 (3)	105°	307048000O00002	FH 844 (4)	105°	307048000O20002

ECO **FDC/-B**

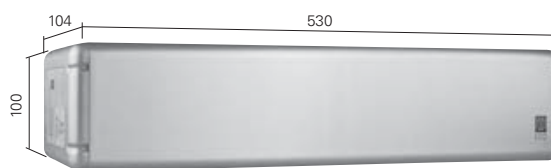


Product characteristics

FDC FDC-B

Closing force (continuously adjustable)	Size acc. to EN	3 – 6	4 – 6
Door width acc. to EN	Interior door < 1.400 mm	■	-
	Fire protection doors < 1.400 mm	-	■
Dimensions (incl. mounting plate)	Length in mm	530	530
	Depth in mm	104	104
	Height in mm	100	100
Hinge side with slide rail		■	-
Hinge-opposite side with standard arm		■	■
DIN left / right		□	□
Opening speed adjustable		■	■
Closing speed adjustable when mains operated, fixed when power failure		■	■
Hold-open time adjustable		1 – 30s	
Driving power adjustable		■	■
Door opening angle		70° - 105°	
TÜV-certified		DIN 18650	
		EN 1155	
Suitable for fire- and smoke control doors		-	F
Certified according to EU-Directive		CE	

- Yes
- No
- Option



Dimensions: FDC / -B



ECO FDC / -B ■ Opened by an electric motor - Controlled closure

Opened by an electric motor - controlled closure via a spring mechanism. The integrated damper unit stops the door from slamming shut. Automated door closure helps keep out airborne dust, wind gusts, odours and noise. If there is a power cut, the door can be closed by means of its spring mechanism from any position. The use of top quality components guarantees optimum performance and extended product life with minimal maintenance.

ECO FDC / -B Swing-door drive units are ideal both for new installations and building upgrades. The wide range of functions creates user-friendly access, while providing individual configuration of operating functions. Lightweight doors, heavy gates and even fire-rated doors can be automated without difficulty.

Power is intelligently harnessed in order to monitor the system and provide smooth operation with maximum reliability and security. Safety and security elements can include, depending on the building design, light barriers (photoelectric cells) or light scanners. Our drive mechanism is designed for the convenient, automatic operation of standard doors, and can be supplied with reliable fire-protection options when used to operate fire-rated doors. Safety sensors with configurable functions "Reverse" and "Stop" functions offer additional protection at the pinch points and in the event of oncoming traffic.

**Risk elimination through planning**

Together with the customer, ECO Schulte conducts a joint risk assessment (under consideration of the door user group and specific construction situation) in accordance with the standard DIN 18650 which describes the technical safety requirements for automatic door systems. This then forms the basis for the selection of various safety and security measures. Risk assessment is carried out during the planning phase so that the automatic door system can be installed and operated safely and reliably.

Order information

ECO FDC / -B ■ Product description

Safe and reliable opening and closing

Technical specifications: FDC

Main supply	230V, 50Hz, 13A
Motor power consumption	<100W
Ambient temperature	-15 to +70°C
Use in dry rooms	max. relative air humidity 65%
Door opening angle	70 –105°
Opening speed	adjustable
Closing speed	adjustable with mains operation, fixed if there is a power failure
Hold-open time	1 - 30 sec (adjustable)
Driving power	adjustable
TÜV-certified	acc. to DIN 18650
Dimensions	530x100x104mm
Weight incl. standard arm	11,3 kg

Basic planning data

	FDC	FDC-B for fire-rated doors
Door panel width	max. 700 - 1.400 mm	max. 900 - 1.400 mm
Activ range	Doors EN 3 – 6	Doors EN 4 – 6
Opening and closing	Motor-actuated opening, closure by spring force. The spring provides improved closing power to reinforce the shutting action.	
Function «Closing»	The door closes under full control by spring action from any position (self closure if power fails).	If a fire alarm or power cut is activated, the door closes under full control from any position by means of spring action.

A range of individual extra functions is also available:

- Reinforced closure
- Push and go function
- Adjustable opening width
- Safety monitoring with automatic stop/reverse mechanism
- Progressive regulation of opening and closing speed, hold-open time and motor power
- Optical/acoustic signal during movement of door mechanism
- Automatic closing sequence control for two-winged (bi-parting) systems
- Dry contact for further processing of information at a central building control point, or the connection of an electric lock, door open/shut signal, error display

Article numbers



Swing-door drive unit without arm	Colour	Article number
FDC (3 – 6)	Stainless steel	358500547100000
FDC-B (4 – 6)	Stainless steel	358500547101000



Slide rail for FDC (up to 160 mm under-lintel depth)	Colour	Article number
FDC	Stainless steel	358500547120000



Standard arm for FDC and FDC-B (to 250 mm Sturztiefe)	Colour	Article number
FDC / FDC-B	Stainless steel	358500547110020



Please order safety elements which offer additional protection at squeezing points and for opposing traffic separately. Infrared **sensor strips acc. to DIN 18650!** Please refer to page 199 for more information.



A joint casing for both drive units is available as an optional extra.

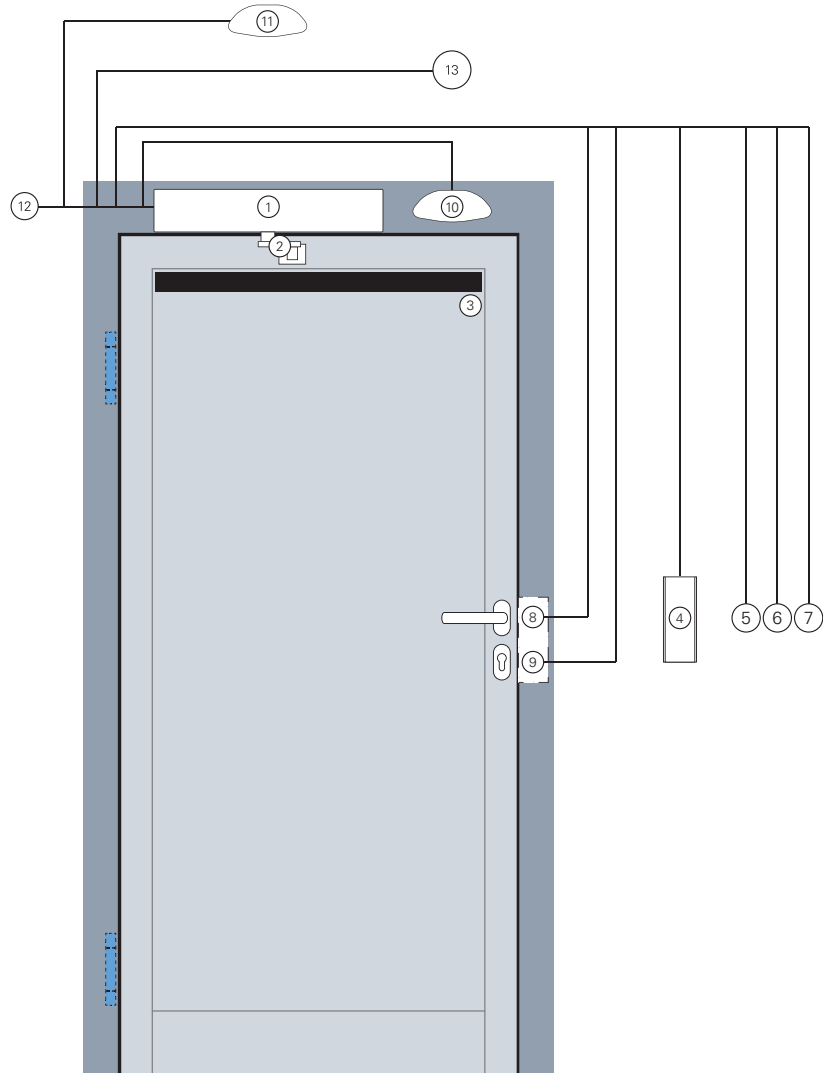
ECO FDC / -B

The convenient, high-performance solution.

Automation considerably enhances the user comfort of a traditional, manually-operated door. The flow of pedestrian traffic is increased. Cumbersome, difficult-to-open doors become much easier to use. A motion detector can be used to provide contact-free access. Reliable door closure prevents a loss of valuable heated or cooled air in the building, resulting in large energy savings. The swing-door drive unit supports management functions such as controlled access and fire safety. Movement is monitored by a series of standard and norm compliant safety elements.

Wherever people work, travel, live, are cared for or congregate, there is a need for doors to facilitate their comings and goings. The automation of doors offers smooth access with unobstructed entry and exit. These drive mechanisms are ideal for use in public buildings, hospitals, hotels, airports, and industrial and commercial premises.

Cable plan FDC-B



Pos.	Product, safety and handling elements	Description cable information
1	ECO FDC-B hinge-opposite side incl. mounting plate, mounting acc. to EN	3 x 1,5 mm ² to Pos.12
2	Standard arm, hinge-opposite side	
3	Sensor strip, hinge-opposite side, revers	Cable by ECO, Cable channel by building contractor
3.1	Sensor strip, BS, Stop	Cable by ECO, Cable channel by building contractor
4	Flip switch inside, with surface-mounted socket	4 x 0,8 mm ²
4.1	Flip switch outside, with surface-mounted socket	4 x 0,8 mm ²
5	Key sense switch	4 x 0,8 mm ²
6	Push button "Door close"	4 x 0,8 mm ²
7	Bedis - sense switch with LED display	4 x 0,6 mm ²
8	Electric opener	4 x 0,8 mm ²
9	Dead bolt switch contact	4 x 0,8 mm ²
10	Switch ORS 142 W	4 x 0,8 mm ²
11	Celling switch ORS 142, inside	4 x 0,8 mm ²
11.1	Celling switch ORS 142, outside	4 x 0,8 mm ²
12	Home office socket	3 x 1,5 mm ² 230 V, 50 Hz, 13A
13	Radar OKI (inside)	
13.1	Radar OKA (outside)	

Assembly FDC

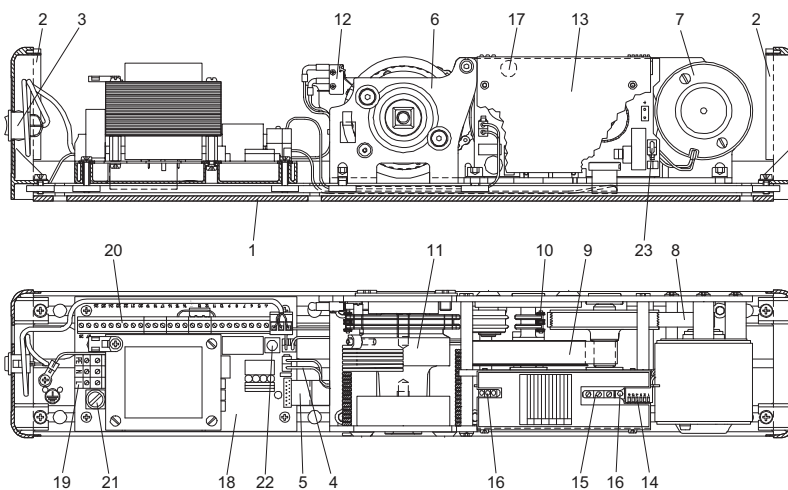


2

Assembly of ECO FDC

Connector block

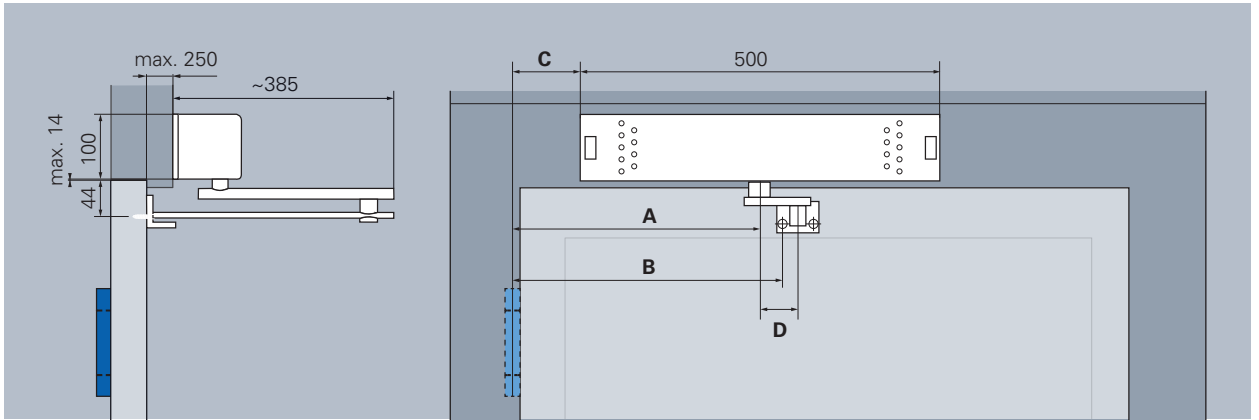
Drive unit



- 1 Chassis
- 2 Side cover
- 3 Sense switch 1-0-2
- 4 Power cable
- 5 Logic cable
- 6 Drive unit
- 7 DC motor with interference electronic
- 8 Poly-V-belt transmission
- 9 Synchronous belt transmission
- 10 Linkage transmission
- 11 Driven shaft
- 12 Door surveillance switch
- 13 Controller (with Logic-Servo-Unit LOSE)
- 14 DIL switch
- 15 Potentiometer
- 16 Light-emitting diode (status indicator)
- 17 Signal buzzer
- 18 Connector block
- 19 Clamp
- 20 Clamps for operation and safety elements
- 21 Fine-wire fuse 1 AT, 5 x 20 mm
- 22 Reset button
- 23 Plug (mechanical closing)

Mounting drawing FDC

Single-leaf door, illustration DIN right door, DIN left laterally reversed

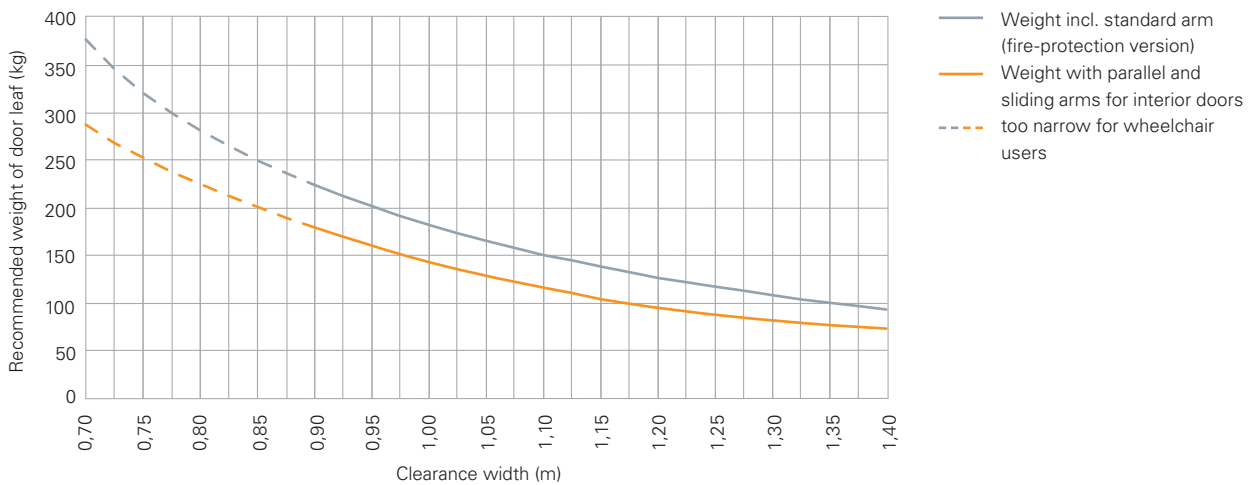


Installation on door frame with standard arm on hinge-opposite side for single-leaf doors **F**

Please refer to following table in order to check for the corresponding closing force:

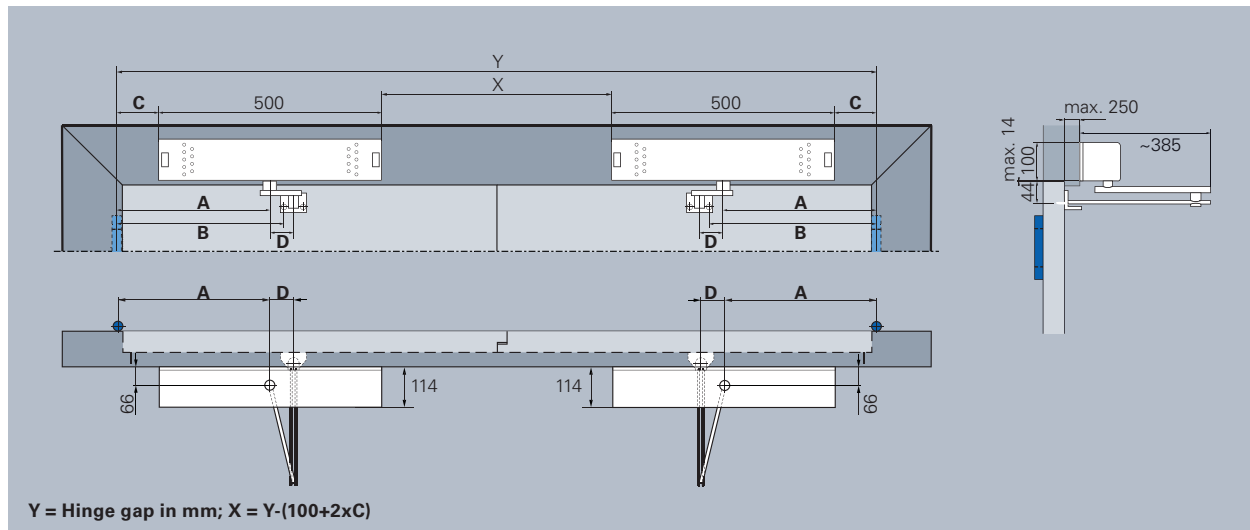
EN	Door width	A	B	C	D
EN 4	950 – 1.100 mm	265	378	15	135
EN 5	1.101 – 1.250 mm	285	348	35	85
EN 6	1.251 – 1.400 mm	374	413	124	61

Range of application FDC



Mounting drawing FDC-B

Double-leaf door, illustration DIN right door, DIN left laterally reversed

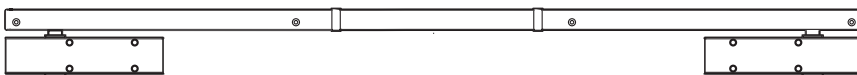


Double-wing execution with master and slave control or with mechanical closing sequence SR (for the use on smoke - and fire-protection doors) **F**

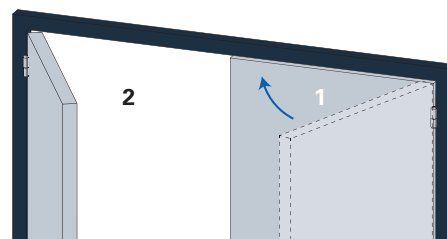
Please refer to following table in order to check for the corresponding closing force:

EN	Door width	A	B	C	D
EN 4	950 – 1.100 mm	265	378	15	135
EN 5	1.101 – 1.250 mm	285	348	35	85
EN 6	1.251 – 1.400 mm	374	413	124	61

Mechanical closing sequence system for FDC / -B



The closing sequence selector ensures that in case of fire or power failure the door leaves are closing in the correct order. That means: passive leaf (1) first, active leaf (2) last.



Closing sequence selector

- Closing sequence selector SR incl. two pivot hinges, automatisation of active and passive leaf
- Closing sequence selector SR-TS incl. pivot hinge and TS-G1, automatisation of active leaf
- Closing sequence selector SR-EF-1S incl. pivot hinge and TS-G1, automatisation of active leaf, hold-open in passive leaf
- Dual locking device 1 / 2 for automatic locking and unlocking of passive leaf
- MK Basis-1 Panic flap for full panic doors in fire protection

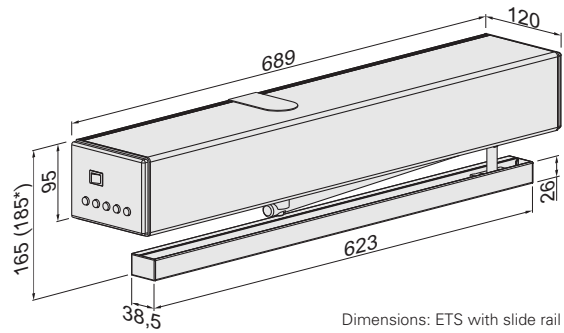
ECO ETS



Product characteristics

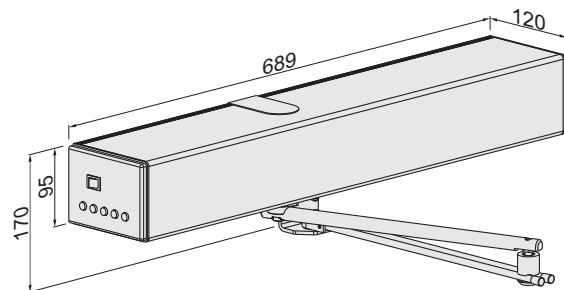
		ETS 73	ETS 64-R
Closing force (continuously adjustable)	Size acc. to EN	3 – 7	4 – 6
Door width acc. to EN	Interior door ≤ 1.600 mm	■	
	Fire protection doors ≤ 1.400 mm		■
Dimensions (incl. mounting plate)	Length in mm	690	690
	Depth in mm	120	120
	Height in mm	95	95
Hinge side with slide rail		■	■
Hinge-opposite side with slide rail		■	■
Hinge-opposite side with standard arm		■	■
DIN left / right		■	■
Opening speed adjustable		■	■
Closing speed adjustable when mains operated, fixed when power failure		■	■
Hold-open time adjustable		0 - 60s	
Driving power adjustable		■	■
Max. door opening angle		105°	
Tested acc. to EN		DIN 18650	
		EN 1155	
		EN 16005	
Suitable for fire- and smoke control doors		-	F
Certified according to EU-Directive		CE	

- Yes
- No
- Option



Dimensions: ETS with slide rail

* For rebated doors use the long plug (incl. in scope of delivery)



Dimensions: ETS with standard arm



ECO ETS ■ Opened by an electric motor - Controlled closure

The new ECO ETS is a powerful, silent, electric motor drive for heavy interior and exterior doors with a weight of up to 250 kg.

Versions and functions:

- Slide rail push (hinge side) and pull (opposite hinge side)
- Rack and pinion push (opposite hinge side)
- Single and double-leaf systems, completely covered
- Adjustable spring closing force (in non-electric mode)
- Easy operation with keys in the side panel (Automatic-Permanent Operation-Manual-Exit-Night)
- Push + Go function, easy response
- Adjustable activation force and open position
- Adjustable activation delay (motor lock, closing sequence)
- Plug + Play, set-up of functions with LCD display
- Low energy operation without security sensors



Article numbers



Drive unit without arm	Colour	Article number
ETS 73	Stainless steel	358501548011000
ETS 64-R	Stainless steel	358501548021000
ETS 64-R (GS hinge-opposite side)	Stainless steel	358501548023000



ETS	Colour	Article number
GS-ETS	Stainless steel	358501547120010

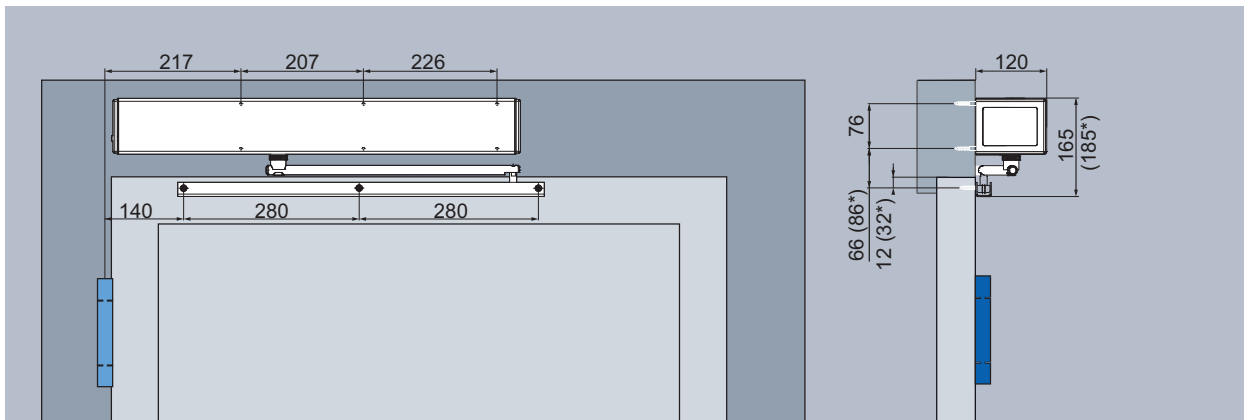


Standard arm for ETS (up to 250 mm under- lintel depth)	Colour	Article number
NG-ETS	Stainless steel	358501547110020



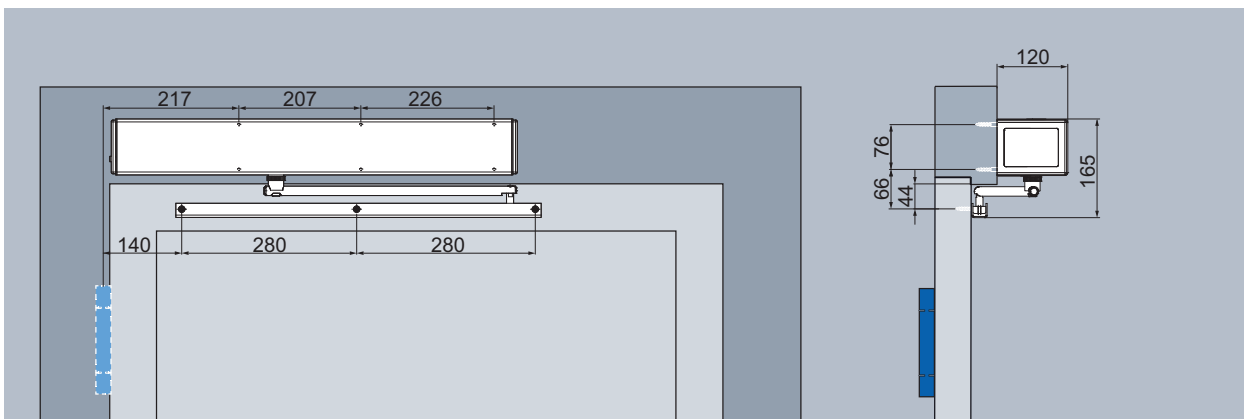
Please order safety elements which offer additional protection at squeezing points and for opposing traffic separately. Infrared **sensor strips acc. to DIN 18650!** Please refer to page 199 for more information.

Mounting drawing ETS

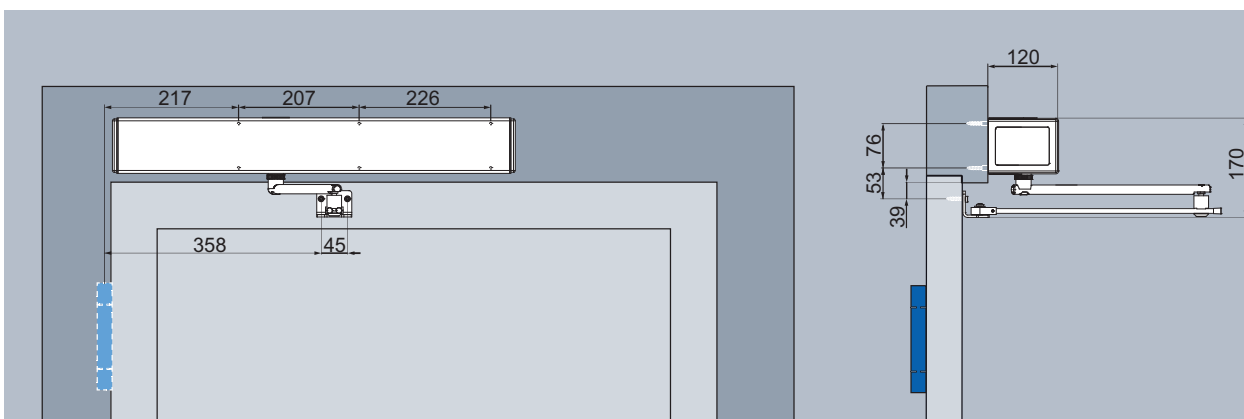


ETS Head mounting hinge side with slide rail

* For rebated doors use the long plug (incl. in scope of delivery)



ETS Head mounting hinge-opposite side with slide rail



ETS Head mounting hinge-opposite side with standard arm

Airport Munich,
Germany



ECO Schulte Worldwide trust.

For years, ECO products have been used everywhere in the world where quality, reliability and safety are important. ECO systems obtained acceptance by the connection of functionality and design.

We would like to take this opportunity to say how much we appreciate the trust ECO products enjoy throughout the world. We regard this as a challenge to meet the future requirements of our customers and of the market through continuous further development and demand-oriented production.

ECO Accessories

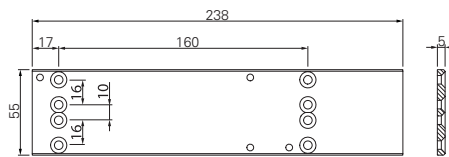


ECO Mount

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. Same version DIN left / right!



EN 1154 A



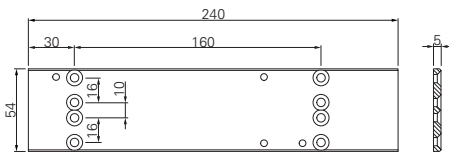
for ECO Newton TS-61

with DIN EN holes

Acc. to EN 1154, supplementary sheet 1.

Mounting plate	Article number	Material
TS-61	300300310000000	Aluminium F1, anodized

EN 1154 A



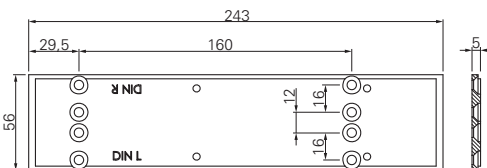
for ECO Newton TS-51

with DIN EN holes

Acc. to EN 1154, supplementary sheet 1.

Mounting plate	Article number	Material
TS-51	30960010	Aluminium F1, anodized

EN 1154 A



for ECO Newton TS-41, TS-31, TS-50

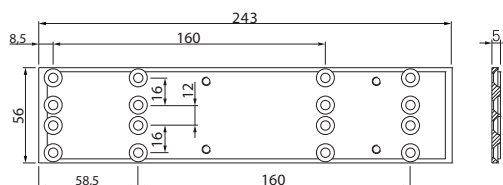
with DIN EN holes

After mounting the sides of the mounting plate are still visible.

Acc. to EN 1154, supplementary sheet 1. Only with slide rail B and TS-50

Mounting plate	Article number	Material
TS-41, TS-31, TS-50	30960011	Aluminium F1, anodized
TS-41, TS-31, TS-50	30960011E	White RAL 9016
TS-41, TS-31, TS-50	30960011D	Brown RAL 8014
TS-41, TS-31, TS-50	30960011G	Black RAL 9005

EN 1154 A



for ECO Newton TS-20

with DIN EN holes

Acc. to EN 1154, supplementary sheet 1.

Mounting plate	Article number	Material
TS-20	30960012	Aluminium F1, anodized

for ECO Newton TS-14/15 on request

ECO COVER²

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.

ECOcover² can be ordered as set on request.



for the door closer body ECO Newton TS-61, TS-51, TS-41, TS-31, TS-50, TS-20

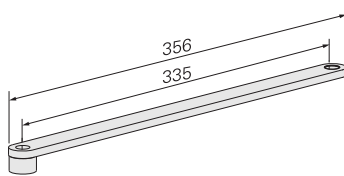
Finish: Stainless steel satin or polished

Fullcover for ECO Newton	Colour	Article number	Fullcover for ECO Newton	Colour	Article number
TS-61/51	Stainless steel satin	350400052Q00001	TS 41/31/50/20	Stainless steel satin	350400052Q00002
TS-61/51	Stainless steel polished	On request	TS 41/31/50/20	Stainless steel polished	On request

for slide rail

Finish: Stainless steel satin or polished

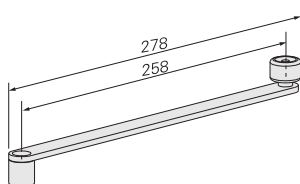
Fullcover for	Colour	Article number	Fullcover for	Colour	Article number
Slide rail B	Stainless steel satin	350400050Q00001	Slide rail B	Stainless steel polished	350400050Q00002



Arm for slide rail B

Arm for slide rail B

Arm for slide rail B for ECO Newton	Colour	Article number	Arm for slide rail B for ECO Newton	Colour	Article number
TS-61/51	Silver RAL 9006	30S6100013	TS-41/31	Silver RAL 9006	30S1100013
TS-61/51	White RAL 9016	30S6100008	TS-41/31	White RAL 9016	30S1100008
TS-61/51	Brown RAL 8014	30S6100004	TS-41/31	Brown RAL 8014	30S1100004
TS-61/51	Black RAL 9005	30S6100002	TS-41/31	Black RAL 9005	30S1100002
TS-61/51	Stainless steel look	30S6100046	TS-41/31	Stainless steel look	30S1100000Q1



Arm for slide rail K

Arm for slide rail K

Arm for slide rail K for ECO Newton	Colour	Article number
TS-41/31/15K	Silver RAL 9006	On request
TS-41/31/15K	White RAL 9016	On request
TS-41/31/15K	Brown RAL 9014	On request
TS-41/31/15K	Black RAL 9005	On request

Standard arm

Steel zinc plated



Standard arm	Colour	Article number	Standard arm	Colour	Article number
ECO Newton TS-20/50	Silver RAL 9006	350100000A70004	ECO Newton TS-14/15	Silver RAL 9006	350100000A70002
ECO Newton TS-20/50	White RAL 9016	350100000E70004	ECO Newton TS-14/15	White RAL 9016	350100000E70002
ECO Newton TS-20/50	Brown RAL 8014	350100000D70004	ECO Newton TS-14/15	Brown RAL 8014	350100000D70002
ECO Newton TS-20/50	Black RAL 9005	350100000G70004	ECO Newton TS-14/15	Black RAL 9005	350100000G70002

Hold-open arm

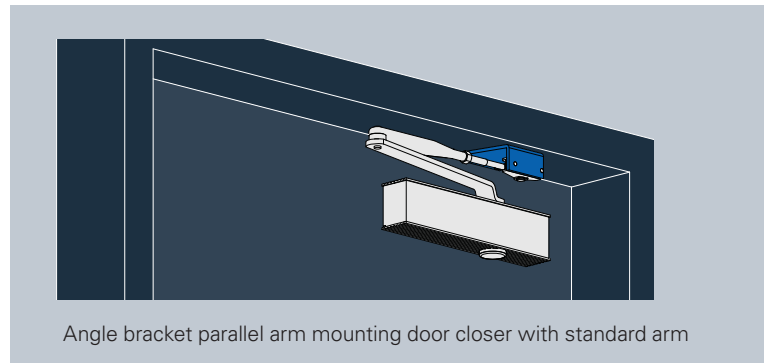
The hold-open offers an additional hold-open function to fix the door. Steel zinc-plated. Hold-open angle

70° - 130°. Hold-open force adjustable.

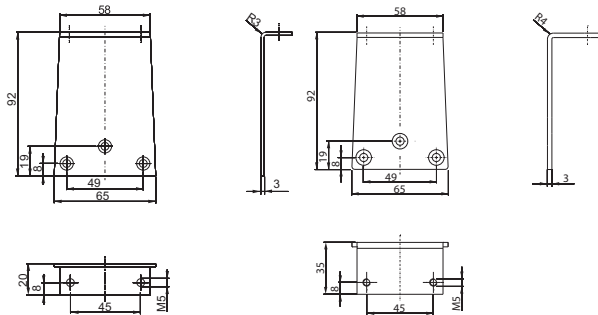
Not allowed for the use on fire-protection doors.



Hold-open arm	Colour	Article number	Hold-open arm	Colour	Article number
ECO Newton TS-20/50	Silver RAL 9006	350100000A77000	ECO Newton TS-14/15	Silver RAL 9006	350100000A77000
ECO Newton TS-20/50	White RAL 9016	350100000E77000	ECO Newton TS-14/15	White RAL 9016	350100000E77000
ECO Newton TS-20/50	Brown RAL 8014	350100000D77000	ECO Newton TS-14/15	Brown RAL 8014	350100000D77000
ECO Newton TS-20/50	Black RAL 9005	350100000G77000	ECO Newton TS-14/15	Black RAL 9005	350100000G77000



Angle bracket parallel arm mounting door closer with standard arm



Angle bracket PAM

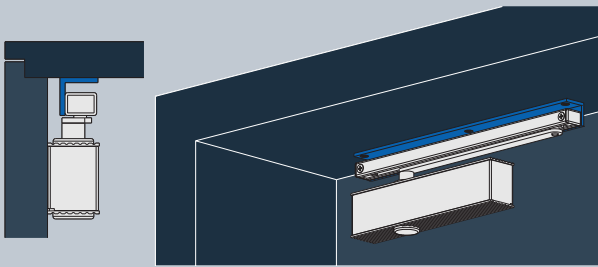
Angle bracket PAM RFG

Angle bracket for ECO Newton TS-50/20/15/14

For mounting the standard arm on the hinge-opposite side on profile frame constructions as well as over-rebated wooden doors with slim steel frames.

■ Not permitted to use on fire-and smoke control doors.

Angle bracket PAM	Material	Article number
Angle bracket	Silver RAL 9006	350300B00A00000
Angle bracket RFG	Silver RAL 9006	350300B00A00000

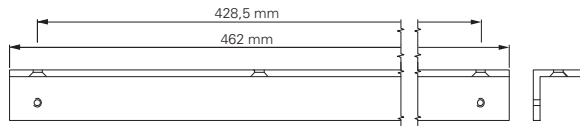


Under-lintel angle for standard mounting door closer with slide rail



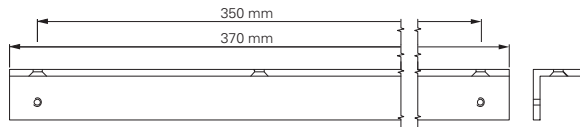
Under-lintel angle for slide rail B and K

For standard mounting installation of the slide rail on hinge-opposite side for doors with deep door lintels. Under-lintel angle made of aluminium.

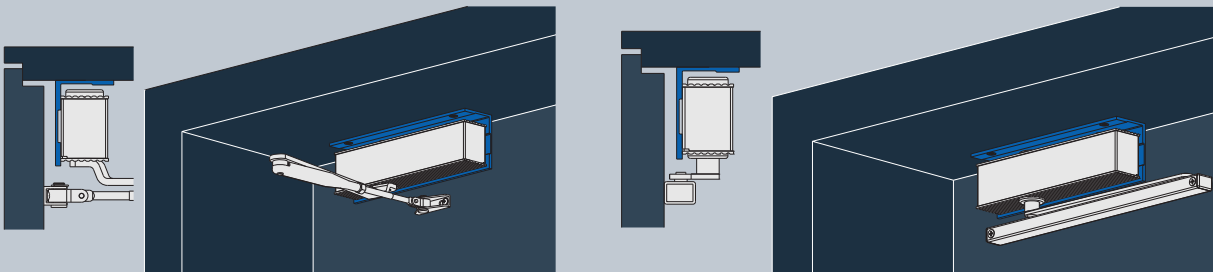


Under-lintel angle for slide rail B

Under-lintel angle	Material	Article number
Under-lintel angle slide rail B	Aluminium	350300J00A00000
Under-lintel angle slide rail K	Aluminium	300340E00A00000



Under-lintel angle for slide rail K



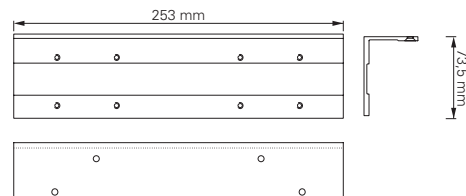
Under-lintel angel for head mounting door closer with standard arm (l.) or door closer with slide rail (r.).

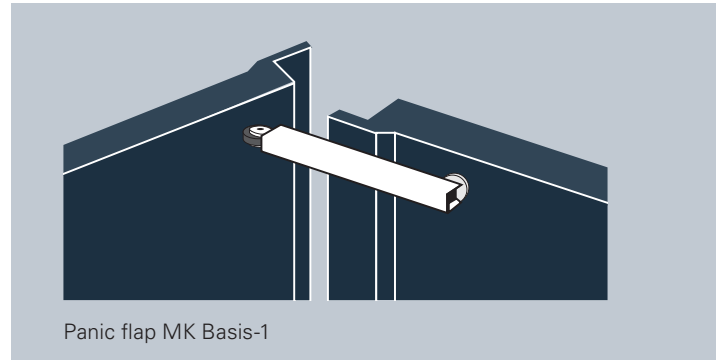
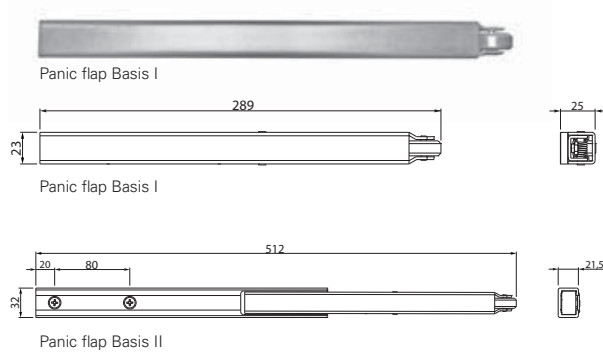
Under-lintel angle for door closers with slide rail / standard arm

For head mounting of the door closer on hinge-opposite side for doors with deep door lintels. Under-lintel angle made of aluminium.



Under-lintel angle	Article number
ECO Newton TS-61	350310E00A00000
ECO Newton TS-51	350320E00A00000
ECO Newton TS-41/31/50/20	300330E00A00000



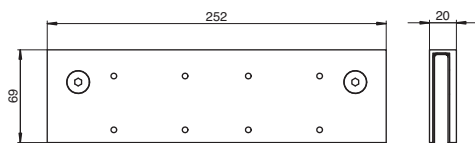
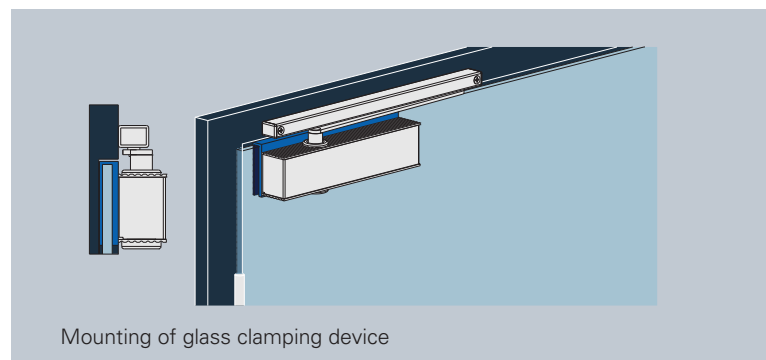


Panic flap MK Basis

The closing sequence ensures that the active and passive leaf are closing in the correct order, e.g. the passive leaf first, active leaf last. The function of the closing sequence is only given if the active leaf is opened up to a certain angle. If the passive leaf is opened first (full panic version), the panic flap ensures that also the active leaf opens to such extent that the closing sequence can control the active leaf. Material: steel with nylon roll, zinc-plated (silver colour)

When mounting on the closing sequence hinge-opposite side, please order the extended version MK Basis-2. Tested by MPA-NRW (state-owned testing facility).

Panic flap	Colour	Article number
MK Basis-1	Silver RAL 9006	306107024300080
MK Basis-2 (at SR-hinge-opposite side)	Silver RAL 9006	306107331300225



Glass clamping device ECO Newton TS-41, TS-31, TS-50, TS-20

Glass clamping device for ECO Newton TS-41, TS-31, TS-50, TS-20

Clamping device made of aluminium, silver coated for fixing an ECO Newton TS-41, TS-31, TS-50, TS-20 onto a glass door.

Suitable for 8-10 mm glass (toughened safety glass). Same version DIN-L and DIN-R. Including threaded holes for the door closer. Aluminium F1 silver coated.

Glass clamping device	Colour	Article number
Aluminium	Silver RAL 9006	350340600A00000
Aluminium	White RAL 9016 coated	350340600E00000
Aluminium	Brown RAL 8014 coated	350340600D00000
Aluminium	Stainless steel finish coated	350340600Q00000

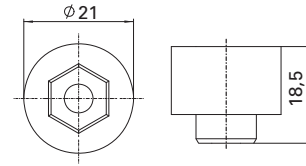


Accessories – Adaptor for arm, Accessories set tandem, Complete set tandem door closer

Adaptor for arm 13 mm ECO Newton TS-61/51

In order to extend the distance between door closer and slide rail by 13 mm.

- Use in connection with ECO adaptor profile
- Delivery contains extended screw.
- (for short passive leaf)



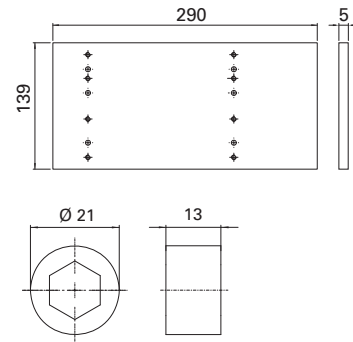
Adaptor 13 mm	Colour / Material	Article number
Adaptor	Steel zinc plated	35900007
Adaptor	Silver RAL 9006	35900007A
Adaptor	White RAL 9016	35900007E
Adaptor	Brown RAL 8014	35900007D
Adaptor	Black RAL 9005	35900007G

Accessories set tandem

ECO Newton TS-61 (EN 5 – 6)

Consisting of special mounting plate and adaptor for 2 x ECO Newton TS-61 (5 – 6)

Accessories set tandem	Colour / Material	Article number
Accessories set tandem	Steel zinc plated	350100000051000

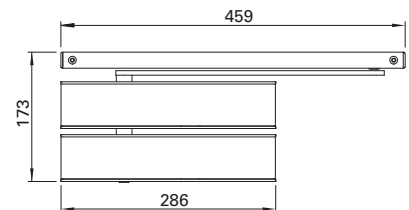


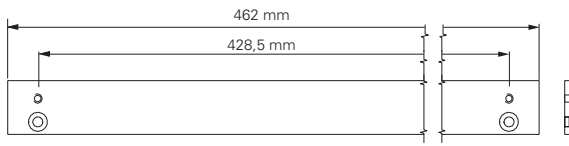
Complete set tandem door closer (EN 7 – 8)

Consisting of 2 x ECO Newton TS-61 (5 – 6)

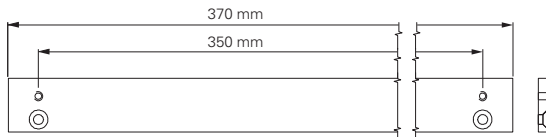
- incl. mounting plate
- 1 x Arm,
- 1 x Slide rail B,
- 1 x Accessories set tandem

Set	Colour / Material	Article number
Tandem door closer (EN 7-8)	Steel zinc plated	306158HB1O01000
Tandem door closer (EN 7-8)	Silver RAL 9006	356158HB1A00500
Tandem door closer (EN 7-8)	White RAL 9016	356158HB1E00500
Tandem door closer (EN 7-8)	Brown RAL 8014	356158HB1D00500
Tandem door closer (EN 7-8)	Black RAL 9005	356158HB1G00500



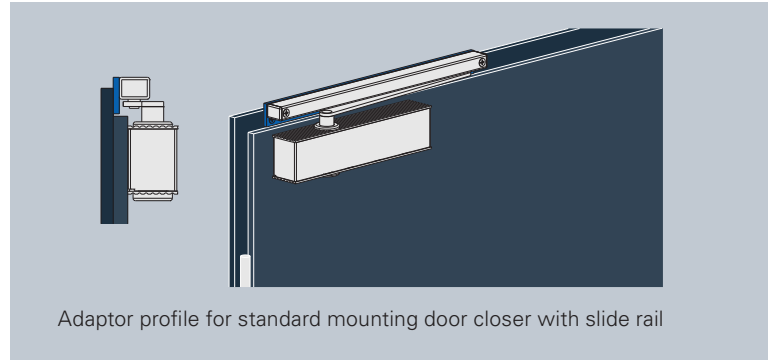


Adaptor profile for slide rail B



Adaptor profile for slide rail K

Adaptor profile	Dimensions	Material	Article number
ADP GS B	428,5 mm	Silver RAL 9006	On request
ADP GS B	428,5 mm	White RAL 9016	350300R00E00000
ADP GS B	428,5 mm	Brown RAL 8014	On request
ADP GS B	428,5 mm	Black RAL 9005	On request
ADP GS B	428,5 mm	Steel zinc plated	350300R00A00000



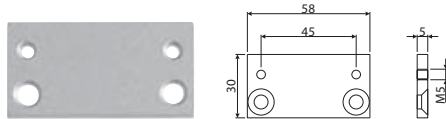
Adaptor profile for standard mounting door closer with slide rail

Adaptor profile for slide rail B and K

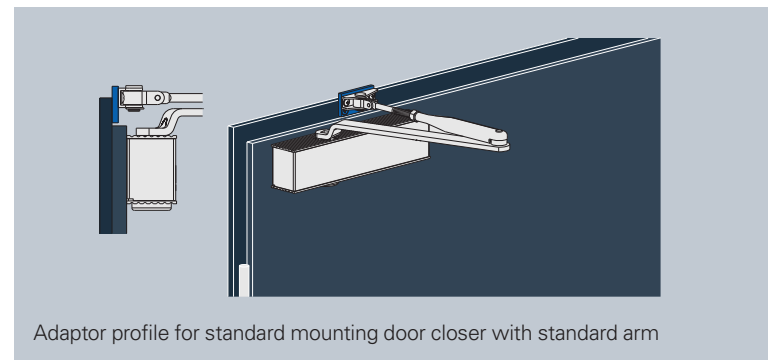
For installation of the slide rail on the hinge side on profile frame door constructions as well as over-rebated wooden doors with slim steel frames.

Adaptor profile	Dimensions	Material	Article number
ADP GS K	350 mm	Silver RAL 9006	On request
ADP GS K	350 mm	White RAL 9016	On request
ADP GS K	350 mm	Brown RAL 8014	On request
ADP GS K	350 mm	Black RAL 8014	On request
ADP GS K	350 mm	Steel zinc plated	350300S00A00000

ADP = Adaptor profile, GS = Slide rail



Adaptor profile for door closer with standard arm



Adaptor profile for standard mounting door closer with standard arm

Adaptor profile for door closer with standard arm ECO Newton TS-50/20/15/14

For installation of the standard arm and the hold open arm on the hinge side on profile frame door constructions as well as over-rebated wooden doors with slim steel frames.

Adaptor profile TS-50/20/15/14	Dimensions	Colour / Material	Article number
ADP door closer with standard arm	58 mm	Silver RAL 9006	350300A00A00000
ADP door closer with standard arm	58 mm	White RAL 9016	350300A00E00000
ADP door closer with standard arm	58 mm	Brown RAL 8014	350300A00D00000
ADP door closer with standard arm	58 mm	Black RAL 9005	350300A00G00000
ADP door closer with standard arm	58 mm	Steel zinc plated	350300A00O00000

ADP = Adaptor profile

Accessories – Adaptor profiles

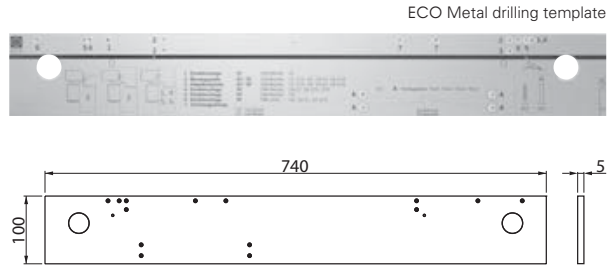
ECO Metal drilling template

for direct drilling of the fixing holes to the door.

Material: Aluminium with drill bushings

- Drill holes for ECO door closers, slide rails and standard arms
- DIN left and DIN right, including inscription of the drill holes.

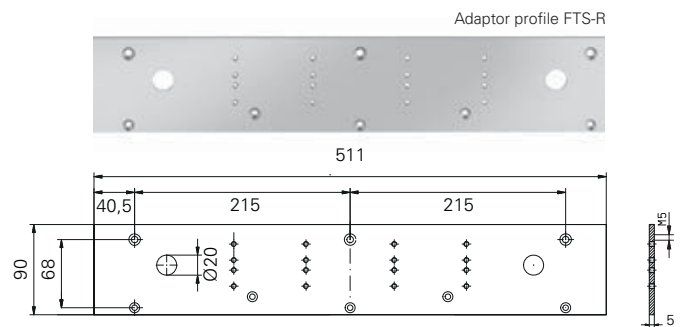
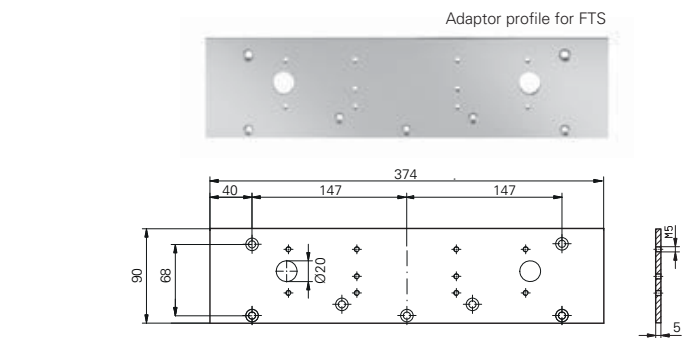
ECO Metal drilling template	Colour / Material	Article number
M-BS	Aluminium	3BGS2000000000



Adaptor profile for steel frame installation of FTS 63 and FTS 63 R

For installation of the FTS on small steel frame door constructions.

Mounting plate	Material	Article number
FTS-63	Steel zinc plated	350300M00A00001
FTS-63 R	Steel zinc plated	350300M00A00000

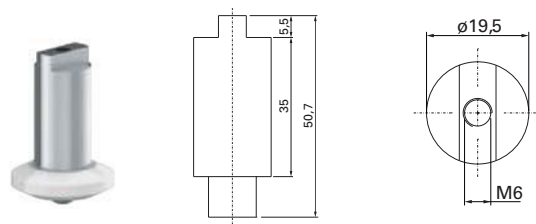


Axis bolt extension FTS (ADV)

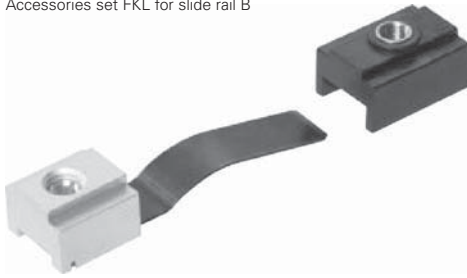
Accessories ADV for lengthening of the distance from the lever to the guide roller (eg, for mounting FTS on the steel frame).

Extension 20 mm.

Mounting plate	Material	Article number
ADV-FTS	ADV-FTS	35911914



Accessories set FKL for slide rail B



Accessories set FKL

Mechanical hold open for belated assembly in slide rail B. Not permitted for use in fire protection. 30 x 21 mm.

- Suitable for slide rail B.

Mechanical hold open FKL	Article number
FKL-GS-B	350100000056200

Accessories set SR-FKL

Mechanical hold open for belated assembly in slide rail SR. Not permitted for use in fire protection. 30 x 21 mm. Hold open angle from 80 - 130° adjustable.

- Suitable for slide rail SR

Mechanical hold open SR-FKL	Article number
FKL-GS-SR active leaf DIN left	350100000058200
FKL-GS-SR active leaf DIN right	350100000058100
FKL-GS-SR passive leaf DIN left	350100000057200
FKL-GS-SR passive leaf DIN right	350100000057100



Accessories set SR-FKL BG

Mechanical hold open for belated assembly in slide rail SR BG. Not permitted for use in fire protection. 30 x 21 mm. Hold open angle from max. 110° adjustable. For exterior doors under wind load and heavy doors, the holding power is reduced accordingly.

- Suitable for slide rail SR BG

Mechanical hold open SR-FKL BG	Article number
FKL-GS-SR BG active leaf DIN left	350100000058200
FKL-GS-SR BG active leaf DIN right	350100000058100
FKL-GS-SR BG passive leaf DIN left	350100000062200
FKL-GS-SR BG passive leaf DIN right	350100000062100



Accessories - Hold open

Accessories set MOL I slide rail Basis *

Mechanically adjustable opening limit for the slide rail B (Basis) The opening angle can be locked by moving the MOL in the slide rail. 30 x 20 mm.



Mechanically adjustable opening limit	Article number
ÖB-GS-B	350100000054000

ECO pivot hinge 31

Pivot hinge with stainless steel cover (TS-31 body empty, without spring and oil), mounting plate, arm (long) with four edges. Pivot hinge for combination with closing sequence FDC-B



Mechanically adjustable opening limit	Article number
Pivot hinge 31	353111000A00000

ECO pivot hinge MOL 31 with door stopper function*

Free-running pivot hinge with adjustable opening limit. Opening angle can be adjusted between 80 - 130° by moving the MOL in the slide rail. The door shock is absorbed by the rubber part and thus takes over the door stopper function if no floor stopper can be installed.



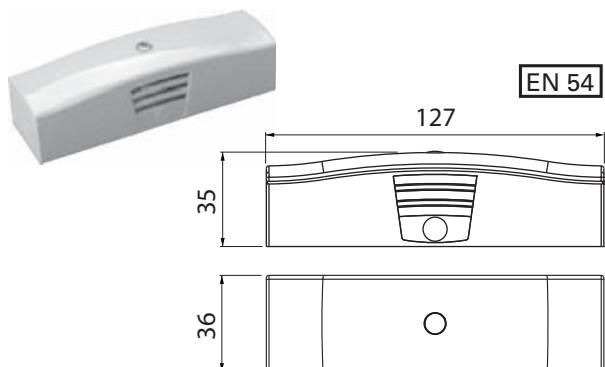
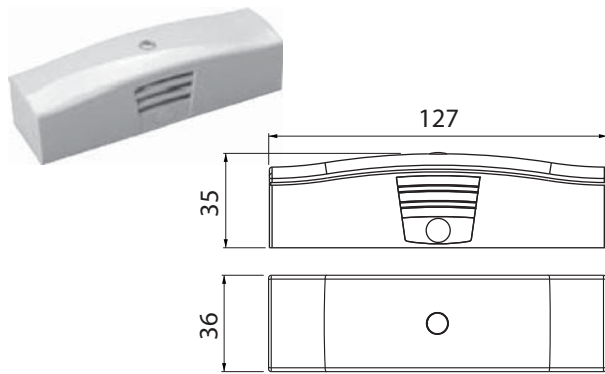
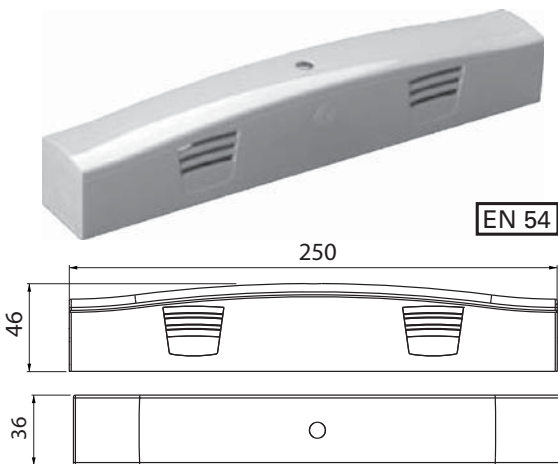
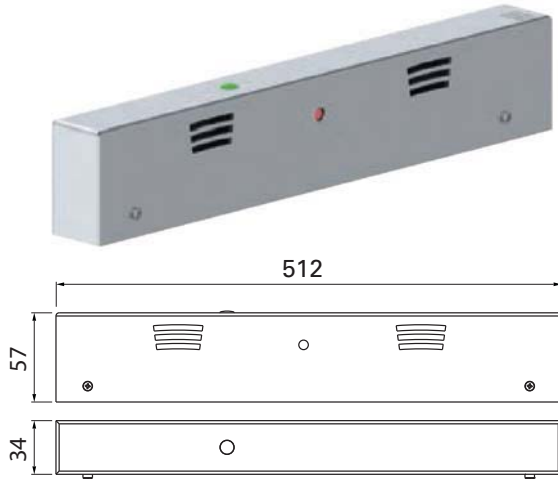
Consists:

- Pivot hinge with stainless steel cover (TS-31 body empty, without spring and oil)
- Mounting plate
- Slide rail B with mechanically adjustable opening limiter (MOL)
- Arm for slide rail B with four edges

Mechanically adjustable opening limit	Article number
Pivot hinge MOL 31 with mechanically adjustable opening limit	303111000A01010

* NOTE!

To be used on light interior doors only. Normal use of door is recommended. Incorrect use or heavy doors increases the load on the hinges! Standard mounting pull side or push side (using an under-lintel angle). Installation according to DIN holes acc. to EN.



ECO RSZ

External smoke inducing system for use with ECO hold open devices **EF, EF-BG, SR-EF, SR-EF-BG, ITS-EF** and **ITS-SR-EF**. Scope of delivery: smoke detector, power supply unit, interrupt button and continuous cover.

- **Input voltage:** 230V AC, 21 VA
- **Output voltage:** 24V DC

Smoke inducing system	Colour / Material	Article number
ECO RSZ	Silver RAL 9006	35RSZ1420010A
ECO RSZ	White RAL 9016	35RSZ1420010E
ECO RSZ	Stainless steel	35RSZ1420010Q

RSZ Standard

Smoke inducing system. Scope of delivery: Smoke switch ORS 142, power supply unit NAG 02 and continuous cover.

For controlling external electromagnetic door retainer (Page 193)

Smoke inducing system	Article number
RSZ Standard	35RSZ1420008

Power supply unit NAG 02

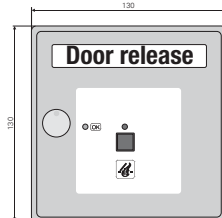
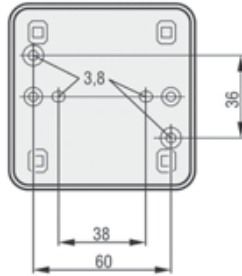
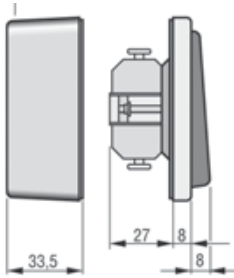
- **Input voltage:** 230 V AC
- **Power consumption:** 21 VA
- **Output voltage:** 24 V DC
- **Output current 460 mA, Power output:** 10,8 W
- **Relay contact:** potential-free change-over
- **Switch voltage:** 30 V DC
- **Switch flow:** 1 A
- **Breaking capacity:** 30 W
- **Degree of protection in case:** IP 40
- **Security class:** II
- **UeSpKat.:** II
- **Ambient temperature:** +5°C to +40°C

NAG 02	Article number
Power supply unit NAG 02	35NAG025400082
Cover for NAG 02	3543007350002

Smoke switch ORS 142 W - Standard

- **Function:** Scattered light
- **Alarm level smoke acc. to EN 54** part 7
- **Release temperature:** 70 ± 5° C
- **Supply voltage:** 18 to 24 VDC
- **Power input:** at 28 VDC Max. 22 mA
- **Degree of protection:** IP 42
- **Ambient temperature:** -20 to +75° C

ORS 142 W - Standard (Sturzmelder)	Article number
Smoke switch ORS 142 W - Standard	355000572
Cover for ORS 142 W	3543007350002



HAT 02

Interrupt button for mounting in dry rooms. Used to manually release the closing sequence selectors acc. to DIBt directives

- **Mounting:** Top-mounted / concealed
- **Contact:** Opener
- **Switch voltage:** Max. 30 VDC
- **Switch current:** Max. 1 A
- **Degree of protection:** IP 20

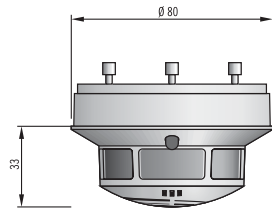
Interrupt button	Article number
HAT 02	356500143

DKT 01 ge

Manual interrupt button for closing sequence selectors. An unintended closure of the door shall be avoided.

- **Contact:** Directional contact
- **Switch voltage:** Max. 30 VDC
- **Switch flow:** Max. 1 A
- **Degree of protection:** IP 20

Manual interrupt	Article number
DKT 01 ge	356200106



EN 54

ORS 142 - Smoke switch

- **Smoke detection:** acc. to EN 54, part 7,
- **Temperature:** 70°C
- **Supply voltage:** 18 – 28 V DC
- **Power input:** at 28 V DC, at rest 22 mA, at an alarm 11 mA, at a disruption 16 mA,
- **Relay contact:** Opener
- **Switch voltage:** 30 V DC
- **Switch flow:** 1 A
- **Breaking capacity:** 30 W
- **Degree of protection:** IP 42
- **Temperature range:** -20°C to +60°C

Smoke switch	Colour / Material	Article number
ORS 142	White RAL 9010	35020000052100



Terminating resistor
AM 142

EN 54

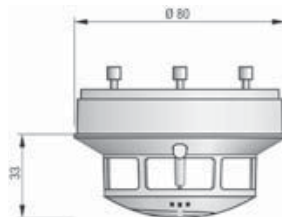
ORS 142 Set

For optional line monitoring according to **DIN EN 14637**.

Set consists of:

- 2 x ORS 142
- 2 x Mounting plate 143 A
- 1 x Terminating resistor AM 142

Smoke switch	Colour / Material	Article number
ORS 142 Set	White RAL 9010	35ORS1425000017



EN 54

TDS 247 - Thermo switch

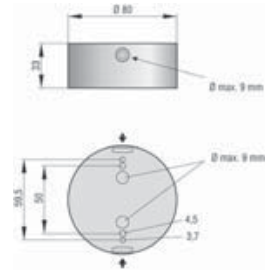
- **Fire detection:** acc. to EN 54, part 5
- **Temperature:** 54°C - 65°C
- **Supply voltage:** 18 – 28 V D
- **Power input:** at 28 V DC; at rest 22 mA, at an alarm 11 mA, at a disruption 16 mA
- **Relay contact:** Opener
- **Switch voltage:** 30 V DC
- **Switch flow:** 1 A
- **Breaking capacity:** 30 W
- **Degree of protection:** IP 42
- **Temperature range:** -20°C to +80°C

Thermo switch	Colour / Material	Article number
TDS 247	White RAL 9010	355100158

ORS 143 A - Mounting plate for ORS 142

For installation of smoke switch ORS 142 on-wall.

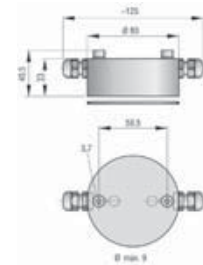
Mounting plate for ORS 142	Colour / Material	Article number
ORS 143 A	White RAL 9010	355000350



ORS 143 AF - Mounting plate for ORS 142

For installation of smoke switch ORS 142 on-wall in moist rooms.

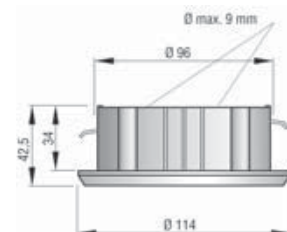
Mounting plate for ORS 142	Colour / Material	Article number
ORS 143 AF	White RAL 9010	355000356

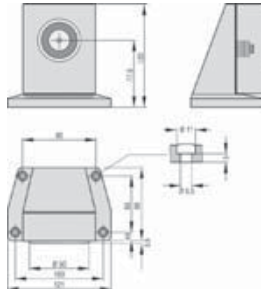


ORS 143 UH - Mounting plate for ORS 142

For installation of smoke switch ORS 142 in hollow ceilings.

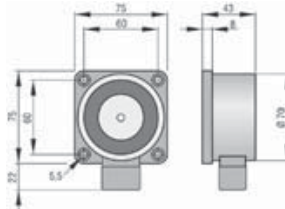
Mounting plate for ORS 142	Colour / Material	Article number
ORS 143 UH	White RAL 9010	355000359



**Electromagnetic door retainer
THM 413**

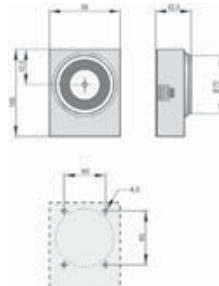
- **Rated operating voltage:** 24 VDC
- **Power input:** 63 mA
- **Power consumption:** 1,5 W
- **Holding force:** 490 N
- **Duty rating:** 100%
- **Degree of protection:** IP 40

Electromagnetic door retainer	Holding force (Newton)	Article number
THM 413	490 N	356500002

**Electromagnetic door retainer
THM 425/THM 425-1**

- **Rated operating voltage:** 24 VDC
- **Power input:** 63 mA
- **Power consumption:** 1,5 W
- **Duty rating:** 100%
- **Degree of protection:** IP 40

Electromagnetic door retainer	Holding force (Newton)	Article number
THM 425	490 N	356500016
THM 425-1	1372 N	356500020

**Electromagnetic door retainer
THM 433/THM 433-1**

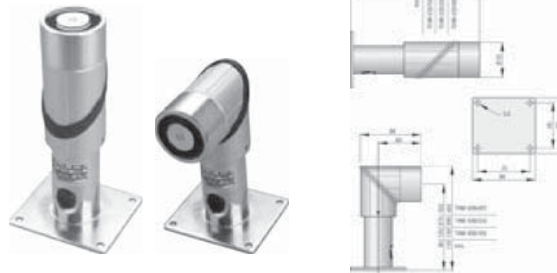
- **Rated operating voltage:** 24 VDC
- **Power input:** 63 mA
- **Power consumption:** 1,5 W
- **Duty rating:** 100%
- **Degree of protection:** IP 40

Electromagnetic door retainer	Holding force (Newton)	Article number
THM 433	490 N	356500096
THM 433-1	1372 N	356500097



**Electromagnetic door retainer
THM 439 with swinging head**

- **Rated operating voltage:** 24 VDC
- **Power input:** 63 mA
- **Power consumption:** 1,5 W
- **Duty rating:** 100%
- **Degree of protection:** IP 40



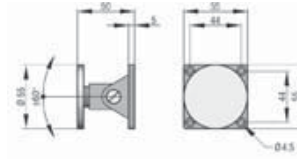
Electromagnetic door retainer	Holding force (Newton)	Article number
THM 439/185 (185 mm)	490 N	356500127
THM 439/335 (335 mm)	490 N	356500128
THM 439/485 (485 mm)	490 N	356500129

**Electromagnetic door retainer
THM 440**

- **Rated operating voltage:** 24 VDC
- **Power input:** 63 mA
- **Power consumption:** 1,5 W
- **Duty rating:** 100%
- **Degree of protection:** IP 40

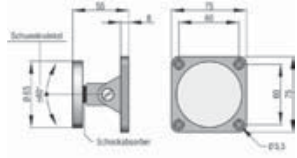


Electromagnetic door retainer	Holding force (Newton)	Article number
THM 440	490 N	356500109


**Anchor plate AFS 55 - Flexible armature
suitable for THM 413, 433, 439 and 440**

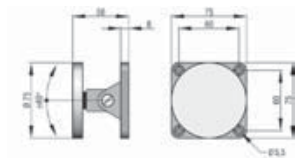
- Anchor plate: $\varnothing 55$ mm x 5 mm
- Angular freedom: $\pm 60^\circ$

Anchor plate	Article number
AFS 55	356500102


**Anchor plate AFS 65 - Flexible armature
suitable for THM 425, 425-1, 433-1**

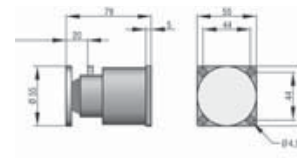
- Anchor plate: $\varnothing 65$ mm x 5 mm
- Angular freedom: $\pm 60^\circ$

Anchor plate	Article number
AFS 65	356500178


**Anchor plate AFS 75 - Flexible armature
suitable for THM 425, 425-1, 433-1**

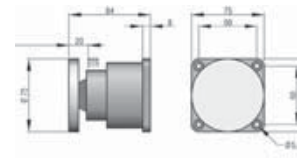
- Anchor plate: $\varnothing 75$ mm x 5 mm
- Angular freedom: $\pm 60^\circ$

Anchor plate	Article number
AFS 75	356500103


**Anchor plate ATS 55 - Telescopic anchor
suitable for THM 413, 433, 439 and 440**

- Anchor plate: $\varnothing 55$ mm x 5 mm
- Swept volume: 20 mm

Anchor plate	Article number
ATS 55	356500100


**Anchor plate ATS 75 - Telescopic anchor
suitable for THM 425, 425-1 and 433-1**

- Anchor plate: $\varnothing 75$ mm x 5 mm
- Swept volume: 20 mm

Anchor plate	Article number
ATS 75	356500101

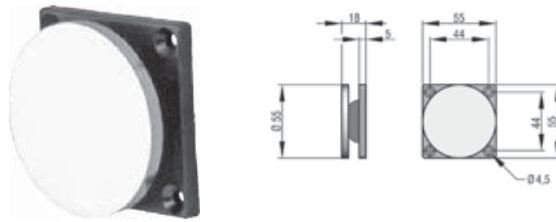


Accessories for closing sequence selectors

Anchor plate ASS 55
suitable for THM 413, 433, 439 and 440

- **Anchor plate:** Ø 55 mm x 5 mm
- **Rubber-based support:** 8 mm
- **Angular freedom:** 20°

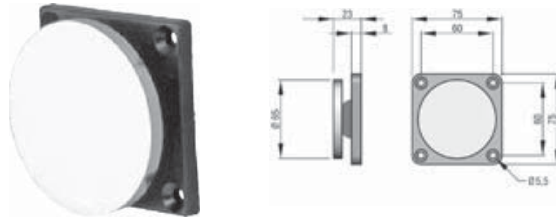
Anchor plate	Article number
ASS 55	356500023



Anchor plate ASS 65
suitable for THM 425

- **Anchor plate:** Ø 65 mm x 5 mm
- **Rubber-based support:** 8 mm
- **Angular freedom:** 20°

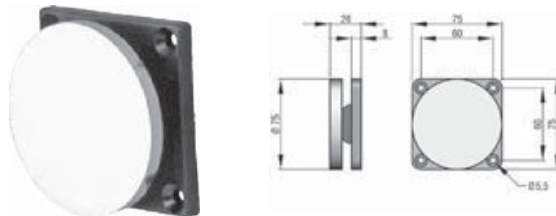
Anchor plate	Article number
ASS 65	356500024



Anchor plate ASS 75
suitable for THM 425-1

- **Anchor plate:** Ø 75 mm x 5 mm
- **Rubber-based support:** 8 mm
- **Angular freedom:** 20°

Anchor plate	Article number
ASS 75	356500025



ECO Test gas P-250

Test gas for operation test (simulating the smoke detection) of the smoke switches / smoke buttons. Free from halogenated carbon hydride (FCKW or other).

ECO Test gas P-250	Article number
Test gas P-250	356900250





Mounting plate for FDC (MPL)

Necessary for fire-rated doors as well as mounting on brickwork and small frames.

Mounting plate	Article number
MPL FDC	358500547394000



Door stop for FDC (OA)

Mechanical stop where no floor stop can be set.

- **Range of use:** FDC/-B in connection with standard or slide arms
- **Not possible** with short shims and low-level installation.
- When connected with the FC-B, the mounting plate must also be installed.
- Must be installed +50 mm with axis extension!

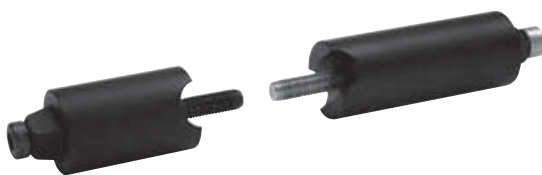
Door stop	Article number
OA FDC	358500547124000



Brake for holding magnet (HMB)

For a 90° setting for the function "permanent open" (retrofit kit)

Brake for holding magnet	Article number
HMB	358500547467000



Axis extension

To be used for special mountings

Axis extension	Article number
AV 20 Slide rail (20 mm)	358500547111000
AV 50 Slide rail (50 mm)	358500547112000
AV 20 Standard arm (20 mm)	358500547121000
AV 50 Standard arm (50 mm)	358500547122000



Finger protection shade (FSR)

Protection of squeezing points between door leaf and door frame at the hinge-opposite side

- Belated mounting possible.

Finger protection shade	Height	Article number
FSR	1.920 mm	3504710132

Accessories ETS

Mounting plate for ETS (MPL)

Necessary for fire-rated doors as well as mounting on brickwork and small frames.

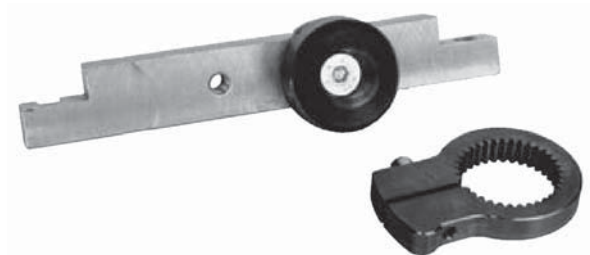
Mounting plate	Article number
MPL ETS	358500450548358



Door stop for ETS (OA)

Will be mounted as additional mechanical door stop and can be used with standard or slide arms (not possible in combination with short shims and low-level installation).

Door stop	Article number
OA ETS	358500450548106



Clamp piece (Axis extension)

For use at special mountings.

Clamp piece (Axis extension)	Article number
KS short (-13 mm)	358500450548124
KS 20 (+20 mm)	358500450548125
KS 50 (+50 mm)	358500450548126



Casing for double-leaf doors

Casing / connecting piece for sequence selectors for double-leaf doors. The casing will be cut on site and will be mounted between the two ECO ETS (Electric motor door closer). Consists of casing and fixing material. Total length 1.430 mm!

Material: aluminum anodized

Casing	Total length	Article number
V-ETS	1.430 mm	358500450548214



Relay board (RSP)

Relay print (plug board) for retrofitting to the control of ETS. 4 freely configurable relays for control of acoustic or optical signal generators or the signaling of the door status (e.g. open, close, locked, error)

■ Belated mounting possible.

Relay board	Article number
RSP	350548215





BEDIS control device for FDC

For setting all control functions as well as programming via switch function with LED status display.

Control device	Article number
BEDIS	358500723150000



D-BEDIX control device for ETS

The duty type can be chosen directly using D-BEDIX. The most important door settings can be carried out easily. Duty types, menu settings and possible mistakes are clearly represented on the display.

Control device	Article number
D-BEDIX	358500063514215



Flip switch (GFT)

- Function: Door "OPEN"
- Supply voltage 250 VAC / 30 VDC
- Current consumption max. 10 AAC / 2 ADC
- System of protection IP 40
- 225 x 83 mm

Flip switch	Colour	Article number
GFT	grey RAL 7036	358506443210000

Radar 1000 Domino

Radar motion detector which acts as surge generator for automatic doors.

Radar 1000 Domino	Article number
Domino 1000 RC	358506466127000



Radar Merkur 2 ES.C

Radar motion detector which acts as surge generator for automatic doors, direction - sensitive.

Radar Merkur	Article number
Merkur 2 ES.C	358506466126000



Radio control set for ETS

Remote control for ETS to operate the drive. Handicapped accessible.

Wireless print to be easily plugged on the control board of the ETS.

Radio transmitter with range up to 10 m.

Remote control	Article number
Airprint set (Plug-in board and hand-held transmitter)	358545035039600
Hand-held transmitter	358500006465722



Sensor strip

Active infrared sensor for automatic doors. Secures the pedestrian traffic area. Stops and reverses when detecting obstacles.

- Incl. cable and surface mouted, flexible cable crossover.
- **Set I** contains 2 sensor strips for each leaf, to max. 1.250 mm.
- **Set II** contains 2 sensor strips for each leaf, to max. 1.600 mm.
- **Set III** contains 2 sensor strips for each leaf (BEA), to max. 1.250 mm

Sensor strip	Article number
Set I	358503050000000
Set II	358503060000000
Set III	358506466401



DIN 18650 **EN 16005**



Handle technology

Latching on to things.



Comings and goings

The door handle (or door latch) is one of the most frequently used functional elements in the home: it's the very first object that people make contact with when they enter a building and it hardly ever comes to rest in busy places. But the door handle is much more than a mere functional element of household technology. A person's first physical perception of a house is made through the door handle – and as we all know, you only get one chance to leave a good first impression.



The tactile encounter with the handle is aesthetic and ergonomic at the same time. The first thing is "what the handle feels like" and this refers not only to its shape but also to its mechanical qualities when pressed. The high-quality bearings in the handle not only allow it to function for a long time, they also convey a feeling of quality. ECO Schulte underscores this by granting a five-year warranty on its handle range.

The ergonomic shape of the handle results mainly from its function. It must of course be possible to locate and operate it intuitively. A good grip and reliable power transfer have to be guaranteed, because considerable forces are required when opening a door if its form is to help prevent fingers from getting jammed or squeezed. In addition to this, a design that complies with standards also provides the highest possible level of functional security.

Users and handles

European Standard **EN 1906** defines the utilization classes for door handle and handle systems. These classes depend on the intensity of use and level of care exercised by the users. ECO Schulte only offers handle systems in utilization categories 3 and 4.

Utilization Categories:

Class 1:

Moderate utilization frequency by persons motivated to exercise great care and from whom there is a low risk of improper use. Typical areas of application: interior doors of residential buildings.



Class 2:

Moderate utilization frequency by persons motivated to exercise care but from whom there is a certain risk of improper use. Typical areas of application: interior doors of office buildings.



Class 3:

High utilization frequency by the general public or other persons with low motivation to exercise care and from whom there is a high risk of improper use. Typical areas of application: interior doors of office buildings open to the general public.



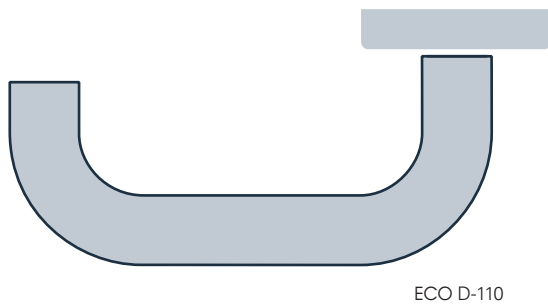
Class 4:

For use in doors that are frequently subjected to violence or damage. Typical areas of application are football stadia, barracks or public toilets.



Timeless forms and classics

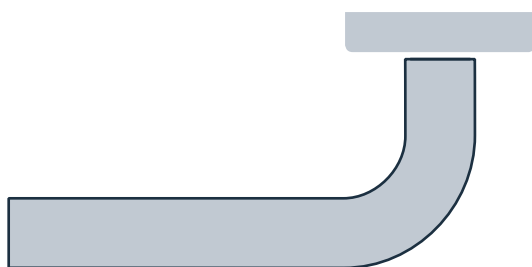
Even though door handles are subject to fashion trends, there are still a number of classics or even archetypes which can have an aesthetically striking effect on the first contact with a building. ECO Schulte focuses on timeless and functional classics in its product range. They are always available for profile frame doors too (OVR oval rosette handle) and as protective door handle sets. ECO Schulte also offers matching window handles.



ECO D-110

ECO D-100 Archetype: U-shaped handle

A classic with value added: the advantage of the u-shaped handle lies in the second 90 degree bend. It was used traditionally to prevent people or material from getting "threaded on". The rear bend helps to prevent shopping bags or coat sleeves from getting caught in the handle. The u-shaped handle also has comfort qualities, because the rear turn supports the ball of the hand when opening the door. ECO Schulte has the u-shaped handle in its product range as factory design draft D-110.



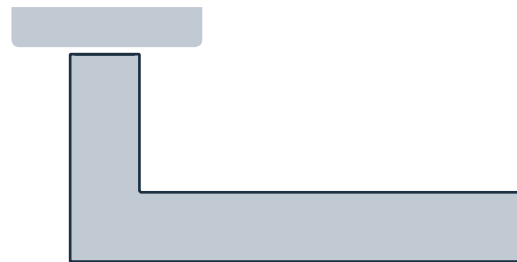
ECO D-210

ECO D-200 Archetype: Frankfurt standard L-shape handle

In their efforts to lower house construction prices and rents in the 1920s, many architects became involved with the standardization of construction components. The ECO D-200 is a variation of the draft that once made a name for itself as the Frankfurt standard handle where a round rod was bent to 90 degrees and positioned on a simple rosette. All of the Frankfurt versions are based on the idea of the right angle. ECO Schulte has included the Frankfurt standard handle in its product range in a high-quality modern interpretation as factory design draft D-210.

ECO D-300 Archetype: Frankfurt mitred handle

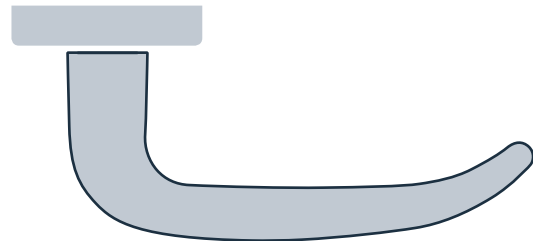
The ECO D-300 is a variation of a geometric handle draft design from the 1920s which stands out through the legible simplicity of the construction: a circular tube is separated with a mitred cut before the two halves are joined together again at right angles. This handle was given the attribute "Frankfurt" not only through its close geometric relationship with the Frankfurt standard handle but also because it was used when the Frankfurt Architecture Museum was built. ECO Schulte has included its interpretation of the Frankfurt mitred handle in its product range as factory design draft D-310.



ECO D-310

ECO D-400 Archetype: Ulm handle

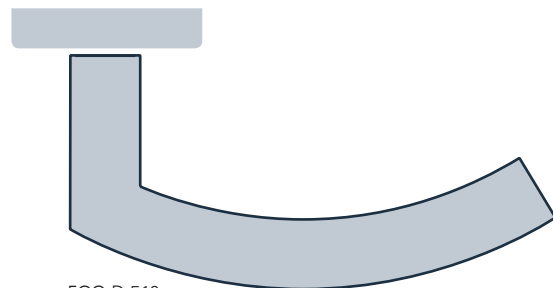
Made for getting to grips with! The archetype of this u-shaped handle was named after the Ulm School of Design where it was first used in the 1950s. The draft was based at the time on the door handles of the trains run by the Swiss railway. ECO Schulte reworked the Ulm handle with its own factory design version D-400.



ECO D-410

ECO D-500 Archetype: Hand-shape handle

As far as the typology is concerned, this handle constitutes a connection between the Frankfurt mitred handle and the Ulm handle. The design of this factory design draft D-500 is discreet, easy to grip and orientated towards the direction of movement.



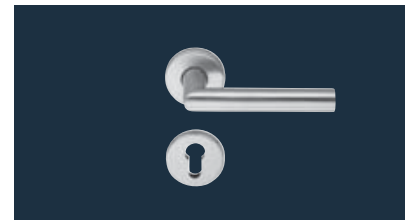
ECO D-510

Handles in all versions

Where form is concerned, ECO Schulte deliberately focuses its handle solutions on classic designs while ensuring at the same time that all areas of application can be served with the solutions on offer, from protective handles to window handles.

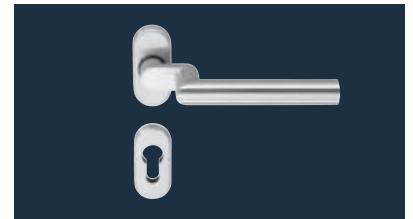
Rosette handles

The classic for apartment doors is the two-piece rosette handle which is available with a handle or a round or flat knob. The rosette that goes with it comes in warded lock, oval hole or profile cylinder versions.



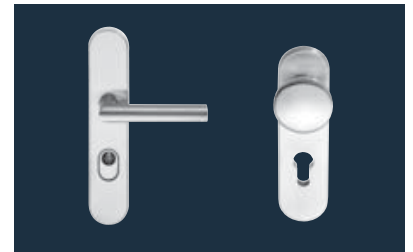
Oval rosette handles

Oval rosettes are used on profile frame doors made of steel, plastic or aluminium. They permit the mounting of the handle onto narrow frame profiles which conceal the risk of hand injuries, which is why the use of offset handles is recommended.



Long and short plate handles

With long and short plate handles, the handle and keyhole are covered by a single continuous plate. This combination provides additional hold for the handle on the door and additional screw attachment options. This makes these handles suitable for high levels of wear and tear, such as in schools.



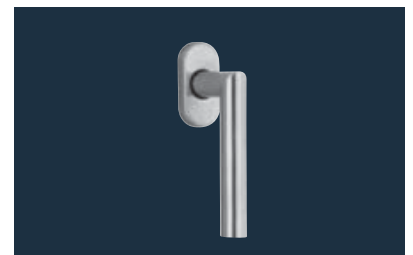
Protective handles

Protective handles on exterior doors provide the prerequisites for break-in security. They are bolted through the door, thus providing good break-in protection. The standard **DIN 18257** splits protective handles into resistance classes from ES 0 to ES 3, whereby ES 3 covers protective handles which are extremely resistant to break-ins. Available with an optional cylinder protection system.



Window handles

ECO Schulte offers a range of window handles to match its programme of classical door handles. This guarantees that houses and apartments can be fitted out in a uniform form language in high-grade stainless steel with a satin surface.



Three materials on offer

The choice of the handle material is not only a question of aesthetics. Different materials are available, depending on hygiene requirements and the place and intensity of use.

High-grade stainless steel handles

Stainless steel handles from ECO are distinguished by their wear resistance and insensitive surface. Even when used intensively, stainless steel shows hardly any dents or scratches and is therefore recommended as the ideal material on frequently used doors (e.g. in public buildings, gastronomy businesses and sports facilities). Stainless steel handles are corrosion resistant, which makes them very well suited for outdoor areas. They do not require much care and are distinguished by their durability. Stainless steel is a hygienic material which can be disinfected and which inhibits the transfer of bacteria thanks to its smooth, non-porous surface, and this makes it very well suited for use in hospitals and medical and nursing practices.



Aluminium handles

The ECO light alloy handle programme is distinguished by the quality of its surfaces. Because they are anodized, they are easy-care, lightfast and weather-proof. The advantages of the material lie in its low weight and outstanding malleability which open up virtually unlimited design possibilities. The typical ECO surface is additionally condensed through a sand-blasting process, thus giving it a particularly high level of toughness and durability.



Nylon handles

Used as basics, ECO handles made of high-quality nylon offer the option of setting colourful accents in architecture. A steel core is covered with polyamide, thus combining a pleasant feel with toughness and durability. ECO nylon handles are wearproof, colour and lightfast. The surfaces are harmless from a health and hygiene point of view, not susceptible to electrostatic charging and dimensionally stable in hot and cold temperatures. ECO shows a preference for clear forms in the plastic range too and offers a wide range of handles and accessories in addition to the door handles.



Good, better, best: Quality bearings with a system

Because people don't always treat doors gently, we have developed three different bearing technologies - all the way up to the high-class OKL version - to take this fact into account in all situations. ECO Schulte grants a five-year warranty on all handle products. And ECO Schulte doesn't make any compromises either where utilization categories are concerned. Our range consists exclusively of handle systems which comply with user categories 3 and 4, as defined by the standard.

OKL - Premium handles with ball-bearing technology



OKL Bearings

Industrial ball bearings are characteristic for these high-quality handles. A precise and maintenance-free, fully encapsulated grooved ball bearing ensures the well-balanced, play-free bearing mounting of the handle.

Free Movement

The movement of the handle is well adjusted and has a top-quality feeling to it. An integrated return torsion spring supports the lock's reset mechanism. A wave spring washer equalizes the axial play of the bearing.

Reliable Assembly

The screw attachments are covered by the cover rosette which is firmly connected to the base rosette once the handle has been bolted on. With ECO Schulte handles, the handle and rosette always form a solid unit. The stainless steel base rosette with support cams is firmly connected to the door with self-retaining screws. The door/handle connection is protected against turning out of position. Furthermore, it is fixed axially. This means that there is no accidental risk due to the loosening of the locking screws and detachment of the handle from the pinion square. The stainless steel handle hub is firmly welded to the stainless steel tube of the handle. The result of this technique is that the tested permanent load bearing capacity exceeds the requirements of the norm by the factor ten.

Quality/Standard

OKL handles have been subjected to more than two million test cycles by independent test institutes without any failures. They are certified in accordance with **EN 1906**, class 4 and have fire protection certification in line with **DIN 18273**.

OGL - Handles with friction bearing technology



OGL Bearings

The maintenance-free plastic friction bearing is characteristic of these high-quality handles. The highly stable friction bearing floats in the base steel rosette and compensates the axial and radial forces. A wave washer spring compensates the angle tolerances between the pin and the support bracket of the base rosette.

Reliable Assembly

The screw attachments are concealed by the cover rosette which is firmly connected to the base rosette once the handle has been bolted on. With ECO Schulte handles, the handle and rosette always form a solid unit. The stainless steel base rosette with support cams is firmly connected to the door with self-retaining screws. The door/handle connection is protected against skewing on a fixed axle. This means that there is no accident risk due to the loosening of the locking screws and detachment of the handle from the pinion square. The stainless steel handle hub is firmly welded to the stainless steel tube of the handle and set to a torsional strength of 75 Nm.

Quality/Standard

OGL handles have been subjected to more than 200,000 user cycles by independent test institutes without any failures. They are certified in accordance with **EN 1906**, class 4 and have fire protection certification in line with **DIN 18273**.

SGL - Handles with friction bearing technology



SGL Bearings

The base rosette made of reinforced plastic guides the axial movement of the handle. A wave washer spring compensates the angle tolerances between the pin and the support bracket of the base rosette.

Reliable Assembly

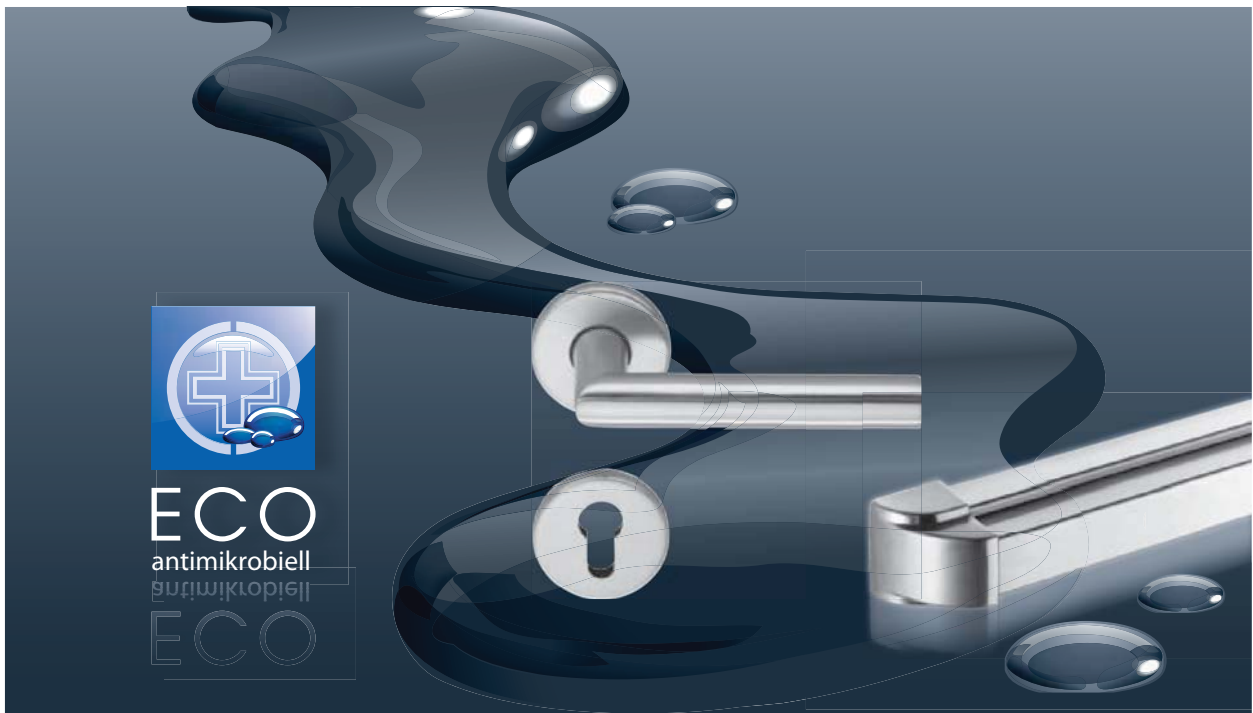
The screw attachments are concealed by the cover rosette which is firmly connected to the base rosette once the handle has been bolted on. With ECO Schulte handles, the handle and rosette always form a solid unit. The base rosette with support cams is firmly connected to the door with self-retaining screws. The door/handle connection is protected against skewing on a fixed axle. This means that there is no accident risk due to the loosening of the locking screws and detachment of the handle from the pinion square. The stainless steel handle hub is firmly welded to the stainless steel tube of the handle and set to a torsional strength of 75 Nm.

Quality/Standard

SGL handles have been subjected to more than 200,000 user cycles by independent test institutes without any failures. They are certified in accordance with **EN 1906**, class 3.

Long-term antimicrobial protection

In health care facilities, hospital germs are a very big danger. The solution to this problem is Bacterlon®+, an experienced and tested method for refining contact and circulation surfaces. By this treatment, the surfaces are coated. Experience has shown that the germs on contact and circulation surfaces do not increase any further after finishing.



Fields of application for Bacterlon®+

The usage of Bacterlon®+ for reducing the microorganisms is retained in hospitals or public buildings. The outstanding and germs reducing effect of Bacterlon®+ was tested by accredited testing laboratories and proved with certificates (see rear page). The study result was a reduction of germs up to 80% on Bacterlon®+ finished surfaces compared to unfinished surfaces.



Why Bacterlon®+?

The door handle (or door latch) is one of the most frequent used functional element at home: it's the very first object that people make contact with when they enter a building and it hardly ever comes to rest in busy places.

Bacterlon®+ is not a short term disinfection but a long lasting solution against germs. Bacterlon®+ is absolute biocompatible and skin as well as mucosa compatible. Therefore Bacterlon®+ can be used in all areas of daily life.

Bacterlon®+ contains water and oil abrasive attributes. This is the reason why there is no chance for bacterias on finished surfaces.

What's special about Bacterlon®+?

Bacterlon®+ bases on the newest scientific findings. The effectiveness of the environmentally friendly, skin and mucosa compatible as well as absolute biocompatible product was confirmed by well known testing laboratories with certificates.

How should Bacterlon®+ finished products be cleaned?

The finished surfaces can be cleaned simple and fast. Contaminations can be cleaned with warm water. Only for strong contaminations we recommend domestic cleaner.



Field of application

- ECO Handle Technology
- ECO Panic, Lock and Bolting Technology

Handle technology ■ Standard handles
Round rose handles (ROS) ■ Handles on plate (L and K)

ER

Al

Ku

 OKL

 OGL

 SGL



Round rose handle
D-110
Page 216



Round rose handle
D-120
Page 228



Round rose handle
D-190
Page 234



Round rose handle
D-210
Page 238



Round rose handle
D-310
Page 244



Round rose handle
D-330
Page 254



Round rose handle
D-410
Page 262



Round rose handle
D-490
Page 270



Round rose handle
D-510
Page 274

Handle technology ■ Oval rose handles (OVR)



Oval rose handle
D-115
Page 282



Oval rose handle
D-116
Page 286



Oval rose handle
D-310
Page 290



Oval rose handle
D-315
Page 294



Oval rose handle
D-335
Page 298



Oval rose handle
D-410
Page 302



Oval rose handle
D-415
Page 306



Oval rose handle
D-515
Page 310



TABLE OF CONTENT

Handle technology ■ Security handle sets



Security handle
D-110
Page 316



Security handle
D-111
Page 326



Security handle
D-310
Page 330



Security handle
D-116
Page 338



Security handle
D-315
Page 342

Accessories

NEW!

Object window handle ■ Lockable

FO-110 A	Page 346
FO-210 A	Page 346
FO-310 A	Page 346
FO-410 A	Page 346

NEW!

Object window handle ■ TBT

FO-110 TBT	Page 347
FO-210 TBT	Page 347
FO-310 TBT	Page 347
FO-410 TBT	Page 347

NEW!

Object window handle

FO-110	Page 348
FO-210	Page 348
FO-310	Page 348
FO-410	Page 348
FO-333	Page 348

Window handle

F-110	Page 349
F-120	Page 349
F-210	Page 349
F-310	Page 349
F-410	Page 349

Knobs

K-130	Page 352
K-135	Page 352
K-165	Page 352

Security roses

Short plate	Page 353
Round rose	Page 353
Security roses set PZ ER	Page 353
Security roses set ZA ER	Page 353
Security roses set PZ AL	Page 354
Security roses set ZA AL	Page 354

Door stop / Wall stop

Door stop BS 44	Page 355
Door stop BS 45	Page 355
Door stop BS 65	Page 355
Wall stop WS 46	Page 355
Wall stop WS 76	Page 355

Push-pull handles

S-110 Push-pull handle straight	Page 356
S-410 Push-pull handle cranked	Page 356
S-210 Push-pull handle triangular	Page 356
S-510 Push-pull handle semi-circular	Page 356

NEW!

S-330 Push-pull handle short	Page 357
S-310 Push-pull handle long	Page 357

Fixing solutions	Page 358
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Spindles

Spindles for standard handles	Page 360
Spindles offset drilling	Page 361
Spreaded spindle	Page 362
Panic pin	Page 363
Spindle for knob / lever sets	Page 364
Spindle for knob / lever sets with offset drilling	Page 365

Sets of back plates

Set of back plate with PZ-hole	Page 366
Set of back plate with BB-hole	Page 366
Set of back plate UG (blind)	Page 366
WC-set	Page 366
Spindle with clamp	Page 366

Accessories

Pop rivet nut for oval rose counter handles	Page 367
Set of screws for levers on plate	Page 367
Set of screws for levers on rose	Page 367
Accessories-Set BB-insert	Page 367

NEW!

Fixing rose	Page 367
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Sleeves

Sleeve nut	Page 368
Adjustment sleeves	Page 368

Drilling templates

Drilling template with centering pin for interior doors	Page 369
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Drilling template with centering pin for interior doors and fire-protection handle sets	Page 369
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Drilling template with centering pin for security handle sets	Page 369
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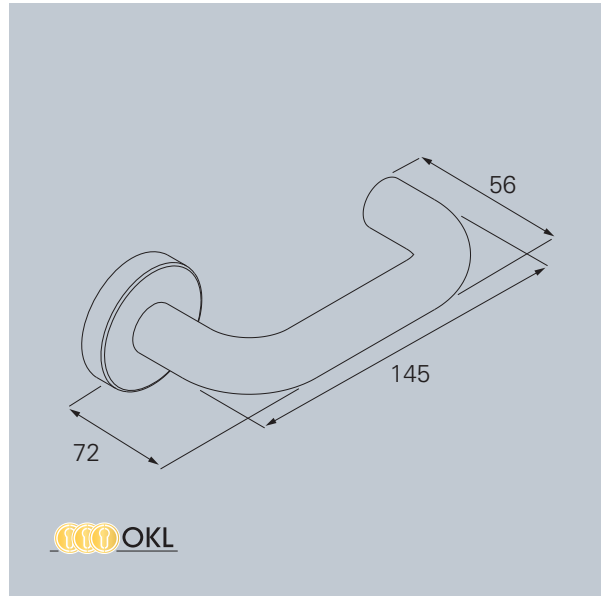
ECO D-110



Product characteristics

Tested acc. to	EN 1906
With 9 mm spindle acc. to DIN 18273 fire protection tested	F
Lever form for escape doors and emergency exits	EN 179
Restoring spring	■
Fixable bearing	■
Steel base with positioning studs	■
Concealed through-screw technology	■
DIN left / right	■

■ Yes - No □ Option



Material:



PRODUCT FAMILY D-100

Standard handle

Handle on plate



D-110 . Page 216



D-120 . Page 228



D-190 . Page 234



D-110 . Page 219



D-110 . Page 222

Oval rose handle

Security handle

Window handle



D-115 . Page 282



D-116 . Page 286



D-110 . Page 316



D-111 . Page 326



D-116 . Page 338



F-110 . Page 349

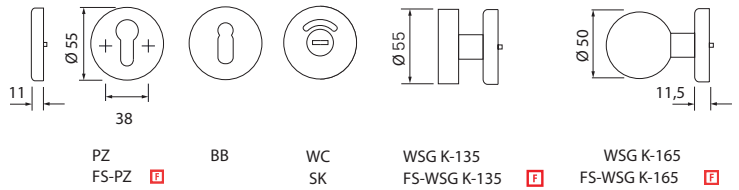
D-110 Round rose handle



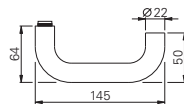
D-110 Round rose handle with OKL – ball-bearing technology






Lever guidance consists of a closed, maintenance-free ball bearing. Fixable bearing with restoring spring, DIN left / DIN right useable. Stainless steel base with positioning studs. Concealed, continuous screw connection.

Utilization category: class 4



OKL – ROUND ROSE HANDLE



		Kit sets					
	∅	∇					
S	22 mm	8 mm	153005.46	153000.46	153019.46	153016.46	153020.46
F	22 mm	9 mm	353005.46		353021.46	353018.46	

Finish: stainless steel satin. PVD and polished on request.



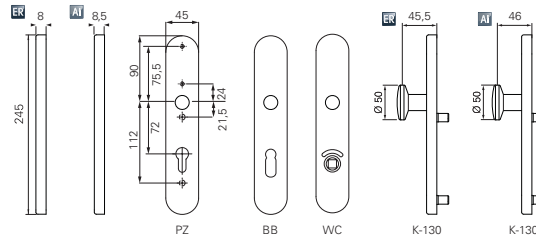
D-110 Long plate handle (L)



D-110 Long plate handle (L) with OKL – ball-bearing technology

The lever is clenched inside the inner ring of the ball-bearing. The outer ring of the ball-bearing is fixed into the base construction. This connection guarantees an additional lasting of the lever sets on the door leaves and is known for high capacity in axial and radial direction.

Utilization category: class 4
PZ 92 on request



OKL – LONG PLATE HANDLE



		Kit sets				
	∅	▧				
S	22 mm	8 mm	1k6505.46	1k6500.46	1k6515.46	1k6520.46
F	22 mm	9 mm	3k6505.46		3k6515.46	

Finish: Stainless steel satin.



		Kit sets				
	∅	▧				
S	22 mm	8 mm	1k7505.30	1k7500.30	1k7515.30	1k7520.30
F	22 mm	9 mm	3k7505.30		3k7515.30	

Finish: Aluminium anodized, further colours on request.

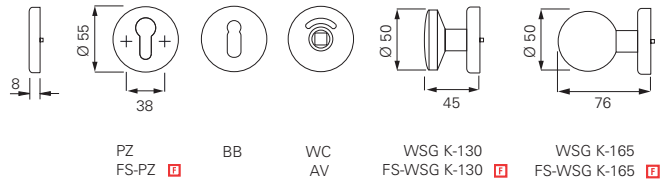
D-110 Round rose handle



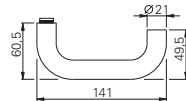
D-110 Round rose handle with OGL – friction bearing technology

Lever guidance consists of a closed, maintenance-free friction bearing with self-lubricating plastic. Fixable bearing. DIN left / DIN right useable. Steel base with positioning studs. Concealed, continuous screw connection.

Utilization category: class 4



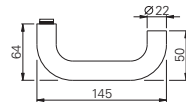
OGL – ROUND ROSE HANDLE



	∅	∇
S	21 mm	8 mm
F	21 mm	9 mm
EN 179	21 mm	9 mm

	Kit sets						Passive leaf	
	156505.46	156500.46	156510.46	156580.46	156520.46			
F	356181.46	356100.46	356200.46	356270.46		356105.46	356318.46	356317.46
EN 179	356150.46							

Finish: Stainless steel satin. PVD and polished on request.

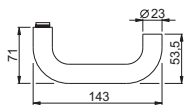


	∅	∇
S	22 mm	8 mm
F	22 mm	9 mm
EN 179	22 mm	9 mm

	Kit sets						Passive leaf	
	157505.30	157500.30	157510.30	157520.30				
F	317230.30	357100.30	357200.30		357104.30	357318.30	357317.30	
EN 179	357150.30							











Finish: Aluminium anodized, further colours on request.

UGL – ROUND ROSE HANDLE



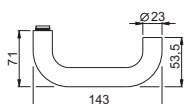
EN 1906 EN 179  F



			Kit sets					Passive leaf	Fire-proof knob
	∅	∇							
	23 mm	8 mm		154655	154650	154660	154670		
	23 mm	9 mm	114300	354100		354200		354105	354317
	23 mm	9 mm		354150					






Material: Nylon PA · Finish shiny

Note: lever with steel core. User category class 3. Corresponding drilling template available, article number: 930317



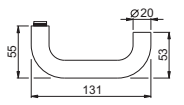
EN 1906 EN 179  F







			Kit sets			Passive leaf
	∅	∇				
	23 mm	9 mm	354600.02	354700.02	354604.02	354617.02

Material: Nylon · PPN black

Note: lever with steel core. User category class 3. Corresponding drilling template available, article number: 930317



			Kit sets		
	∅	∇			
	20 mm	8 mm	150651	150660	150670

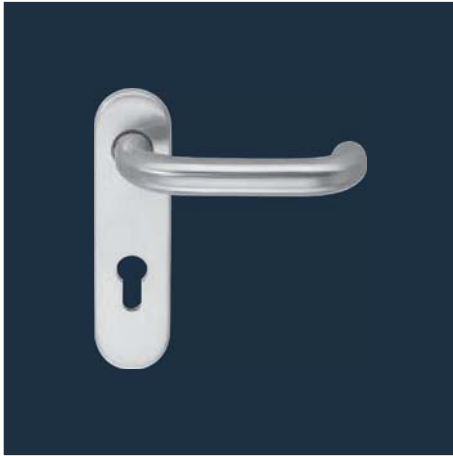
Material: nylon Finish: shiny

Note: nylon base with positioning studs. Lever with steel core. Rose diameter 52 mm. Delivery with 7 mm spindle or 8,5 mm spindle on request.

Lever with steel core. Corresponding drilling template available, article number: 930317

 black  dark grey  white  red  blue Further colours on request

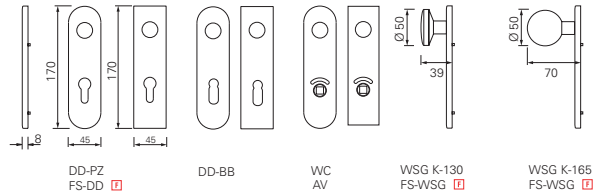
D-110 Short plate handle (K)



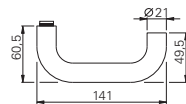
D-110 Short plate handle (K) with OGI – friction bearing technology

Lever guidance consists of a closed, maintenance-free friction bearing with self-lubricating plastic. Fixable bearing. DIN left / DIN right useable. Steel base with positioning studs. Concealed, continuous screw connection.

Utilization category: class 4

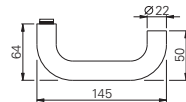


OGI - SHORT PLATE HANDLE (K)



	∅	▧	Kit sets						Passive leaf	
S	21 mm	8 mm		106505.46	106500.46	106510.46	106560.46	106520.46		
F	21 mm	9 mm	306081.46	306100.46		306200.46	306263.46		306125.46	306319.46
	21 mm	9 mm		306150.46						

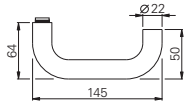
Finish: Stainless steel satin. PVD and polished on request.



	∅	▧	Kit sets						Passive leaf	
S	22 mm	8 mm			107505.30	107500.30	107510.30	107520.30		
F	22 mm	9 mm	307081.30	307083.30	307100.30		307200.30		307104.30	307318.30
	22 mm	9 mm			307150.30					












Finish: Aluminium anodized, further colours on request.

OGI - SHORT PLATE HANDLE (K)

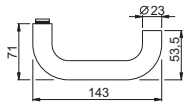


EN 1906 EN 179  F














	∅	∠			Kit sets				Passive leaf	
										
	22 mm	8 mm			147505.30	147500.30	147510.30	147520.30		
	22 mm	9 mm	347081.30	347083.30	347100.30		347200.30		347125.30	347318.30 347317.30
	22 mm	9 mm			347150.30					

Finish: Aluminium anodized, further colours on request.

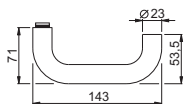


EN 1906 EN 179  F














	∅	∠			Kit sets			Passive leaf		Fire-proof knob K-130 on plate	
											
	23 mm	9 mm			319601.02	319701.02	319603.02	319605.02	319604.02	324276.02 120473.02	
	23 mm	9 mm	319601.02	319603.02	319602.02						

Material: Nylon · PPN black · Finish: satin
 Lever guidance deep-drawn 6 mm. Lever with steel core. User category class 3.
 Corresponding drilling template available, article number: 930317



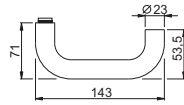
EN 1906 EN 179  F

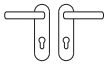
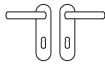
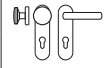
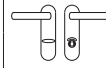
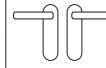


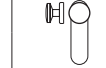



	∅	∠			Kit sets			Passive leaf		Fire-proof knob K-130 on plate	
											
	23 mm	9 mm	313600.02	313808.02	313600.02	313700.02	313601.02	313618.02	313617.02	333750.02 324022.03	
	23 mm	9 mm			313650.02						

Material: Nylon black · Finish: satin with polished edge
 Lever guidance deep-drawn 6 mm. Lever with steel core. User category class 3.
 Corresponding drilling template available, article number: 930317

OGL - SHORT PLATE HANDLE (K)

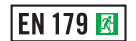
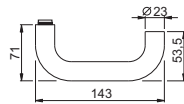











			Kit sets					Passive leaf	Fire-proof knob K-130 on plate	
	∅	∇								
S	23 mm	8 mm	104505	104500	104510	104520				
F	23 mm	9 mm	304100		304200		304108	304317	324040	324042
	23 mm	9 mm	304150							

Material: Nylon · Finish: shiny

Note: Lever guidance deep-drawn 6 mm. Lever with steel core. User category class 3. Corresponding drilling template available, article number: 930317

 black  dark grey  white  red  blue Further colours on request



			Fire protection counter handle		Fire protection handle on plate		Kit sets			Passive leaf
	∅	∇								
F	23 mm	9 mm	314200.02	314202.02	344034.02	324033.02	304600.02	304700.02	304601.02	304617.02
	23 mm	9 mm					304650.02			

Material: Nylon black · Finish: shiny

Note: Lever guidance deep-drawn 6 mm. Lever with steel core. User category class 3. Corresponding drilling template available article number: 930317

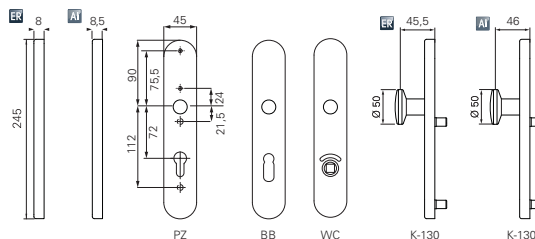
D-110 Long plate handle (L)



D-110 Long plate handle with OGI – friction bearing technology

Lever guidance consists of a closed, maintenance-free friction bearing with self-lubricating plastic. Fixable bearing. DIN left / DIN right useable. Steel base with positioning studs. Concealed, continuous screw connection.

Utilization category: class 4 / PZ 92 on request



OGI – LONG PLATE HANDLE (L)



		Kit sets				
	∅	▧				
S	21 mm	8 mm	1g6505.46	1g6500.46	1g6515.46	1g6520.46
F	21 mm	9 mm	3g6505.46		3g6515.46	

Finish: Stainless steel satin.



		Kit sets				
	∅	▧				
S	22 mm	8 mm	1g7505.30	1g7500.30	1g7515.30	1g7520.30
F	22 mm	9 mm	3g7505.30		3g7515.30	

Finish: Aluminium anodized, further colours on request.

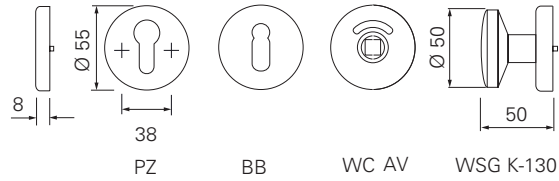
D-110 Round rose handle



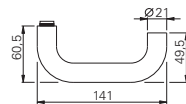
D-110 Round rose handle with SGL – Standard handle with friction bearing technology

Lever guidance in maintenance-free friction bearing with adjustment function integrated in nylon base rose. With spring support. Lever with fixable bearing, nylon base with positioning studs. DIN left / DIN right useable. Concealed, continuous screw connection.

Utilization category: class 3







SGL – ROUND ROSE HANDLE

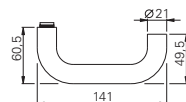


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



		Kit sets				
	∅	▧				
S	21 mm	8 mm	152505.46	152500.46	152515.46	152520.46

Finish: Stainless steel satin. PVD and polished on request.



EN 1906



		Kit sets				
	∅	▧				
S	21 mm	8 mm	152505.30	152500.30	152515.30	152520.30

Finish: Aluminium anodized, further colours on request.



ECO D-100

The U-shaped handle

A classic with value added: the advantage of the U-shaped handle lies in the second 90 degree bend. It was used traditionally to prevent people or material from getting "threaded on". The rear bend helps to prevent shopping bags or coat sleeves from getting caught in the handle.

The U-shaped handle also has comfort qualities, because the rear turn supports the ball of the hand when opening the door.

ECO Schulte has the U-shaped handle in its product range as factory design draft D-110

ECO D-120

