Door Closer Solutions

DICTATOR™ Door Checks **from page 02.003.00**

Closing Springs
Swing Door Hinges **from page 02.029.00**

Special Door Closers
(Tube door closer, DIREKT,
floor spring WAB) **from page 02.041.00**

Door Stops **from page 02.067.00**

Back Checks **from page 02.071.00**

Solutions for Sliding Doors
(DICTAMAT 50, mechanical
timer, release buffer) **from page 02.083.00**

Notes

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DICTATOR Door Checks

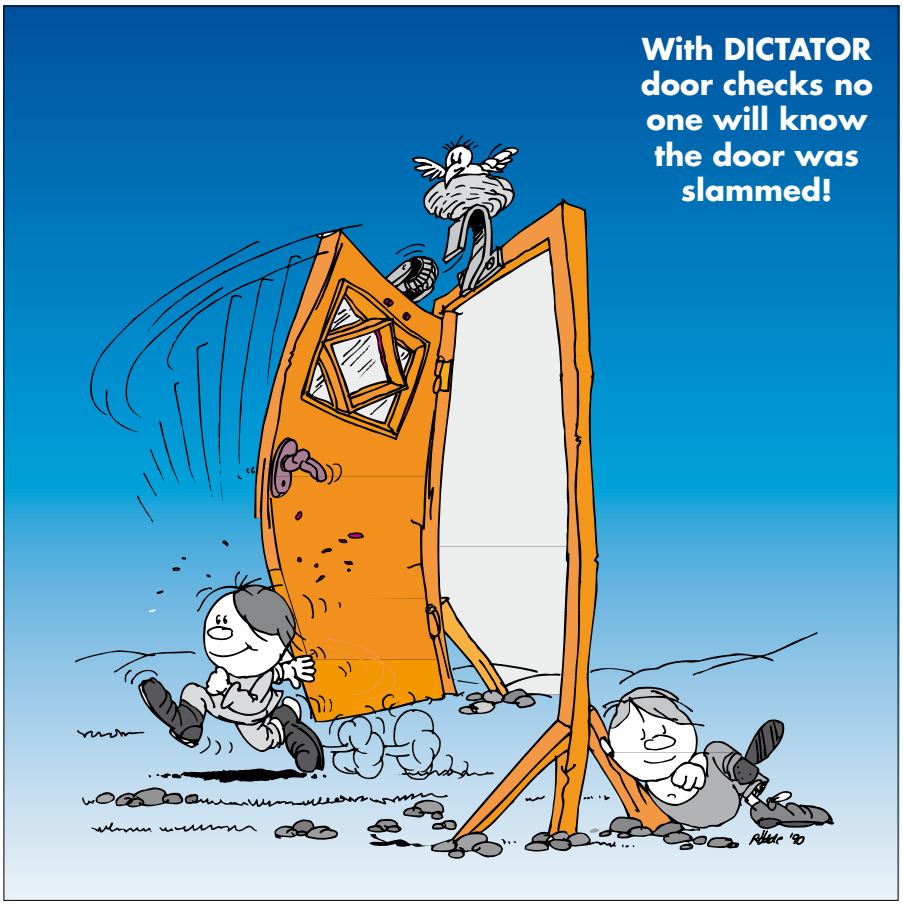
Ensure Doors to Close Quietly.

Doors can be incredibly noisy. Not only when people slam them, but also due to air pressure, gusts of wind and inadequate door closers. The more violent the movement, the louder the bang.

Doors that are slowed down and damped protect the environment as they take into consideration all those living and working within hearing reach of a closing door. Furthermore a door check protects the door, the hinges and the frame.

The door check functions quietly and reliably. Every time the door is slammed it catches the door without making noise, slows it down gently, pulls it firmly closed and reliably keeps it closed.

The door check not only **reduces noise** and **prevents damages** of the doors. Very often it helps towards **saving expensive energy** because the doors are really closed and thus the precious warmth or cooled air can't escape. And, last but not least, it provides **safety** as entrance doors of e.g. appartment blocks or office buildings are reliably closed.



Technical Data

Types of doors	overlapping, flush or recessed doors (different hooks)
Opening direction	all door dampers provide for left and right hand doors
Door weight	up to 200 kg, depending on force and type of door check
Closing force	20, 35, 50, 80, or 115 N (measured on the door check)
Damping characteristics	progressive, adjustable closing speed
Damping fluid	silicone oil - nearly independent of temperature
Components included	door check, hook, fixing screws
Recommended accessories	"Piccolo" or concealed jamb closers

Mounting

DICTATOR door checks are particularly suitable for heavy doors needing to close surely. They are usually mounted towards the centre of the upper door member enabling them to close firmly and open easily.

If there is not enough room above the door to mount the hook, we recommend you fit a DICTATOR R 1400 on the closing face of the door.

Functioning

When the door is opened the hook automatically pushes the door check roller lever downwards thus tensioning the internal spring. Whenever the door is closed the roller lever enters the hook, controlling the door movement hydraulically during the last part of its closing travel. Now the door check's internal spring is compressed and the door check completely closes the door and keeps it firmly shut.

Damping Characteristics

Irrespective of the door size and weight, and whether the door is slammed or properly closed, the progressive braking action controls the door firmly and gently.

Adjustment

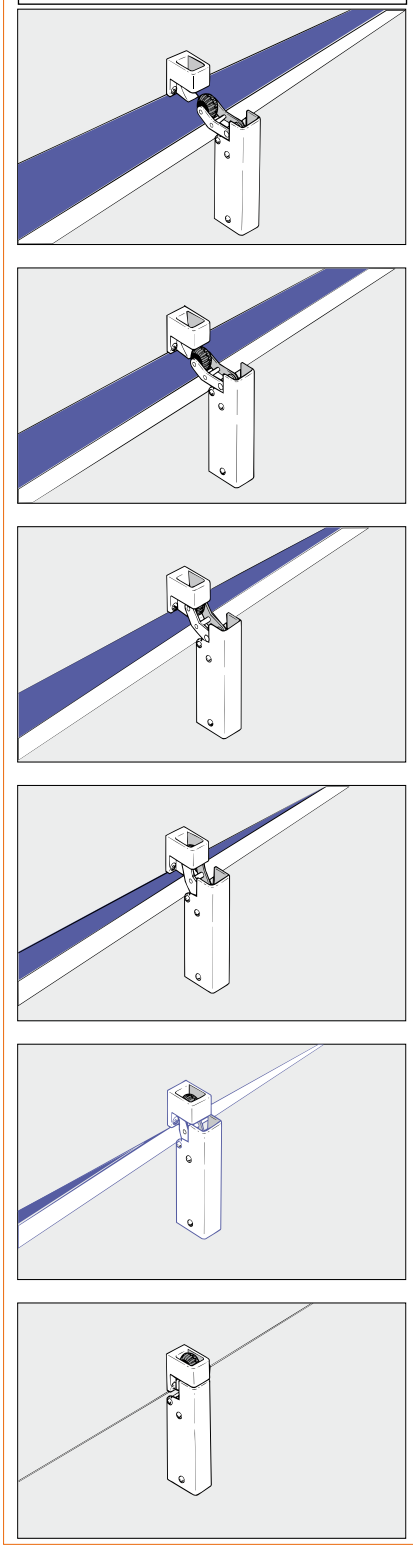
Strict quality control ensures that all door dampers are adjusted to give optimum damping. But as they are adjustable you can adapt them exactly to your requirements. Turning the piston rod clockwise reduces the damping speed, turning it anti-clockwise increases it. Two complete turns are equivalent to a change of appr. 1 second.

Variations

You can choose from various different models: the top-of-the-range DICTATOR VS 2000 door check, the smaller V 1600 and the R 1400 which can be unobtrusively mounted on the closing face of the door, the H 1300 with visible cylinder and reinforced joints, and the small, good-value Z 1000.

All door checks are individually packed in cardboard boxes along with the hook and a set of fixing screws.

Operation



DICTATOR VS 2000 Door Check

Top-of-the-Range Model

The top-of-the-range DICTATOR door check is the VS 2000. It is also suitable for heavy doors.

The VS 2000 is easy to install due to its patented fixing system with integrated hinged mounting plate. All fixing elements are hidden, so the hook and slimline body form an aesthetically pleasing unit.

The VS 2000 door damper is usually mounted vertically in the centre of the door face. By default, the versions with 20 N, 35 N or 50 N, however, can also be mounted horizontally.

The door damper VS 2000 is in particular for overlapping and flush doors. To make up for the height difference between door leaf and frame every door check comes with 3 plastic spacers of different thicknesses for the hook.

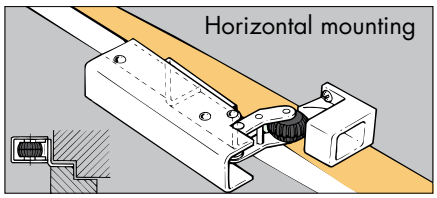
By default the VS 2000 is chrome or colour coated, a stainless steel version is not available.

For narrow steel door frames special fixing plates to weld on are available, and for thin-walled steel doors large mounting plates.

Technical Data

Types of doors	left and right operating, overlapping and flush doors
Closing force	20, 35, 50, 80 or 115 N (measured on the door check)
Damping characteristics	progressive, adjustable closing speed
Damping fluid	silicone oil, almost independent of temperature
Mounting possibilities	vertically or horizontally (20 N and 50 N by default)
Components included	door check, hook, 3 plastic plates for the hook, screws
Finish	polished and satin chrome, golden, colour coated
Recommended accessories	Piccolo or concealed jamb closer closing spring

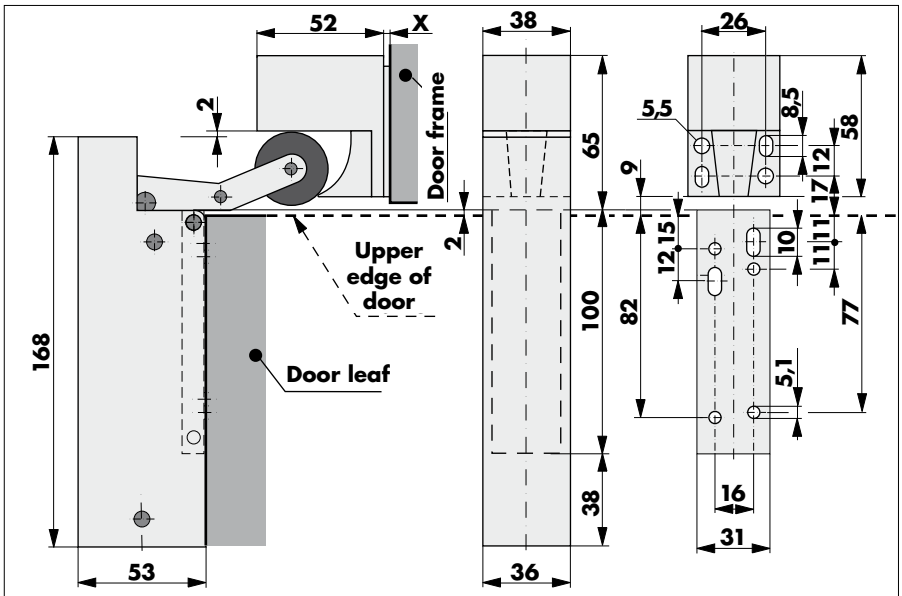
Mounting



The VS 2000 DICTATOR door damper is vertically fixed with its pivoting base plate, usually in the centre of the upper door leaf. The hook is at the correct height when the rubber roller on the bent lever only just touches the front edge of the hook when closing. Important: with overlapping doors the plastic plates must be used to compensate for a height difference between body and hook.

For the horizontal mounting special mounting brackets or plates are available (see page 02.024.00). But you don't need a mounting plate/bracket if the door check is mounted right at the closing edge of the door. In this case usually a model with a 35 N spring is choosen.

Dimensions



Dimension X: With overlapping doors the small plates (2 mm, 3 mm and 10 mm thick) compensate for a height difference of 2 -15 mm between door and frame.

Order Information

(Further types on request)

VS 2000 door check, hook 1020							
Force	**chromium -plated**	**satin chromed**	**RAL 9010 white**	**RAL 8017 brown**	**RAL 9005 black**	**RAL 9006 grey**	**golden shining**
20 N	300575	300575X	300520	300556	**	**	**
35 N	300570	300570X	**	**	**	**	**
50 N	300500	300500X	300511	300525	300516	300512	300513
80 N	300550	300550X	300554	**	**	**	**
115 N	300560	300560X	300564	**	**	**	**

** On demand

Mounting Accessories

For the mounting of the VS 2000 different mounting plates and brackets are available. Please see Mounting Plates and Brackets for Door Checks beginning on page 02.021.00.

DICTATOR V 1600 Door Check

For Interior, Exterior and Fire Protection Doors

The V 1600 is specified for interior and exterior doors. It has the same patented, hidden fixing system as the VS 2000 door check. Its cylinder is completely cased, too.

The V 1600 door check is appropriate for the installation on recessed doors. For this kind of door it is furnished with a special hook (type 1011).

In addition to the chromed or colour coated models, the door damper V 1600 is available also in stainless steel. If stainless steel is required for optical reasons only, on demand there is available a more economic version with zinc-plated steel cylinder.

The door damper is designed for installation on the face of the door. By default it is mounted vertically. For horizontal mounting you need a special "H" model.

The special model V 1600F has in Germany been approuved for the mounting on fire and smoke protection doors. More information is to be found two pages ahead.

Technical Data

Types of doors	left and right operating, overlapping, flush, recessed
Closing force	20, 50, 80 or 115 N (measured on the door damper)
Damping characteristics	progressive, adjustable closing speed
Damping fluid	silicone oil, almost independent of temperature
Components included	door damper, hook, screws
Material	steel or stainless steel (satin)
Finish (steel)	polished and satin chrome, golden, colour coated
Recommended accessories	Piccolo or Concealed jamb closer closing spring

V 1600 Door Check

Mounting and Dimensions

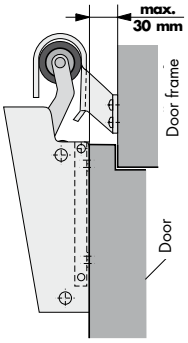
The V 1600 door damper is fixed by its mounting plate which afterwards cannot be seen any more.

In case the door check is intended for a horizontal mounting position, the special models marked with the letter "H" (horizontal) in the article name have to be choosen. For the horizontal mounting a mounting plate with the part no. 205463 is available (for dimensions see page 02.024.00).

If the V 1600 shall be mounted on an all-glass door, DICTATOR offers U profiles in stainless steel with the corresponding borings which are glued on the glass door (see page 02.023.00).

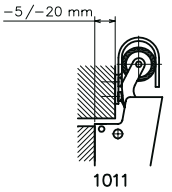
Mounting

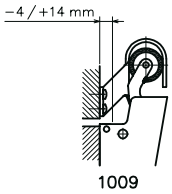
To mount the V 1600 door damper unfold the mounting plate from the case and mark the oblong hole on the door (about 40 cm from the closing edge of the door). The upper edge of the mounting plate should overlap the upper edge of the door by about 2 mm. When it is in a completely vertical position, screw the plate to the door with all 4 screws ø 4.5 x 19. Now hinge the body down and clip into position.

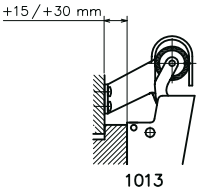


The hook should be mounted so that the rubber roller on the bent operating lever only just touches its front edge when closing.

Please use the 1009 hook for flush doors. The 1013 hook is intended for overlapping doors with a rebate of 15 - 30 mm and the hook 1011 for recessed doors with 5 - 20 mm difference. At present the hooks 1011 and 1013 are not available in stainless steel.



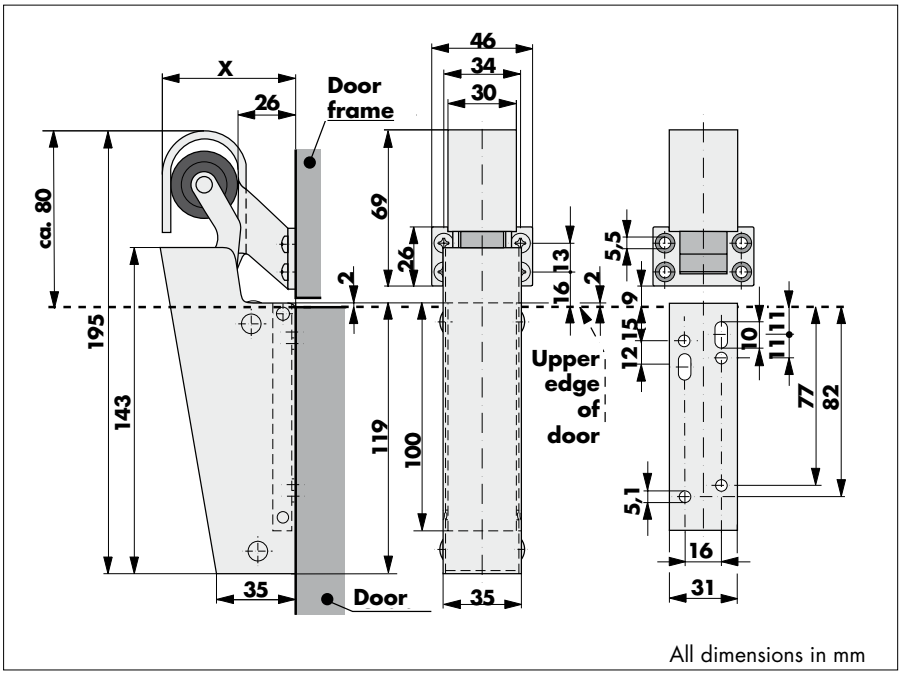




Dimensions

Dimension X with

- **1009 hook** for flush doors X = 59
- **1013 hook** for overlapping doors X = 78
- **1011 hook** for recessed doors X = 39



V 1600F Door Check

Door Check for Fire and Smoke Protection Doors

A special model of the V 1600 without adjustment and with strong spring has been tested for use on fire protection doors and has been issued test certificate no. P-120001480 by the German building authorities. But before mounting the V 1600F door check on a fire or smoke protection door, it has to be checked whether the door check is listed in the approval of the door or whether there exists a manufacturer's declaration which allows to mount the door damper on the respective door. The spezifications made there have to be observed exactly.

With pleasure DICTATOR will check this with the respective door manufacturer.

Door Makes with V 1600F Door Check

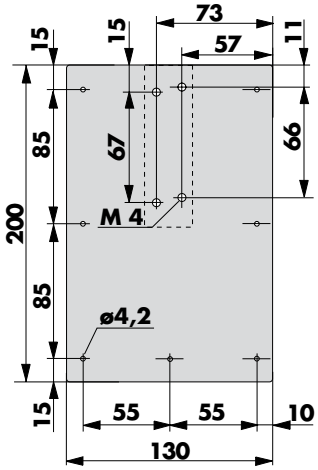
The number of manufacturers using the DICTATOR V 1600F door check on their fire and smoke protection doors is steadily increasing. Up-to-date information can be found on our website (www.dictator.de).

HÖRMANN · novoferm · SCHÜCO · DOMOFERM · Teckentrup Türen · Tore · Zargen

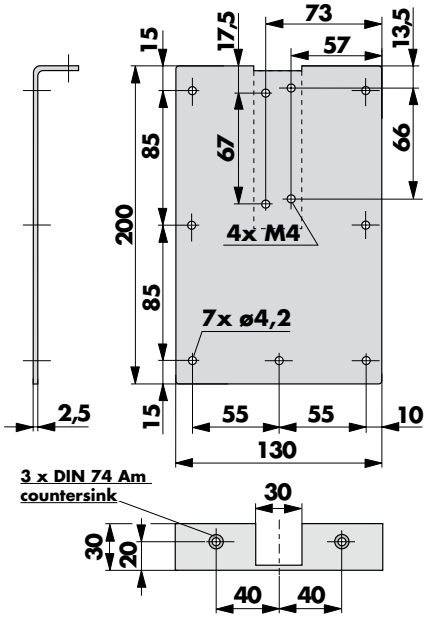
Mounting

Before installation you have to check out whether for mounting on the respective fire or smoke protection door mounting plates are required. The manufacturer lays this down in the approval or the manufacturer's declaration for the respective door.

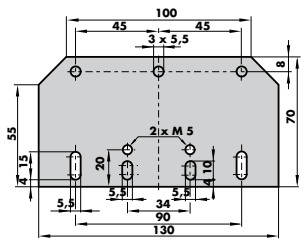
Mounting plate V 1600 for fire doors part no. 205212



Mounting plate V 1600 for fire doors without rebate part no. 205237



Mounting plate for V 1600F hook on fire doors part no. 205231XL



Other points to be observed are included in the V 1600F mounting instruction and the documents of the door manufacturers.

V 1600 / V 1600F Door Checks

Part Numbers

The following list shows the most current types. Of course it is always possible to supply the door checks - except the stainless steel types - with the 1011 and 1013 hook types.

Various mounting plates are available for the installation on steel, glass and fire and smoke protection doors. For further information see page 02.021.00.

Order Information

(Further types on request)

Model	Hook type	1009	1011	1013
V 1600 door check	20 N, polished chrome	300464	**	300967
V 1600 door check	20 N, satin chromed	300464X	**	300972X
V 1600**H** door check	20 N, polished chrome	300464W	**	**
V 1600**H** door check	20 N, satin chromed	300464WX	**	**
V 1600 door check	20 N, RAL 9010 white	300466L	**	**
V 1600 door check	20 N, RAL 9006 grey	300953	**	**
V 1600 door check	20 N, AISI 304	300610	–	–
V 1600**H** door check	20 N, AISI 304	300611	–	–
V 1600 door check	50 N, polished chrome	300460	300629	300461
V 1600 door check	50 N, satin chromed	300460X	300457	300461X
V 1600**H** door check	50 N, polished chrome	300460W	**	300461W
V 1600**H** door check	50 N, satin chromed	300460WX		
V 1600 door check	50 N, RAL 9010 white	300466	**	300965
V 1600 door check	50 N, RAL 8017 brown	300454	300979	300966
V 1600 door check	50 N, RAL 9005 black	300456	–	–
V 1600 door check	50 N, RAL 9006 grey	300467	**	300964
V 1600 door check	50 N, golden shining	300468	**	300962
V 1600 door check	50 N, AISI 304	300612	–	–
V 1600**H** door check	50 N, AISI 304,	300613	–	–
V 1600 door check	80 N, polished chrome	300480	**	300951
V 1600 door check	80 N, satin chromed	300480X	**	**
V 1600 door check	80 N, RAL 9010 white	300954	**	300968
V 1600 door check	80 N, AISI 304	300614	–	–

Note:

** available on request

V 1600**H** for horizontal mounting

Order Information

Model for Fire Protection

Model	Hook type	1009	1011	1013
V 1600F door check	80 N, polished chrome	300960	300963	300973

Mounting plate V 1600F for fire protection doors	part no. 205212
Mounting plate V 1600F for fire doors without rebate	part no. 205237
Mounting plate V 1600F for hook on fire doors	part no. 205231XL

DICTATOR R 1400 Door Check

For Mounting on the Closing Face of the Door

The R 1400 door damper is especially designed to cope with situations where unobtrusive mounting on the **closing face of the door** is wanted or required for optical or practical reasons. All R 1400 door checks are furnished with a special cylinder which allows **vertical and horizontal mounting**.

Usually the R 1400 is mounted directly at the closing edge of the door. Therefore, mostly the 20 N spring is used to make sure the door can easily be opened.

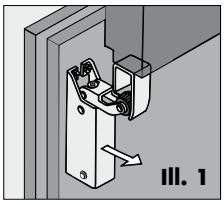
Normally the **hook** of the R 1400 is mounted to the **frame from below or horizontally to its side**. In case of flush aluminium or plastics frames, however, there exists another possibility. Using a **special mounting bracket**, the hook can be mounted on the frame (see illustrations on the next page).

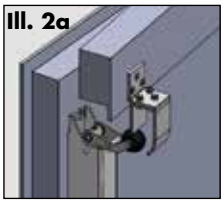
The R 1400 door check can be used on exterior and interior doors. For outdoor applications or in humid areas there are available models in stainless steel. If stainless steel is required for optical reasons only, we also furnish a more economic version with zinc-plated steel cylinder.

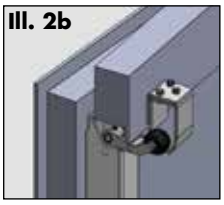
Technical Data

Types of doors	eft and right operating, overlapping, flush, recessed doors
Closing force	20, 50, 80 N (measured on the damper)
Damping characteristics	progressive, adjustable closing speed
Damping fluid	silicone oil, almost independent of temperature
Mounting possibilities	vertically or horizontally
Components included	door check, hook, screws
Material	steel or stainless steel
Finish	polished or satin chrome, golden shining, colour coated

Mounting







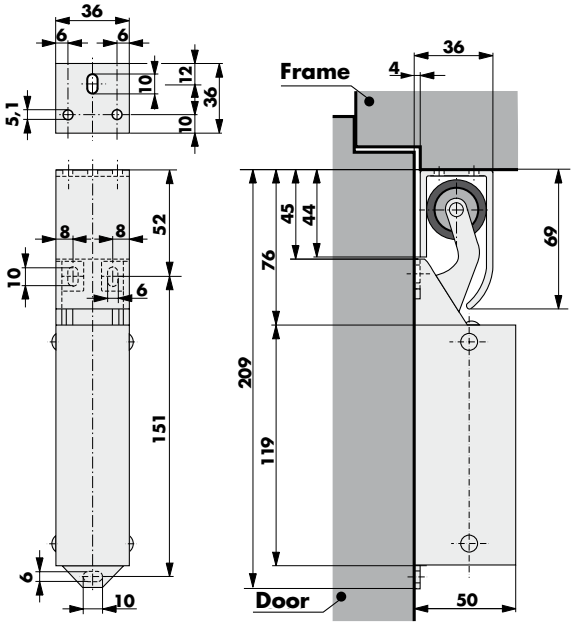
The R 1400 door damper is mounted on the "back" of the door. You can fix it either vertically or horizontally.

There are **two fixing possibilities** for the hook:
- The hook is fixed to the frame from below or horizontally to its side (ill. 1).
- On flush doors with a plastics or aluminium frame, the hook can also be fixed on the frame using the mounting bracket (see below) (ill. 2a/b).

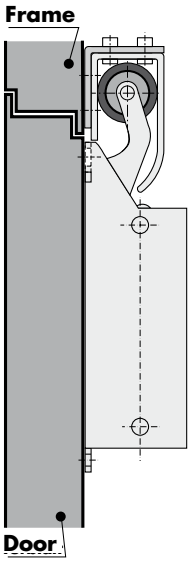
Important: Because of the hook protruding in the doorway, especially in ill. 1 and 2a, and the connected risk of injury, the R 1400 door damper should always be mounted at the side, approx. 8 mm from the closing edge of the door.

Dimensions

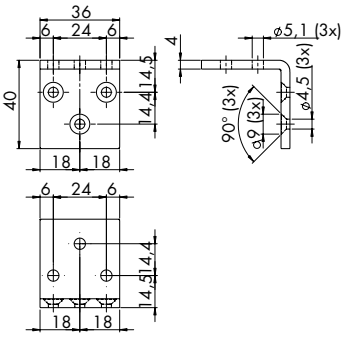
All dimensions in mm



R 1400 door check



Mounting example 2b



Bracket for the hook
part no. 203038

The R 1400 door check is available only with the hook type 1014.

Order Information
(Further types on request)

R 1400 door check, hook 1014, 20 N, polished chrome	part no. 300387
R 1400 door check, hook 1014, 20 N, satin chromed	part no. 300387X
R 1400 door check, hook 1014, 20 N, RAL 9010 white	part no. 300471
R 1400 door check, hook 1014, 20 N, RAL 9005, black	part no. 300631
R 1400 door check, hook 1014, 20 N, RAL 8017 brown	part no. 300970
R 1400 door check, hook 1014, 20 N, golden shining	part no. 300473
R 1400 door check, hook 1014, 20 N, AISI 304 (completely)	part no. 300625
R 1400 door check, hook 1014, 50 N, polished chrome	part no. 300475
R 1400 door check, hook 1014, 50 N, satin chromed	part no. 300475X
R 1400 door check, hook 1014, 50 N, AISI 304 (completely)	part no. 300626
R 1400 door check, hook 1014, 80 N, polished chrome	part no. 300474
R 1400 door check, hook 1014, 80 N, AISI 304 (completely)	part no. 300627
Mounting bracket for hook 1014, AISI 304	part no. 203038

DICTATOR H 1300 Door Check

With Reinforced Joint for Particularly Heavy Doors

The H 1300 door check has a reinforced joint and a longer roller lever. This gives it a longer life, even when mounted on very big and heavy doors.

Progressive damping is particularly important with big doors as the speed of impact increases the further away the door damper is from the door hinge. The damping is adjustable.

The H 1300 door damper consists of the casing with roller lever, a damping cylinder and the hook. It is suitable for left and right operating doors. Thanks to different hooks it can be used on overlapping, flush and recessed doors.

By default the H 1300 door check is available only with nickel plated finish. Colour coating and stainless steel are not possible.

To make mounting easier and more reliable, special fixing plates for the hook are available, which can be welded onto narrow steel door frames. Large mounting plates for thin-walled steel doors are also available.

Technical Data

Types of doors	left and right operating, overlapping, flush, recessed doors
Closing force	20, 50, 80 or 115 N (measured on the door damper)
Damping characteristics	progressive, adjustable closing speed
Damping fluid	silicone oil, almost independent of temperature
Components included	door damper, hook, screws
Finish	nickel plated
Recommended accessories	Piccolo or Concealed jamb closer closing spring

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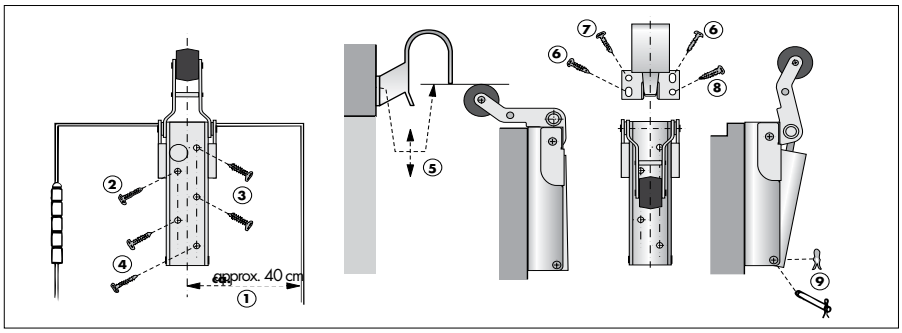
Mounting

The installation procedure is shown below.

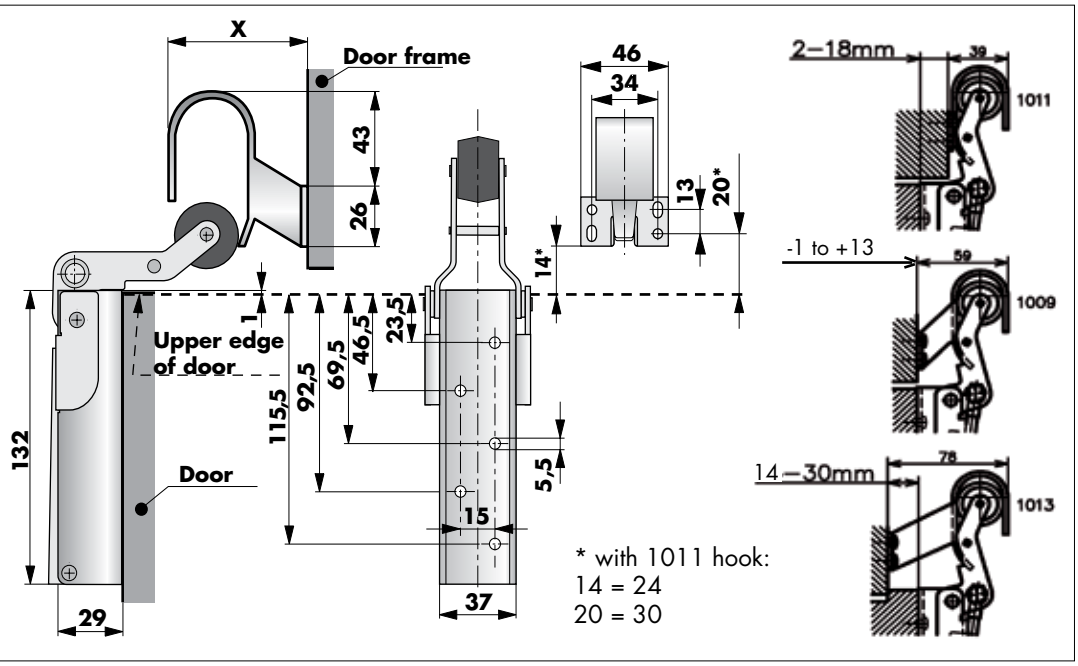
Important: the upper edge of the casing should overlap the upper edge of the door by about 1 mm. The hook should be mounted so that the rubber roller on the bent operating lever only just touches the front edge of the hook when closing.

The H 1300 door damper is available with different hooks for overlapping, flush or recessed doors (type 1009, 1013 or 1011).



Dimensions

Dimension X with
- **1009 hook** for flush doors
  X = 59
- **1013 hook** for overlapping doors
  X = 78
- **1011 hook** for recessed doors
  X = 39



Order Information

(Further types on request)

H 1300 door check, hook 1009,	50 N, nickel-plated	part no. 300110
H 1300 door check, hook 1011,	50 N, nickel-plated	part no. 300120
H 1300 door check, hook 1013,	50 N, nickel-plated	part no. 300100
H 1300 door check, hook 1009,	80 N, nickel-plated	part no. 300140
H 1300 door check, hook 1013,	80 N, nickel-plated	part no. 300130
H 1300 door check, hook 1009,	115 N, nickel-plated	part no. 300145
H 1300 door check, hook 1013,	115 N, nickel-plated	part no. 300135

Mounting Accessories

For the H 1300 there are available different mounting plates and brackets. Please see Mounting Plates and Brackets for Door Checks beginning on page 02.021.00.

Universal Z Door Check

The Reasonable Model for All Interior Doors

The Z door check is the best value model of all DICTATOR door dampers. Due to its small size it is particularly suitable for interior doors.

The Z door damper is available in 3 different models: Z 1000, ZF and Z 1100. The ZF model is mainly used in France. Contrary to the Z 1000 and the ZF for hinged doors, the Z 1100 is designed for sliding doors. Usually the Z 1100 for sliding doors is used only with a 20 N spring to keep the force needed for opening as low as possible.

The Z door check is designed for vertical mounting.

It can be used for right and left operating doors. The three different hooks available allow Z door dampers to be mounted onto overlapping, flush or recessed doors.

By default the Z door checks are manufactured with nickel-plated or zinc-plated finish. There are not available colour coated or stainless steel models.

Technical Data

Types of doors	hinged doors: left and right operating, overlapping, flush, recessed
	sliding doors: Z 1100
Closing force	20, 50 or 80 N (measured on the door damper)
Damping characteristics	progressive, adjustable closing speed
Damping fluid	silicone oil, almost independent of temperature
Components included	door damper, hook, screws
Finish	nickel-plated, zinc-plated

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DICTATOR Z 1000 Door Check

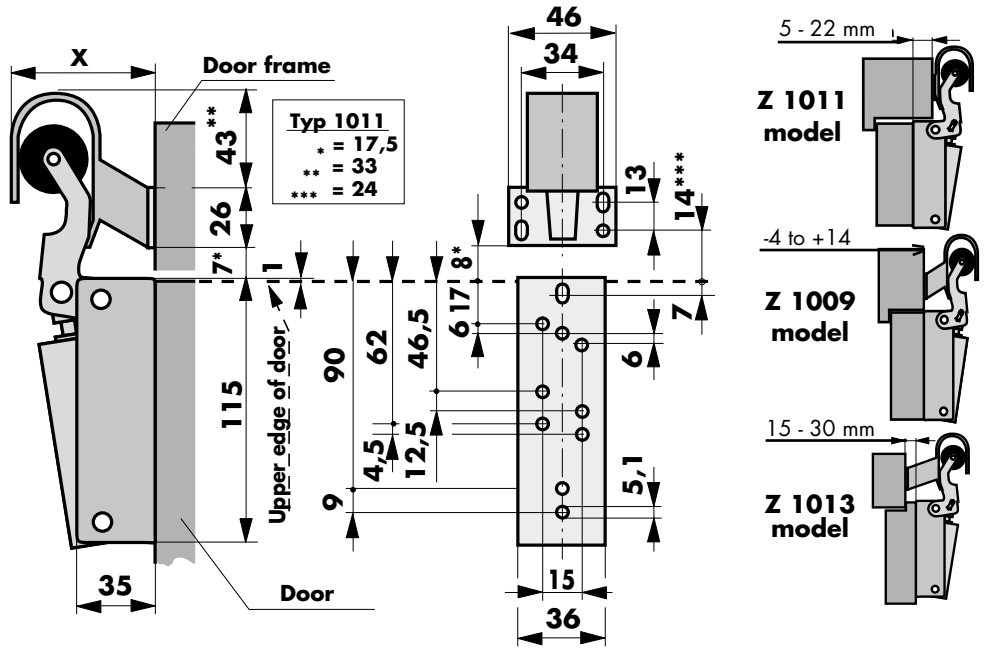
Cost-Effective Standard Model for All Interior Doors

The DICTATOR Z 1000 door damper is mainly used on interior doors. It is the standard model of the Z range. Due to its universal fixing holes it also replaces the models ZF, ZU and ZT.

The Z 1000 door check is available with different hooks for flush (1009), recessed (1011) and overlapping doors (1013) (see dimensioned drawing: maximum lintel projection 22 mm, maximum thickness of rebate 30 mm).

Dimensions

Dimension X with
- **1009 hook** for flush doors X = 59
- **1013 hook** for overlapping doors X = 78
- **1011 hook** for recessed doors X = 39



All measurements in mm

Mounting

Mark the oblong hole of the casing about 40 cm from the closing edge of the door. The upper edge of the casing should overlap the upper edge of the door by about 1 mm. Now screw the door damper vertically to the front of the door (see drawing). Fix the hook to the door frame so that the rubber roller on the operating lever passes just below the front edge of the hook. Finally fix the cylinder with the bolt to the casing of the door damper.

Order Information

(Further types on request)

Note:

** Available on request

Hook type	1009	1011	1013
Z 1000 door check, 20 N, nickel-plated	300151	300374L	**
Z 1000 door check, 20 N, zinc-plated	300150	**	**
Z 1000 door check, 50 N, nickel-plated	300373	300374	300375
Z 1000 door check, 50 N, zinc-plated	300904	300905	300906
Z 1000 door check, 80 N, nickel-plated	300913	300914	300915
Z 1000 door check, 80 N, zinc-plated	300368	**	300366

DICATOR ZF Door Check

Special Design for France

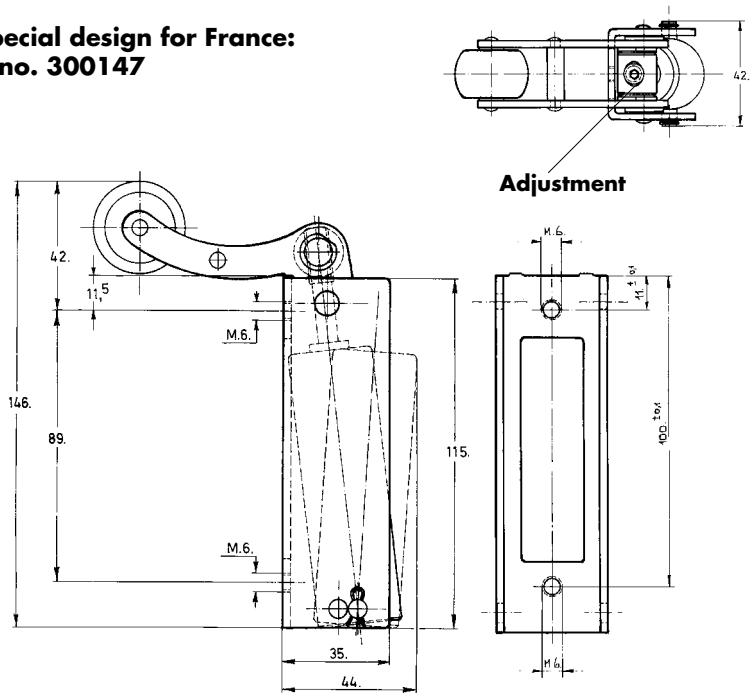
The former DICTATOR ZF/ZU door dampers have completely been replaced by the Z 1000 door damper. The fixing holes on the Z 1000 have been completed accordingly.

However the ZF door damper part no. 300147 is an exception. The dimensions of its casing and the operating lever differ from those of the Z 1000. It is especially designed for France and serves mainly for replacement.

It is always supplied with the 1011 hook for recessed doors.

Dimensions

ZF special design for France:
part no. 300147



All measurements in mm

Mounting/Adjustment

The mounting instructions for the Z 1000 also apply for the ZF (see preceding page).

The closing speed and damping of the ZF is adjustable. Due to the conical interior of the damping cylinder, the closing movement is increasingly slowed the further the piston enters the cylinder. To achieve a higher damping (slower closing speed) turn the piston rod clockwise with a hexagon socket screw key (see "Adjustment" in drawing). Turning it anti-clockwise will reduce the damping (higher closing speed). Two complete rotations correspond to a 1 second increase or decrease of the closing speed.

Order Information

ZF door check, hook 1011, 50 N, zinc-plated	part no. 300147

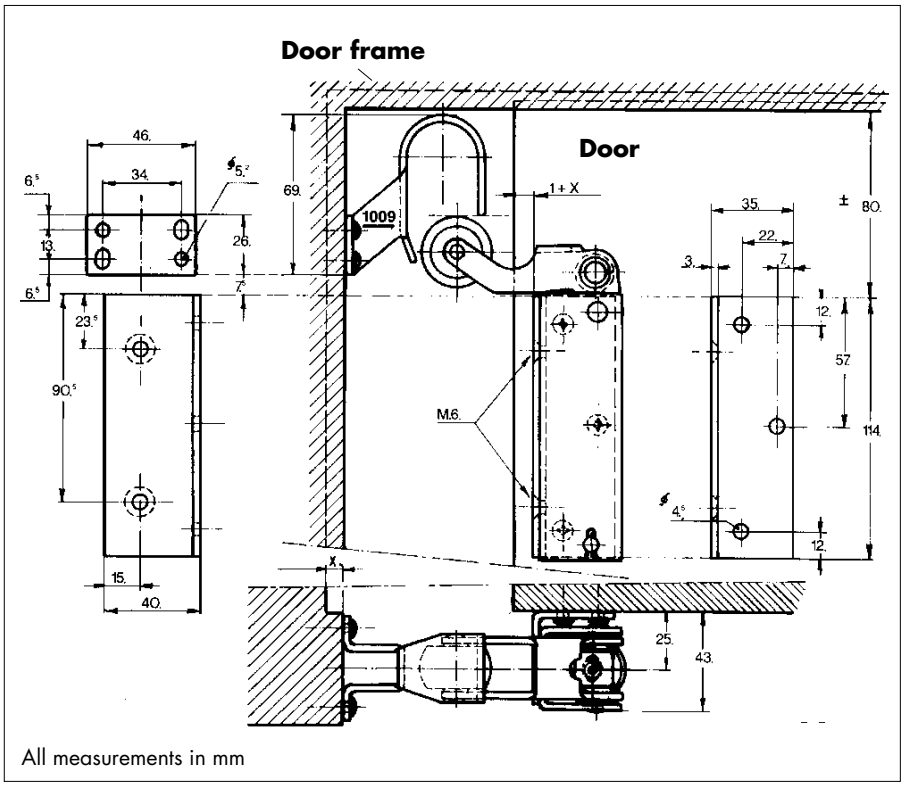
DICTATOR Z 1100 Door Check

For Room Sliding Doors

The DICTATOR Z 1100 door damper is a special version of the Z 1000 with mounting bracket designed for room sliding doors. The Z 1100 door damper slows down the closing speed on the last few centimetres and closes the sliding door completely. Especially with lightweight room doors this represents the ideal solution as normal final dampers, due to their integrated return spring (see Damping Engineering of our catalogue), might re-open these doors a littlebit under unfavourable conditions.

The Z 1100 door damper comes with the 1009 hook (see page 02.016.00 for dimensions).

Dimensions



All measurements in mm

Mounting

The mounting bracket is screwed onto the sliding door about 1 mm from the closing edge and about 80 mm below the upper edge of the door. Fix the cylinder with the two bolts to the casing and then screw the door damper to the mounting bracket with two M6-screws. To determine the position of the hook, push down the roller lever. The roller should pass just below the front edge of the hook. Only use the two oblong holes when fixing for the first time. The two remaining screws can be used once you have adjusted the hook to the optimal position.

Order Information

Z 1100 door check, 1009 hook, 20 N, nickel-plated	part no. 300367
Z 1100 door check, 1009 hook, 50 N, nickel-plated	part no. 300498
Z 1100 door check, 1009 hook, 80 N, nickel-plated	part no. 300499

each with a mounting bracket

DICTATOR Junior Door Check

DICTATOR supplies its well-proven door damper also as a "miniature" version, especially for interior fittings.

The **Junior door check** prevents screen doors, doors in furniture, flaps and drawers from slamming. It gently slows down the movement on the last few centimetres. Therefore it is ideal for drawers that should close without any jolt because they contain sensitive material (e.g. optical equipment). The door, flap etc. is pulled closed gently and is kept firmly in place.

The main feature of the Junior is its **very small dimensions**. They allow for its fitting when only little space is available. Another important advantage: the Junior is available either as a door check **pushing** the door shut or **pulling** the door shut (see dotted alternative in the technical drawing on the following page) - both alternatives with the same casing.

The Junior is made **completely from stainless steel** and is therefore suitable for the most different applications including the food sector or humid surroundings.

Technical Data

Applications	small doors, flaps, drawers, furniture
Closing force	13 N (measured on the door damper)
Damping characteristics	constant
Closing speed	pre-adjusted
Damping medium	silicone
Components of delivery	door damper, hook, screws
Material	stainless steel

Mounting

Normally the Junior door damper is fixed inside the cupboard - concealed - to slow down drawers or cupboard doors.

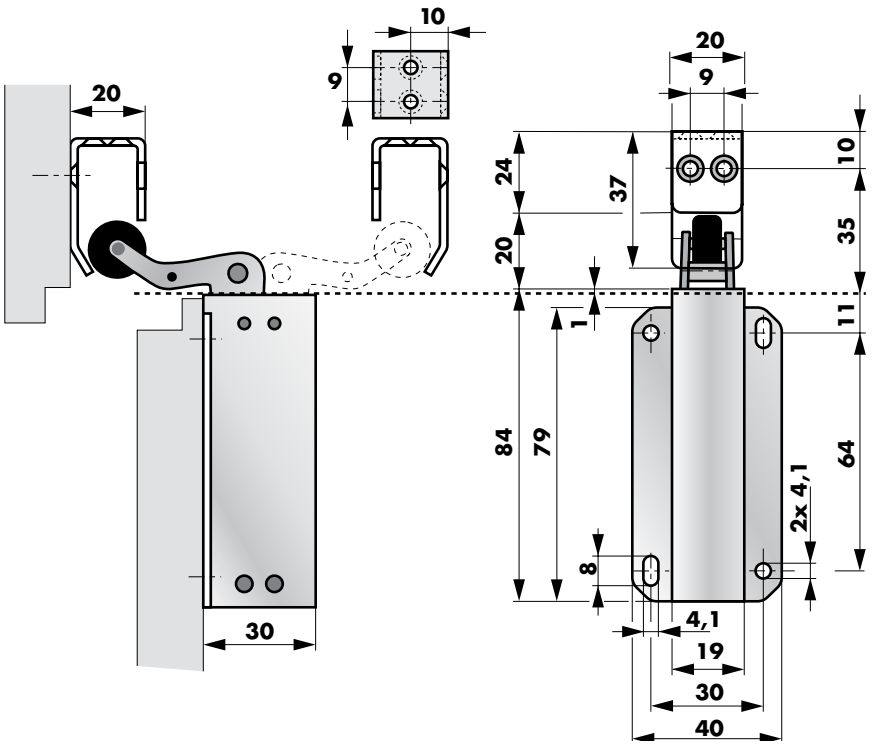
The casing of the Junior has lateral fixings. The Junior is fixed correctly when the upper edge of the casing overlaps the upper edge of the door or drawer by about 1 mm.

The hook is fixed to the frame with two screws. It provides two different fixing alternatives: either it is fixed from the front (see drawing below). The two holes are accessible through two holes of ø 5.5 mm in the front of the hook. Or it is fixed from below to the frame. The height is correct when the rubber roller of the operating lever of the Junior only just touches the front edge of the hook when closing.

Dimensions

Junior door check, push type
part no. 392000

Junior door check, pull type
part no. 392020



All dimensions in mm

The door damper Junior pull type and push type just differ in the position of the operating lever with the rubber roller. The pull type has the operating lever fixed in the posterior holes of the casing and shows backwards (see dotted drawing). This type is used e.g. when the door damper is fixed to the back part of a drawer and the hook is fixed to the inner panel of the cupboard.

Order Information

Junior door check	push type	part no. 392000
Junior door check	pull type	part no. 392020

Mounting Plates and Brackets for Door Checks

DICTATOR provides special mounting plates for DICTATOR door checks which make it easier to install them on steel, fire protection and glass doors and in the horizontal position. (ATTENTION: The door check has to be suitable for horizontal mounting!)

The mounting plates for steel doors are equipped with all necessary holes and threads and are fixed to the door by rivets.

For fire protection doors the manufacturer prescribes in the door approval or the manufacturer's declaration whether and which mounting plates have to be used (use the V 1600 door damper, part no. 300960!). If a mounting plate is required, it has to be fixed on the door leaf so that the distance between the door check and the side with the lock will be about 40 cm.

DICTATOR also provides mounting plates for fixing the hook to narrow/thin steel frames. The safe and stable fixing of the hook is imperative as otherwise the perfect functioning of the door check cannot be assured.

DICTATOR also provides a special U-profile mounting bracket to allow for installation on doors made completely from glass.

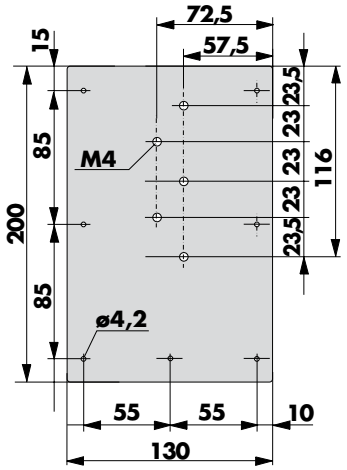
Technical Data

Thickness of plate	3 mm (2.5 mm for model 205237)
Material	zinc-plated steel / stainless steel
Types of doors	steel, fire protection, glass doors
Fixing the mounting plate to steel doors	Ø 4x12 mm steel rivets, holes provided
Fixing the mounting plate (hook) to the frame	plug fixing with Ø 5 mm flat head screw
Fixing the U-profile to glass doors	Loctite Fast Epoxy cement

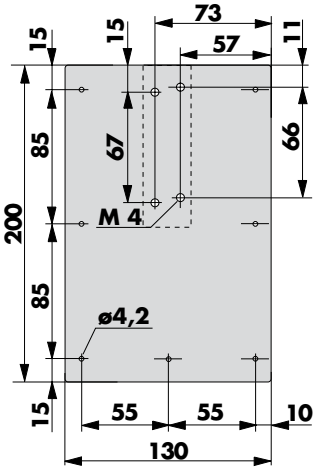
Mounting Plates for Steel Doors

The mounting plates 205213/205212 are intended for doors with rebate. When using the mounting plate part no. 205237 the door has to be adjusted before the mounting to provide a gap of min. 3.5 mm between door and frame.
The hooks of the door checks are fixed to the frame. When it is not possible to fix them using all four holes of the hook - as with narrow steel frames - you should definitely use a mounting plate. For the door dampers V 1600 and H 1300 we provide the mounting plate 205231XL. It facilitates a very stable fixing and an easy mounting due to its oblong holes and the different possibilities of fixing.

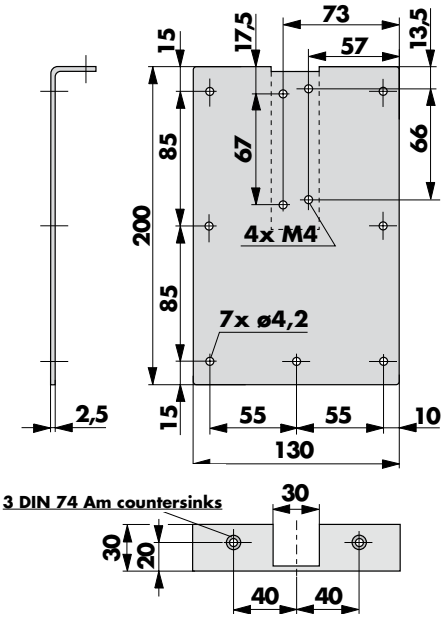
Dimensions of Mounting Plates for Door Checks



H 1300 mounting plate, part no. 205213



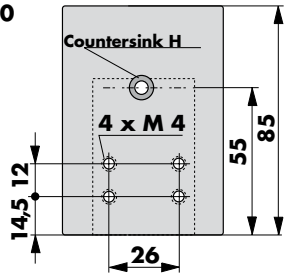
V 1600 and VS 2000 mounting plate, part no. 205212



V 1600 mounting plate for fire protection doors without rebate, part no. 205237

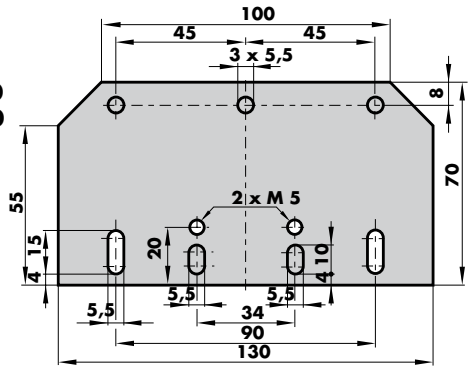
Dimensions of Mounting Plates for Hooks

VS 2000



part no. 205232

V 1600
H 1300



part no. 205231XL

Order Information

ATTENTION:
For fire protection doors the manufacturer prescribes in the door approval or the manufacturer's declaration whether and which mounting plates have to be used

Mounting plate for VS 2000 door check	part no. 205212
Mounting plate for V 1600 door check	part no. 205212
Mounting plate for V 1600 on fire doors without a rebate	part no. 205237
Mounting plate for H 1300 door check	part no. 205213
Mounting plate for VS 2000 hook	part no. 205232
Mounting plate for V 1600 and H 1300 hook	part no. 205231XL

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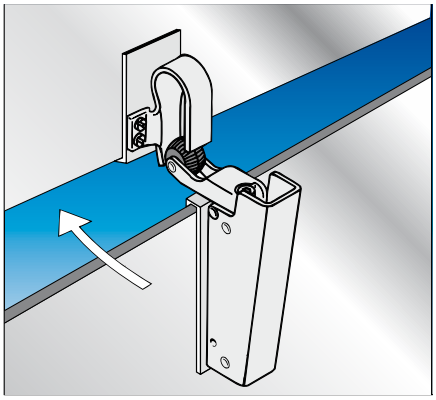
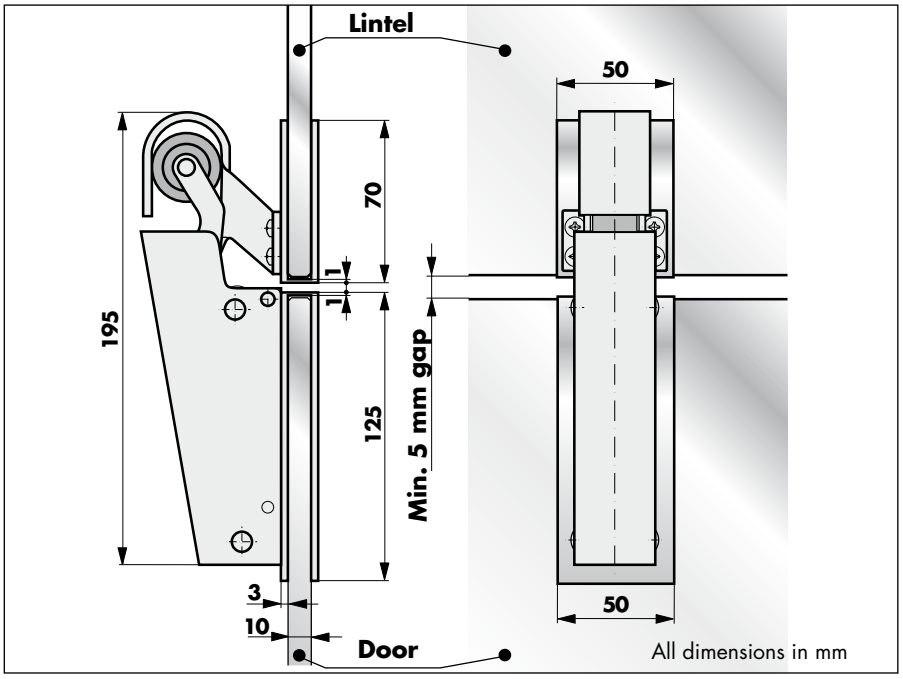


U-Profile Mounting Bracket for Glass Doors

The U-profile mounting bracket enables the V1600 door check to be installed on glass doors. A U-profile mounting bracket is also available for the V1600 hook.

There are U-profiles designed to fit a 8, 10 or 12 mm thick glass door. Should you have another dimension please contact us. The U-profile for the door damper is made of **stainless steel** and is provided with all the necessary fixing holes and threads for the door check. The threads in the U-profile for the hook have to be made on site, as their position depends on the exact mounting position of the door check and the space between door and frame.

Dimensions



Installation

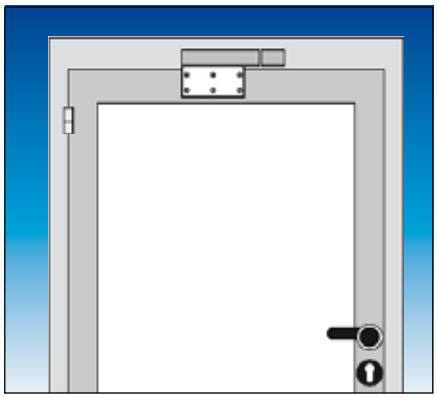
Fix the door check to the U-profile. Then fix this U-profile towards the middle of the glass door. Now the U-profile for the hook is slipped onto the frame exactly above the door damper in order to determine the position of the fixing holes for the hook. The height of the hook is correct when the rubber wheel of the operating lever only just touches the front edge of the hook when closing. If necessary line up the U-profile of the damper. When you have determined the position of the hook, mark the positions for the holes, drill and thread them (M5 threads).

Use **Loctite Fast Epoxy cement** to glue both U-profiles to the door/fanlight. Make sure the cement does not enter the fixing holes in the bracket. Now the hook is being fixed. The door check can be put into operation 4 hours later.

Important: The gap between door and frame/fanlight must be at least 5 mm.

Order Information

V 1600 U-profile mounting bracket for 8 mm thick glass	part no. 205265-08
V 1600 U-profile mounting bracket for 10 mm thick glass	part no. 205265-10
V 1600 U-profile mounting bracket for 12 mm thick glass	part no. 205265-12
U-profile mounting bracket for V1600 hook for 8 mm thick glass	part no. 205266-08
U-profile mounting bracket for V1600 hook for 10 mm thick glass	part no. 205266-10
U-profile mounting bracket for V1600 hook for 12 mm thick glass	part no. 205266-12

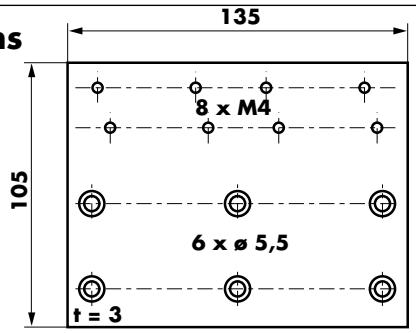


Mounting Plates and Brackets for Horizontal Mounting

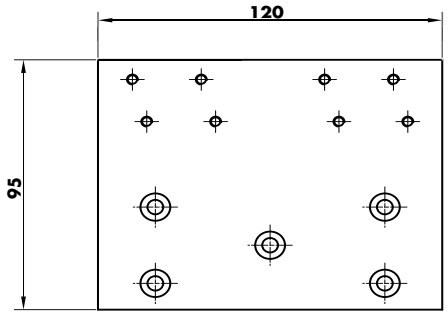
Using the mounting plates the door checks V 1600 and VS 2000 can be installed horizontally in the middle of the door. The mounting plates provide threaded holes for the fixing of the door checks. The hook is fixed directly to the frame.

For the VS 2000 there are also available mounting brackets. They are screwed more or less invisibly on the upper edge of the door. With wooden doors they usually are sunk. With steel doors you should make sure there is at least a gap of 4 mm between door and frame to allow the bracket to be installed without the door being jammed.

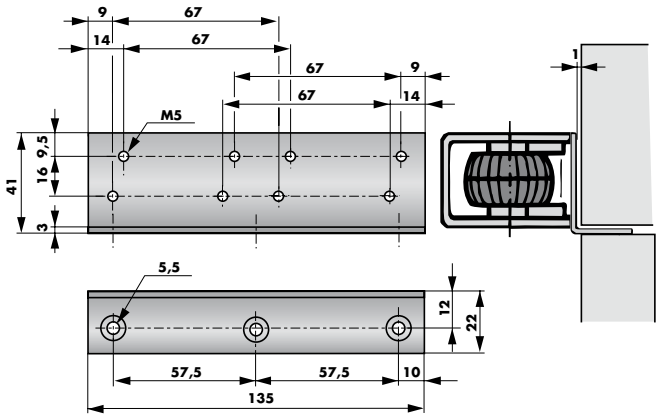
Dimensions



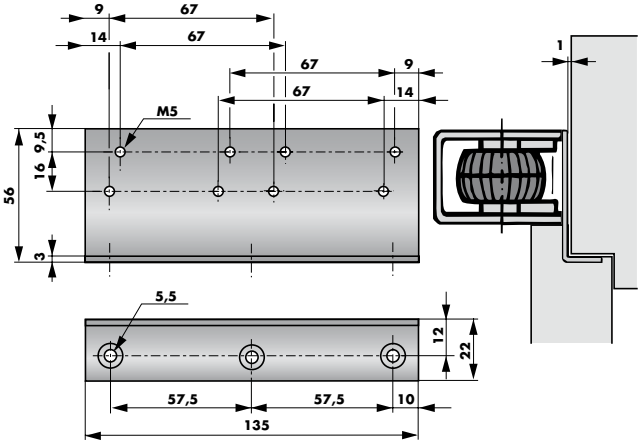
Mounting plate for door check VS 2000, part no. 205279



Mounting plate for door check V 1600, part no. 205463



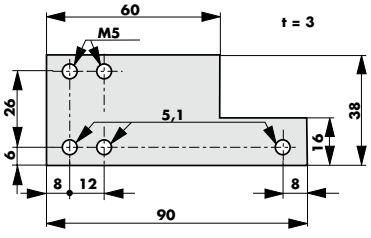
Mounting bracket g for flush doors, part no. 205221



Mounting bracket a for overlapping doors, part no. 205220

Mounting plate for horizontal mounting of the hook 1020 for the VS 2000, part no. 205256

This mounting plate is used when the frame is not high enough to fix all bores of the horizontally mounted hook of the VS 2000. The additional 3rd fixing bore hole of the plate provides the necessary stability.



Order Information

Mounting plate for horizontal mounting of VS 2000, zinc-plated	part no. 205279
Mounting plate for horizontal mounting of V 1600, AISI 304	part no. 205463
Mounting bracket a for horizontal mounting VS 2000, zinc-plated	part no. 205220
Mounting bracket g for horizontal mounting VS 2000, zinc-plated	part no. 205221
Mounting plate for horizontal mounting of hook 1020, zinc-plated	part no. 205256

Universal Door Checks

For Sliding Doors

When using a special mounting bracket, some of the DICTATOR door checks can also be mounted on **sliding doors**. The door damper itself is fixed laterally on the sliding door, the corresponding hook on the door frame.

On the last few centimeters the door check slows down the closing movement of the door and pulls the door firmly closed. The door cannot rebound and therefore reliably stays closed. Apart from this zone the door is completely free to move.

At the moment **brackets for mounting** the following two **door check models** on sliding doors are available:

- **Z 1000 door check** (model Z 1100)
- **V 1600 door check**: using the mounting bracket in AISI 304 the door damper V 1600 can now also be mounted on sliding doors. The mounting bracket completely covers the fixing plate of the casing thus creating an optical unit (see photo). When ordering your V 1600 model you just add the mounting bracket to your order.

For sliding doors usually the door checks with low closing forces are used as otherwise opening the door would require too much effort.

Technical Data

Type of door	sliding door
Closing force	depending on model, recommended are 20 N
Door check models	Z 1100, V 1600
Material mounting bracket	AISI 304

V 1600 Door Check

With Mounting Bracket for Sliding Doors

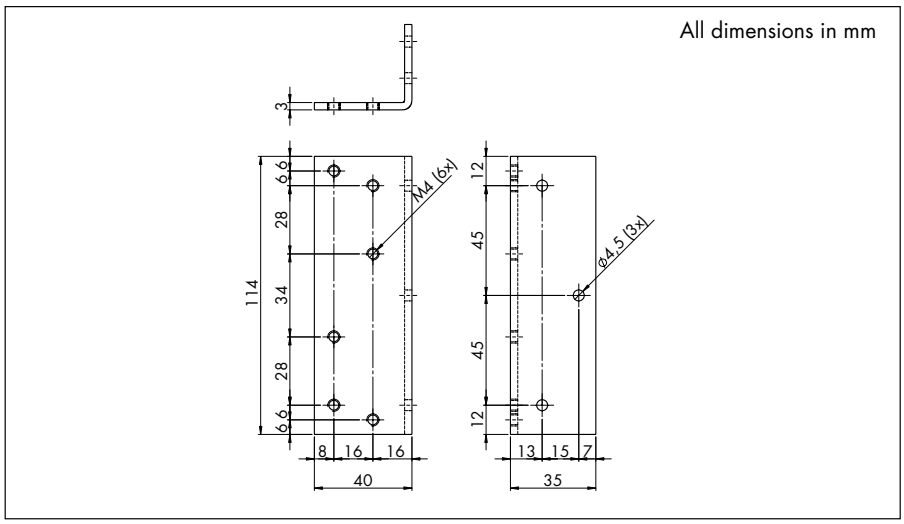
By means of a special bracket the V 1600 door damper can also be mounted on sliding doors. The mounting bracket is made of stainless steel.

The V 1600 door check is fixed with its side on the sliding door. The hook is screwed to the door frame. When the sliding door is closing, the roller lever of the damper enters the hook shortly before the door is completely closed and thus provides for the controled closing of the last part of the closing travel. The door cannot rebound and is always completely closed.

For detailed information about the V 1600 with dimensions and order information see page 02.007.00 et sqq.

Functioning

Dimensions Mounting Bracket



Mounting

The mounting bracket for the V 1600 is screwed approx. 85 mm below the door frame on the door near its closing edge. The distance to the closing edge depends on whether the closed door just rests against the frame or enters in a recess.

Fold out the base plate of the door check and fix it to the bracket. Then hinge down the body of the door damper until it clips to its base plate.

To mount the hook bend the roller lever of the door check. For a start fix the hook to the frame only by using the two oblong holes so that it is in a line with the door damper and the rubber roller only just touches its front edge when closing. Only when the hook is optimally adjusted, fix it also through the two normal holes.

Order Information

Mounting bracket sliding doors for V 1600, AISI 304	part no. 203037

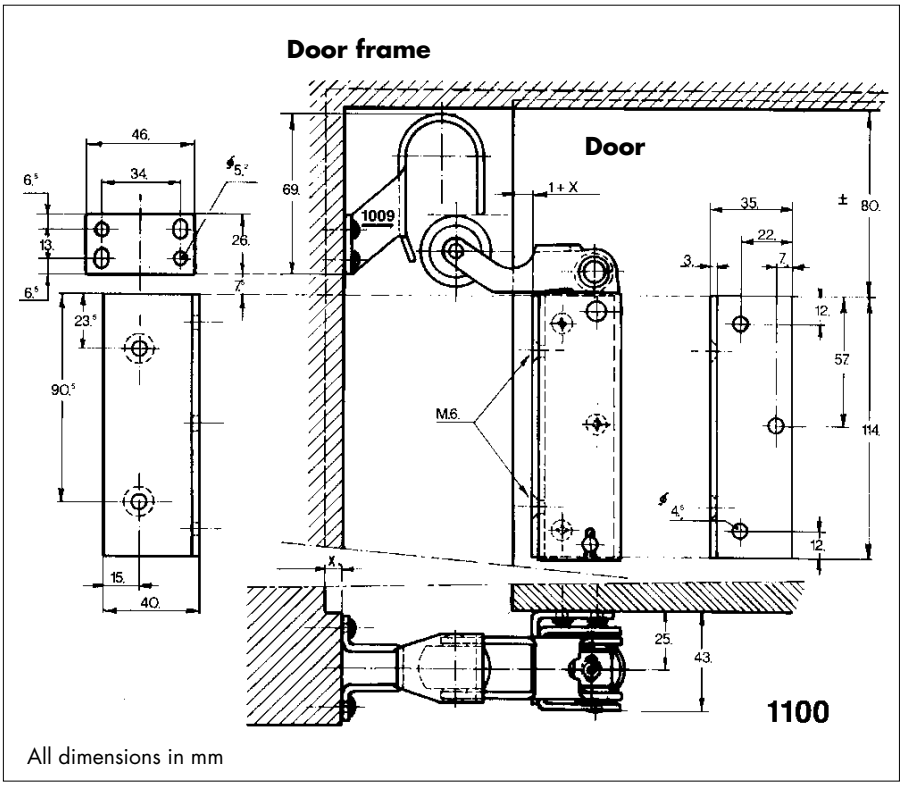
DICTATOR Z 1100 Door Check

For Room Sliding Doors

The DICTATOR Z 1100 door damper is a special version of the Z 1000 with mounting bracket designed for room sliding doors. The Z 1100 door damper slows down the closing speed on the last few centimetres and closes the sliding door completely. Especially with lightweight room doors this represents the ideal solution as normal final dampers, due to their integrated return spring (see Damping Engineering of our catalogue), might re-open these doors a littlebit under unfavourable conditions.

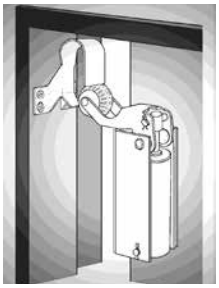
The Z 1100 door damper comes with the 1009 hook (see page 02.016.00 for dimensions).

Dimensions



All dimensions in mm

Mounting



The mounting bracket is screwed onto the sliding door about 1 mm from the closing edge and about 80 mm below the upper edge of the door. Fix the cylinder with the two bolts to the casing and then screw the door damper to the mounting bracket with two M6-screws. To determine the position of the hook, push down the roller lever. The roller should pass just below the front edge of the hook. Only use the two oblong holes when fixing for the first time. The two remaining screws can be used once you have adjusted the hook to the optimal position.

Order Information

Z 1100 door check, 1009 hook, 20 N, nickel-plated	part no. 300367
Z 1100 door check, 1009 hook, 50 N, nickel-plated	part no. 300498
Z 1100 door check, 1009 hook, 80 N, nickel-plated	part no. 300499

each with a mounting bracket

Piccolo Closing Spring

This simple, reliable closing spring is suitable for light doors such as interior, kitchen, toilet and restaurant doors.

Special features of the Piccolo include its small size and unobtrusive design (no operating lever). This also protects it against vandalism.

The spring force is fully adjustable. The force is transferred to the door by means of a pushing plate. The plate slides on a self-lubricating ring which protects the door from damage.

On larger doors several Piccolo closing springs can be fitted, thus increasing the closing force.

In order to make up for height differences between the door and frame in recessed doors, special spacing washers are supplied with every Piccolo.

The Piccolo is also available in stainless steel for use on outside doors.

The great versatility of the Piccolo is increased by special designs for special applications.

Technical Data

Material	nickel-plated steel
	steel, varnished black RAL 9005
	AISI 304, AISI 316
Spring force	10 - 50 N (adjustable)
Opening angle	max. 90°
Accessories included	3 spacing washers

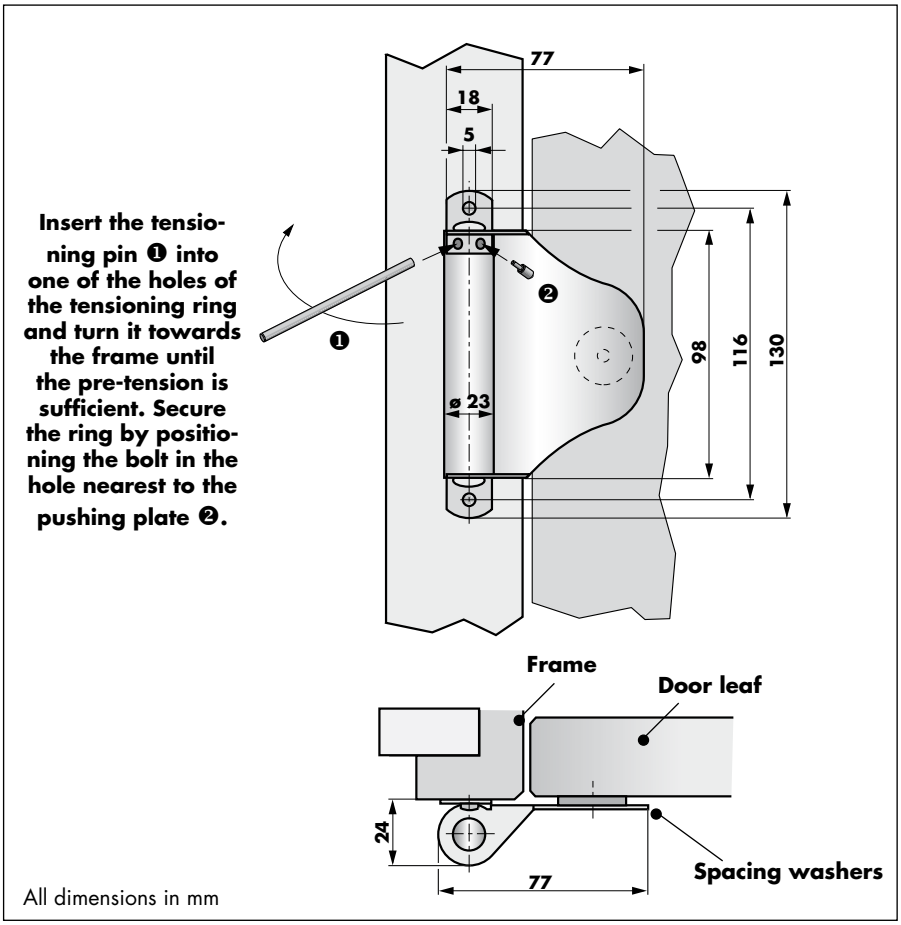
Mounting

Screw the Piccolo to the frame with the two half-round screws. Then fix the self-lubricating ring and the washers to the door. They should be just covered by the pushing plate. The pushing plate must always lie parallel to the door leaf. For recessed doors please place the additional spacing washers under the self-lubricating ring.

Now tension the closing spring with the tensioning pin. The pretension should not exceed half a turn (= 2 holes) of the adjusting ring. The ring is secured in the pretensioned position with a securing bolt being placed into the hole nearest to the pushing plate.

Dimensions

Insert the tensioning pin ❶ into one of the holes of the tensioning ring and turn it towards the frame until the pre-tension is sufficient. Secure the ring by positioning the bolt in the hole nearest to the pushing plate ❷.



All dimensions in mm

Order Information

Piccolo closing spring, nickel-plated steel	part no. 300340
Piccolo closing spring, steel, varnished black RAL 9005	part no. 300340S
Piccolo closing spring, AISI 304	part no. 300339
Piccolo closing spring, AISI 316	part no. 300337

D2a / D4 Closing Spring with Operating Arm

DICTATOR D2a and D4 closing springs with operating arm are a simple and cost-effective door closing device suitable for all kinds of right and left hand doors.

The adjustable spring force is transferred to the door by an operating arm running on a small roller fixed to the door.

The spring arm can be positioned vertically to allow the door to be operated without the closing spring (e.g. for transport purposes).

The D2a/D4 closing springs come in various spring forces - for light and heavy doors.

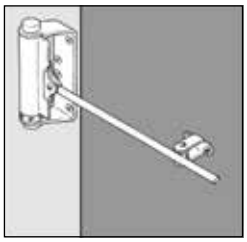
The D2a and D4 closing springs are also furnished in **stainless steel** for outside doors, e.g. garden gates.

To close the door gently and quietly we recommend you use these closing springs in combination with a DICTATOR door check (see pages 02.003.00 and the following).

Technical Data

Material	nickel-plated or stainless steel
Spring force	10 - 50 N (adjustable)

Mounting



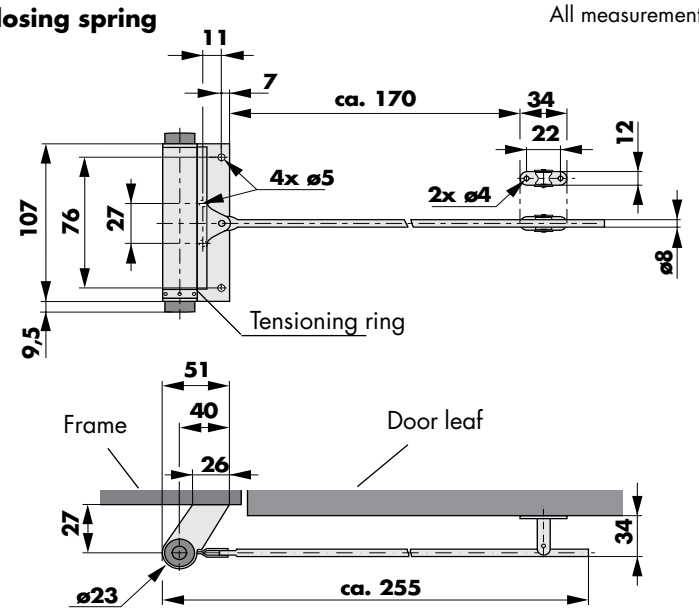
Screw the closing spring mounting bracket to the door frame with ø 5 mm screws, usually in the lower part of the door. The roller is then fixed to the door leaf. Please keep to the dimensions/distances given below.

To pre-tension the closing spring insert the tensioning pin into one of the holes of the ring and turn it towards the operating arm. Then insert the small bolt into the hole closest to the operating arm. If the force is still not sufficient, please repeat the procedure.

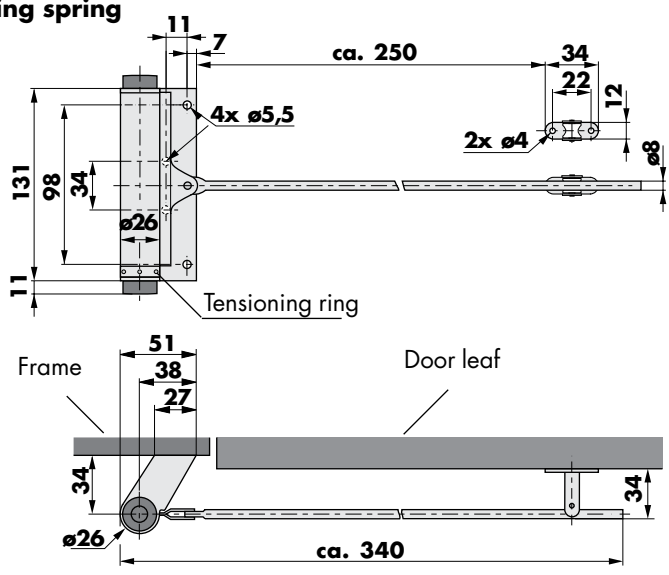
Dimensions

D2a closing spring

All measurements in mm



D4 closing spring



Order Information

D2a closing spring, nickel-plated	part no. 300300
D2a closing spring, stainless steel	part no. 300308
D4 closing spring, nickel-plated	part no. 300320
D4 closing spring, stainless steel	part no. 300328

E 16/2500 and E 22/2550 Concealed Jamb Closers

The concealed jamb closer is integrated into the door for aesthetic and anti-vandal purposes.

Both models can be mounted at any height of the door. Due to its small diameter the E 16/2500 model is mainly used in smaller wooden doors, and the E 22/2550 with its larger diameter in steel and large wooden doors. The E 22/2550 fixing holes coincide with those of the previous model E 28.

The spring strength is adjusted by shortening or lengthening the chain as desired, without dismantling the mechanism. The closing force depends amongst others on the used hinges.

The concealed jamb closer can be used in both flush and overlapping doors. It needs no maintenance, but occasional greasing of the moving parts will increase its lifespan.

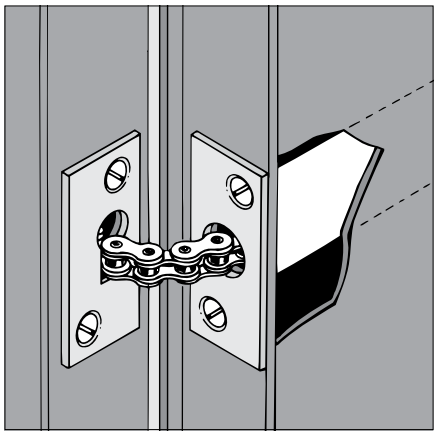
The exterior parts of the E 22/2550 concealed jamb closer, part no. 300319 and 300341, are made of non-rusting material (aluminium tube, front and counter plate in stainless steel).

A perfect complement make the DICTATOR door checks.

Technical Data

Type	E 16/2500	E 22/2550
Diameter of spring tube	Ø 16 mm	Ø 22 mm
Opening angle of door	up to 180°	up to 180°
Closing performance	0 - 150°, depending on the hinges	
Closing force	5 - 15 Nm	15 - 30 Nm
Material of spring tube	aluminium	aluminium
Material of front and anchor plate	zinc-plated steel	stainless steel

Mounting



Drill a suitable sized hole in the face side of the door (17 or 23 mm, depending on model) and insert the concealed jamb closer into the hole. If necessary the front plate can be embedded into the door leaf. It is fixed with two countersunk head screws.

Fix the anchor plate exactly opposite and at the same height to the frame. Please make sure there is enough space for the inserted chain links. We recommend to drill a hole of approx. 50 - 80 mm depth and a slightly smaller diameter than the width of the anchor plate. Now connect the chain to the anchor plate on the door frame. Open the door further and remove the securing pin. The concealed jamb closer is now ready for operation.

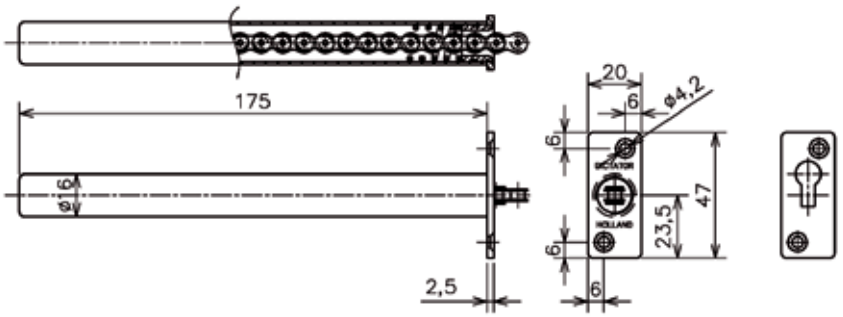
To adjust the spring force, open the door wide and secure the chain again with the securing pin. To increase the force, shorten the chain.

Please note that tensioning the closing spring on the concealed jamb closers too much and/or outside placed hinges could reduce the opening angle of the door. Continuing to open the door to 180° could damage both the concealed jamb closer and the door.

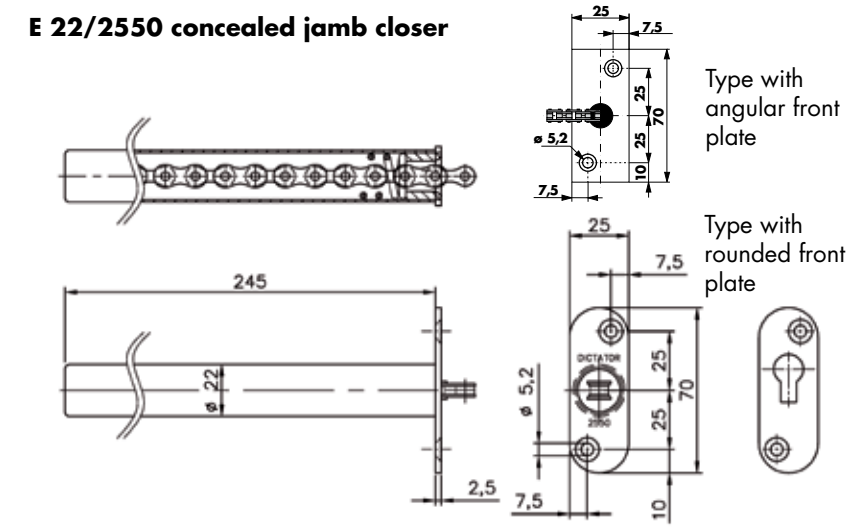
Dimensions

E 16/2500 concealed jamb closer

All measurements in mm



E 22/2550 concealed jamb closer



Order Information

E 16/2500 concealed jamb closer	part no. 300371
E 16/2500 concealed jamb closer, total length 240 mm	part no. 300371L
E 22/2550 concealed jamb closer, rounded front plate	part no. 300319
E 22/2550 concealed jamb closer, angular front plate	part no. 300341

HAWGOOD Swing Door Hinges

DICTATOR HAWGOOD swing door hinges close swing doors fast and trouble-free, and keep them closed. They are therefore particularly suitable for doors in frequent use (eg in public buildings and industry), as the door immediately returns to its closed position and is ready to be opened again by the next person, without him having to wait until the door has swung closed.

DICTATOR HAWGOOD swing door hinges are also used regularly in swing doors or flaps in interior fittings (e.g. cashier stations in supermarkets, small swing doors in counters etc).

When the door opens the door leaf swings away from the frame due to the special design of the hinge "shoe." This means the hinge does not reduce the clear width of the opening and only a small gap remains between the door leaf and frame when the door is closed.

The hinges come in different sizes to fit different doors (thickness of door leaf, weight etc.).

Technical Data

Types of doors	swing doors with 19 to 40 mm thickness
Door weight	up to over 100 kg, depending on hinges
Door width	please refer to tables
Opening angle	max. 100°
Hold-open feature	at 90° of opening (models 41 & 42 also available without)
Models available	4000 E and D, 4500 E and D, 40K, 41K, 41, 42

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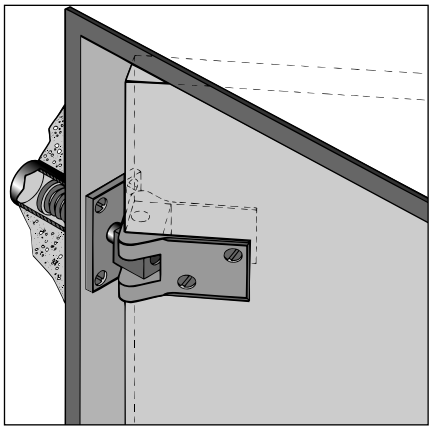
Installation



At least two hinges are necessary per door. They should be mounted at approx. 60 mm (for 4000 and 4500 models) or 120 mm (for 40K, 41K, 41, 42 models) below the upper edge or above the lower edge of the door leaf.

Firstly drill a **hole for the spring tube** into the frame. Depending on the type of hinge the following dimensions should be used:

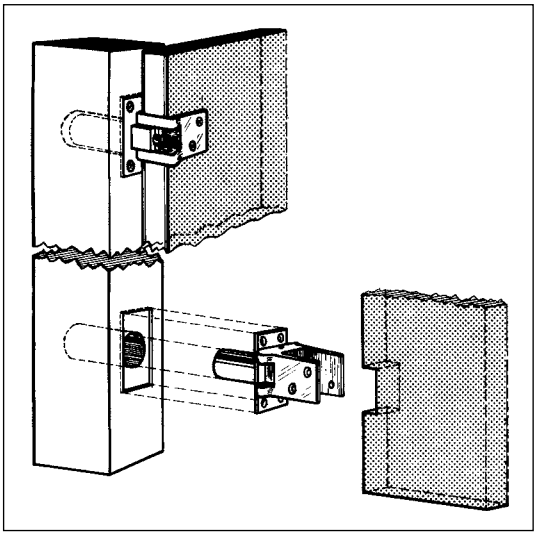
4000 and 4500 models: diameter 24 mm, depth of hole approx. 60 mm
40K, 41K, 41 and 42 models: diameter 38 mm, depth of hole approx. 90 mm

The hole must be situated in the centre of the frame and should be drilled accurately at a 90° angle to the edge.

Now the dimensions of the **fixing plate** should be marked on the frame. Place the pivot of the swing door hinge into the hole and ensure that there is clearance all around the plastic tubes. Otherwise the spring in the plastic tube could not work properly. The plate has to be parallel to the edge of the frame, too. Remove the swing door hinge and prepare the sinking of the mounting plate into the doorframe (thickness of the plate of the types 4000 and 4500: 3 mm, of the types 40K, 41K, 41 and 42: 4 mm), so that the hinge mounting plate is flush with the doorframe. Now the fixing holes are drilled and the plate is screwed to the frame.

Important: the hinge shoe must be positioned exactly rectangular to the frame to ensure the door closes completely.

Now **fix the shoe to the door leaf**. Move the door leaf against the frame (if necessary place a block of wood underneath to achieve the correct height) and press it against the shoes so that you can mark the exact height where the shoes need to be seated.



Size of the recess:

4000E/4500E	ca. 24 x 14 mm
4000D/4500D	ca. 47 x 14 mm
40K/41K	ca. 60 x 29 mm
41/42	ca. 48 x 29 mm

If the door leaf is thicker than the inner measurement of the shoe (not adjustable), the door leaf must be reduced to the necessary thickness equally on both sides. Now insert the door into the shoes and drill the fixing holes. Make sure the fixing screws are securely screwed in the door.

ATTENTION: if the holes fixing the shoe to the door are not exactly central to the holes in the shoe, the shoe could become slightly distorted and get jammed against the spring.

For doors which **open more than 100°**, an additional **door stopper** or similar must be used.

Maintenance

To achieve optimum performance and a long life we recommend you clean the DICTATOR HAWGOOD swing door hinges regularly and lubricate all moving and rotating parts.

4000 and 4500 HAWGOOD Swing Door Hinges for Doors up to 26 kg and Max. 30 mm Thick

4000 and 4500 swing door hinges are designed for small swing doors and swing flaps (e.g. on shop counters). They differ in the inner (not adjustable) dimension of the shoe. The 4000 model is suitable for a door thickness of 19 (- 24) mm, the 4500 model for 25 (- 30) mm. The spring forces on both models are identical.

Both hinges have a **hold-open feature at 90°** of opening. They are available with either one spring (E) or with two springs (D).

With the help of the table below you can find out which type should be choosen depending on the width, height and weight of the door. On a door leaf you have to use either a pair of type "E" or type "D" hinges.

Survey of Types

There are available different executions of the 4000 and 4500 swing door hinges. For aesthetically demanding solutions you should use the swing door hinge with a **shoe from brass** (brushed or nickel-plated). The version with a **shoe from abrasion-proof plastics** (light grey or black) represents a solution with the same high quality and durability and a very economic one, too. It can even be furnished with a fixing plate of stainless steel, which makes it ideal for humid surroundings or its use outdoors.

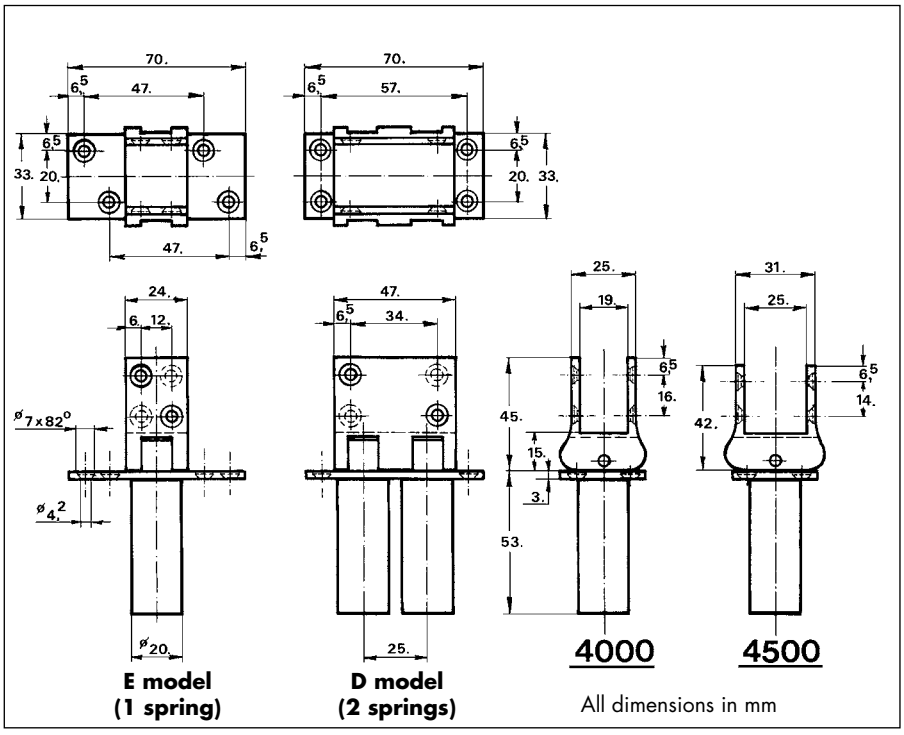
Selecting the Right Model depending on the size and weight of the door

E = 2 x single spring (1 pair)

D = 2 x double spring (1 pair)

	E	D	E	D	E	D	E	D	E	D
Width of door	**300** mm		**400** mm		**500** mm		**600** mm		**700** mm	
Height	Admissible weight of door leaf in kg									
500 mm	9	16	6	11	5	9	4	7	3	5,4
600 mm	11	20	8	14	6	11	5	9	4	7
700 mm	12	22	9	16	7	13	6	11	5	9
800 mm	14	25	11	20	8	14	7	13	6	11
900 mm	16	26	12	22	10	18	8	14	7	12
1000 mm	18	26	13	23	11	20	9	16	7	13
1100 mm	20	26	15	26	12	22	10	18	8	15
1200 mm	22	26	16	26	13	23	11	20	9	16
1300 mm	22	26	17	26	14	25	12	22	10	18
1400 mm	22	26	19	26	15	26	12	22	11	20
1500 mm	22	26	20	26	16	26	13	23	11	20
1600 mm	22	26	22	26	17	26	14	25	12	22
1800 mm	22	26	22	26	19	26	16	26	14	25
2000 mm	22	26	22	26	21	26	18	26	15	26

Dimensions: Models with Shoe from Brass



E model (1 spring) **D model (2 springs)** All dimensions in mm

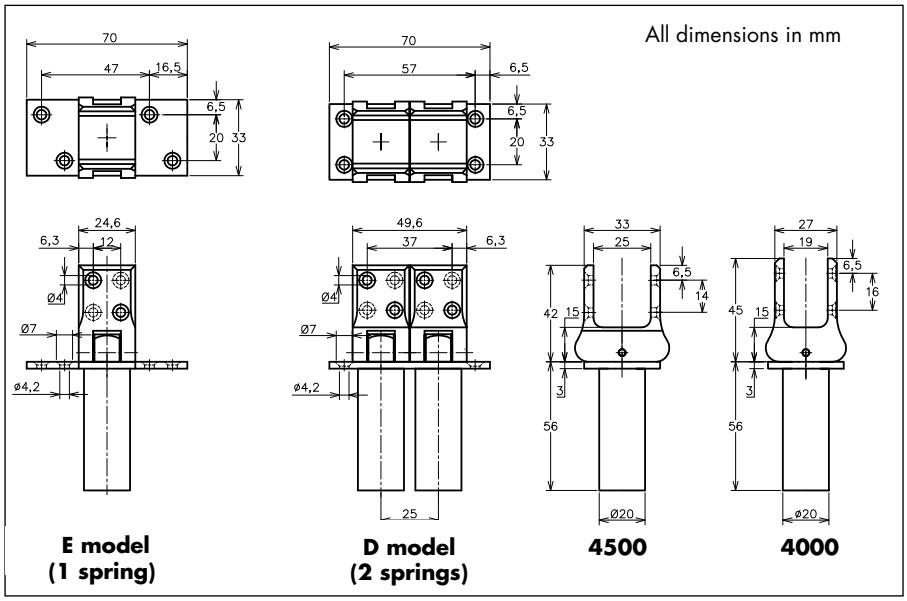
4000 and 4500 HAWGOOD Swing Door Hinges for Doors up to 26 kg and Max. 30 mm Thick - cont.

The dimensions of the swing door hinges with shoe from plastics differ a littlebit from those with shoe from brass. Furthermore, the shoe of the D type is made from two single shoes mounted on a plate.

The plastic shoe, made of a special abrasion-proof material, gives long life.

On request the swing door hinges 4000/4500 are also available with particular mounting plates e.g. for round posts.

Dimensions: Models with Shoe from plastics



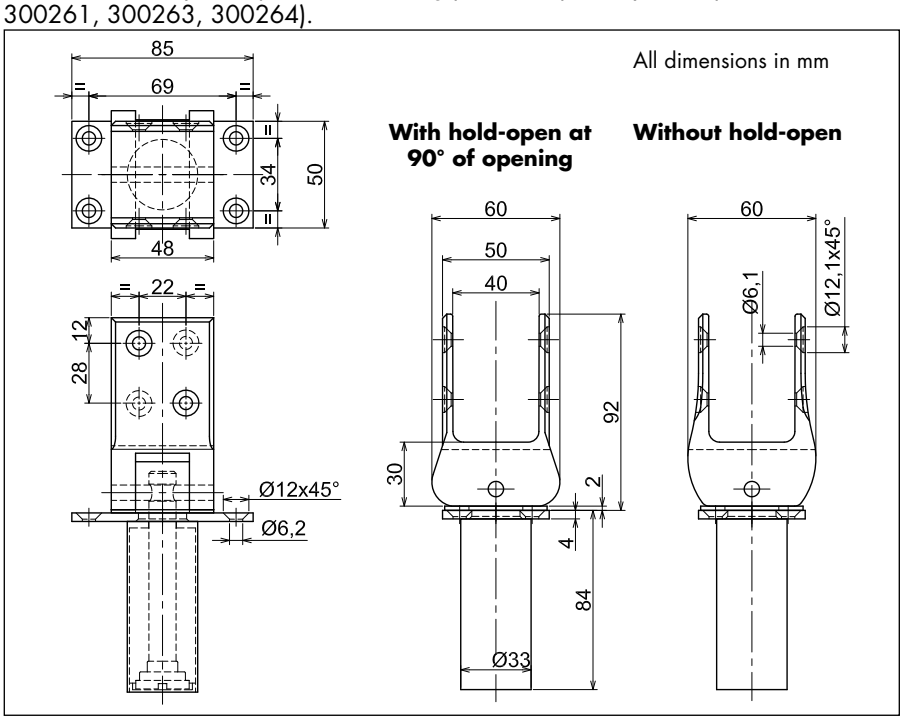
Order Information

Swing door hinge	Material	Plate	Part No.
4000E	nickel-plated brass	zinc-plated	300350
4000D	nickel-plated brass	zinc-plated	300359
4000E	brushed brass	zinc-plated	300360
4000D	brushed brass	zinc-plated	300361
4500E	nickel-plated brass	zinc-plated	300362
4500D	nickel-plated brass	zinc-plated	300363
4500E	brushed brass	zinc-plated	300364
4500D	brushed brass	zinc-plated	300365
4000E	light grey plastics	zinc-plated	300350K
4000E	black plastics	zinc-plated	301420
4000D	light grey plastics	zinc-plated	300359K
4000D	black plastics	zinc-plated	301421
4500E	light grey plastics	zinc-plated	300362K
4500D	light grey plastics	zinc-plated	300363K
4000E	light grey plastics	AISI 304	300350KV2A
4000D	light grey plastics	AISI 304	300359KV2A
4500E	light grey plastics	AISI 304	300362KV2A
4500D	light grey plastics	AISI 304	300363KV2A

41 and 42 HAWGOOD Swing Door Hinges for Doors up to 60 kg, 40 mm Thick, Max. 1 m Wide

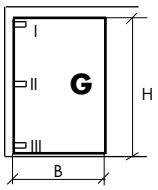
41 and 42 swing door hinges are designed for larger swing doors. Please see the formula shown below for information on possible door dimensions and weight. If your door is heavier or larger than the formula allows, please seek our advice. Models 41 and 42 only differ in their spring force. The spring in 42 is covered by a white plastic tube and the spring in 41 by a black plastic tube. When combining both models on a door, model 42 must always be placed at the top.
41 and 42 swing door hinges are available either with or without the hold-open feature at 90° of opening. The shoe is made of stainless steel and the fixing plate is either zinc-plated or stainless steel (recommended for use in areas containing food). The hinges are also available in yellow pearl finish, fixing plate zinc-plated yellow (part no. 300260, 300261, 300263, 300264).

Dimensions



Selecting the Right Model

The number of hinges and the model required (41 and/or 42) can be determined with the formula shown on the right. Up to 4 hinges can be fitted to one door (see table). Please make sure that model 42 is always mounted at the top. Furthermore the upper hinge should be placed as high as possible.



G = Door weight in kg
H = Door height in mm
B = Door width in mm

$$K = \frac{G \times 1/2B}{H}$$

K = Key for determining the hinges required

K	I	II	III
- 8	1x41		1x41
8 - 16	1x42		1x41
16 - 20	1x42		1x42
20 - 30	1x42+ 1x41		1x42
30 - 50	2x42	1x41	1x42

Order Information

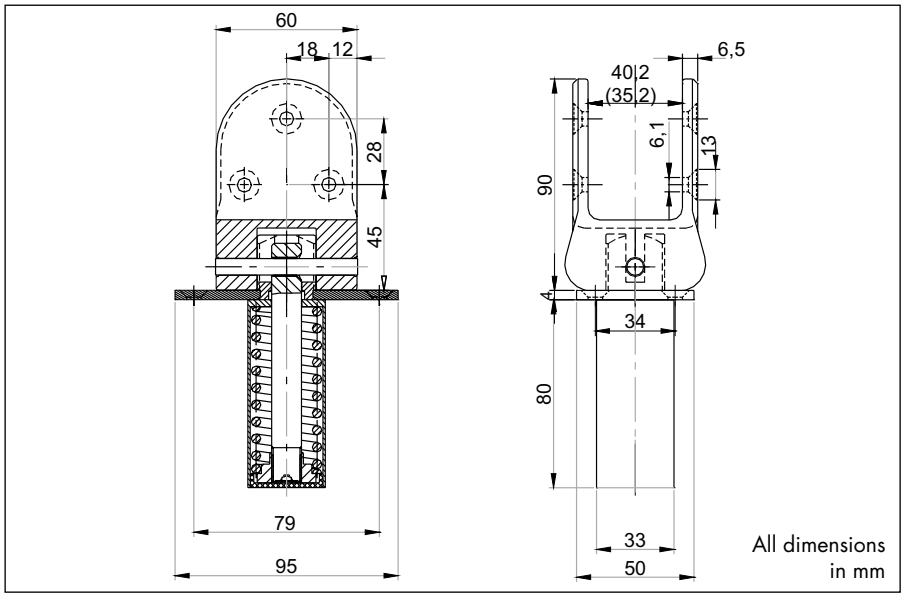
41 hinge, stainless steel shoe, zinc-plated plate, without hold-open	part no. 300440
41 hinge, stainless steel shoe, zinc-plated plate, with hold-open	part no. 300441
41 hinge, completely AISI 304, without hold-open	part no. 300442
41 hinge, completely AISI 304, with hold-open	part no. 300443
42 hinge, stainless steel shoe, zinc-plated plate, without hold-open	part no. 300444
42 hinge, stainless steel shoe, zinc-plated plate, with hold-open	part no. 300445
42 hinge, completely AISI 304, without hold-open	part no. 300446
42 hinge, completely AISI 304, with hold-open	part no. 300447

40K and 41K HAWGOOD Swing Door Hinges, Plastic Shoe, for Doors up to 50 kg and 35/40 mm Thick

The swing door hinges type 40K and 41K are intended for doors of up to 50 kg and are available for doors being thick 35 mm and 40 mm. The series 40K/41K stands out due to their very favourable price. The abrasion-proof plastic material easily resists even heavy duty. The types 40K and 41K have a different spring force (the colour of the plastic cover of the spring indicates the type: 40K = grey, 41K = black). The fixing plate is available in zinc-plated steel or in AISI 304 stainless steel. The series 40K and 41K are always produced with a **hold-open at 90°**.

The form of the plastic shoes has been designed in order to allow relieving their contours in the door with ordinary frasers.

Dimensions



Dimensions and Weights of the Doors

Thickness:	35 or 40 mm
Height	up to ca. 2000 mm
Width	up to ca. 1000 mm
Weight	up to ca. 50 kg

$$K = \frac{G \times 1/2\ B}{H}$$

K = factor for choosing the type
G = weight of door in kg
H = height of door in mm
B = width of door in mm

K	I	III	weight (kg)
< 4	1x40K	1x40K	< 20
4 - 6	1x41K	1x40K	20 - 30
6 - 10	1x41K	1x41K	30 - 50

Order Information

	Part no.
40K swing door hinge, 40 mm shoe, light grey, zinc-plated plate	301400
40K swing door hinge, 40 mm shoe, black, zinc-plated plate	301401
41K swing door hinge, 40 mm shoe, light grey, zinc-plated plate	301410
41K swing door hinge, 40 mm shoe, black, zinc-plated plate	301411
40K swing door hinge, 40 mm shoe, light grey, AISI 304 plate	301400V2A
40K swing door hinge, 40 mm shoe, black, AISI 304 plate	301401V2A
41K swing door hinge, 40 mm shoe, light grey, AISI 304 plate	301410V2A
41K swing door hinge, 40 mm shoe, black, AISI 304 plate	301411V2A
40K swing door hinge, 35 mm shoe, light grey, zinc-plated plate	VAR-301400-001
40K swing door hinge, 35 mm shoe, black, zinc-plated plate	VAR-301401-001
41K swing door hinge, 35 mm shoe, light grey, zinc-plated plate	VAR-301410-001
41K swing door hinge, 35 mm shoe, black, zinc-plated plate	VAR-301411-001

The delivery includes special threaded inserts which ensure a safe and stable fixing also on not massive doors.

DICTATOR RTS Tube Door Closer

The "Invisible" Door Closer

The DICTATOR RTS tube door closer is virtually invisible because being built into the door. The joint can only be seen when the door is open.

The DICTATOR RTS tube door closer is often used on **outside gates** such as garden entrance gates, admission gates into industrial plants. These gates usually do not have a frame above the door where the operating lever of a normal overhead door closer could be fitted. Furthermore the **concealed fitting** protects the door closer from atmospheric conditions and against **vandalism**.

This makes the RTS an ideal solution for admission gates into industrial plants with access control which have to close reliably (**Supply Chain Security**).

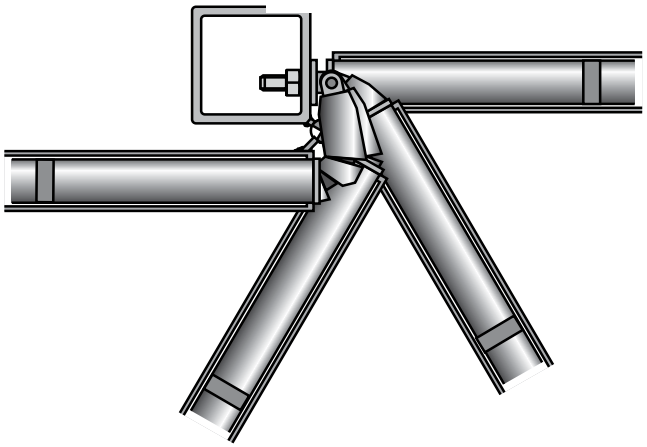
The tube door closer is particularly suitable for aluminium and steel doors/ gates. It can also be fitted into the profile of an existing door. For flush wooden doors with minimum 40 mm thickness, a tube door closer with special fitting plates can be supplied.

Due to its flexible abrasion-proof plastic joint, the RTS can be used with different hinges. Depending on the hinges, the doors/gates can be **opened** to **180°**.

Technical Data

Material	steel
Door opening angle	90° - 180°, depending on hinges
Door weight	up to ca. 80 kg
Door height	up to ca. 2500 mm
Width of door leaf	ca. 750 mm to 1150 mm
Types of doors	steel, aluminium and wood
Closing speed	adjustable

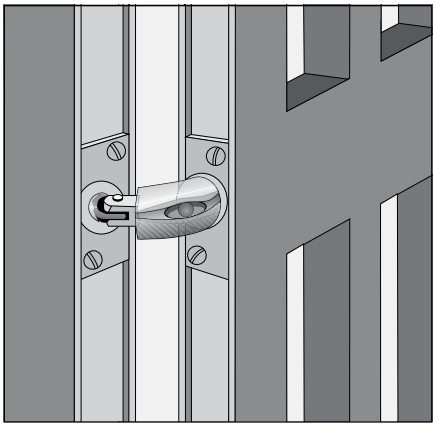
Operation



The RTS tube door closer is inserted into the door and connected to the counter-plate (which is fixed to the frame) by an elastic joint with integrated steel ropes. When the door is opened the joint is pulled out and the closing spring inside the RTS is tensioned. The closing speed is controlled by the hydraulic damping cylinder in the middle of the tube door closer. It is adjustable and can therefore be adapted to suit different requirements.

Installation Instructions

Fit the RTS tube door closer into the door, near one of the hinges if possible. With aluminium and steel doors it is usually fitted into the profile of the door. When fitting to wooden doors already existing, we recommend you mill a recess into the door (in the top or the bottom) into which the door closer can be placed. However, it is possible to fit the tube door closer anywhere in the wooden door. Fix the front plate of the door closer to the door (with wooden doors sink the front plate into the door. With steel or aluminium doors it may be necessary to provide reinforcement plates with threaded inserts). Make sure the long groove in the joint never points to the side of the door hinges (access to the adjusting screw).



Now fix the counter plate to the door frame at the same height and position as the front plate. Screw the self-locking eyelet with thread into the counter plate. The asymmetric eyelet balances out smaller differences in height between door closer and counter plate. The latch action can be adjusted by screwing the eyelet into the counter plate (latch action: eyelet enters about 15 to 17 mm into the front tube of the RTS - measured from the centre of the hole of the eyelet). **IMPORTANT**: The thread of the eyelet has a special self-locking coating which prevents the eyelet from turning any further 30 minutes after the eyelet has been screwed into the counter plate.

Now connect the bronze alloy fork to the eyelet with a bolt and secure it with the snap ring. We recommend you lubricate the bolt slightly as this prolongs its life considerably. Open the door completely and remove the securing pin from the joint. The door closer is now ready for operation. Should you ever need to remove the door closer or disconnect it from the counter plate, insert the securing pin back into the joint first!

Adjusting the Closing Speed

To adjust the closing speed open the door between 45° and 90° and push the long arm of the hexagon socket screw key into the inclined boring of the plastic joint until the key clicks into place. One turn clockwise will increase the damping (slower closing speed) and turning anti-clockwise will reduce the damping (faster closing).

The closing speed should be checked after each half turn of the key (180°).

IMPORTANT: When the slowest closing speed has been reached (door almost stops), do not continue turning the adjusting key clockwise as this will damage the door closer.

Handling Instruction:

Never push the door closed! There is the risk that the joint buckles and gets damaged.

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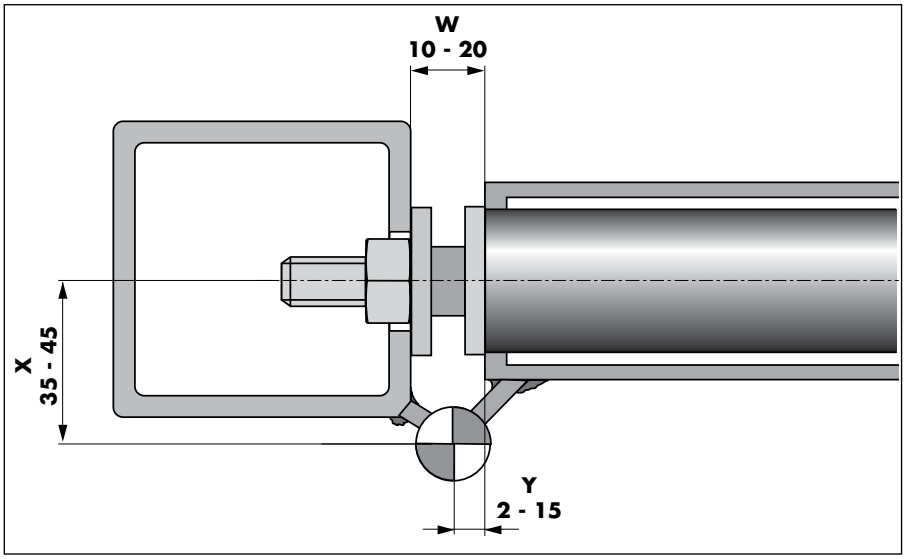
Installing the RTS Tube Door Closer
Important Hinge Dimensions

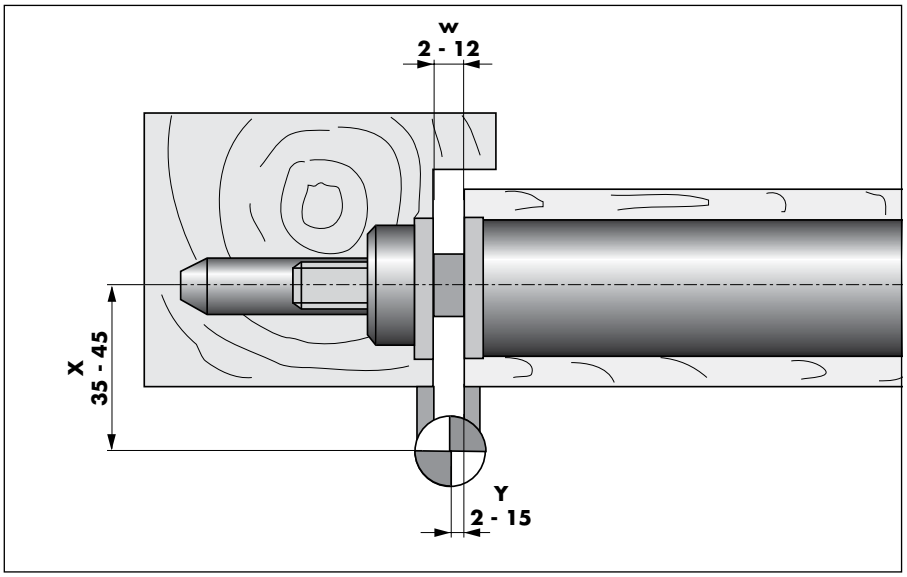
Installing in Aluminium and Steel Doors



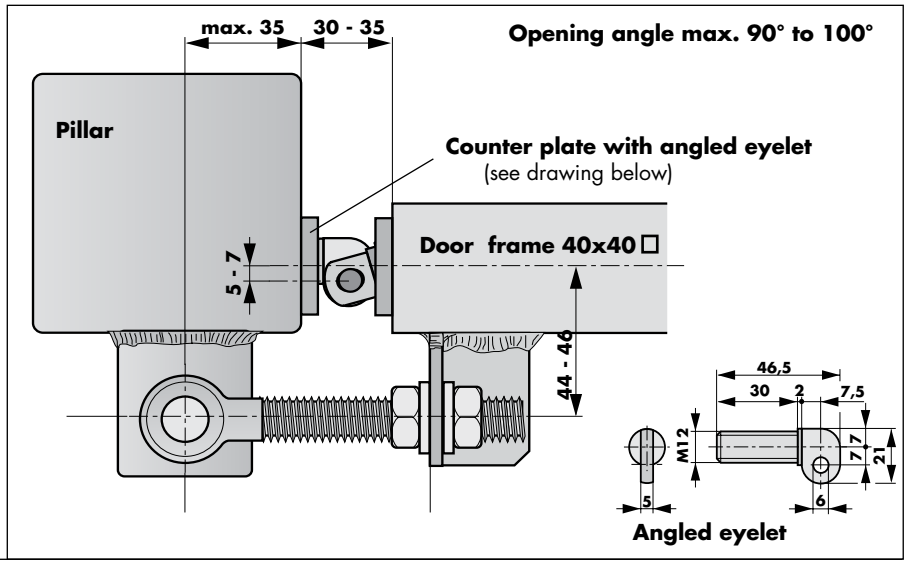
Warning:

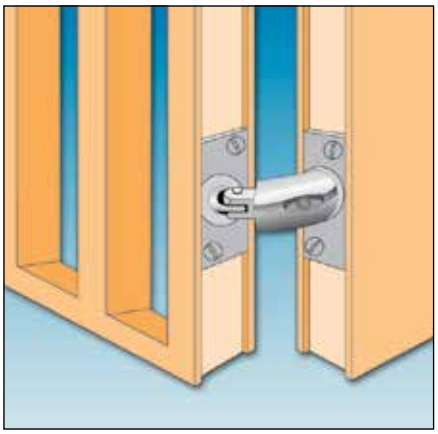
Dimensions W, X and Y must be observed! Otherwise the opening angle, latch action and closing will be affected.
If you have any queries, please contact our Advisory Service.

Fitting to Flush Wooden Doors



Fitting to Access Doors and Gates in Fences with Screw-Hinges (WARNING: Use Angled Eyelet!)





RTS d and RTS e Tube Door Closers

DICTATOR RTS d and RTS e tube door closers are designed for steel and aluminium doors. Their front plate is fixed to the door with two M8-screws. The RTS d and RTS e only differ in the position of the holes on the front plate. Due to its fixing holes the RTS e can be used in place of the GEZE ROR TS 450 tube door closer .

With aluminium doors the door closer is usually fitted into the bottom profile of the door; in steel doors it is either fitted into the top or bottom profile.

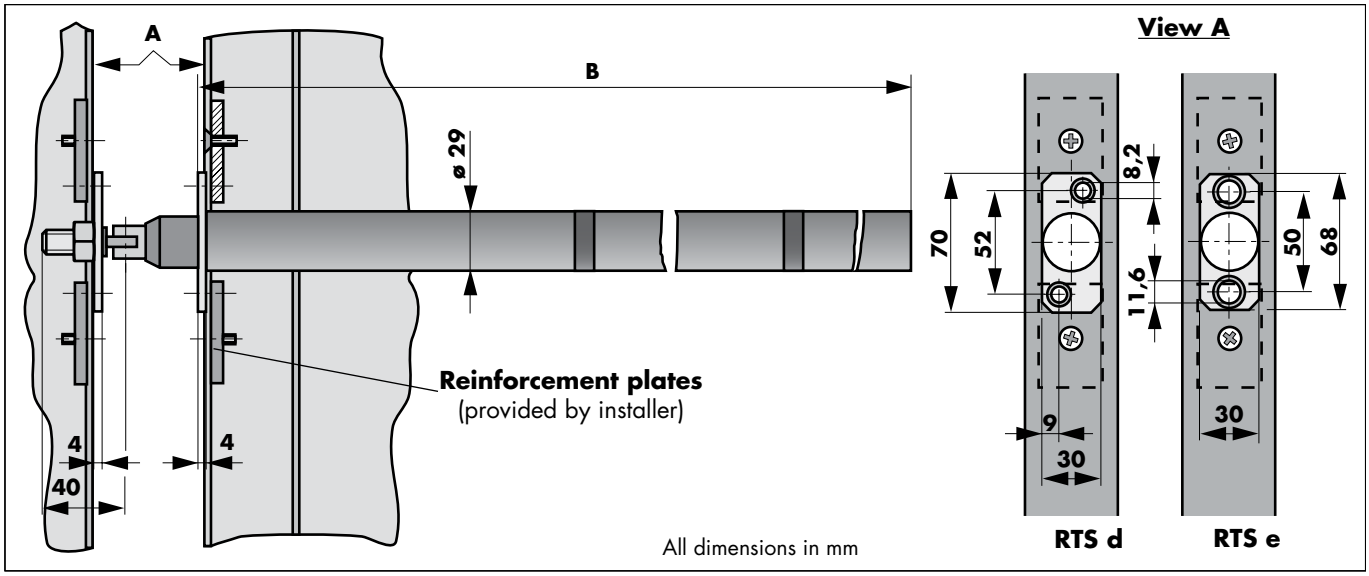
In case it is not possible to install the door closer RTS e into the door there is a casing available to mount this RTS onto the door. For further information see page 02.047.00.

Technical Data

Model	400520	400529*
Length (dimension B)	734 mm	734 mm
Opening angle	180° (max.)	180° (max.)
Width of door leaf	750 - 1150 mm	750 - 1150 mm
Height of door leaf	up to 2500 mm	up to 2500 mm
Weight of door leaf	up to 80 kg	up to 80 kg
Dimension X of hinges	35 - 45 mm	35 - 45 mm
Opening direction	both DIN right and DIN left	

* Front plates correspond to those of the GEZE ROR TS 450

Dimensions



Order Information

RTS d tube door closer	part no. 400520
RTS e tube door closer	part no. 400529

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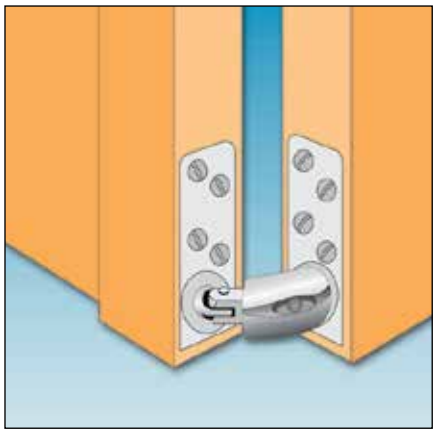


RTS t and RTS u Tube Door Closers

DICTATOR RTS t and RTS u tube door closers are equipped with a single-sided front plate. They are designed for fixing to either the top or bottom of the door.

In steel doors the thread for the fixing screws can usually be cut directly into the door. Should this not be possible, threaded inserts need to be riveted to the door. With aluminium doors, reinforcement plates should be inserted.

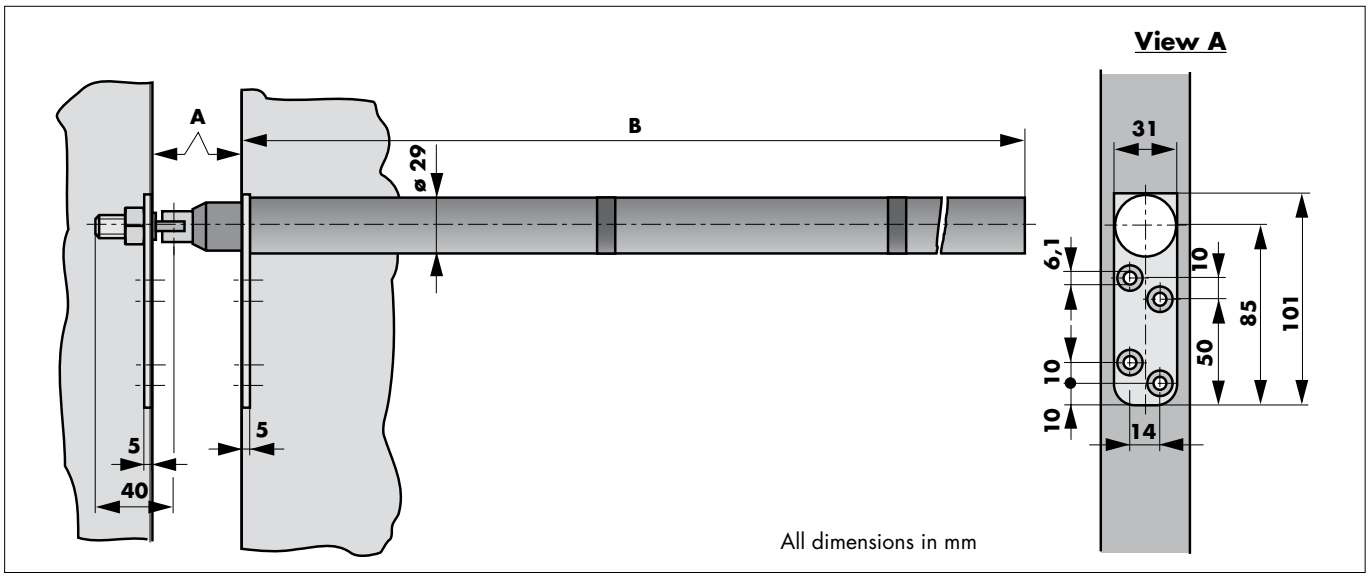
RTS t and RTS u tube door closers only differ in the position of their adjustment groove in the joint. It is therefore important when choosing RTS t or RTS u tube door closers to observe the fitting position (at the top or bottom) and the DIN-opening direction of the door.

Technical Data

ATTENTION:
With wooden doors the door closer can only be fitted to flush doors!

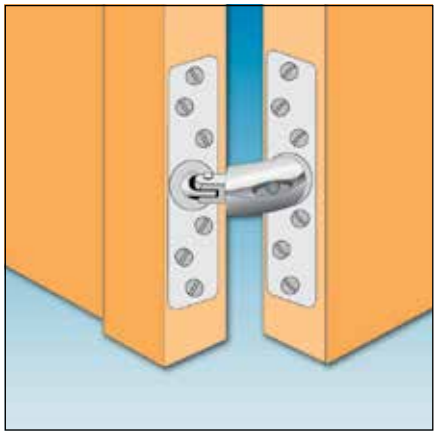
Model	400525	400526
Length (dimension B)	734 mm	734 mm
Opening angle	180° (max.)	180° (max.)
Width of door leaf	up to 1150 mm	
Height of door leaf	up to 2500 mm	
Weight of door leaf	up to 80 kg	
Opening direction		
Fitted at the top	DIN left	DIN right
Fitted at the bottom	DIN right	DIN left

Dimensions



Order Information

RTS t tube door closer	part no. 400525
RTS u tube door closer	part no. 400526



RTS v Tube Door Closer

DICTATOR RTS v tube door closers are specifically designed for flush wooden doors, which are fitted with the tube door closer during manufacture.

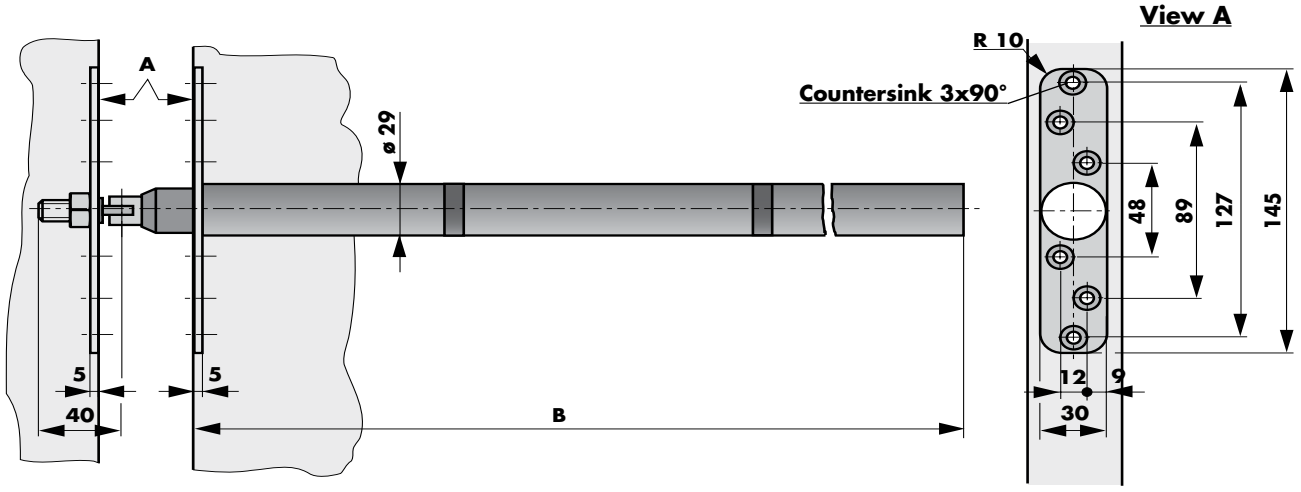
Although the tube door closer can be fitted in any position, we recommend you fit it at the centre point between the hinges. This will reduce stress on the hinges and door.

Technical Data

ATTENTION:
The RTS v tube door closer can only be used on flush doors!

Model	400527
Length (dimension B)	734 mm
Opening angle	180° (max.)
Width of door leaf	up to 1150 mm
Height of door leaf	up to 2500 mm
Weight of door leaf	up to 80 kg
Opening direction	DIN left and right

Dimensions



All dimensions in mm

Order Information

RTS v tube door closer	part no. 400527

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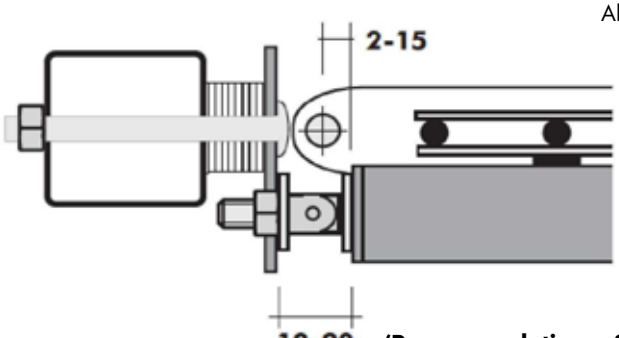
Casing for Surface Installation of the RTS e

This casing has been developed to allow the installation of the door closer RTS e, part no. 400529, also on doors with flush hinges or without tube frame profile. It also facilitates retrofitting. As long as the measurements shown below are observed, this casing permits to mount the RTS e on all kinds of doors. With steel doors the casing can be welded onto the door already in production. The same applies to the mounting plate on the jamb.

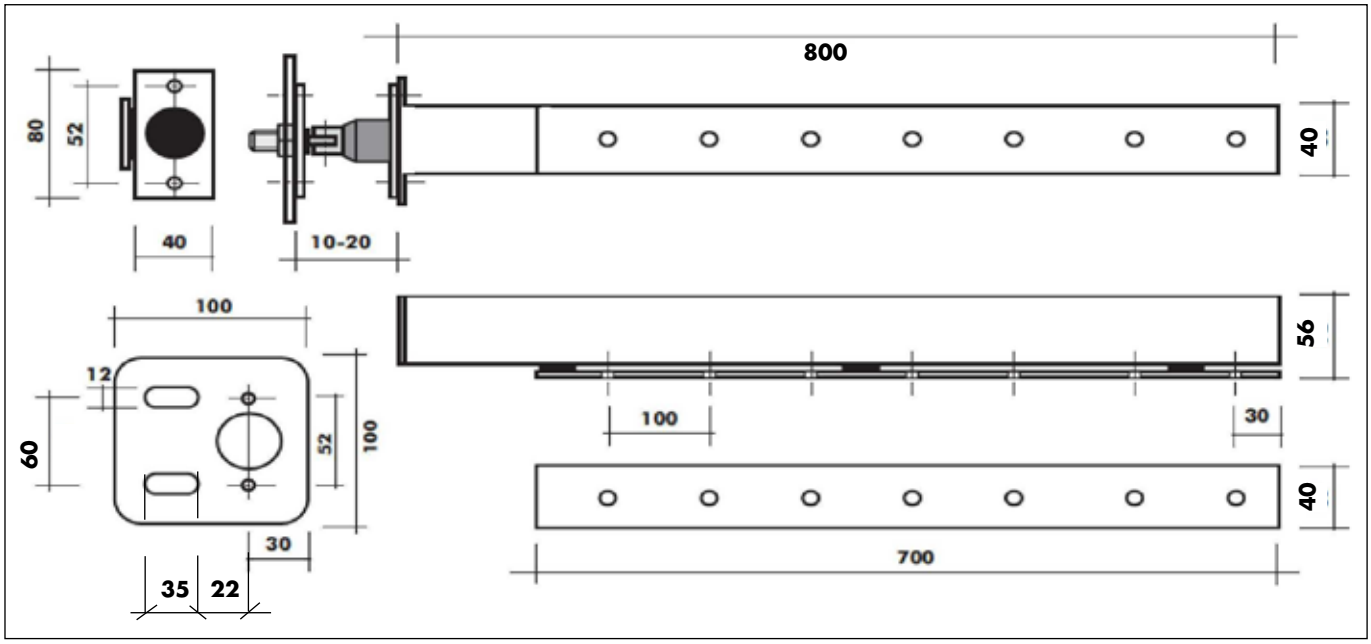
Very important is that you observe the measurements given below. Depending on the alignment of the hinges the doors can be opened up to 180°. By default the casing is zinc-plated. On demand, larger quantities can also be furnished with powder coat.

Important Hinge Dimensions

All dimensions in mm



Dimensions Casing



Components Included

Casing for surface installation
Fixing plate with screws
Mounting plate for the jamb with screws and washers

Order Information

Casing for surface installation of RTS e (400529)	part no. 400594

DICTATOR "DIREKT" Gate Closer

For Access Gates in Boundary Fences

The DICTATOR gate closer DIREKT is the **economic** solution for the **reliable** and **controlled closing** of **outside gates**, such as admission gates to kinder gardens (thus preventing the children from running out into the street), schools, industrial plants or just normal garden entrance doors. Unlike a normal closing spring the gate is not thrown shut. The gate closer DIREKT **reduces the danger of injuries** and accidents, e.g. pinched fingers, and prevents the gate from hitting the person just passing through the gate.

It is as **easy to install** as a normal closing spring. But unlike the normal closing springs its **closing speed** can be **adjusted continuously**.

Depending on the gate and the hinges you either use the **DIREKT 150** or the **DIREKT 200**.

The gate closer DIREKT can be installed on gates with normal, ascending and screw hinges.

Technical Data

Material piston rod	chrome plated steel, AISI 304, AISI 316L
Material cylinder	zinc-plated steel coated black/grey/white, AISI 304, 316L
Material protection tube	aluminium coated black/grey/white, AISI 304, AISI 316L
Opening angle	up to max. 110°
Weight per door leaf	up to about 100 kg, depending on choosen model
Size per door leaf	max. height approx. 2500, width approx. 750 - 1500 mm
Closing force	depending on model/type of installation approx. 10 - 60 Nm
Closing speed	continuous adjusting

Operation and Application of the DIREKT

The gate closer DIREKT operates directly on the gate/door without the help of any lever. It is fixed on one side to the pillar or the door frame. Its other side is fixed to the door or gate. It operates similar to a gas spring. When the door is opened the piston rod of the gate closer is compressed. The pressure of the gas inside the gate closer now acts on the piston. The piston rod extends and closes the door/gate. As the cylinder of the gate closer also contains hydraulic oil, the closing speed is controlled and slowed down. By using nitrogen gas instead of a helical spring, much higher closing forces can be achieved. Thus the gate closer DIREKT always closes the door/gate reliably despite its small dimensions.

Selection Criteria

The DIREKT is available in two different lengths: with a stroke of 150 and 200 mm. Usually the DIREKT 150 will be the correct choice. The DIREKT 200 is especially designed for wide gates and disadvantageous hinge and pillar situations.

In general you can use the mounting accessories described on pages 02.053.00 respectively 02.055.00.

For doors with ascending hinges we supply a special type of DIREKT with ball and socket joint on both ends. More details you will find on page 02.054.00.

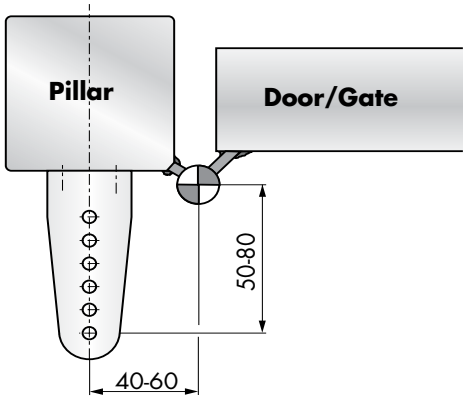
	DIREKT 150	**DIREKT 200**
Weight per gate leaf	up to approx. 80 kg	up to approx. 100 kg
Height per gate leaf	up to approx. 2500 mm	up to approx. 2500 mm
Width per gate leaf	approx. 750 - 1200 mm	approx. 750 - 1500 mm**
Closing force*	approx. 10 - 25 Nm	approx. 10 - 60 Nm

* depending on the installation and the type
** If the gate is wider, please ask.

Dimensions to be Observed DIREKT 150

To ensure the correct functioning of the DIREKT 150 and DIREKT 200, certain distances to the hinges have to be observed. These distances are determined by the type of the hinge and the possibility to fix the mounting bracket.

The following drawings show some typical hinge situations and their optimum installation measurements. Basically applies that the dimension given with 50 - 80 mm should be as large as possible. The force of the DIREKT is the higher the farther away from the pillar is the fixing hole in the mounting bracket to which is fixed the DIREKT.



Fitting to gates with normal hinges
(For gates with **ascending hinges** a special DIREKT door closer is furnished, with ball and socket joint on both ends and an angled bracket with threads.)

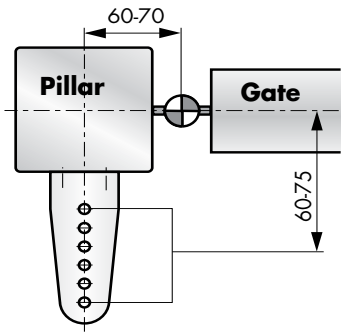
Continued on the following page

Application of DIREKT 150 - cont.

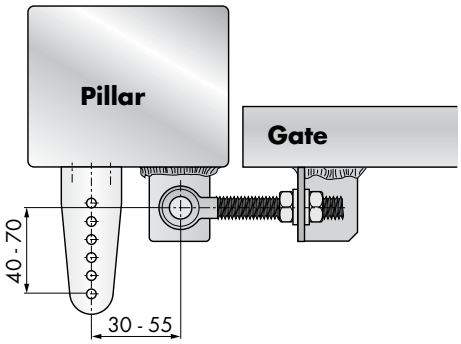
To ensure a sufficient closing force during the final closing process, the angle of the DIREKT to the closed door should be as advantageous as possible. This result is obtained by fitting the DIREKT to a hole of the mounting bracket as far away from the pillar as possible.

Dimensions to be Observed DIREKT 150 - cont.

Fitting to gates with axial fixed hinges

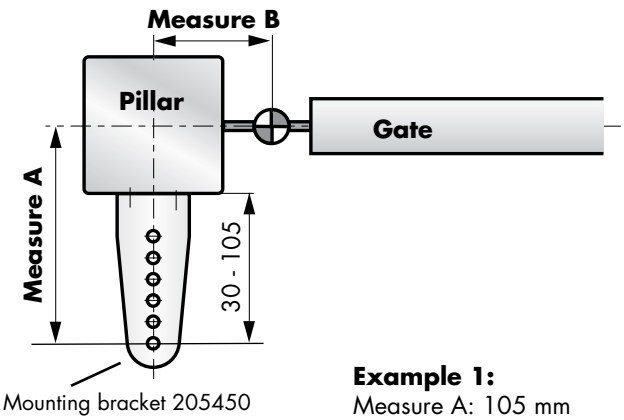


Fitting to gates with screw hinges



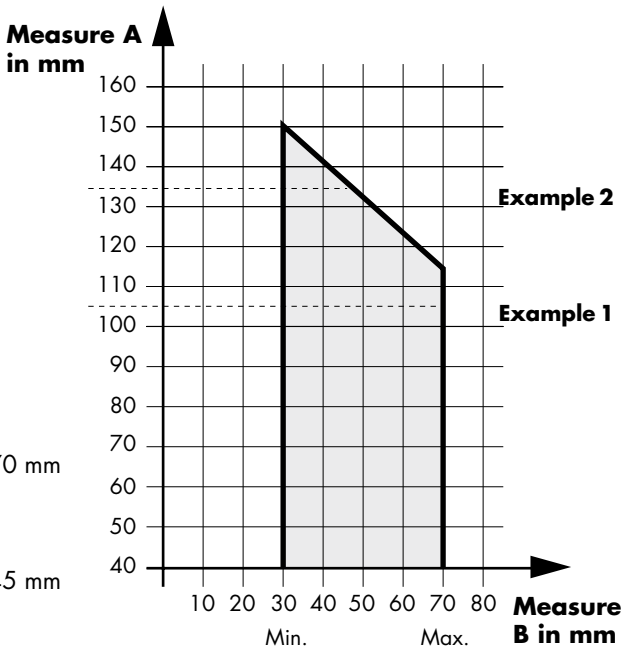
Dimensions to be Observed DIREKT 200

The following drawing and diagram show the possible fitting dimensions for the **DIREKT 200** with default mounting bracket. The fixing points of the bracket are placed at a distance of 30 - 105 mm to the leading edge of the pillar. To this number you add the distance from the middle of the hinge to the leading edge of the pillar. Depending on the possible mounting measure B measure A may amount to a maximum of 115 to 150 mm, see diagram. A value A as high as possible will optimize the force path during closing.



Example 1:
Measure A: 105 mm
Measure B: possible from 30 - 70 mm

Example 2:
Measure A: 135 mm
Measure B: possible from 30 - 45 mm

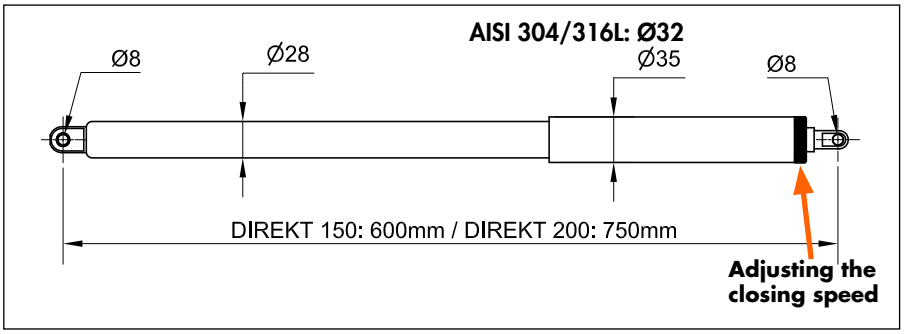


Dimensions DIREKT, Order Information

The only difference between the door closers DIREKT 150 and DIREKT 200 is their length. Both types are available with different finishs and from stainless steel (AISI 304 and AISI 316L). The accessories are either zinc-plated or also from stainless steel.

The door closers DIREKT are provided with diverse closing forces. For smooth-running doors, which easily fall shut or which do not have a latch, the closing force of 400 N is sufficient. You should choose the DIREKT with 600 N, if you have to push harder. In case the closing force is too high, it can be reduced on site by releasing some gas via the integrated valve.

Dimensions DIREKT 150 /DIREKT 200



Order Information

Model of gate closer DIREKT	**with** accessories* **part no.**	**without** acc. **part no.**
Gate closer DIREKT II 150, 400 N, grey	392301-2	392311-2
Gate closer DIREKT II 150, 600 N, grey	392309-2	392319-2
Gate closer DIREKT II 150, 400 N, black	392300-2	392310-2
Gate closer DIREKT II 150, 600 N, black	392308-2	392318-2
Gate closer DIREKT II 150, 400 N, white	392302-2	392312-2
Gate closer DIREKT II 150, 400 N, AISI 304	392400-2	392410-2
Gate closer DIREKT II 150, 600 N, AISI 304	392401-2	392411-2
Gate closer DIREKT II 150, 400 N, AISI 316L	392480	392481
Gate closer DIREKT II 150, 600 N, AISI 316L	392484	392485
Gate closer DIREKT II 200, 400 N, grey	392363-2	392373-2
Gate closer DIREKT II 200, 600 N, grey	392366-2	392361-2
Gate closer DIREKT II 200, 400 N, black	392364-2	392365-2
Gate closer DIREKT II 200, 600 N, black	392369-2	- - -
Gate closer DIREKT II 200, 400 N, white	392367-2	392368-2
Gate closer DIREKT II 200, 400 N, AISI 304	392463-2	392464-2
Gate closer DIREKT II 200, 600 N, AISI 304	392466-2	392460-2
Gate closer DIREKT II 200, 400 N, AISI 316L	392482	392483
Gate closer DIREKT II 200, 600 N, AISI 316L	392486	392487

*By default the DIREKT with accessories include the following parts:
DIREKT grey, black, white:
one piece each of 205450 and 205197
DIREKT of AISI 304:
one piece each of 205451 and 205249
DIREKT of AISI 316L:
one piece each of 205454 and 205455

Mounting accessories	**zinc-plated**	**AISI 304**	**AISI 316L**
Angled bracket for slender pillars	205450	205451	205454
Bracket	205197	205249	205455
Angled bracket, wide, for special cases	205264	-	–

Stainless steel details:
AISI 304 = 1.4301
AISI 316L = 1.4404

Mounting Accessories

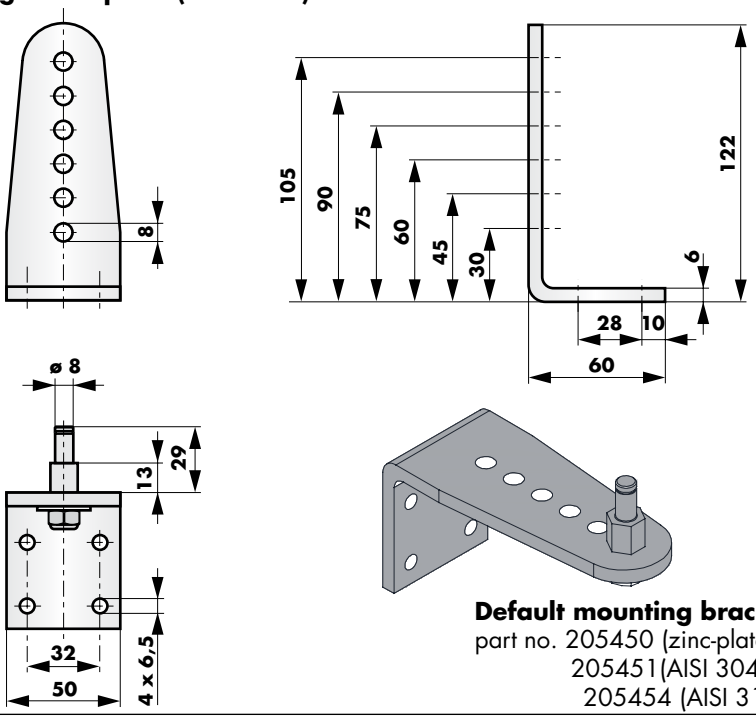
Usually the gate closer DIREKT is provided as a set, including the mounting accessories. In the following drawings you will find the dimensions. The special fixing accessories for the DIREKT for ascending hinges you will find on page 02.055.00.

The mounting accessories are available in zinc-plated steel, AISI 304 or AISI 316L.

In addition to the standard mounting brackets DICTATOR also offers customised solutions. They are designed to exactly fit the respective pillars or constructions and guarantee the optimum functioning of the DIREKT also under special conditions. Please contact our technical service for help.

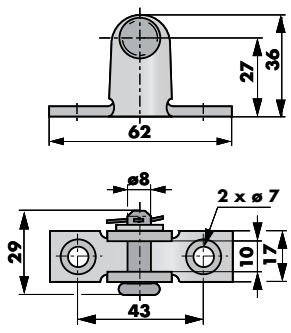
Dimensions Mounting Brackets

Fixing to the pillar (Standard)

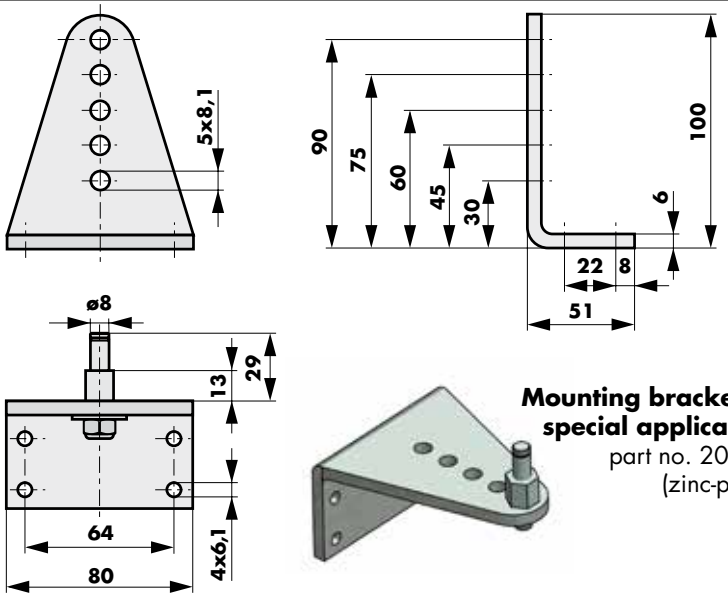


Default mounting bracket
part no. 205450 (zinc-plated),
205451(AISI 304) or
205454 (AISI 316L)

Fixing to the door



Bracket for the door
part no. 205197 (zinc-plated),
205249 (AISI 304) or
205455 (AISI 316L)



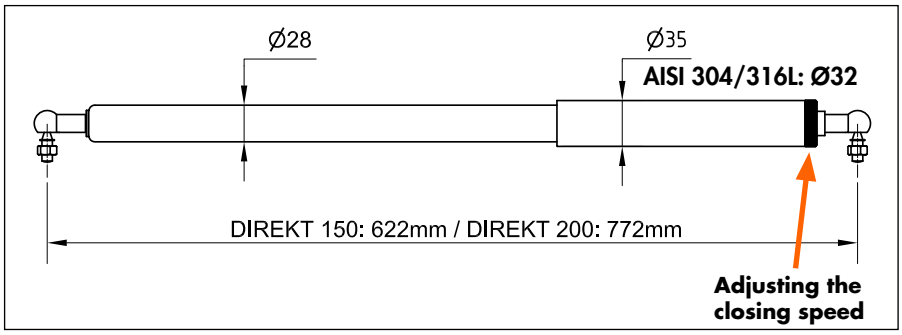
Mounting bracket for special applications
part no. 205264
(zinc-plated)

Dimensions and Order Information
Gate Closer DIREKT for Gates with Ascending Hinges

The gate closer DIREKT can also be installed on gates with ascending hinges. For this application, however, it is furnished with a ball and socket joint on each side and therefore is slightly longer. The mounting brackets have M8 threads for holding the threaded ends. In general the same installation distances apply as with the normal DIREKT 150 and DIREKT 200.

Normally the DIREKT for ascending hinges require less force than the normal DIREKT models as, due to the ascending hinges, the closing of the door is supported by its own weight. The more the gate ascends when being opened and the heavier it is, the less closing force is required. Otherwise too much strength will be needed to open the gate.

Dimensions DIREKT 150 / DIREKT 200 for Gates with Ascending Hinges



Order Information

Gate closer DIREKT for ascending hinges	**with** accessories* **part no.**	**without** acc. **part no.**
Gate closer DIREKT II 150, 100 N, grey	392323-2	392333-2
Gate closer DIREKT II 150, 100 N, black	392329-2	392339-2
Gate closer DIREKT II 150, 100 N, white	392328-2	392338-2
Gate closer DIREKT II 150, 100 N, AISI 304	392421-2	392431-2
Gate closer DIREKT II 150, 100 N, AISI 316L	---	392490
Gate closer DIREKT II 150, 400 N, grey	392321-2	392331-2
Gate closer DIREKT II 150, 400 N, black	392320-2	392330-2
Gate closer DIREKT II 150, 400 N, white	392322-2	392332-2
Gate closer DIREKT II 150, 400 N, AISI 304	392420-2	392430-2
Gate closer DIREKT II 150, 400 N, AISI 316L	---	392491
Gate closer DIREKT II 200, 300 N, grey	---	392362-2
Gate closer DIREKT II 200, 300 N, AISI 304	---	392461-2
Gate closer DIREKT II 200, 400 N, grey	392374-2	392375-2
Gate closer DIREKT II 200, 400 N, black	392376-2	392377-2
Gate closer DIREKT II 200, 400 N, AISI 304	392467-2	392468-2
Gate closer DIREKT II 200, 400 N, AISI 316L	---	392492

**By default the DIREKT with accessories include the following parts:
DIREKT grey, black, white:
one piece each of 205452 and 205273
DIREKT of AISI 304:
one piece each of 205453 and 205274

Stainless steel details:
AISI 304 = 1.4301
AISI 316L = 1.4404

Mounting accessories	**zinc-plated**	**AISI 304**	**AISI 316L**
Bracket, pillar, for ascending hinges	205452	205453	205457
Bracket, gate, for ascending hinges	205273	205274	205458

Mounting Accessories for Gate Closer DIREKT for Gates with Ascending Hinges

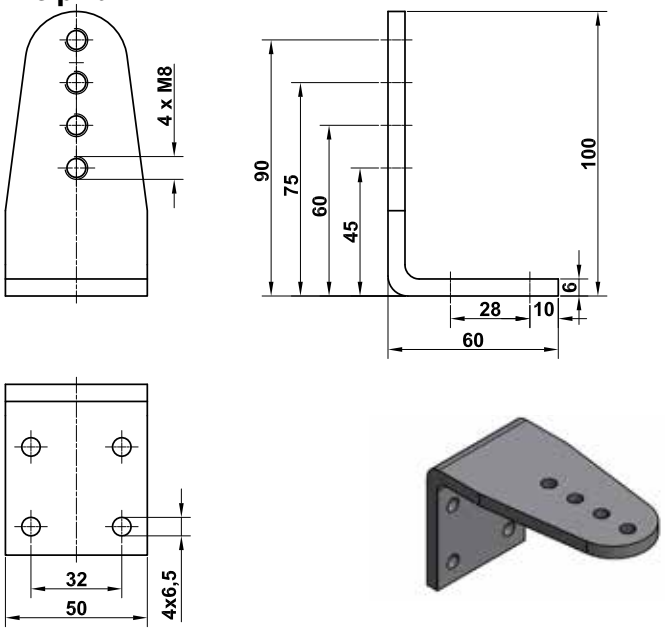
Below you will find the dimensions of the mounting accessories for the gate closer DIREKT for gates with ascending hinges.

The mounting bracket for the gate in AISI 316 has a form differing from those in steel or AISI 304.

In addition to the standard mounting brackets DICTATOR also offers customized solutions. They are designed to exactly fit the respective pillars or constructions and guarantee the optimum function of the DIREKT also under special conditions. Please contact our technical service for help.

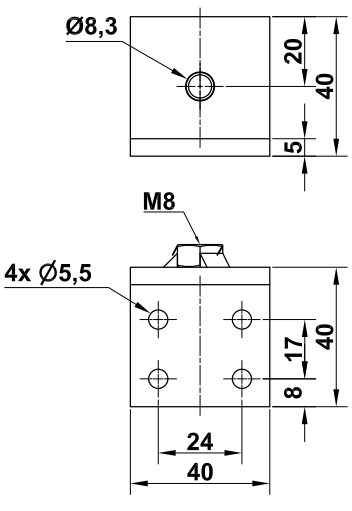
Dimensions Mounting Brackets for Gates with Ascending Hinges

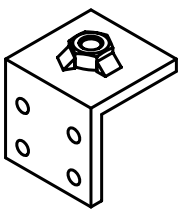
Fixing to the pillar



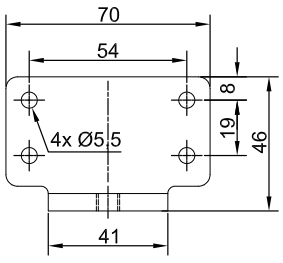
Bracket for the pillar
for gates with ascending hinges,
part no. 205452 (zinc-plated), 205453 (AISI 304), 205457 (AISI 316)

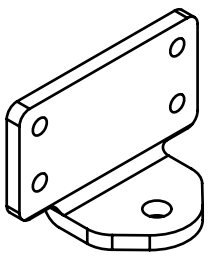
Fixing to the gate

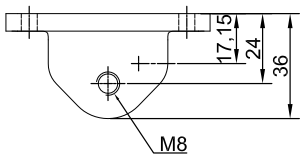




Bracket for the gate zinc-plated / AISI 304
part no. 205273 (zinc-plated),
205274 (AISI 304)







Bracket for the gate AISI 316
part no. 205458

Adjustment Protection for Gate Closer DIREKT

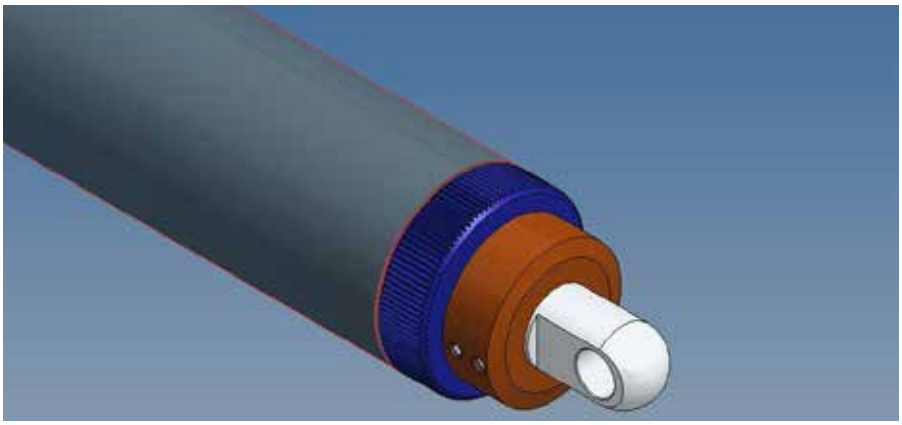
It is possible, also subsequently, to protect the adjustment of the DIREKT II (adjustment by thumb wheel) against unauthorized adjusting/shifting.

There are available **two versions** of the adjustment protection:

- adjustment protection for the DIREKT with eyelets,
- adjustment protection for the DIREKT for ascending hinges with ball and socket joints.

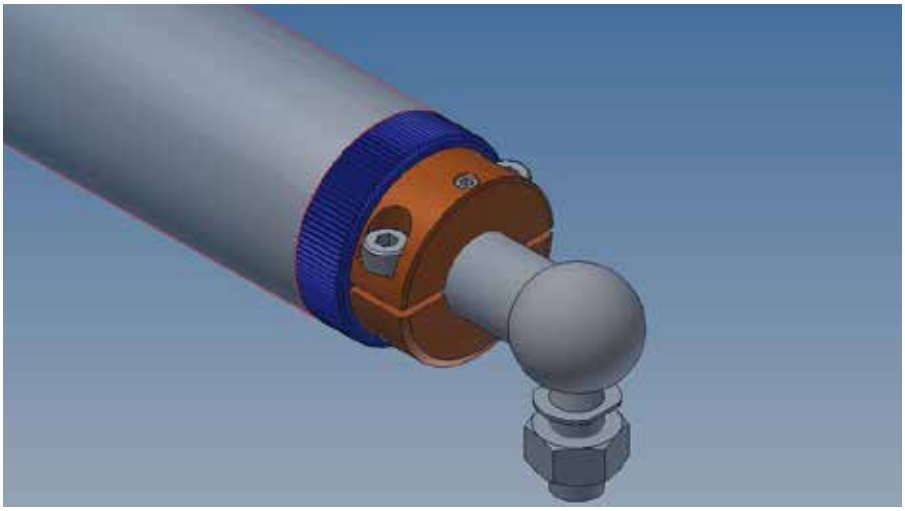
Adjustment Protection for DIREKT II with Eyelets

The adjustment protection is slipped over the eyelet and then secured with two headless screws. The pressure on the thumb wheel prevents its unauthorized turning.



Adjustment Protection for DIREKT II with Ball and Socket Joints (for Ascending Hinges)

In case of the DIREKT II with ball and socket joints it is not possible to simply slip on the adjustment protection. Therefore this adjustment protection consists of two parts. It is clipped on from both sides, screwed together and secured with an extra screw.



Order Information

Adjustment protection for DIREKT II with eyelets, aluminium	part no. 205406
Adjustment protection for DIREKT II with eyelets, AISI 316	part no. 205407
Adjustment protection for DIREKT II, ball + socket joints, aluminium	part no. 205408
Adjustment protection for DIREKT II, ball + socket joints, AISI 316	part no. 205409

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WAB 180 Floor Spring

For Heavy-Duty Doors up to 600 kg

The DICTATOR WAB 180 floor spring has consistently proven its high reliability, particularly on heavy entrance doors such as those in churches, museums, public buildings etc.

Many years of experience with door closers have resulted in a very sturdy and reliable design. Its special features include its high load capacity and long life.

The fact that the complete interior of the floor spring is filled with oil of low viscosity and a heavy duty axle bearing carries the load of the floor spring spindle, makes the WAB 180 suitable for doors up to 600 kg. It also guarantees its proper function during frequent operation and varying temperatures.

The closing speed can be continuously adjusted. An additional safety valve prevents vital parts of the floor spring from breaking, even when the door is forced shut.

All floor springs come with an embedding box. As extra accessories are available different cover plates and, either for steel or wooden doors, pivot hinges and straps.

The WAB 180 is also available as a **mere floor support** for heavy doors where the closing function is not needed.

Technical Data

Maximum door weight	500 kg (normal type), 600 kg (special bearing)
Types of doors	single action steel and timber doors
Closing function	starting at about 160° (door may be opened up to 180°)
Closing speed (standard)	continuously adjustable damping from 45° of closing angle
Force of floor spring	20 - 45 Nm
Cover plates	stainless steel, brass or aluminium
Further accessories	straps, pivot hinges, push lever

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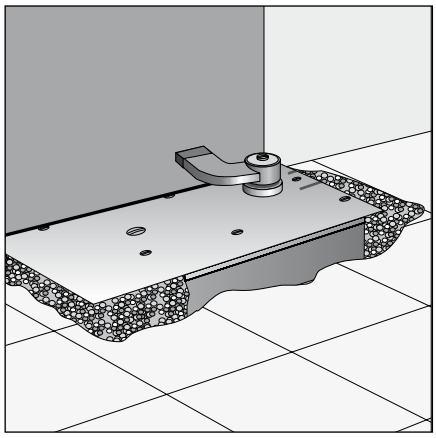


Installation and Adjustment

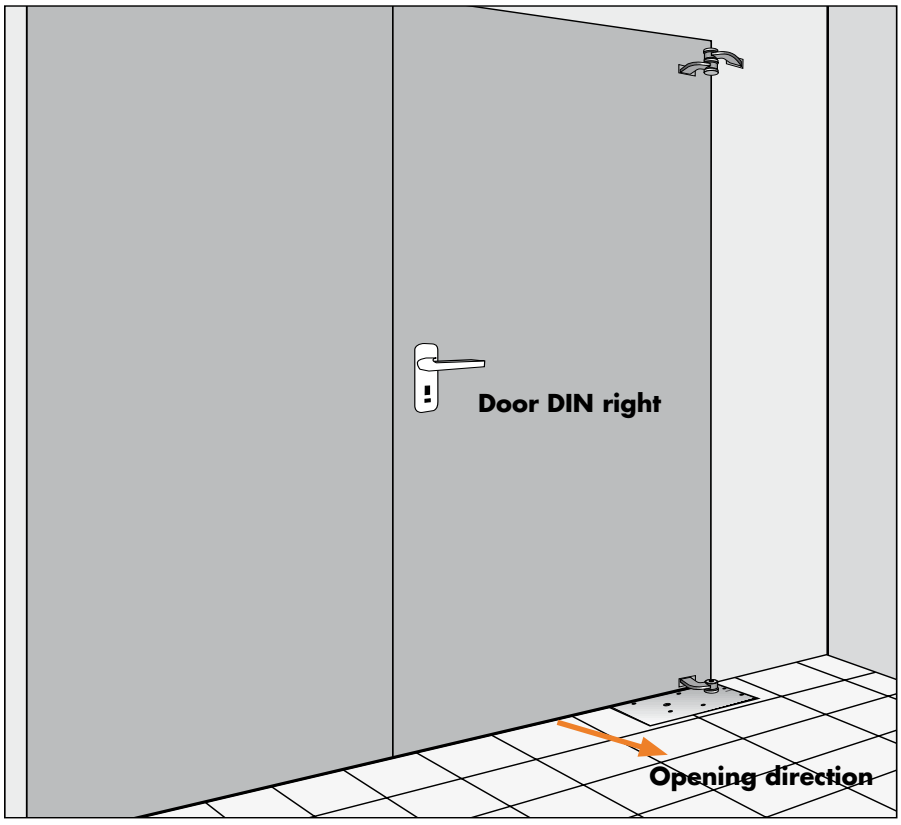
Depending on the opening of the door you either need the right or left type of the WAB 180 floor spring. The designation DIN right or DIN left indicates the opening direction of the door when looked at from the side to which it opens. The right door leaf in the illustration below shows a door DIN right.
Usually the floor spring is installed parallel but shifted sideways to the door. But with the accessories straight strap and as upper hinge the swing hinge it is also possible to place its axle directly below the door.
The closing speed (damping) can be adjusted continuously beginning with a closing angle of 45°. A special execution allows the continuous adjusting during the complete closing. The adjustment screw is located beneath a protection screw (see illustration on the next page). During adjusting this protection screw has to be taken out.

ATTENTION:

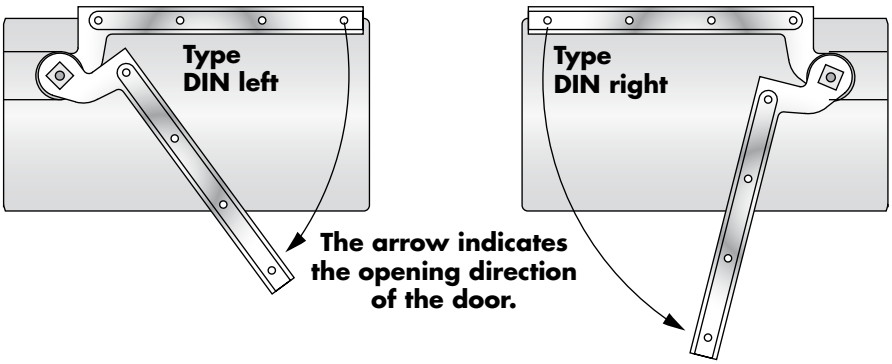
Please make sure that there is installed a limit stop in the closed position of the door.

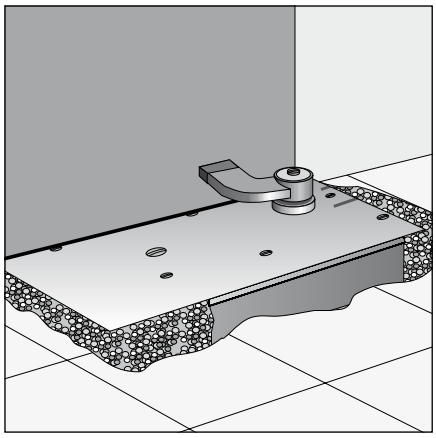
For double-leaf door installations there is needed a separate door sequence control.

Opening Directions



Types DIN Right and DIN Left





WAB 180 Floor Spring - Selection Criteria, Dimensions

The WAB 180 floor spring is available in five different spring forces (size II - V for doors up to 500 kg, size VI up to 600 kg). In your order please indicate the dimensions and the approximate weight of the door and the opening direction according to DIN (see preceding page).

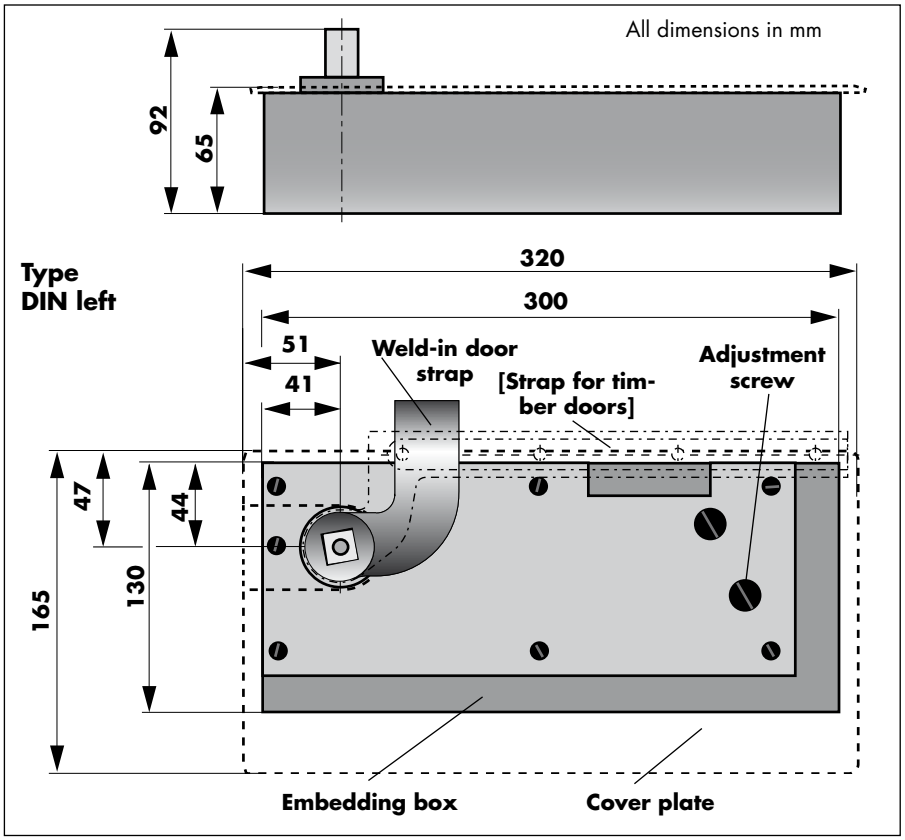
The following table will help you to choose the correct size for your application. All data refer to a door height of minimum 1.75 m and maximum 2.50 m, without wind load. In the case of exterior doors exposed to wind or interior doors in surroundings with high pressure differences, please contact us. This also applies to differing door dimensions.

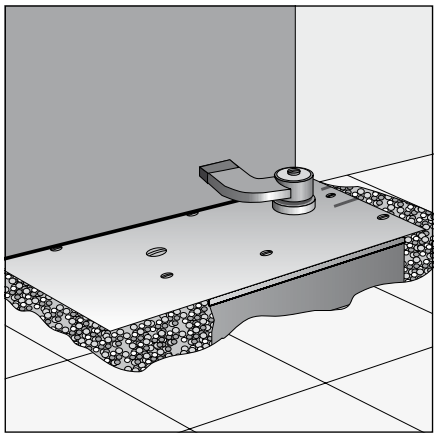
Selection Criteria

Weight of the door / kg	Door width / m*	Size floor spring
100 - 200	up to 1.15	II
	up to 1.40	III
200 - 300	up to 1.15	III
	up to 1.40	IV
300 - 400	up to 1.15	IV
	up to 1.40	V
400 - 500	up to 1.40	V
	up to 1.55	VI
500 - 600	up to 1.55	VI

*** In the case of differing door widths or doors exposed to wind or pressure differences, please contact us.**

Dimensions Floor Spring





Weld-on Fittings

There are various accessories available for the WAB 180 floor spring. The strap and the pivot hinge to be used depend on the type of door and the installation situation of the floor spring. For steel doors we provide weld-on fittings, for timber doors fittings to be screwed on.

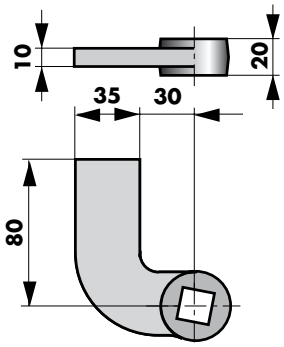
In the following you will find the dimensioned drawings of the weld-on fittings.

Depending on the weight of the door two different models are used (see below). The pivot hinge for a door weight of up to 600 kg also features a needle bearing.

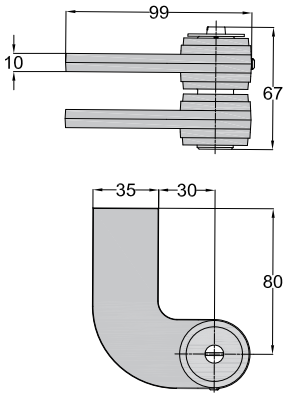
The fittings shown on this page are used with floor springs sitting beside the door.

Dimensions Weld-on Fittings Door Weight max. 300 kg

All dimensions in mm



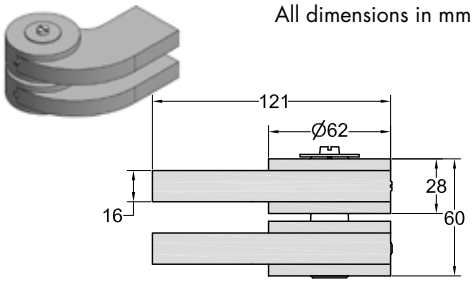
Strap (below) up to 300 kg
part no. 460088-300

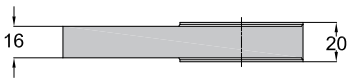


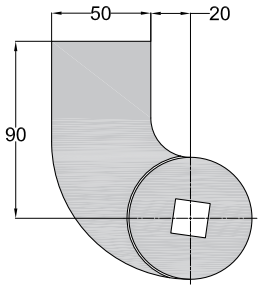
Pivot hinge (top) up to 300 kg
part no. 460089-300

Dimensions Weld-on Fittings Door Weight max. 600 kg

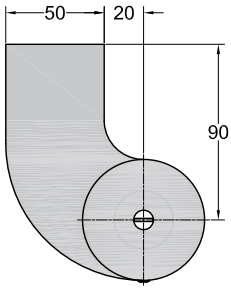
All dimensions in mm





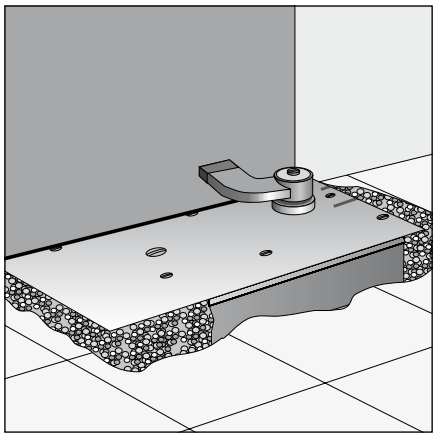


Strap (below) up to 600 kg
part no. 460088-600



Pivot hinge (top) up to 600 kg
part no. 460089-600

IMPORTANT:
When determining the accessories, it is imperative to also consider the distance between the middle of the axle and the edge of the door. The general rule is: The farther away the axle of the floor spring is from the door, the less has to be the weight of the door. Our technicians will be happy to help you.



Screw-on Fittings

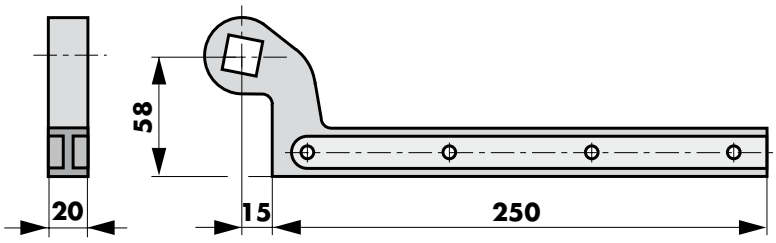
For timber doors fittings for screwing on are used. Also here, same as with the weld-on fittings, different models are used for doors up to 300 kg and up to 600 kg. The dimensions of the straps differ slightly.

The dimensions of both types of pivot hinges are the same. However, the model for doors from 300 kg up to 600 kg features an integrated needle bearing to make sure also heavy doors are moving smoothly.

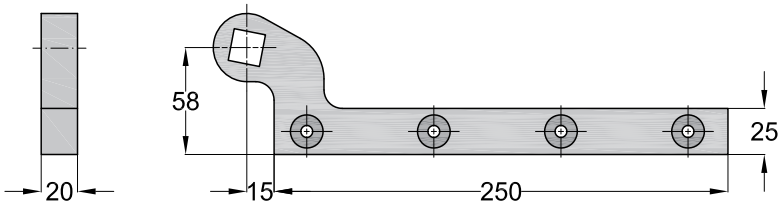
The fittings shown on this page are used with floor springs sitting beside the door.

Dimensions Screw-on Fittings

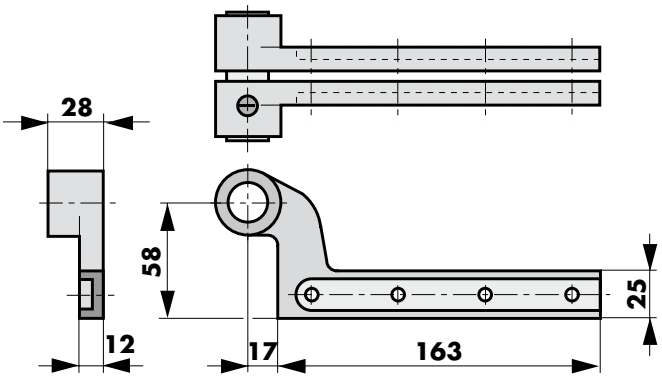
All dimensions in mm



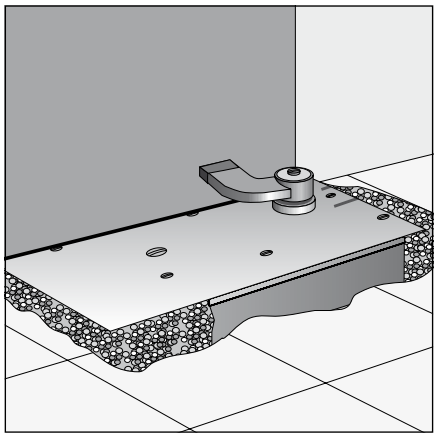
Strap 300 (below)
part no. 460086-300



Strap 600 (below)
part no. 460086-600



Pivot hinge (top)
part no 460087 or 460094 (with needle bearing)



Fittings: Floor Spring Sits Beneath the Door

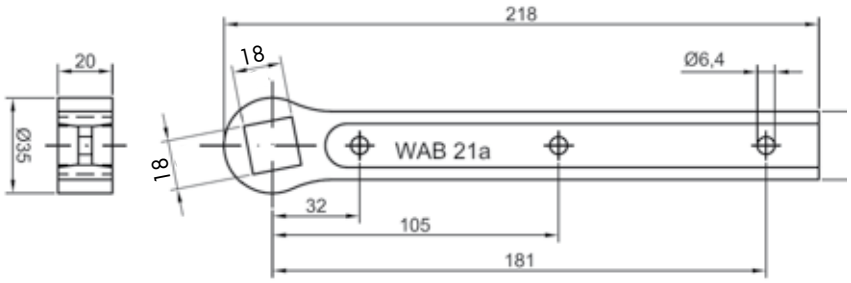
If the floor spring is installed directly below the door, the straight strap combined with a swing hinge as upper hinge has to be chosen.

The straight strap can be used up to a door weight of 600 kg.

The swing hinge shown below is suitable for doors up to 300 kg. The swing hinge appropriate for doors up to 600 kg is shown on the next page.

The fittings on this page are used when the floor spring sits directly beneath the door.

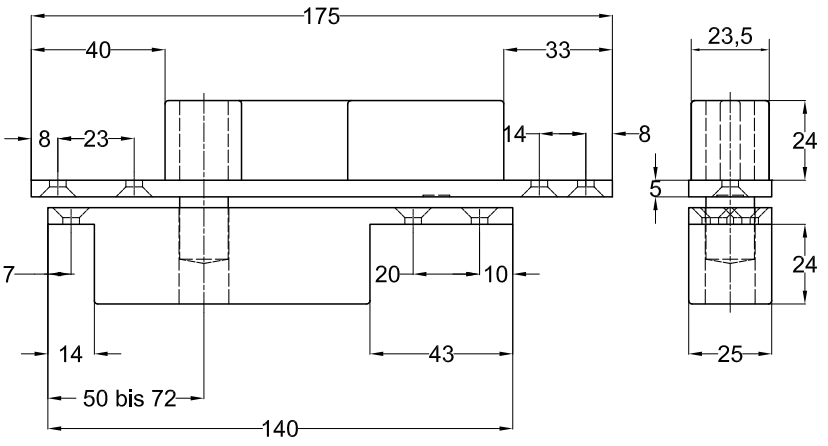
Dimensions Straight Strap (below)



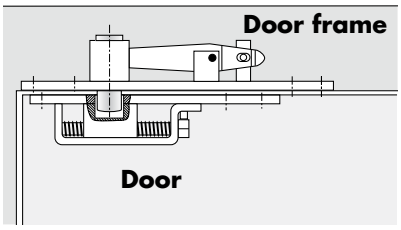
All dimensions in mm

Straight strap (below)
part no. 460090

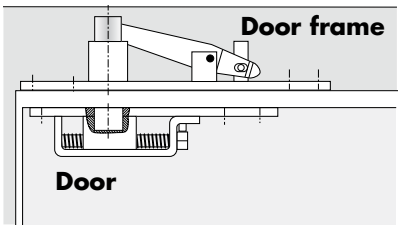
Dimensions Swing Hinge (top) Door Weight max. 300 kg



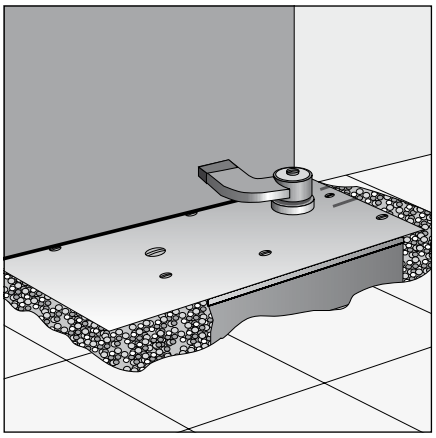
Operating state:
bolt extended



Mounting state:
bolt plugged-in



Swing hinge (top) up to 300 kg
part no. 460091-300



Fittings: Floor Spring Sits Beneath the Door - cont.

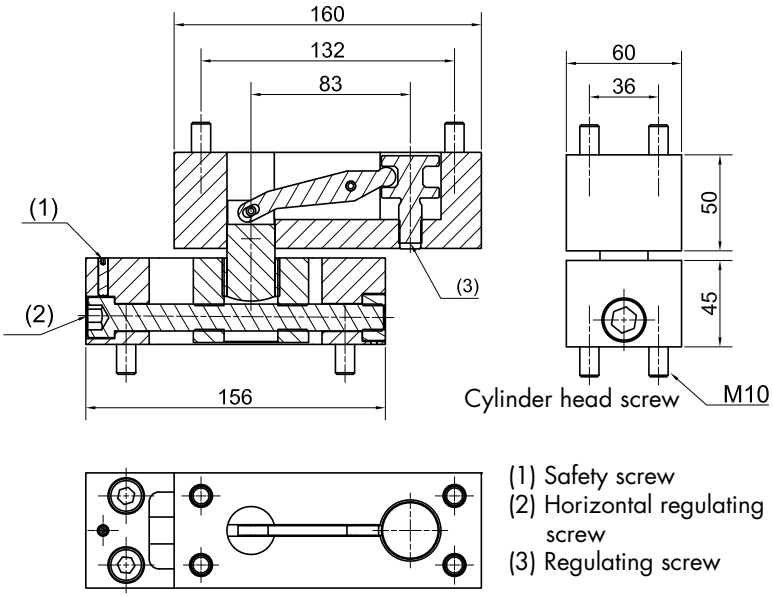
For doors weighing 300 to 600 kg is used the swing hinge shown on this page.

It features a horizontal adjustment range of 30 mm. You also can adjust the height of the pivot hinge.

This swing hinge is used together with the straight strap shown on the previous page.

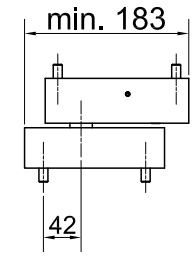
Dimensions
Swing Hinge (top)
Door Weight max. 600 kg

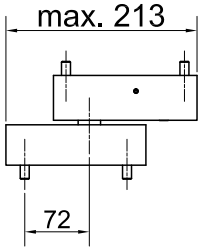
All dimensions in mm

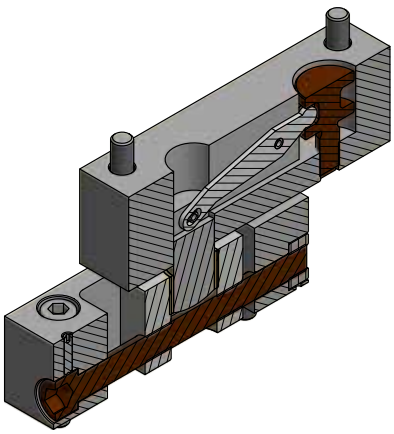


(1) Safety screw
(2) Horizontal regulating screw
(3) Regulating screw

Horizontal adjustment range: max. 30 mm







Swing hinge (top) up to 600 kg
part no. 460091-600

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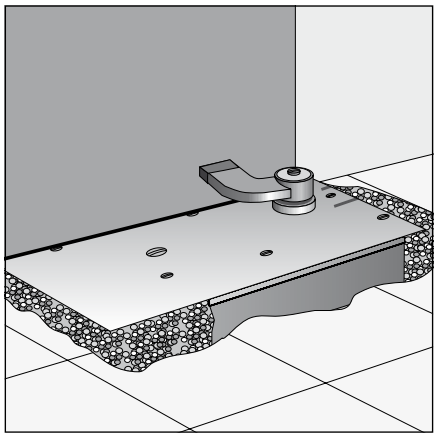


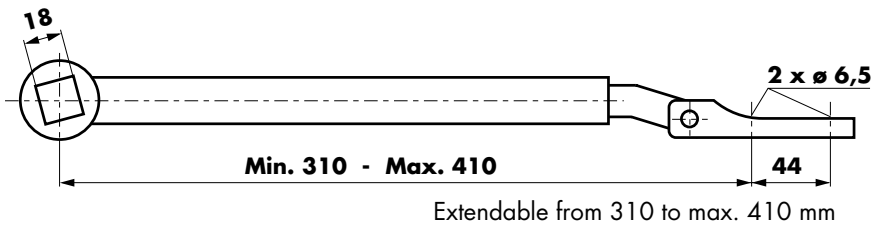
Fittings - cont., **Other Accessories**

Retrofitting a WAB 180 floor spring on doors with **already existing hinges,** it is installed beside the door, using the **push lever** to transmit the closing force to the door. However, the push lever is suitable only for doors with a maximum weight of 300 kg.

The **embedding box** is always included in the delivery of the floor spring.

The **cover plates** have to be ordered separately. They are available in different materials (see Order information Accessories on the next page).

Push Lever for Retrofitting Door Weight max. 300 kg

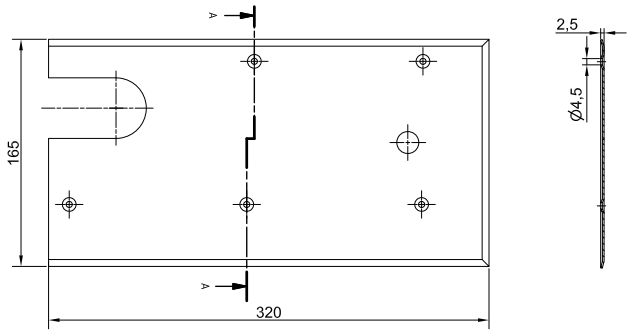


Extendable from 310 to max. 410 mm

Push lever (below) part no. 460093

All dimensions in mm

Cover Plate

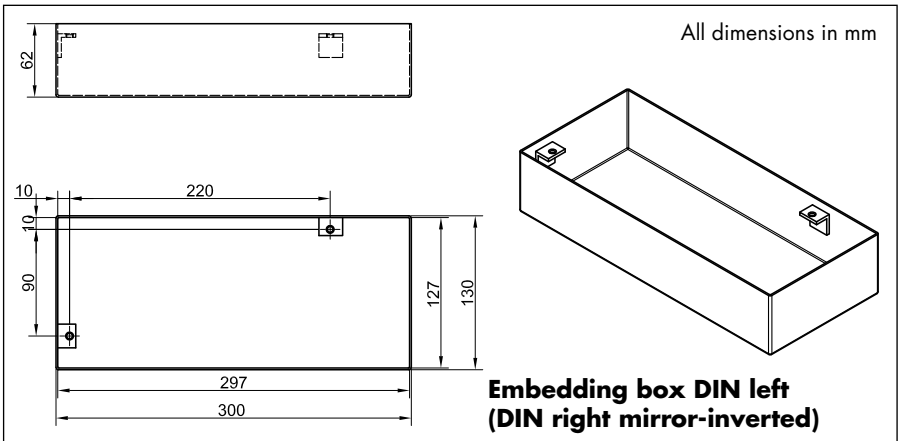


Cover plate DIN left (DIN right mirror-inverted)

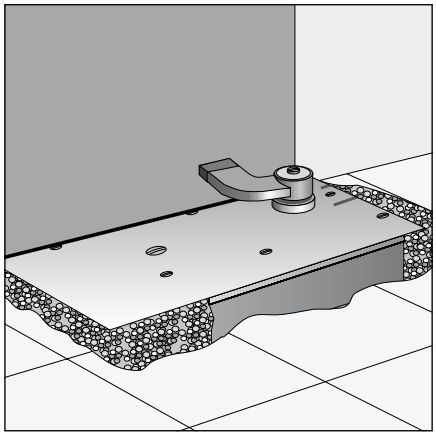
All dimensions in mm

Embedding Box

All dimensions in mm



Embedding box DIN left (DIN right mirror-inverted)



Order Information

Along with the floor spring itself an embedding box is delivered. The cover plate (aluminium, brass or stainless steel) as well as the appropriate fittings have to be ordered separately.

The embedding box can be grouted with paraffin (part no. 460097) to prevent corrosion from entered humidity.

Floor springs of the sizes II and III used on doors with max. 200 kg can be provided with a hold-open mechanism (between 90° and 160°). The exact hold-open position must be indicated in the order.

Components Included

Floor spring with powder-coated embedding box

Order Information Floor Spring

Model	Part no. DIN left	Part no. DIN right
WAB 180 floor spring size II	460002	460012
WAB 180 floor spring size III	460003	460013
WAB 180 floor spring size IV	460004	460014
WAB 180 floor spring size V	460005	460015
WAB 180 floor spring size VI, up to 600 kg	460056	460066
WAB 180 floor support for doors up to 600 kg	460071	460070

Order Information Accessories

Model	for all door weights	up to 300 kg	300 kg to 600 kg
Aluminium cover plate DIN left	460080		
Aluminium cover plate DIN right	460081		
Brass cover plate DIN left	460082		
Brass cover plate DIN right	460083		
Stainless steel cover plate DIN left	460084		
Stainless steel cover plate DIN right	460085		
Strap 300 for timber doors, zinc-plated		460086-300	
Strap 600 for timber doors, zinc-plated			460086-600
Pivot hinge for timber doors, zinc-plated		460087	
Pivot hinge for timber doors, with needle bearing			460094
Strap 300 for welding on		460088-300	
Strap 600 for welding on			460088-600
Pivot hinge 300 for welding on		460089-300	
Pivot hinge 600 for welding on with needle bearing			460089-600
Straight strap for screwing on	460090		
Swing hinge 300 for screwing on		460091-300	
Swing hinge 600 for screwing on			460091-600
Push lever (retrofitting)		460093	
Paraffin to seal off the embedding box	460097		

Door Stop and Buffer

The DICTATOR ball type door stop combines three different functions: it stops the door gently, prevents it swinging open beyond the allowed opening angle, and keeps it open in the desired position.

The flat plate is fixed to the floor in the position where the door should stay open. Due to its flat and **unobtrusive** design it proves **no obstacle** to either people (danger of tripping) or vehicles. The rubber buffer on the plate **gently slows down** the door, protecting door and hinges.

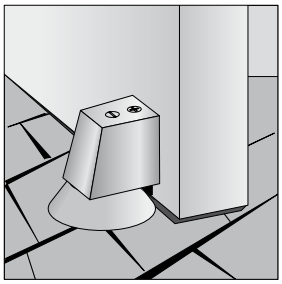
The door is kept open in the desired position by a ball that locks into the plate. This prevents the door from slamming shut e.g. by a draught of air. The locking is released simply by pulling the door, so there is no need to look for the door stop and release the door by stepping on the holding mechanism.

The holding force of the door stop is adjustable and can be adapted to different requirements. Due to its aluminium casing the DICTATOR door stop can also be used outdoors.

Technical Data

Material casing/plate	aluminium
Finish	silver or dark brown stove-enamelled
Door weight	up to about 40 kg
Door size	up to 1000 mm door width, height 2200 mm
Components included	casing with ball, plate with rubber buffer, M8x50 countersunk head screw with dowel

Fitting

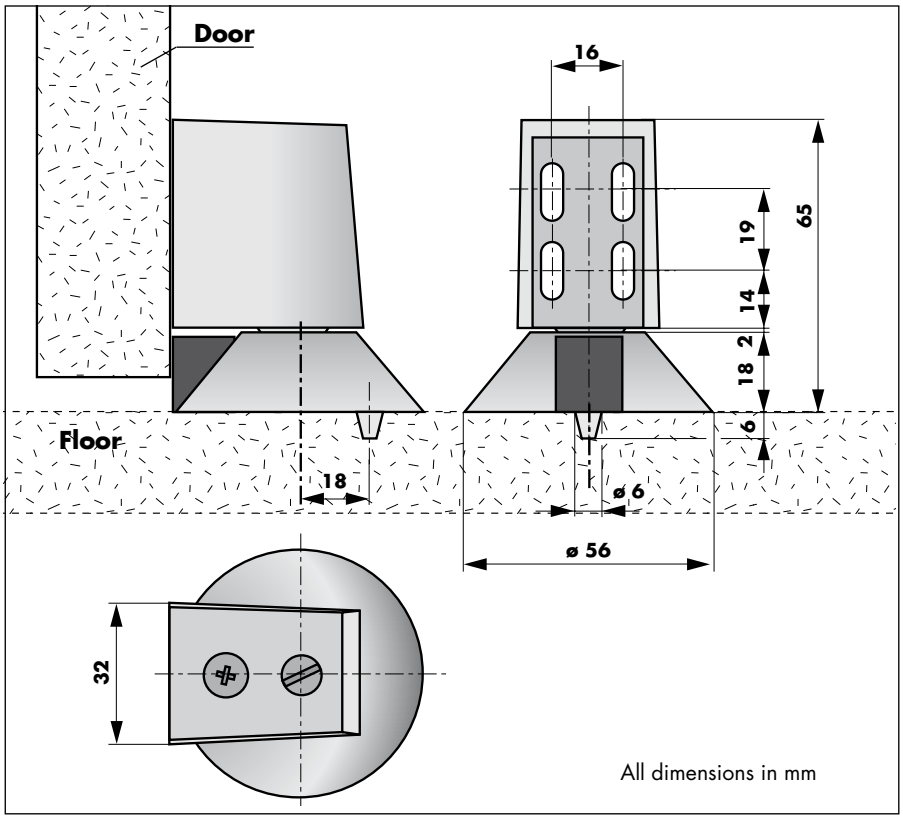


The casing with the ball is fixed to the door as close to the closing edge as possible (largest possible distance to the hinge). Loosen the recessed head screw and remove the casing from the ball cage. Now the mounting plate is accessible. Screw it to the door with the 4 sheet metal screws, about 20 mm above the floor. To determine the position of the plate open the door until it reaches the desired position. Then fix the plate of the DICTATOR door stop to the floor with the countersunk head screw (M8x50) and the dowel. The side of the plate with the buffer should point towards the door. The small pin (ø 6 mm) located at the bottom of the plate now needs to be embedded in the floor to prevent the plate from turning around .

If the ball does not extend far enough into the plate you can correct the position of the mounting plate on the door as well as the position of the ball by simply moving the plate within the oblong holes. Then the casing can be slipped back onto the mounting plate and secured with the recessed head screw.

The holding force of the DICTATOR door stop can be adjusted with the slotted screw on top of the casing: turning clockwise reduces the holding force, turning anti-clockwise increases it.

Dimensions



Order Information

Aluminium, silver stove-enamelled	part no. 500310
Aluminium, dark brown stove-enamelled	part no. 500311
Aluminium, powder coated, different colours	on request
Aluminium, anodized (silver, dark brown)	on request
Brass, satin brushed, satin nickel-plated or polished	on request

DICTATOR ZE Door Holders Standard and *Design Line*

The DICTATOR ZE door holders keep doors open in any position desired.

All ZE door holders feature a **very strong and sturdy construction**. The casing is all of a piece and therefore very resistant also against vandalism. All metallic parts of the door holder are made of either **aluminium or stainless steel**, including the internal parts.

The ZE door holders are available in **two** different **series**: the **Standard** and the new, innovative *Design Line*. The piston rod of the *Design Line* is visible only when the door is fixed. The new construction makes it possible that the door holder even with a stroke of 160 mm is not longer than the one of the Standard series with only a stroke of 90 mm. The *Design Line* can even compensate **very large clearances** between the lower edge of the door and the floor.

Due to the integrated spring in the foot of the door holder, the door remains securely in the adjusted position, even in case of uneven or polished floors. Both types of door holders are comfortably operated by just using a **foot**.

Technical Data

Material	casing: aluminium other parts: stainless steel, plastics
Strokes Standard	25, 60, 75, 90, 105 mm
Strokes *Design Line*	80, 120, 160 mm longer strokes possible on demand
Finish Standard	silver-coloured, other finishes on demand
Finish *Design Line*	silver-coloured, white, black
Components included	door holder with fixing screws

Installation

When selecting the mounting position of the door holder, make sure it can easily be reached when the door is open. The door holder DICTATOR ZE should be mounted as near to the closing edge of the door as possible (ATTENTION in case of doors with multipoint locking!). The foot should be at the same height as the lower edge of the door.

Operation

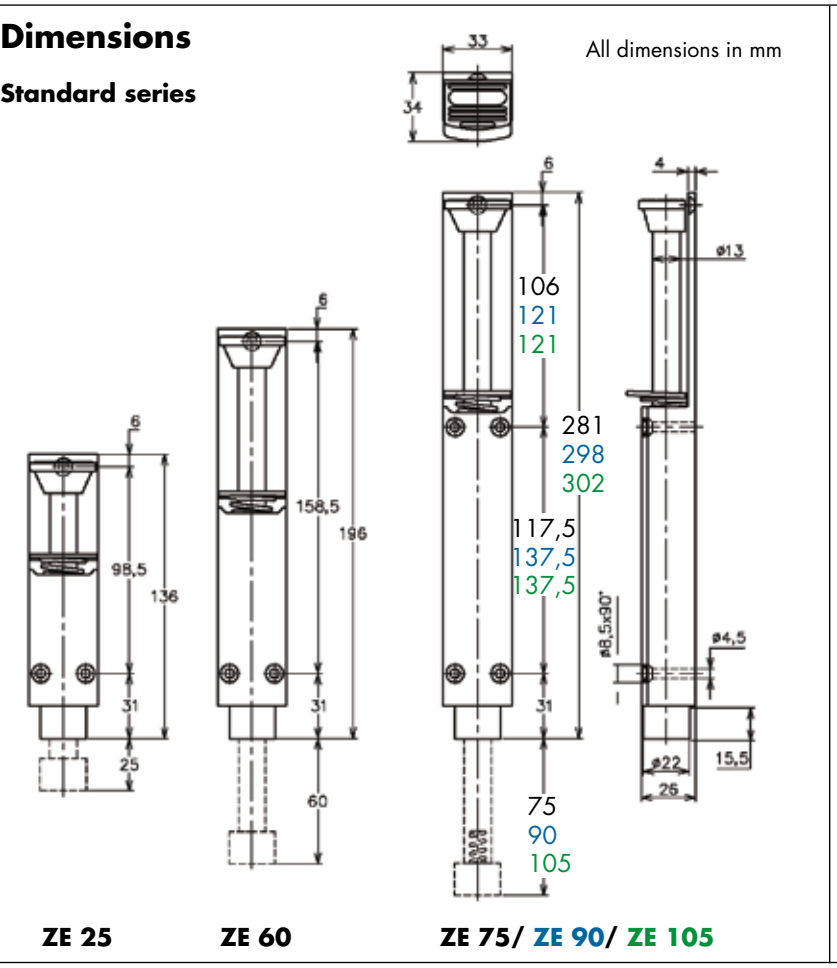
The door is fixed in the desired position simply by stepping down the piston rod of the door holder. In case of the Standard series you step on the rubber knop atop the door holder, in case of the *Design Line* on the metal foot at the bottom of the casing. A small internal spring presses the foot firmly against the floor and prevents the door from moving.

To release the door you tread the metal plate at the top of the casing (Standard) or in the bottom of the casing (*Design Line*). The piston rod automatically retreats and the door is again free to move.

Dimensions

All dimensions in mm

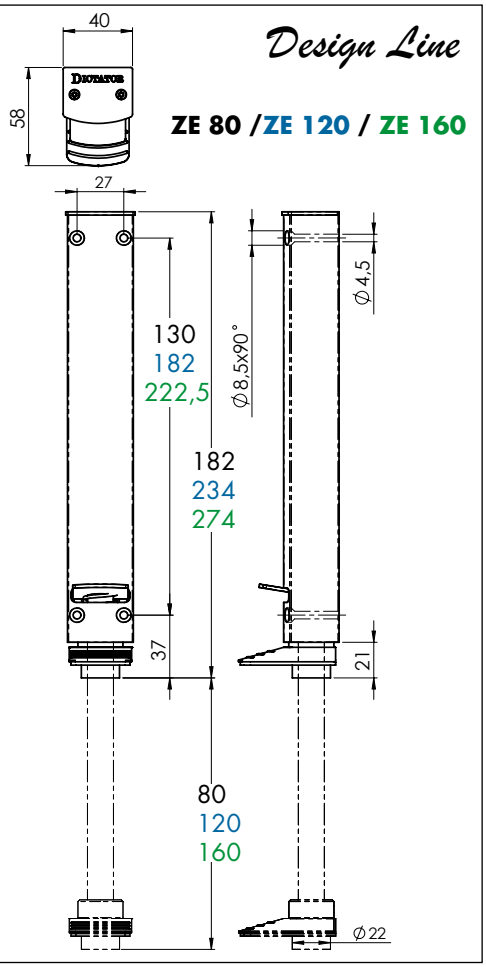
Standard series



ZE 25 **ZE 60** **ZE 75/ ZE 90/ ZE 105**

Design Line

ZE 80 /ZE 120 / ZE 160



Order Information

Designation	aluminium satin silver	white	black
ZE 25 Standard	500200	on demand	
ZE 60 Standard	500210	on demand	500213
ZE 75 Standard	500220	on demand	
ZE 90 Standard	500230	on demand	500229
ZE 105 Standard	500225	on demand	
ZE 80 *Design Line*	500235	500237	500239
ZE 120 *Design Line*	500236	500238	500240
ZE 160 *Design Line*	500233	500234	500241

Back Checks

With Hydraulic Damping in the Opening Direction

The DICTATOR back checks with hydraulic damping slow down hinged doors opening too fast and limit the opening angle of the door. Thus they prevent damage to the door and the hinges.

The door can effortlessly be moved by hand. The cushioning of the back check prevents too high opening speed of the door (e.g. by a sudden gust of wind).

The DICTATOR back checks are often used on doors which could bump into a wall or something similar by gusts of wind, draught or just during opening being torn from the user's hand. Beside the damage this could cause to the door, the fittings and possibly the wall, doors opening at uncontrolled speed present a risk of accident not to be underestimated.

The back checks are produced in **two basic versions**: with or without adjustment of the damping force. Of both versions there are available several series for different sizes of doors. Our technical service would be happy to determine free of charge the back check for your application.

Technical Data

Cylinder diameter	TB: 23, 28 mm; TBR: 28, 35 mm
Piston rod diameter	TB: 10, 14 mm; TBR: 10, 14 mm
Cylinder	steel zinc-plated or coated in RAL colours, AISI 304, AISI 316
Piston rod	hard-chrome plated, AISI 304, AISI 316
Door size*	up to width 1.30 m, height 2.50 m (with 3 hinges)
Door weight*	up to ca. 200 kg; *for larger doors on demand
Maximum opening angle	120°
Mechanical stop (ca.)	TB: 1023: 250 N, 1428: 350 N, 1435: 500 N

Operation, Installation and Adjustment

DICTATOR back checks are the ideal solution for exterior doors being exposed to wind or interior doors in surroundings with heavy draught that might slam open. The cushioning by the back check reduces strain both on door (e.g. glass panes) and door hinges. One side of the back check is fixed to the upper door frame, the other side to the door leaf. When the door is opened normally, there is almost no cushioning effect of the back check perceptible. As soon as the door is opened very fast either by hand or e.g. a gust of wind, the back check hydraulically slows down this sudden movement.

Choosing the Correct Back Check

The tables with the different standard models show the weight of interior doors up to which the respective back check may be used. When installing a back check without adjustment on a frequently used door, you should always choose the series 1428 with 250 mm stroke (also with the sets)!

When you intend to install back checks on exterior doors or on doors with high pressure differences or heavy draught, please contact our advisory service. For this application we need the following data:

- Opening angle, weight, dimensions, thickness and material of the door
- Width and material of the door frame
- Mechanic stop required: yes/no
- Installation on the side of the hinges or on the side opposite to the hinges
- An overhead door closer is mounted on the door: yes/no
- If yes: On which side of the door?
- On the door leaf is mounted the guide rail/the overhead door closer.
- Drawings or pictures, if possible.

Accessories

The **back checks** are available **with** complete **installation kits** for the different types of doors, all packed in a unit box. This should **facilitate the choosing**. Information about the different sets is to be found beginning on page 02.075.00, the exact dimensions of the fixing accessories are shown beginning on page 02.077.00.

Apart from the sets the fixing accessories are also separately availabe. For the 1435 series no sets are available as here the installation situations vary a lot. The necessary installation accessories have to be ordered additionally to the back check.

Mechanical Stop

The back checks can be furnished with an integrated mechanical stop for the door in the open position (stop at about 3° before the piston rod is completely extended).

Installation

When installing the back check, please make sure it is fixed securely to the door and the frame. If door or frame are made from thin steel sheet or something similar, we recommend to use mounting plates.
Furthermore, the piston rod should not be fully compressed when the door is closed. There should be left approx. 10 mm of stroke in order to ensure the door can be opened without problems.

Damping Adjustment

When using a non-adjustable back check TB model the cushioning range can be reduced on site by withdrawing some of the oil through the valve screw. If this necessary, please contact our technical customer service.

The damping force of the adjustable back checks TBR can be adjusted continuously and at any time. The piston rod of the models without mechanical stop has to be pulled out as far as possible and then - while still being pulled - be turned. With the types with mechanical stop it works the other way round: push the piston rod as far as possible into the cylinder and then turn it carefully.

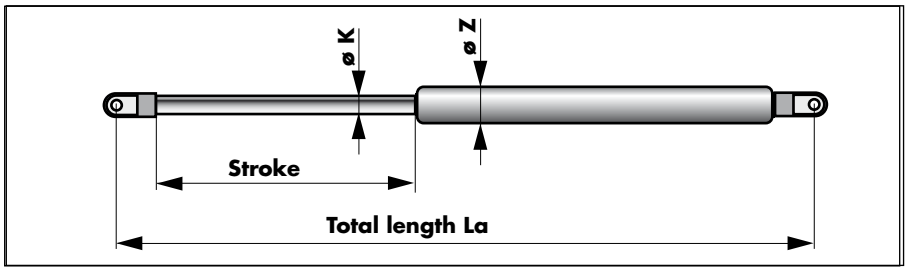
Non-Adjustable Back Checks TB

The economic and non-adjustable types **TB** are mainly intended for industrial applications (e.g. for hall doors opening to the outside).

There are produced two series of back checks TB with the diameters 1023 and 1428. The standard types are shown below. Of course, there are available differing lengths. In addition the back checks TB can also be provided with an integrated mechanical stop.

By default the steel version is zinc-plated. On demand coating in RAL colours is also possible. The dimensions of the fixing eyelet are to be found on the next page.

Dimensions



Technical Data and Order Information

The following list shows only a choice of the available models. We gladly will provide detailed advice on the appropriate model and of course will manufacture it, also single units and models which are not listed below.

Some of the back checks TB are also available as a set with the appropriate fixing accessories. Information about the different sets you will find on page 02.071.00.

Ø K [mm]	Ø Z [mm]	Stroke [mm]	Length La [mm]	Door weight up to	Max. door opening	Me-chanic. stop	Part no.		
							Steel zinc-plated	AISI 304	AISI 316
10	23	200	500	50 kg	95°	no	302000	302002	302004
10	23	200	500	50 kg	95°	yes	302001		-
10	23	200	510	50 kg	95°	yes	-	302003	302005
10	23	250	600	50 kg	120°	no	302006	302010	302012
10	23	250	600	50 kg	120°	yes	302007	-	-
10	23	250	610	50 kg	120°	yes	-	302011	302013
10	23	250	660	50 kg	120°	no	302008*	-	-
10	23	250	660	50 kg	120°	yes	302009*		
14	28	200	500	90 kg	95°	no	302014	-	-
14	28	200	510	90 kg	95°	no	-	302016	302018
14	28	200	510	90 kg	95°	yes	302015	302017	302019
14	28	250	600	200 kg	120°	no	302020	302022	302024
14	28	250	610	200 kg	120°	yes	302021	302023	302025
14	28	300	750	200 kg	120°	no	302026	302028	302030
14	28	300	750	200 kg	120°	yes	302027	302029	302031
14	28	400	1000	200 kg	120°	no	302033	302035	302037
14	28	400	1000	200 kg	120°	ja	302034	302036	302038

* The back checks with the part numbers 302008 and 302009 are longer than the standard models. They are specifically intended for the installation together with a guide rail door closer.

Adjustable Back Checks TBR

The adjustable back checks **TBR** are designed especially for the interior use, e.g. in residential building, hospitals, nursing homes etc. where higher requirements apply to the optimum movement of the door. They are also used on heavy doors as they can exactly be adjusted on site.

There are produced two series of adjustable back checks TB with the diameters 1028 and 1435. The standard types are shown below. Of course there are available differing lengths. In addition the diameter series 1435 is also available with an integrated mechanical stop (code "F"). For the fixing of the back checks there is provided an eyelet both on piston rod and cylinder (dimensions see below). Other end fittings are available on request.

Technical Data and Order Information

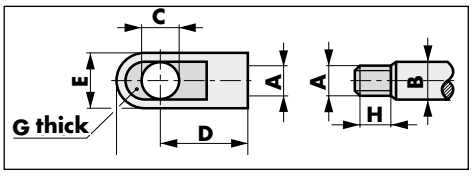
Ø K * [mm]	Ø Z * [mm]	Stroke * [mm]	Length La * [mm]	Door weight up to	Max. door opening	Mechanic. stop	Measure C eyelet of 1435 series	Part no.		
								Steel zinc-plated	AISI 304	AISI 316
10	28	200	550	100 kg	95°	no		302200	302202	302203
10	28	250	600	100 kg	120°	no		302204	302205	302206
14	35	250	650	200 kg	120°	no	**Ø 8**	302210	302213	302215
14	35	250	650	200 kg	120°	no	**Ø 10****	302211	302214	302216
14	35	250	650	200 kg	120°	yes	**Ø 8**	302212	302238	-
14	35	300	750	200 kg	120°	no	**Ø 8**	302217	302220	302222
14	35	300	750	200 kg	120°	no	**Ø 10****	302218	302221	302223
14	35	300	750	200 kg	120°	yes	**Ø 8**	302219	302239	-
14	35	400	950	200 kg	120°	no	**Ø 8**	302224	302230	302232
14	35	400	950	200 kg	120°	no	**Ø 10****	302225	302231	302233
14	35	400	950	200 kg	120°	yes	**Ø 8**	302226	-	-
14	35	400	950	200 kg	120°	yes	**Ø 10****	302227	-	-
14	35	500	1150	200 kg	120°	no	**Ø 10****	302234	-	-
14	35	500	1150	200 kg	120°	yes	**Ø 10****	302235	-	-

* see drawing on the previous page

The above list shows only a choice of the available models. We gladly will provide detailed advice on the appropriate model and of course will manufacture it, also single units and models which are not listed below.

Some of the listed back checks TBR are also available as a set with the appropriate fixing accessories (see next page).

Dimensions End Fitting "Eyelet"



Ø Series	1023 / 1028	1428	1428V / 1435	1435-1
A	M8	M10	M10	M10
B	Ø 10	Ø 14	Ø 14	Ø 14
C	Ø 8	Ø 8	Ø 8	Ø10
D	22	30	27	27
E	14	18	18	18
F	32	40	36	36
G	10	10	10	10
H	10	10	10	10

Back Check Sets

The most common TB and TBR back checks are also available as sets complete with the appropriate mounting accessories.

The required installation kit depends on the mounting situation, the type of door and frame. On the following page you will find the different kinds of installation and the corresponding accessories kit. Of course the fitting brackets are also available as single parts. Details and the dimensions of all components are shown on page 02.077.00.

Order Information Sets

Back check sets not adjustable TB (zinc-plated steel)					**Part no.**	
					without stop	with stop
Ø K	***Ø Z***	***Stroke***	***Length La***	***Accessories***		
10	23	250	600	Set 1	300981	300991
10	23	250	600	Set 2	300982	300992
10	23	250	600	Set 3	300983	300993
14	28	250	600	Set 1	300984	
14	28	250	610	Set 1		300994
14	28	250	600	Set 2	300985	
14	28	250	610	Set 2		300995
14	28	250	600	Set 3	300986	
14	28	250	610	Set 3		300996

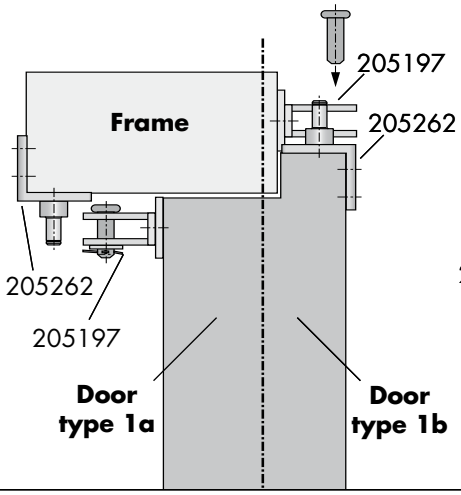
Back check sets not adjustable TB (AISI 304)					**Part no.**	
					without stop	with stop
Ø K	***Ø Z***	***Stroke***	***Length La***	***Accessories***		
14	28	250	600	Set 1	300987	
14	28	250	610	Set 1		300998
14	28	250	600	Set 2	300990	
14	28	250	610	Set 2		300997
14	28	250	600	Set 3	301901	
14	28	250	610	Set 3		301902

Back check sets adjustable TBR (zinc-plated steel)					**Part no.**	
					without stop	with stop
Ø K	***Ø Z***	***Stroke***	***Length La***	***Accessories***		
10	28	250	600	Set 1	300975	
10	28	250	600	Set 2	300976	
10	28	250	600	Set 3	300977	

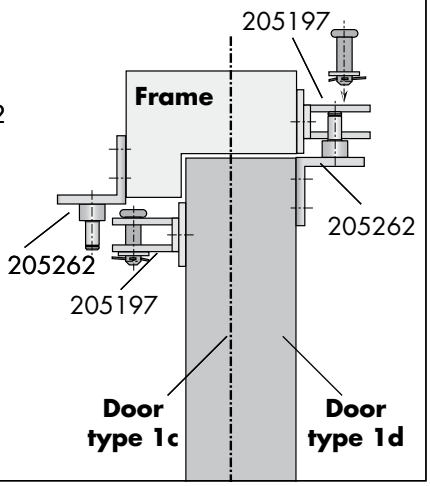
Back check sets adjustable TBR (AISI 304)					**Part no.**	
					without stop	with stop
Ø K	***Ø Z***	***Stroke***	***Length La***	***Accessories***		
10	28	250	600	Set 1	300999	
10	28	250	600	Set 2	300980	
10	28	250	600	Set 3	301903	

Installation Kits - Mounting Situations

Kit 1 can be used for the back (door type 1a with **mid-size frame**) or front side of an overlapping door (door type 1b).



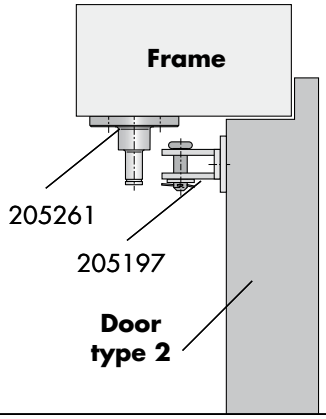
Kit 1 also can be used on the back (door type 1c with **narrow frame**) or front of a flush door (door type 1d).



Installation Kit 1

for overlapping and flush doors:
Installation kit 1 (part no. 205197 and 205262) for back checks of the 1023, 1028 and 1428 series

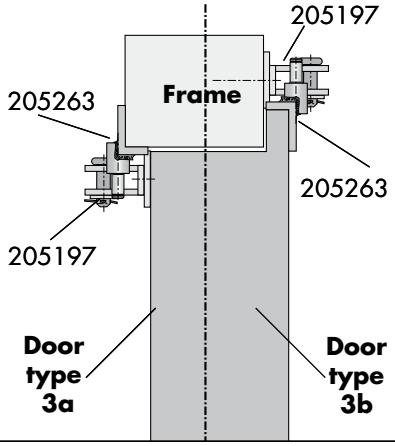
Kit 2 is used only on the **back side** of the door. There has to be enough space available on the frame for mounting flange no. 205261, to achieve a secure fixing.



Installation Kit 2

for backside installation under a large frame:
Installation kit 2
(part no. 205197 and 205261) for back checks of the 1023, 1028 and 1428 series

Kit 3 with the special bracket no. 205263 allows an installation on the **back side** of a narrow frame (3a) or on the **front** of doors with thin overlapping (3b).



Installation Kit 3

for installation under a narrow frame or on the front side of **doors overlapping only slightly:**
Installation kit 3
(part no. 205197 and 205263) for back checks of the 1023, 1028 and 1428 series

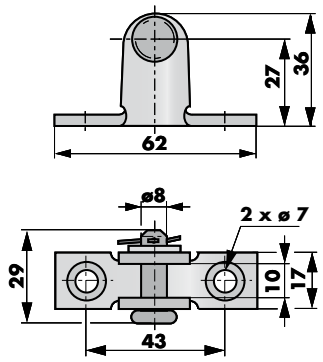
Fixing Accessories: Kits 1 - 3

For mounting the back checks, different brackets are available.

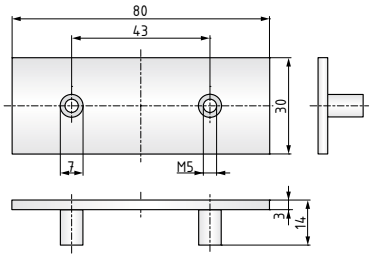
All three standard installation kits (see previous page) include the mounting bracket shown below on the top left (no. 205197). To facilitate mounting if the door is made of thin walls, we offer a counter plate for this bracket. For a space saving mounting on glass doors with aluminium frames we provide the mounting plate TB.

The other component of the installation kits is choosen, depending on the mounting situation, from one of the mounting brackets shown at the bottom of this page.

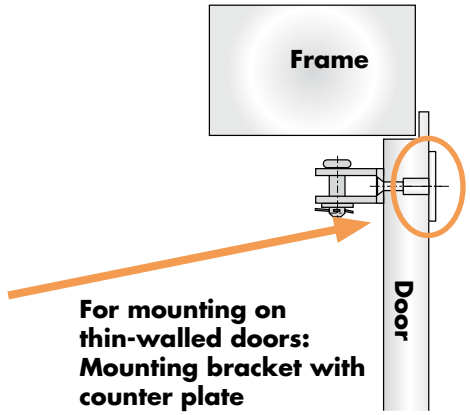
All dimensions in mm



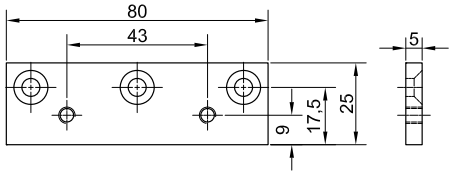
Mounting bracket
part no. 205197 (zinc-plated),
205249 (AISI 304),
205455 (AISI 316)



Counter plate for mounting bracket 205197
part no. 205468 (AISI 304)

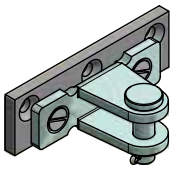


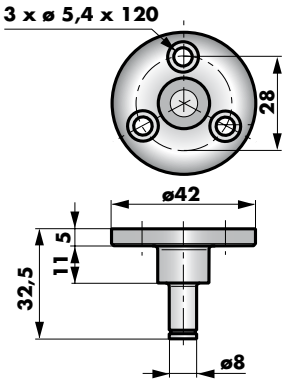
For mounting on thin-walled doors: Mounting bracket with counter plate



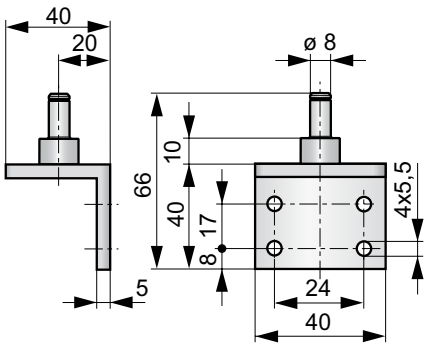
Mounting plate TB with 2 threaded holes M5 for mounting bracket 205197
part no. 205479 (AISI 304)

When mounted on glass doors with an aluminium frame

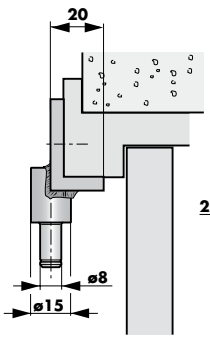


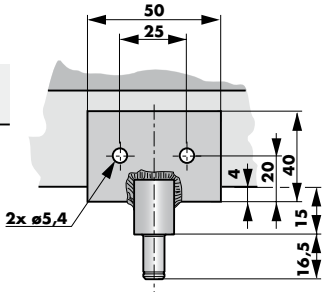


Mounting flange TB
Ø 42 mm, pin 8 mm
part no. 205261 (zinc-plated),
205281 (AISI 304)



Mounting bracket TB
40x40x40 mm, pin 8 mm
part no. 205262 (zinc-plated),
205282 (AISI 304), 205456 (AISI 316)





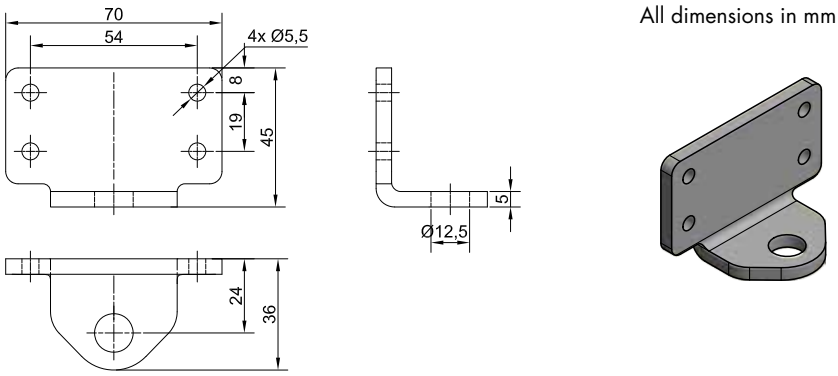
Mounting bracket TB
50x40x20 mm, pin 8 mm
part no. 205263 (zinc-plated),
205258 (AISI 304)

Fixing Accessories TB, for Universal Use

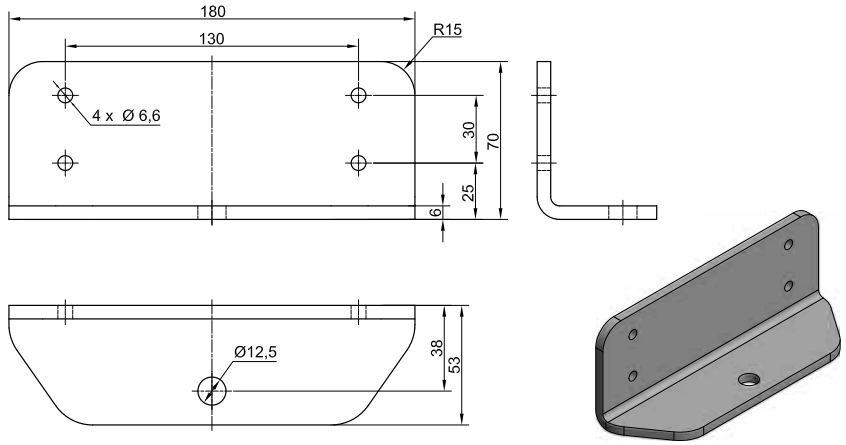
Beside the standard kits and the special mounting accessories for mounting in combination with overhead door closers (beginning on page 02.076.00), DICTATOR offers a great number of mounting brackets and mounting plates. Some feature a fixed mounting pin, others can be used either with a 8 or 10 mm mounting pin. These have to be ordered according to the application in addition to the fixing accessories.
Please let our technicians help you in choosing the optimum accessories.
Other accessories and special mounting brackets are available on demand.

Fixing Accessories for Mounting Pin with Ø 8 or Ø 10 mm

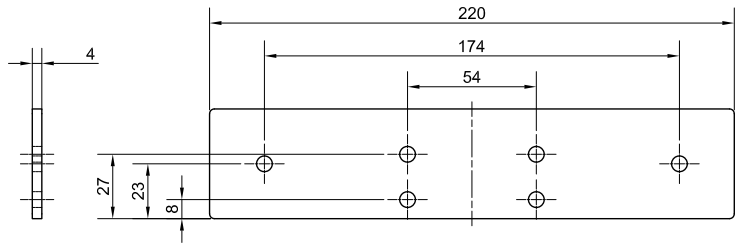
All dimensions in mm



Mounting bracket TB 70x45x36 mm (without mounting pin)
part no. 205489 (zinc-plated), 205490 (AISI 304), 205491 (AISI 316)



Mounting bracket TB 180x70x53 mm, zinc-plated (without mounting pin), part no. 205462-W

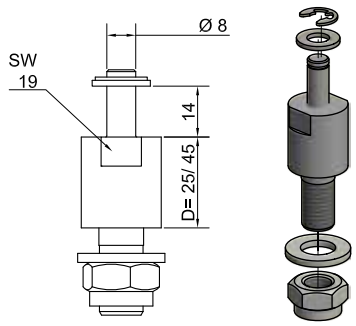


Mounting plate TB 220x46 mm
(suitable for mounting bracket TB 70x45x36, 205489 - if high forces apply)
part no. 205503 (zinc-plated), 205504 (AISI 304), 205505 (AISI 316)

Fixing Accessories TB, for Universal Use - cont.

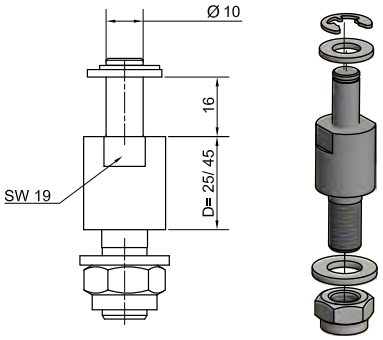
The mounting pins for the fixing accessories are supplied together with washers, nut and lock washer.
They feature a different diameter of the pin and a different length of the distance piece, which is available with a length of 25 mm or 45 mm.

Mounting Pins for Fixing Accessories



Mounting pin TB Ø 8 mm

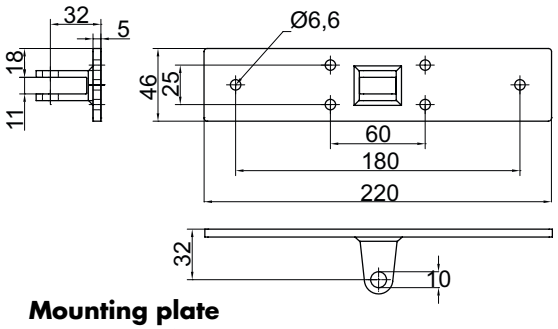
Distance (D)		25 mm	45 mm
zinc-plated	part no.	205511	205514
AISI 304	part no.	205512	205515
AISI 316	part no.	205513	205516



Mounting pin TB Ø 10 mm

Distance (D)		25 mm	45 mm
zinc-plated	part no.	205517	205520
AISI 304	part no.	205518	205521
AISI 316	part no.	205519	205522

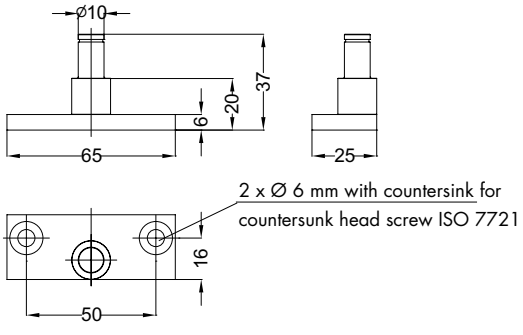
Fixing Accessories with Mounting Pin Ø 10 mm



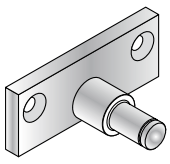
Mounting plate
part no. 205460

Counter plate with threaded inserts for mounting plate
part no. 205461

All dimensions in mm



Mounting flange for narrow door frames
part no. 205469



Mounting Situations when Combined with Overhead Door Closers

The back check can also easily be used together with an overhead door closer. This applies to door closers with scissor arm as well as with slide channel.
This, however, often requires special mounting brackets.
On this page you will find an overview of the most common mounting situations and the recommended accessories. But also for other applications, it usually is no problem to find a solution.
The dimensions of the accessories for mounting a back check in combination with an overhead door closer are to be found on the next page.

Mounting Situations Back Check - Overhead Door Closer OTS

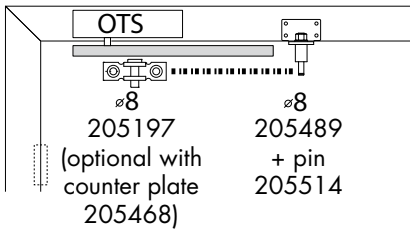
Note:
In addition to the zinc-plated models (for part no. see the drawings) some of the mounting accessories are also available in AISI 304 or in AISI 316.

zinc-plated	*AISI 304*	*AISI 316*
205197	205249	205455
205489	205490	205491

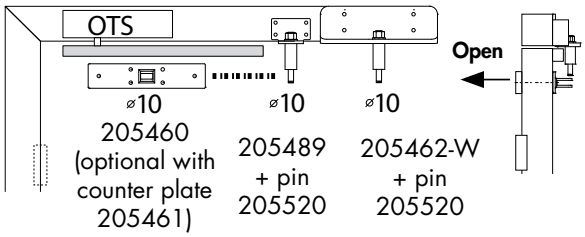
Mounting pin

205511	205512	205513
205514	205515	205516
205517	205518	205519
205520	205521	205522

Overhead door closer (OTS), mounted on the door frame

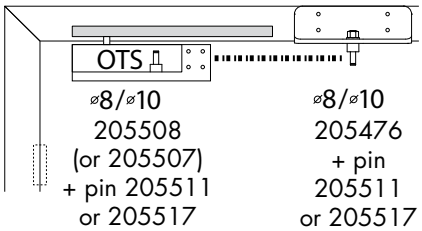


For back checks with ***inner diameter of eyelet C = 8 mm*** (see page 02.074.00)



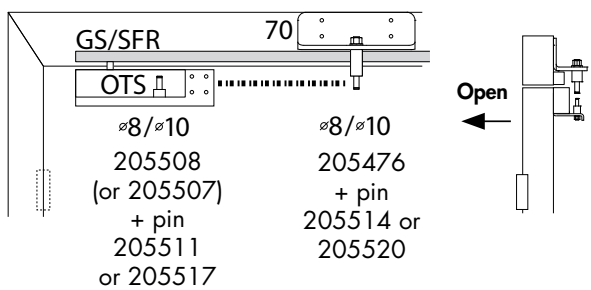
For back checks with ***inner diameter of eyelet C = 10 mm*** (see page 02.074.00)

Overhead door closer (OTS), mounted on the door leaf



The illustration shows the mounting situation with an overhead door closer on a door DIN right, mounted on the non swing side.

Overhead door closer with slide channel (OTS-GS/SFR) with door sequence selection, mounted on the door leaf

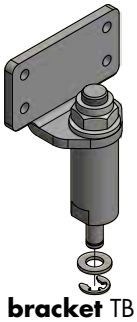


The illustration shows the mounting situation with an overhead door closer on a door DIN right, mounted on the non swing side.

Fixing Accessories when Combined with Overhead Door Closers (TB-OTS)

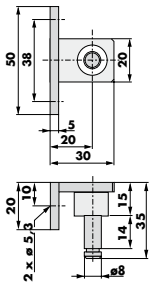
The mounting brackets 205476 and 205482 or 205485 can be used with a mounting pin of Ø 8 mm or 10 mm (see page 02.079.00 for the dimensions of the mounting pins).
When choosing the mounting bracket no. 205482/205485, please keep in mind that the given DIN direction applies when being mounted on the non swing side. In the event of mounting it on the hinge side, you have to choose the other model.
Note: The mounting bracket 205276 can also be replaced by the mounting bracket 205197 together with the mounting plate TB 205479.

Fixing Accessories TB-OTS with Mounting Pin Ø 8 mm



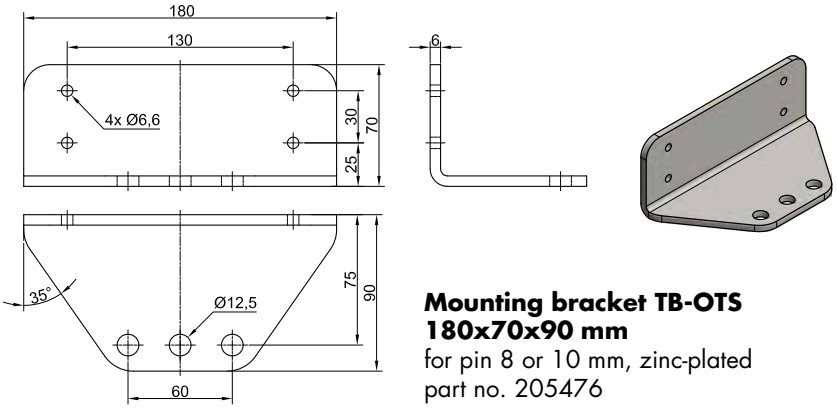
Mounting bracket TB 70x45x36 mm
part no. 205489 **with pin** Ø 8 mm
205514 - see pages 07.078/079.00

All dimensions in mm

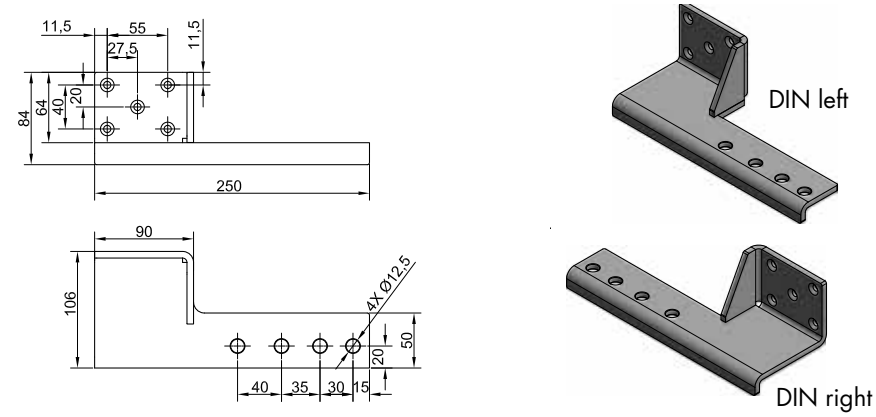


Mounting bracket TB-OTS, 50x20x30 mm, pin 8 mm, zinc-plated, part no. 205276

Fixing Accessories TB-OTS for Mounting Pin Ø 8 or Ø 10 mm



Mounting bracket TB-OTS 180x70x90 mm
for pin 8 or 10 mm, zinc-plated
part no. 205476



Mounting bracket TB-OTS 250x106x90x84 mm
for pin 8 or 10 mm, zinc-plated
part no. 205507 (DIN left)(dimensioned drawing), part no. 205508 (DIN right)

Fixing Accessories - Order Information

The following table summarizes the order information of all the fixing accessories shown on the previous pages.

Basically you have to distinguish between the accessories with the 8 mm mounting pin and those with the 10 mm pin. Some accessories can be equipped either with a 8 mm or a 10 mm mounting pin.

Some fixing accessories are also by default available in AISI 304 and AISI 316. If you need accessories in stainless steel which are listed in this table only as zinc-plated version, please ask us.

Order Information Mounting Accessories TB

Model	Part no.		
	zinc-plated	AISI 304	AISI 316
Mounting bracket	205197	205249	205455
Counter plate with threaded inserts for mounting bracket 205197	-	205468	-
Mounting plate TB with 2 threaded holes M5 for mounting bracket 205197	-	205479	-
Mounting flange TB Ø 42, pin Ø 8 mm	205261	205281	-
Mounting bracket TB 40x40x40 mm, pin Ø 8 mm	205262	205282	205456
Mounting bracket TB 50x40x20 mm, pin Ø 8 mm	205263	205258	-
Mounting bracket TB 70x45x36 mm, for mounting pin Ø 8 or 10 mm	205489	205490	205491
Mounting bracket TB 180x70x53 mm, for mounting pin Ø 8 or 10 mm	205462-W	-	-
Mounting plate TB 220x46 mm	205503	205504	205505
Mounting pin TB 25-14 mm, Ø 8 mm	205511	205512	205513
Mounting pin TB 45-14 mm, Ø 8 mm	205514	205515	205516
Mounting pin TB 25-16 mm, Ø 10 mm	205517	205518	205519
Mounting pin TB 45-16 mm, Ø 10 mm	205520	205521	205522
Mounting plate TB 45x220 mm, seat with mounting pin Ø 10 mm	205460	-	-
Counter plate for mounting plate TB 45x220 mm, with threaded inserts	205461	-	-
Mounting flange TB 65x25 mm, mounting pin Ø 10 mm	205469	-	-
Mounting bracket TB-OTS 50x20x30 mm, mounting pin Ø 8 mm	205276	-	-
Mounting bracket TB-OTS 180x70x90 mm for mounting pin Ø 8 or 10 mm	205476	-	-
Mounting bracket TB-OTS 250x106x90x84 mm, for mounting pin Ø 8 or 10 mm, DIN left, mounted on non swing side	205507	-	-
Mounting bracket TB-OTS 250x106x90x84 mm, for mounting pin Ø 8 or 10 mm, DIN right, mounted on non swing side	205508	-	-

DICTATOR Solutions for Sliding Doors

Even moving small sliding doors may implicate quite a lot of requirements:

- The sliding door should close automatically (sometimes only after a certain time), but an expensive door operator is not required as the door can manually be opened without effort.
- The sliding door moves so effortlessly that a slight push by hand is sufficient to make the door slam against the door frame. This may result in accidents, increased wear and tear of the door, noise and that the door does not stay either completely opened or closed.
- The door should completely disappear in a pocket of the wall, in order to have available the full width of the passage. But this way the door handle disappears as well and the door cannot be closed.

With DICTATOR products you can solve these problems. Combined in different ways the DICTATOR products allow for individual solutions that meet manifold requirements.

The products shown in this chapter are mainly designed for sliding doors up to about 1.50 m door width. For larger sliding doors DICTATOR offers similar solutions. They can be found in the chapter Door and Gate Operators.

Products

Closing mechanism	DICTAMAT 50 (adjustable closing speed)
	spring rope pulley (closing without speed control)
Mechanical timer	delays the beginning of the closing without current
Release buffer	pushes the completely opened door out of the wall pocket
Radial damper	controlled closing speed during the whole travel
Final damper	damping the movement shortly before the final positions
Door check	damping and controlled closing of the door

Damping Systems for Sliding Doors

The products for sliding doors mentioned on the previous page will be presented in detail on the following pages. Only exception are the damping solutions as they are dealt with earlier in this chapter or in the chapter Damping Engineering. Therefore, below you will find just a short overview of possible solutions and where you can find more detailed information.

There are different possibilities to slow down the movement of a sliding door. They either control the speed during the whole closing or they prevent banging in the open or closed position. Further possibilities offer the DICTATOR door checks, which also keep the door safely closed.

Radial Dampers

In case that the closing of the sliding door should be controlled **during the whole travel**, the LD 50 radial damper is the appropriate solution. The radial damper is integrated in the DICTAMAT 50 closing device, but it can also be installed separately. Information on the LD 50 and adapted accessories can be found beginning on page 02.090.00 and further details in the chapter Damping Engineering.

Final Dampers

In order to dampen the movement of sliding doors just before the **final positions** a final damper is the best solution. They are available in different sizes and types. For detailed information see the chapter Damping Engineering.

Door Checks

If the door should not only be **slowed down** but also **kept safely in the final position**, the DICTATOR door checks are the best choice. They contribute to **environmental protection** and **energy saving**. Often small sliding doors are moving that easily, that they are not slowed down in time, bang against the final position and reopen a little. Through this gap energy in form of heat or cold may get lost (e.g. with cold-stores). DICTATOR door checks not only close the door gently and smoothly, but also keep it firmly closed.

There are several models for different sizes of doors. Please see pages 02.003.00 and following. Due to its small size the JUNIOR door check is nearly invisible when being built into the door leaf. We will be happy to assist you in choosing the appropriate door check.

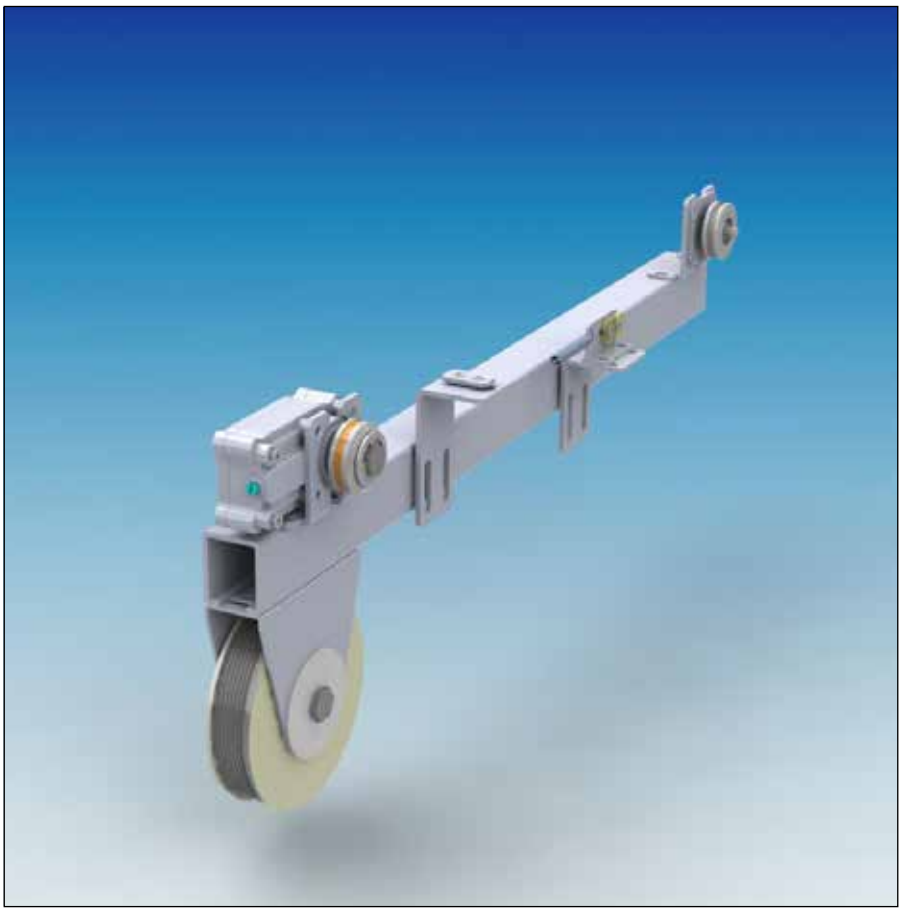
Sliding Door Closer DICTAMAT 50

DICTATOR provides for **small and middle sliding doors** a very flexible **mechanical** closing system, the **DICTAMAT 50**. The series joins a spring rope pulley and the patented lamellar radial damper LD. Together they make sure sliding doors close reliably - at a controlled speed.

Standard versions:

- the all-purpose **modular system BK**. It is available either as a standard kit or as an individual combination of the spring rope pulley and the radial damper required by the particular application.
- the **compact units** which are subject to certain restrictions regarding their possible applications.
- **model WS with tensioned steel wire drive rope.** Of this are available three versions: as **normal closing device**, **with additional locking device** and as **freewheel version** (in particular for fire protection doors). In this case the door usually is operated manually. In case of an alarm, however, the freewheel device makes sure the door is always reliably closed.

Besides this, with the DICTAMAT 50 series you can design innumerable **special solutions for special applications**.



Technical Data

Closing force	25 N, 50 N, 80 N, 100 N (standard versions)
Working travel	max. 4 m (depending on pretension and strength of spring)
Door weight	10 - 200 kg
Damping force	max. 2 Nm (radial damper LD 50), max. 5 Nm (LD 100)
Material	see information on the pages about the different versions
	some are available completely in rustless material

DICTAMAT 50 - Overview Versions

The DICTAMAT 50 has been designed as closing device for sliding doors. It assures their reliable closing at a closing speed adapted exactly to the requirements on site.

How the different components are arranged depends on the version and the mounting situation. We would be happy to assist you in choosing the best solution for your application.

The DICTAMAT 50 can be mounted on the most different rail systems. If required, it is also possible to supply specially adapted mounting accessories.

Versions

DICTAMAT 50 BK - modular system (see next page et sqq.)
The DICTAMAT 50 BK modular system is the most flexible and universally usable version of the DICTAMAT 50.

It can simultaneously move both leaves of double-leaf sliding doors. Furthermore it facilitates, due to its modular structure, to realize space saving solutions.

A revolving rope or a revolving toothed belt always provides a secure and reliable function. Therefore, the single components of this version can be installed separately, without running the danger of the pull rope to slacken.

Spring rope pulley, radial damper and idler pulley are supplied with the mounting accessories that facilitate to fix them directly to the rail or to the ceiling. On demand, there are also available special mounting accessories for the fixing to the wall.

DICTAMAT 50 - compact units (see page 02.093.00 et sqq.)
For certain applications the DICTAMAT 50 is also available as compact unit. Here all the required components are combined to a unit. The compact units may only be used on doors in buildings. They are not fit for being used on ships or in trains where different angles of inclination occur. In case of the closing being manipulated (the door is also pushed close manually), the so-called slack rope may happen.

- **DICTAMAT 50 KP**: compact unit with carrier plate for mounting below the rail, with single pull rope. For single-leaf doors only.
- **DICTAMAT 50 KW**: compact unit with carrier bracket for mounting on top of the rail, with single pull rope. For single-leaf doors only.

DICTAMAT 50 WS - tensioned wire rope (see page 02.097.00 et sqq.)
The DICTAMAT 50 WS is also a modular system. Instead of a revolving rope or toothed belt, this system uses a tensioned steel wire drive rope. This special rope is guided over the pulley wheel of the lamellar radial damper, which in turn controls the closing speed. The rope pulley is fitted with a special cover to ensure that the drive rope remains properly engaged.

If the sliding door is required to close after every operation the Spring Rope Pulley and the Radial Damper are fitted directly to the door.

The DICTAMAT 50 WS-MFL is the ideal solution for Fire and Smoke protection doors which need to close automatically in the event of a fire. It is a 'freewheel' version which provides the flexibility of allowing the sliding door to be used as normal, whilst ensuring that the door will close automatically in the event of a fire, or when required. To achieve this the radial damper is not fitted directly to the door, instead it is installed in a specially designed carrier casing which runs along a tensioned wire rope adjacent to the door. The spring rope pulley is attached to the carrier casing to provide the closing force. In normal operation the carrier casing is held in the open position by an electromagnet and does not act upon the door. Under normal conditions the door is moved by hand and will remain stationary at any desired position. In the event of an alarm, or when triggered by a central control system, the magnet releases the carrier casing. The spring rope pulley will then pull the carrier casing in the closing direction, collecting the door from whatever position it has been left at. Closing speed is controlled by the radial damper.

At the moment this system has not been tested as there doesn't exist a relevant standard. The components of the DICTAMAT 50 WS-MFL, however, have been approved for their use on smoke and fire protection doors.

DICTAMAT 50 BK - The Flexible Modular System
Basic Set-Up

In the DICTAMAT 50 BK modular system a revolving rope or toothed belt controls the closing speed and the continuous closing force. Therefore the DICTAMAT 50 BK is the ideal solution for highly frequented doors, with varying users, in trains, on ships etc.

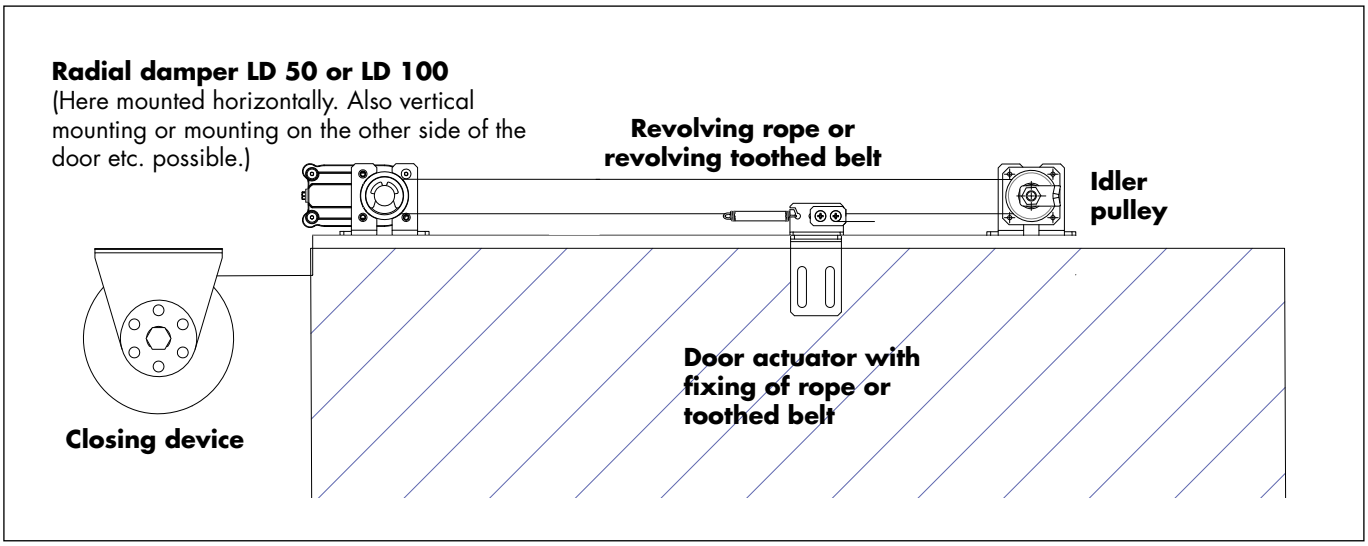
Due to its modular structure it is also very well suited in case of space problems as the single components can be mounted in a flexible way.

The DICTAMAT 50 BK is available as complete kits or the single components are combined individually according to the application.

Structure DICTAMAT 50 BK

The following drawing shows the components of the DICTAMAT 50 BK. They can be combined at will. For the most common applications standard kits have been prepared. When they cannot be used, the components can be combined individually.

Depending on the available space, the components of the modular system can be mounted in different positions. For designers there are nearly no limits to develop own object specific solutions. Of course, DICTATOR will be happy to assist you in realizing your ideas.



Components

	Standard kits	Options for special solutions
Closing device	spring rope pulley with sliding hub, diameter series 118 mm, force depending on model 25 N, 50 N or 80 N	double spring rope pulley diameter series 118 mm spring rope pulley diameter series 177 mm counter weight provided on site
Control of closing speed	lamellar radial damper LD 50 for rope or toothed belt	lamellar radial damper LD 50 with special oil lamellar radial damper LD 100
Damping transmission	revolving rope Ø 2 mm or toothed belt 10 mm	other rope or toothed belt types chain
Idler pulley	for rope or toothed belt	special type according to damping transmission
Door actuator	for rope or toothed belt	special type according to damping transmission
Door actuator for second door leaf	–	Has always to be ordered separately.

DICTAMAT 50 BK - Modular System Standard Kits - Overview

The different standard kits of the DICTAMAT 50 BK modular system which have been composed, are suitable for most sliding doors. Their main difference is the closing force of the spring rope pulley and the type of damping transmission - rope (Seil) **S** or toothed belt (Zahnriemen) **Z**. The standard kits are automatically provided with the LD radial damper corresponding to the closing force of the spring rope pulley.

On this page you will find an overview about the components included in the standard kits. On the following pages the individual components of these kits will be described in detail.

Standard Kits DICTAMAT 50 BK

The **DICTAMAT 50 BK** is available in **two basic versions**:
DICTAMAT 50 BK-**Z**: power transmission by revolving toothed belt
DICTAMAT 50 BK-**S**: power transmission by revolving steel rope

Generally the version with toothed belt should be favoured as it provides an absolutely positive connection between toothed belt, idler pulley and radial damper.
Among the main advantages of the toothed belt are:
- Due to the positive connection it is not necessary to tension it as hard as the rope. This reduces the friction, requires a less strong spring rope pulley and thus also less effort when opening the door.
- The toothed belt cannot slip.
- The system works with less noise than the version with rope.

Contrary to the DICTAMAT 50 BK-S, the DICTAMAT 50 BK-Z is at the moment not yet available in completely rustless material. The material data are included in the information about the individual components of the kits on the following pages.

Components Included Standard Kits DICTAMAT 50 BK-Z

- Spring rope pulley with bracket and plastics rope
- LD 50 radial damper with toothed wheel and mounting bracket set for horizontal or vertical mounting
- Idler pulley for toothed belt and mounting bracket set
- Door actuator with toothed belt tensioner

Accessories DICTAMAT 50 BK-Z

- Toothed belt HTD 5M, 10 mm wide, length depends on door width (approx. door width x 4)
- Door actuator for second door leaf for toothed belt
- Adaptor plates and brackets for LD 50 radial damper and idler pulley

Components Included Standard Kits DICTAMAT 50 BK-S

- Spring rope pulley with bracket and plastics rope
- LD 50 radial damper with rope pulley and mounting bracket set for horizontal or vertical mounting
- Idler pulley for rope with rope coming-off prevention and mounting bracket set
- 8 m steel rope Ø 2 mm (revolving rope)
- Door actuator with rope tensioner

Accessories DICTAMAT 50 BK-S

- Door actuator for second door leaf with additional compensation spring and rope clamp
- Adaptor plates and brackets for LD 50 radial damper and idler pulley

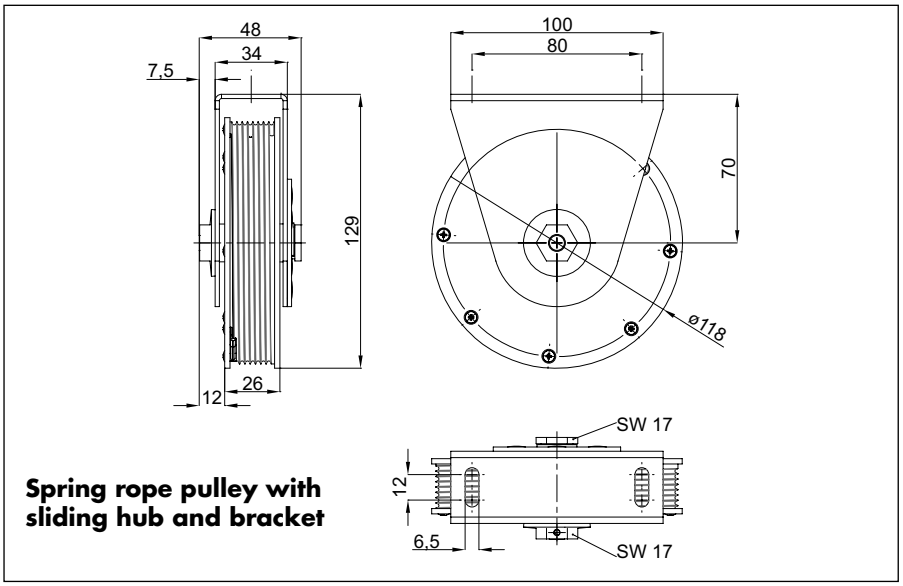
DICTAMAT 50 BK - Modular System
Components of Standard Kits: Spring Rope Pulley

The standard kits of the DICTAMAT 50 BK, irrespective of being a version BK-Z or BK-S, always use a spring rope pulley of the 118 mm diameter series. It features a sliding hub and a bracket for easy mounting.

The spring rope pulley is available with the following spring forces: 25 N, 50 N, 80 N. The possible working travel depends on the closing force - see diagram further down on this page. **The used spring rope pulley always determines the rope to be used.**

More information about the spring rope pulleys can be found beginning on page 02.105.00 (the part numbers of the possible spring rope pulleys are: 070102, 070093, 070094 or 070103, 070098, 070099).

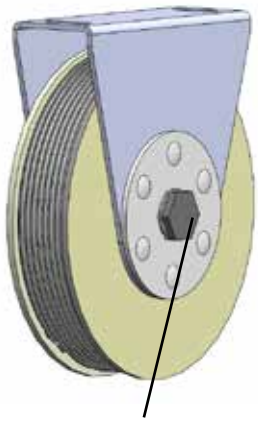
Dimensions
Spring Rope Pulley
Standard Kits



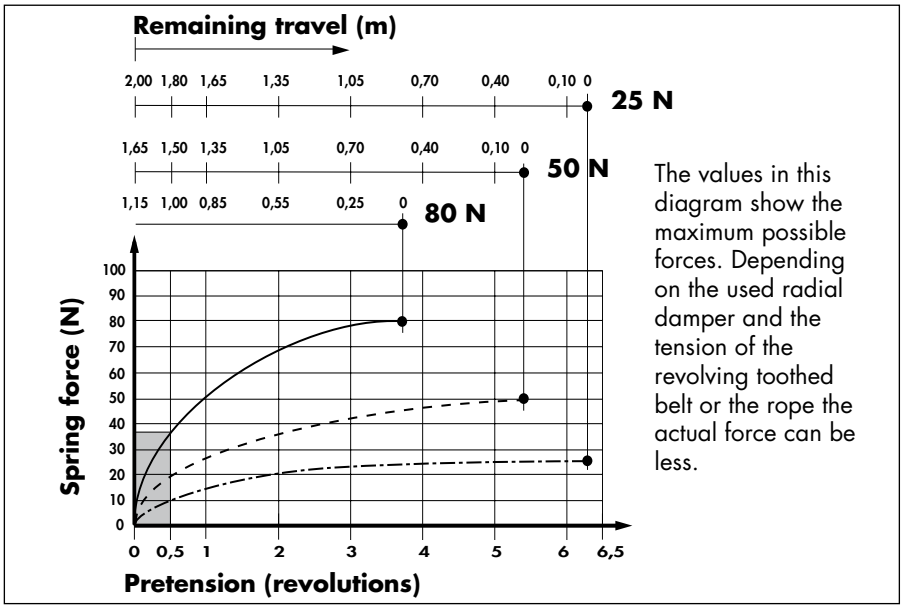
Spring rope pulley with sliding hub and bracket

Material casing	flame retardant DOMAMID plastics
Material rope	flame retardant Kevlar rope with polyester coat, approx. Ø 2 mm, with cable eye stiffener (inner Ø approx. 5.5 mm)
Material bracket	zinc-plated sheet steel, alternatively AISI 304

Force-Travel Diagram



Adjusting of the damping force (on both sides, wrench size SW 17)



The values in this diagram show the maximum possible forces. Depending on the used radial damper and the tension of the revolving toothed belt or the rope the actual force can be less.

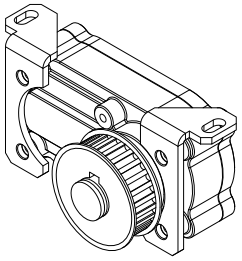
DICTAMAT 50 BK - Modular System
Components of Standard Kits: LD 50 Z Radial Damper

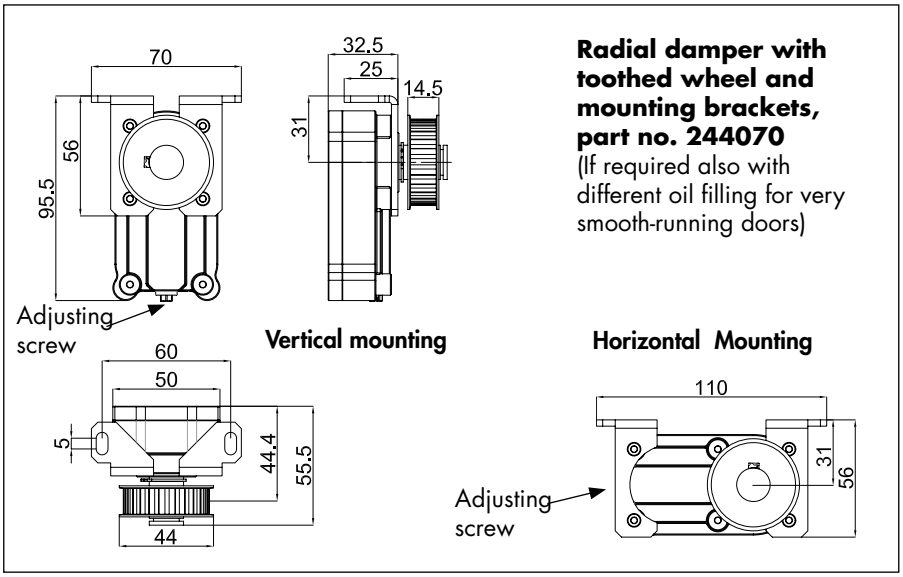
For the standard kits always the LD 50 radial damper is used, however, with oils of different viscosity. Information about the adjusting range with the minimum and maximum forces can be found on page 02.104.00.

For heavier and larger doors always the DICTAMAT 50 BK-Z should be used as its positive connection transmits the damping in an optimum way and also reduces the necessary closing force of the spring rope pulley (less loss of force due to friction).

For some mounting information see top of the following page.

Dimensions
LD 50 Radial Damper with Toothed Wheel

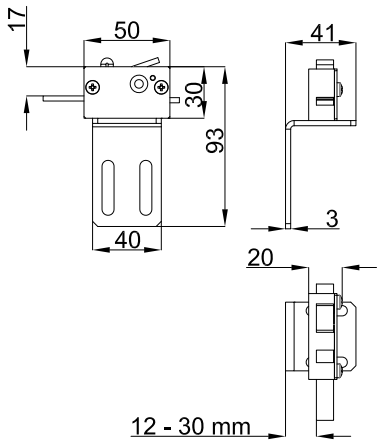




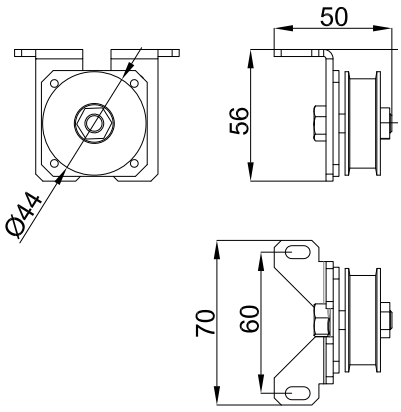
Radial damper with toothed wheel and mounting brackets, part no. 244070
(If required also with different oil filling for very smooth-running doors)

Dimensions
Other Components

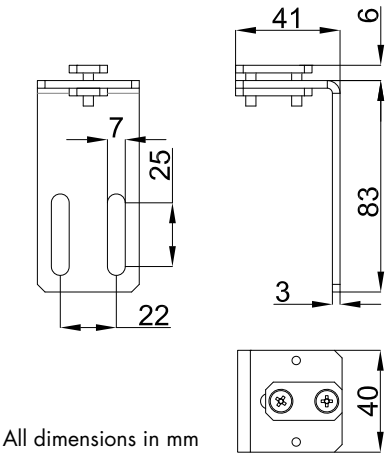
Door actuator with belt tensioner, part no. 701010



Idler pulley with mounting brackets, part no. 701011



Door actuator for the second door leaf, part no. 701012



All dimensions in mm

Material

Material LD	casing flame retardant DOMAMID plastics, toothed wheel steel
Material toothed belt	white polyurethane, 92 ShA
Material brackets	zinc-plated sheet steel, alternatively AISI 304 or AISI 316
Idler pulley	polyamide

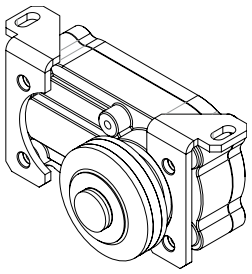
DICTAMAT 50 BK - Modular System
Components of Standard Kits: LD 50 S Radial Damper

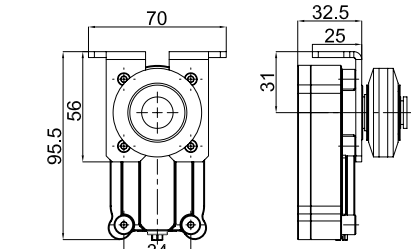
When choosing the **mounting position** of any LD 50 model (toothed belt and rope), you should consider besides the available space the accessibility of the adjusting screw for later adjustments.

The **mounting bracket set** of the radial damper LD 50 allows for horizontal and also for vertical mounting. This gives the most flexibility. In addition, for the radial damper and the idler pulley there are available **adaptor plates** which facilitate an easy mounting of the respective component to the most different rails and positions.

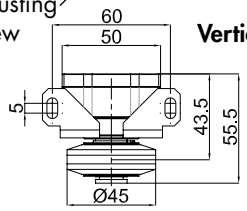
ATTENTION: Rope pulley Ø of the DICTAMAT 50 BK-S, 25 N radial damper: 65 mm
Rope pulley Ø of the DICTAMAT 50 BK-S, 50 N and 80 N radial damper: 45 mm

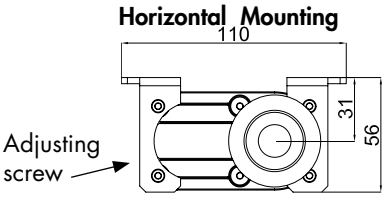
Dimensions
LD 50 Radial Damper with Rope Pulley





Radial damper with rope pulley and mounting brackets, part no. 244040
(If required, also with different oil filling for very smooth-running doors.)

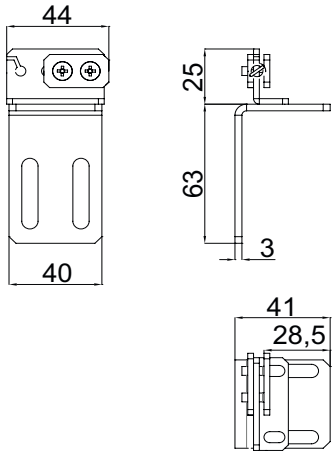




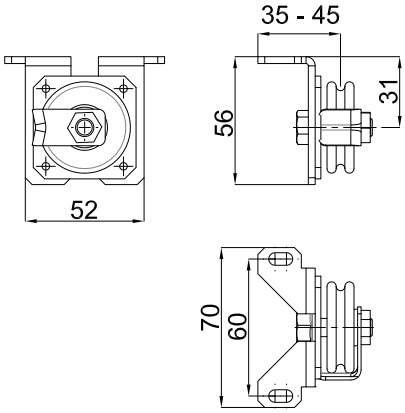
(DICTAMAT 50 BK-S, 25 N: Ø 65; for dimensioned drawings please see the catalogue Damping Engineering page 03.046.00)

Dimensions
Other Components

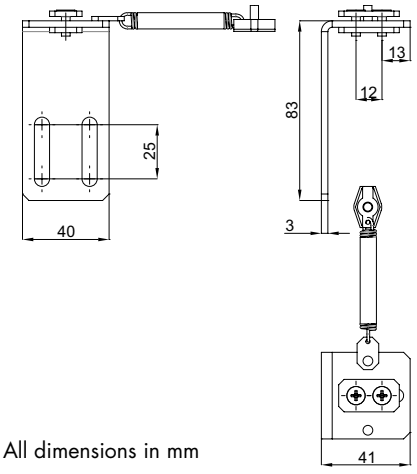
Door actuator with rope tensioner, part no. 700071



Idler pulley with mounting brackets, part no. 700070



Door actuator for the second door leaf, part no. 700090



All dimensions in mm

Material

Material LD	casing flame retardant DOMAMID plastics, rope pulley aluminium with Vulkollan insert
Material steel rope	steel or AISI 304 or AISI 316
Material brackets	zinc-plated sheet steel, alternatively AISI 304 or AISI 316
Idler pulley	polyamide

DICTAMAT 50 BK - Modular System
Order Information Standard Kits, Other Options

The following list just shows the standard versions.

On demand, further special versions can be provided, e.g. with components in AISI 316 stainless steel. Furthermore, e.g. fixing accessories adapted especially to the respective rail system can be produced.

DICTATOR also offers a free of charge technical advisory service to support you in developing object related solutions. If required, drawings of the components are available in different formats.

Order Information Standard Kits

DICTAMAT 50 BK modular system

a) Toothed belt version

DICTAMAT 50 BK-Z, 25 N	part no. 701005
DICTAMAT 50 BK-Z, 50 N	part no. 701006
DICTAMAT 50 BK-Z, 80 N	part no. 701007

Accessories for the modular system, toothed belt

Toothed belt HDT5, 10 mm wide, per meter	part no. 710502
Door actuator toothed belt for second door leaf, zinc-plated	part no. 701012

b) Rope version

DICTAMAT 50 BK-S, 25 N	part no. 700054
DICTAMAT 50 BK-S, 50 N	part no. 700080
DICTAMAT 50 BK-S, 80 N	part no. 700081
DICTAMAT 50 BK-S, 25 N, rustless	part no. 700055
DICTAMAT 50 BK-S, 50 N, rustless	part no. 700085
DICTAMAT 50 BK-S, 80 N, rustless	part no. 700086

Accessories for the modular system, rope

Door actuator rope for second door leaf, zinc-plated, with compensation spring and rope clip	part no. 700090
Door actuator rope for second door leaf, AISI 304 with compensation spring and rope clip	part no. 700091

c) Accessories for the modular system in general

Mounting plate spring rope pulley, zinc-plated	part no. 070114
Adaptor plate mounting LD 50, 75 x 80 mm, zinc-plated	part no. 244050
Adaptor bracket mounting LD 50, 70 x 25 x 40 mm, zinc-plated	part no. 244051
Adaptor plate mounting LD 50, 75 x 80 mm, AISI 304	part no. 244052
Adaptor bracket mounting LD 50, 70 x 25 x 40 mm, AISI 304	part no. 244053

The components of the modular system are **also separately** available. In case of need please contact us. It is also possible to use the spring rope pulley with 100 N (see page 02.111.00).

Our technicians would be happy to design special variants for your applications.

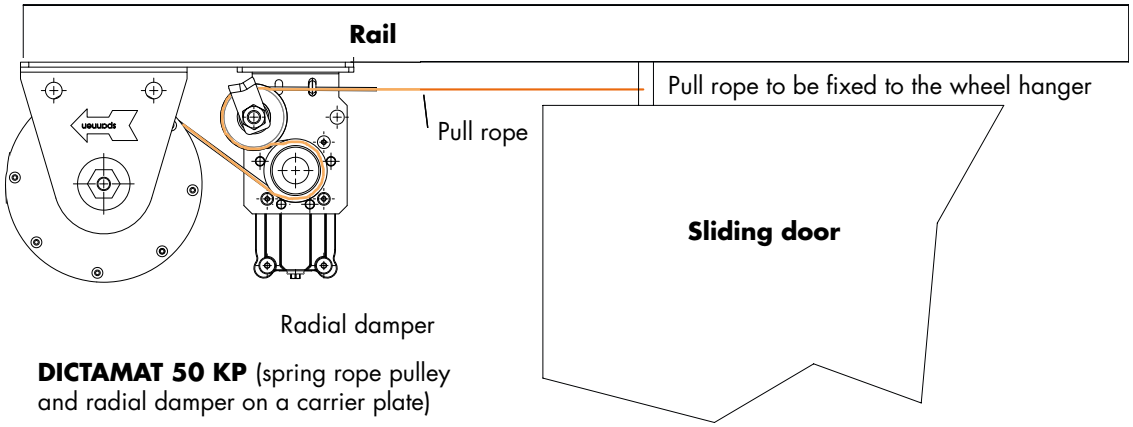
DICTAMAT 50 - Compact Units
Versions

The DICTAMAT 50 is also available as compact unit. In this case the spring rope pulley and the damper are mounted on a mounting plate or a mounting bracket ready to be fixed to the rail. Which one of the two versions is used, depends on the space available on site.

- DICTAMAT 50 **KP**: with mounting plate, for mounting below the rail
- DICTAMAT 50 **KW**: with mounting bracket, for mounting above the rail

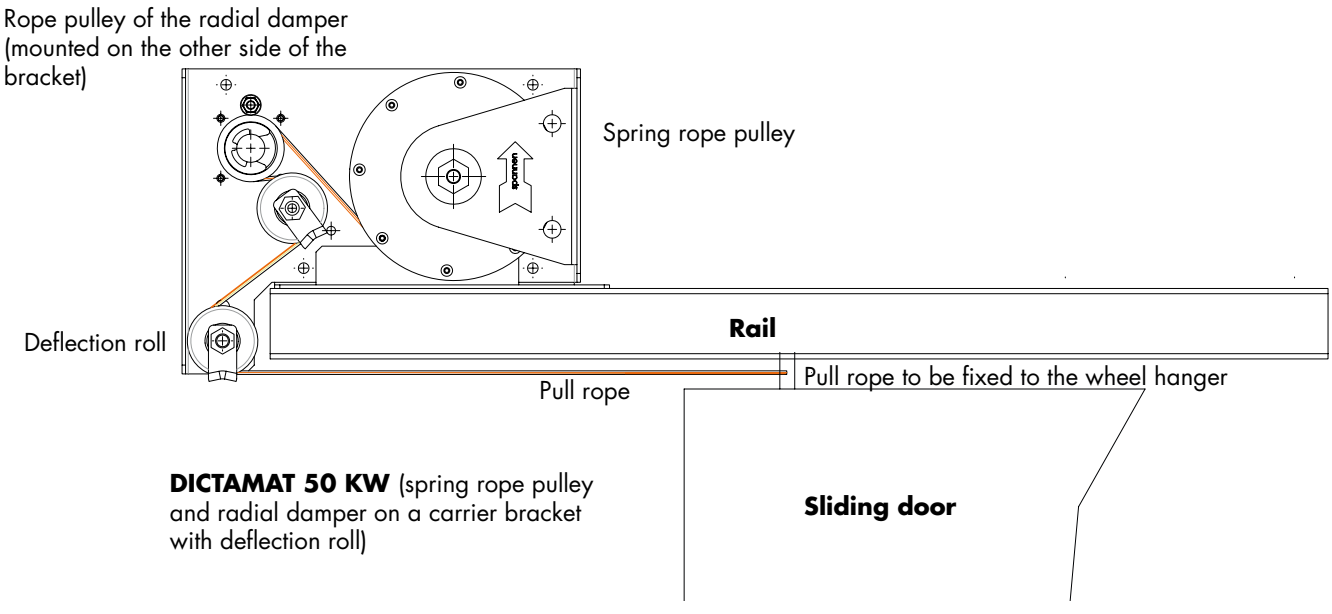
In case of the compact units the pull rope of the spring rope pulley is guided via the rope pulley of the damper to the door, i.e. the closing speed is controlled directly by the pull rope of the spring rope pulley. For this reason any manual manipulation of the closing (additionally pushing the door) may cause the so-called slack rope!

Functional principle
DICTAMAT 50 KP

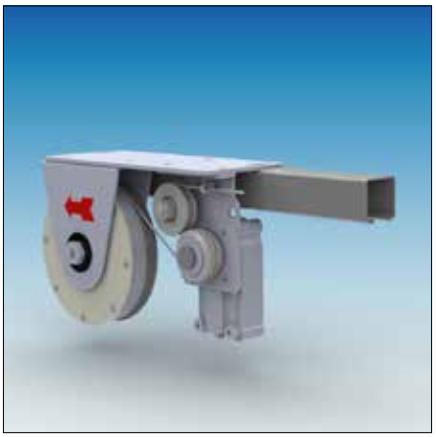


DICTAMAT 50 KP (spring rope pulley and radial damper on a carrier plate)

Functional principle
DICTAMAT 50 KW



DICTAMAT 50 KW (spring rope pulley and radial damper on a carrier bracket with deflection roll)



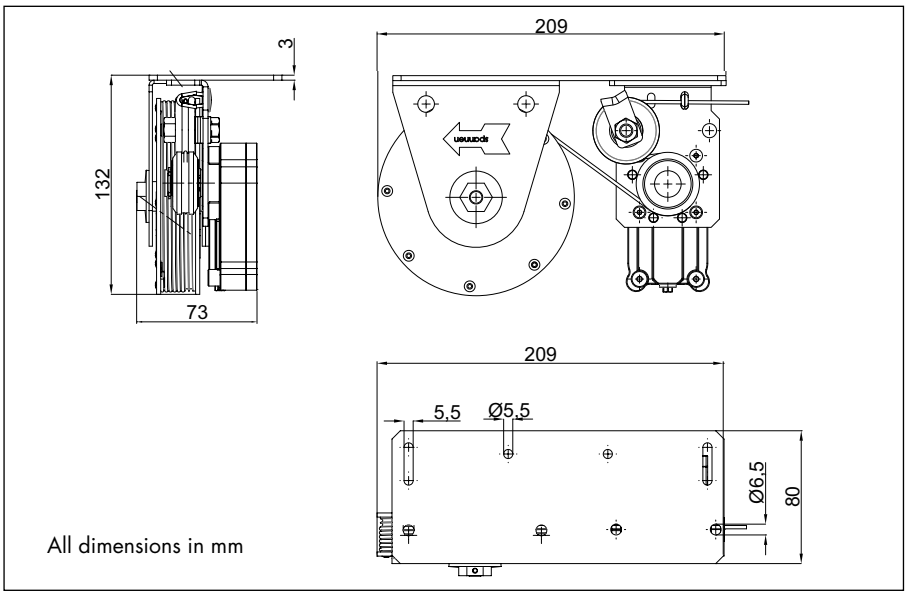
DICTAMAT 50 - Compact Units
DICTAMAT 50 KP

The DICTAMAT 50 KP has been designed for the installation underneath the rail. The pull rope of the spring rope pulley is guided via the radial damper and an additional guiding pulley directly to the door.

When choosing this model, please take into consideration that you need a different version depending on the door closing to the right or left.

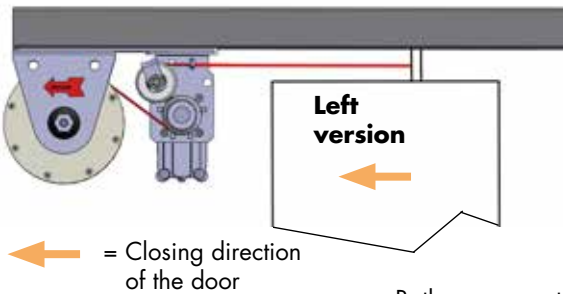
For information about the **materials** see the next page about the DICTAMAT 50 KW.

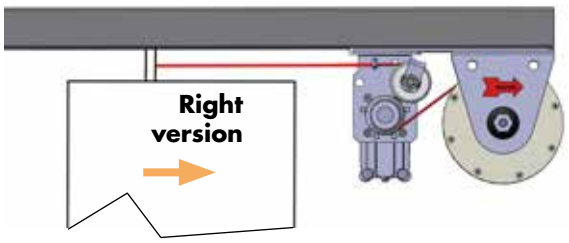
DICTAMAT 50 KP
(see also above picture)



Mounting

The DICTAMAT 50 KP is mounted on the side of the door where it is in the closed position as then the pull rope can directly be fixed to the door leaf. When ordering the compact unit DICTAMAT 50 KP you have to pay attention to the closing direction of the door (left or right). The above illustration shows the left model for doors closing to the left.





Both components may only be mounted together with the carrier plate. Otherwise there might be a malfunction.

Components Included

DICTAMAT 50 KP, consisting of carrier plate with spring rope pulley, 2 m of plastic rope, pressure roll with rope coming-off prevention, radial damper with rope pulley

Accessories

Covers in different versions	on demand

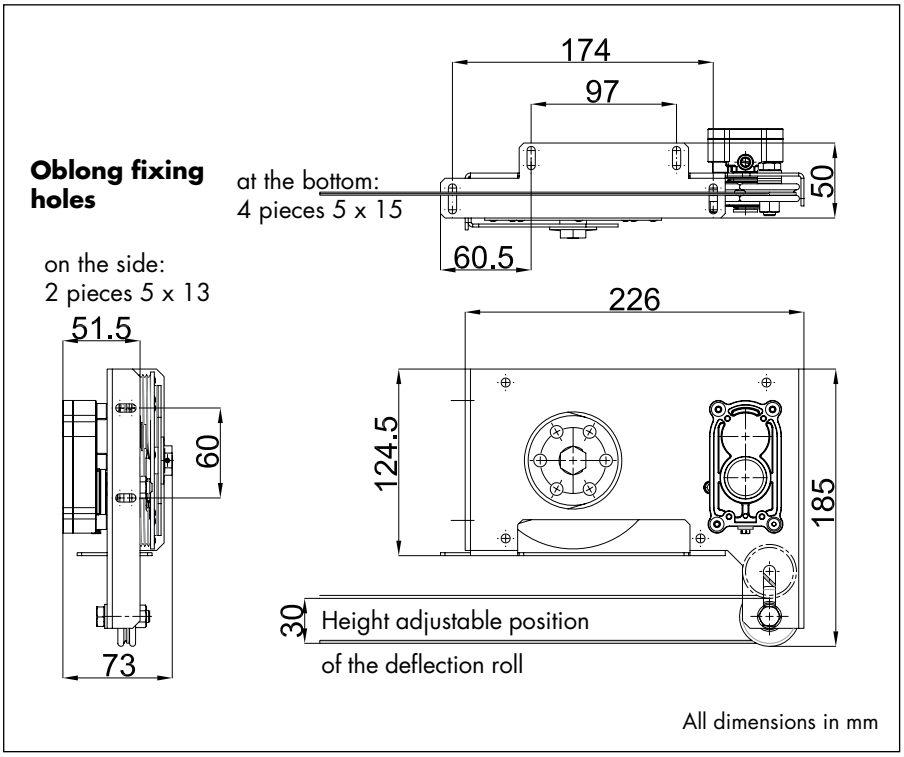
DICTAMAT 50 - Compact Units
DICTAMAT 50 KW

The DICTAMAT 50 KW is intended for its mounting on top of the rail. An universal carrier bracket offers different fixing possibilities.

The compact unit KW combines the spring rope pulley, the radial damper with pressure roll and another deflection roll for the rope of the spring rope pulley all on a carrier brakket. The pull rope of the spring rope pulley runs via the rope pulley of the radial damper and the height adjustable deflection roll (30 mm of adjustment range) to the door leaf.

DICTAMAT 50 KW

(see also above picture)



Mounting

Usually the DICTAMAT 50 KW is mounted on the side of the door where it is in the closed position, as then the pull rope can directly be fixed to the door leaf.

The DICTAMAT 50 KW can be used, without converting, for right and left closing doors.

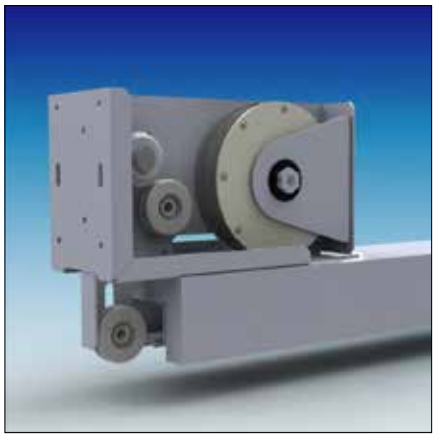
The rope is guided either directly underneath or in the rail or alternatively parallel to the rail (see next page).

Material

LD	casing flame retardant DOMAMID plastics, rope pulley aluminium with Vulkollan insert
Plastic rope	flame retardant Kevlar rope with polyester coat, approx. Ø 2 mm, with cable eye stiffener
Brackets	zinc-plated sheet steel, alternatively AISI 304 or AISI 316
Idler pulleys	polyamide

Components Included

DICTAMAT 50 KW, consisting of carrier bracket with spring rope pulley, 2 m plastic rope, pressure roll, rope coming-off prevention, radial damper with rope pulley, deflection roll



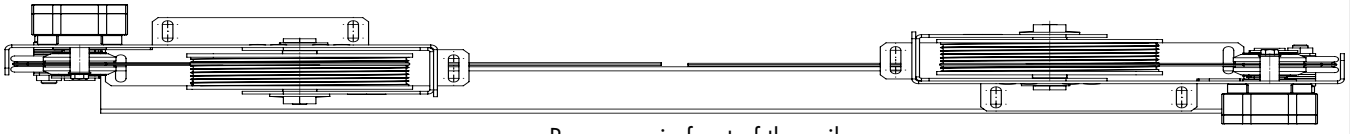
DICTAMAT 50 - Compact Units
Mounting of DICTAMAT 50 KW, Order Information

The following illustrations show different mounting possibilities of the DICTAMAT 50 KW compact unit.

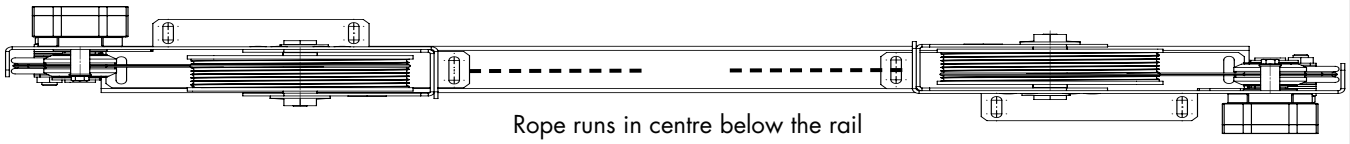
Mounting example DICTAMAT 50 KW

DICTAMAT 50 KW
mounted on the left, door closes to the left

DICTAMAT 50 KW
mounted on the right, door closes to the right



Rope runs in front of the rail



Rope runs in centre below the rail

Order Information
Compact Units

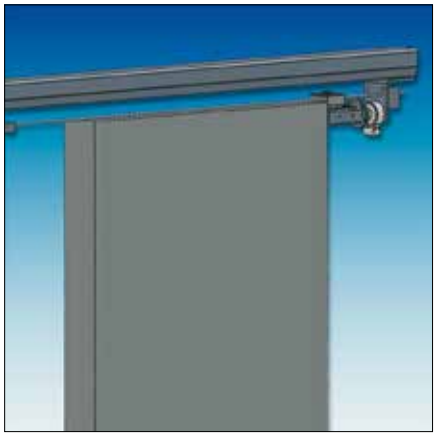
DICTAMAT 50 KP, compact unit with carrier plate

DICTAMAT 50 KP, 50 N, left	part no. 700082
DICTAMAT 50 KP, 50 N, left, rustless	part no. 700087
DICTAMAT 50 KP, 50 N, right	part no. 700093
DICTAMAT 50 KP, 50 N, right, rustless	part no. 700094

DICTAMAT 50 KW, compact unit with carrier bracket

DICTAMAT 50 KW, 50 N	part no. 700083
DICTAMAT 50 KW, 50 N, rustless	part no. 700088

More types with differing closing forces (25 N or 80 N) on demand.



DICTAMAT 50 WS - with Tensioned Wire Rope Basic Set-Up

In the DICTAMAT 50 WS the LD radial damper controls the closing speed by means of a tensioned steel wire drive rope. This is a very space saving solution as it doesn't require a revolving rope or toothed belt like the DICTAMAT 50 BK. The wire rope is guided via the covered special rope pulley of the LD radial damper.

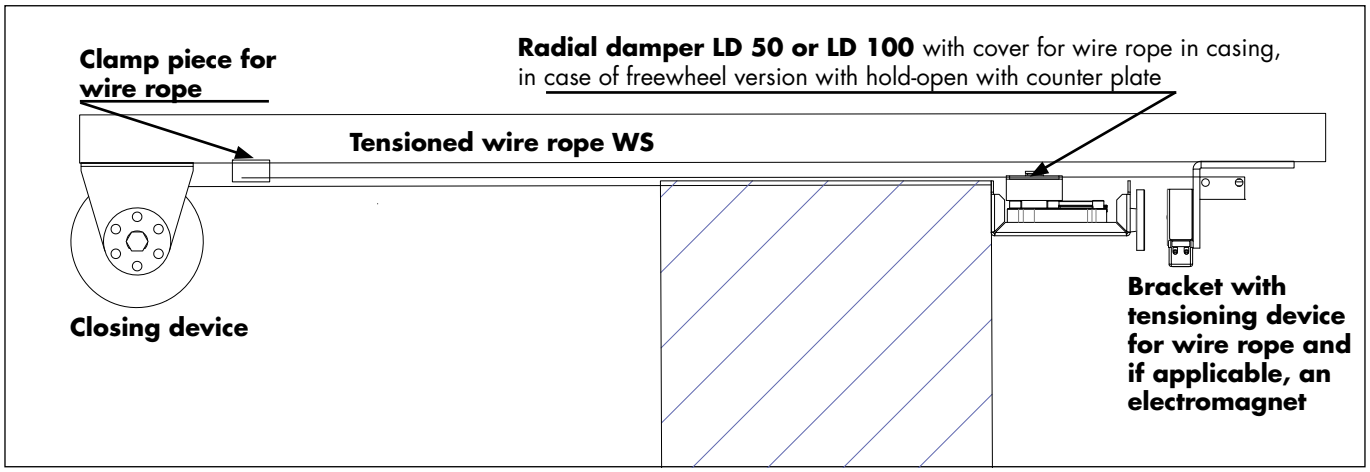
Depending on the application, **different versions** of the **DICTAMAT 50 WS** are available:

- DICTAMAT 50 WS without hold-open device, just for closing
- DICTAMAT 50 WS-M with hold-open device (e.g. for fire protection sliding doors)
- DICTAMAT 50 WS-MFL as freewheel version: the DICTAMAT 50 closes the door only in case of an alarm.

Structure DICTAMAT 50 WS

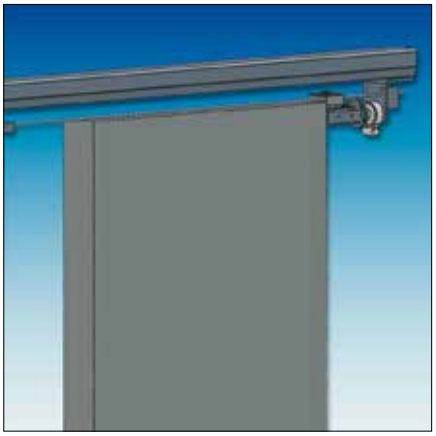
The drawing shows the components of the DICTAMAT 50 WS. They can be combined at will.

In case of the freewheel version the bracket with the radial damper is not fixed on the door leaf. It runs as freewheel carrier casing directly on the wire drive rope and is stabilized by an additional supporting rope.



Components

	DICTAMAT 50 WS	DICTAMAT 50 WS-M	DICTAMAT 50 WS-MFL
Closing device (see page 02.089.00 and 02.105.00 et sqq.)	spring rope pulley with sliding hub diameter series 118 mm (25 N, 50 N or 80 N), diameter series 177 mm (100 N)	spring rope pulley with sliding hub diameter series 118 mm, (25 N, 50 N), spring rope pulley 160 N, counterweight on site	spring rope pulley with sliding hub diameter series 118 mm, force depending on model 25 N or 50 N, spring rope pulley 160 N, counterweight on site
Control of closing speed	LD 50 or LD 100 lamellar radial damper (depending on door size and weight) with cover for wire rope		
Damping transmission	wire rope WS6 (length depends on door width)		
Bracket for LD radial damper	mounting bracket	mounting bracket with counter plate GD 50	freewheel carrier with counter plate AP GD 50 and rubber buffer
Tensioning kit for wire rope and if required steel rope	bracket with tensioner, clamp piece on the other side of the door	bracket for electromagnet EM GD 50 Q 23 with tensioner, clamp piece on the other side of the door	bracket for electromagnet EM GD 50 Q 23 with tensioner for wire rope and fixing of supporting rope, clamp piece for wire rope and tensioning device for rope
Electromagnet	–	EM GD 50 Q 23	
Supporting rope	–	–	steel rope Ø 3 mm, standard length 5 m, or appropriate for the door



DICTAMAT 50 WS - with Tensioned Wire Rope Basic Version just for Closing

In case of the DICTAMAT 50 WS the bracket with the radial damper LD is fixed directly on the door. The pull rope of the spring rope pulley is hooked in the flap of the mounting bracket destined for this purpose. The wire rope is fixed by means of the clamp piece and the tensioning kit and tensioned. Immediately after having been opened by hand the DICTAMAT 50 WS closes the door at a controlled speed by the spring rope pulley.

Due to the tensioned wire rope the DICTAMAT 50 WS needs less space than the modular system DICTAMAT 50 BK, but the wire rope may cause a higher friction which will influence the effort necessary for opening the sliding door.

Standard Kits DICTAMAT 50 WS

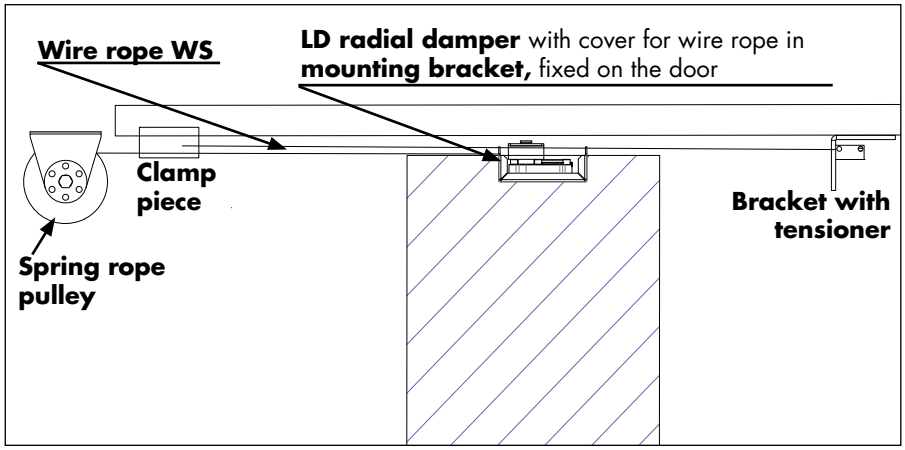
Same as for the DICTAMAT 50 BK also for the DICTAMAT 50 WS standard kits have been prepared which harmonize the performance of the spring rope pulley and the LD radial damper. Their main difference is the closing force.

But of course you also can compose the DICTAMAT 50 WS differently. Our technical customer service will be glad to help you.

Information with dimensioned drawings about the spring rope pulleys can be found on page 02.089.00 and starting on page 02.105.00. The spring rope pulley also determines the working travel of the DICTAMAT 50 WS.

All other components are described following the information about the different versions of the DICTAMAT 50 WS beginning on page 02.101.00.

Mounting Example DICTAMAT 50 WS



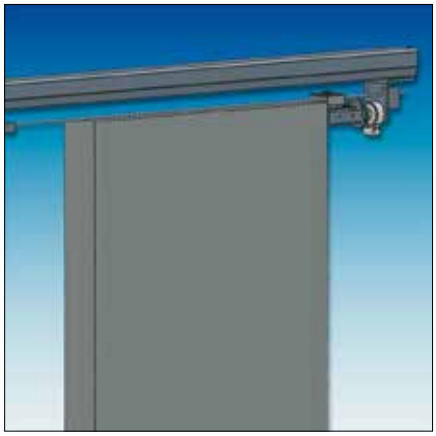
Depending on the available space the mounting bracket with the LD radial damper is fixed on top of the door leaf or to its side. The rope of the spring rope pulley is fixed to the provided flap of the mounting bracket.

Components Included Standard Kit DICTAMAT 50 WS

Spring rope pulley with bracket and plastics rope
LD 50 radial damper for WS6 wire rope
Mounting bracket for LD radial damper
Mounting bracket with tensioner and clamp piece for WS6 wire rope
5 m of WS6 wire rope

Order Information DICTAMAT 50 WS

DICTAMAT 50 WS, 25 N	part no. 701020
DICTAMAT 50 WS, 50 N	part no. 701021
DICTAMAT 50 WS, 80 N	part no. 701022



DICTAMAT 50 WS-M - with Tensioned Wire Rope Closing Device with Hold-Open Device

The DICTAMAT 50 WS-M features an **electromagnet fixed** to the bracket of the tensioning device of the wire rope. The mounting bracket for the radial damper is equipped with the counter piece, the corresponding **counter plate**.

When the door is completely opened by hand, the **magnet** will keep the mounting bracket of the radial damper **in the open position**. Only when the power supply of the magnet is cut - either by a push button or in case of fire or smoke protection doors by a smoke detector - the spring rope pulley will close the door at a controlled, adjustable speed.

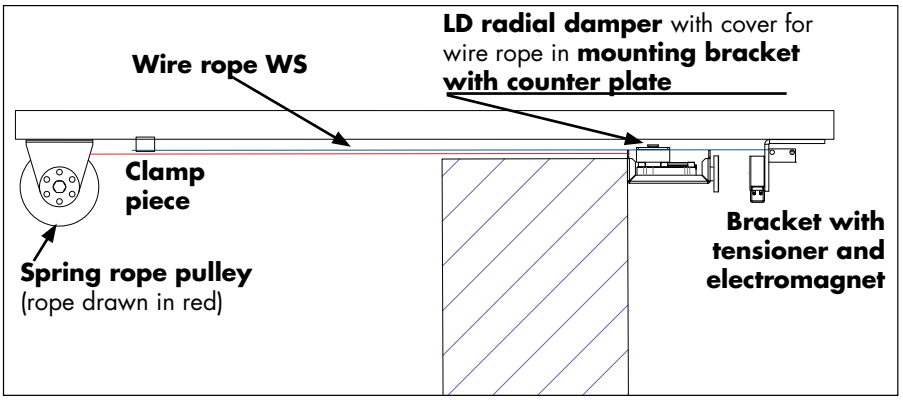
Standard Kits DICTAMAT 50 WS-M

The individual components (LD radial damper, spring rope pulley, EM GD 50 electromagnet with corresponding counter plate) of the DICTAMAT 50 WS-M standard kits have been tested for their use on smoke and fire protection doors. An approval of the complete system for the fire protection applications, however, is not available due to non existent standards. If required, please contact our technical customer service.

Of course, the DICTAMAT 50 WS-M can also be combined differently. Our technical customer service looks forward to help you.

Information with dimensioned drawings about the spring rope pulleys can be found on page 02.0859.00 and beginning on page 02.105.00. The other components are described following the information about the different versions of the DICTAMAT 50 WS beginning on page 02.101.00.

Mounting Example DICTAMAT 50 WS-M



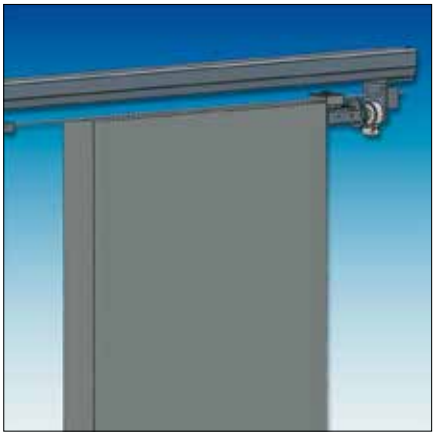
The mounting position of the radial damper with the mounting bracket depends on the rail and the space available. In the above drawing it is fixed to the face side of the door leaf. Important is when the door is open that the counter plate lies against the whole surface of the magnet.

Components Included Standard Kit DICTAMAT 50 WS-M

Spring rope pulley with bracket and plastics rope
LD 50 radial damper for WS6 wire rope
Mounting bracket for LD radial damper with AP GD 50 counter plate
Mounting bracket with tensioner for wire rope and EM GD 50 Q 23 electromagnet (040020)
Clamp piece for WS6 wire rope
5 m of WS6 wire rope

Order Information DICTAMAT 50 WS-M

DICTAMAT 50 WS-M, 25 N	part no. 701023
DICTAMAT 50 WS-M, 50 N	part no. 701024



DICTAMAT 50 WS-MFL - with Tensioned Wire Rope Closing Device with Freewheel Function

The DICTAMAT 50 WS-MFL is the ideal solution for all fire and smoke protection sliding doors which usually are opened and closed by hand. To be sure that the door closes reliably in case of a fire, the DICTAMAT 50 with freewheel function is used.

The freewheel carrier casing with the radial damper is not fitted to the door. It runs along the tensioned wire rope and an additional supporting rope. When the door is completely reopened after the magnet had been released, this automatically pushes the freewheel carrier in the open position of the door and pretensions the spring rope pulley. The magnet keeps the freewheel carrier with the radial damper in the open position. It only releases it in the event of an alarm. Then the freewheel carrier will close the door pushing it at a controlled speed.

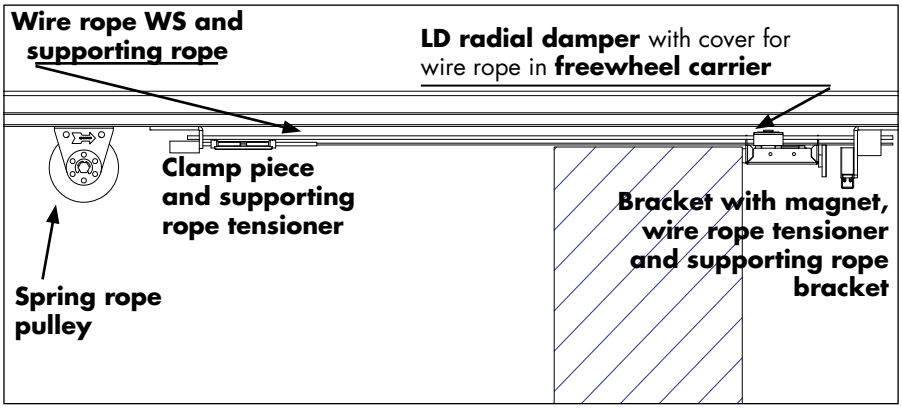
Standard Kits DICTAMAT 50 WS-MFL

Also the standard kits of the DICTAMAT 50 WS-MFL mainly differ in their closing force.

The single components (LD radial damper, spring rope pulley diameter series 118, electromagnet EM GD 50 with corresponding counter plate) of the standard kits of the DICTAMAT 50 WS-MFL have been tested for their use on smoke and fire protection doors. Due to not existing standards, however, there is no approval of the complete system for the fire protection sector. If required, please contact our technical customer service.

Of course you also can compose the DICTAMAT 50 WS-MFL differently. Our technical customer service will be happy to advise you.

Mounting Example DICTAMAT 50 WS-MFL



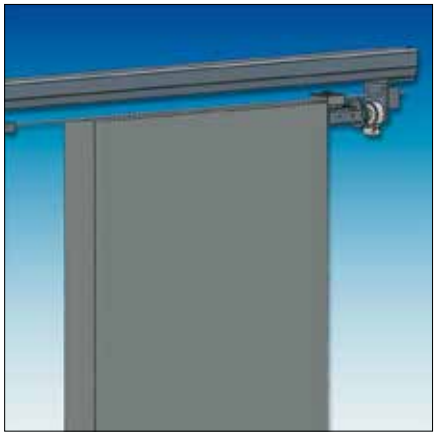
The bracket with magnet and wire rope tensioner is fixed in the open position of the door. The wire rope and the supporting rope guide and support the freewheel carrier. The ropes have to be arranged in a way that the closing freewheel carrier will hit the front side of the door or a corresponding counter device. As the freewheel carrier features a rubber buffer, the metal casing of the freewheel carrier will not directly hit the door leaf.

Components Included Standard Kit DICTAMAT 50 WS-MFL

Spring rope pulley with bracket and plastics rope
LD 50 radial damper for WS6 wire rope
Freewheel carrier for LD radial damper with AP GD 50 counter plate and rubber buffer
Mounting bracket with tensioner for wire rope, bracket for supporting rope and EM GD 50 electromagnet
Clamp piece for WS6 wire rope and tensioning device for supporting rope
5 m of WS6 wire rope and 5 m of steel rope Ø 3 mm (supporting rope)

Order Information DICTAMAT 50 WS-MFL

DICTAMAT 50 WS-MFL, 25 N	part no. 701025
DICTAMAT 50 WS-MFL, 50 N	part no. 701026



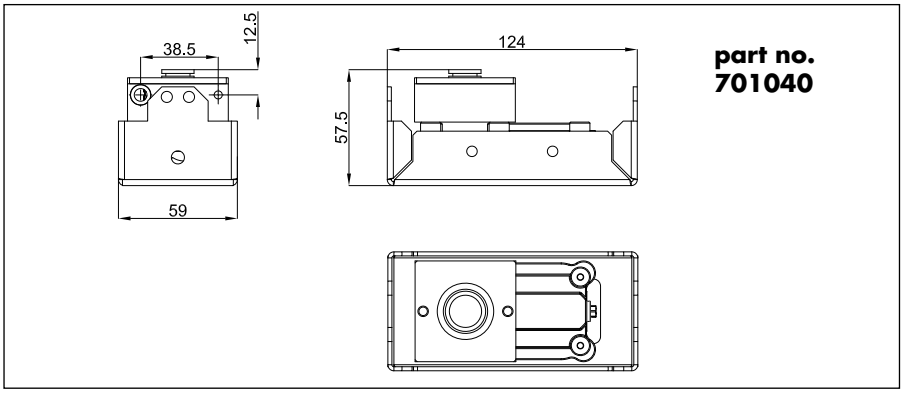
DICTAMAT 50 WS - Components
Mounting Bracket / Freewheel Carrier, LD Radial Damper

All three versions of the DICTAMAT 50 WS use the mounting bracket. For the DICTAMAT 50 WS-M an AP GD 50 counter plate is added to the mounting bracket, to the one for the freewheel version a rubber buffer is added on the opposite side.

The LD 50 WS radial damper with cover for wire rope is fixed in the mounting bracket from below by 4 screws.

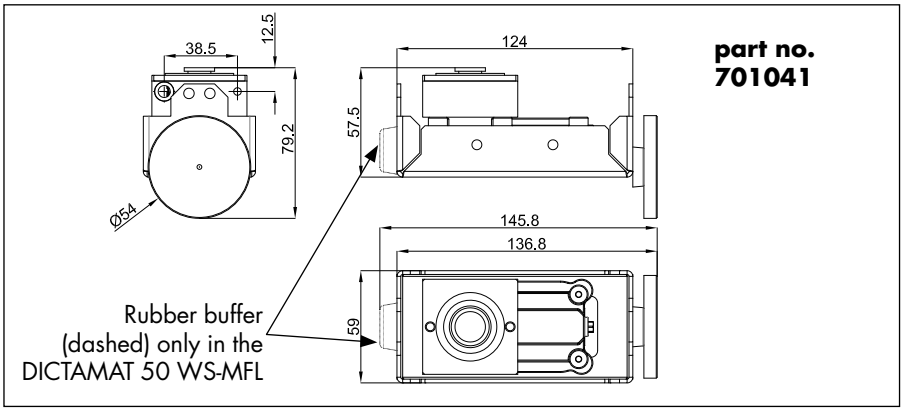
The mounting bracket with the radial damper of the DICTAMAT 50 WS and DICTAMAT 50 WS-M is screwed directly to the door leaf. For this purpose borings are provided in the side or front of the bracket.

Mounting Bracket DICTAMAT 50 WS



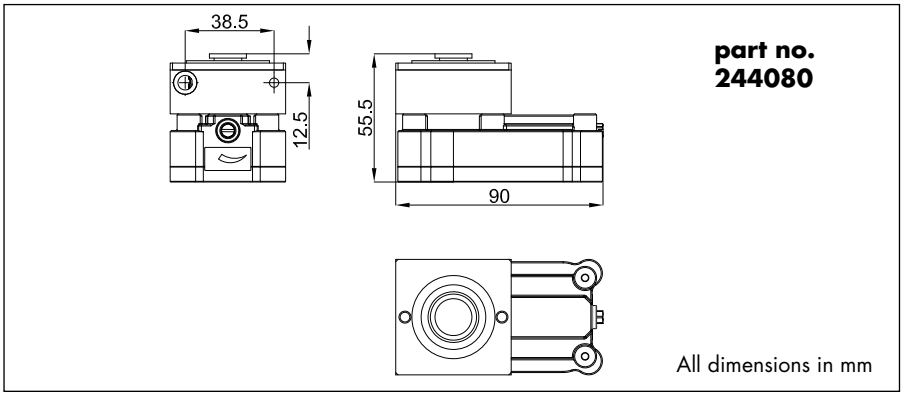
part no. 701040

Mounting Bracket / Freewheel Carrier DICTAMAT 50 WS-M / DICTAMAT 50 WS-MFL



part no. 701041

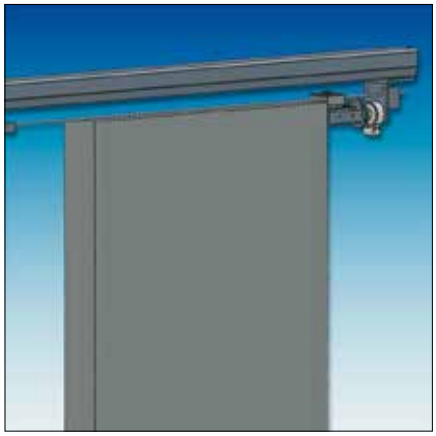
LD 50 WS Radial Damper



part no. 244080

Material

LD 50 WS radial damper	casing flame retardant DOMAMID plastics, cover for wire rope zinc-plated steel
Mounting bracket/freewheel carrier	zinc-plated steel



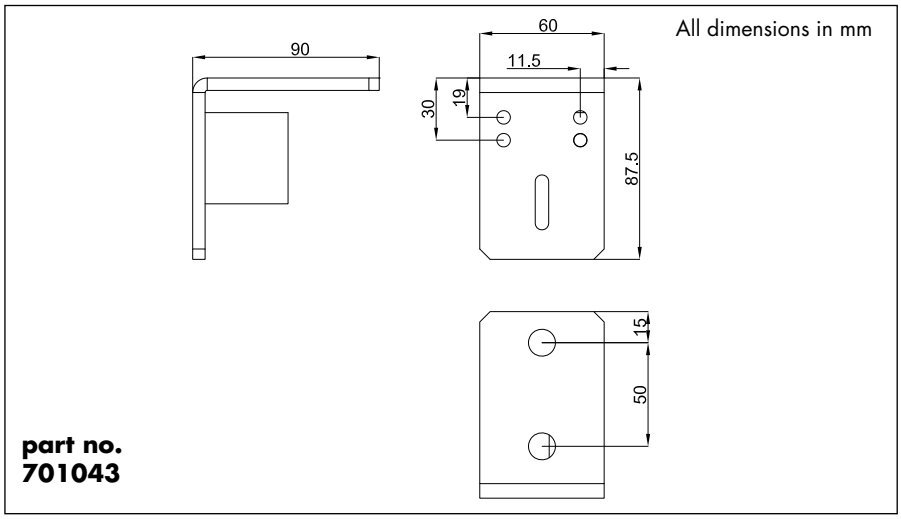
DICTAMAT 50 WS - Components
Bracket with Wire Rope Tensioner and Magnet

The bracket with wire rope tensioner is fixed on the side of the door where it is in the open position. The wire rope is simply guided through the tensioner and tensioned with the help of a SW 6 (wrench size) Allen screw.

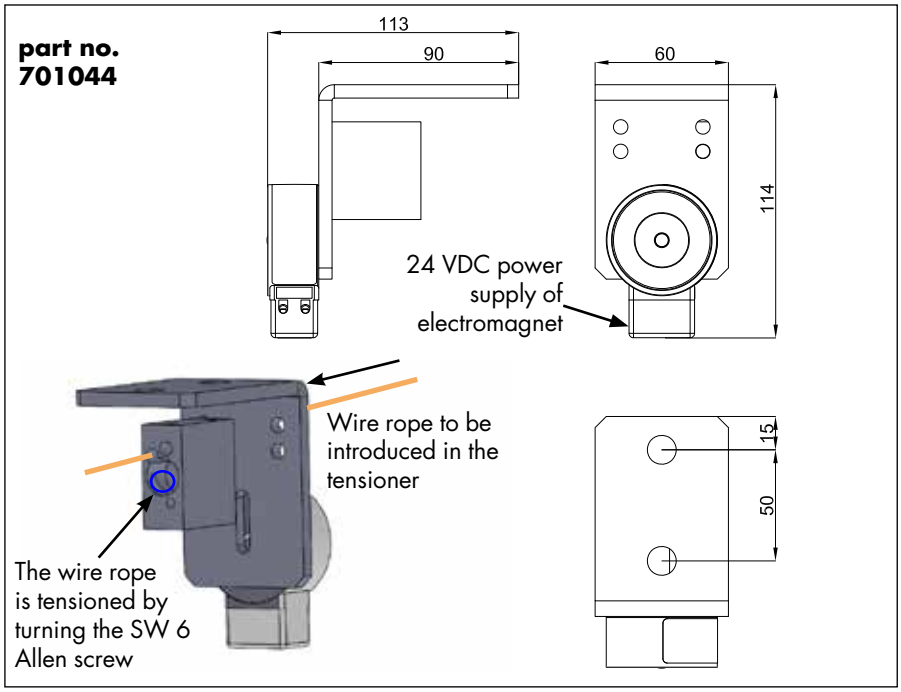
For the versions DICTAMAT 50 WS-M and WS-MFL also an electromagnet is fixed to the bracket. When the door is open it will encounter the counter plate fixed to the mounting bracket or to the freewheel carrier of the LD 50 WS radial damper. The height of the mounting position of the magnet can be adjusted accordingly. The magnet is fed with 24 VDC, 67 mA. The EM GD 50 Q 23 electromagnet, 600 N has been tested for its use on fire and smoke protection doors according to EN 1155.

The supporting rope for the freewheel carrier is also fixed in the bracket.

Bracket with Wire Rope Tensioner

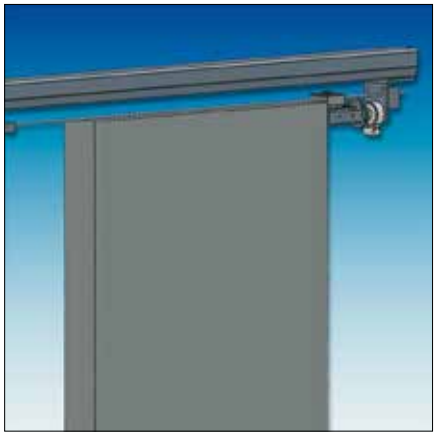


Bracket with Wire Rope Tensioner and EM GD 50 Q 23 Electromagnet



Material

Wire rope tensioner	aluminium
Bracket	zinc-plated steel
Wire rope	steel

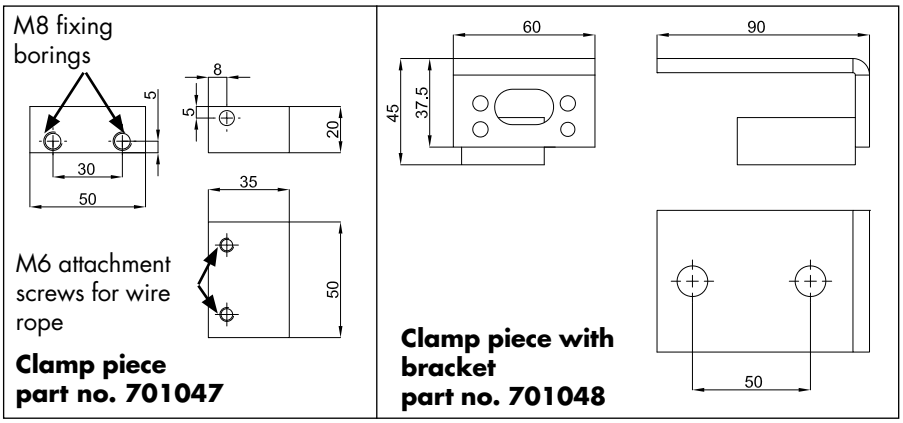


DICTAMAT 50 WS - Components
Clamp Piece Wire Rope with Tensioner Supporting Rope

On the other side of the door the wire rope is kept in a clamp piece. This clamp piece can be fixed directly to the rail by 2 M8 screws. Or it is mounted using the bracket which is used for the freewheel version with additional supporting rope tensioner.

The version with freewheel carrier combines the clamp piece with an additional rope tensioner for the supporting rope.

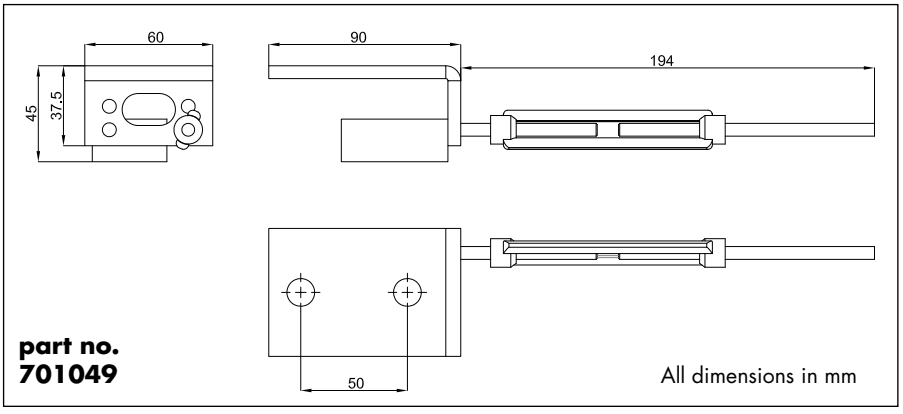
Clamp Piece for Wire Rope



Clamp piece part no. 701047

Clamp piece with bracket part no. 701048

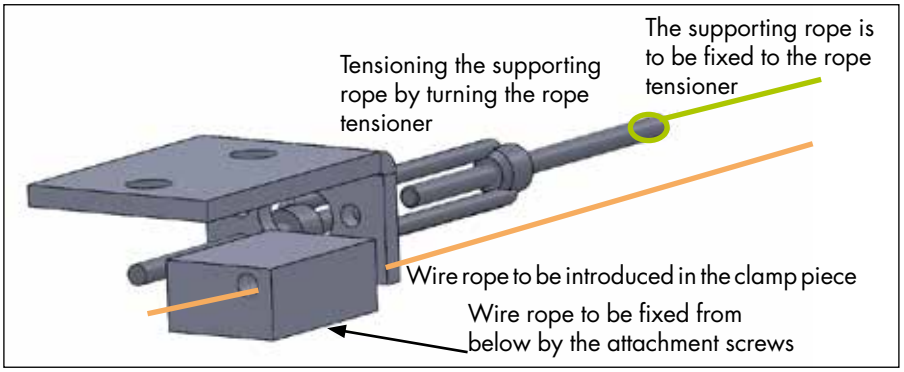
Clamp Piece for Wire Rope with Supporting Rope Tensioner and Bracket



part no. 701049

All dimensions in mm

Fixing of Wire Rope and Tensioning of Supporting Rope



Material

Clamp piece wire rope	aluminium
Bracket	zinc-plated steel
Rope tensioner / steel rope	zinc-plated steel

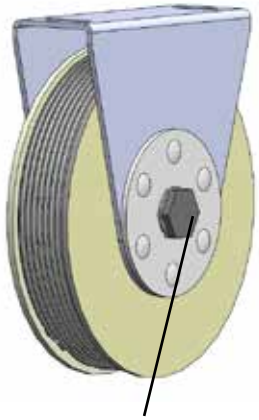
Technical Information about the DICTAMAT 50

The closing force of the DICTAMAT 50 is adapted by pretensioning the spring rope pulley accordingly. The more the spring is pretensioned, the shorter becomes the available travel. The continuous adjusting of the closing speed is realized by adjusting the damping force of the radial damper.

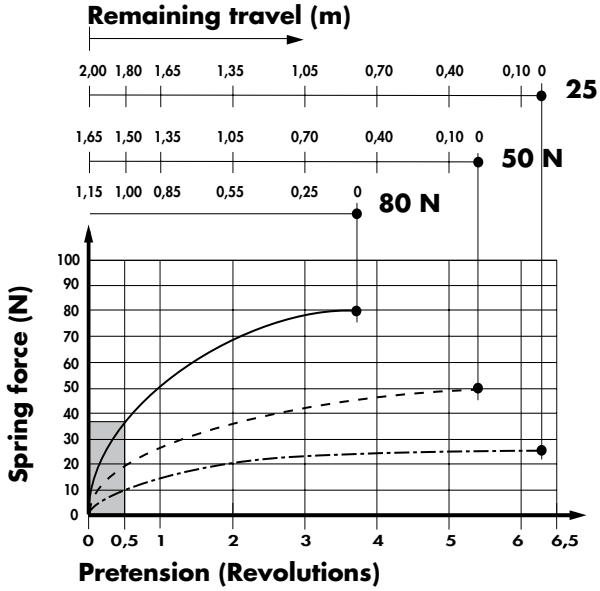
Below are shown the diagrams for the standard versions of the DICTAMAT 50 with a spring rope pulley diameter series 118 mm with 25, 50 and 80 N and the LD 50 radial damper.

The spring rope pulleys feature a sliding hub. This allows to reduce the pretension of the spring without running the risk of damaging the spring.

Closing Force/Travel

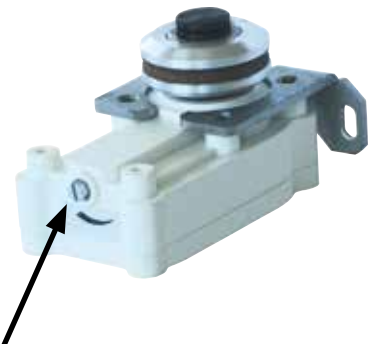


Adjusting of the closing force
(from both sides, SW 17)

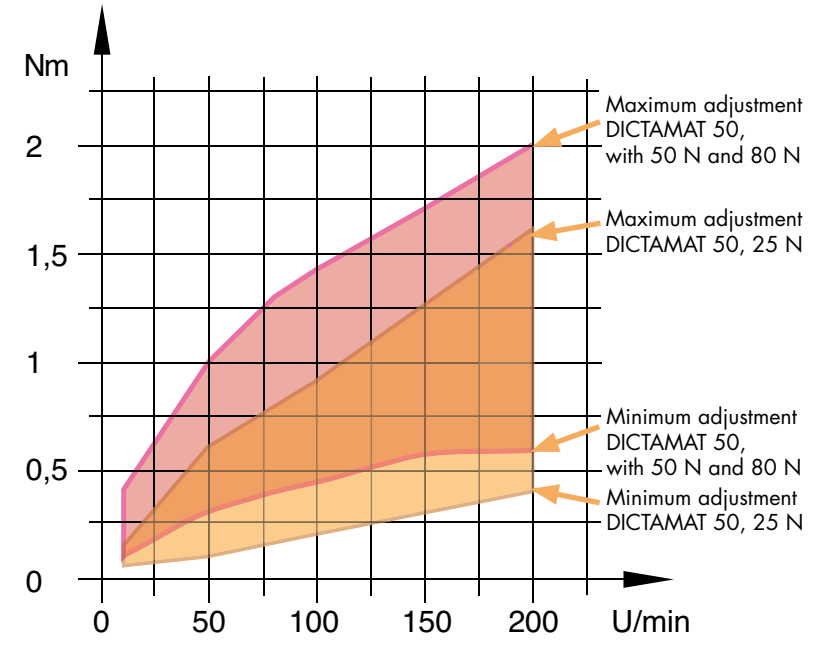


The values in this diagram show the maximum possible forces. Depending on the used radial damper and the tension of the revolving toothed belt or the rope the actual force can be less.

Damping force



Adjusting of the damping force
(slotted hexagon screw)



DICTATOR Spring Rope Pulleys for the Closing of Sliding Doors

Spring rope pulleys are a simple, efficient and **cost-effective closing device** for sliding doors. During the opening of the door the internal spring is tensioned and then auto-matically pulls the sliding door back into the closed position.

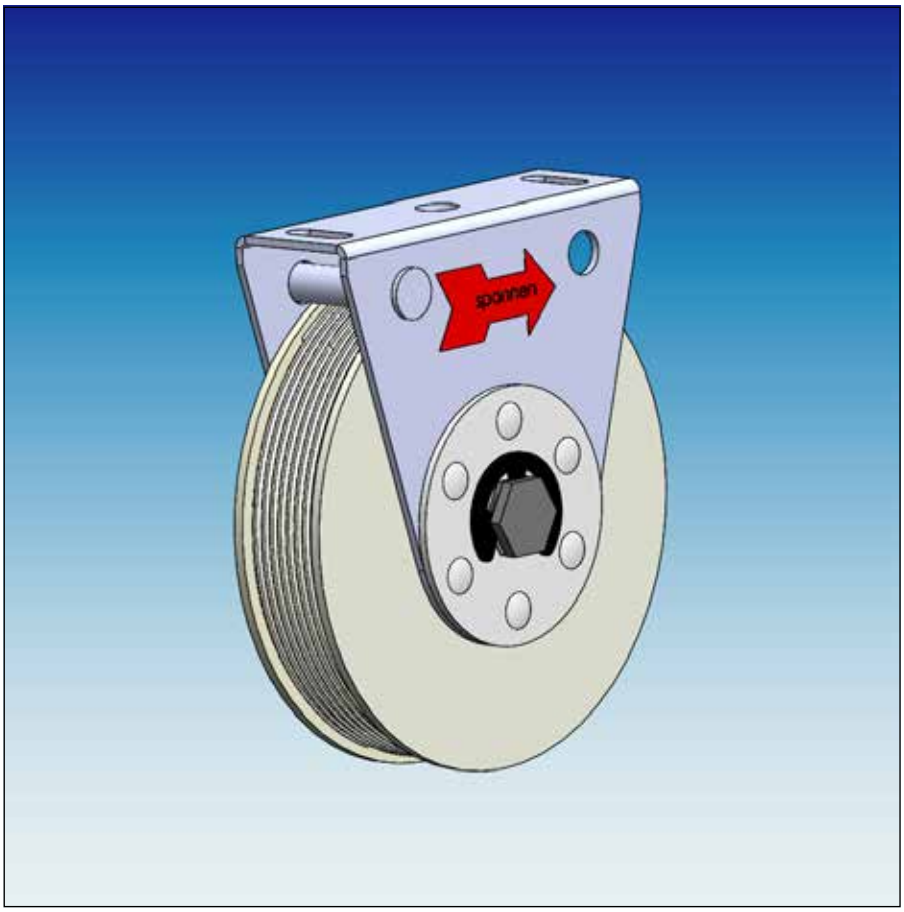
The spring rope pulleys are available in **two series with different diameters** and with a working travel of up to 4 m (depends on the type): 118 mm and 177 mm.

The casing of the 118 mm diameter spring rope pulley series is made of plastics with molded in guide grooves for the rope.

The 177 mm diameter spring rope pulley series is supplied with a casing of sheet steel.

The closing force can be adjusted by pretensioning the spring accordingly.

The closing speed, however, is not controlled when using just a spring rope pulley. If for safety or functional reasons a controlled closing speed is required, we recommend to use the DICTAMAT 50 (see page 02.085.00 and following). It incorporates the spring rope pulley as closing device and controls the closing speed by the adjustable radial damper LD.



Overview

Diameter series	spring reels 118 mm as single or double spring rope pulley
	spring rope pulley 177 mm
Closing force	25 N, 50 N, 80 N, 100 N, depending on the type
Working travel	between 1 m and 4 m (depending on the closing force and
	the pretension)
Material	casing in flame retardant DOMAMID plastics
	or zinc-plated sheet steel

Spring Rope Pulleys Ø Series 118 mm - Overview

The spring rope pulleys of the 118 mm diameter series have a casing made of plastics. They are available with different forces: 25 N, 50 N, 80 N and as double spring rope pulley with 50 N and 100 N. The **closing force can be adjusted** by pretensioning the spring accordingly.

The casing is made of heat resistant plastics. Due to the guide grooves molded into the plastic casing the Kevlar rope is always coiled properly. This guarantees a very long operational life of the spring rope pulley.

Thanks to the used material and the absolute accurately fitting hub the spring rope pulley also works very silently, without any annoying noise.

Versions

There are available two different models of the spring rope pulley from plastics, depending on the type of mounting and the handling comfort desired:

- **Spring rope pulley with inner square**
  for mounting on an 8 mm square bolt or with a M8 square necked mushroom head bolt
  (The double spring rope pulley, see page 02.109.00, is only available with sliding hub!)

- **Spring rope pulley with sliding hub and bracket**
  Generally we recommend to use this model. The tensioning screw of this version allows to easily adjust the closing force and adapt it to the requirements.

Technical Data

Material casing	flame retardant DOMAMID plastics
Rope	flame retardant Kevlar rope with polyester coat
	approx. Ø 2 mm, with cable eye stiffener (inner diameter approx. 5.5 mm)
Closing force max.	25 N, 50 N, 80 N, 100 N, depending on the type
Working travel	see diagram on page 02.110.00
Bracket	The delivery of the version with sliding hub includes: bracket in zinc-plated sheet steel, alternatively AISI 304 For the version with inner square a mounting bracket is available (has to be ordered separately!)
Models	- with inner square for mounting on square bolt or for fixing by bolt with square neck - with integrated sliding hub, bracket and rope coming-off prevention device

Accessories

For the plastic spring rope pulleys additional mounting accessories are available.

Spring rope pulley with inner square: in case there is no square bolt provided on site, the spring rope pulley can easily be mounted with the additionally available L-bracket (part no. 070113, see drawing on the following page). The spring rope pulley is fixed to it with the included square necked bolt and washers.

Spring rope pulley with sliding hub: The spring rope pulley with sliding hub comes by default with a bracket (see the drawing on page 02.108.00). For an even simpler mounting of the bracket, we offer a mounting plate (part no. 070114, see drawing on page 02.108.00).

Spring Rope Pulleys Ø Series 118 mm - Model with Inner Square

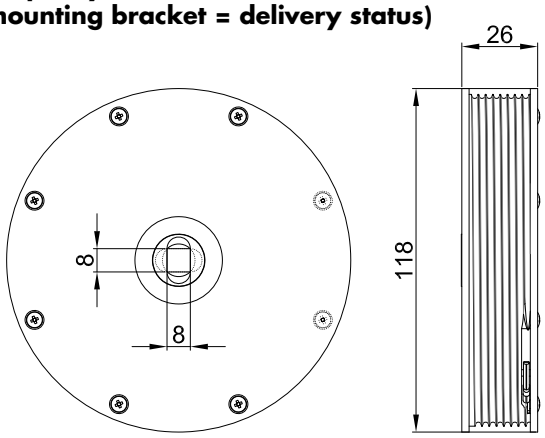
By default the spring rope pulley with inner square is furnished without mounting bracket. We recommend, however, to order the mounting bracket shown below, too, as it makes mounting much easier if no square bolt is provided on site.

The inner square of the spring rope pulley is not end-to-end. In fact the entry on both sides is staggered by exactly 90° and thus procures a safe seat for the square bolt provided on site.

The closing force at the end of the travel is determined by the varying pretension of the spring. The model with inner square doesn't have a tensioning screw and therefore the manual pretensioning requires special attention!

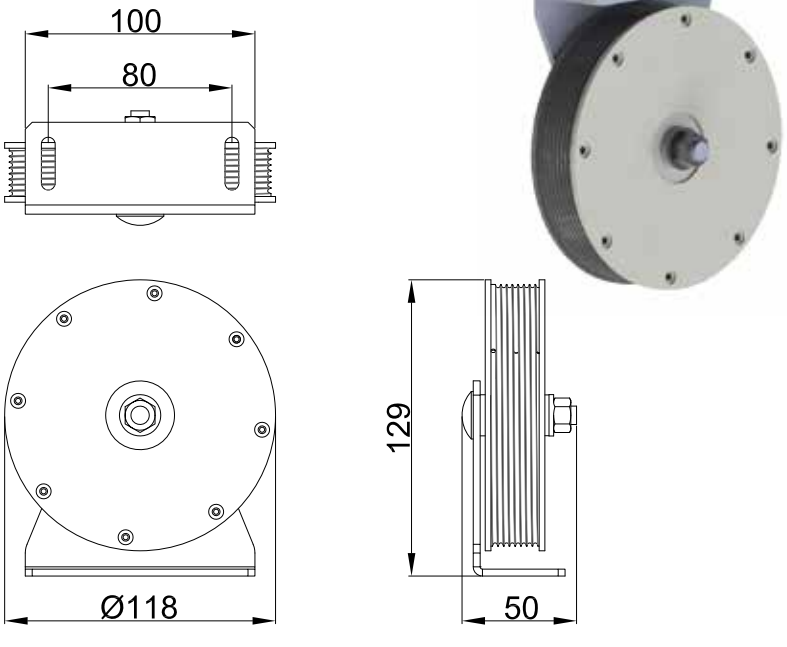
Dimensions

Spring rope pulley
(without mounting bracket = delivery status)



All dimensions in mm

Spring rope pulley with mounting bracket
(to be ordered separately, part no. 070113)



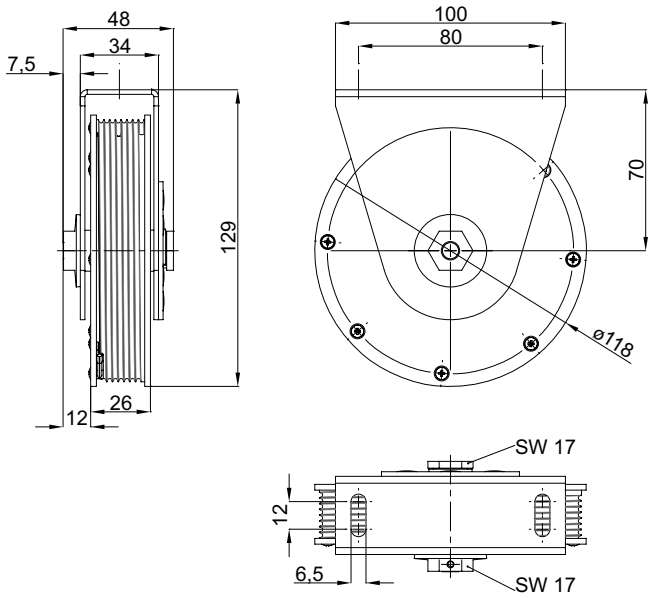
Spring Rope Pulleys Ø Series 118 mm - Model with Sliding Hub

The bracket provides two oblong holes for mounting. Additionally a mounting plate (part no. 070114) is available. It is recommended in particular when the spring rope pulley should be fixed to the wall or ceiling. The spring rope pulley is simply fixed to the headless pins of the mounting plate. Then the mounting plated is screwed to the intended place.

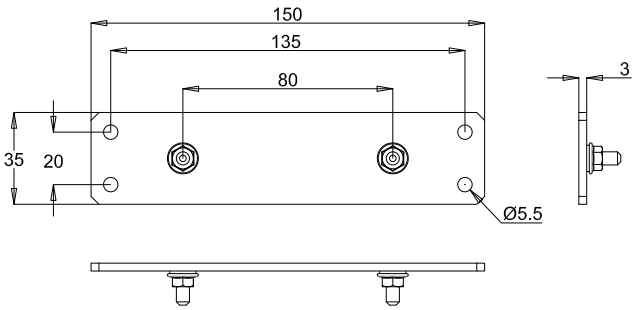
The closing force at the end of the travel is determined by the varying pretension of the spring. In case of the model with sliding hub it is easily adjusted by the tensioning screw. There is no risk of damaging the spring when releasing it by accident.

Dimensions

Spring rope pulley with sliding hub and bracket



Mounting plate for spring rope pulley with sliding hub, part no. 070114



All dimensions in mm

Spring Rope Pulleys Ø Series 118 mm - Double Spring Rope Pulleys

For special applications the spring rope pulleys with sliding hub are available as double spring rope pulleys.

For a double model two spring rope pulleys with the same force (2 x 25 N or 2 x 50 N) are coupled, thus providing the double force. These models also offer a longer travel than the single spring rope pulley with the same force (see indications below and the force-travel-diagramm on the next page).

Double Spring Rope Pulley with Sliding Hub

The closing force of the double spring rope pulley with sliding hub is adjusted by the tensioning screw accessible on both sides.

For mounting the double spring rope pulley is furnished with a bracket and a separate mounting plate. Depending on the local mounting possibilities this can be fixed either lengthwise or crosswise on the bracket (see the dimensioned drawings below).

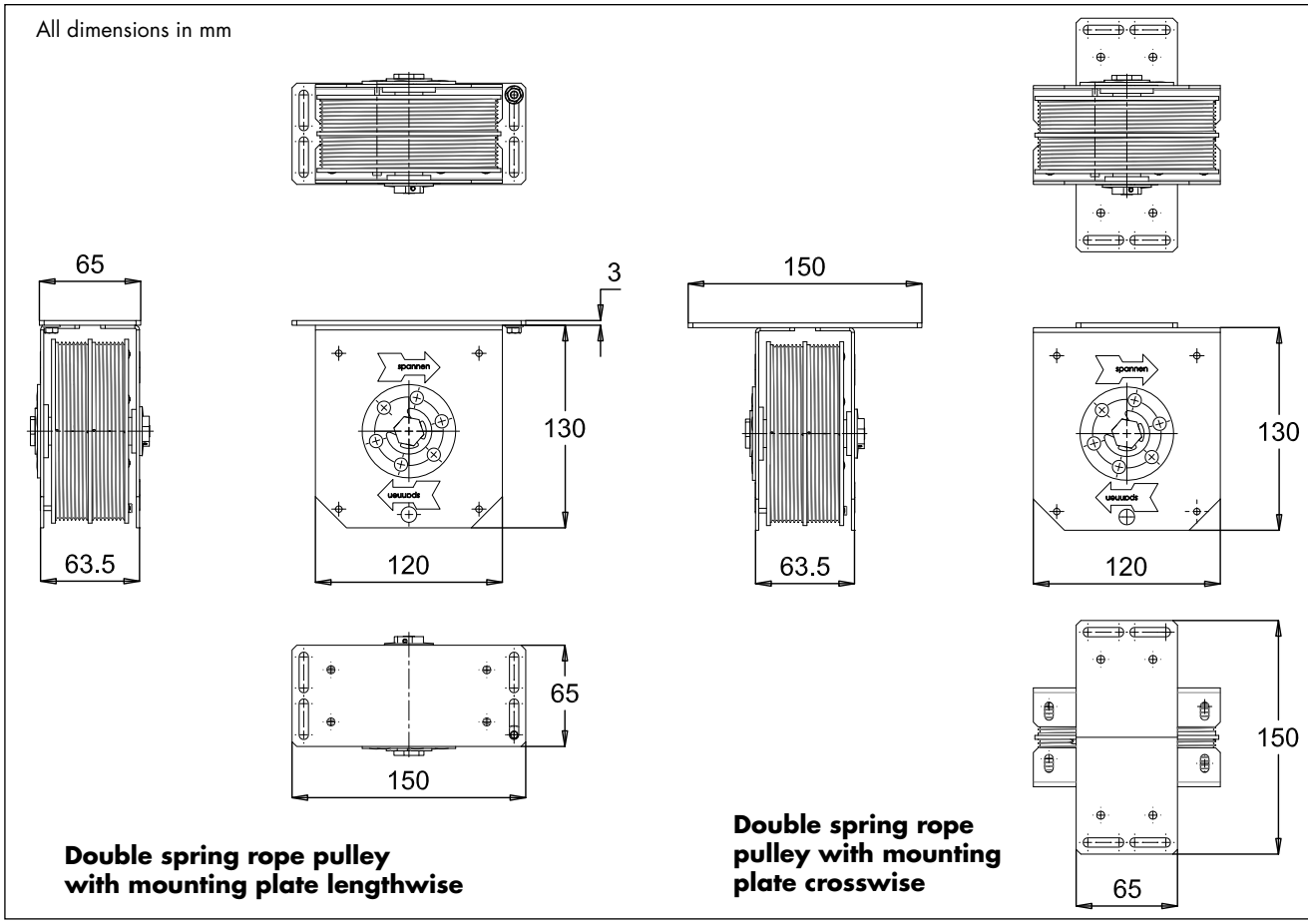
Both spring rope pulleys feature a rope, however, only one of them will be used. Which rope shall be used is determined on site and depends on the mounting position. It always has to be chosen the rope which aligns better with the door movement.

Maximum remaining travel (becomes less when the pretension of the spring rope pulley is increased - see also following page):

Double spring rope pulley 50 N 1.8 m
Double spring rope pulley 100 N 1.5 m

Dimensions

All dimensions in mm



Double spring rope pulley with mounting plate lengthwise

Double spring rope pulley with mounting plate crosswise

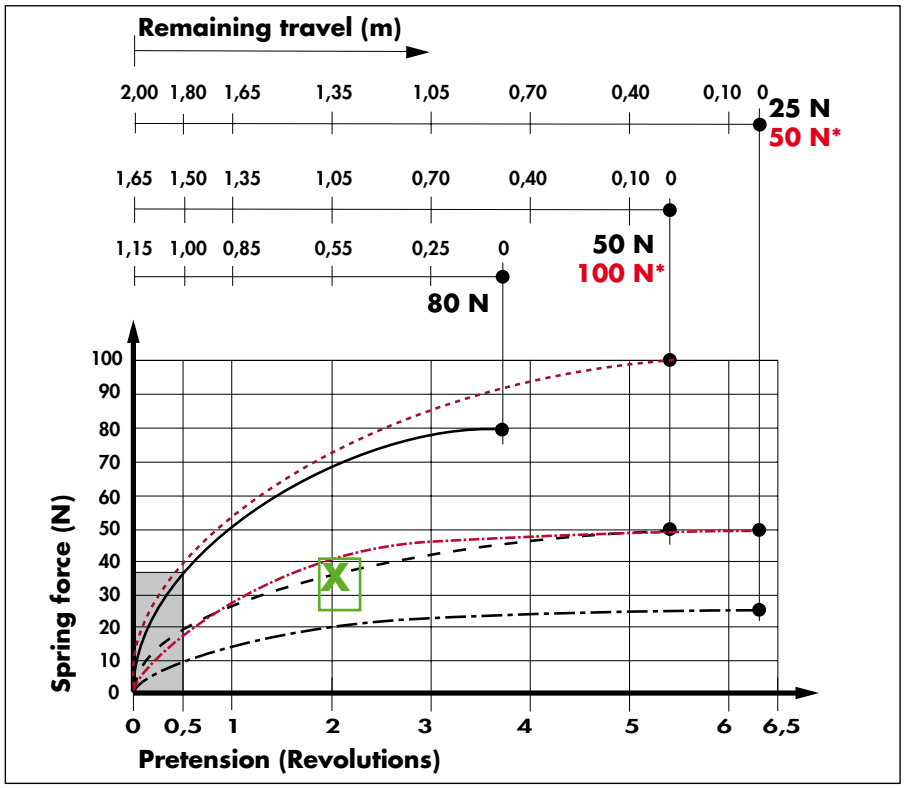
Spring Rope Pulleys Ø Series 118 mm - Force-Travel-Diagram, Order Information

Pretensioning the spring rope pulley increases the force of the spring rope pulley at the end of the travel. Simultaneously it reduces the travel. The maximum possible travel of the respective pretension can be found in the diagram below. The force path of the double spirng rope pulleys is marked in red.

Example (marked in the diagram by the cross):
Spring rope pulley with 50 N spring, pretension 2 revolutions.

The final closing force of the spring rope pulley will be (when the door is closed) about 38 N, the maximum possible travel is 1.05 meters. If the spring rope pulley is pre-tensioned less you get a longer travel but the final closing force will be minor.

Force-Travel-Diagram



*** Curves and force indications in red apply to the double spring rope pulley.**

Order Information

Spring rope pulley Ø118, 25 N with inner square	part no. 070110
Spring rope pulley Ø118, 50 N with inner square	part no. 070111
Spring rope pulley Ø118, 80 N with inner square	part no. 070112
Mounting bracket for pulley with inner square, zinc-plated	part no. 070113
Spring rope pulley Ø118, 25 N, sliding hub, bracket zinc-plated	part no. 070102
Spring rope pulley Ø118, 50 N, sliding hub, bracket zinc-plated	part no. 070093
Spring rope pulley Ø118, 80 N, sliding hub, bracket zinc-plated	part no. 070094
Spring rope pulley Ø118, 25 N, sliding hub, bracket AISI 304	part no. 070103
Spring rope pulley Ø118, 50 N, sliding hub, bracket AISI 304	part no. 070098
Spring rope pulley Ø118, 80 N, sliding hub, bracket AISI 304	part no. 070099
Mounting plate for spring rope pulley with sliding hub, zinc-plated	part no. 070114
Double spring rope pulley 50 N, sliding hub, bracket zinc-plated	part no. 070104
Double spring rope pulley 100 N, sliding hub, bracket zinc-plated	part no. 070105

Spring Rope Pulley Ø Series 177 mm - Model with Sliding Hub, 100 N, 4 m Travel

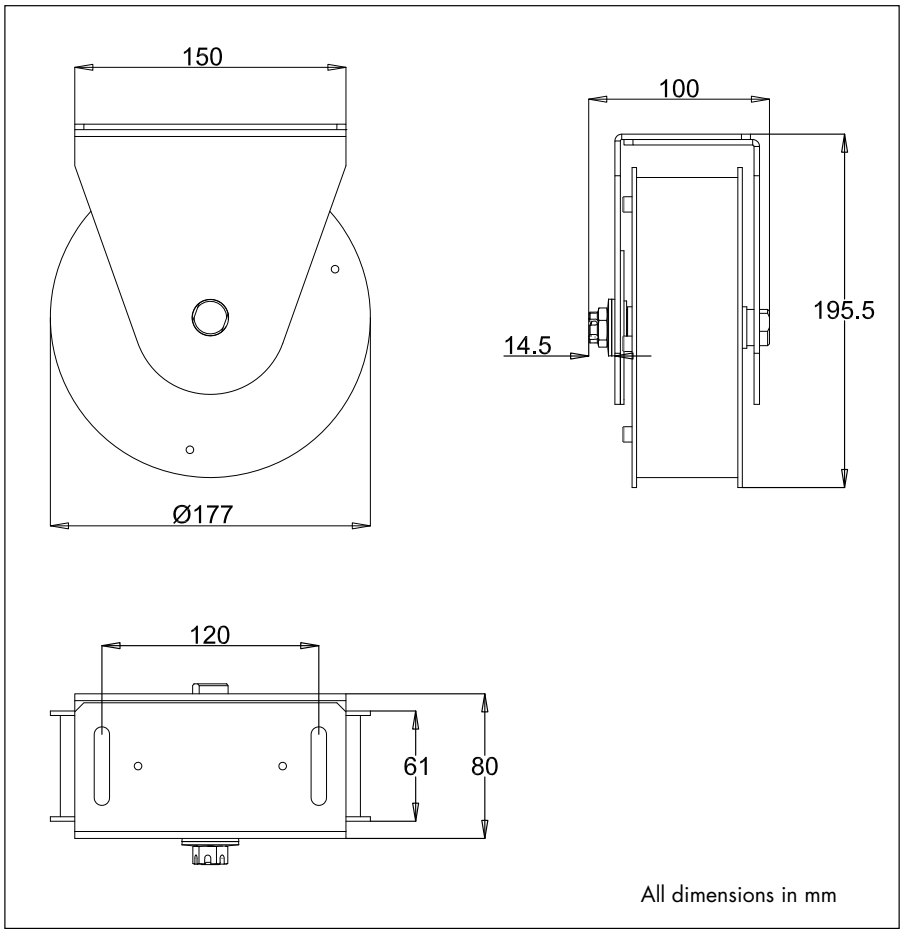
The spring rope pulley of the 177 mm Ø series is used for longer travels.

The maximum travel is 4 m, the maximum closing force 100 N.

As this model is always supplied with sliding hub and bracket, mounting and adjusting are easy.

The standard version of this diameter series is fabricated with a plastic rope. On demand, however, it is also possible to furnish it with a steel rope.

Dimensions



All dimensions in mm

Technical Data

Type	with integrated sliding hub and bracket
Material casing	zinc-plated sheet steel
Material bracket	zinc-plated sheet steel
Rope	plastic rope (without fire protection properties)
	approx. Ø 3 mm, with cable eye stiffener Ø = 9 mm
Closing force	max. 100 N
Travel	max. 4 m

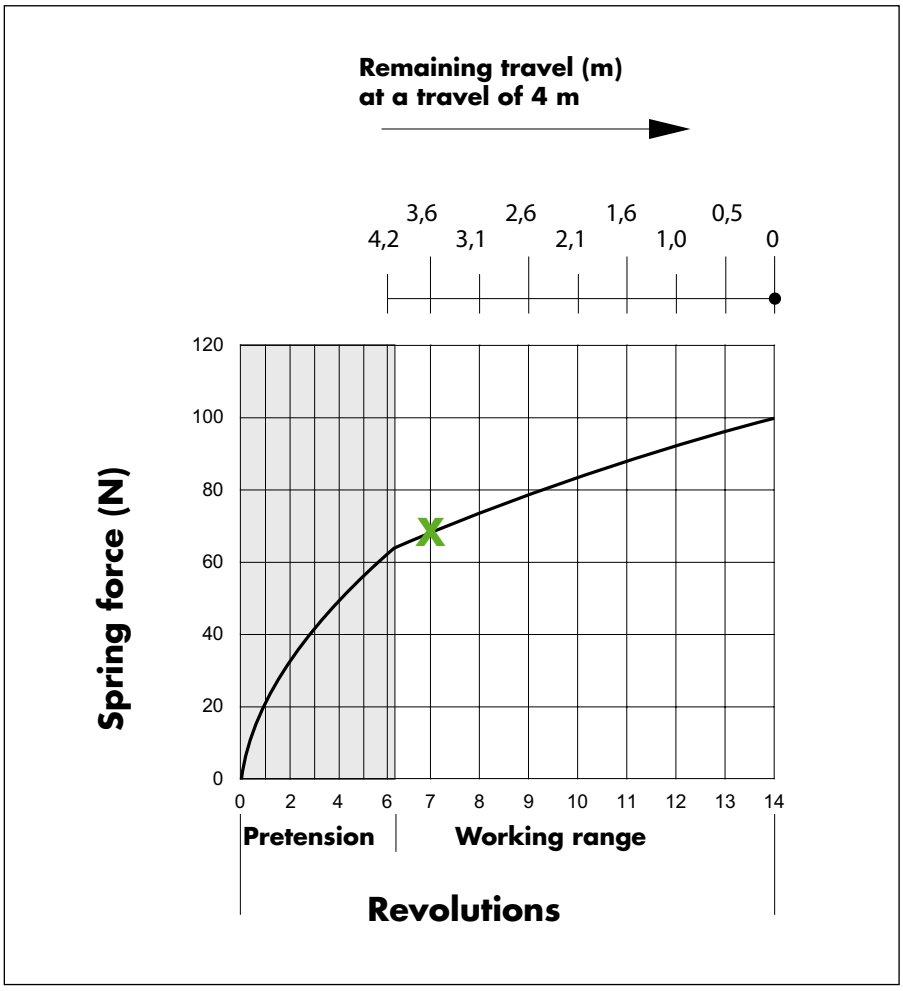
Spring Rope Pulley Ø Series 177 mm - Force-Travel-Diagram, Order Information

Pretensioning the spring rope pulley increases the force of the spring rope pulley at the end of the travel. Simultaneously it reduces the travel. The maximum possible travel of the respective spring force (pretension) can be found in the diagram below.

Example:

If the spring is pretensioned only the required 6 revolutions, a travel of 4 m is possible. At the end, when the door will be closed, there will be left a force of approx. 62 N. If the spring is pretensioned one revolution more, the travel will be reduced to 3.6 m. In this case the remaining force in the final position will be approx. 66 N (marked in the diagram by "X").

Force-Travel-Diagram



Order Information

Spring rope pulley Ø177, 100 N, with sliding hub, zinc-plated bracket	part no. 070066

Mechanical Timer

Adjustable Hold-Open Time for Sliding Door Closers

Comfortable operation of sliding doors, without power consumption, without electrical installations that often have to be controlled every year: no problem with the DICTATOR solutions for sliding doors.

Sliding doors that are equipped with the sliding door closer DICTAMAT 50 close as soon as they are let go. But if a door should stay open for a while, e.g. in hospitals to push a bed through, DICTATOR provides the mechanical timer which functions completely mechanically and without current.

The mechanical timer is mounted in the open position of the sliding door. It uses the same functional principle as the hydraulic door checks, but with the opposite outcome: a valve in the cylinder limits the flow rate of the oil. This determines the time after which the roller lever will again be turned down completely and isn't retained by the hook anymore. The door can close.

The delay time is adjustable. The duration depends on the closing force of the mounted closing device.

Technical Data

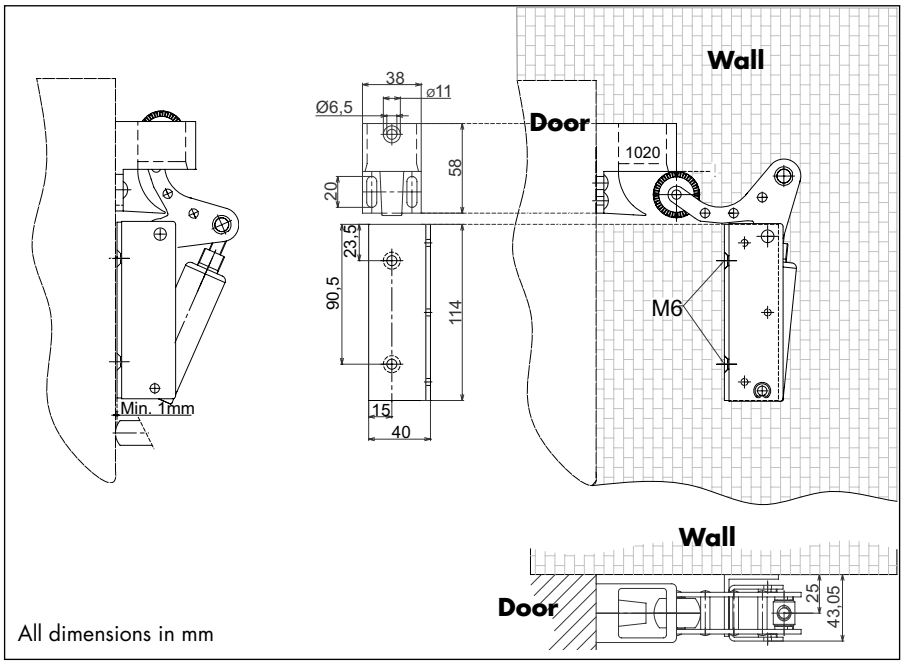
Delay time	adjustable; duration depends on closing force of closing device
Material casing	blue zinc-plated steel
Material bracket	stainless steel
Material hook	satin chromed aluminium
Possible closing devices	DICTAMAT 50, spring rope pulley, counter weight etc.

Mechanical Timer

Usually the mechanical timer is mounted with a mounting bracket on the lateral wall of the opening direction. The hook is fixed at the back of the door leaf in a way that the roller lever of the mechanical timer enters the hook during opening and is completely folded up when the door is open.

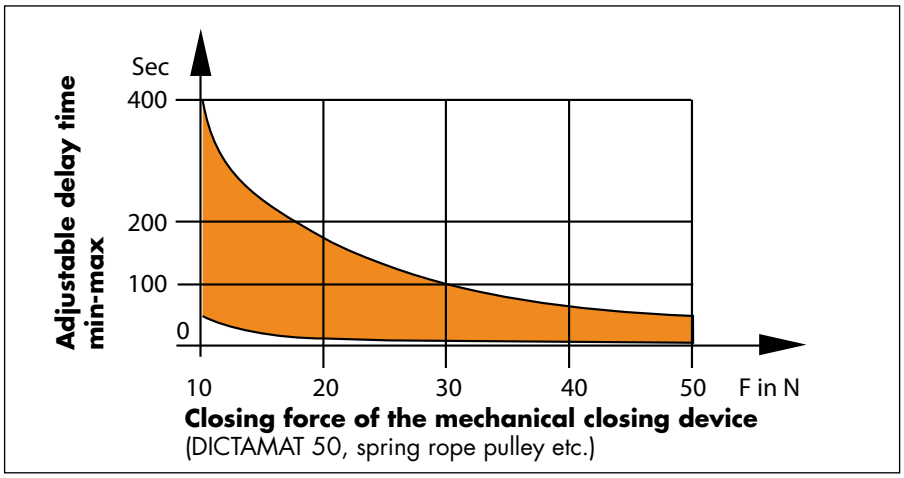
The duration of the delay is adjustable. The adjusting range depends in particular on the closing force of the spring rope pulley in the DICTAMAT 50, the counter weight or the like. The indications of the table below apply at an operating temperature of about 22 °C.

Mounting, Dimensions



All dimensions in mm

Adjusting Range of Delay Time



Components Included

Mechanical timer, adjustable, 1 hook 1020 with large boring, 1 mounting bracket, fixing screws for wooden doors

Order Information

Mechanical timer, adjustable	part no. 500270

DICTATOR Release Buffer for Sliding Doors in Wall Pockets

When opened many sliding doors disappear in so-called wall pockets. This is the optimum solution - if there wasn't the problem of the door handle for closing the door no longer being accessible. But in case the door is not opened completely, precious width of the passage is lost. In the worst case, especially for barrier-free building this could require a broader, more expensive door.

The DICTATOR release buffer is a simple and reliable solution of this problem.

Usually the release buffer is mounted (invisible) in the opening edge of the door. When opening the door the magnet buffer on the piston rod hits a counter plate. This at the same time keeps the door in the open position. If you want to close the door, you just have to push lightly against its edge and the integrated spring will push the door out of the wall pocket that far that the handle is accessible again.

The release buffer is available with two different spring forces. Usually the model with 85 N will be sufficient. The stronger version should only be choosen if the door is not smooth-running, e.g. when a brush seal is mounted.

Technical Data

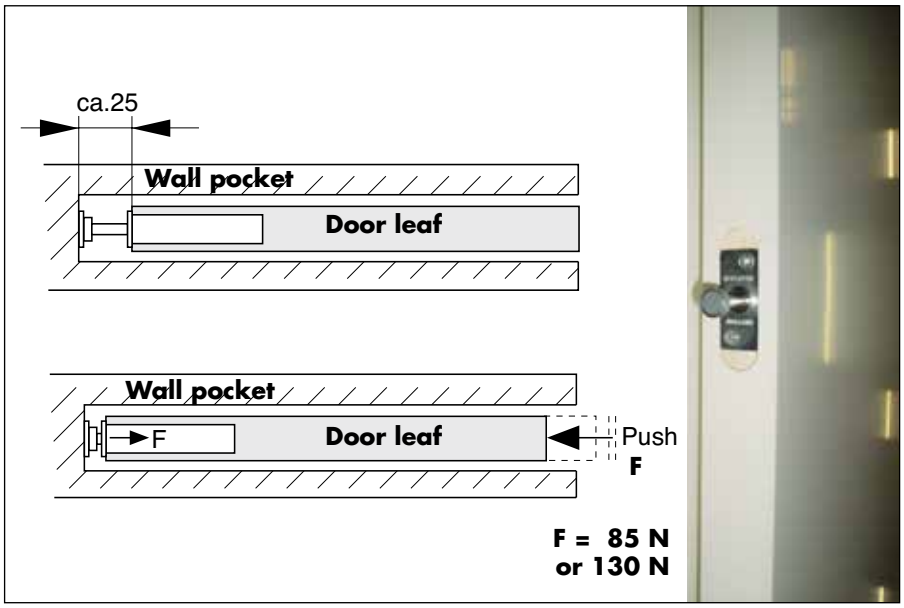
Stroke	20 mm
Extension force	approx. 85 N / 130 N
Material tube	aluminium
Material counter plate, piston rod	zinc-plated steel

Mounting, Dimensions, Order Information

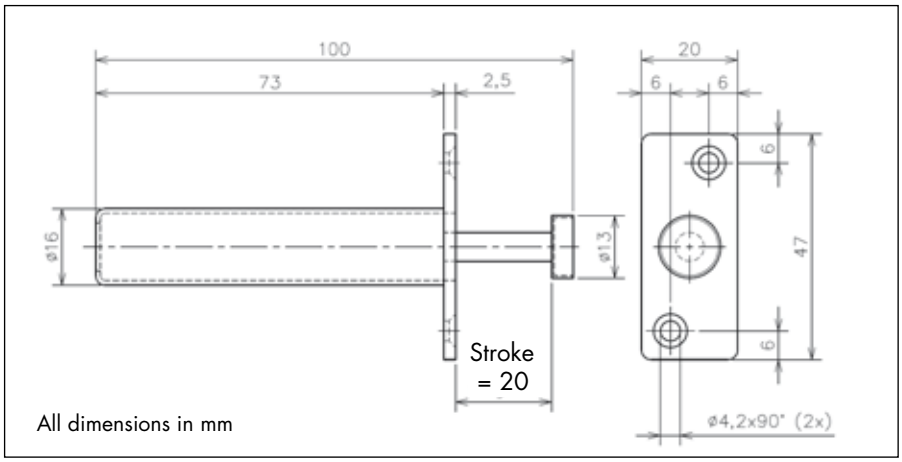
The release buffer is usually mounted in the opening edge of the door leaf. This requires a coresponding boring in the door leaf. Unless it is a frame from steel, the included counter plate has to be mounted as a counter part. It is needed for the magnet at the end of the piston rod that keeps the door safely in the open position.

In the wall pocket behind the opened door you only need a space of 25 mm for the release buffer.

Mounting



Dimensions



Components Included

Release buffer with counter plate and fixing screws

Order Information

Release buffer with 85 N extension force	part no. 500260
Release buffer with 130 N extension force	part no. 500262