



DOOR CLOSING SOLUTIONS

Door dampers | Door & gate closers for hinged doors | Door closers & accessories for sliding doors Back checks | Door holders | Swing door hinges







DOOR CLOSING SOLUTIONS



DAMPERS



DOOR & GATE



OPERATORS



SPRINGS



CONTROL



DOOR NTERLOCK





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DOOR DAMPERS



Door dampers put an end to slamming doors and make sure they close safely and reliably

- The original from DICTATOR since 1932
- Highest quality from Dutch production guarantees a long service life and faultless functioning
- Thanks to the vast range of models, it is possible to find the ideal model for nearly every single installation situation

We will gladly provide individual advisory service for your application

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Subject to technical changes. No claim for compensation in case of errors.



Door dampers function



HOW DO DOOR DAMPERS WORK?



Door dampers are usually installed centered on the upper edge of the door. The hook sits above it on the door frame. When the door is opened, the hook automatically pushes the roller lever down, thereby tensioning the integrated spring.



The door damper then pulls the door completely shut and keeps it closed with the force of the spring.



Then, the door damper draws the door completely shut and the force of the spring keeps it closed.

WHAT ARE DOOR DAMPERS USED FOR?



Doors can be loud - especially if they're not closed carefully. This not only happens when they are closed by hand, but also by drafts, gusts of wind or door closers. And the harder the door slams shut, the louder the bang. If doors are cushioned, it will spare the nerves of neighbors, colleagues, and everyone else within earshot.



The door damper not only helps reduce noise pollution and prevents damage to the doors. In many cases, it also contributes to saving energy. This is because it ensures that the doors are really closed, preventing costly warmth or cooled air from getting out.



Moreover, a door damper helps protect the door, hinges, frame and door panel. It works silently and smoothly, safely and reliably. It catches the closing door, cushions the closing motion, pulls it safely into the lock and keeps it reliably closed.



Last but not least, it provides security, through safely and reliably closed entrance doors, e.g. in apartment blocks or office buildings.



ADJUSTMENT OF THE CLOSING SPEED

The speed of door dampers (except Junior & V 1600F) can be easily adjusted to your needs:

- Turning the piston rod clockwise reduces the damping speed
- Turning the piston rod counterclockwise increases the speed; two complete turns are equivalent to a change of approx. 1 second

Application areas for door dampers





DOOR DAMPERS ON FRONT DOORS AND ENTRANCE DOORS

in private and public buildings

Many front doors, entrance doors, or apartment doors - especially if they have an overhead door closer - slam shut very loudly. Other doors do not close completely (even if they have a door closer), and remain a little open, which can pose a safety risk if left unlocked. Door dampers intercept the slamming doors, guide them slowly into the lock and keep them safely closed. This way, they prevent a lot of hassle for all residents.

Recommended products: VS 2000, V 1600, R 1400



DOOR DAMPERS FOR FIRE DOORS

e.g. for interlocks in underground parkings, basements or car parks

In so-called fire control interlocks it often happens that one of the doors doesn't close properly when the other one is closed due to a difference in air pressure. This is a major problem, because then there is no more fire protection. On the other hand, when one doors is open, the other often slams shut - which can be frequently heard throughout the building and can be a nuisance for the occupants. The door damper for fire doors ensures both silence and safely closed doors. However, before installation, it is necessary to check with your country's regulations and the door manufacturer, whether an approval for the door damper is necessary.

Recommended products: V 1600 / V 1600F



DOOR DAMPERS FOR WALK-IN REFRIGERATOR DOORS

in food industry facilities with cold storage rooms

In many establishments like restaurant kitchens, butcher shops or bakeries, cold room doors are opened and closed a lot. In a hurry, people often don't pay attention to whether the doors are completely closed, which can happen due to the door's sealing. DICTATOR door dampers are used to make sure the door closes and thus prevent energy loss and, in the worst case, food deterioration. With them, the door can just be thrown shut and the door damper will makes sure that it closes completely and remains closed.

Recommended products: VS 2000, V 1600



DOOR DAMPERS IN HOTELS AND RESTAURANTS

for entrance doors and room doors

Restaurants, cafes, bars and hotels are places where guests should not be disturbed by loud slamming doors. Door dampers make sure that doors always close quietly and reliably so that guests can fully enjoy their stay.

Recommended products: VS 2000, V 1600, R 1400

MORE APPLICATION AREAS

From room doors to office doors in company buildings to heavy industrial doors and gates, door dampers can be used on almost every type of door, as long as there is enough space for its installation.



Door damper VS 2000

The model with cased hook



CHARACTERISTICS

- Compact form: When the door is closed, the door damper and the hook look like a single unit
- Available in many finishes: chrome-plated or color-coated
- Robust construction: Thanks to its casing, the hook is extremely resistant
- Suitable for a wide range of door types and installation situations thanks to to its closing force from 20 to 115 N

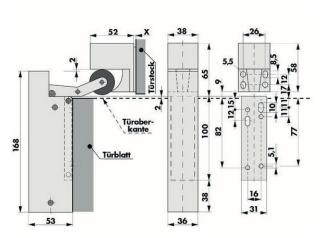
MOUNTING OPTIONS

- Suitable for overlapping and flush doors
- Installed vertically and centered on the upper edge on the hinge side of the door as standard
- Also suitable for horizontal installation 20 N, 35 N, 50 N



DIMENSIONS

All dimensions in mm



- Türstock > door frame
- Türoberkante > upper edge of door leaf
- Türblatt > door leaf

Dimension of X: On overlapping doors the included plastic spacers (2 mm, 3 mm and 10 mm thick) compensate for a height difference of up to 15 mm between door leaf and frame. More information on the dimensions of all mounting plates and brackets can be found under 'Installation accessories'.

TECHNICAL DATA

Type of doors	left opening and right open- ing hinged doors, flush and overlapping doors
Closing force	20 N; 35 N; 50 N; 80 N; 115 N
Damping characteristics	progressive
Closing speed	adjustable
Damping fluid	silicone oil
Material	steel; aluminium (hook)
Finish (steel)	bright chrome; satin chrome; coated in RAL colors
Components included	door damper, hook, 3 plastic shims (2/3/10 mm thick), screws for wooden doors

INSTALLATION



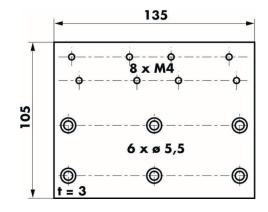


INSTALLATION ACCESSORIES

All dimensions in mm

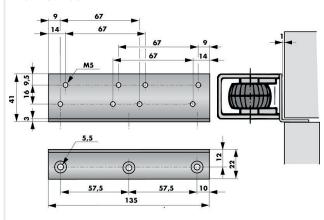
Mounting plate for horizontal installation on aluminium doors

Part no. 205279



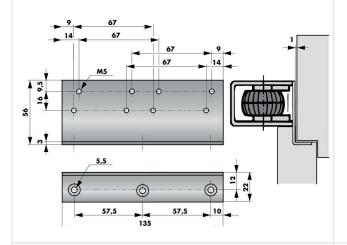
Mounting bracket for horizontal installation on flush doors

Part no. 205221



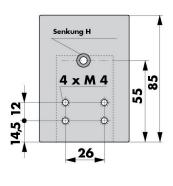
Mounting bracket for horizontal installation on overlapping doors

Part no. 205220



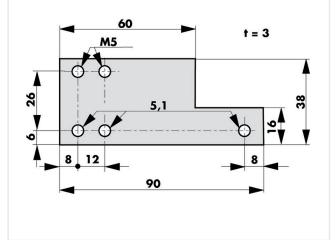
Mounting plate for the hook

Part no. 205232



Mounting plate for horizontal installation of hook

Part no. 205256





ORDER INFORMATION

Force	Chromium plated	Satin chrome	RAL 9010 white	RAL 8017 brown	RAL 9005 black	RAL 9006 grey
20 N	300575	300575X	300520	300556	*	*
35 N	300570	300570X	*	*	*	*
50 N	300500	300500X	300511	300525	300516	300512
80 N	300550	300550X	300554	*	*	*
115 N	300560	300560X	300564	*	*	*

ACCESSORIES

Description	Part no.
Mounting plate for horizontal installation of VS 2000 door damper on aluminium doors, with 4 screws M4 x	205279
6, zinc-plated steel	
Mounting bracket for horizontal installation of VS 2000 door damper on flush doors, with 4 screws $M5 \times 6$,	205221
zinc-plated steel	
Mounting bracket for horizontal installation of VS 2000 door damper on overlapping doors, with 4 screws M5	205220
x 6, zinc-plated steel	
Mounting plate for horizontal installation of hook type 1020	205256
Set of spacers for VS 2000 (3 pieces, thickness: 2, 3 and 10 mm)	205268
Mounting plate for hook type 1020 for VS 2000, no fixing accessories	205232

^{*} On request For larger quantities, other colors are also possible on request.



Door damper V 1600/V 1600F for fire doors

Universal model with the widest range of executions







CHARACTERISTICS

- Thanks to its cased cylinder the fixing screws are not visible
- Available in different colors and finishes: chrome-plated, color-coated, stainless steel
- Suitable for a wide range of door types and installation situations thanks to its closing force from 20 to 115 N
- The models V 1600F with 80 N and V 1600 with 50 N are approved for use on fire and smoke doors. More information can be found under 'Fire doors'

INSTALLATION OPTIONS

- Normally installed vertically on the pull side of the door
- Also suitable for horizontal installation (special model)
- Different hooks allow its installation on overlapping, flush and recessed doors (more information available under product details > choice of hook
- There are different mounting plates available for installation on steel doors. Find out more under "Installation Accessories"
- Before installing it on fire doors it is necessary to check whether mounting plates are required for the installation on your fire or smoke door. For more information, see section product details > fire doors
- Installation on glass doors possible with special installation set. More information under 'Installation accessories'



TECHNICAL DATA

Type of doors	left opening and right open- ing hinged doors, flush, over- lapping or recessed doors
Closing force	20 N; 50 N; 80 N; 115 N
Damping characteristics	progressive
Closing speed	adjustable
Damping fluid	silicone oil
Material	steel; stainless steel AISI 304
Finish (steel)	bright chrome; satin chrome; coated in RAL colors
Components included	door damper, hook, fixing screws for wooden doors

CHOICE OF HOOK

■ Hook 1009: for flush doors (-4 to +14 mm)



 Hook 1013: for overlapping doors (+15 to +30 mm)



 Hook 1011: for recessed doors (-5 to -20 mm)



INSTALLATION





Installation video (non-fire doors)

Installation video (fire doors)

FIRE DOORS

Door damper V 1600/V1600F for the use on fire and smoke doors



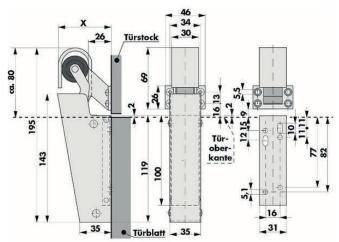
V 1600F

Depending on your country's regulations, it is possible that the door damper may only be used on fire and smoke doors for which there is an existing approval that allows its installation. On many fire and smoke doors, it is necessary to use mounting plates for the installation of the door damper and the hook.

Please check which mounting plates you need for your particular door before ordering. Should you have any questions, we'll be happy to help.

DIMENSIONS

All dimensions in mm



Dimension of X with

- Hook 1009 for flush doors: X = 59
- Hook 1013 for overlapping doors: X = 78
- Hook 1011 for recessed doors: X = 39

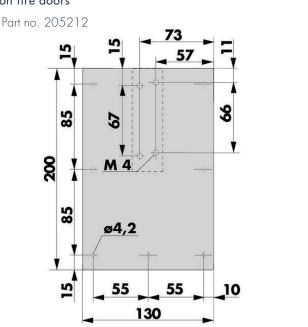
Further information on the dimensions of all mounting plates and brackets can be found under 'Installation accessories'.

- Türstock > door frame
- Türoberkante > upper edge of door leaf
- Türblatt > door leaf

INSTALLATION ACCESSORIES

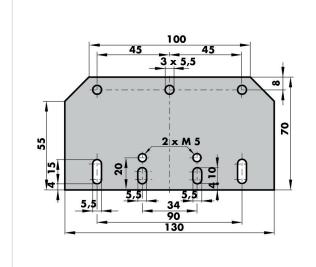
All dimensions in mm

Mounting plate for vertical installation of door damper on fire doors

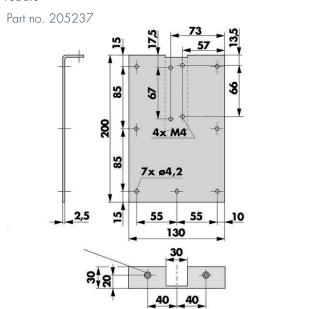


Mounting plate for vertical installation of the hook on fire doors

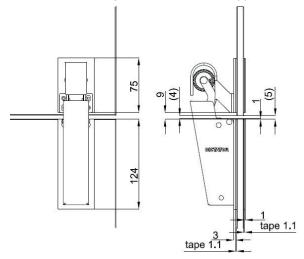
Part no. 205231XL



Mounting plate for door damper on fire doors without rebate



Installation set for glass doors (adhesive type)

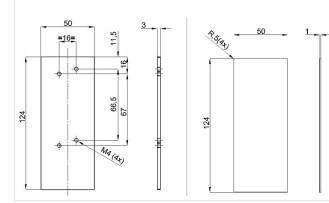


With a special double-sided adhesive tape, the mounting plates for both the door damper V 1600 and the corresponding hook are attached to the glass door or fanlight. Each set includes an adhesive cover plate for the opposite side of the mounting plate for a uniform image. Both mounting and cover plates are made of AISI 304.

Installation plates set for door damper V 1600

Adhesive mounting plate with threaded holes and adhesive cover plate of AISI 304:

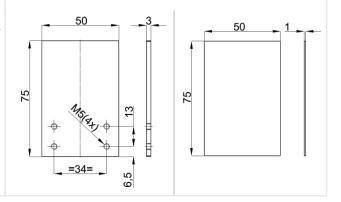
Part no. 205375



Installation plates set for hook

Adhesive Mounting plate with threaded holes and adhesive cover plate of AISI 304 for opposite side:

Part no. 205376





ORDER INFORMATION

Description	Installation	Hook 1009	Hook 1011	Hook 1013
V 1600 20 N chromium plated	vertical	300464	*	300967
V 1600 20 N satin chrome	vertical	300464X	*	300972X
V 1600 20 N chromium plated	horizontal	300464W	*	*
V 1600 20 N satin chrome	horizontal	300464WX	*	*
V 1600 20 N RAL 9010 pure white	vertical	300466L	*	*
V 1600 20 N RAL 9006 white aluminium (grey)	vertical	300953	*	*
V 1600 20 N AISI 304	vertical	300610	-	-
V 1600 20 N AISI 304	horizontal	300611	-	-
V 1600 50 N chromium plated	vertical	300460	300629	300461
V 1600 50 N satin chrome	vertical	300460X	300457	300461X
V 1600 50 N chromium plated	horizontal	300460W	*	300461W
V 1600 50 N satin chrome	horizontal	300460WX	*	*
V 1600 50 N RAL 9010 pure white	vertical	300466	*	300965
V 1600 50 N RAL 8017 chocolate brown	vertical	300454	300979	300966
V 1600 50 N RAL 9005 jet black	vertical	300456	-	-
V 1600 50 N RAL 9006 white aluminium (grey)	vertical	300467	*	300964
V 1600 50 N AISI 304	vertical	300612	-	-
V 1600 50 N AISI 304	horizontal	300613	-	-
V 1600 80 N chromium plated	vertical	300480	*	300951
V 1600 80 N satin chrome	vertical	300480X	*	*
V 1600 80 N RAL 9010 pure white	vertical	300954	*	300968
V 1600 80 N AISI 304	vertical	300614	-	-
V 1600 115 N AISI 304	vertical	300616	-	-
V 1600F 80 N chromium plated	vertical	300960	300963	300973

For large quantities, other colours are also available on request.
*: Available on request

Description	Part No.
Mounting bracket for horizontal installation of V 1600 door damper on flush doors, 100x95x3 mm, with 4 screws M4 x 6, AISI 304	205463
Mounting plate for hooks type 1009, 1011 and 1013, with 4 screws M5 x 6, zinc-plated steel	205231XL
Mounting plate for door damper V 1600 on flush fire doors, with 4 screws M4 x 6, zinc-plated steel	205237
Mounting plate for door damper V 1600 on fire doors, including 4 screws M4 x 6, zinc-plated steel	205212
Mounting kit for door damper V 1600 for attachment to glass doors, consisting of mounting plate with threaded holes and adhesive foil, cover plate AISI 304 with adhesive foil for the rear side of the door	205375
Mounting kit for hook 1009, 1011 or 1013 for glass doors, consisting of mounting plate AISI 304 with threaded holes and adhesive foil, cover plate AISI 304 with adhesive foil for the rear side of the door	205376



Door damper Z 1000

Inexpensive basic model for lightweight doors



CHARACTERISTICS

- With visible cylinder
- Nickel-plated or zinc-plated finish
- Thanks to closing forces from 20 to 80 N, suitable for a wide range of door types and installation situations

MOUNTING OPTIONS

- Can be used on overlapping, flush and recessed doors thanks to different hooks
- Installation on the pull side of the door
- For vertical installation only



CHOICE OF HOOK

■ Hook 1009: for flush doors (-4 to +14 mm)



■ Hook 1013: for overlapping doors (+15 to +30 mm)



■ Hook 1011: for recessed doors (-5 to -22 mm)



TECHNICAL DATA

Door types	hinged doors, right opening and left opening, overlap- ping, flush and recessed doors
Closing force	20 N; 50 N; 80 N
Damping characteristics	progressive
Closing speed	adjustable
Damping fluid	silicone oil
Material	steel
Finish	nickel plated; zinc plated
Components included	door damper, hook, fixing screws for wooden doors

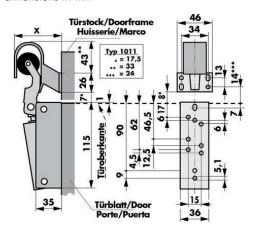
INSTALLATION





DIMENSIONS

All dimensions in mm



Dimension of X with

- hook 1009 for flush doors: X = 59
- hook 1013 for overlapping doors: X = 78
- hook 1011 for recessed doors: X = 39
- Türstock > door frame
- Türoberkante > upper edge of door leaf Türblatt > door leaf

Description	Part no.
Z 1000 door damper, hook 1009, 20 N, zinc plated	300150
Z 1000 door damper, hook 1009, 20 N, nickel plated	300151
Z 1000 door damper, hook 1011, 20 N, nickel plated	300374L
Z 1000 door damper, hook 1009, 50 N, zinc plated	300904
Z 1000 door damper, hook 1009, 50 N, nickel plated	300373
Z 1000 door damper, hook 1011, 50 N, zinc plated	300905
Z 1000 door damper, hook 1011, 50 N, nickel plated	300374
Z 1000 door damper, hook 1013, 50 N, zinc plated	300906
Z 1000 door damper, hook 1013, 50 N, nickel plated	300375
Z 1000 door damper, hook 1009, 80 N, zinc plated	300154
Z 1000 door damper, hook 1009, 80 N, nickel plated	300913
Z 1000 door damper, hook 1011, 80 N, zinc plated	300171
Z 1000 door damper, hook 1011, 80 N, nickel plated	300914
Z 1000 door damper, hook 1013, 80 N, nickel plated	300366
Z 1000 door damper, hook 1013, 80 N, nickel-plated	300915



Door damper R 1400

For installation on the push side of the door









CHARACTERISTICS

- Installed on the push side of the door
- Available in different colors and finishes: chrome-plated, color-coated, stainless steel
- Suitable for a wide range of door types and installation situations thanks to closing forces from 20 to 80 N

MOUNTING OPTIONS

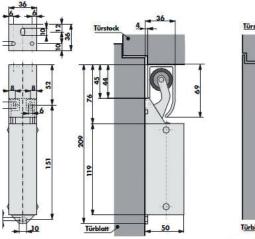
- Vertical and horizontal installation possible
- The hook is usually attached to the frame from below or on its side
- Hook can be installed onto the frame of flush aluminium or plastic door frames with a special mounting bracket

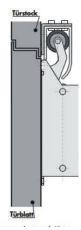


DIMENSIONS

All dimensions in mm

Door damper R 1400



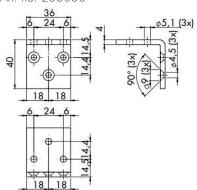


TECHNICAL DATA

Type of doors	left and right opening doors, overlapping, flush and recessed doors
Closing force	20; 35; 50; 80 N (measured on the damper)
Damping characteristics	progressive, adjustable clos- ing speed
Damping fluid	silicone oil
Mounting options	vertically or horizontally
Material	steel; stainless steel
Finish (steel)	bright chrome; satin chrome; coated in RAL colours
Components included	door damper, hook, screws

Mounting bracket for hook

Art. no. 203038



INSTALLATION





Description	Part no.
R 1400 door damper, hook 1014, 20 N, bright chrome	300387
R 1400 door damper, hook 1014, 20 N, satin chrome	300387X
R 1400 door damper, hook 1014, 20 N, stainless steel version, stainless steel cylinder	300625
R 1400 door damper, hook 1014, 20 N, stainless steel version, cylinder zinc plated	300620
R 1400 door damper, hook 1014, 20 N, RAL 9005 jet black	300631
R 1400 door damper, hook 1014, 20 N, RAL 9010 pure white	300471
R 1400 door damper, 20 N, hook 1014, RAL 9006 white aluminium (grey)	300472
R 1400 door damper, hook 1014, 20 N, RAL 8017 chocolate brown	300970
R 1400 door damper, hook 1014, 35 N, satin chrome	300633X
R 1400 door damper, hook 1014, 35 N, bright chrome	300633
R 1400 door damper, hook 1014, 50 N, satin chrome	300475X
R 1400 door damper, hook 1014, 50 N, bright chrome	300475
R 1400 door damper, hook 1014, 50 N, stainless steel version, stainless steel cylinder	300626
R 1400 door damper, hook 1014, 50 N, stainless steel version, cylinder zinc plated	300621
R 1400 door damper, hook 1014, 80 N, bright chrome	300474
R 1400 door damper, hook 1014, 80 N, stainless steel version, stainless steel cylinder	300627
R 1400 door damper, hook 1014, 80 N, stainless steel version, cylinder zinc plated	300622
Mounting bracket hook for R 1400, for mounting on the frame of flush doors, AISI 304, with fastening material	203038



Door damper H 1300

With reinforced joint for particularly heavy doors



CHARACTERISTICS

- The reinforced joint and the longer roller lever ensure a long service life, even when installed on very large and heavy hinged doors
- Thanks to its progressive damping characteristic, it reliably cushions the closing of door, even when installed far away from the door hinges
- Only available with nickel-plated surface
- Suitable for a wide range of door types and installation situations thanks to its closing force from 20 to 115 N

MOUNTING OPTIONS

- Can be used on overlapping, flush and recessed doors using different hooks
- There are weld-on mounting plates available for narrow, steel door frames (see 'Installation accessories')
- Large mounting plates available for installation on thinner steel doors (see 'Installation accessories')



■ Hook 1009: for flush doors (-1 to +13 mm)



■ Hook 1013: for overlapping doors (+14 to +30 mm)



Hook 1011: for recessed doors (-2 to -18 mm)





TECHNICAL DATA

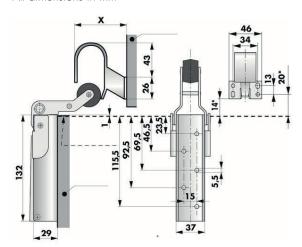
Type of doors	hinged doors, right and left-handed, overlapping, flush and recessed
Closing force	20 N; 50 N; 80 N; 115 N
Damping characteristics	progressive
Closing speed	adjustable
Damping fluid	silicone oil
Material	steel
Finish	nickel-plated
Components included	door damper, hook, fixing screws for wooden doors

INSTALLATION



DIMENSIONS

All dimensions in mm

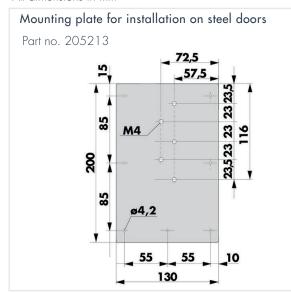


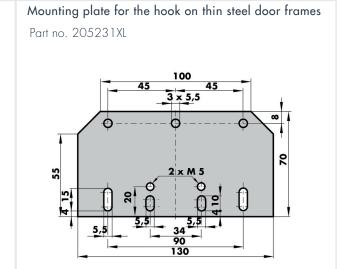
Dimension of X with

- 1009 hook for flush doors: X = 59
- 1013hook for overlapping doors: X = 78
- 1011 hook for recessed doors: X 0 39

INSTALLATION ACCESSORIES

All dimensions in mm





ORDER INFORMATION

Description	Part no.
H 1300 door damper, hook 1009, 50 N, nickel plated	300110
H 1300 door damper, hook 1011, 50 N, nickel plated	300120
H 1300 door damper, hook 1013, 50 N, nickel plated	300100
H 1300 door damper, hook 1009, 80 N, nickel plated	300140
H 1300 door damper, hook 1013, 80 N, nickel plated	300130
H 1300 door damper, hook 1009, 115 N, nickel plated	300145
H 1300 door damper, hook 1013, 115 N, nickel plated	300135

ACCESSORIES

Description	Part no.
Mounting plate for hooks type 1009, 1011 and 1013, with 4 screws M5 x 6, zinc-plated steel	205231XL
Mounting plate for door damper H 1300, with 4 screws M4 x 6, zinc-plated steel	205213



Door damper Junior

The smallest door damper



CHARACTERISTICS

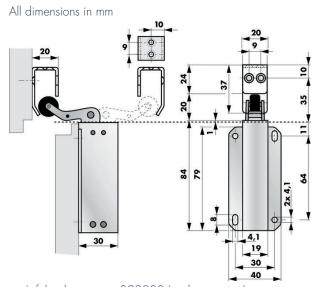
- Prevents slamming of screen doors, doors in furniture, flaps and drawers
- Entirely of stainless steel
- Small dimensions
- Available as either push or pull model, both with the same dimensions (see 'Dimensions')
- The push and pull models only differ in the position of the roller lever

MOUNTING OPTIONS

- Thanks to its casing in stainless steel, suitable for a wide range of applications as e.g. in interior design, furniture, pharmacies and medical equipment, etc.
- Due to its small dimensions it can be installed even in very small spaces



DIMENSIONS



- Left hook: part no. 392000 (push-execution)
- Right hook: part no. 392020 (pull-execution)

TECHNICAL DATA

Closing force	13 N
Damping characteristics	constant
Closing speed	not adjustable
Damping fluid	silicone
Material	stainless steel AISI 304
Components included	door damper, hook, fixing screws for wooden doors

INSTALLATION





Description	Part no.
JUNIOR V door damper, 13 N, AISI 304	392000
JUNIOR R door damper, 13 N, AISI 304	392020

Door damper Z 1100

The version for sliding doors





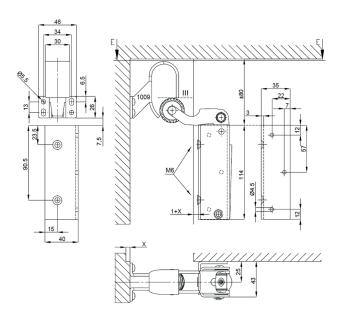


CHARACTERISTICS

- Special version of the Z 1000 with mounting bracket for sliding doors
- Optimal solution for lightweight doors
- Closing forces from 20 N to 80 N
- Material: nickel-plated steel

DIMENSIONS

All dimensions in mm





TECHNICAL DATA

Type of doors	sliding doors
Closing force	20 N; 50 N; 80 N
Damping characteristics	progressive
Closing speed	adjustable
Damping fluid	silicone oil
Material	steel
Finish	nickel-plated
Components included	door damper, hook; fixing screws for wooden doors, mounting bracket

INSTALLATION



Description	Part no.
Z 1100 door damper, hook 1009, 20 N, nickel plated, with mounting bracket	300367
Z 1100 door damper, hook 1009, 50 N, nickel plated, with mounting bracket	300498
Z 1100 door damper, hook 1009, 80 N, nickel plated, with mounting bracket	300499



Door damper V 1600 for sliding doors

With a special mounting bracket for sliding doors



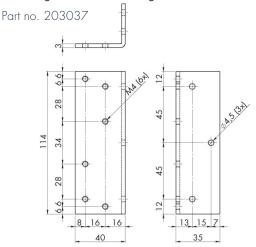
CHARACTERISTICS

- Detailed information on the door damper V 1600 can be found on page 02.01.10
- The stainless steel mounting bracket allows its use on sliding doors
- The recommended force is usually 20 N, as otherwise the force required to open the door would be too high

DIMENSIONS

All dimensions in mm

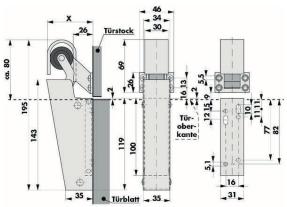
Mounting bracket for sliding doors





Dimension of \boldsymbol{X} with

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





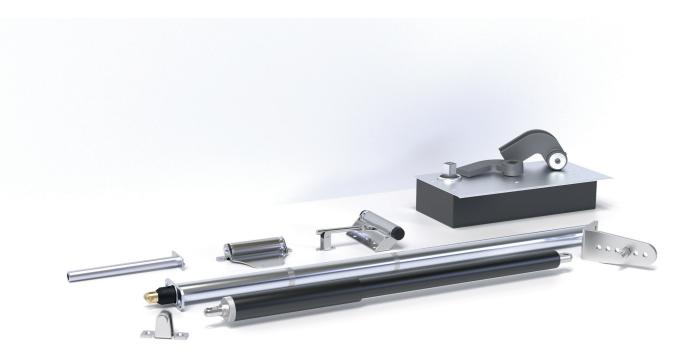
INSTALLATION



Description	Part no.
Mounting bracket sliding doors for V 1600, unequal angle (114 x 35 x 40 x 3 mm), stainless steel, with	203037
fastening material	



DOOR & GATE CLOSERS FOR HINGED DOORS



DICTATOR door closers feature a very high quality and a long operational life. They help solve problems for which conventional door closers cannot offer a solution.

Thanks to the many models solutions for the most different applications are possible: from garden and access gates, in residential buildings, public institutions and commercial properties with highly frequented doors up to industrial plants. Usually retrofitting is no problem.

We would be happy to assist you in choosing the appropriate product - just contact us!



TABLE OF CONTENTS - DOOR & GATE CLOSERS FOR HINGED DOORS

			Page
		r DIREKTs and gates reliably and securely – as fast or slow as you wish	02.02.04
H		closer RTS	02.02.10
	Closing spr The simplest	rings form of door closer	
		Closing spring Piccolo	02.02.14
	I	Closing spring D2A/D4	02.02.16
	1	Jamb door closer Adjunkt	02.02.18
		g WAB 180	02.02.20

Subject to technical changes. No claim for compensation in case of errors.



Gate closer DIREKT

Closes doors and gates reliably and securely - as fast or slow as you wish









CHARACTERISTICS

- Versatile use on gate leaves up to 1500 mm width and 100 kg weight (higher weights are often possible – please contact our advisory service)
- Perfect for retrofitting thanks to its multiple mounting accessories that allow many different installation possibilities
- Safe closing with continuous damping and no final latching action ensures protection of people
- Continuously adjustable closing speed

MODELS AND ACCESSORIES

- Size and closing force: We offer models with different stroke lengths and closing forces to suit different door/ gate sizes and weights. More details can be found under "Selection Criteria"
- Finish: grey, anthracite, white, AISI 304, AISI 316
- Special models with ball and socket joint on both ends for gates with ascending hinges
- Optional accessories: To prevent users from changing the closing speed, there is an additional adjustment lock available

FUNCTION

The gate closer DIREKT operates directly on the gate/door without the help of any lever. It is fixed with one end to the gate post or the door frame and with the other to the door or gate itself.

It operates similarly to a gas spring. When the gate is open, the piston rod of the gate closer is compressed and the pressure of the gas inside the gate closer acts on the piston. The piston rod extends and closes the door/gate. The cylinder of the gate closer contains hydraulic oil, which results in a controlled closing speed that is slowed down. By using nitrogen 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 diameter.



TECHNICAL DATA

Closing speed	steplessly adjustable
Closing force	depending on model/instal- lation type approx. 10 - 60 Nm
Material piston rod	chrome-plated steel, AISI 304, AISI 316L
Material cylinder	zinc-plated steel coated anthracite/grey/white, AISI 304, 316L
Material protection tube	aluminium coated anthracite/ grey/white, AISI 304, AISI 316L
Opening angle	max. 110°
Weight per door leaf	up to about 100 kg, de- pending on model, custom solutions on request
Size per door leaf	max. height approx. 2500, width approx. 750 - 1500 mm, custom solutions on request

INSTALLATION





Installation instructions
DIREKT 150



DIREKT 200



MODELS

Gate closer DIREKT 150 & DIREKT 200 without ascending hinges

Stroke length:

- 150 mm stroke: the standard model for most situations*
- 200 mm stroke: especially designed for wide gates or for those with hinges and posts in unusual positions.*

Closing force:

- For smooth-running gates and doors that can latch into the lock without effort or that do not have a lock latch, a closing force of 400 N is enough
- If greater force is needed, then you should choose a model with 600 N
- With the help of an integrated valve, the closing force can be reduced on site by releasing gas - only if strictly necessary

Finish:



Gate closer DIREKT for ascending hinges

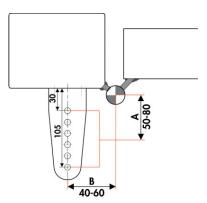
- Furnished with a ball and socket joint on each side and therefore slightly longer
- The mounting brackets have M8 threads for holding the threaded ends. In general, the same hinge distance as with the normal DIREKT 150 and DIREKT 200 must be observed
- It normally requires less force than the normal models, since the closing of the door is supported by its own weight due to the ascending hinges. The higher the gate ascends when opening and the heavier it is, the less closing force is required. Otherwise too much force would be needed to open. As a basic rule, if the door closes by itself without a gate closer, then the DIREKT with 100 N is the right solution.

SELECTION CRITERIA

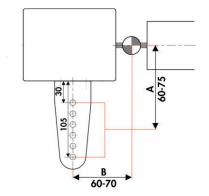
Selecting the appropriate stroke length

Step 1: Check whether one of these hinge position applies to your application and whether the specified dimensions matches those of your door/gate.

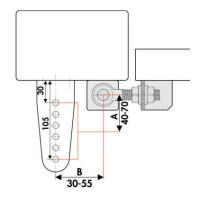
Note: For different installation situations, please, contact our technical customer service.



Hinge position 1: Fitting the DIREKT 150 to gates with hinges welded onto one side



Hinge position 2: Fitting the DIREKT 150 to gates with hinges fixed on the middle



Hinge position 3: Fitting the DIREKT 150 to gates with adjustable hinges

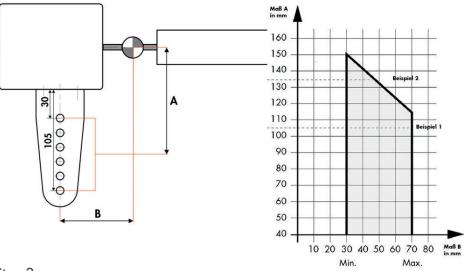
Step 2:

- a) If the dimensions in step 1 match your application, you can use the DIREKT 150
- b) If the dimensions in step 1 cannot be met, check whether you can use the DIREKT 200

^{*}For the selection of the appropriate stroke length, please refer to the section "Selection criteria"



Note: The following drawing and the corresponding diagram for the DIREKT 200 are applicable to all hinge positions. The crucial factor is the distance from the center of the hinge to the center of one of the holes in the mounting bracket (measure A & measure B).



Example 1: If measure A is 105, measure B can be 30-70 mm.

Example 2: If measure A is 135, measure B can be 30-45 mm.

Step 3:

- a) If the dimensions in step 2 match your application, you can use the DIREKT 200
- b) If the dimensions in step 2 cannot be met, contact our technical customer service. In many cases, we can still provide a solution

For the selection of the closing force, please refer to the section "Models". Would you like help choosing a door closer? We will gladly help you find a suitable model for your application. Simply fill in this questionnaire.





ACCESSORIES

Adjustment lock

The adjustment lock prevents users from changing the closing speed. There are two versions available:



Adjustment lock for DIREKT with eyelets: The adjustment lock is slipped over the eyelet and secured with two headless screws. The pressure on the thumb wheel prevents its unauthorized turning.



Adjustment lock for DIREKT with ball and socket joints (for ascending hinges): Here it is not possible to simply slip the adjustment lock on top of the wheel. Therefore this adjustment lock consists of two parts, which can be clipped on from both sides, screwed together and secured with an extra screw.

Standard fixing accessories

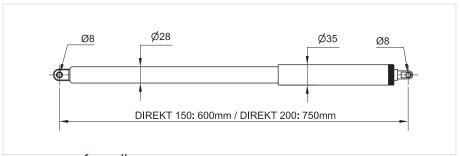




DIMENSIONS

All dimensions in mm

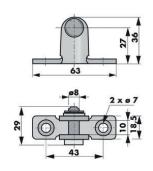
Gate closer DIREKT 150 and DIREKT 200



Dimensions of installation accessories

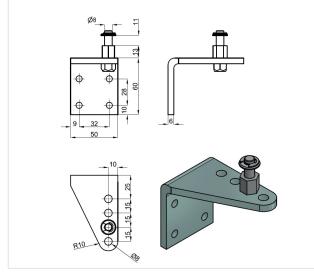
Gate bracket

- zinc-plated steel: part no. 205197
- AISI 304: part no. 205249
- AISI 316: part no. 205455



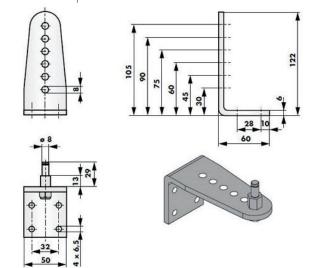
Special bracket for narrow posts

- zinc-plated steel: part no. 205533
- AISI 304: part no. 205534
- AISI 316: part no. 205535



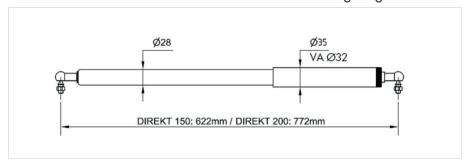
Post bracket

- zinc-plated steel: part no. 205450
- AISI 304: part no. 205451
- AISI 316: part no. 205454



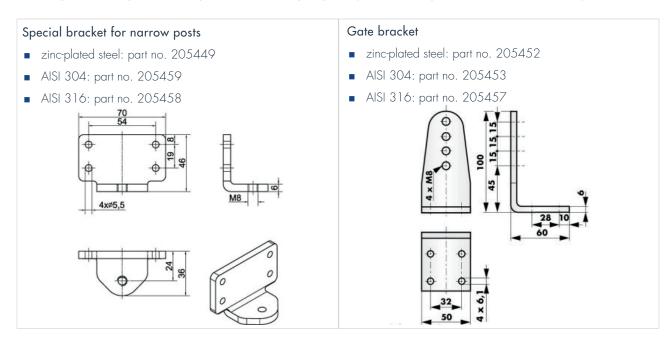


Gate closer DIREKT 150 and DIREKT 200 for ascending hinges



Mounting accessories DIREKT for ascending hinges

For fitting the DIREKT gate closer to gates with ascending hinges, especial mounting brackets with threads are required.



DIREKT gate closer 150 and 200 (without ascending hinges)	with fixing accessories - Part no.	without fixing accessories - Part no.
DIREKT II gate closer 150, 400 N, grey	392301-2	392311-2
DIREKT II gate closer 150, 400 N, anthracite	392300-2	392310-2
DIREKT II gate closer 150, 400 N, white	392302-2	392312-2
DIREKT II gate closer 150, 400 N, AISI 304	392400-2	392410-2
DIREKT II gate closer 150, 400 N, AISI 316L	392480	392481
DIREKT II gate closer 150, 600 N, grey	392309-2	392319-2
DIREKT II gate closer 150, 600 N, anthracite	392308-2	392318-2
DIREKT II gate closer 150, 600 N, AISI 304	392401-2	392411-2
DIREKT II gate closer 150, 600 N, AISI 316L	392484	392485
DIREKT II gate closer 200, 400 N, grey	392363-2	392373-2
DIREKT II gate closer 200, 400 N, anthracite	392364-2	392365-2
DIREKT II gate closer 200, 400 N, white	392367-2	392368-2
DIREKT II gate closer 200, 400 N, AISI 304	392463-2	392464-2
DIREKT II gate closer 200, 400 N, AISI 316L	392482	392483
DIREKT II gate closer 200, 600 N, grey	392366-2	392361-2
DIREKT II gate closer 200, 600 N, anthracite	392369-2	392370-2
DIREKT II gate closer 200, 600 N, AISI 304	392466-2	392460-2
DIREKT II gate closer 200, 600 N, AISI 316L	392486	392487



Accessories DIREKT gate closer 150 and 200 (without ascending hinges)	Part no.
Adjustment lock for DIREKT II gate closer with eyelet, aluminium, including screws	205406
Adjustment lock for DIREKT II gate closer with eyelet, AISI 316, including screws	205407
Mounting bracket, polished zinc-plated, pin 8 mm, washer and circlips	205197
Mounting bracket, AISI 304, pin 8 mm, washer and circlip	205249
Mounting bracket for post for gate closer DIREKT, zinc-plated, 122 x 50 mm, with fixing bolt, washer, nut and snap ring	205450
Mounting bracket for post for gate closer DIREKT, stainless steel, 122×50 mm, with fixing bolt, washer, nut and snap ring	205451
Mounting bracket for post for gate closer DIREKT, stainless steel AISI 316Ti, 122×50 mm, with fixing bolt, washer, nut and snap ring	205454
Mounting bracket, zinc-plated, for post, for gate closer DIREKT, 74 x 60 mm, with hexagonal fastening bolt, washer, nut and circlip	205533
Mounting bracket, AISI 304, for post, for gate closer DIREKT, 74 x 60 mm, with hexagonal fastening bolt, washer, nut and circlip	205534
Mounting bracket, AISI 316, for post, for gate closer DIREKT, 74 x 60 mm, with hexagonal fastening bolt, washer, nut and circlip	205535

DIREKT II gate closer for ascending hinges	with fixing accessories - Part no.	without fixing accessories - Part no.
DIREKT II gate closer 150, 100 N, grey	392323-2	392333-2
DIREKT II gate closer 150, 100 N, anthracite	392329-2	392339-2
DIREKT II gate closer 150, 100 N, white	392328-2	392338-2
DIREKT II gate closer 150, 100 N, AISI 304	392421-2	392431-2
DIREKT II gate closer 150, 100 N, AISI 316L		392490
DIREKT II gate closer 200, 100 N, grey		392383-2
DIREKT II gate closer 200, 100 N, anthracite		392384-2
DIREKT II gate closer 200, 100 N, white		392385-2
DIREKT II gate closer 200, 100 N, AISI 304		392469-2
DIREKT II gate closer 200, 100 N, AISI 316L		392493

Accessories DIREKT gate closer for ascending hinges	Part no.
Adjustment lock for DIREKT II gate closer with ball socket, aluminium, including screws	205408
Adjustment lock for DIREKT II gate closer with ball socket, AISI 316, including screws	205409
Mounting bracket $70 \times 46 \times 36$ mm with M8 thread, for gate closer DIREKT for ascending hinges, zinc-plated	205449
Mounting bracket with M8 thread, for gate closer DIREKT for ascending hinges, stainless steel AISI 304	205459
Mounting bracket with M8 thread, for gate closer DIREKT for ascending hinges, stainless steel AISI 316	205458
Mounting bracket for post for gate closer DIREKT for ascending hinges, zinc-plated, 100×50 mm, washer, nut and snap ring	205452
Mounting bracket for post for gate closer DIREKT for ascending hinges, stainless steel, 100×50 mm, washer, nut and snap ring	205453
Mounting bracket for post for gate closer DIREKT for ascending hinges, stainless steel AISI 316, 100×50 mm, washer, nut and snap ring	205457



Tube door closer RTS

The 'invisible' door closer, especially for gates









- Practically invisible, as it is built into the door: only the joint can be seen when door is open
- Often used on outside gates (garden gates, admission gates to industrial plants, etc.)
- Perfect solution for admission gates into industrial plants with access control which have to close reliably (Supply Chain Security)
- Its concealed installation protects it from the weather and makes it largely vandal-proof
- Its abrasion-resistant special joint is flexible so that the tube door closer can be used with different door hinges
- Depending on the door hinges, the doors can be opened up to 180°



TECHNICAL DATA

Type of doors	steel, wood & aluminum doors
Closing speed	adjustable
Material	steel
Finish	zinc-plated
Door weight	max. 80 kg
Door height	max. 2500 mm
Door width	750 - 1150 mm
Opening angle	90 - 180°, depending on the type of hinges used



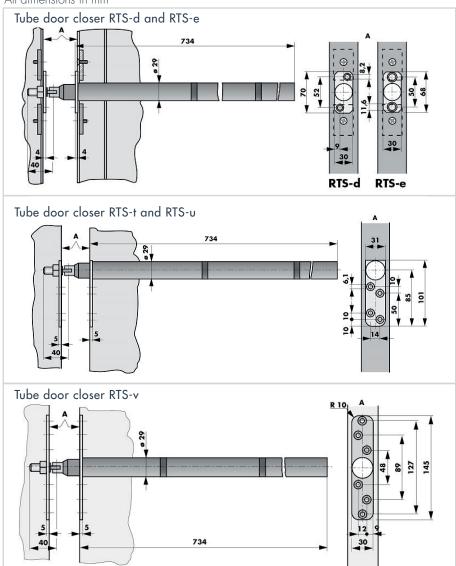
MODELS

	RTS-d & RTS-e	RTS-t & RTS-u	RTS-v
Door type	For steel and aluminium doors		Specifically for flush wooden doors (min. 40 mm thick), fitted with tube door closer during the manufacturing process
Differentiating features	RTS-d and RTS-e only differ in the position of the holes on the front plate (see drawings in the section ,dimensions'). Due to its fixing holes the RTS-e can be used as replacement for GEZE ROR TS 450 tube door closer.	RTS-t and RTS-u tube door closers only differ in the position of their adjustment groove in the joint. RTS-t: Installation on top of DIN left doors, on bottom of DIN right doors RTS-u: Installation on top of DIN right doors, on bottom of DIN left doors	-
Assembly notes	These types are preferably installed in the middle cross profile.	Suitable for installation either on the top or the bottom of the door.	The tube door closer can be installed at any position, preferably centered between the hinges.



DIMENSIONS

All dimensions in mm





INSTALLATION NOTES

Hinge dimensions to be observed

All dimensions in mm



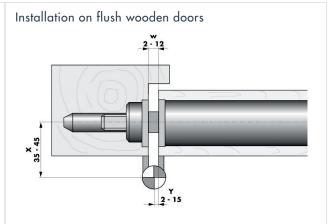






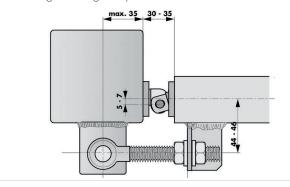
The RTS tube door closer can be mounted into a wide range of door models with different types of hinges due to its flexible joint. Nevertheless, certain hinge dimensions must be observed. Dimensions W, X and Y given in the drawings must be necessarily observed; otherwise the opening angle, latch action and closing will be affected and the RTS tube door closer could get damaged. Should you have any questions, please contact our Technical Customer Service.

Installation on aluminium and steel doors W 10 - 20 Y 2 - 15

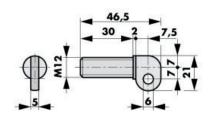


Installation on gates with screw-hinges (Opening angle max. 90° to 100°).

Warning: use angled eyelet!



When the RTS door closer is installed in gates with screw hinges, the angled eyelet has to be used.



Description	Part no.
RTS d, for steel and aluminium doors, long joint	400520
RTS t, installation top DIN left or bottom DIN right, long joint	400525
RTS u, installation top DIN right or bottom DIN left, long joint	400526
RTS v, for wooden doors, installation in centre, long joint	400527
RTS e (replacement for GEZE ROR TS 450), long joint	400529





Closing spring Piccolo

Closing spring in compact design



CHARACTERISTICS

- Suitable for light doors (e.g. interior doors, in kitchen, toilets, restaurants, etc.)
- Available in black, white, nickel-plated or stainless steel
- Stainless steel model especially suitable for use on exterior doors or in humid environments
- Adjustable spring force
- In order to increase the closing force, it is possible to use more than one Piccolo
- Special models for special applications available upon request

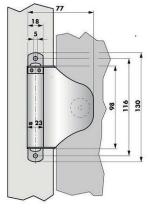
FUNCTIONALITY

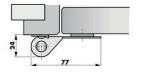
- When the door is opened, the built-in spring is tensioned
- The spring force is applied directly to the door by the push plate
- The closing spring closes the door immediately after the door is released

Together with the closing spring Piccolo, we recommend the use of a DICTATOR door damper, so that the door is damped and gently pulled closed before slamming shut.

DIMENSIONS

All dimensions in mm





ORDER INFORMATION

Description	Part no.
Piccolo closing spring, stainless steel AIS 316	300337
Piccolo closing spring, stainless steel	300339
Piccolo closing spring, nickel-plated	300340
Piccolo closing spring, black RAL 9005 jet black	300340S
Piccolo closing spring, white RAL 9010 pure white	300340W



TECHNICAL DATA

Closing force	10 - 50 Nm
Material	nickel-plated steel, black-coated steel (RAL 9005), white-coated steel (RAL 9010), stainless steel AISI 304, stainless steel AISI 316
Components included	closing spring; 3 washers
Opening angle	max. 90°

INSTALLATION







Closing spring D2a / D4

Closing spring with operating arm



CHARACTERISTICS

- Simple and affordable closing device
- Apt for nearly every door
- Adjustable spring force
- Available with different spring forces

TYPES

- **D2a**: for light doors
- **D4**: for heavier doors
- Stainless steel models: for outside doors or doors in humid environments

FUNCTIONING

- 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 folded up so that the function of the closing spring can be temporarily suspended and the door remains open

In addition to the closing spring Adjunkt D2a/Adjunkt D4, the use of a DICTATOR door damper is recommended so that the door is damped and closes gently and doesn't slam shut.



TECHNICAL DATA

Closing force	10 - 50 Nm
Material	steel nickel-plated; stainless steel AISI 304
Components included	closing spring; roller; tensio- ning pin

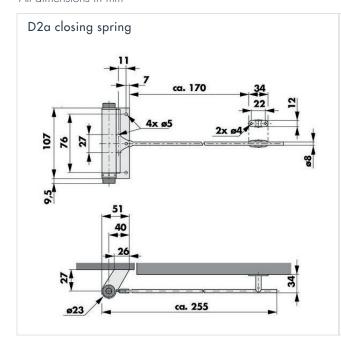
INSTALLATION

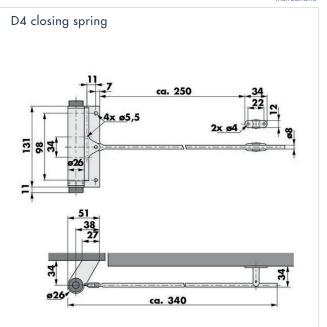




DIMENSIONS

All dimensions in mm







Description	Part no.
D2a closing spring with operating arm, nickel-plated	300300
D2a closing spring with operating arm, stainless steel	300308
D4 closing spring with operating arm, nickel-plated	300320
D4 closing spring with operating arm, stainless steel	300328



Jamb closer Adjunkt

Invisible jamb closer for wooden and steel doors



CHARACTERISTICS

- Can be installed at any height of the door leaf
- Adjustable closing force (depending on the type of door hinges)
- For both flush and overlapping doors
- Maintenance-free, although occasional oiling of moving parts improves efficiency and durability
- The visible parts of the E 22/2550 are also available in stainless steel (model with rounded front plate)

MODELS

- **E 16/2500**: for small wooden doors
- E 22/2550: with rounded front plate (stainless steel)
- E 22/2550: with rectangular front plate (zinc-plated steel)

In order to dampen the closing of the door, we recommend the use of a door damper together with this closing spring.



TECHNICAL DATA

Jamb closer Adjunkt E16/2500

Diameter of spring tube	Ø 16 mm
Opening angle of door	up to 180°
Closing performance	0 - 150°, depending on hinges
Closing force	5 - 15 Nm
Material	Spring tube: aluminium; Front and anchor plates: zinc- plated steel
Components included	closing spring; counter plate; tensioning pin

Jamb closer Adjunkt E22/2550

Diameter of spring tube	Ø 22 mm
Opening angle of door	up to 180°
Closing performance	0 - 150°, depending on the hinges
Closing force	15 - 30 Nm
Material	Spring tube: aluminium; Front & anchor plates: stain- less steel
Components included	Closing spring; counter plate; tensioning pin

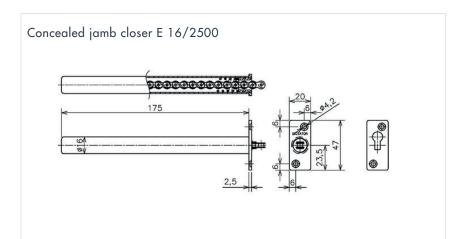
INSTALLATION

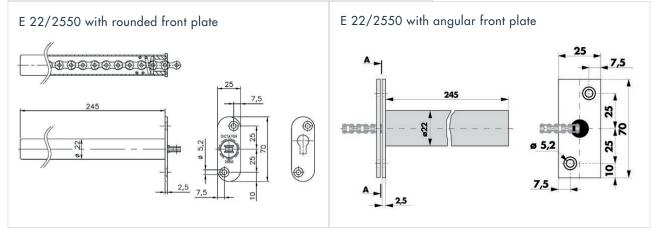




DIMENSIONS

All dimensions in mm





Description	Part no.
E 22 concealed closing spring, with rectangular front plate	300341
E 22 concealed closing spring, rounded front plate from stainless steel	300319
E 16 concealed closing spring	300371



Floor spring WAB 180

For heavy doors up to 600 kg



CHARACTERISTICS

- For decades, consistently proven to be highly reliable, especially on heavy entrance doors e.g. churches, museums, public buildings, etc.
- Special axle bearings in the oil chamber allow its use on very heavy doors up to 600 kg
- High load capacity and long operational life
- Closing speed can be continuously adjusted
- A 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
- Different cover plates, pivot hinges and straps, either for steel or wooden doors available as accessories
- Also available as a mere floor support for heavy doors where the closing function is not needed



The WAB 180 floor spring is available in five different models. Please indicate the dimensions and the approximate weight of the door and the opening direction according to DIN when ordering.

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 2.5 m, without wind load. In case of exterior doors exposed to wind or interior doors in surroundings with high pressure differences, please contact our technical customer service.

Door weight / kg	Door width / m*	Size of floor spring
100 - 200	max. 1.15	
	max. 1.40	
200 - 300	max. 1.15	III
	max. 1.40	IV
300 - 400	max. 1.15	IV
	max. 1.40	V
400 - 500	max. 1.40	V
	max. 1.55	VI
500 - 600	max. 1.55	VI

^{*} In case of differing door widths or doors exposed to wind or pressure difference, please contact us.



TECHNICAL DATA

Door weight	max. 600 kg
Door types	steel doors, wooden doors (single-action)
Closing function	starting at about 160° (door may be opened up to 180°)
Speed (standard)	continuously adjustable damping from 45° of closing angle
Closing torques	depending on the spring force 20 - 45 Nm
Hold-open	without hold-open
Material housing	aluminium
Accessories	cover plates, straps, pivot hinges, push lever

INSTALLATION

Usually the floor spring is installed parallel to the door but shifted sideways. It can also be mounted with the axle directly below the door.



For this purpose, a straight strap is required as an accessory along with a swing hinge as the upper hinge.

Please make sure during installation that there is a stop installed in the closed position of the door. For double-leaf door systems, a separate door sequence control must be installed.

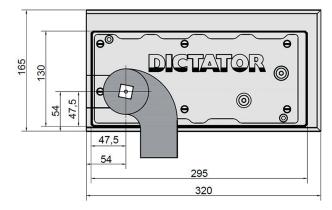


DIMENSIONS

All dimensions in mm

WAB 180 floor spring

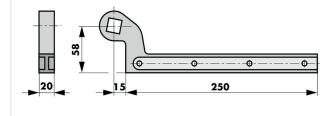




Screw-on fittings

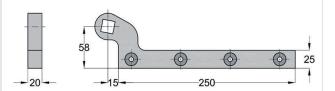
Strap 300 for screwing-on (below), for doors up to 300 kg

Part no. 460086-300



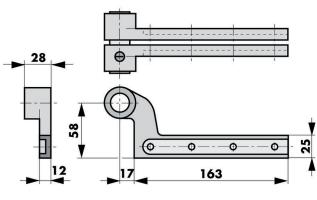
Strap 600 for screwing-on (below), for doors up to 600 kg

Part no. 460086-600



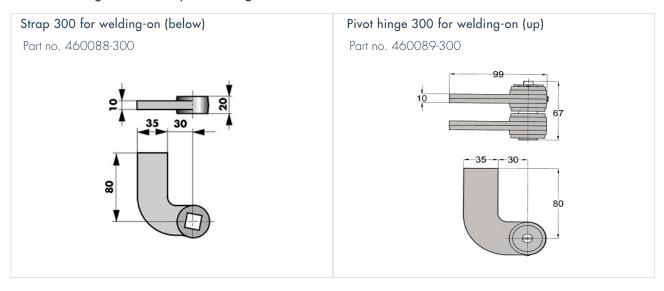
Pivot hinge for screwing-on (up)

Part no. 460087 or 460094 for doors over 300~kg (with ball bearing)

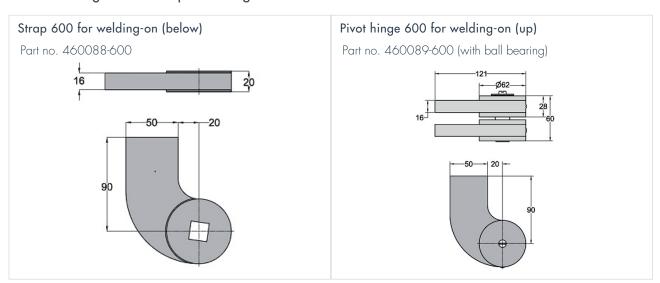




Weld-on fittings for doors up to 300 kg

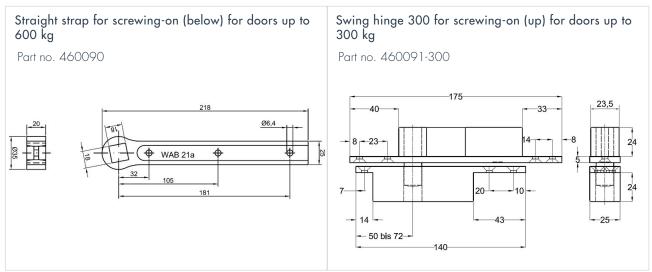


Weld-on fittings for doors up to 600 kg

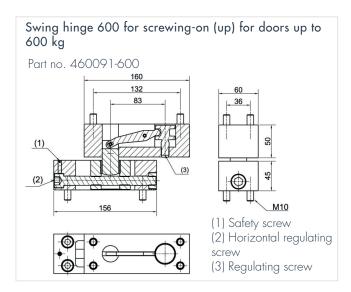


Screw-on fittings for floor springs WAB 180 sitting directly below the pivot

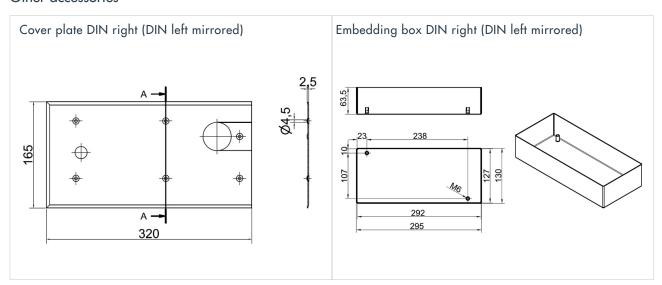
If the WAB 180 floor spring is installed directly below the door (pivot), the straight strap combined with the special swing hinge has to be chosen.







Other accessories





ORDER INFORMATION

WAB 180-2 floor spring, size II, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size III, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size III, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size IV, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size VI with special bearing for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with cashiron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cashiron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cashiron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with do0010000000000000000000000000000000000	Description	Part no.
WAB 180-2 floor spring, size III, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size III, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size IV, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN left, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, size V, for doors DIN left, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 with acastiron casing WAB 180-2 floor spring, siz	WAB 180-2 floor spring, size II, for doors DIN left, incl. embedding box	460002-2
WAB 180-2 floor spring, size III, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size IV, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI with special bearing for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 4600050-2-2A with cast-iron casing WAB 18	WAB 180-2 floor spring, size II, for doors DIN right, incl. embedding box	460012-2
WAB 180-2 floor spring, size III, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size IV, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI with special bearing for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 4600050-2-2A with cast-iron casing WAB 18	WAB 180-2 floor spring, size III, for doors DIN left, incl. embedding box	460003-2
WAB 180-2 floor spring, size IV, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size V with special bearing for doors DIN left, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with castiron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, siz	WAB 180-2 floor spring, size III, for doors DIN right, incl. embedding box	460013-2
WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box 460015-2 WAB 180-2 floor spring, size VI with special bearing for doors DIN left, incl. embedding box 460056-2 WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box 46006-2 WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box 460071-2 WAB 180-2 floor support, for doors DIN right, incl. embedding box 460070-2 WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 4600120Z-2A with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 4600140Z-2A with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 4600150Z-2A with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 4600150Z-2A with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 4600150Z-2A with cast-iron casing WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 4600150Z-2A 4600150Z-2A	WAB 180-2 floor spring, size IV, for doors DIN left, incl. embedding box	460004-2
WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box WAB 180-2 floor spring, size VI with special bearing for doors DIN left, incl. embedding box 460056-2 WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box 460066-2 WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box 460071-2 WAB 180-2 floor support, for doors DIN right, incl. embedding box 460070-2 WAB 180-2 floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 460012OZ-2A with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 460013OZ-2A with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 46001502-2A with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 46005602-2A with cast-iron casing	WAB 180-2 floor spring, size IV, for doors DIN right, incl. embedding box	460014-2
WAB 180-2 floor spring, size VI with special bearing for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180	WAB 180-2 floor spring, size V, for doors DIN left, incl. embedding box	460005-2
WAB 180-2 floor spring, size VI with special bearing for doors DIN left, incl. embedding box WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180	WAB 180-2 floor spring, size V, for doors DIN right, incl. embedding box	460015-2
WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box WAB 180-2 floor support, for doors DIN right, incl. embedding box WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180		460056-2
WAB 180-2A floor support, for doors DIN right, incl. embedding box WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with acst-iron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with acst-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with acst-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN left, without embedding box, replacement for WAB 180 with acst-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with acst-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI for doors DIN right, without embedding box, replacement for WAB 180 4600050Z-2A	WAB 180-2 floor spring, size VI for doors DIN right, incl. embedding box	460066-2
WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with 460002OZ-2A with cast-iron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 460012OZ-2A with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing	WAB 180-2 floor support with special bearing, for doors DIN left, incl. embedding box	460071-2
cast-iron casing WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 WAB 180-2A floor spring, size VI for doors DIN right, without embedding box, replacement for WAB 180 4600050Z-2A	WAB 180-2 floor support, for doors DIN right, incl. embedding box	460070-2
WAB 180-2A floor spring, size II, for doors DIN right, without embedding box, replacement for WAB 180 460012OZ-2A with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 460013OZ-2A with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 460014OZ-2A with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN left, without embedding box, replacement for WAB 180 with 460005OZ-2A cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 460015OZ-2A with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 460015OZ-2A with cast-iron casing WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing	WAB 180-2A floor spring, size II, for doors DIN left, without embedding box, replacement for WAB 180 with	460002OZ-2A
with cast-iron casing WAB 180-2A floor spring, size III, for doors DIN left, without embedding box, replacement for WAB 180 with 460003OZ-2A cast-iron casing WAB 180-2A floor spring, size III, for doors DIN right, without embedding box, replacement for WAB 180 460013OZ-2A with cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN left, without embedding box, replacement for WAB 180 with 460004OZ-2A cast-iron casing WAB 180-2A floor spring, size IV, for doors DIN right, without embedding box, replacement for WAB 180 460014OZ-2A with cast-iron casing WAB 180-2A floor spring, size V, for doors DIN left, without embedding box, replacement for WAB 180 with 460005OZ-2A cast-iron casing WAB 180-2A floor spring, size V, for doors DIN right, without embedding box, replacement for WAB 180 460015OZ-2A with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size V for doors DIN right, without embedding box, replacement for WAB 180 460056OZ-2A ment for WAB 180 with cast-iron casing	cast-iron casing	
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with cast-iron casing WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size VI for doors DIN right, without embedding box, replacement for WAB 180 4600660Z-2A		4400150704
WAB 180-2A floor spring, size VI with special bearing for doors DIN left, without embedding box, replacement for WAB 180 with cast-iron casing WAB 180-2A floor spring, size VI for doors DIN right, without embedding box, replacement for WAB 180 4600660Z-2A		4000130Z-ZA
ment for VVAB 180 with cast-iron casing VVAB 180-2A floor spring, size VI for doors DIN right, without embedding box, replacement for VVAB 180 460066OZ-2A	<u> </u>	160056O7-2A
WAB 180-2A floor spring, size VI for doors DIN right, without embedding box, replacement for WAB 180 460066OZ-2A		4000300Z-ZA
		16006607-2A
WITH COST-ITON COSING	with cast-iron casing	400000Z-ZA

ACCESSORIES

Description	Part no.
Brass cover plate DIN left for WAB 180-2 floor spring	460082-2
Brass cover plate DIN right for WAB 180-2 floor spring	460083-2
Stainless steel cover plate DIN left for WAB 180-2 floor spring	460084-2
Stainless steel cover plate DIN right for WAB 180-2 floor spring	460085-2
Door strap 300 for wooden doors, zinc-plated, for doors up to 300 kg	460086-300
Door strap 600 for wooden doors, zinc-plated, for doors up to 600 kg	460086-600
Pivot hinge for wooden doors	460087
Pivot hinge for wooden doors > 300 kg with additional needle bearing for the WAB 180 floor spring	460094
Door strap 300 to weld-in, for doors up to 300 kg	460088-300
Door strap 600 to weld-in, for doors up to 600 kg	460088-600
Pivot hinge to weld-in 300 for doors up to 300 kg	460089-300
Pivot hinge to weld-in 600 for doors up to 600 kg	460089-600
Straight strap for screwing on, with square size 18	460090
Pivot hinge for wooden doors, for WAB 180 floor spring, for combination with straight door strap, to be screwed on, for doors up to 300 kg	460091-300
Pivot hinge 600 for wooden doors, for WAB 180 floor spring, for combination with straight door strap, to be screwed on, for doors up to 600 kg	460091-600
Paraffin to seal off the embedding box	460097
Brass cover plate DIN left for WAB 180-2A floor spring or for WAB 180 with cast iron housing	460082
Brass cover plate DIN right for WAB 180-2A floor spring or for WAB 180 with cast iron housing	460083
Stainless steel cover plate DIN left for WAB 180-2A floor spring or for WAB 180 with cast iron housing	460084
Stainless steel cover plate DIN right for WAB 180-2A floor spring or for WAB 180 with cast iron housing	460085





DOOR CLOSERS AND ACCESSORIES FOR SLIDING DOORS



Sliding doors are becoming increasingly important in modern architecture as they offer a space-saving solution. The type of doors differs not only in size and material, but also in the type of tracks used.

DICTATOR sliding door closers are characterized by their high flexibility. Depending on the application, the components can be combined in different ways, taking into account the size of the door, the track, the frequency of operation, etc., in order to find the ideal solution.

We will be happy to help you choose the right product – just contact us!



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Sliding door closer DICTAMAT 50	.02.03.04
Flexible, mechanical closing system with controlled closing speed	











Accessories for sliding doors





Subject to technical changes. No claim for compensation in case of errors.



DICTAMAT 50 - General information



DICTATOR supplies a very flexible mechanical closing system for small and medium-sized sliding doors, the DICTAMAT 50. The series combines a spring rope pulley and the patented LD lamellar radial damper. Together they ensure reliable closing of sliding doors - with controlled closing speed.

ADVANTAGES

- Adjustable closing speed depending on requirements
- Closing forces from 25 to 100 N
- Suitable for working paths up to 4 m
- Powerless closing solution
- Can be mounted on a wide range of rail systems
- Test certificates according to 1634-3 and EN 1191 available
- If the door should not close again immediately after opening, the mechanical timer can be used. It keeps the door open for an adjustable period of time without current.

An electrically operated alternative is the DICTAMAT OpenDo, a compact sliding door operator that automates smaller sliding doors by motor.

MODELS IN OVERVIEW



DICTAMAT 50 BK - MODULAR SYSTEM

The modular system DICTAMAT 50 BK is absolutely flexible and universally suitable version of the DICTAMAT 50.

It can simultaneously move both leaves of double-leaf sliding doors. Due to its modular design, the DICTAMAT 50 BK can easily meet special space requirements.

A rotating toothed belt or rope always ensures safe and reliable operation. For this reason, the individual components of this model can also be mounted separately anywhere space is available without the risk of the hauling rope slacking.

Spring rope pulley, radial damper and idler pulley are supplied with installation accessories to enable them to be attached directly to the rail or to the ceiling. Special mounting accessories for wall installation are also available upon request.

More details on page 02.03.06.





DICTAMAT 50 KP/KW - COMPACT UNITS

The DICTAMAT 50 is also available as a compact unit for certain applications. Here, all necessary components are combined into a single unit. The compact units are only to be used if the doors are located in buildings. They are not suitable for use on ships or trains with different angles of inclination. In case of intervention in the closing process by hand (e.g. door is pushed shut by hand), the rope may possibly slack.

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

More details on page 02.03.12.

SPECIAL SOLUTIONS

The DICTAMAT 50 series allows countless special solutions for special requirements, e.g. it can also open doors instead of closing them. Contact us for a free consultation.



DICTAMAT 50 BK - modular system

The flexible modular system







- Ideal solution for doors with high frequency of use, different users, such as in trains, ships, etc.
- The transmission of the closing force as well as the control of the closing speed is continuously effected by means of a revolving steel cable
- The modular system features absolutely reliable function, even under demanding operating conditions
- Due to its modular structure, it is also perfectly suited for places where there isn't much space available, as all its components can be mounted in a flexible way.
- Due to its modular design, ideal if there's only limited space available, as the individual components are flexible in their installation
- Also for double-leaf sliding doors with synchronized leaves
- Available in ready-made sets or with components put together individually
- Models available in stainless materials
- Successful tests in compliance with relevant fire protection standards allow inclusion in approvals of sliding fire doors





STRUCTURE



The components of the DICTA-MAT 50 BK 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 sets	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	lamellar radial damper LD 50 with special oil lamellar radial damper LD 100
Damping transmission	revolving rope Ø 2 mm	other rope or toothed belt types
Idler pulley	for rope	special type according to damping transmission
Door actuator	for rope	special type according to damping transmission
Door actuator for second door leaf	-	has to be ordered separately

STANDARD SETS

The different standard sets of the DICTAMAT 50 BK modular system are suitable for most sliding doors. The main difference between them is the closing force of the spring rope pulley. The standard sets are come with a LD radial damper corresponding to the closing force of the spring rope pulley.

MATERIAL COMPONENTS

Component	Material
LD 50 Radial Damper	casing flame retardant DOM- AMID plastics, rope pulley aluminum with Vulkollan insert
Revolving steel rope	steel / AISI 304 or AISI 316
Brackets	zinc-plated sheet steel, alternatively AISI 304 or AISI 316
Idler pulley	polyamide

COMPONENTS INCLUDED

- 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:

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



DIMENSIONS COMPONENTS

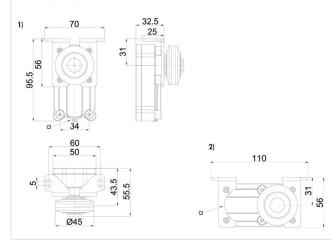
All dimensions in mm

Dimensions LD 50 radial damper with rope pulley

Radial damper with rope pulley and mounting brackets

Part no. 244040 (or 244042 for the stainless version) For DICTAMAT 50 BK-S with 50 N and 80 N (if required, also with different oil filling for very smooth-running doors)

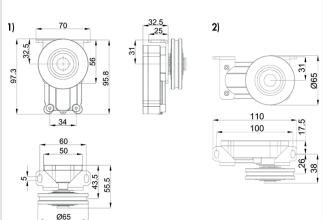
- 1) Vertical Mounting
- 2) Horizontal Mounting
- a) Adjusting screw



Radial damper with rope pulley and mounting brackets

Part no. 244061 (or 244062 for the stainless version) For DICTAMAT 50 BK with 25 N (if required, also with different oil filling for very smooth-running doors.)

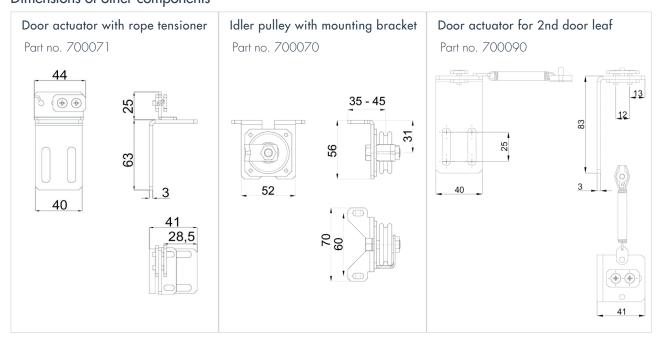
- 1) Vertical mounting
- 2) Horizontal mounting



Spring rope pulley dimensions

For more details see section "Spring rope pulleys"

Dimensions of other components





Description	Part no.
DICTAMAT 50 BK, 25 N	700054
DICTAMAT 50 BK, 50 N	700080
DICTAMAT 50 BK, 80 N	700081
DICTAMAT 50 BK, 25 N, rustless	700055
DICTAMAT 50 BK, 50 N, rustless	700085
DICTAMAT 50 BK, 80 N, rustless	700086
Accessories	
Door actuator rope for second door leaf, zinc-plated, with compensation spring and rope clip	700090
Door actuator rope for second door leaf, AISI 304 with compensation spring and rope clip	700091
Mounting plate spring rope pulley, zinc-plated	070114
Adaptor plate mounting LD 50, 75 x 80 mm, zinc-plated	244050
Adaptor bracket mounting LD 50, 70 x 25 x 40 mm, zinc-plated	244051
Adaptor plate mounting LD 50, 75 x 80 mm, AISI 304	244052
Adaptor bracket mounting LD 50, 70 x 25 x 40 mm, AISI 304	244053



DICTAMAT 50 KP or KW - compact unit

The compact sliding door closer



CHARACTERISTICS

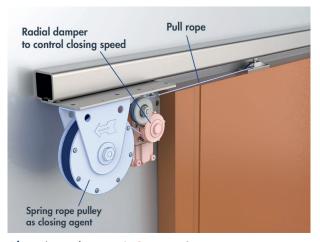
- All components are pre-assembled in a compact, easy-toinstall unit on a mounting plate or bracket
- Available in two models:
 - **DICTAMAT 50 KP:** with mounting plate, for mounting below the rail
 - DICTAMAT 50 KW: with mounting bracket, for mounting above the rail
- For areas with instructed users, as manual interference in the closing process may result in slack rope formation
- The pull rope of the spring rope pulley is guided directly over the pulley of the radial damper to the door, i.e. the control of the closing speed takes place directly at the pull rope of the spring rope pulley
- When choosing, it should be noted that there are different versions for right- and left-closing doors for the KP





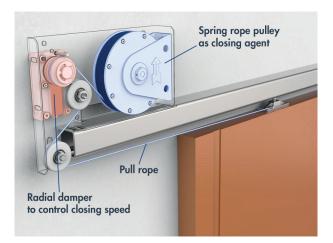


FUNCTIONING PRINCIPLE DICTAMAT 50 KP



Blue: closing function | Orange: damping

FUNCTIONING PRINCIPLE DICTAMAT 50 KW



Blue: closing function | Orange: damping

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



DICTAMAT 50 KP

- Designed for 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 whether the door closes to the left or the right.

COMPONENTS INCLUDED

- Carrier plate with spring rope pulley
- 2 m of plastic rope
- Pressure roll
- Rope coming-off prevention
- Radial damper with rope pulley
- Accessories: Different covers on demand

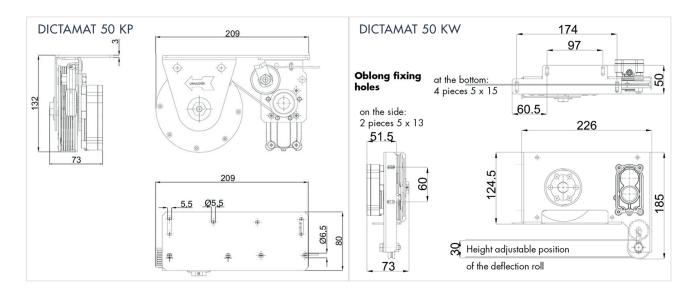
DICTAMAT 50 KW

- Intended for installation 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 bracket.
- 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.

COMPONENTS INCLUDED

- Carrier bracket with spring rope pulley
- 2 m plastic rope
- Pressure roll
- Rope coming-off prevention
- Radial damper with rope pulley
- Deflection roll

DIMENSIONS

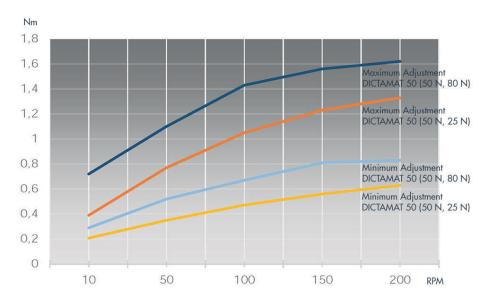


Description	Part no.
DICTAMAT 50 KP, 50 N, left, compact closing device for sliding doors, with mounting plate & simple pulling cable	700082
DICTAMAT 50 KP, 50 N, left, compact closing device for sliding doors with fixing plate and simple pulling cable,	700087
non rusting, for doors closing to the left	
DICTAMAT 50 KP, 50 N, right, compact closing device for sliding doors, with mounting plate & simple pulling cable	700093
DICTAMAT 50 KP, 50 N, right, compact closing device for sliding doors with fixing plate and simple pulling cable,	700094
non rusting, for doors closing to the right	
DICTAMAT 50 KW, 50 N, compact closing device for sliding doors, with mounting plate & simple pulling cable	700083
DICTAMAT 50 KW, 50 N, compact closing device for sliding doors with angular bracket and simple pulling cable,	700088
non-rusting	

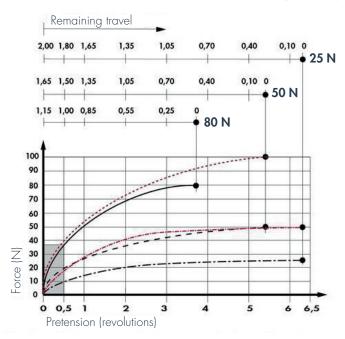


Adjustment range of DICTAMAT 50 damping force

The diagram shows the setting options for the damping force for the DICTAMAT 50 with different strengths.



Closing force / travel of spring rope pulley



The curves and force specifications marked in red apply to the double spring rope pulleys.





Spring rope pulley diameter series 118

For closing sliding doors



CHARACTERISTICS

- Simple, efficient and cost-effective closing device for sliding doors
- During the opening of the door the internal spring is tensioned and then automatically pulls the sliding door closed
- Available with different forces: 25 N, 50 N, 80 N or 100 N (only as double spring rope pulley)
- Closing force can be adjusted by pretensioning the spring
- Thanks to its material and the absolutely accurate fitting of the hub, the spring rope pulley also works very silently, without any annoying noise.

As components of the sliding door closer DICTAMAT 50 the spring rope pulleys with 25 and 50 N have also been approved for use on smoke and fire doors.

The closing speed, however, is not controlled when using just a spring rope pulley for closing. If for safety or functional reasons a controlled closing speed is required, we recommend to use the DICTAMAT 50 sliding door closer. It incorporates the spring rope pulley as closing device.

MODELS

Depending on how it's installed and the desired comfort of use, there are two spring rope pulleys available:

- Spring rope pulley with inner square: for mounting on an 8 mm square bolt or with a M8 square necked mushroom head bolt
- Spring rope pulley with sliding hub and bracket: Generally this model should be used. The tensioning screw together with the sliding hub allows to easily adjust the closing force and adapt it to the requirements. The double spring rope pulley always has a sliding hub.

For the double spring rope pulley 2 spring rope pulleys with the same force ($2 \times 25 \text{ N}$ or $2 \times 50 \text{ N}$) are coupled, thus providing the double force. The double spring rope pulleys are always used when with the same force a longer travel is needed than the single spring rope pulleys provide.



TECHNICAL DATA

Closing force	25 N; 50 N; 80 N
Material	casing DOMAMID plastics; Kevlar rope with polyester coating

COMPARISON OF THE MAX. WORKING TRAVEL

Spring rope pulley 25 N: 1.80 m

Spring rope pulley 50 N: 1.50 m

■ Double spring rope pulley $50 \text{ N} (2 \times 25 \text{ N})$: 1.80 m

Spring rope pulley 80 N: 1.00 m

Double spring rope pulley 100 N (2×50 N): 1.50 m

INSTALLATION

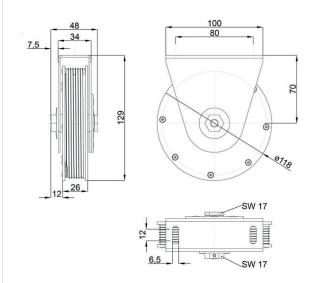




DIMENSIONS

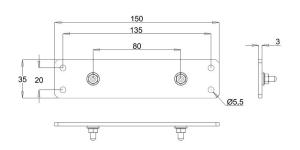
All dimensions in mm

Spring rope pulley with sliding hub and bracket



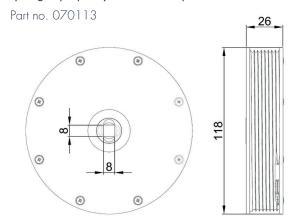
Mounting plate for spring rope pulley with sliding hub

Part no. 070114



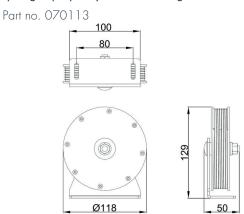
If the spring rope pulley has to be fixed to the wall or ceiling, we recommend to use this mounting plate. You simply have to fit the spring rope pulley to the headless pins of the mounting plate and then screw the mounting plate to the wall/ceiling.

Spring rope pulley with inner square



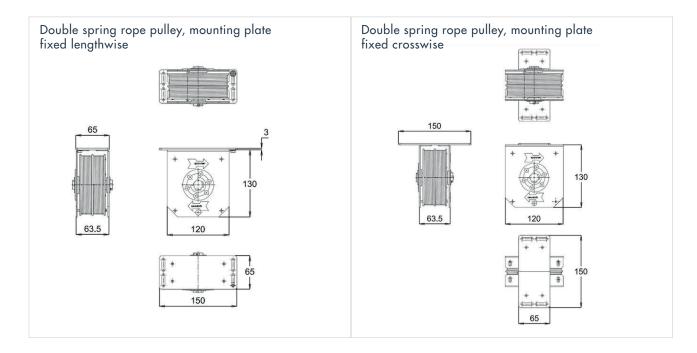
The inner square of the spring rope pulley is end-to-end. In fact the entry on both sides is staggered by exactly 90° and thus procures a safe seat for a square bolt provided on site or the square bolt of the mounting bracket.

Spring rope pulley with mounting bracket

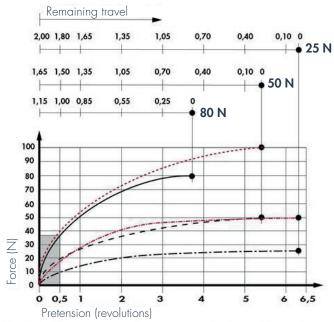


The mounting bracket makes mounting of the spring rope pulley much easier, if there is no square bolt provided on site. If required, the mounting bracket has to be ordered in addition to the spring rope pulley.





CLOSING FORCE / TRAVEL



The curves and force specifications marked in red apply to the double spring rope pulleys.



ORDER INFORMATION

Description	Part no.
Spring rope pulley $25~N$ with $2~m$ plastic rope, plastic casing with guide grooves, for through square $8~x~8~x~26~mm$	070110
Spring rope pulley 50 N with 2 m plastic rope, plastic casing with guide grooves, for through square $8 \times 8 \times 26$ mm	070111
Spring rope pulley 80 N with 2 m plastic rope, plastic casing with guide grooves, for through square $8 \times 8 \times 26$ mm	070112
Spring rope pulley 25 N with 2 m plastic rope, plastic casing with guide grooves, with sliding hub, bracket zinc-plated	070102
Spring rope pulley 50 N with 2 m plastic rope, plastic casing with guide grooves, with sliding hub, bracket zinc-plated	070093
Spring rope pulley 80 N with 2 m plastic rope, plastic casing with guide grooves, with sliding hub, bracket zinc-plated	070094
Spring rope pulley 25 N with 2 m plastic rope, plastic casing with guide grooves, with sliding hub, bracket AISI 304	070103
Spring rope pulley 50 N with 2 m plastic rope, plastic casing with guide grooves, with sliding hub, bracket AISI 304	070098
Spring rope pulley 80 N with 2 m plastic rope, plastic casing with guide grooves, with sliding hub, bracket AISI 304	070099
Twin spring rope pulley 50 N with 2 m plastic rope (max. spring travel 1.8 m), plastic casing with guide grooves, with sliding hub, zinc-plated bracket with mounting plate	070104
Twin spring rope pulley 100 N with 2 m plastic rope (max. spring travel 1.5 m), plastic casing with guide grooves, with sliding hub, zinc-plated bracket with mounting plate	070105

ACCESSORIES

Description	Part no.
Mounting bracket for spring rope pulley with through square, zinc-plated, with cup square screw and washers	070113
Mounting plate for spring rope pulleys with sliding hub (25/50/80 N), zinc-plated, 150 x 35 x 3 mm	070114



Spring rope pulley diameter series 177

For closing sliding doors - for courses of up to 4 m



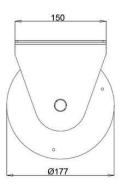
CHARACTERISTICS

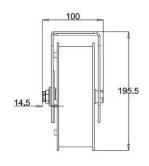
- Used for longer travels
- The maximum travel distance is 4 m
- The maximum closing force 100 N
- This model is always supplied with sliding hub and bracket which makes mounting and adjusting very simple
- The standard version of this diameter series is fabricated with a plastic rope but, on demand, it is also possible to furnish it with a steel rope

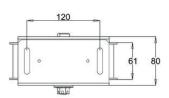


DIMENSIONS

All dimensions in mm







TECHNICAL DATA

Closing force	100 N
Material	casing zinc-plated sheet steel; bracket zinc-plated sheet steel
Rope	plastic rope (without fire protection properties), approx. Ø 3 mm, with cable eye stiffener Ø 9 mm

INSTALLATION



Description	Part no.
Spring rope pulley Ø 177, 100 N with sliding hub, bracket zinc-plated	070066





Release buffer

Pushes sliding doors out of wall pocket







- Available with two different spring forces
- The model with 85 N is the one normally used in most doors
- The stronger version should only be chosen for doors that are more difficult to move, e.g. doors with a brush seal
- Concealed installation on the opening edge of the door

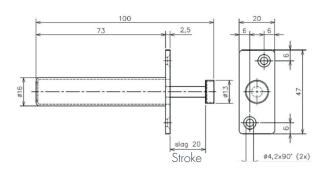
FUNCTION

- When opening the door the magnet buffer on the piston rod hits a counter plate and keeps the door open
- To close the door, just press lightly against its edge and the integrated spring will push the door out of the wall pocket so far that the handle is accessible again



DIMENSIONS

All dimensions in mm



TECHNICAL DATA

Door type	Sliding doors
Approx. extension force	85 N; 130 N
Material	Aluminium (spring tube), zinc-plated steel (front plate & piston rod)
Components included	Release buffer, counter plate, fixing screws

INSTALLATION



Description	Part no.
Release buffer for sliding doors, force about 85 N	500260
Release buffer for sliding doors, force 130 N	500262





Mechanical timer

Adjustable hold-open time for sliding door closers - completely without power





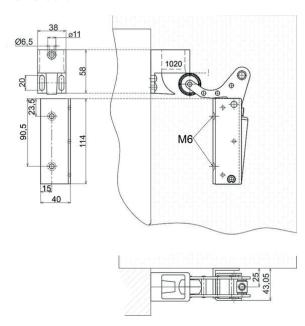
CHARACTERISTICS

- Used on sliding doors that should remain open for a while before closing again, e.g. to allow a bed to be pushed through in hospitals
- Strictly mechanical, without electricity
- Based on the same hydraulic operating principle of door dampers, but with the opposite effect: a valve in the cylinder limits the flow rate of the oil. This determines the time after which the roller lever is completely folded down again and thus no longer held back by the hook. The door can close again.
- Installed with the door in open position
- Adjustable delay time
- Opening time dependent on the closing force of the closing device used



DIMENSIONS

All dimensions in mm



TECHNICAL DATA

Type of doors	sliding doors
Material	zinc-plated (casing), stainless steel (fixing bracket); satin- chrome aluminium (hook)
Delay time	Adjustable - duration depends on closing force of the closing device (see diagram)
Possible closing devices	Sliding door closer DICTA- MAT 50, spring rope pulley, counterweight
Components included	Mechanical timer, hook 1020 with large hole, moun- ting bracket, fixing screws for wooden doors

INSTALLATION





Description	Part no.
Mechanical timer adjustable, zinc-plated, with mounting bracket and hook 1020	500270





BACK CHECKS



They slow down doors / windows that open too fast and limit their opening angle. Thus they prevent damages to the door and the hinges.

Beside the damage this could cause to the door, fittings and possibly the wall, doors opening at an uncontrolled speed also present a risk of accident not to be underestimated.

Back checks are used on doors which could slam open against a wall or some other obstacle by gusts of wind, breeze or just simply by being torn from the users' hand when opening.



TABLE OF CONTENTS - BACK CHECKS

		Page
GE5	Back checks Prevent uncontrolled opening of hinged doors and windows	02.04.04
	Installation accessories	02.04.12

Subject to technical changes. No claim for compensation in case of errors.

Back checks

Prevent uncontrolled opening of hinged doors and windows









CHARACTERISTICS

- Dampens doors/windows in the opening direction and limits the opening angle
- Various models cover a wide range of applications: from lightweight interior doors and windows to very large/ heavy doors with high loads
- Many models can be used in combination with overhead door closers
- Installation accessories available for a wide range of situations
- Optionally with integrated hold-open in open position
- Material: steel, painted cylinder (standard: RAL 9006), many models are available in AISI 304, AISI 316

OUR SERVICE

To ensure that you get the best product for your application, our technical customer advisors will be happy to determine the right model for you, including the fixing points. Please fill out our questionnaire and send us photos of the interior and exterior view of the door/window.







STANDARD SERIES OVERVIEW

Series	TB 10-23	TB 14-28	TBP 10-29	TBR 14-35
Series abbreviation TB=Back checks with stand		dard damping	TBP=Back checks with gradual damping	TBR=Back checks with adjustable damping
Application area	For small / light doors	For medium and heavy doors with high (wind) load	For medium-sized and heavy doors with frequent operation or for doors with high requirements in terms of convenience	For extreme operating situations
Common applications	Interior doors	Industrial doors; exterior doors which are not operated frequently, e.g. side entrance doors	Frequently used doors, e.g. entrance doors to public buildings, schools; with high requirements in terms of convenience	Oversized doors and gates
Damping behavior Values may vary depending on installation situation and stroke length	Damping from approx. 40° opening angle	Damping from approx. 40° opening angle	Gradual / increasing final damping from approx. 55° opening angle	Damping from approx. 40° opening angle, with adjustable damping force
Options for damping adjustment	Start of damping can be delayed by reducing the oil filling quantity	Start of damping can be delayed by reducing the oil filling quantity	None	Damping force can be adapted
Can be combined with overhead door closers	No	Yes (stroke length 300/400 mm)	Yes (stroke length 300/400 mm)	No
Stroke length standard models	250 mm	250, 300, 400 mm	250, 300, 400 mm	300, 400, 500 mm

You can find more stroke lengths and information on the TBR 10-28 series on the following pages.



TECHNICAL DATA

Material standard models	Piston rod hard chrome-plated; cylinder steel painted to RAL 9006 satin finish; fittings and installation accessories zinc-plated as standard
Cylinder paint options	The cylinder can be painted in other RAL colors upon request. There are some preferred colors that are available with relatively short lead times and at a lower surcharge: RAL 7040, 7016, 9005, 9007, 9016 (all satin matt). For more details, see section "Material".
Stainless steel models	The series TB 10-23 & 14-28 and TBR 10-28 & 14-35 are available in AISI 304 and AISI 316
Door weight	max. 200 kg; heavier doors upon request
Max. possible opening angle	120°, depending on model and installation situation maybe lower
Optional function	Integrated hold-open in open position
We offer many custom solutions for	different specifications. Just contact us.

MATERIAL & SURFACE FINISH

Series	TB 10-23 & 14-28	TBP 10-29	TBR 10-28 & 14-35		
Material standard models	Piston rod hard chrome-plated, cylinder steel painted in RAL 9006 satin finish (white aluminium),				
	connections and installation acce	ssories zinc-plated			
Standard version without hold-open			GEEED		
Standard version with hold-					
open		(a)	ØE		
Stainless steel versions	yes (AISI 304 & AISI 316)	no	yes (AISI 304 & AISI 316)		
Cylinder painting options	Painting in other RAL colors possil and only a small surcharge (RAL RAL colors upon request.		th relatively short delivery times AL 9007 and RAL 9016) or in other		
	RAL 7040 RAL 7010	6 RAL 9005	RAL 9007 RAL 9016		
	Window gray Anthracite	gray Jet black G	rey aluminum Traffic white		

INSTALLATION ACCESSORIES

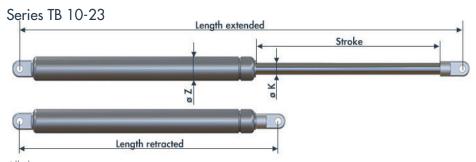
INSTALLATION

You will find this information in the section "Installation accessories for back checks".



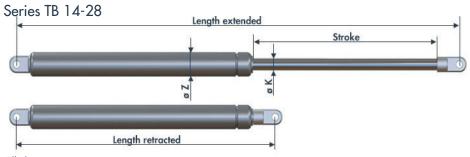


DIMENSIONS



 $\hbox{All dimensions in } mm$

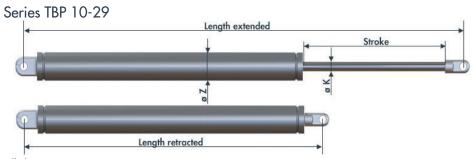
ø K	øΖ	Material	Hold-open	Stroke	Length retracted	Length extended	ø Eyelet
Stroke 200 mm	1						
10	23	painted steel	no	200	300	500	8
10	23	painted steel	yes	200	300	500	8
10	23	stainless steel	no	200	300	500	8
10	23	stainless steel	yes	200	310	510	8
Stroke 250 mm	1						
10	23	painted steel	no	250	350	600	8
10	23	painted steel	yes	250	350	600	8
10	23	stainless steel	no	250	350	600	8
10	23	stainless steel	yes	250	350	610	8



 $\hbox{All dimensions in } mm$

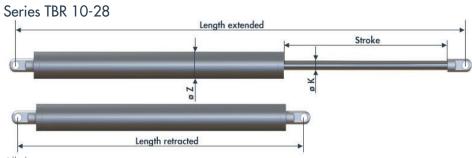
øΚ	ø Z	Material	Hold-open	Stroke	Length retracted	Length extended	ø Eyelet	
Stroke 20	troke 200 mm							
14	28	painted steel	no	200	300	500	8	
14	28	painted steel	yes	200	310	510	8	
14	28	stainless steel	no	200	310	510	8	
14	28	stainless steel	yes	200	310	510	8	
Stroke 25	0 mm							
14	28	painted steel	no	250	350	600	8	
14	28	painted steel	yes	250	360	610	8	
14	28	stainless steel	no	250	350	600	8	
14	28	stainless steel	yes	250	360	610	8	
Stroke 30	0 mm							
14	28	painted steel	no	300	450	750	8	
14	28	painted steel	yes	300	450	750	8	
14	28	stainless steel	no	300	450	750	8	
14	28	stainless steel	yes	300	450	750	8	
Stroke 40	0 mm							
14	28	painted steel	no	400	600	1000	8	
14	28	painted steel	yes	400	600	1000	8	
14	28	stainless steel	no	400	600	1000	8	
14	28	stainless steel	yes	400	600	1000	8	





All dimensions in mm

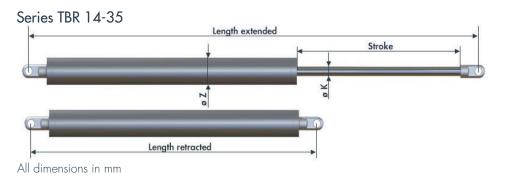
ø K	ø Z	Hold-open	Stroke	Length retracted	Length extended	ø Eyelet		
Stroke 200 mm	Stroke 200 mm							
10	29	no	200	310	510	8		
10	29	yes	200	320	520	8		
Stroke 250 mm								
10	29	no	250	360	610	8		
10	29	yes	250	360	610	8		
Stroke 300 mm								
10	29	no	300	450	750	8		
10	29	yes	300	450	750	8		
Stroke 400 mm								
10	29	no	400	600	1000	8		
10	29	yes	400	600	1000	8		



All dimensions in mm

ø K	ø Z	Stroke	Length retracted	Length extended	ø Eyelet		
Stroke 200 mm	Stroke 200 mm						
10	28	200	350	550	8		
Stroke 250 mm							
10	28	250	350	600	8		





ø K	øΖ	Stroke	Length retracted	Length extended	ø Eyelet			
Stroke 250 mm								
14	35	250	400	650	8			
14	35	250	400	650	10			
Stroke 300 mm								
14	35	300	450	750	8			
14	35	300	450	750	10			
Stroke 400 mm								
14	35	400	550	950	8			
14	35	400	550	950	10			
Stroke 500 mm								
14	35	500	650	1150	8			

Series TB 10-23	Part no.
Stroke 200 mm	
Back check 10-23-200-1/Öl-300-500-A-A, cylinder painted in RAL 9006 white aluminium	302000-2
Back check 10-23-200-1/Öl-300-500-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302001-2
Back check 10-23-200-1/Öl-300-500-A-A, AISI 304 stainless steel	302002
Back check 10-23-200-1/Öl-310-510-A-A, with hold-open, AISI 304 stainless steel	302003
Back check 10-23-200-1/Öl-300-500-A-A, stainless steel AISI 316L / 316Tl stainless steel	302004
Back check 10-23-200-1/Öl-310-510-A-A, with hold-open, AISI 316L / AISI 316TI stainless steel	302005
Stroke 250 mm	
Back check 10-23-250-1/Öl-350-600-A-A, cylinder painted in RAL 9006 white aluminium	302006-2
Back check 10-23-250-1/Öl-350-600-A-A, with hold-open, cylinder painted RAL 9006 white aluminium	302007-2
Back check 10-23-250-1/Öl-410-660-A-A, cylinder painted in RAL 9006 white aluminium	302008-2
Back check 10-23-250-1/Öl-410-660-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302009-2
Back check 10-23-250-1/Öl-350-600-A-A, AISI 304 stainless steel	302010
Back check 10-23-250-1/Öl-360-610-A-A, with hold-open, AISI 304 stainless steel	302011
Back check 10-23-250-1/Öl-350-600-A-A, AISI 316L / 316TI stainless steel	302012
Back check 10-23-250-1/Öl-360-610-A-A, with hold-open, AISI 316L / 316Tl stainless steel	302013



Series TB 14-28	Part no.
Stroke 200 mm	
Back check 14-28-200-1/Öl-300-500-A-A, cylinder painted in RAL 9006 white aluminium	302014-2
Back check 14-28-200-1/Öl-310-510-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302015-2
Back check 14-28-200-1/Öl-310-510-A-A, AISI 304 stainless steel	302016
Back check 14-28-200-1/Öl-310-510-A-A, with hold-open, AISI 304 stainless steel	302017
Back check 14-28-200-1/Öl-310-510-A-A, AISI 316L / 316TIL stainless steel	302018
Back check 14-28-200-1/Öl-310-510-A-A, with hold-open, AISI 316L / 316TI stainless steel	302019
Stroke 250 mm	
Back check 14-28-250-1/Öl-350-600-A-A, cylinder painted in RAL 9006 white aluminium	302020-2
Back check 14-28-250-1/Öl-360-610-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302021-2
Back check 14-28-250-1/Öl-350-600-A-A, AISI 304 stainless steel	302022
Back check 14-28-250-1/Öl-360-610-A-A, with hold-open, AISI 304 stainless steel	302023
Back check 14-28-250-1/Öl-350-600-A-A, AISI 316L / 316TI stainless steel	302024
Back check 14-28-250-1/Öl-360-610-A-A, with hold-open, AISI 316L / 316TI stainless steel	302025
Stroke 300 mm	
Back check 14-28-300-1/Öl-450-750-A-A, cylinder painted in RAL 9006 white aluminium	302026-2
Back check 14-28-300-1/Öl-450-750-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302027-2
Back check 14-28-300-1/Öl-450-750-A-A, AISI 304 stainless steel	302028
Back check 14-28-300-1/Öl-450-750-A-A, with hold-open, AISI 304 stainless steel	302029
Back check 14-28-300-1/Öl-450-750-A-A, AISI 316L / 316TI stainless steel	302030
Back check 14-28-300-1/Öl-450-750-A-A, with hold-open, AISI 316L / 316TI stainless steel	302031
Stroke 400 mm	
Back check 14-28-400-1/Öl-600-1000-A-A, cylinder painted in RAL 9006 white aluminium	302033-2
Back check 14-28-400-1/Öl-600-1000-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302034-2
Back check 14-28-400-1/Öl-600-1000-A-A, AISI 304 stainless steel	302035
Back check 14-28-400-1/Öl-600-1000-A-A, with hold-open, AISI 304 stainless steel	302036
Back check 14-28-400-1/Öl-600-1000-A-A, AISI 316L / 316TI stainless steel	302037
Back check 14-28-400-1/Öl-600-1000-A-A, with hold-open, AISI 316L / 316TI stainless steel	302038

Series TBP 10-29	Part no.
Stroke 200 mm	
Back check progressive 10-29-200-1/Öl-310-510-A-A, cylinder painted in RAL 9006 white aluminium	302100
Back check progressive 10-29-200-1/Öl-320-520-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302101
Stroke 250 mm	
Back check progressive 10-29-250-1/Öl-360-610-A-A, cylinder painted in RAL 9006 white aluminium	302102
Back check progressive 10-29-250-1/Öl-360-610-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302103
Stroke 300 mm	
Back check progressive 10-29-300-1/Öl-450-750-A-A, cylinder painted in RAL 9006 white aluminium	302104
Back check progressive 10-29-300-1/Öl-450-750-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302105
Stroke 400 mm	
Back check progressive 10-29-400-1/Öl-600-1000-A-A, cylinder painted in RAL 9006 white aluminium	302106
Back check progressive 10-29-400-1/Öl-600-1000-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302107

Series TBR 10-28	Part no.
Stroke 200 mm	
Back check adjustable 10-28-200-1/Öl-350-550-A-A, cylinder painted in RAL 9006 white aluminium	302200-2
Back check adjustable 10-28-200-1/Öl-350-550-A-A, AISI 304 stainless steel	302202
Back check adjustable 10-28-200-1/Öl-350-550-A-A, AISI 316L / 316TI stainless steel	302203
Stroke 250 mm	
Back check adjustable 10-28-250-1/Öl-350-600-A-A, cylinder painted in RAL 9006 white aluminium	302204-2
Back check adjustable 10-28-250-1/Öl-350-600-A-A, AISI 304 stainless steel	302205
Back check adjustable 10-28-250-1/Öl-350-600-A-A, AISI 316L / 316Tl stainless steel	302206

Series TBR 14-35	Part no.
Stroke 250 mm, ø eyelet 8 mm	
Back check adjustable 14-35-250-1/Öl-400-650-A-A, cylinder painted in RAL 9006 white aluminium	302210-2
Back check adjustable 14-35-250-1/Öl-400-650-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302212-2
Back check adjustable 14-35-250-1/Öl-400-650-A-A, AISI 304 stainless steel	302213
Back check adjustable 14-35-250-1/Öl-400-650-A-A, AISI 316L / 316TI stainless steel	302215
Back check adjustable 14-35-250-1/Öl-400-650-A-A, with hold-open, AISI 304 stainless steel	302238
Stroke 250 mm, ø eyelet 10 mm	
Back check adjustable 14-35-250-1/Öl-400-650-A-A, cylinder painted in RAL 9006 white aluminium, eyelet with 10 mm hole	302211-2
Back check adjustable 14-35-250-1/Öl-400-650-A-A, AISI 304 stainless steel, eyelet with 10 mm hole	302214
Back check adjustable 14-35-250-1/Öl-400-650-A-A, AISI 316L / 316TI stainless steel, eyelet with 10 mm hole	302216
Stroke 300 mm, ø eyelet 8 mm	
Back check adjustable 14-35-300-1/Öl-450-750-A-A, cylinder painted in RAL 9006 white aluminium	302217-2
Back check adjustable 14-35-300-1/Öl-450-750-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302219-2
Back check adjustable 14-35-300-1/Öl-450-750-A-A, AISI 304 stainless steel	302220
Back check adjustable 14-35-300-1/Öl-450-750-A-A, with hold-open, AISI 304 stainless steel	302239
Back check adjustable 14-35-300-1/Öl-450-750-A-A, AISI 316L / 316TI stainless steel	302222
Stroke 300 mm, ø eyelet 10 mm	
Back check adjustable 14-35-300-1/Öl-450-750-A-A,cylinder painted in RAL 9006 white aluminium, eyelet with 10 mm hole	302218-2
Back check adjustable 14-35-300-1/Öl-450-750-A-A, AISI 304 stainless steel, eyelet with 10 mm hole	302221
Back check adjustable 14-35-300-1/Öl-450-750-A-A, AISI 316L / 316Tl stainless steel, eyelet with 10 mm hole	302223
Stroke 400 mm, ø eyelet 8 mm	
Back check adjustable 14-35-400-1/Öl-550-950-A-A, cylinder painted in RAL 9006 white aluminium	302224-2
Back check adjustable 14-35-400-1/Öl-550-950-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium	302226-2
Back check adjustable 14-35-400-1/Öl-550-950-A-A, AISI 304 stainless steel	302230
Back check adjustable 14-35-400-1/Öl-550-950-A-A, AISI 316L / 316TI stainless steel	302232
Stroke 400 mm, ø eyelet 10 mm	
Back check adjustable 14-35-400-1/Öl-550-950-A-A, cylinder painted in RAL 9006 white aluminium, eyelet with 10 mm hole	302225-2
Back check adjustable 14-35-400-1/Öl-550-950-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium, eyelet with 10 mm hole	302227-2
Back check adjustable 14-35-400-1/Öl-550-950-A-A, AISI 304 stainless steel, eyelet with 10 mm hole	302231
Back check adjustable 14-35-400-1/Öl-550-950-A-A, AISI 316L / 316TI stainless steel, eyelet with 10 mm hole	302233
Stroke 500 mm, ø eyelet 10 mm	
Back check adjustable 14-35-500-1/Öl-650-1150-A-A, cylinder painted in RAL 9006 white aluminium, eyelet with 10 mm hole	302234-2
Back check adjustable 14-35-500-1/Öl-650-1150-A-A, with hold-open, cylinder painted in RAL 9006 white aluminium, eyelet with 10 mm hole	302235-2



Accessories for back checks

Installation accessories for back checks



DICTATOR offers a wide range of installation accessories for back checks for almost every application. On our website you will find the most common application situations illustrated with the appropriate accessories.

We will be happy to advise you on selecting the right model and accessories, including fixing points. Please feel free to contact us.



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Accessories for back checks with ø 8 mm eyelets

Most back checks (series TB 10-23, TB 14-28 and TBP 10-29 as well as some versions of the TBR 14-35 series) have eyes with a diameter of 8 mm. The following accessories are available for these models.

Accessories especially for doors with overhead door closers

The back checks can easily be used in conjunction with overhead door closers. Depending on the installation situation, special fixing accessories may be required.

Accessories for back checks with ø 10 mm eyelets

In the TBR 14-35 series, there are back checks with Ø 10 mm eyes that are used in extreme situations. There are also special fixing accessories for these versions.



ACCESSORIES

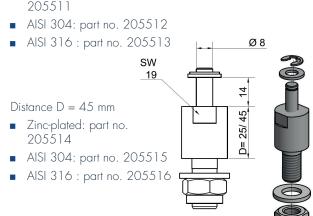
All dimensions in mm

Accessories for back checks with Ø 8 mm eyelet

Mounting pin TB Ø 8 mm

Distance D = 25 mm

Zinc-plated: part no.

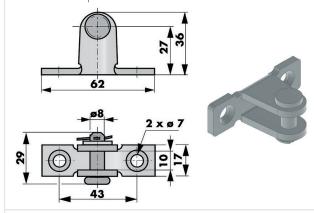


Bracket TB 70x45x36 mm (without mounting pin)



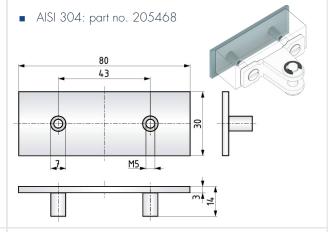
Mounting bracket (part of sets 1, 2 & 3)

- Zinc-plated: part no. 205197
- AISI 304: part no. 205249
- AISI 316: part no. 205455



Counter plate to bracket no. 205197

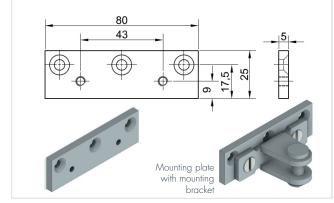
The counter plate is used when fixing the mounting bracket on thin-walled steel doors.



Mounting plate TB 80×25 mm, 2 threaded holes M5

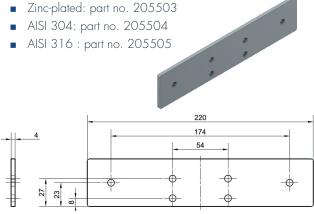
The mounting plated is intended for fixing the mounting bracket no. 205197 on e.g. glass doors with an aluminium frame

AISI 304: part no. 205479



Mounting plate TB 220×46 mm

The mounting plate is used together with the mounting bracket TB 70x45x36 mm, when high forces apply.

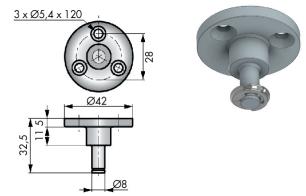




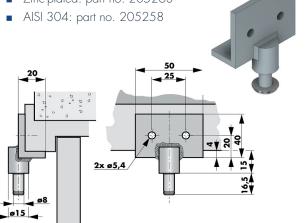
Mounting flange TB Ø 42 mm, mounting pin Ø 8 mm (part of set 2)

■ Zinc-plated: part no. 205261

AISI 304: part no. 205281



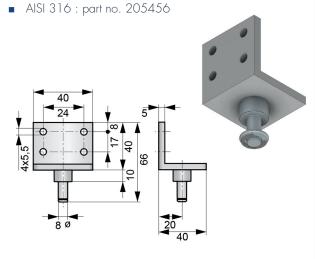
Bracket TB 50x40x20 mm, mounting pin Ø 8 mm (part of set 3) Zinc-plated: part no. 205263



Bracket TB 40x40x40 mm, mounting pin Ø 8 mm

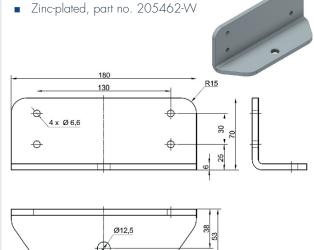
■ Zinc-plated: part no. 205262

AISI 304 : part no. 205282



Bracket TB 180x70x53 mm (without mounting pin)

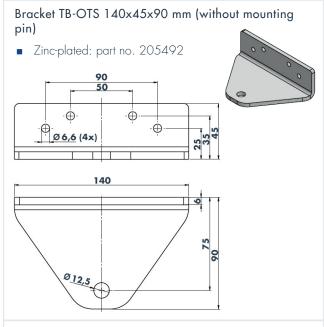
The bolt of the mounting bracket can be fitted either pointing upwards or downwards.





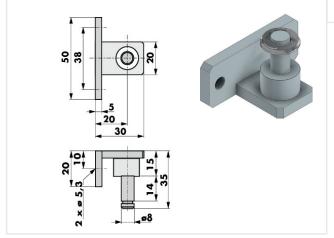
Accessories specially for doors with overhead door closer

The door opening limiter can also be used in conjunction with an overhead door closer without any problems. Depending on the installation situation special fixing accessories are required.

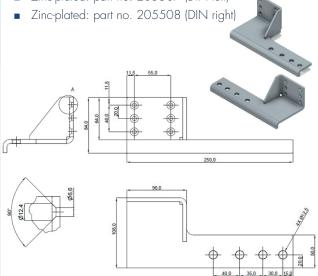


Bracket TB-OTS 50x20x30 mm, mounting pin \varnothing 8 mm

■ Zinc-plated: part no. 205276



Bracket TB-OTS 250x106x90x84 mm (without mounting pin) Zinc-plated: part no. 205507 (DIN left)



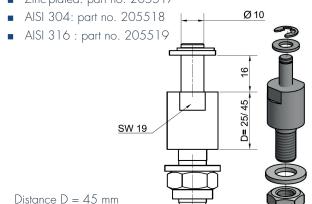
When selecting this bracket, please note that the specified DIN direction applies to installation on push side.

Accessories for back checks with Ø 10 mm eyelet

Mounting pin TB Ø 10 mm

Distance D = 25 mm

■ Zinc-plated: part no. 205517



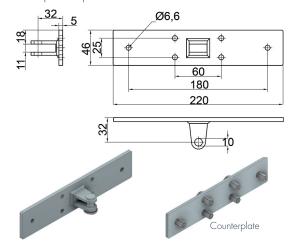
Zinc-plated: part no. 205520

- AISI 304: part no. 205521
- AISI 316: part no. 205522

Mounting Plate TB 45×220 mm

The counter plate, part no. 205461, has the same dimensions and features 6 threaded inserts M6.

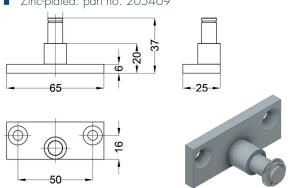
■ Zinc-plated: part no. 205460



Mounting flange TB 65×25 mm, mounting pin Ø10 mm

The mounting flange is intended for narrow door frames. The holes have \varnothing 6 mm with a countersink for ISO 7721 countersunk head screws.

Zinc-plated: part no. 205469

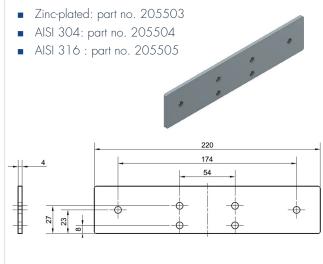


Bracket TB 70x45x36 mm (without mounting pin)

■ Zinc-plated: part no. 205489 AISI 304: part no. 205490 AISI 316: part no. 205491 4x Ø5.5 Ф

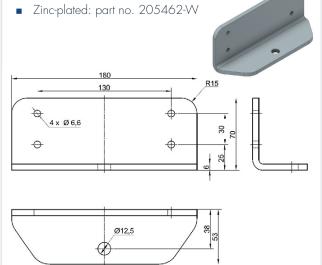
Mounting plate TB 220×46 mm

The mounting plate is used together with the mounting bracket TB 70x45x36 mm, when high forces apply.



Bracket TB 180x70x53 mm (without mounting pin)

The mounting pin of this bracket can be fixed showing either up or down.





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 ∅ 8 mm	205262	205282	205456		
Mounting bracket TB 50x40x20 mm, pin ∅ 8 mm	205263	205258	-		
Mounting bracket TB 70x45x36 mm, for mounting pin \varnothing 8 or 10 mm	205489	205490	205491		
Mounting bracket TB 180x70x53 mm, for mounting pin \varnothing 8 or 10 mm	205462-W	-	-		
Mounting plate TB 220x46 mm	205503	205504	205505		
Mounting pin TB 25-14 mm, ∅ 8 mm	205511	205512	205513		
Mounting pin TB 45-14 mm, ∅ 8 mm	205514	205515	205516		
Mounting pin TB 25-16 mm, ∅ 10 mm	205517	205518	205519		
Mounting pin TB 45-16 mm, ∅ 10 mm	205520	205521	205522		
Mounting plate TB 45x220 mm, seat with pin Ø 10 mm	205460	-	-		
Counter plate for mounting plate TB 45x220 mm, with threaded inserts	205461	-	-		
Mounting flange TB 65x25 mm, pin Ø 10 mm	205469	-	-		
Mounting bracket TB-OTS 50x20x30 mm, pin Ø 8 mm	205276	-	-		
Mounting bracket TB-OTS 140 x 45 x 90 mm, for pin 8 or 10 mm	205492	-	-		
Mounting bracket TB-OTS 250x106x90x84 mm, for pin \varnothing 8 or 10 mm, DIN left, mounted on non swing side	205507	-	-		
Mounting bracket TB-OTS 250x106x90x84 mm, for pin \varnothing 8 or 10 mm, DIN right, mounted on non-swing side	205508	-	-		



DOOR HOLDERS



 $\ensuremath{\mathsf{DICTATOR}}$ door holders stand out for their robust construction and attractive design.

The door holder ZE is intended to keep doors in any position.

Should the door always be kept open in the same position and avoid having to fix or release the door holder every time when opening/closing the door, the door stop and buffer is the right choice.



TABLE OF CONTENTS - DOOR HOLDERS



Subject to technical changes. No claim for compensation in case of errors.

Door holder ZE

Locking of doors in any position



CHARACTERISTICS

- Very solid and robust design
- Comfortable operation by foot
- Very resistant, even against vandalism, as the housing is made of a single casting
- The door holders are made of non-rusting materials (all metal parts are aluminium / stainless steel) and thus perfect for outdoor use outdoors or in humid environments
- Firm hold even on very smooth or uneven floors, thanks to an integrated spring that firmly presses the foot against the floor.

DOOR HOLDER ZE SERIES

- Standard series: robust and inexpensive version with strokes from 25 mm to 105 mm
- Design Line series: highly compact design, even with long stroke length from 80 mm to 200 mm, in which the piston rod is not visible when retracted

VERSIONS

Model	Stroke	Color	Series
ZE 25	25 mm	satin-finished silver (RAL on demand)	Standard
ZE 60	60 mm	satin-finished silver jet black RAL 9005	Standard
ZE 75	75 mm	satin-finished silver (RAL on demand)	Standard
ZE 80	80 mm	satin-finished silver white RAL 9010 jet black RAL 9005	Design Line
ZE 90	90 mm	satin-finished silver jet black RAL 9005	Standard
ZE 105	105 mm	satin-finished silver (RAL on demand)	Standard
ZE 120	120 mm	satin-finished silver white RAL 9010 jet black RAL 9005	Design Line
ZE 160	160 mm	satin-finished silver white RAL 9010 jet black RAL 9005	Design Line
ZE 200	200 mm	satin-finished silver white RAL 9010 jet black RAL 9005	Design Line



TECHNICAL DATA

Stroke length Standard Line	25; 60; 75; 90; 105 mm
Stroke length Design Line	80; 120; 160; 200 mm
Material	Aluminium (casing); stainless steel/plastic (other compo- nents)
Finish Standard Line	Silver; black (RAL 9005); other finishes on demand
Finish Design Line	Silver; black (RAL 9005); white (RAL 9010)
Components included	Door holder, fixing screws

OPERATION

The door is held in the desired position simply by pressing down the piston rod. In the Standard series, this is done via the rubber nub at the top of the door stop, in the Design Line series with the metal foot, at the bottom of the housing. A small spring firmly presses the foot against the floor, preventing it from slipping away.

To release the hold-open simply step down on the metal plate above the housing (Standard) or at the bottom of the housing (Design Line). The piston rod automatically moves upwards and the door can be operated freely again.

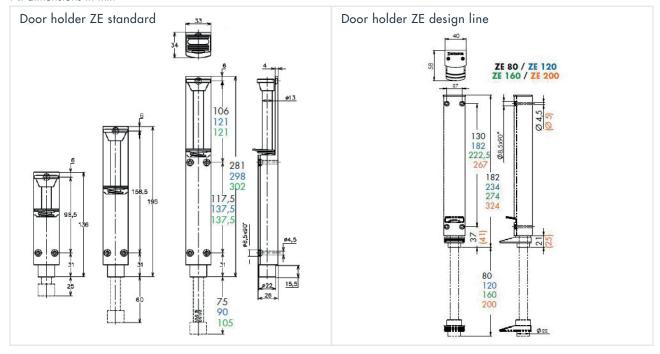
INSTALLATION





DIMENSIONS

All dimensions in mm



Description	Part no.
ZE 80 door holder Design Line, satin silver	500235
ZE 80 door holder, Design Line, jet black RAL 9005	500239
ZE 80 door holder, Design Line, white RAL 9010	500237
ZE 120 door holder Design Line, satin silver	500236
ZE 120 door holder, Design Line, jet black RAL 9005	500240
ZE 120 door holder, Design Line, white RAL 9010	500238
ZE 160 door holder Design Line, satin silver	500233
ZE 160 door holder, Design Line, jet black RAL 9005	500241
ZE 160 door holder, Design Line, white RAL 9010	500234
ZE 200 door holder Design Line, satin silver	500242
ZE 200 door holder, Design Line, jet black RAL 9005	500244
ZE 200 door holder, Design Line, white RAL 9010	500243
ZE 25 door holder, satin silver	500200
ZE 60 door holder, satin silver	500210
ZE 60 door holder, jet black RAL 9005	500213
ZE 75 door holder, satin silver	500220
ZE 90 door holder, satin silver	500230
ZE 90 door holder, jet black RAL 9005	500229
ZE 105 door holder, satin silver	500225



Door stop and buffer

Holds the door open in a determined position



CHARACTERISTICS

- Inconspicuous design
- Adjustable holding force
- Due to its flat design, it does not represent an obstacle
- Thanks to its aluminium casing, the door holder can also be installed outdoors
- The flat plate is fixed to the floor on the spot in which the door is to be held open
- The rubber buffer on the plate gently slows down the door when thrown open, thus protecting both door and hinges

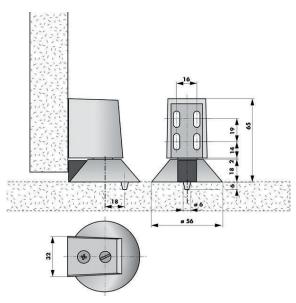
FUNCTION

- Stops the door gently when opening
- Prevents door from opening beyond the desired angle
- Holds the door open in the desired position



DIMENSIONS

All dimensions in mm



TECHNICAL DATA

Door weight	max. 40 kg
Door height	max. 2200 mm
Door width	max. 1000 mm
Finish	Silver stone-enamelled; dark brown stove-enamelled
Material	Aluminium (plate), rubber (buffer)
Components included	Casing with ball, plate with rubber buffer, M8x50 countersunk head screw, dowel

INSTALLATION



Description	Part no.					
Door stop and buffer, silver enamelled	500310					
Door stop and buffer, dark brown enamelled	500311					
Door stop and buffer, polished brass	500312					





SWING DOOR HINGES



DICTATOR swing door hinges assure a safe and controlled closing of swing doors. They swiftly and reliably return the swing door to the closed position, which also considerably reduces irritating noise.

They are used in a large variety of applications: small swing doors in counters, large, heavy-duty swing doors, swing doors in trucks or machines.

Different finishes and materials are available for every optical requirement, as well as completely rustproof executions or affordable models, all of them, of course, with the same quality and life time.

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	Swing door hinges HAWGOOD 4000 & 4500 for doors up to 26 kg and 30 mm thick	02.06.04
	Swing door hinges HAWGOOD 40K & 41K	02.06.08
	Swing door hinges HAWGOOD Typ 41 & 42 for doors up to 60 kg, 40 mm thick and 1000 mm wide	02.06.10

Subject to technical changes. No claim for compensation in case of errors.

SWING DOOR HINGES

Swing door hinges **HAWGOOD 4000 and 4500**





For doors up to 26 kg and 30 mm thick

CHARACTERISTICS

- Long service life, with little maintenance necessary
- Shoe available in different materials and colors: nickel-plated, brass, grey or black plastic
- Zinc-plated steel or stainless steel plate
- Integrated hold-open at about 90° in both directions
- The door comes to a stop quickly and therefore makes
- Due to their design, the passage width is only marginally
- The model with stainless steel plate and plastic shoe is also suitable for humid environments and outdoor use

MODELS

- **Door thickness**: Type 4000 is designed for 19 24 mm thick doors; type 4500 for 25 - 30 mm thick doors
- Finish: For more sophisticated architectural solutions, there are brass shoes available (brushed or nickel-plated). The abrasion-proof plastic (light grey or black) are just as high-quality and durable, and more inexpensive
- **Spring force**: depends on the number of springs (E = 1 spring, D = 2 springs)

SELECTION CRITERIA

This table helps you determine the correct swing door hinge size, depending on the width, height and weight of the door. Generally, you use either a pair of the "E" or "D" type per door.

For swing door hinges type 4000 or 4500 the maximum door weight is 26 kg. In case your door is heavier or has different dimensions to the ones in the table, please contact our technical customer service.

- \blacksquare E = 2 x simple spring (1 pair)
- $D = 2 \times double spring (1 pair)$







TECHNICAL DATA

Door thickness	4000: 19 mm (max. 24 mm); 4500: 25 mm (max. 30 mm)
Opening angle	max. 100°
Hold-open	at about 90°
Material	Plastic (shoe), zinc-plated steel (plate); Plastic (shoe), stainless steel AISI 304 (plate); Brushed brass (shoe), zinc- plated steel (plate); Nickel-plated brass (shoe), zinc-plated steel (plate)

Door	E	ען	E	ען	E	ע	E	ען	E	ען
Width (mm)	300	300	400	400	500	500	600	600	700	700
Height (mm)		Max. door leaf weight [kg]								
500	9	16	6	11	5	9	4	7	3	5,4
600	11	20	8	14	6	11	5	9	4	7
700	12	22	9	16	7	13	6	11	5	9
800	14	25	11	20	8	14	7	13	6	11
900	16	26	12	22	10	18	8	14	7	12
1000	18	26	13	23	11	20	9	16	7	13
1100	20	26	16	26	12	22	10	18	8	15
1200	22	26	16	26	13	23	11	20	9	16
1300	22	26	17	26	14	25	12	22	10	18
1400	22	26	19	26	15	26	12	22	11	20
1500	22	26	20	26	16	26	13	23	11	20
1600	22	26	22	26	17	26	14	25	12	22
1800	22	26	22	26	19	26	16	26	14	25
2000	22	26	22	26	21	26	18	26	15	26

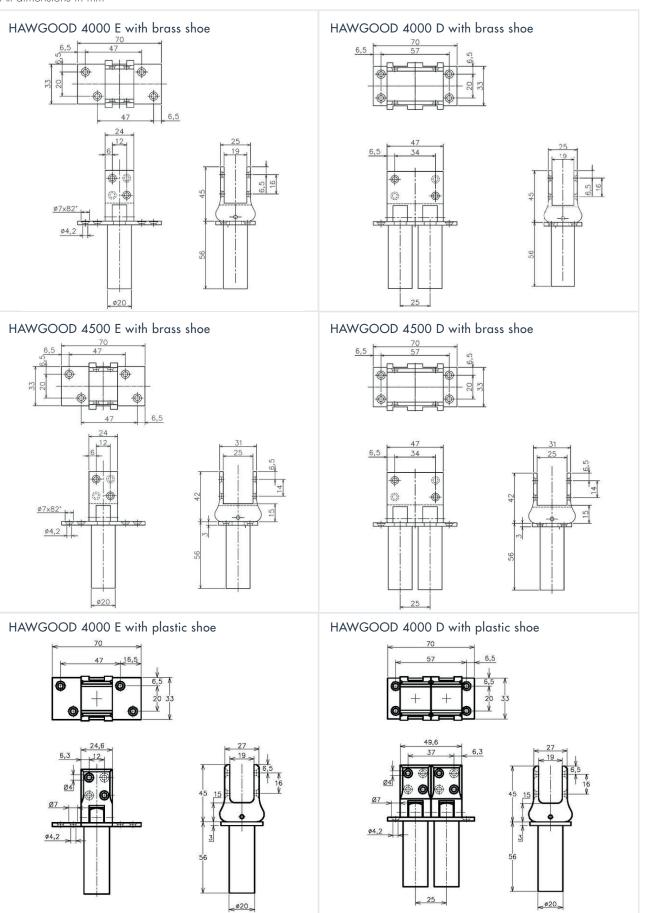
INSTALLATION

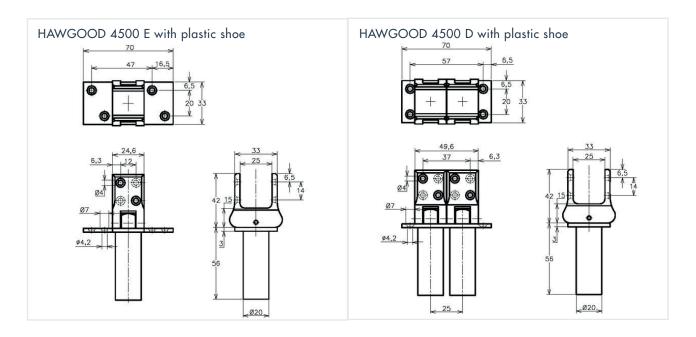




DIMENSIONS

All dimensions in mm





	_
Description	Part no.
HAWGOOD swing door hinge type 4000 E, nickel-plated brass, with hold-open	300350
HAWGOOD swing door hinge type 4000 D, nickel-plated brass, with hold-open	300359
HAWGOOD swing door hinge type 4000 E, brushed brass, with hold-open	300360
HAWGOOD swing door hinge type 4000 D, brushed brass, with hold-open	300361
HAWGOOD swing door hinge type 4000 E, plate zinc-plated, shoe from grey plastics, with hold-open	300350K
HAWGOOD swing door hinge type 4000 D, plate zinc-plated, shoe from grey plastics, with hold-open	300359K
HAWGOOD swing door hinge type 4000 E, plate zinc-plated, shoe from black plastics, with hold-open	301420
HAWGOOD swing door hinge type 4000 D, plate zinc-plated, shoe from black plastics, with hold-open	301421
HAWGOOD swing door hinge type 4000 E, plate stainless steel, shoe from grey plastics, with hold-open	300350KV2A
HAWGOOD swing door hinge type 4000 D, plate stainless steel, shoe from grey plastics, with hold-open	300359KV2A
HAWGOOD swing door hinge type 4500 E, nickel-plated brass, with hold-open	300362
HAWGOOD swing door hinge type 4500 D, nickel-plated brass, with hold-open	300363
HAWGOOD swing door hinge type 4500 E, brushed brass, with hold-open	300364
HAWGOOD swing door hinge type 4500 D, brushed brass, with hold-open	300365
HAWGOOD swing door hinge type 4500 E, plate zinc-plated, shoe from grey plastics, with hold-open	300362K
HAWGOOD swing door hinge type 4500 D, plate zinc-plated, shoe from grey plastics, with hold-open	300363K
HAWGOOD swing door hinge type 4500 E, plate zinc-plated, shoe from black plastics, with hold-open	301422
HAWGOOD swing door hinge type 4500 D, plate zinc-plated, shoe from black plastics, with hold-open	301423
HAWGOOD swing door hinge type 4500 E, plate stainless steel, shoe from grey plastics, with hold-open	300362KV2A
HAWGOOD swing door hinge type 4500 D, plate stainless steel, shoe from grey plastics, with hold-open	300363KV2A



SWING DOOR HINGES

Swing door hinges HAWGOOD 40K and 41K

For doors up to 50 kg and 35/40 mm thick



CHARACTERISTICS

- Equipped with a hold-open at approx. 90°
- The abrasion-resistant special plastic of the swing door hinge ensures a long operational life even under heavy use
- The plastic shoes are shaped in such a way that their contours can be easily recessed in the door using standard frasers
- There special bushes (patented bolts) included, which allow a safe and stable fastening, even on doors with hollow profiles

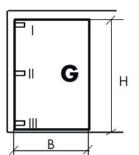
MODELS

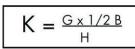
- Door thickness: Available with two different inner dimensions of the shoe, for door thicknesses of 35 mm / 40 mm
- **Spring forces**: Types 40K and 41K differ in their spring forces (recognizable by the plastic sleeve of the spring pin: Type 40K grey, Type 41K black).
- Surfaces: stainless steel model is particularly suitable for use in damp environments or outdoors

SELECTION CRITERIA

Determining the required swing door hinges depends on the size and weight of the door







Legend:

- K: factor for choosing the type
- G: weight of the door in kg
- H: height of the door in mm
- B: width of the door in mm
- 1. Calculate K factor using the formula.
- 2. Depending on the calculated factor K, look up which type should be installed on top and which at the bottom of the door using this table.
- 3. In case the calculation of factor K doesn't result in a suitable combination of swing door hinges, check if you could use another HAVVGOOD model or contact our technical customer service.

K	I	III	G (kg)
< 4	1 x 40K	1 x 40K	< 20
4 - 6	1 x 41K	1 x 40K	20 - 30
6 - 10	1 x 41K	1 x 41K	30 - 50



TECHNICAL DATA

Door thickness	35 mm; 40 mm
Door weight	max. 50 kg
Door height	max. 2000 mm
Door width	max. 1000 mm
Opening angle	max. 100°
Hold-open	at about 90°
Material	Plastic (shoe), zinc-plated steel (plate); Plastic (shoe), stainless steel AISI 304 (plate)

INSTALLATION

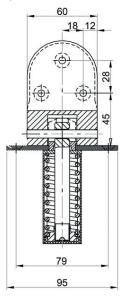


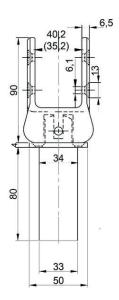


DIMENSIONS

All dimensions in mm

(The inner dimension of the shoe in brackets applies to model for 35 mm-thick doors)





Description	Part no.
HAWGOOD swing door hinge 40K, light grey plastic, with hold-open	301400
HAWGOOD swing door hinge 40K, black plastic, with hold-open	301401
HAWGOOD swing door hinge 40K, light grey plastic, with hold-open, plate stainless steel	301400V2A
HAWGOOD swing door hinge 40K, black plastic, with hold-open, plate stainless steel	301401V2A
HAWGOOD swing door hinge 40K, plate zinc-plated, shoe light grey plastics, with hold-open, inner dimen-	VAR-301400-001
sion of the shoe 35 mm	
HAWGOOD swing door hinge 40K, plate zinc-plated, shoe black plastic, with hold-open, inner dimension of	VAR-301401-001
the shoe 35 mm	
HAWGOOD swing door hinge 41K, light grey plastic, with hold-open	301410
HAWGOOD swing door hinge 41K, black plastic, with hold-open	301411
HAWGOOD swing door hinge 41K, light grey plastic, with hold-open, plate stainless steel	301410V2A
HAWGOOD swing door hinge 41K, black plastic, with hold-open, plate stainless steel	301411V2A
HAWGOOD swing door hinge 41K, plate zinc-plated, shoe light grey plastic, with hold-open, inner dimen-	VAR-301410-001
sion of the shoe 35 mm	
HAWGOOD swing door hinge 41K, plate zinc-plated, shoe black plastic, with hold-open, inner dimension of	VAR-301411-001
the shoe 35 mm	

Swing door hinges HAWGOOD 41 and 42

For doors up to 60 kg, 40 mm thick and 1000 mm wide







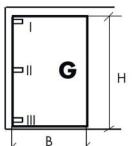
CHARACTERISTICS

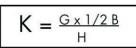
- Designed for larger swing doors
- Types 41 and 42 differ only in their spring force (recognizable by the plastic cover of the spring pin: Type 41 black, Type 42 white)
- When combining types 41 and 42, type 42 must be always placed on top
- Available either with or without hold-open at approx. 90°
- Stainless steel shoe, fixing plate either zinc-plated or stainless steel (ideal for use in the food industry)

SELECTION CRITERIA

Determining the required swing door hinges depends on the size and weight of the door







Legend:

- K: factor for choosing the type
- G: weight of the door in kg
- H: height of the door in mm
- B: width of the door in mm
- 1. Calculate factor K by using this formula.
- 2. Depending on the calculated factor K, look up in the table which type should be installed on top and which on the
- 3. You can use up to 4 swing door hinges per door.
- 4. If your doors are heavier and/or wider than the ones shown on the table, please contact our technical customer service.

K	I	II	III
< 8	1 x 41		1 × 41
8 - 16	1 x 42		1 × 41
16 - 20	1 x 42		1 x 42
20 - 30	1 x 42 + 1 x 41		1 x 42
30 - 50	2 x 42	1 × 41	1 x 42



TECHNICAL DATA

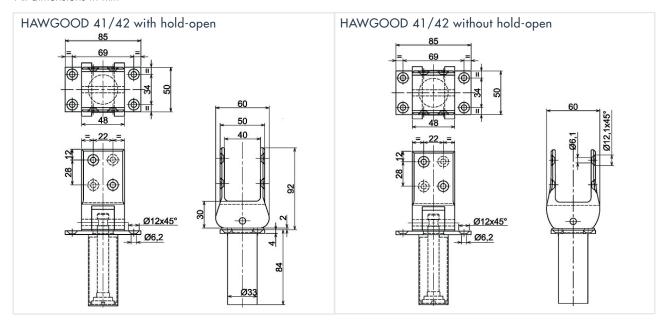
Thickness of the door	40 mm	
Door weight	max. 60 kg	
Door width	max. 1000 mm	
Opening angle	max. 100°	
Hold-open	with or without hold-open at about 90°	
Material	Stainless steel AISI 304 (shoe), zinc-plated steel (pla- te); Stainless steel AISI 304 (shoe & plate)	

INSTALLATION



DIMENSIONS

All dimensions in mm



OKDER IN OKIMATION			
Description	Part no.		
HAWGOOD swing door hinge type 41, plate zinc-plated, shoe stainless steel, no hold-open	300440		
HAWGOOD swing door hinge type 41, plate zinc-plated, shoe stainless steel, with hold-open	300441		
HAWGOOD swing door hinge type 41, completely from stainless steel, no hold-open	300442		
HAWGOOD swing door hinge type 41, completely from stainless steel, with hold-open	300443		
HAWGOOD swing door hinge type 42, plate zinc-plated, shoe stainless steel, no hold-open	300444		
HAWGOOD swing door hinge type 42, plate zinc-plated, shoe stainless steel, with hold-open	300445		
HAWGOOD swing door hinge type 42, completely from stainless steel, no hold-open	300446		
HAWGOOD swing door hinge type 42, completely from stainless steel, with hold-open	300447		