



Radial Dampers LD

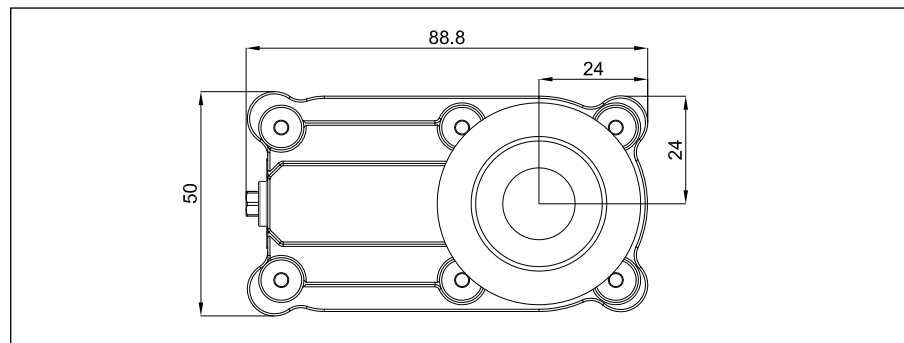
Patented new development with extremely broad damping range

DIKTATOR has broken new ground with the LD radial damper. It is an in-house newly developed, patented technology. Its flexible, extremely adaptable construction offers the possibility to easily realize beside the standard models customized solutions - in small quantities and even single units. It is possible to adapt the damping characteristics and also to manufacture bodies of other material, e.g. aluminium or stainless steel.

Damping Characteristics

More crucial advantages of the new series:

- Very large damping range.
- Very precise and sensitive adjusting of the damping.
- Stable damping characteristics, also at very high numbers of revolutions.
- All radial dampers of the new generation have the same dimensions of the body base. They only differ in their height. Due to the small width (50 mm) it is easy to mount them, if necessary often even in the rail.



Variation Possibilities

The LD radial dampers can be furnished with the most different driving wheels to **transmit the damping**: from rope pulleys with different diameters and for different rope diameters to toothed wheels, toothed belt disks, chain wheels, friction wheels etc. It is also possible to supply the radial damper just with the axle for your own driving wheel.

On the following pages only the standard models are described. In case of differing requirements, we gladly will elaborate an individual solution.

Also the **damping characteristics** of the radial dampers can be adapted to the customer's requirements:

- **Increasing the damping** by a higher body - in a customized casing - on demand.
- **Modifying the damping force** by using different damping media with differing viscosity (for an example please see the damping diagram LD 50 on page 03.036.00). In the description of the lamellar radial damper this is indicated by adding a "-2", "-3", "-4" (e.g. LD 50-2 S-45).
- **Damping in both directions** (By default the driving wheel features a freewheel and therefore hydraulically damps only in one direction.)

The **standard casing** of the LD radial damper is made of **plastics**. This casing has passed a **fire test according to DIN 53438-2** and thus meets the special directives for the **use in rail vehicles**.



It is however possible to make it for **special requirements** also in **other material** as e.g. aluminium or stainless steel (see picture on the left).

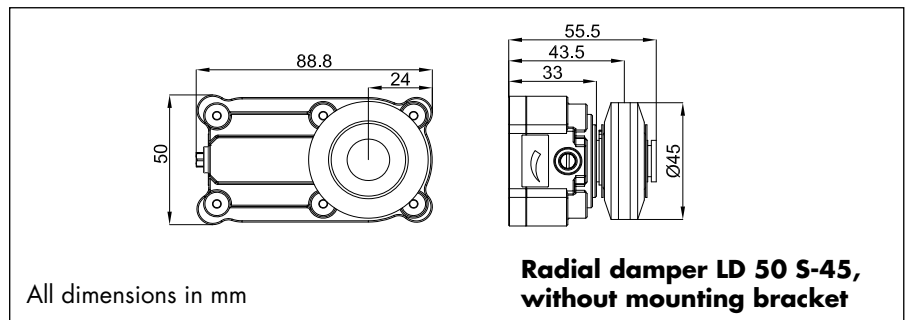


Radial Damper LD 50 S-45 with Rope Pulley Ø 45 With or without mounting bracket kit

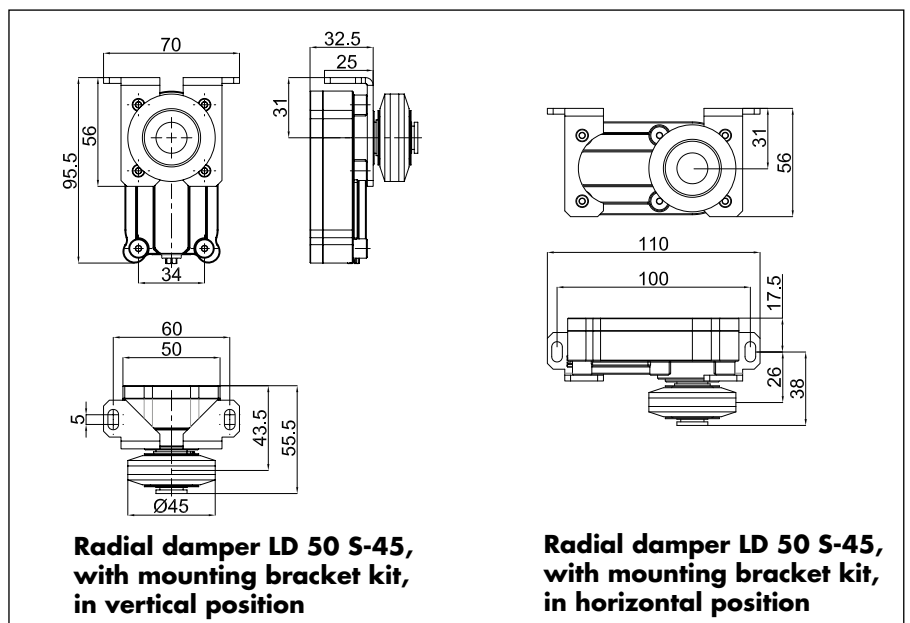
The LD 50 S-45 radial damper has been designed for damping by **revolving rope**. The rope pulley has a diameter of 45 mm.

In total the LD radial damper has 6 mounting holes with a diameter of 2.9 mm for individual fitting. The mounting bracket kit allows to easily fix the LD 50 radial damper in an either horizontal or vertical position. Other fitting accessories are available on demand.

Dimensions LD 50 S-45 Basic Unit



Dimensions LD 50 S-45 with Mounting Bracket Kit



Components Included

Radial damper LD 50 S-45 with rope pulley Ø 45 in aluminium with Vulkollan insert, with freewheel, casing in plastics, with or without mounting bracket kit

Optional Accessories

Rope Ø 2 mm in steel or stainless steel, idler pulley Ø 45, door actuator (see page 03.052.00)

Order Information

LD 50 S-45, without mounting bracket	part no. 244041
LD 50 S-45, with mounting bracket kit, zinc-plated	part no. 244040
LD 50 S-45, with mounting bracket kit, AISI 304	part no. 244042
LD 50-2 S-45, without mounting bracket	part no. 244049
LD 50-2 S-45, with mounting bracket kit, zinc-plated	part no. 244047
LD 50-2 S-45, with mounting bracket kit, AISI 304	part no. 244048



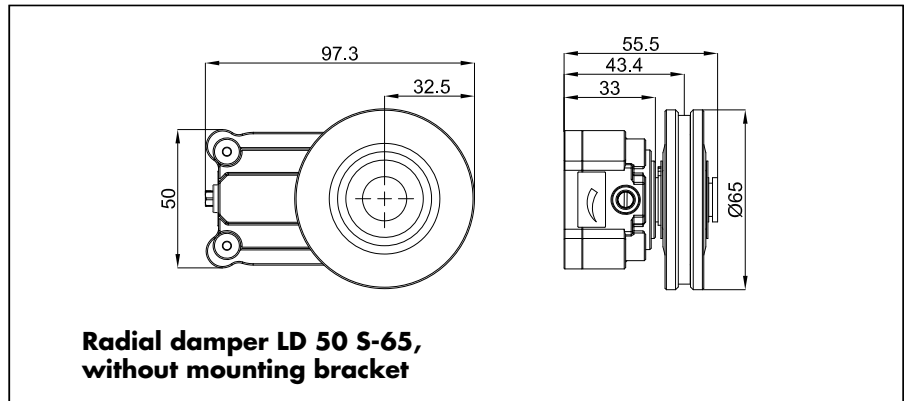
Radial Damper LD 50 S-65 with Rope Pulley Ø 65
With or without mounting bracket kit

The LD 50 S-65 radial damper has been designed for damping with **revolving rope**. The rope pulley has a diameter of 65 mm.

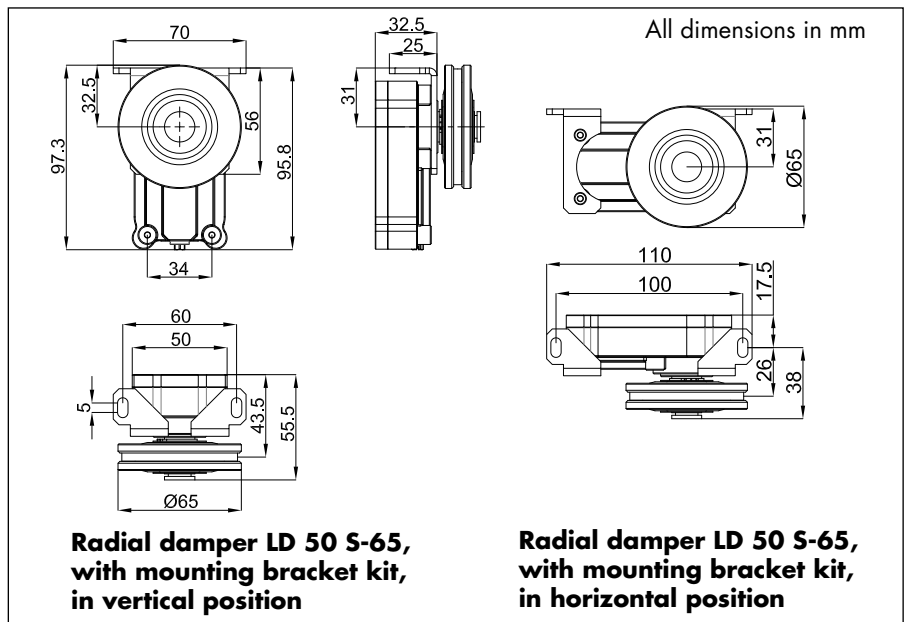
The LD 50 S-65 radial damper is intended in particular for lightweight doors (room doors). Due to the larger diameter of the rope pulley, the damping can be adjusted in an optimum way to this application.

To achieve an optimum damping, the rope should enlase the rope pulley for about 150°.

Dimensions
LD 50 S-65 Basic Unit



Dimensions
LD 50 S-65 with Mounting Bracket Kit



Components Included

Radial damper LD 50 S-65 with rope pulley Ø 65 in aluminium with Vulkollan insert, with freewheel, casing in plastics, with or without mounting bracket kit

Optional Accessories

Rope Ø 2 mm in steel or stainless steel, idler pulley Ø 63, door actuator (see page 03.052.00)

Order Information

LD 50-2 S-65, without mounting bracket	part no. 244063
LD 50-2 S-65, with mounting bracket kit, zinc-plated	part no. 244061
LD 50-2 S-65, with mounting bracket kit, AISI 304	part no. 244062



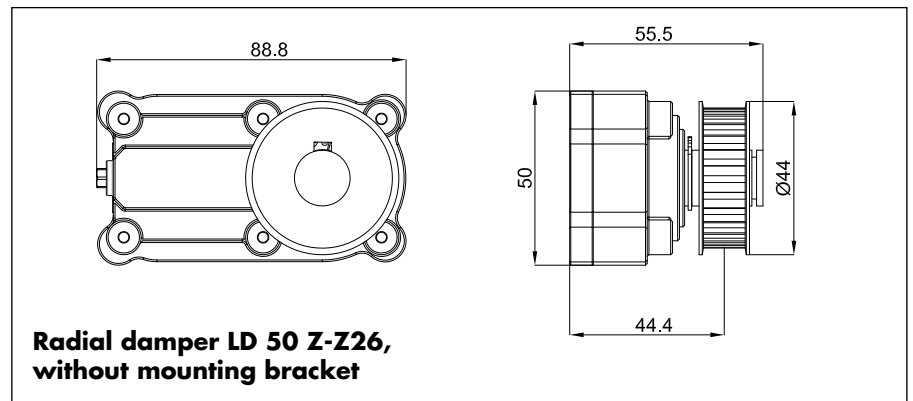
Radial Damper LD 50 Z-Z26 with Toothed Belt Disk With or without mounting bracket kit

The LD 50 Z-Z26 radial damper uses a **revolving toothed belt**. The driving wheel of the LD 50 Z-Z26 is configured for a toothed belt 5M, 10 mm wide. Driving wheels for other toothed belt types are available on demand.

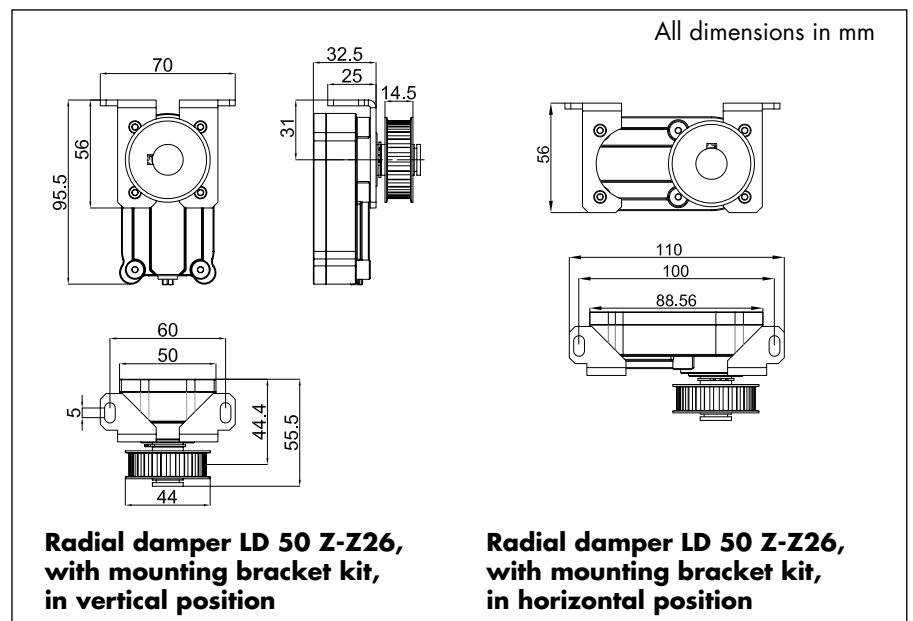
The toothed belt is the ideal medium for power transmission as it creates an absolutely positive connection between the toothed belt and the driving wheel of the radial damper. Therefore, in comparison with a steel rope, less pretension is required, friction is reduced and it is easier to move the door.

The toothed belt disk is made from steel.

Dimensions LD 50 Z-Z26 Basic Unit



Dimensions LD 50 Z-Z26 with Mounting Bracket Kit



Components Included

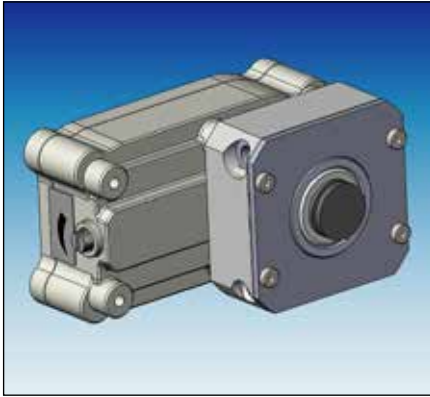
Radial damper LD 50 Z-Z26 with toothed belt disk in steel for toothed belt HDT 5, 10 mm wide, with freewheel, casing in plastics, with or without mounting bracket kit

Optional Accessories

Toothed belt HDT 5, 10 mm wide; idler pulley, door actuator (see page 03.054.00)

Order Information

LD 50 Z-Z26, without mounting bracket	part no. 244071
LD 50 Z-Z26, with mounting bracket kit, zinc-plated	part no. 244070
Toothed belt HDT 5, 10 mm wide, per meter	part no. 710502



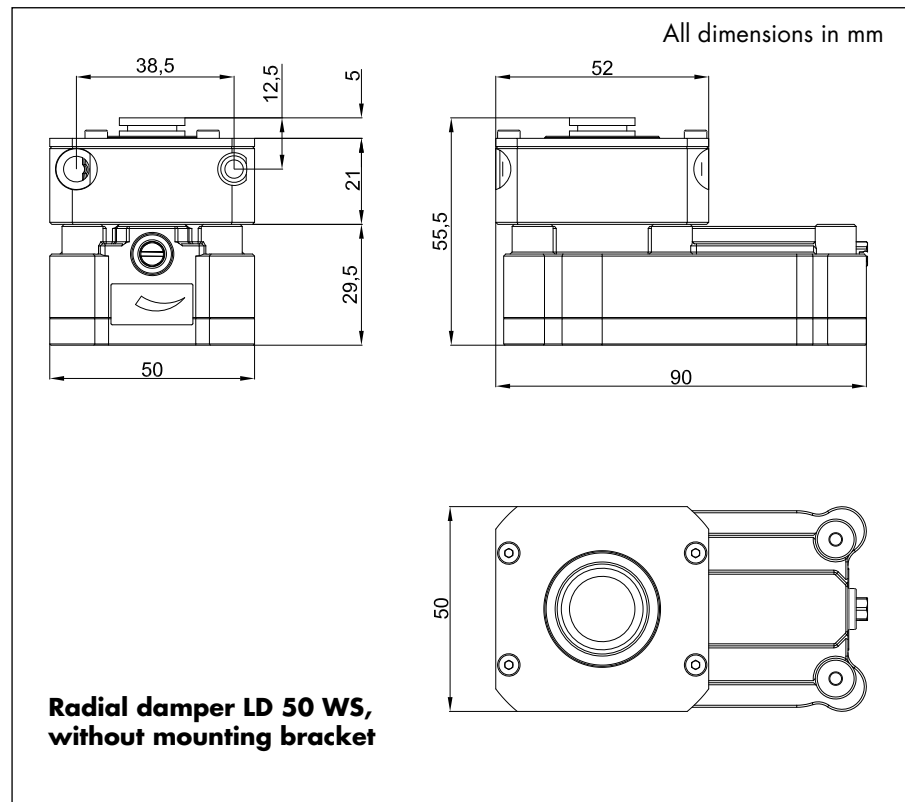
Radial Damper LD 50 WS

For tensioned wire rope

The LD 50 WS hydraulically damps via a **tensioned wire rope** which runs through the cap on the radial damper. The rope is fixed on both sides of the door (e.g. to the door frame). This type of radial damper is mounted on the door leaf.

To fix and tension the wire rope a tensioner and a clamp piece are available, both either with or without mounting bracket.

Dimensions LD 50 WS



Components Included

Radial damper LD 50 WS with cap in steel for tensioned WS6 wire rope, with freewheel, casing in plastics, without mounting bracket

Optional Accessories

Mounting bracket for LD 50 WS, WS6 wire rope, wire rope tensioner and clamp piece for tensioning the wire rope, with or without bracket.

Order Information

LD 50 WS, without mounting bracket	part no. 244080
Wire rope WS6, per meter	part no. 244147
Wire rope tensioner, without bracket	part no. 701042
Wire rope tensioner, with bracket	part no. 701043
Clamp piece, without bracket	part no. 701047
Clamp piece, with bracket	part no. 701048
Mounting bracket	part no. 701040



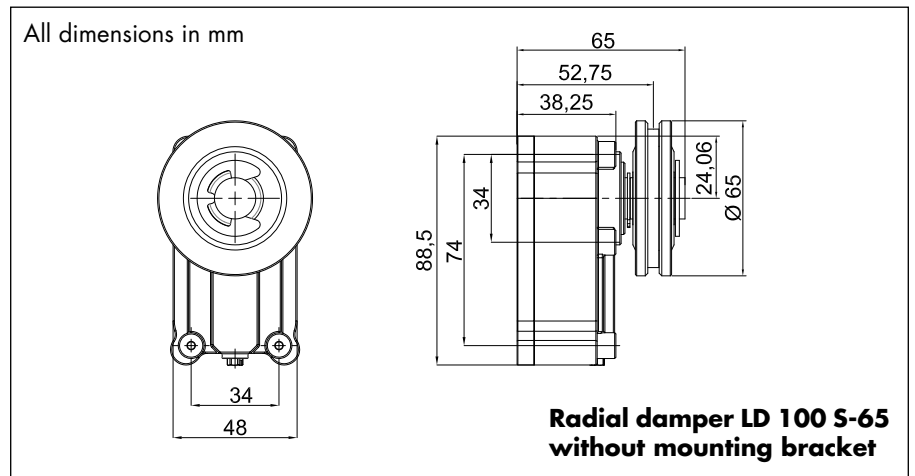
Radial Damper LD 100 S-65 with Rope Pulley Ø 65 For horizontal or vertical mounting

The radial damper LD 100 S-65 with rope pulley Ø 65 uses a **revolving rope** of Ø 3 mm to transmit the damping. The LD 100 S-65 is available with or without mounting bracket kit.

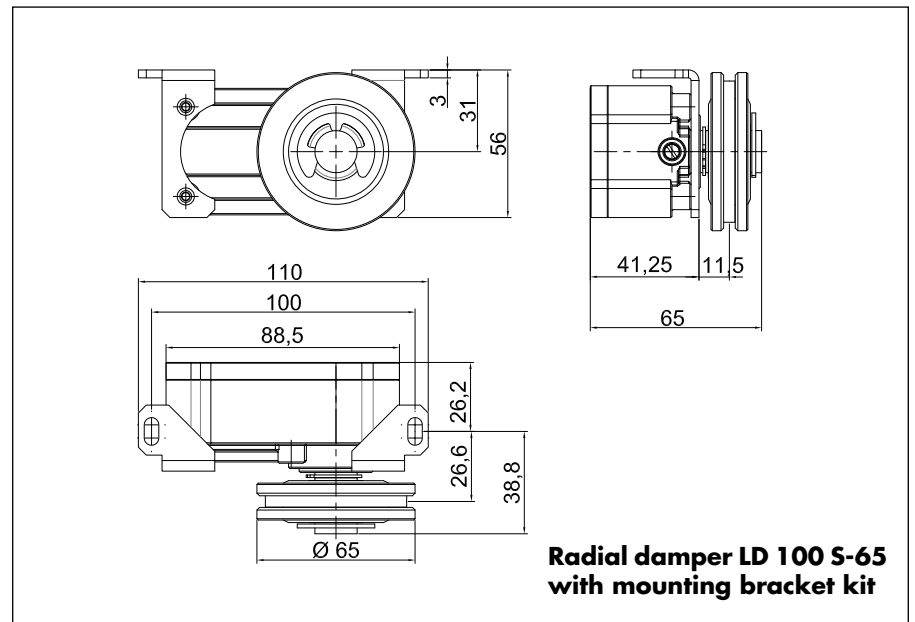
The standard rope pulley features a freewheel, i.e. it hydraulically damps only in one direction.

To achieve an optimum damping, please make sure when mounting the damper that the rope enlaces the rope pulley for about 150°.

Dimensions LD 100 S-65 Basic Unit



Dimensions LD 100 S-65 with Mounting Bracket Kit



Components Included

Radial damper LD 100 S-65 with rope pulley Ø 65 in aluminium with Vulkollan insert, with freewheel, casing in plastics, with or without zinc-plated mounting bracket kit

Optional Accessories

Steel rope Ø 3 mm, idler pulley Ø 63 mm, rope tensioner with door actuator (see pages 03.052.00 and 03.053.00)

Order Information

LD 100 S-65, without mounting bracket	part no. 244141
LD 100 S-65, with mounting bracket kit, zinc-plated	part no. 244101

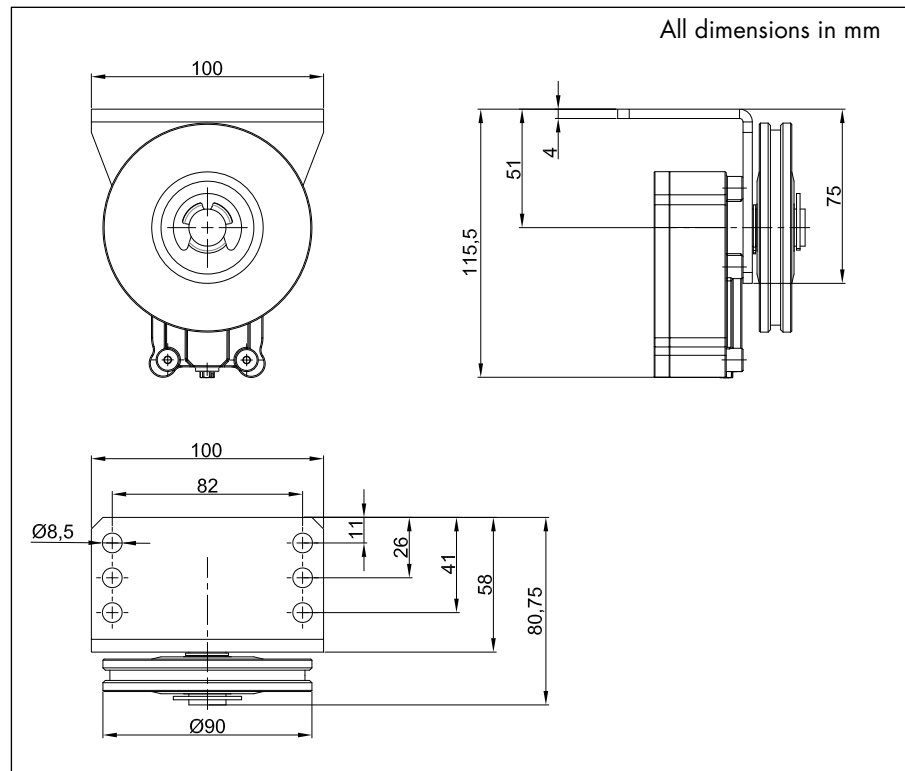


Radial Damper LD 100 S-90 with Rope Pulley Ø 90 With zinc-plated mounting bracket with 6 holes

The radial damper LD 100 S-90 with rope pulley Ø 90 uses a **revolving rope** of Ø 3 mm to transmit the damping. When the rope runs over longer distances, it is preferable to use this model as due to the larger diameter of the rope pulley, the rope is longer in contact with the pulley and therefore offers a more secure rope guiding. To achieve an optimum damping, the rope should enlance of the rope pulley for about 150°.

The rope pulley of the standard model features a freewheel, i.e. it hydraulically damps only in one direction.

Dimensions



Normally the LD 100 S-90 is supplied with a zinc-plated mounting bracket. It has 6 holes to allow adapting the mounting position to the local situation. If you need another fitting type, please contact us.

Components

Radial damper LD 100 S-90 with rope pulley Ø 90 in aluminium with Vulkollan insert, with freewheel, casing in plastics, zinc-plated mounting bracket with 6 fixing holes

Optional Accessories

Steel rope Ø 3 mm, idler pulley Ø 90 mm, rope tensioner with door actuator (for order information see below, for drawings see page 03.053.00)

Order Information

LD 100 S-90, without mounting bracket	part no. 244142
LD 100 S-90, with mounting bracket kit, zinc-plated	part no. 244102
Idler pulley Ø 90 for rope	part no. 700530
25 m of steel rope Ø 3 mm	part no. 700155
Rope tensioner with door actuator	part no. 700478



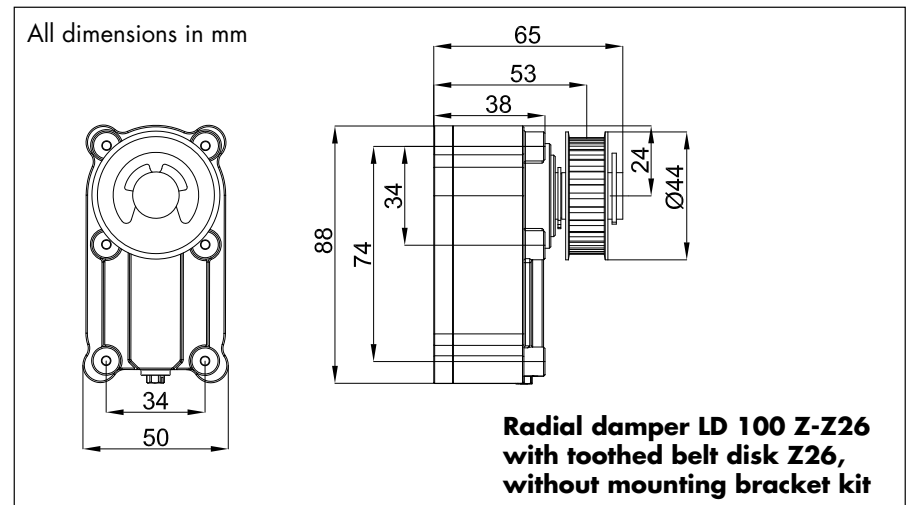
Radial Damper LD 100 Z-Z26 with Toothed Belt Disk With or without fixing accessories

The LD 100 Z-Z26 radial damper using a **revolving toothed belt** ensures an absolutely reliable speed control also for larger masses, due to the positive connection between toothed belt and the driving wheel of the radial damper. Therefore, in comparison with a steel rope, less pretension is required, friction is reduced and it is easier to move the door.

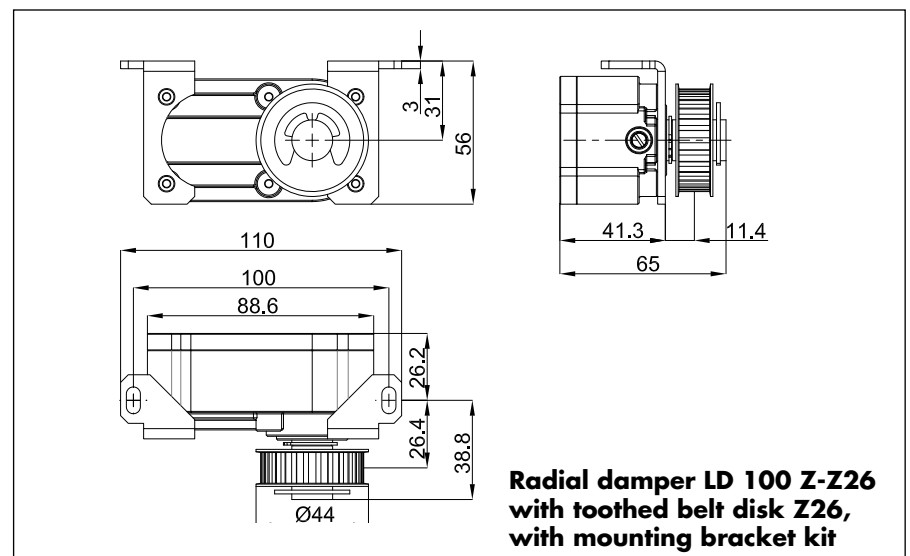
The damping wheel is intended for a toothed belt 5M, 10 mm wide. Driving wheels for other toothed belt types are available on demand.

The toothed belt disk is made from steel.

Dimensions LD 100 Z-Z26 Basic Unit



Dimensions LD 100 Z-Z26 with Mounting Bracket Kit



Components

Radial damper LD 100 Z-Z26 with toothed belt disk Z26 in steel for toothed belt HDT 5, 10 mm wide, with freewheel, casing in plastics, with or without zinc-plated mounting bracket kit

Optional Accessories

Toothed belt HDT 5, 10 mm wide; idler pulley, door actuator (see page 03.054.00)

Order Information

LD 100 Z-Z26, without mounting bracket	part no. 244104
LD 100 Z-Z26, with mounting bracket kit, zinc-plated	part no. 244105
Toothed belt HDT 5, 10 mm wide, per meter	part no. 710502

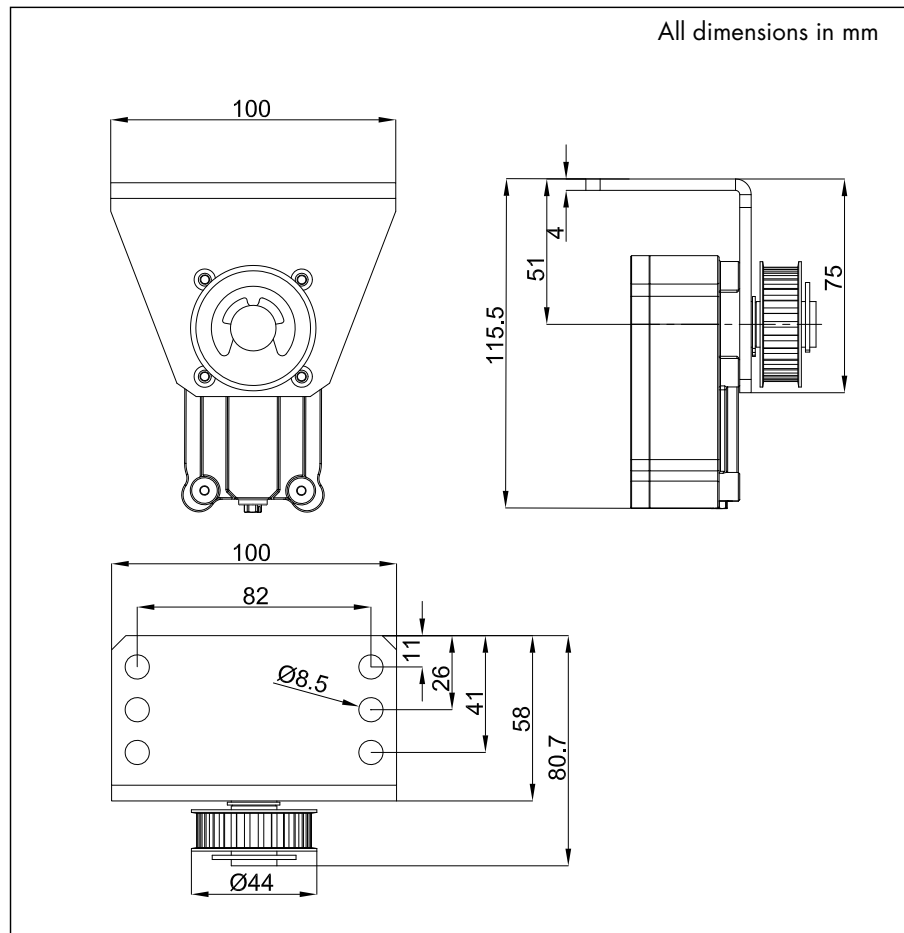


Radial Damper LD 100 Z-Z26 with Toothed Belt Disk With zinc-plated mounting bracket with 6 holes

The LD 100 Z-Z26 radial damper with mounting bracket uses a **revolving toothed belt** to control the speed. Due to the very **stable mounting bracket** it is ideal for applications where higher forces occur. The 6 holes of the bracket allow to optimally adapt the mounting position.

The driving wheel is intended for a toothed belt 5M, 10 mm wide. Driving wheels for other toothed belts are available on demand.

Dimensions



Components Included

Radial damper LD 100 Z-Z26 with toothed belt disk Z26 in steel for toothed belt HDT 5, 10 mm wide, with freewheel, casing in plastics, zinc-plated mounting bracket with 6 fixing holes

Optional Accessories

Toothed belt HDT 5, 10 mm wide; idler pulley, door actuator with belt tensioner (for order information and drawings see page 03.054.00)

Order Information

LD 100 Z-Z26, with mounting bracket, zinc-plated	part no. 244106
Toothed belt HDT 5, 10 mm wide, per meter	part no. 710502

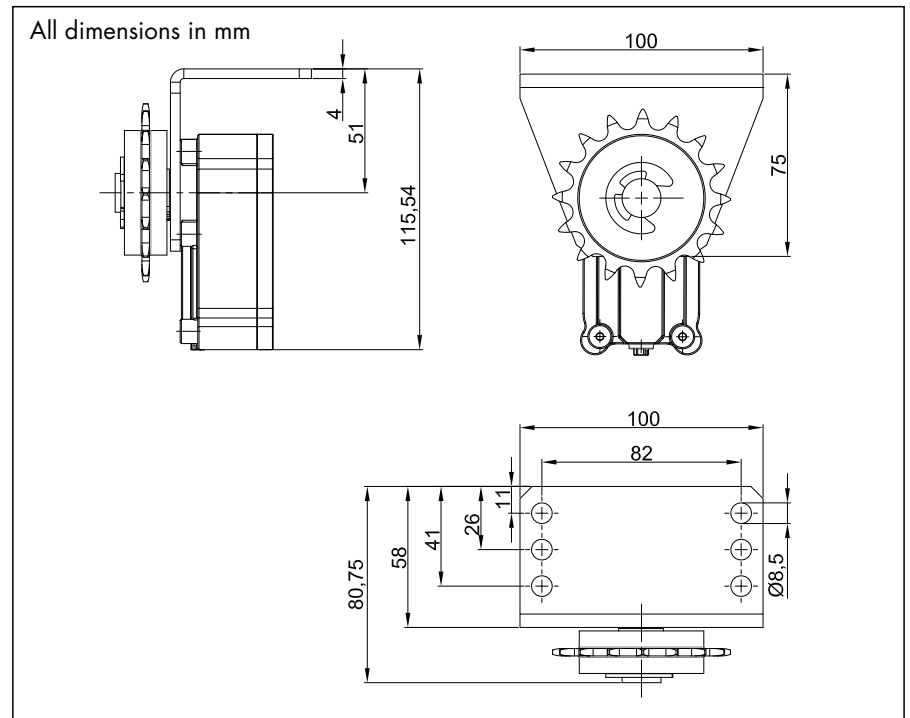


Radial Damper LD 100 K-Z16, Chain Wheel Z16 1/2x1/8" With zinc-plated mounting bracket with 6 holes

The radial damper LD 100 K-Z16 with chain wheel uses a **revolving chain** 1/2x1/8" to transmit the damping. This provides an absolutely positive connection to the device to be damped (door). To achieve an optimum damping, it is important that as many chain links as possible engage with the chain wheel.

On demand the LD 100 K radial damper is also available with other chain wheels. The standard chain wheel features a freewheel, i.e. it hydraulically damps only in one direction.

Dimensions



Normally the LD 100 K-Z16 with chain wheel is supplied with a zinc-plated mounting bracket. It has 6 holes to allow adapting the mounting position to the local situation.

Components Included

Radial damper LD 100 K-Z16 with chain wheel Z16, 1/2 x 1/8", with freewheel, casing in plastics, zinc-plated mounting bracket with 6 fixing holes

Optional Accessories

Chain 1/2 x 1/8", idler pulley, door actuator with chain tensioner (for order information and drawings see page 03.054.00)

Order Information

LD 100 K-Z16, with mounting bracket, zinc-plated	part no. 244103
Chain 1/2 x 1/8", piece of 5 m length	part no. 220006
Chain lock	part no. 220007



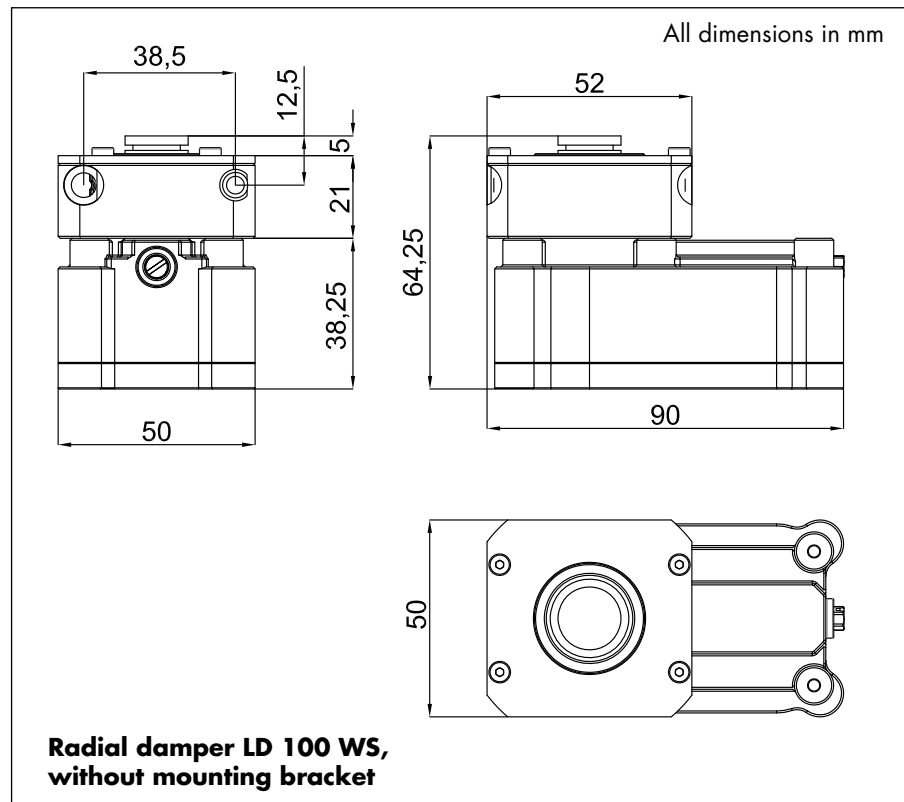
Radial Damper LD 100 WS

For tensioned wire rope

The LD 100 WS hydraulically damps via a **tensioned wire rope** which runs through the cap on the radial damper. The rope is fixed on both sides of the door (e.g. to the door frame). This type of radial damper is mounted on the door leaf.

For fixing and tensioning the wire rope are available a tensioner and a clamp piece, both either with or without mounting bracket.

Dimensions LD 100 WS



Components Included

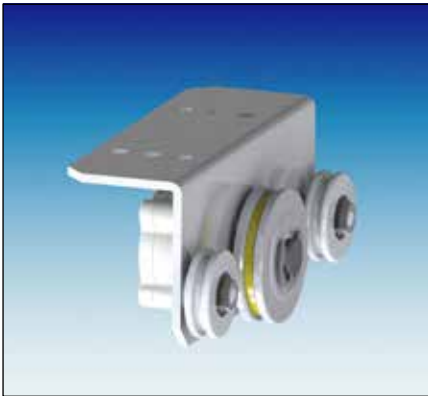
Radial damper LD 100 WS with cap in steel for tensioned WS6 wire rope, with free-wheel, casing in plastics, without mounting bracket

Optional Accessories

Mounting bracket for LD 100 WS, WS6 wire rope, wire rope tensioner and clamp piece for tensioning the wire rope, with or without bracket.

Order Information

LD 100 WS, without mounting bracket	part no. 244150
Wire rope WS6, per meter	part no. 244147
Wire rope tensioner without bracket	part no. 701042
Wire rope tensioner with bracket	part no. 701043
Clamp piece without bracket	part no. 701047
Clamp piece with bracket	part no. 701048
Mounting bracket	part no. 701040

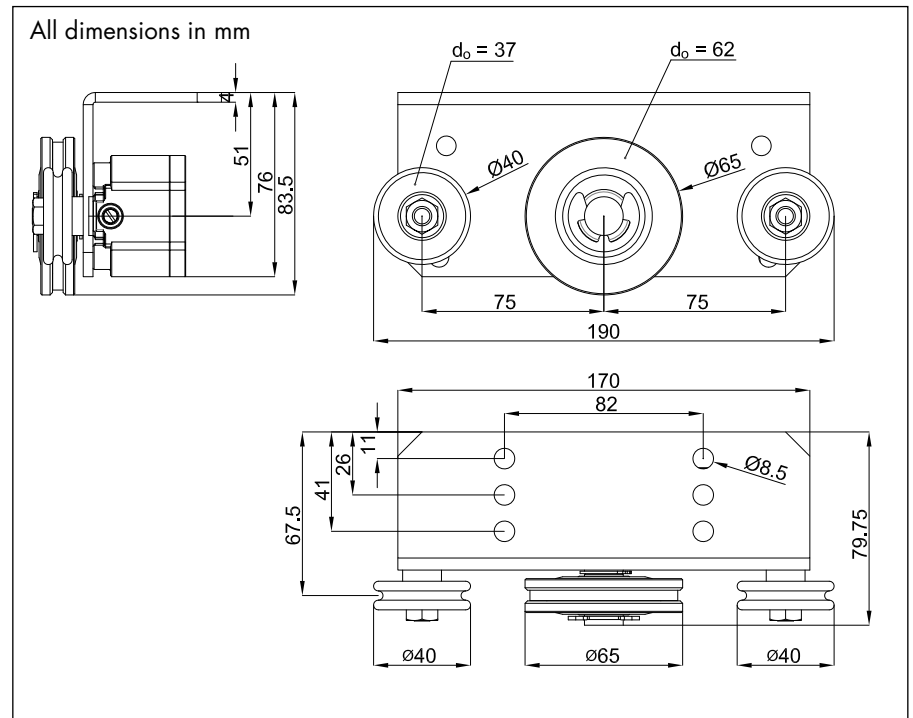


Radial Damper LD 100L S-65 with Rope Pulley Ø 65, two small guiding pulleys Ø 40 and wide mounting bracket

The radial damper LD 100L S-65 with rope pulley Ø 65 and two additional guiding pulleys Ø 40 hydraulically damps by means of a **tensioned rope** Ø 3 mm. The rope is guided via the two guiding pulleys around the central rope pulley of the lamellar radial damper. This ensures an optimum damping.

The standard rope pulley features a freewheel. The way of guiding the rope around the pulleys determines the direction of damping. It is of course possible to take off the driving rope pulley, turn it around and fix it again on the axle (see page 03.056.00).

Dimensions



The lamellar radial damper LD 100L S-65 with rope pulley Ø 65 and two guiding pulleys is always supplied with mounting bracket. The bracket has 6 holes to allow adapting the mounting position to the local situation.

Components Included

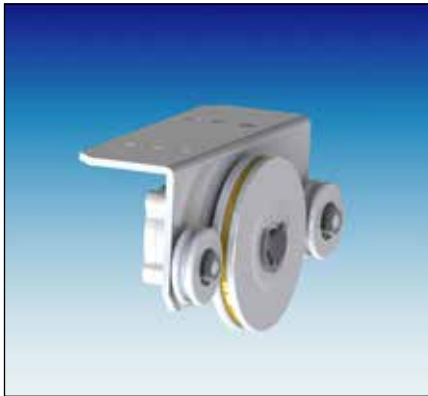
Radial damper LD 100L S-65 with rope pulley Ø 65 in aluminium with Vulkollan insert, with freewheel, 2 small guiding pulleys Ø 40 in plastics, casing in plastics, zinc-plated mounting bracket with 6 fixing holes

Optional Accessories

Steel rope Ø 3 mm, rope tensioner (for order information see below)

Order Information

Radial damper LD 100L S-65, 2 guiding pulleys Ø 40, mounting bracket, zinc-plated	part no. 244121
25 m of steel rope Ø 3 mm	part no. 700155
Rope tensioner (complete kit)	part no. 220005S

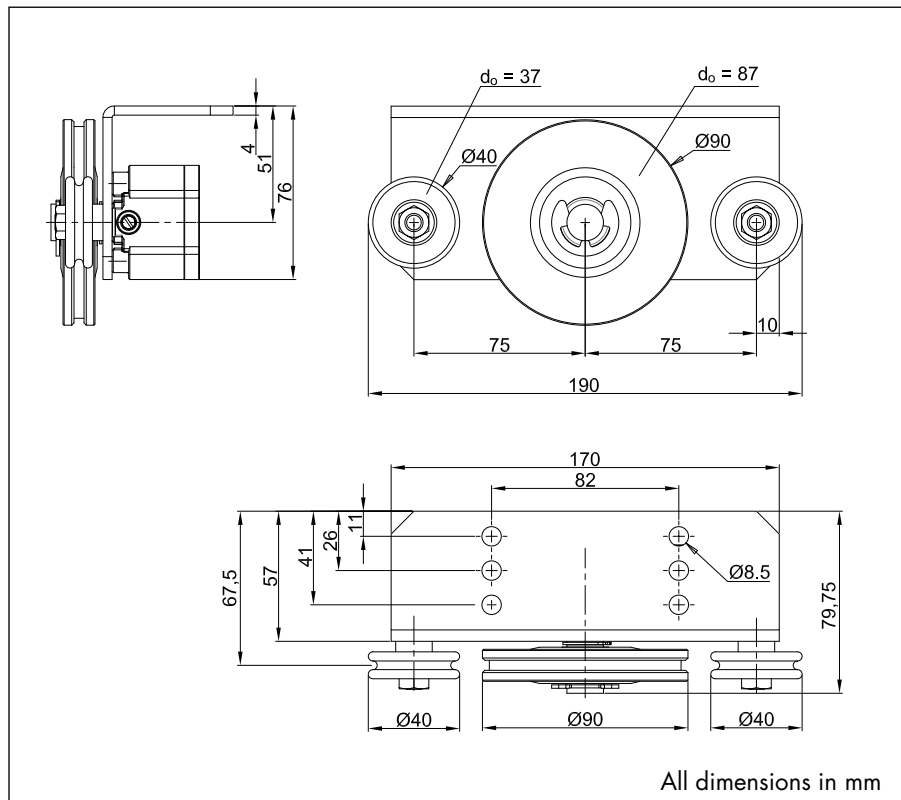


Radial Damper LD 100L S-90 with Rope Pulley Ø 90, two small guiding pulleys Ø 40 and wide mounting bracket

The radial damper LD 100L S-90 with rope pulley Ø 90 and two additional guiding pulleys Ø 40 hydraulically damps by means of a **tensioned rope** Ø 3 mm. When there are higher loads, you should use this model as the rope is longer in contact with the rope pulley due to its larger diameter.

The standard center rope pulley of the model features a freewheel. The way of guiding the rope around the pulleys determines the direction of damping. It is of course possible to take off the rope pulley, turn it around and fix it again on the axle (see page 03.056.00).

Dimensions



The lamellar radial damper LD 100L S-90 with rope pulley Ø 90 and two guiding pulleys is always supplied with mounting bracket. The bracket has 6 holes to allow adapting the mounting position to the local situation.

Components Included

Radial damper LD 100L S-90 with rope pulley Ø 90 in aluminium with Vulkollan insert, with freewheel, 2 small guiding pulleys Ø 40 in plastics, casing in plastics, zinc-plated mounting bracket with 6 fixing holes

Optional Accessories

Steel rope Ø 3 mm, rope tensioner (for order information see below)

Order Information

LD 100L S-90, 2 guiding pulleys Ø 40, mounting bracket, zinc-plated part no. 244144

25 m of steel rope Ø 3 mm part no. 700155

Rope tensioner (complete kit) part no. 2200055

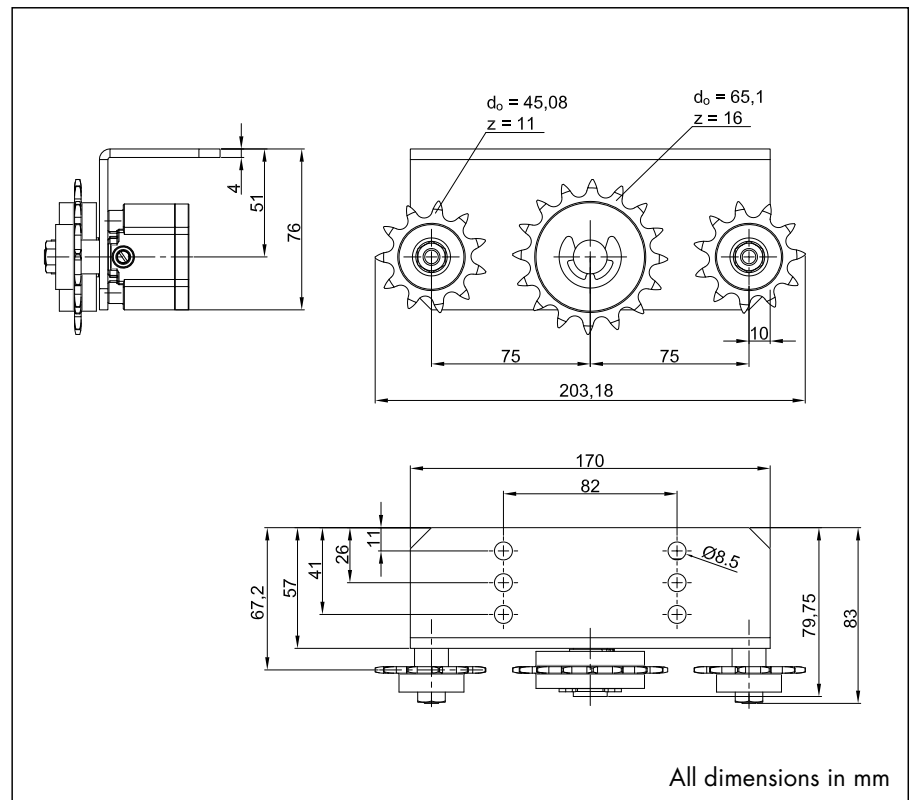


Radial Damper LD 100L K-Z16 with Chain Wheel Z16, two small chain wheels and wide mounting bracket

The radial damper LD 100L K-Z16 with chain wheel Z16 and two additional guiding wheels Z11 damps by means of a **tensioned chain**. This model should always be used in case of high loads as it assures an absolutely positive connection between radial damper and the device (e.g. door) to be controlled.

By default the chain wheel Z16 features a freewheel and therefore hydraulically damps only in one direction. The way of guiding the chain around the wheels determines the direction of damping. It is of course possible to take off the chain wheel, turn it around and fix it again on the axle (see page 03.056.00).

Dimensions



The lamellar radial damper LD 100L K-Z16 with chain wheel Z16 and two guiding chain wheels is always supplied with mounting bracket. The bracket has 6 holes to allow adapting the mounting position to the local situation.

Components Included

Radial damper LD 100L K-Z16 with chain wheel Z16, with freewheel, 2 small chain wheels Z11, casing in plastics, zinc-plated mounting bracket

Optional Accessories

Chain 1/2 x 1/8", chain tensioner (for order information see below)

Order Information

LD 100L K-Z16, 2 chain wheels Z11, mounting bracket, zinc-plated	part no. 244145
Chain 1/2 x 1/8", piece of 5 m length	part no. 220006
Chain lock	part no. 220007
Chain tensioner (complete kit)	part no. 220005



Accessories for Radial Dampers LD 50 S

Mounting accessories for revolving rope (up to rope pulley Ø 65 mm)

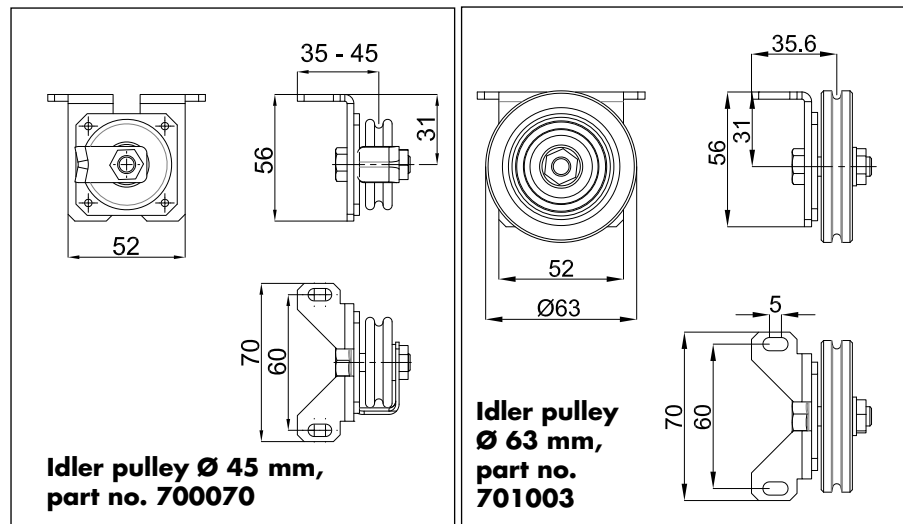
For the radial damper LD S with revolving rope the appropriate accessories for transmitting the damping force are available.

Due to the different forces effective in the applications they are used for, the radial dampers LD 50 and LD 100 require different accessories. For the LD 50 radial dampers is used a steel rope of Ø 2 mm, for the LD 100 ones one of Ø 3 mm.

More accessories can be found on the pages of the respective models.

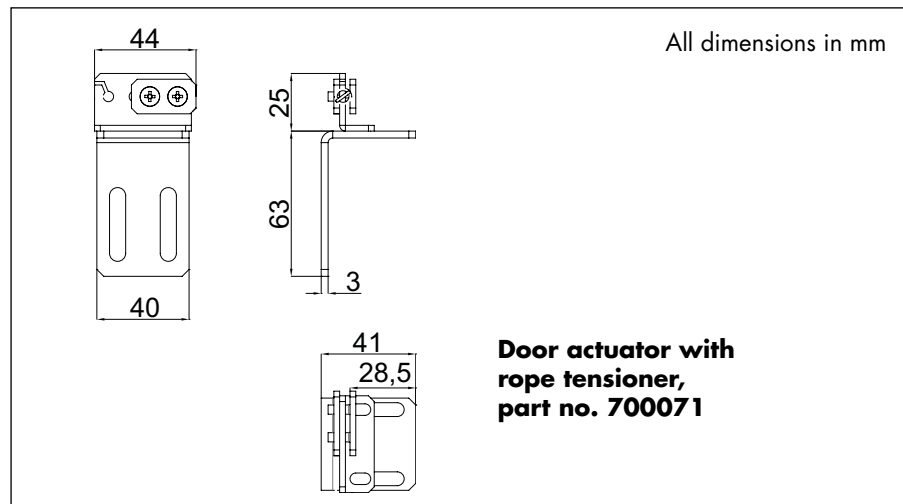
Dimensions

Idler Pulleys Ø 45/63 mm



Dimensions

Door Actuator with Rope Tensioner for Rope Ø 2 mm



Order Information

Door actuator for revolving rope Ø 2 mm, zinc-plated	part no. 700071
Door actuator for revolving rope Ø 2 mm, AISI 304	part no. 700073
Idler pulley Ø 45, mounting bracket kit for LD 50 S-45, zinc-plated	part no. 700070
Idler pulley Ø 45, mounting bracket kit for LD 50 S-45, AISI 304	part no. 700077
Idler pulley Ø 63, mount. bracket kit for LD 50/100 S-65, zinc-plated	part no. 701003
Idler pulley Ø 63, mount. bracket kit for LD 50/100 S-65, AISI 304	part no. 701004
8 m of steel rope Ø 2 mm with compensation spring for LD 50 S	part no. 700075
8 m of stainless steel rope Ø 2 mm with compens. spring for LD 50 S	part no. 700076



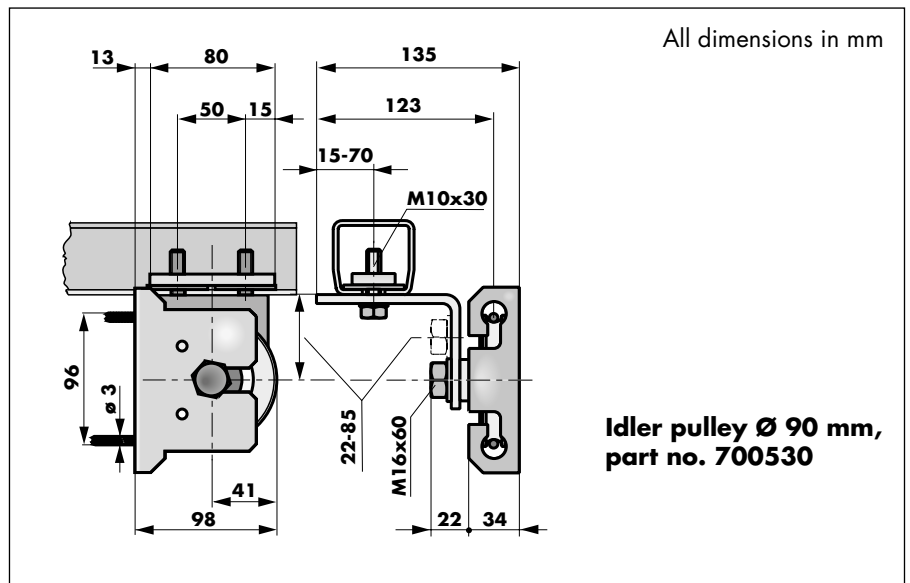
Accessories for Radial Dampers LD 100 S

Mounting accessories for revolving rope (rope pulley Ø 90 mm)

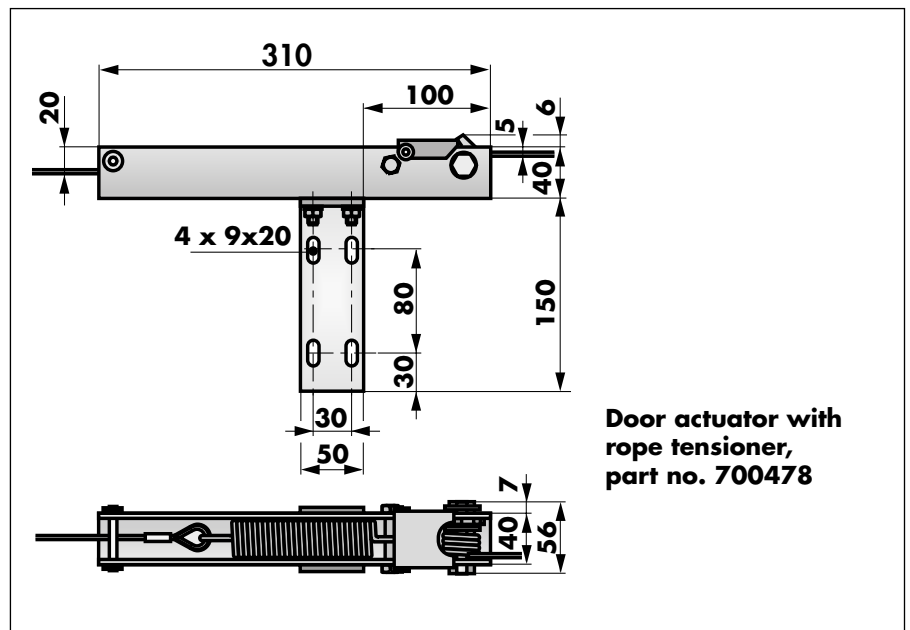
For the LD 100 S radial dampers, models LD 100 S-65 and LD 100 S-90, you always should use the Ø 3 mm steel rope. The rope is tensioned by means of the rope tensioner, part no. 700478.

The dimensions of the idler pulley for the model LD 100 S-65 can be found on the preceding page.

Dimensions Idler Pulley Ø 90 mm



Dimensions Door Actuator with Rope Tensioner for Rope Ø 3 mm



Order Information

Door actuator for revolving rope for LD 100 S-65 and S-90	part no. 700478
Idler pulley Ø 90 for revolving rope for LD 100 S-90	part no. 700530
25 m of steel rope Ø 3 mm for LD 100 S	part no. 700155



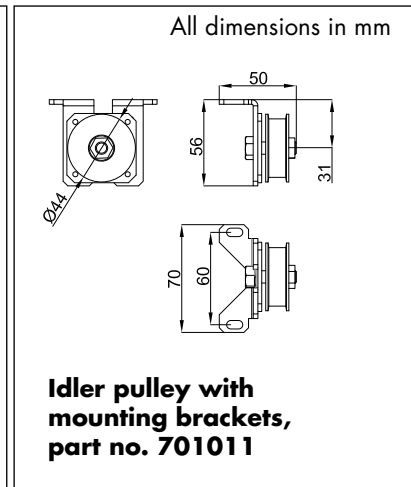
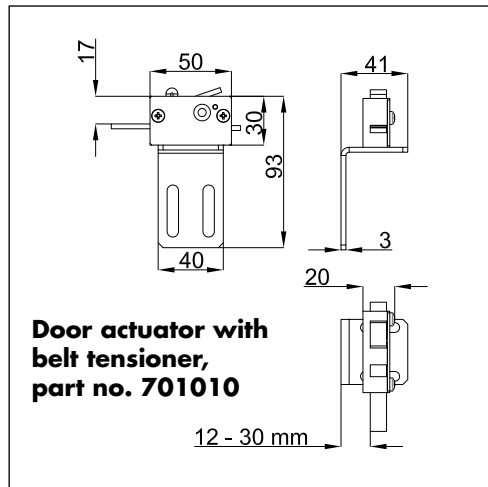
Accessories for LD 50 Z/K and LD 100 Z/K Mounting accessories for revolving toothed belt, chain

For the radial dampers LD transmitting the damping force by toothed belt or chain, the appropriate accessories are available.

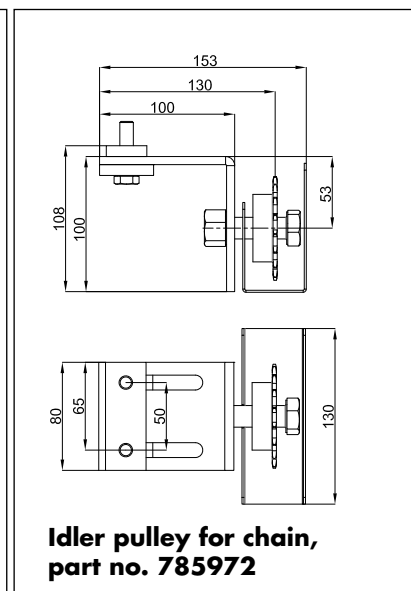
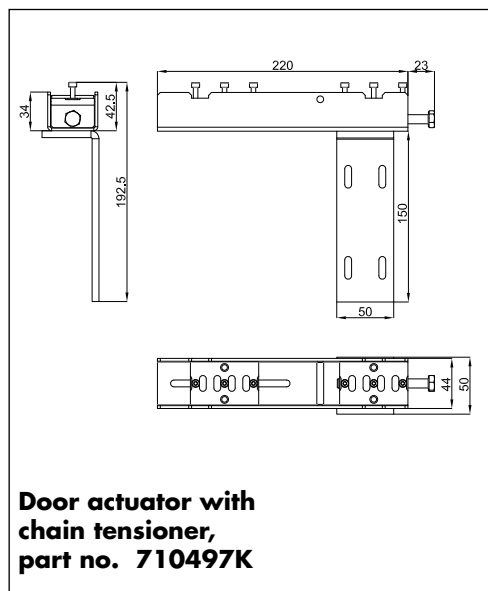
The idler pulley is intended for the radial damper LD with toothed belt disk Z26.

The chain 1/2 x 1/8" is packaged in pieces of 5 m. To connect the chain pieces, chain locks can be ordered.

Dimensions Accessories for Revolving Toothed Belt



Dimensions Accessories for Revolving Chain



Order Information

Door actuator for revolving toothed belt	part no. 701010
Idler pulley with mounting brackets for toothed belt	part no. 701011
Toothed belt HDT 5, 10 mm wide, per meter	part no. 710502
Idler pulley for chain	part no. 785972
Door actuator for revolving chain	part no. 710497K
Chain 1/2 x 1/8", piece of 5 m length	part no. 220006
Chain lock	part no. 220007

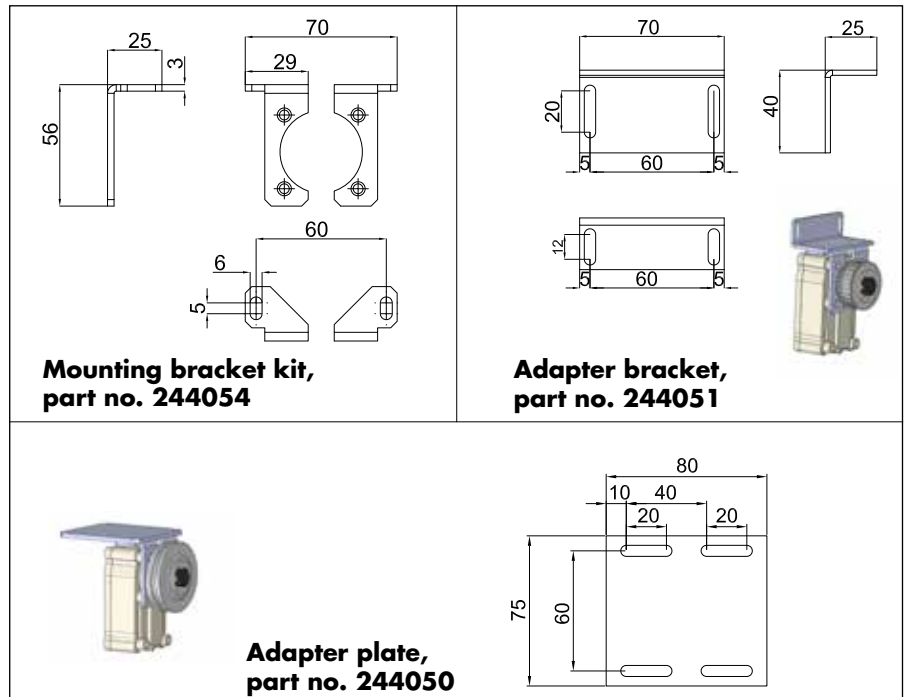


Mounting Brackets for radial dampers LD 50 and LD 100

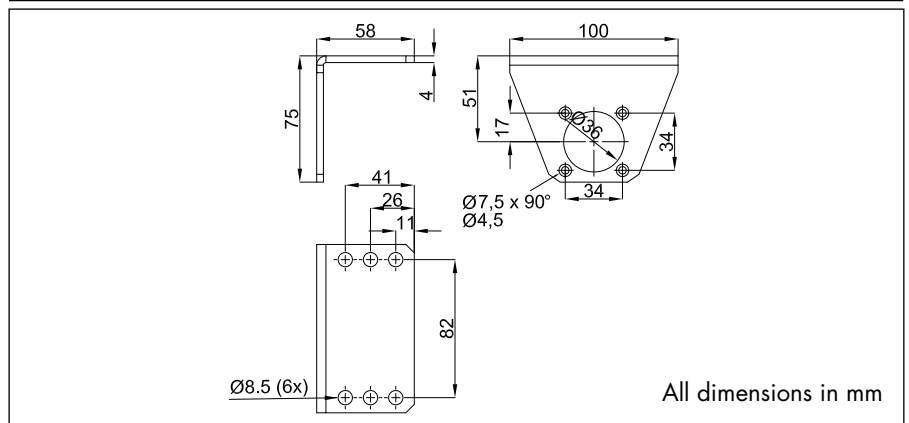
The mounting bracket kit for fitting the LD radial dampers can be complemented with an additionally available adapter bracket and an adapter plate.

Also the mounting bracket with 6 fixing holes can be ordered separately. Other accessories can be found on the pages of the respective models.

Dimensions Mounting Bracket Kit for LD 50 and LD 100 and Adapter Bracket and Adapter Plate



Dimensions Mounting Bracket with 6 Fixing Holes



Order Information

Mounting bracket kit for LD 50/LD 100, zinc-plated	part no. 244054
Mounting bracket kit for LD 50/LD 100, AISI 304	part no. 244055
Adapter bracket 70 x 25 x 40, zinc-plated	part no. 244051
Adapter bracket 70 x 25 x 40, AISI 304	part no. 244053
Adapter plate 75 x 80, zinc-plated	part no. 244050
Adapter plate 75 x 80, AISI 304	part no. 244052
Mounting bracket with 6 fixing holes	part no. 244057



Mounting and Operating Instructions

For radial dampers LD 50 and LD 100

The DICTATOR LD radial dampers control the speed of movements over unlimited distances.

The damping force and therewith the speed can continuously be adjusted and exactly adapted to the requirements.

The mounting depends on the model. Below you will find the most important instructions for the different types.

Damping Adjustment

The lateral adjusting screw allows to continuously adjust the damping force to the requirements.

The more you tighten the adjusting screw (turn it clockwise) the higher becomes the damping force. Turning it anticlockwise will reduce the damping force.

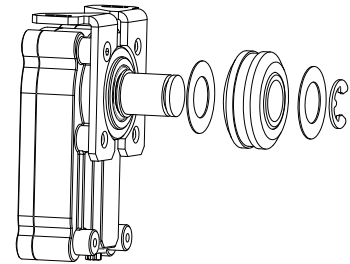
Adjusting screw



When mounting the radial damper, make sure the adjusting screw is always easy to reach.

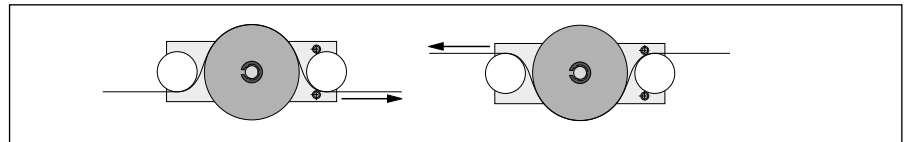
Mounting of the Driving Wheel

All models with only one damping wheel (rope pulley, chain wheel, toothed belt disk) are delivered with the wheel not being mounted. By default the rope pulley, the chain wheel as well as the toothed belt disk have a freewheel, i.e. they damp only in one direction. (On demand the driving wheel can also be furnished without freewheel for damping in both directions.) Depending on the mounting, the desired damping direction and the guiding of the rope/chain/toothed belt you put the driving wheel on the axle and secure it.



Determining the Damping Direction of the Models with 2 Guiding Pulleys

The damping direction of the models with two guiding pulleys is determined by the way the rope or chain is guided around the pulleys/wheels, see the following illustration.



But you also can change the damping direction by taking off the driving pulley, turning it around and fixing it again on the axle.

Type of Driving Wheel

Beside the standard models shown on the previous pages, on demand also other driving wheels are possible, e.g. friction wheels, toothed wheels Z16 module 4 or Z30 module 1.5. Just ask us.

