



Radial Dampers LD

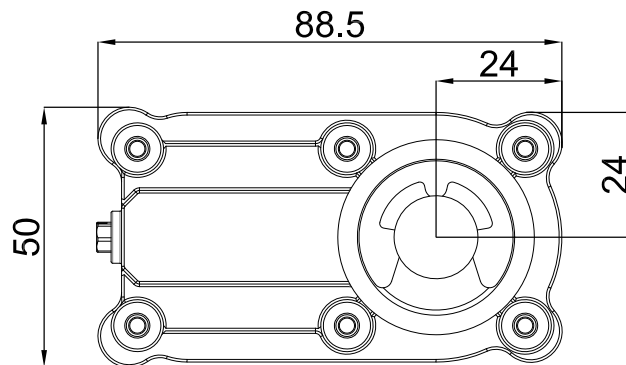
Patented new development with extremely broad damping range

DICTATOR 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 customised 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 (see small picture on the left) 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 for **transmitting the damping**: from rope pulleys with different diameters and for different rope diameters to toothed wheels, chain wheels, friction wheels etc.

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 customers requirements:

- Increasing the damping by a higher body - in a customised casing - on demand.
- By using different damping media with differing viscosity (for an example please see the damping diagram LD 50 on page 03.040.00).

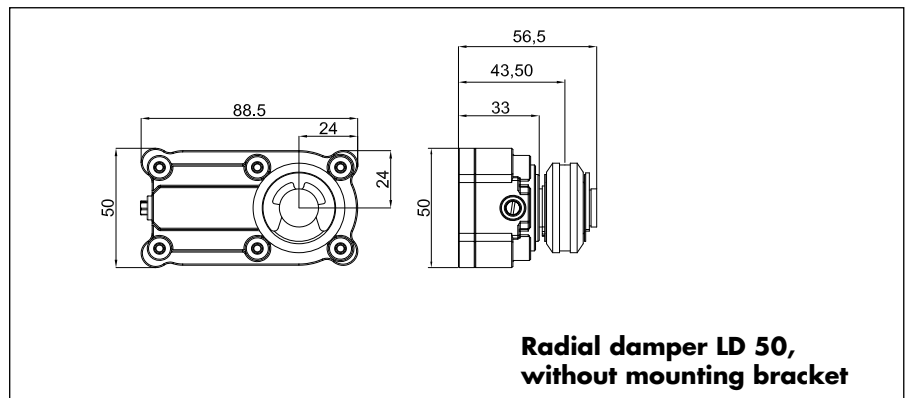
The standard **casing** of the LD radial damper is made of plastics. This casing has been subject to a fire test according to DIN 53438-2 and thus meets the special directives for the use in rail vehicles. It is however possible to make it for special requirements also of other material as e.g. aluminium or stainless steel.



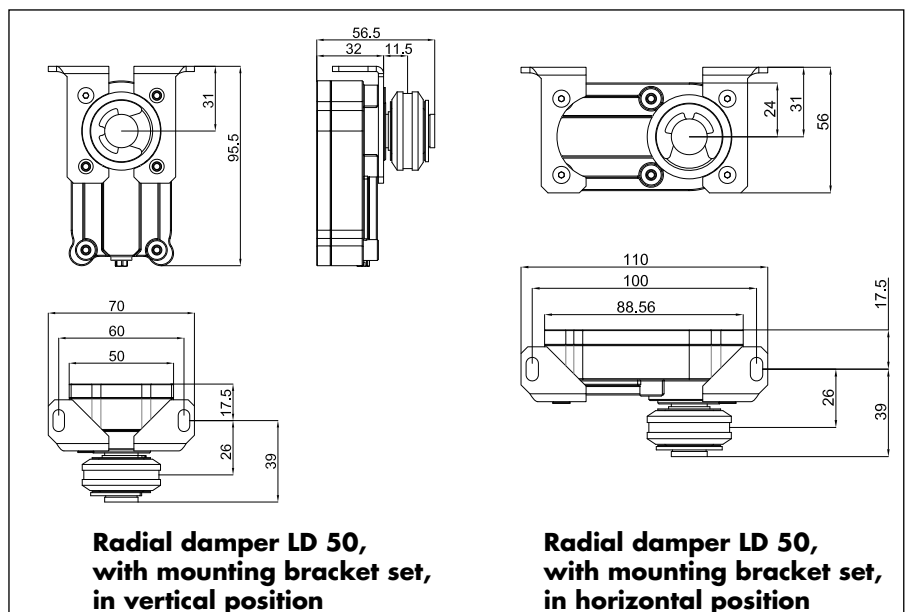
Radial Damper LD 50 Basic Unit with Rope Pulley With or without fixing accessories

The basic unit of the LD 50 radial damper is designed for damping with rope. The standard rope pulley has a diameter of 45 (40) mm. In total the LD radial damper has 6 mounting holes with a diameter of 2.9 mm for individual fixing. The mounting bracket set allows to easily fix the LD 50 radial damper in an either horizontal or vertical position. Additionally are available an adaptor bracket and plate (see page 03.050.00).

Dimensions LD 50 Basic Unit



Dimensions LD 50 with Mounting Bracket Set



Components Included

Radial damper LD 50 with rope pulley \varnothing 45 (40) in aluminium with Vulkollan insert, with free wheel, casing in plastics, with or without mounting bracket set

Order Information

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



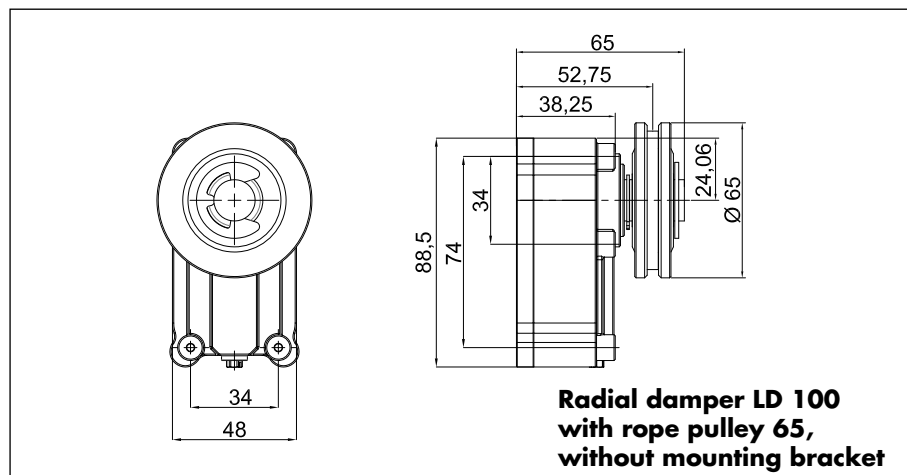
Radial Damper LD 100 with Rope Pulley Ø 65 For horizontal or vertical mounting

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

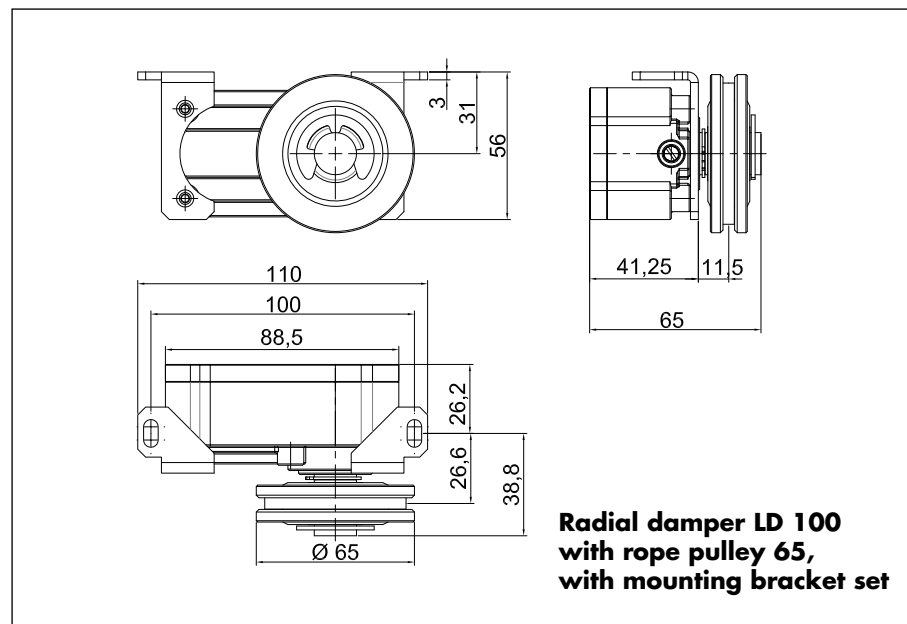
The rope pulley of the standard model has a free wheel, i.e. it dampens only in one direction.

When mounting the damper, please make sure the rope enlaces about 150° of the rope pulley to achieve an optimum damping.

Dimensions LD 100 Basic Unit



Dimensions LD 100 with Mounting Bracket Set



Components Included

Radial damper LD 100 with rope pulley Ø 65 in aluminium with Vulkollan insert, with free wheel, casing in plastics, with or without zinc-plated mounting bracket set

Order Information

LD 100, rope pulley Ø 65, without mounting bracket	part no. 244141
LD 100, rope pulley Ø 65, zinc-plated mounting bracket	part no. 244101

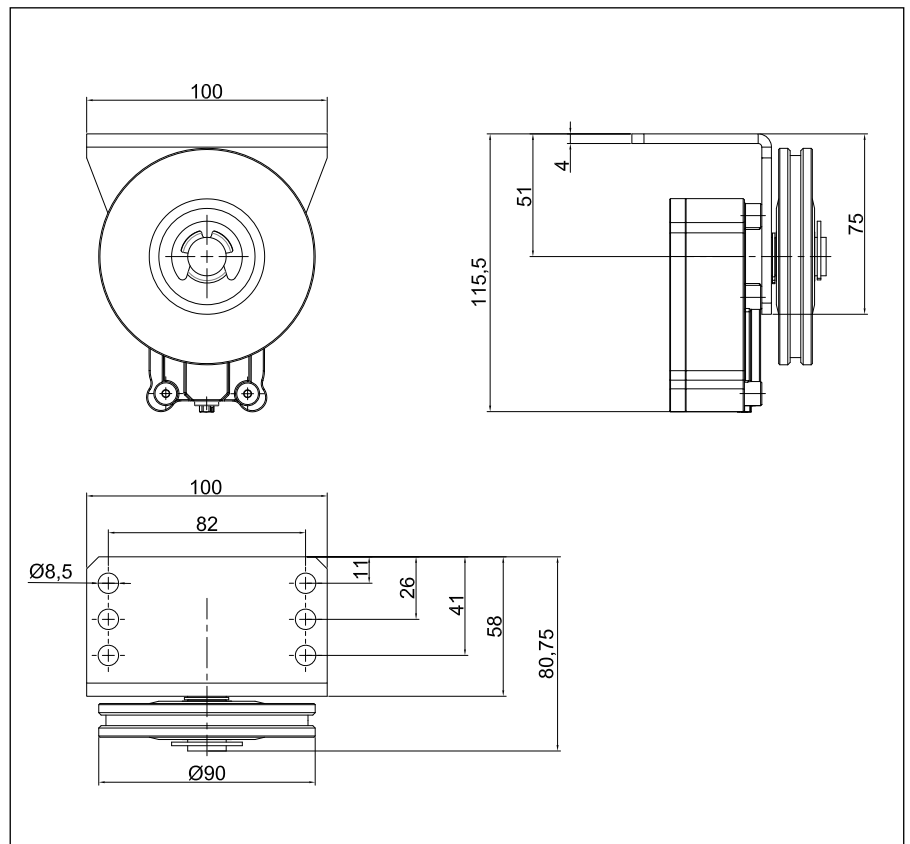


Radial Damper LD 100 with Rope Pulley Ø 90 With zinc-plated mounting bracket with 6 holes

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

The rope pulley of the standard model has a free wheel, i.e. it dampens only in one direction.

Dimensions



Normally the LD 100 with rope pulley Ø 90 is supplied with a zinc-plated mounting bracket. It has 6 borings to allow adapting the mounting position to the local situation.

Components Included Standard

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

Order Information

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

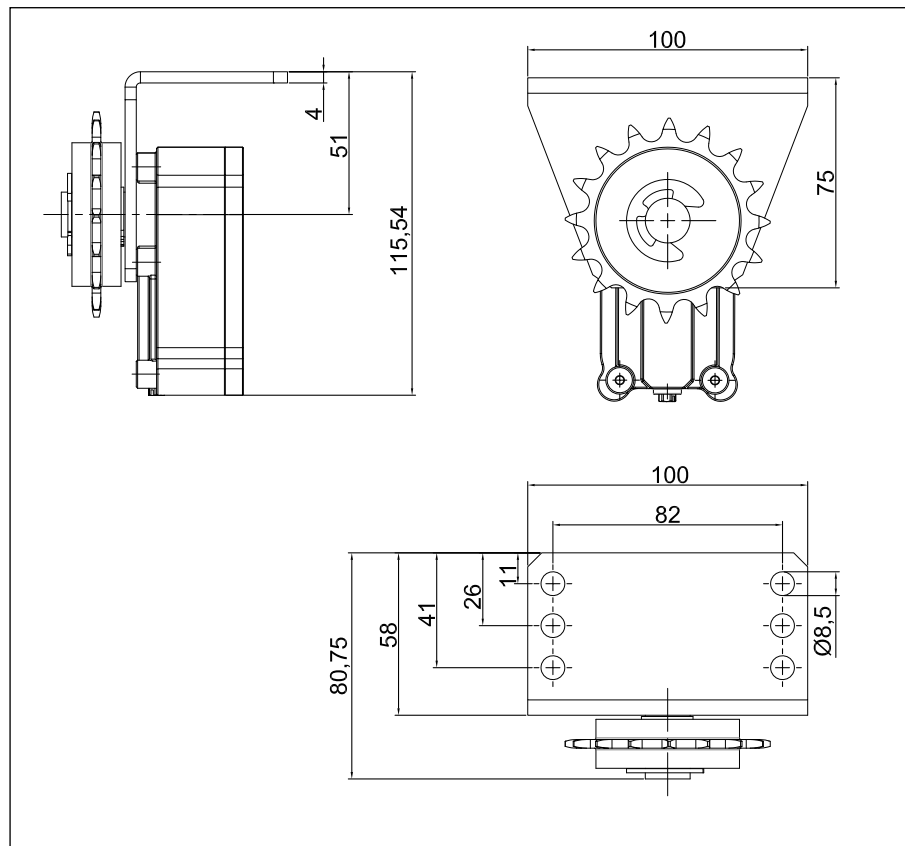


Radial Damper LD 100 with Chain Wheel Z16, 1/2x1/8" With zinc-plated mounting bracket with 6 holes

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

The chain wheel of the standard model has a free wheel, i.e. it dampens only in one direction.

Dimensions



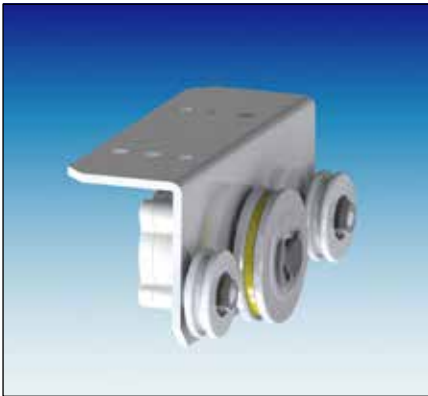
Normally the LD 100 with chain wheel is supplied with a zinc-plated mounting bracket. It has 6 holes to allow adapting the mounting position to the local situation.

Components Included Standard

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

Order Information

LD 100, chain wheel Z16, without mounting bracket	part no. 244143
LD 100, chain wheel Z16, zinc-plated mounting bracket	part no. 244103
Chain 1/2 x 1/8", piece of 5 m length	part no. 220006
Chain lock	part no. 220007
Idler pulley for chain 1/2 x 1/8"	part no. 700497

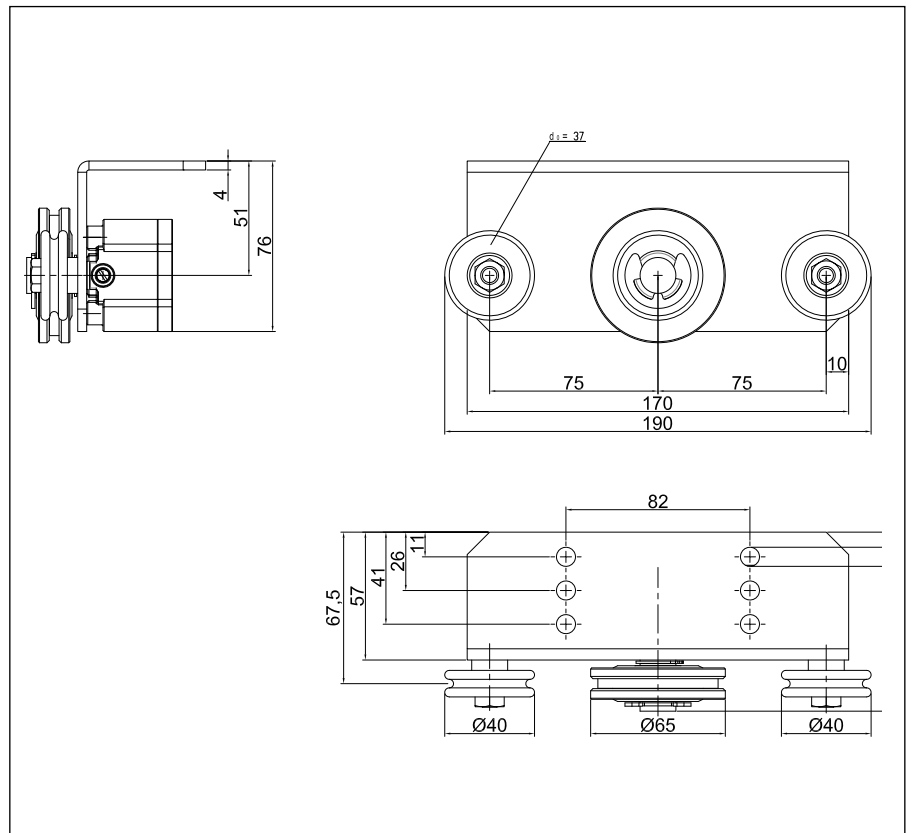


Radial Damper LD 100 with Rope Pulley Ø 65, two small rope pulleys Ø 40 and wide mounting bracket

The radial damper LD 100 with rope pulley Ø 65 and two additional guiding pulleys Ø 40 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 center rope pulley of the standard model has a free wheel. The way of guiding the rope around the pulleys determines the direction of damping. It is of course possible to take off the center rope pulley, turn it around and fix it again on the axle.

Dimensions



The lamellar radial damper LD 100 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 Standard

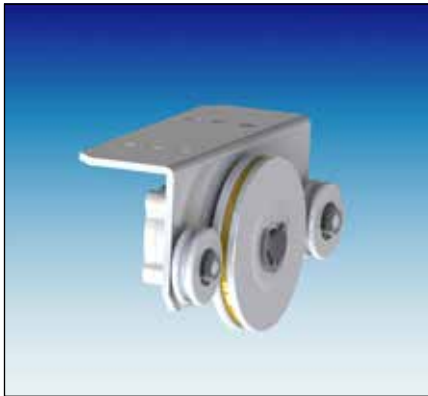
Radial damper LD 100 with rope pulley Ø 65 in aluminium with Vulkollan insert and 2 guiding pulleys Ø 40, with free wheel, casing in plastics, zinc-plated mounting bracket with 6 fixing holes

Order Information

Radial damper LD 100, rope pulley Ø 65, 2 guiding pulleys Ø 40, zinc-plated mounting bracket part no. 244121

25 m of steel rope Ø 3 mm

part no. 700155

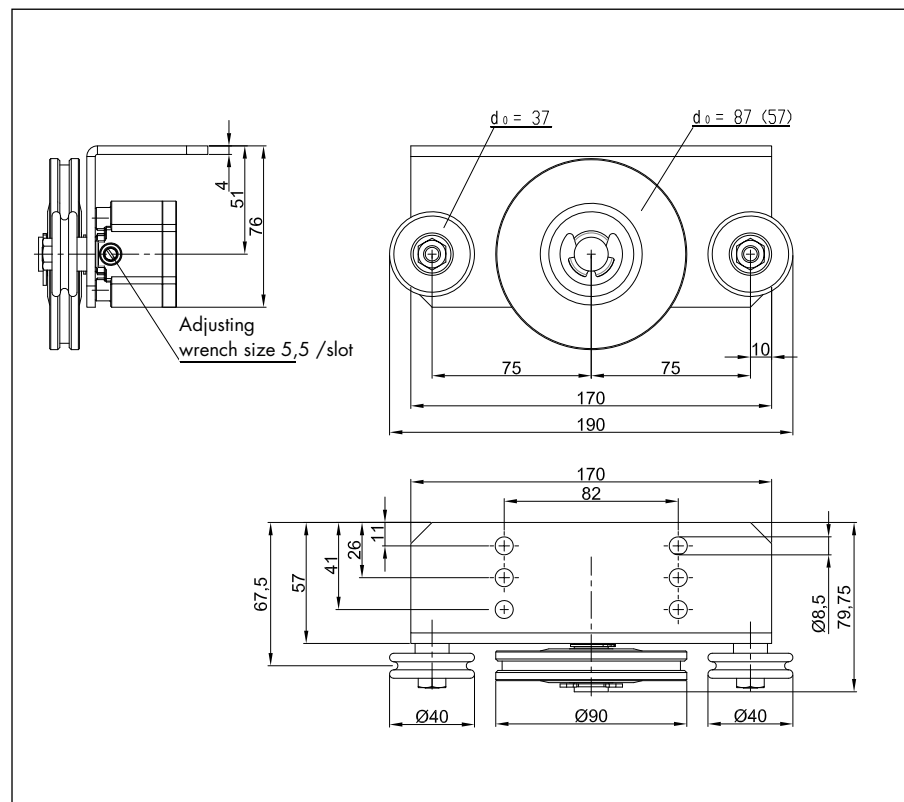


Radial Damper LD 100 with Rope Pulley Ø 90, two small rope pulleys Ø 40 and wide mounting bracket

The radial damper LD 100 with rope pulley Ø 90 and two additional guiding pulleys Ø 40 damps by means of a tensioned rope Ø 3 mm. When there are higher loads, you should use this model as due to the larger diameter of the rope pulley the rope has longer contact with the pulley and therefore offers a more secure rope guiding.

The center rope pulley of the standard model has a free wheel. The way of guiding the rope around the pulleys determines the direction of damping. It is of course possible to take off the center rope pulley, turn it around and fix it again on the axle.

Dimensions



The lamellar radial damper LD 100 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 100 with rope pulley Ø 90 in aluminium with Vulkollan insert, with free wheel, 2 small rope pulleys in plastics Ø 40, casing in plastics, zinc-plated mounting bracket with 6 fixing holes

Order Information

LD 100, rope pulley Ø 90, 2 guiding pulleys Ø 40, zinc-plated mounting bracket

part no. 244144

25 m of steel rope Ø 3 mm

part no. 700155

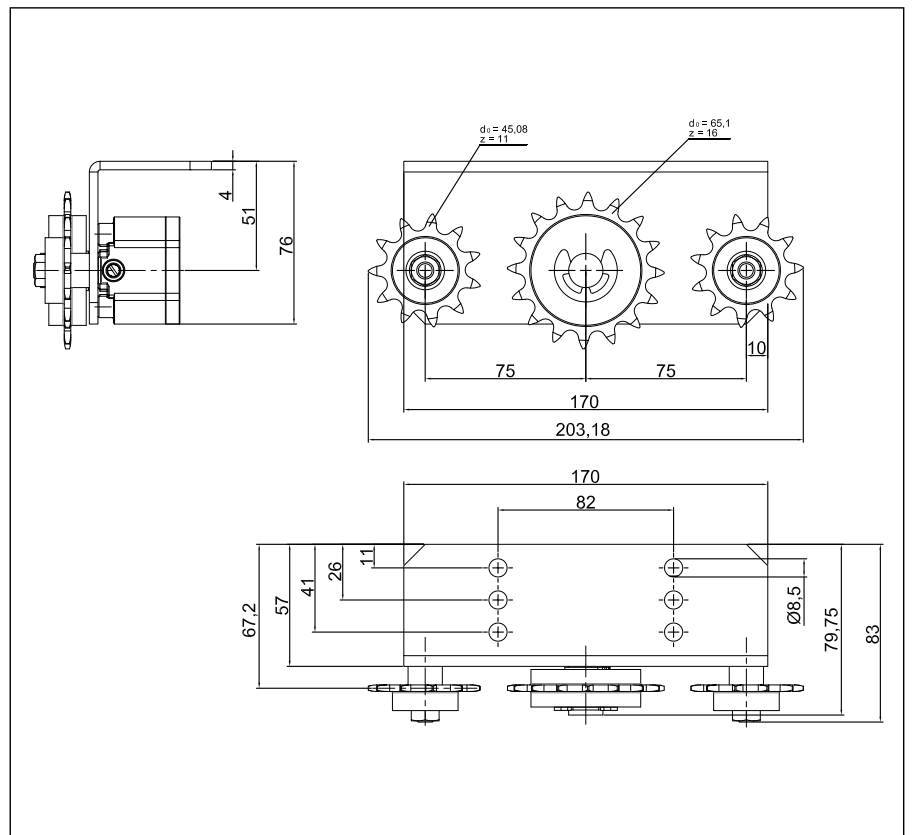


Radial Damper LD 100 with Chain Wheel Z16, two small chain wheels and wide mounting bracket

The radial damper LD 100 with chain wheel Z16 and two additional guiding wheels Z11 damps by means of a tensioned chain 1/2 x 1/8". This model should always be used in case of high loads as it assures an absolutely non-positive connection between radial damper and the device to be damped.

As by default the chain wheel Z16 has a free wheel, it dampens 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 center chain wheel, turn it around and fix it again on the axle.

Dimensions



The lamellar radial damper LD 100 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 100 with chain wheel Z16, with free wheel, 2 small chain wheels Z11, casing in plastics, zinc-plated mounting bracket

Order Information

LD 100, chain wheel Z16, 2 chain wheels Z11, zinc-plated mounting bracket	part no. 244145
Chain 1/2 x 1/8", piece of 5 m length	part no. 220006
Chain lock	part no. 220007



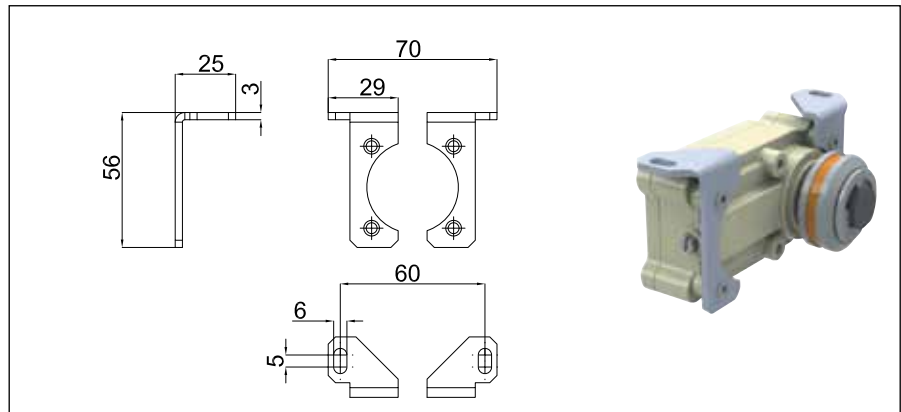
Radial Dampers LD 50 and LD 100

Mounting accessories

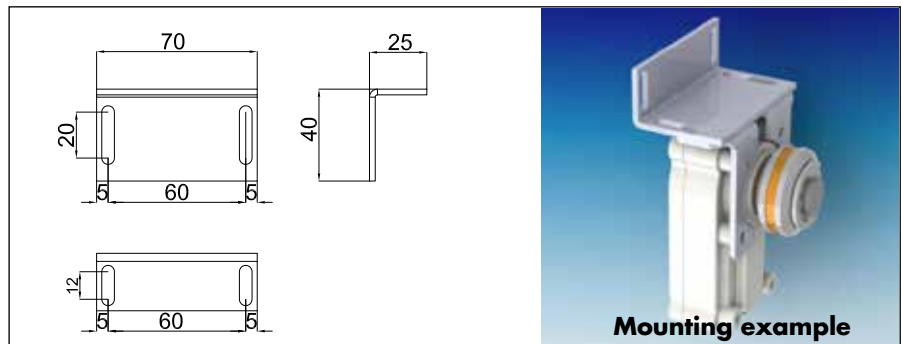
For the radial dampers LD 50 and the LD 100 (with only one damping wheel) a mounting bracket set is available. Depending on the model it is already included in the delivery. This set facilitates a horizontal or vertical mounting.

Additionally an adaptor bracket and an adaptor plate are available which allow to adapt the radial dampers LD 50 and LD 100 to different mounting situations.

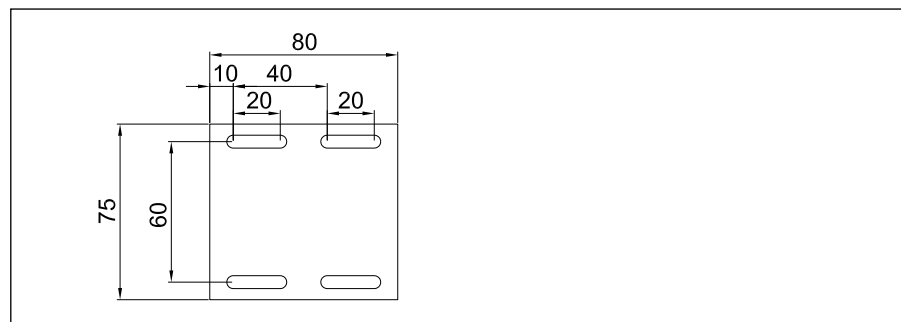
Mounting Bracket Set



Adaptor Bracket



Adaptor Plate



Order Information

Mounting bracket set for radial dampers LD 50/LD 100, zinc-plated	part no. 244054
Mounting bracket set for radial dampers LD 50/LD 100, AISI 304	part no. 244055
Adaptor bracket 70 x 25 x 40 mm, zinc-plated	part no. 244051
Adaptor bracket 70 x 25 x 40 mm, AISI 304	part no. 244053
Adaptor plate 75 x 80 mm, zinc-plated	part no. 244050
Adaptor plate 75 x 80 mm, AISI 304	part no. 244052



Radial Dampers LD 50 and LD 100

Mounting accessories for revolving rope

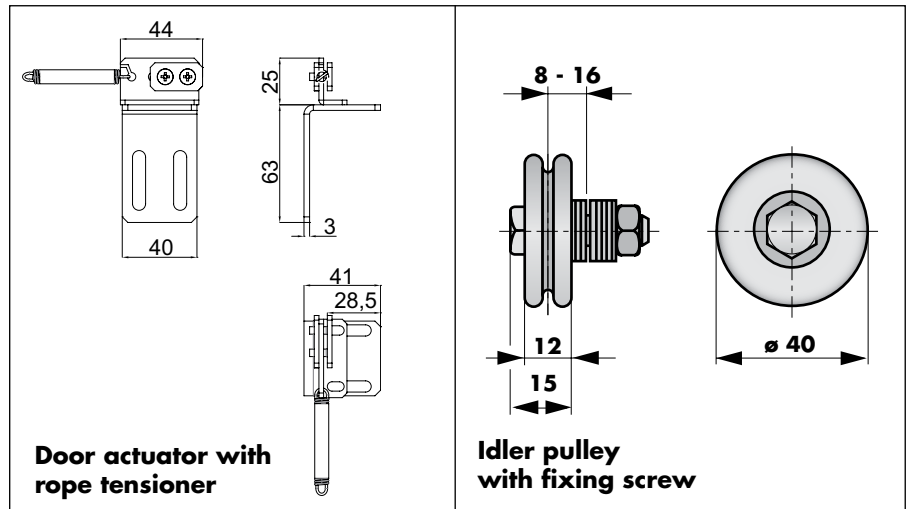
For those radial dampers LD which dampen by means of a rope we offer appropriate accessories.

For the radial damper LD 50 which is usually used for doors, a complete accessories set with steel rope of $\varnothing 2$ mm is available.

For the radial damper LD 100 is used a steel rope of $\varnothing 3$ mm.

More accessories can be found with the respective models and in the chapter Door Closer Solutions on the pages about the sliding door closer DICTAMAT 50.

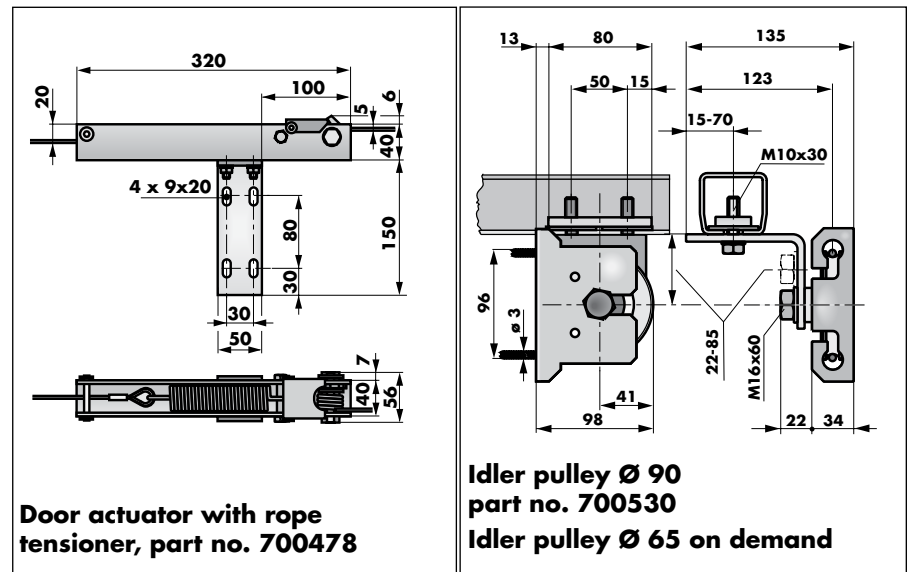
Dimensions Accessories Set for Revolving Rope for LD 50



Components Included Accessories for Rope LD 50

8 m of steel rope $\varnothing 2$ mm, idler pulley $\varnothing 40$ mm with fixing screw, door actuator for fixing the rope on the door, traction spring as compensation spring.

Dimensions Accessories Set for Revolving Rope for LD 100



Order Information

Accessories set for radial damper LD 50 for revolving rope	part no. 244060
Door actuator for revolving rope for LD 100	part no. 700478
Idler pulley $\varnothing 90$ for revolving rope for LD 100	part no. 700530
25 m of steel rope $\varnothing 3$ mm	part no. 700155



Radial Dampers LD 50 and LD 100

Mounting and operation instructions

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 adapted exactly 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.

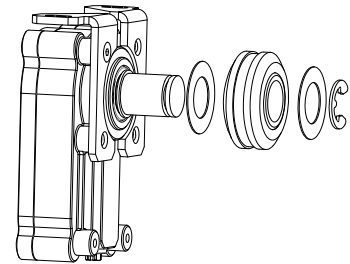
The more you tighten the adjusting screw (turn it clockwise) the higher becomes the damping force. Turning it anticlockwise will reduce the damping force.

Adjusting screw



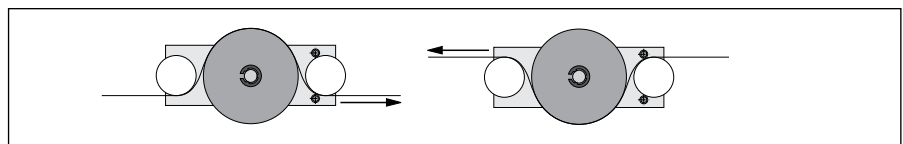
Mounting of Rope Pulley/Chain Wheel

All models with only one damping wheel (rope pulley, chain wheel) are delivered with the wheel not being mounted. By default the rope pulley as well as the chain wheel have a free wheel, i.e. they damp only in one direction. Depending on the mounting and the desired damping direction you put the wheel on the axle and secure it.



Determining the Damping Direction of 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 wheels, see the following illustration.



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