



## Soft Close

Fluid dampers  
Air friction dampers  
Self-closing units

THE KNOW-HOW FACTORY

**THE KNOW-HOW FACTORY**

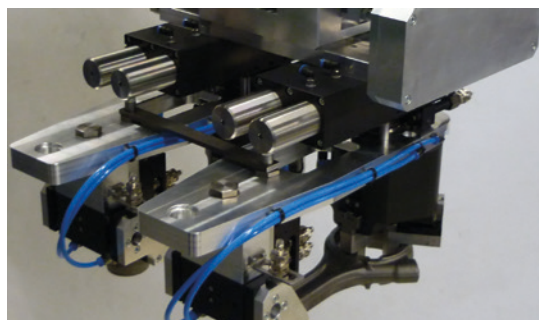
# ZIMMER GROUP COMMITTED TO OUR CUSTOMERS

**WE HAVE SUCCEEDED FOR YEARS BY OFFERING OUR CUSTOMERS INNOVATIVE AND INDIVIDUALIZED SOLUTIONS. ZIMMER HAS GROWN CONTINUOUSLY AND TODAY WE HAVE REACHED A NEW MILESTONE: THE ESTABLISHMENT OF THE KNOW-HOW FACTORY. IS THERE A SECRET TO OUR SUCCESS?**

**Foundation.** Excellent products and services have always been the foundation of our company's growth. Zimmer is a source of ingenious solutions and important technical innovations. This is why customers with high expectations for technology frequently find their way to us. When things get tricky, Zimmer Group is in its best form.

**Style.** We have an interdisciplinary approach to everything we do, resulting in refined process solutions in six technology fields. This applies not just to development but to production. Zimmer Group serves all industries and stands ready to resolve even the most unique and highly individualized problems. Worldwide.

**Motivation.** Customer orientation is perhaps the most important factor of our success. We are a service provider in the complete sense of the word. With Zimmer Group, our customers have a single, centralized contact for all of their needs. We approach each customer's situation with a high level of competence and a broad range of possible solutions.



# TECHNOLOGIES



## HANDLING TECHNOLOGY

MORE THAN 30 YEARS OF EXPERIENCE AND INDUSTRY KNOWLEDGE: OUR PNEUMATIC, HYDRAULIC AND ELECTRICAL HANDLING COMPONENTS AND SYSTEMS ARE GLOBAL LEADERS.

**Components.** More than 2,000 standardized grippers, swivel units, robotic accessories and much more. We offer a complete selection of technologically superior products that are ready for rapid delivery.

**Semi-standard.** Our modular approach to design enables custom configurations and high rates of innovation for process automation.



## DAMPING TECHNOLOGY

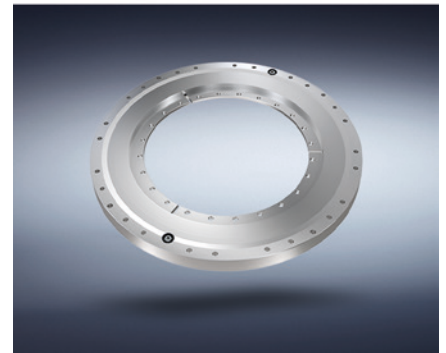
INDUSTRIAL DAMPING TECHNOLOGY AND SOFT CLOSE PRODUCTS EXEMPLIFY THE INNOVATION AND PIONEERING SPIRIT OF THE KNOW-HOW FACTORY.

### **Industrial damping technology.**

Whether standard or customized solutions, our products stand for the highest cycle rates and maximum energy absorption with minimal space requirements.

**Soft Close.** Development and mass production of pneumatic and fluid dampers with extraordinary quality and rapid delivery.

**OEM and direct.** Whether they need components, returning mechanisms or complete production lines – we are the trusted partner of many prestigious customers.

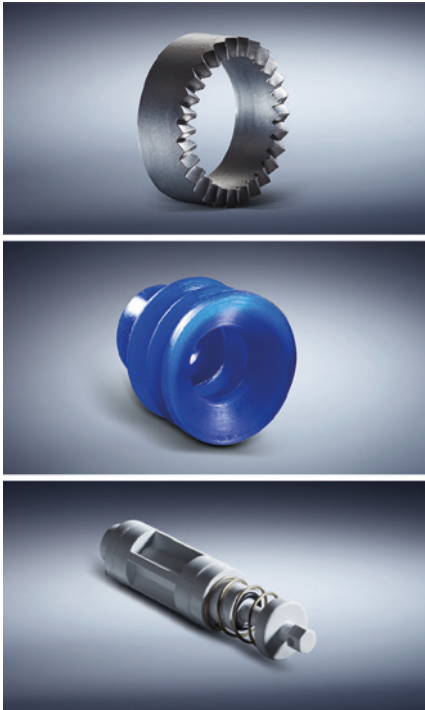


## LINEAR TECHNOLOGY

WE DEVELOP LINEAR COMPONENTS AND SYSTEMS THAT ARE INDIVIDUALLY ADAPTED TO OUR CUSTOMERS' NEEDS.

**Clamping and braking elements.** We offer you more than 4,000 types for profiled and round rails as well as for a variety of guide systems from all manufacturers. It makes no difference whether you prefer manual, pneumatic, electric or hydraulic drive.

**Flexibility.** Our clamping and braking elements ensure that movable components such as Z-axes or machining tables maintain a fixed position and that machines and systems come to a stop as quickly as possible in an emergency.



## PROCESS TECHNOLOGY

MAXIMUM EFFICIENCY IS ESSENTIAL FOR SYSTEMS AND COMPONENTS USED IN PROCESS TECHNOLOGY. HIGH-LEVEL CUSTOM SOLUTIONS ARE OUR TRADEMARK.

**A rich reservoir of experience.** Our know-how ranges from the development of materials, processes and tools through product design to production of series products.

**Deep production capabilities.** The Zimmer Group pairs these capabilities with flexibility, quality and precision, even when making custom products.

**Series production.** We manufacture demanding products out of metal (MIM), elastomers and plastics with flexibility and speed.



## MACHINE TECHNOLOGY

ZIMMER GROUP DEVELOPS INNOVATIVE METAL, WOOD AND COMPOSITE MATERIAL PROCESSING TOOL SYSTEMS FOR ALL INDUSTRIES. NUMEROUS CUSTOMERS CHOOSE US AS THEIR SYSTEMS AND INNOVATION PARTNER.

**Knowledge and experience.** Industry knowledge and a decades-long development partnership in exchangeable assemblies, tool interfaces and systems make us bound for new challenges around the world.

**Components.** We deliver numerous standard components from stock and develop innovative, customized systems for OEM and end customers – far beyond the metal and wood processing industries.

**Variety.** Whether you have machining centers, lathes or flexible production cells, the power tools, holders, assemblies and drilling heads of Zimmer Group are ready for action.



## SYSTEM TECHNOLOGY

ZIMMER GROUP IS ONE OF THE LEADING SPECIALISTS IN THE DEVELOPMENT OF CUSTOMIZED SYSTEM SOLUTIONS WORLDWIDE.

**Customized.** A team made up of more than 20 experienced designers and project engineers develop and produce customized solutions for special tasks in close collaboration with end customers and system integrators. It doesn't matter if it is a simple gripper and handling solution or a complex system solution.

**Solutions.** These system solutions are used in many industries, from mechanical engineering to the automotive and supplier industries to plastics engineering and consumer goods industries, all the way to foundries. The Know-how Factory helps countless companies to thrive competitively by increasing automation efficiency.

# ZIMMER GMBH DAEMPfungSSYSTEME

## UNDER THE UMBRELLA OF THE ZIMMER GROUP

### ZIMMER GMBH DAEMPfungSSYSTEME – A SUCCESS STORY.

ZIMMER GMBH DAEMPfungSSYSTEME HAS BEEN RESEARCHING, DEVELOPING AND PRODUCING SINGLE-USE DAMPERS AND CLOSING UNITS IN THE HIGHEST LEVEL OF QUALITY SINCE 1999.

#### The beginning and the breakthrough

Zimmer GmbH Daempfungssysteme originated in 2004 as an independent company under the umbrella of the Zimmer Group. The initial requests from a renowned fitting manufacturer were still directed to the Zimmer industrial shock absorber division. After overcoming the start-up difficulties, as pioneers in the Soft Close area, we were successful at convincing this initial prospective customer of our capability. **That was the breakthrough.**

#### Production location: Germany

Further orders followed and Zimmer GmbH Daempfungssysteme's growth could not be stopped – not just in terms of the variety of products. A wider range of products increased the requirements for our production plants, all of which we develop and manufacture in-house. Over the years, these became more and more complex and increasingly automated. We take pride in our production location in Germany, where several hundred-million dampers were manufactured and delivered in recent years. Our customers enjoy the highest standard of quality and the best performance.

#### Our focus is on the customer

The centerpiece and anchor in our history has always been and always will be our customer. All dampers and closing units are adapted to customer requirements and constantly being optimized in our development department. Our product complexity increases at the same time. First and foremost is quality management in order to guarantee maximum performance to the customer. Expertise, precision, 100% inspection of all dampers and closing units as well as the highest level of motivation are the cornerstones for exceptional quality and movement in your furniture. The sales department has its finger on the pulse of the market and responds immediately to the demands of our customers. We are the most trusted provider on the worldwide market and are proud of our decades-long success story.



# DAMPING TECHNOLOGY

## SOFT CLOSE

ZIMMER GMBH DAEMPfungSSYSTEME IS ONE OF THE LEADING DEVELOPMENT PARTNERS OF THE FURNITURE-INDUSTRY AND AN UNIQUE PARTNER FOR DAMPING SYSTEMS AND SELFCLOSING UNITS.

### PROFILE

- ▶ Nearly all leading manufacturer of furniture and fittings are already customers of ZIMMER GmbH Daempfungssysteme
- ▶ For more than 16 years ZIMMER pushes the development and the mass-production of damping-systems forward and became more and more one of the benchmarks
- ▶ About 140 employees (2021)
- ▶ About 110 Millionen sold dampers (in 2021)

### PERFORMANCE

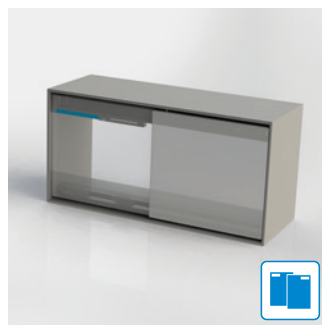
- ▶ Development of concepts
- ▶ Adaption and new developments of dampers and complete systems with self-closing units
- ▶ Simulation and validation of all customer-requirements
- ▶ Complete project-management from the first request to the serial application
- ▶ 100% serial tests to guarantee the quality
- ▶ Experience in mass-production
- ▶ In-house development and production of the production facilities
- ▶ 100% performance-test
- ▶ 100% control of critical geometries by camera-control
- ▶ Statistical process-control

Consistently high quality, customer-oriented service, sustainability as well as fair and trusting cooperation are a matter of course for us. Therefore, certain standards have always been an integral part of our corporate philosophy. In order to make these demands visible to the outside world, our company is certified for numerous international standards and has been renewing them at regular intervals since 2000.

### APPLICATION AREAS



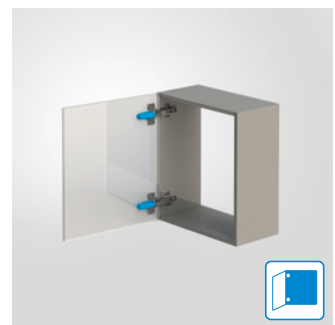
DAMPING OF LIDS



DAMPING FOR SLIDING  
DOORS



DAMPING OF DRAWERS



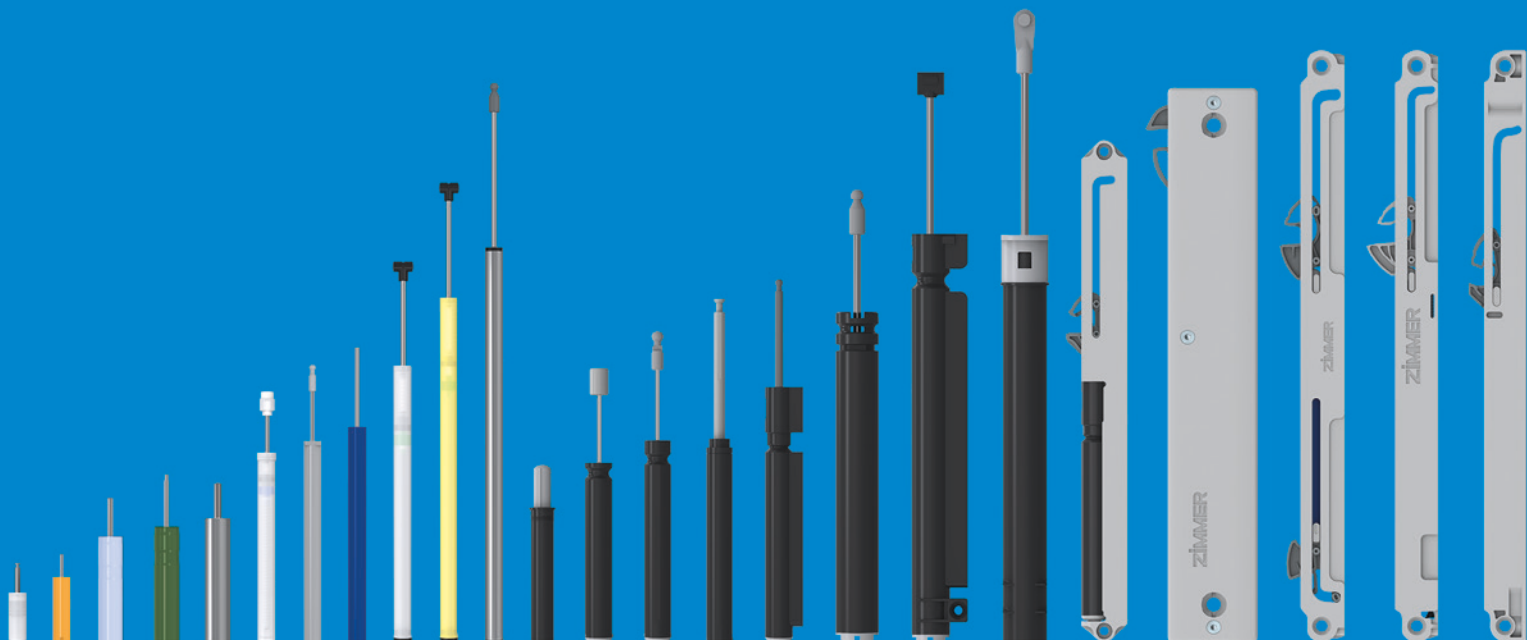
DAMPING OF HINGES

### CUSTOMIZED SOLUTIONS.

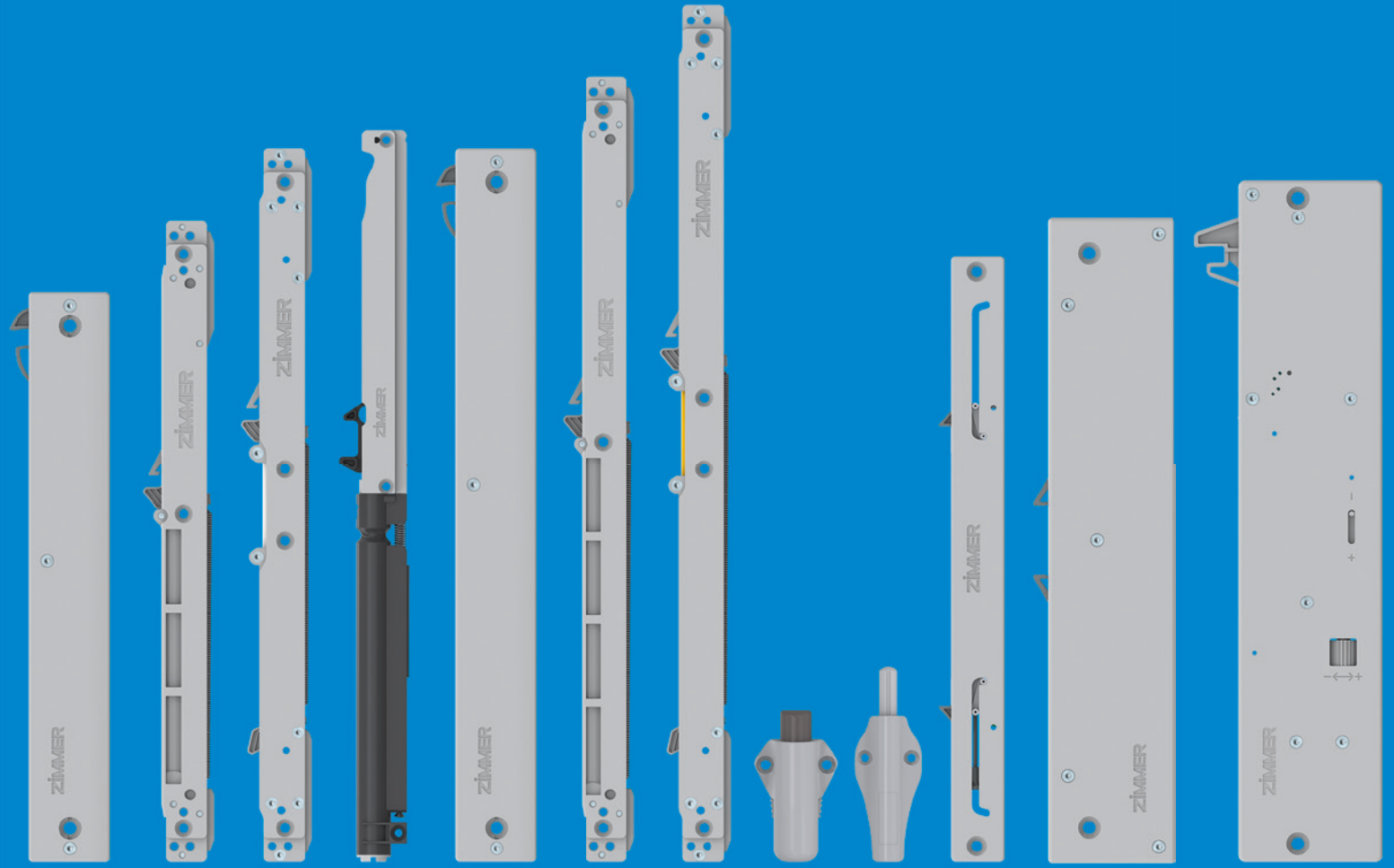
No suitable product found? Please contact us! We develop the solution that suits you!

Visit also our webshop: [www.zimmer-softclose.shop](http://www.zimmer-softclose.shop).

# THE FULL PRODUCT LINE


































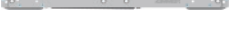
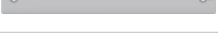











# SOFT CLOSE

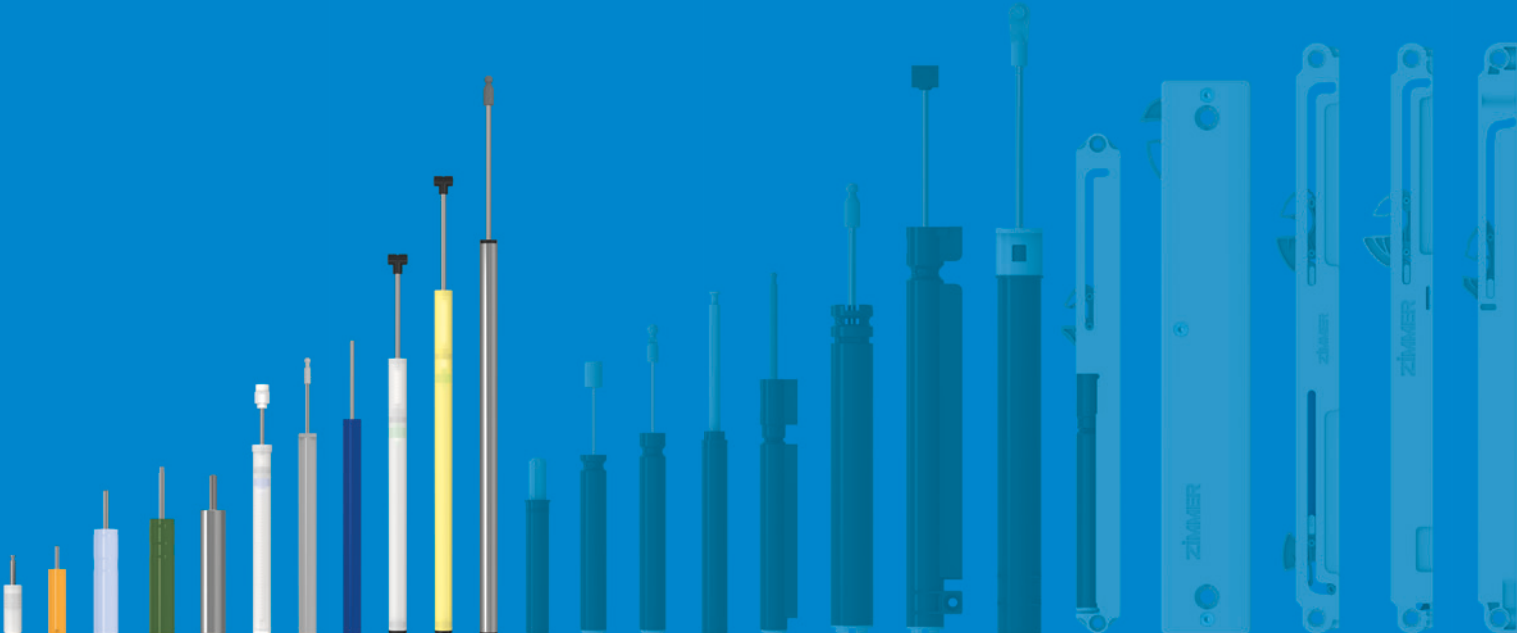
## PRODUCTS AT A GLANCE

FLUID DAMPER		
	Bullitolino	20
	Bullito	22
	Nano	24
	Bellino	26
	Giganto	28
	Volpino	30
	Massimo	32
	Estremo	34
	Lungo	36
	Galante	38
	Piccolo Fluido	40
	Robusto	42
	Robustino	44
	Settantino	46
	Centino	48
AIR FRICTION DAMPERS		
	Piano	56
	Piccolo	58
	Calmo	60
	Bajo	62
	Placido	64
	Quieto	66
	Adagio	68
	Silento	70

## SELF-CLOSING UNITS

	Retro 2	78
	Retro 5	80
	Silento Universale	82
	Silento Doppio 50	84
	Silento Chiuso 50	86
	Silento Porta 70	88
	Silento Doppio 70	90
	Silento Chiuso 70	92
	Silento Porta 100	94
	Silento Doppio 100	96
	Silento Chiuso 100	98
	Silento Forte 2.0	100
	Silento Forte	102
	Silento Forte Duo	104
	Silento Centrato	106
	Silento Centratino	108
	Impulso	110

# FLUID DAMPERS



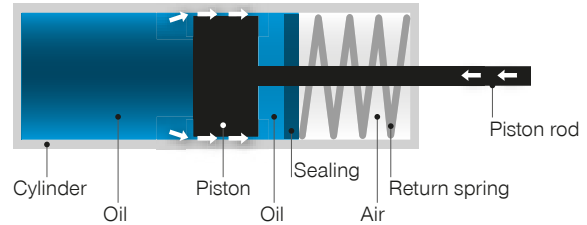


# INDIVIDUAL DAMPERS

## FLUID DAMPERS

### PRINCIPLE OF FUNCTION

- ▶ In a closed housing a piston is moving back- and forward. A food-safe silicon-oil can flow in both directions through small channels. The viscosity of the oil, as well as the modification of the cross-section of the channels, leads to the friction needed to reduce the speed. The friction-heat will be channeled outside through the cylinder-wall.
- ▶ Highest energy-consumption on smallest cross section
- ▶ Different damping-characteristics possible



### DAMPER WITH AND WITHOUT RESET-FUNCTION

Damper **without** reset-function needs a coupler onto the pistonrod is needed to be used within the fitting. The pistonrod do not extract by itself, it has to be extracted manually.

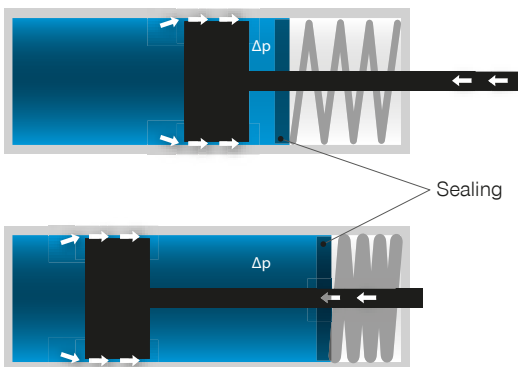


Damper **with** an integrated reset-function a Coupler is not needed onto the pistonrod within the fitting. The pistonrod will be extracted automatically.



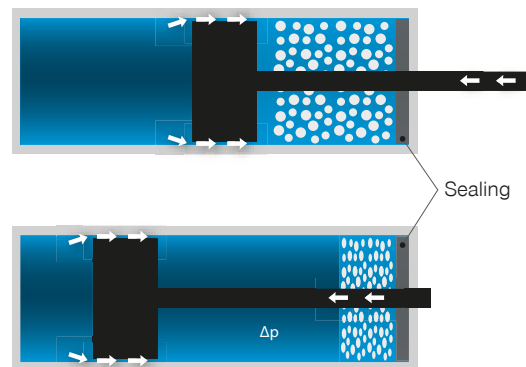
### VOLUME-COMPENSATION

Volume-compensation by means of a spring in an air-filled chamber (ZIMMER-principle)



$\Delta p$  = Pressure in cylinder higher than surrounding-pressure

Volume-adjustment by using a sponge (competitors)



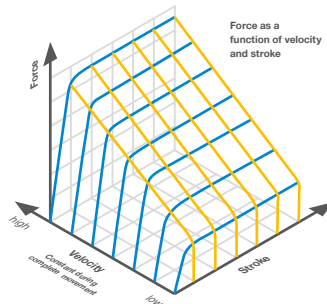
	Function	Leak-proof	Life-endurance
Cellular rubber	X	-	-
Volume-compensation	X	X	X

## TYPES

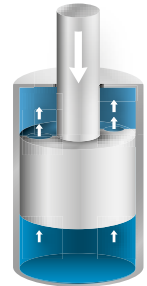
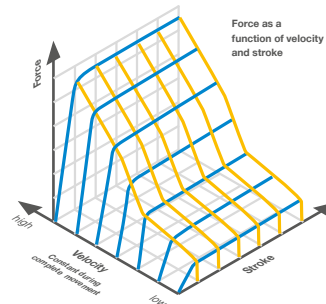
The nozzle let the oil flow constantly:

- ▶ Highest force on smallest space available
- ▶ Force can be modified through the crosssection of the nozzle
- ▶ No overload-protection

### Classic defined



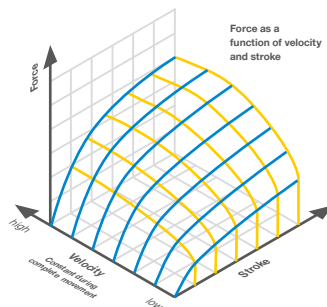
### Classic smooth



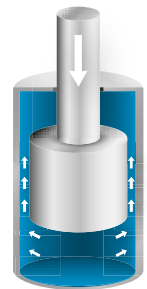
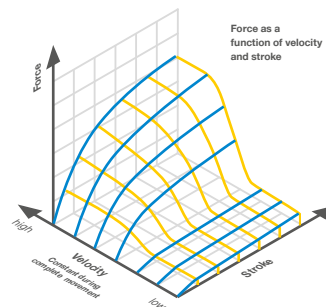
Oil is flowing around the piston. The housing is expanding at high pressure whereas through this gap the oil is flowing.

- ▶ Overload-protection
- ▶ Different graphs possible

### Comfort defined



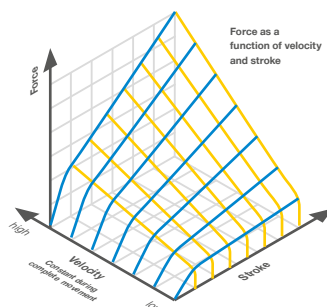
### Comfort smooth



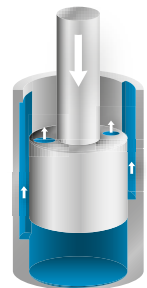
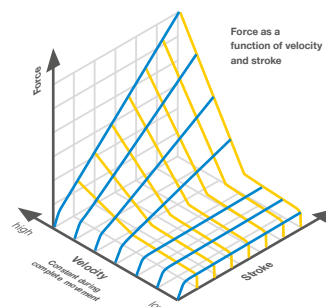
Through these two nozzles the oil can flow constantly. Channels in the housing enhances special cross-sections. Within this example the cross-section becomes smaller during retraction; thus the damping force becomes stronger.

- ▶ Various damper-characteristics possible
- ▶ Force can be modified by varying the cross-section and by changing the number of the channels

### Versatile defined



### Versatile smooth



**defined:** speed independent

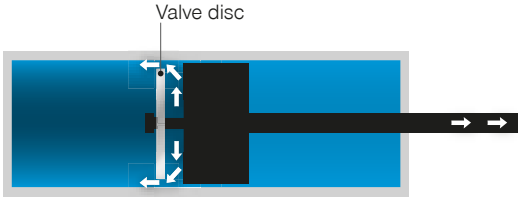
**smooth:** depending on speed, smooth reaction at low velocities, less opening time, constant closing picture, small opening force

# INDIVIDUAL DAMPERS

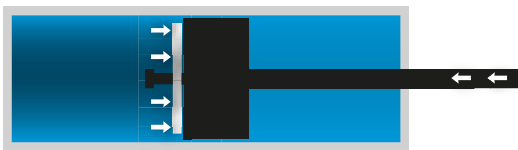
## FLUID DAMPERS

### OPENING-MOVEMENT

Piston **defined**

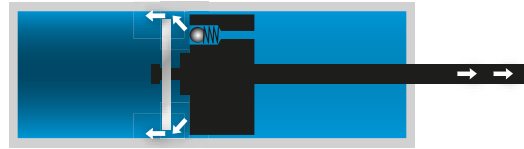


Damper pulled out (release)

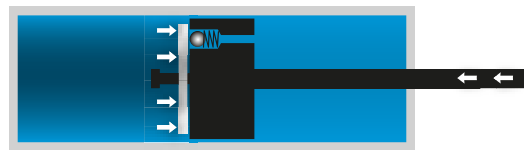


Damping

Piston **smooth**



Damper pulled out (release)



Damping

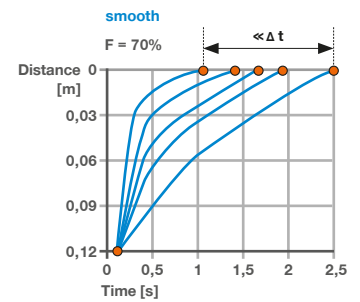
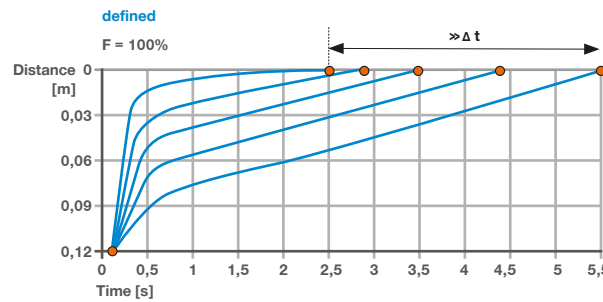


Valve disc as well as drillings lead to a minimized resistance at opening and the damping force needed during closing-movement.

### COMPARASION DEFINED/SMOOTH IN SELF-CLOSING UNIT

#### ▶ EXAMPLE CHARACTERIS- TIC CHIUSO 100

- ▶ Load: 70kg sliding door
- ▶ Chart shows the closing time from 0,1–0,5 m/s in different graphs
- ▶ Opening force is reduced about 30% in version: **smooth**

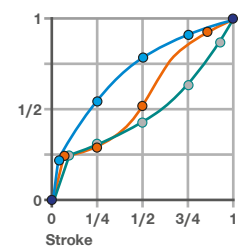
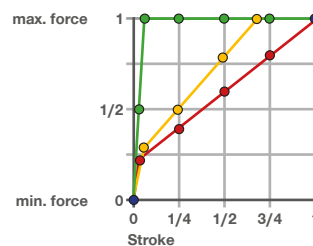


### FLUID DAMPER CHARACTERISTIC WITH CONSTANT SPEED

#### Characteristic curves fluid damper

Damping force according to the stroke

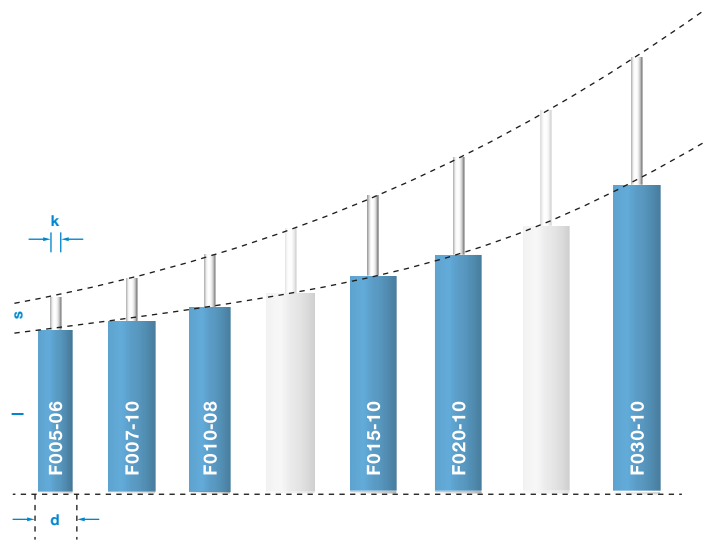
- Linear rising
- Linear rising – constant
- Linear constant
- Inclining
- S-Line
- Declining





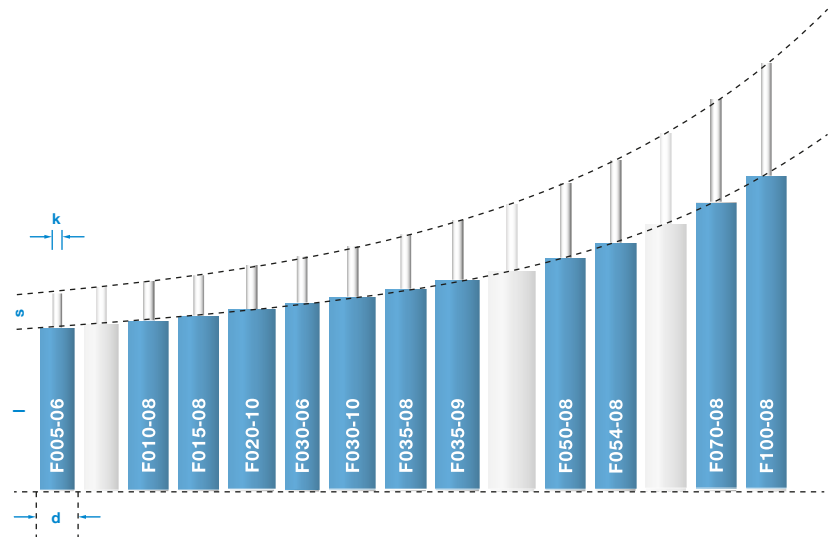
## PRODUCT RANGE DAMPER CLASSIC

- ▶ Housing length (l): 42 mm bis 67 mm
- ▶ Housing diameter (d): 6 mm, 8 mm und 10 mm
- ▶ Stroke (s): 5 mm bis 30 mm
- ▶ Piston rod diameter (k): 2,3 mm



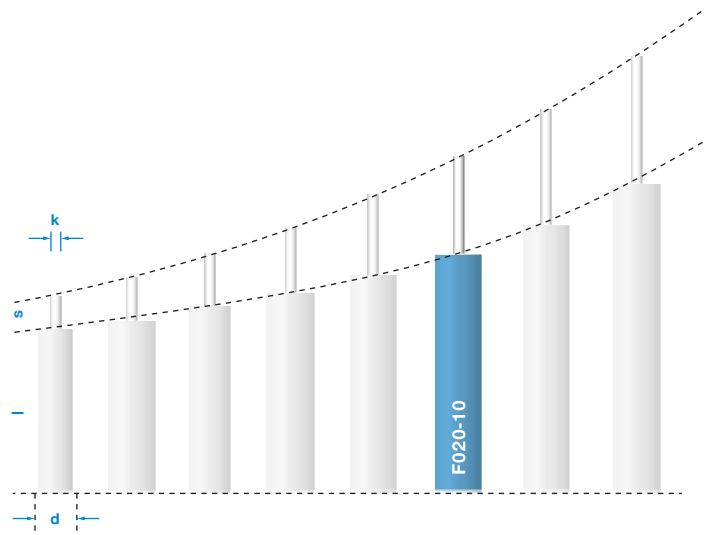
## PRODUCT RANGE DAMPER COMFORT

- ▶ Housing length (l): 29,5 mm bis 151,6 mm
- ▶ Housing diameter (d): 6 mm, 8 mm und 10 mm
- ▶ Stroke (s): 10 mm bis 100 mm
- ▶ Piston rod diameter (k): 1,5 bis 2,3 mm


















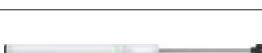

## PRODUCT RANGE DAMPER VERSATILE





- ▶ Housing length (l): 42 mm bis 67 mm
- ▶ Housing diameter (d): 6 mm, 8 mm und 10 mm
- ▶ Stroke (s): 5 mm bis 30 mm
- ▶ Piston rod diameter (k): 2,3 mm



# FLUID DAMPERS

## THE SERIES AT A GLANCE

		Operating direction	Stroke [mm]
	Bullitolino	Pressure dampers	14.0
	Bullito	Pressure dampers	80.0
	Bullito	Pressure dampers	140.0
	Nano	Pressure dampers	5.0
	Bellino	Pressure dampers	10.0
	Giganto	Pressure dampers	15.0
	Volpino	Pressure dampers	15.0
	Massimo	Pressure dampers	20.0
	Estremo	Pressure dampers	30.0
	Lungo	Pressure dampers	30.0
	Galante	Pressure dampers	35.0
	Piccolo Fluido	Pressure dampers	35.0
	Robusto	Pressure dampers	45.0
	Robusto	Pressure dampers	50.0
	Robustino	Pressure dampers	54.0
	Settantino	Pressure dampers	70.0
	Centino	Pressure dampers	100.0

Damper Ø housing [mm]	Application areas			
				
	Door	Sliding door	Drawer	Hinge
10.0	•			•
10.0		•	•	
10.0		•	•	
6.2				•
8.0	•			•
10.0	•			•
				•
10.0	•			•
10.0	•		•	
6.3			•	
8.0		•	•	
9.2			•	
8.0		•	•	
8.0		•	•	
8.0		•	•	
8.0		•		
8.0		•		

# FLUID DAMPERS

## SERIES BULLITOLINO

### ▶ PRODUCT SPECIFICATIONS



The Bullitolino hydraulic damper series closes the gap between furniture and industrial applications. These stainless steel fluid dampers feature outstanding force and a longer service life with the highest quality standards.

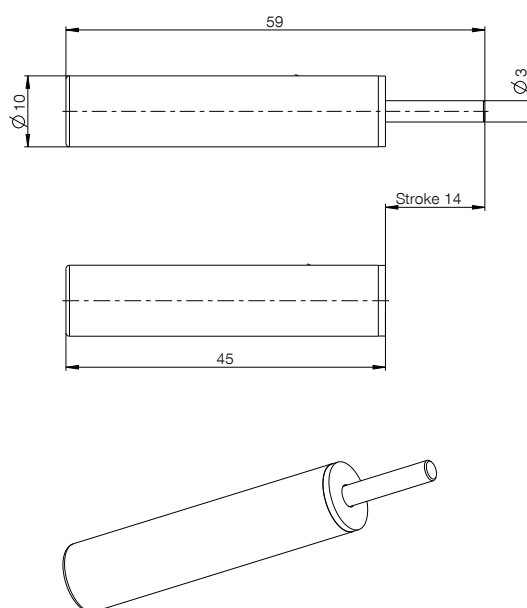
### ▶ APPLICATION AREAS

 Door	●
 Sliding door	
 Drawer	
 Hinge	●

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Bullitolino	14.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

<b>Order no.</b>	<b>F014-10-201</b>
Technology	Defined Comfort
Damper characteristic curve	Linear-constant
Damper force [N]	135
Damper tolerance [N]	+15/-15
Damper speed [mm/s]	1
Free-run	No
Free-run length [mm]	0.0
Damper spring return	Yes
Damper housing color	Uncoated steel
Damper cover color	Black RAL9005
Damper Ø housing [mm]	10.0
Damper housing length [mm]	49.0
Damper Ø piston rod [mm]	3.0
Damper housing connection	Without connection
Damper piston rod connection	No head
Application environment	Standard

# FLUID DAMPERS

## SERIES BULLITO

### ▶ PRODUCT SPECIFICATIONS



The Bullito hydraulic damper series closes the gap between furniture and industrial applications. Stainless steel components and a service life of 250,000 cycles make up the high quality standard. Customization, a long service life and ruggedness are the hallmarks of the series.

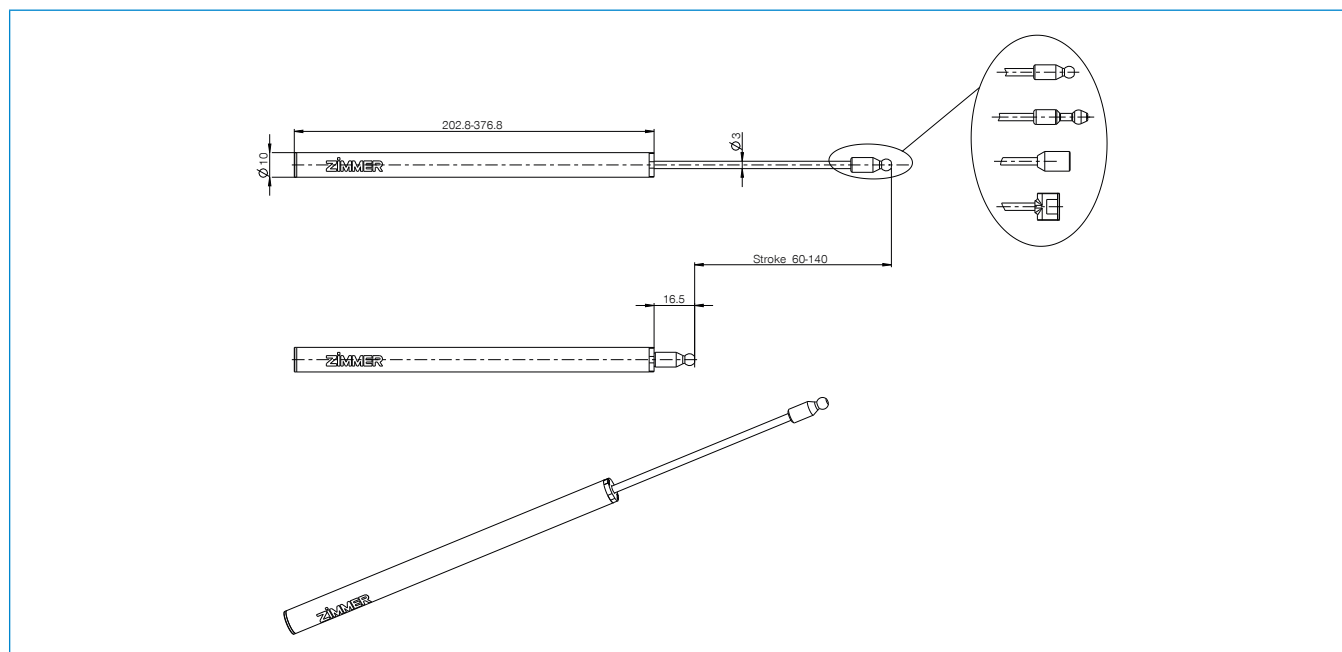
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	●
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Bullito	80.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	F080-10-002	F140-10-002
Technology	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant	Linear-constant
Damper force [N]		
Damper tolerance [N]		
Damper speed [mm/s]		
Free-run	No	No
Free-run length [mm]	0.0	0.0
Damper spring return	No	Yes
Damper housing color	Uncoated steel	Uncoated steel
Damper cover color	Black RAL9005	Black RAL9005
Damper Ø housing [mm]	10.0	10.0
Damper housing length [mm]	140.7	250.7
Damper Ø piston rod [mm]	3.0	3.0
Damper housing connection	Without connection	Without connection
Damper piston rod connection	Ball head	Ball head
Application environment	Standard	Standard

# FLUID DAMPERS

## SERIES NANO

### ▶ PRODUCT SPECIFICATIONS



Smallest damper available on the market. Even in the smallest installation spaces, Zimmer Group products are a perfect fit, performing their task reliably.

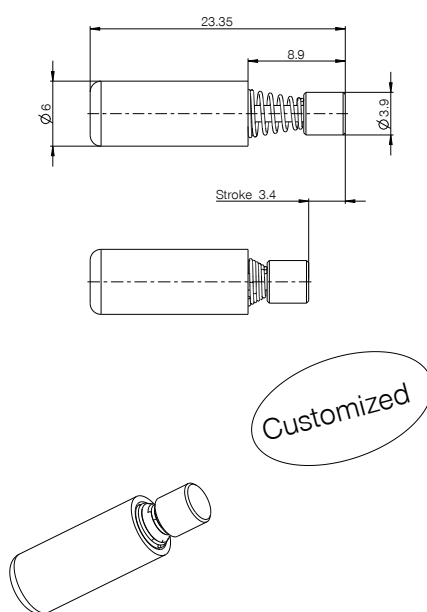
### ▶ APPLICATION AREAS

 Door	
 Sliding door	
 Drawer	
 Hinge	●

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Nano	5.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING





## ▶ TECHNICAL DATA

<b>Order no.</b>	<b>B005-06-009</b>
Technology	Defined Classic
Damper characteristic curve	Linear-constant
Damper force [N]	82
Damper tolerance [N]	+8/-6
Damper speed [mm/s]	5
Free-run	No
Free-run length [mm]	0.0
Damper spring return	Yes
Damper housing color	Gray RAL7035
Damper cover color	Natural
Damper Ø housing [mm]	6.2
Damper housing length [mm]	15.3
Damper Ø piston rod [mm]	1.5
Damper housing connection	Notches
Damper piston rod connection	No head
Application environment	Standard

# FLUID DAMPERS

## SERIES BELLINO

### ▶ PRODUCT SPECIFICATIONS



Narrow, compact, high-performance. With a stroke up to 10 mm, this compact damper can absorb an astonishing amount of force.

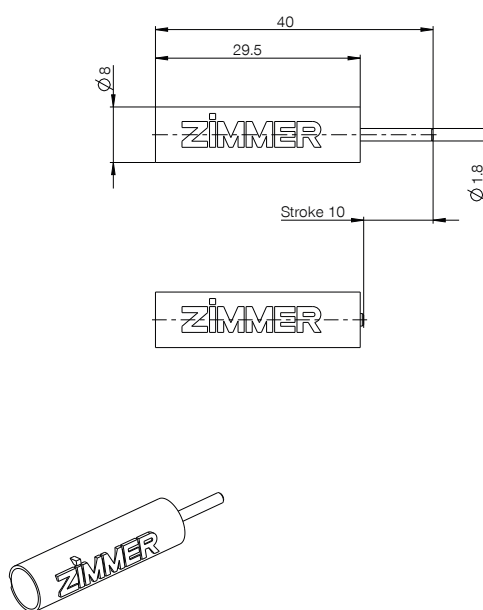
### ▶ APPLICATION AREAS

 Door	•
 Sliding door	
 Drawer	
 Hinge	•

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Bellino	10.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	F010-08-011	F010-08-012
Technology	Defined Comfort	Defined Classic
Damper characteristic curve	Linear-constant	Linear-constant
Damper force [N]	100	200
Damper tolerance [N]	+20/-20	+25/-25
Damper speed [mm/s]	50	50
Free-run	No	No
Free-run length [mm]	0.0	0.0
Damper spring return	Yes	Yes
Damper housing color	Yellow PMS135C	Yellow PMS135C
Damper cover color	Orange RAL2012	Black RAL9005
Damper Ø housing [mm]	8.0	8.0
Damper housing length [mm]	29.5	29.5
Damper Ø piston rod [mm]	1.8	1.8
Damper housing connection	Without connection	Without connection
Damper piston rod connection	No head	No head
Application environment	Standard	Standard

# FLUID DAMPERS

## SERIES GIGANTO

### ▶ PRODUCT SPECIFICATIONS



The compact Giganto absorbs high forces despite its exceptionally small type of construction. It is ideal for all applications where a high mass needs to be braked over a short distance.

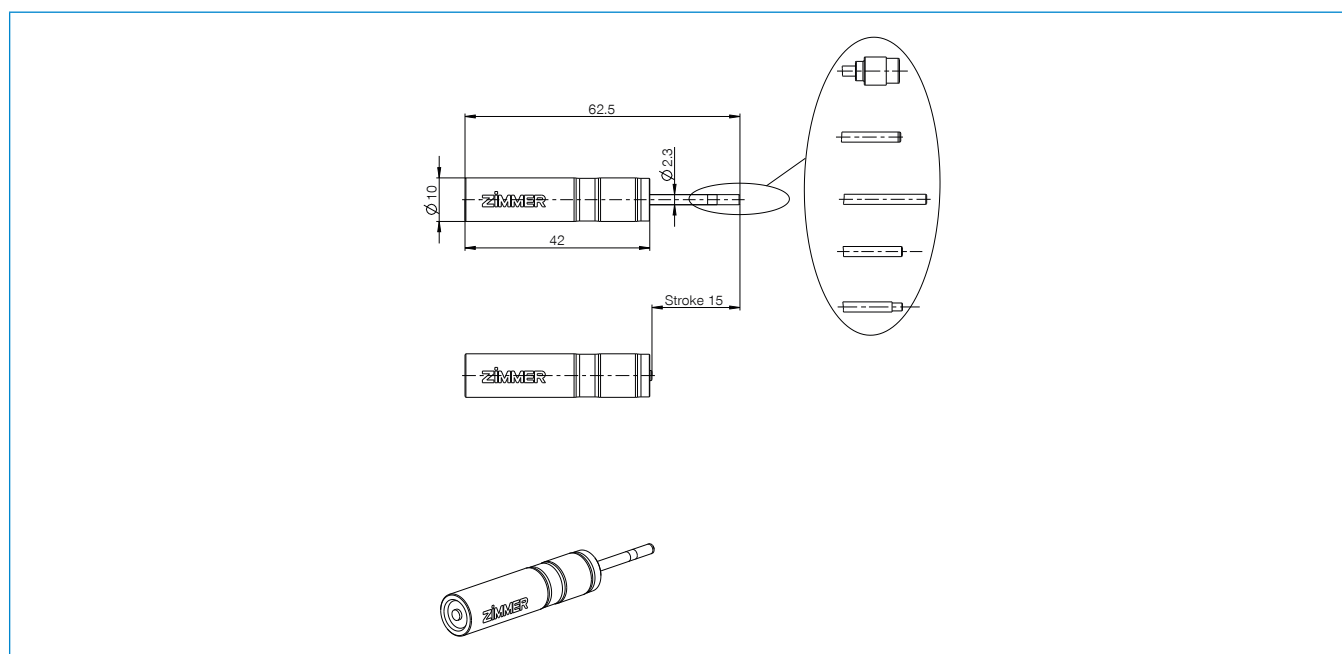
### ▶ APPLICATION AREAS

 Door	●
 Sliding door	
 Drawer	
 Hinge	●

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Giganto	15.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	F015-10-013	F015-10-026	F015-10-031	F015-10-041
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant	Linear-constant	Linear-increasing	Linear-constant
Damper force [N]	210	150	340	200
Damper tolerance [N]	+35/-35	+50/-50	+40/-40	+50/-50
Damper speed [mm/s]	15	50	50	12
Free-run	No	No	No	No
Free-run length [mm]	0.0	0.0	0.0	0.0
Damper spring return	Yes	Yes	Yes	Yes
Damper housing color	Natural	Yellow PMS135C	Gray RAL7035	White RAL9001
Damper cover color	Natural	Gray RAL7035	Gray RAL7035	Gray RAL7035
Damper Ø housing [mm]	10.0	10.0	10.0	10.0
Damper housing length [mm]	42.1	42.0	42.0	42.0
Damper Ø piston rod [mm]	2.3	2.3	2.3	2.3
Damper housing connection	Without connection	Without connection	Without connection	Without connection
Damper piston rod connection	No head	No head	No head	No head
Application environment	Heat-compatible	Standard	Standard	Standard

Order no.	F015-10-043	F015-10-044	F015-10-046
Technology	Defined Comfort	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant	Linear-constant	Linear-constant
Damper force [N]	65	100	140
Damper tolerance [N]	+20/-20	+35/-35	+40/-40
Damper speed [mm/s]	12	12	5
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Damper spring return	Yes	Yes	Yes
Damper housing color	Yellow PMS135C	Blue PMS291C	Natural
Damper cover color	Gray RAL7035	Gray RAL7035	Gray RAL7035
Damper Ø housing [mm]	10.0	10.0	10.0
Damper housing length [mm]	42.0	42.0	42.0
Damper Ø piston rod [mm]	2.3	2.3	2.3
Damper housing connection	Without connection	Without connection	Without connection
Damper piston rod connection	No head	No head	No head
Application environment	Standard	Standard	Standard

# FLUID DAMPERS

## SERIES VOLPINO

### ▶ PRODUCT SPECIFICATIONS



The power pack for hinge damping. Users particularly appreciate the easy handling of the customizable damping force, which can be adjusted to the door weight after assembly.

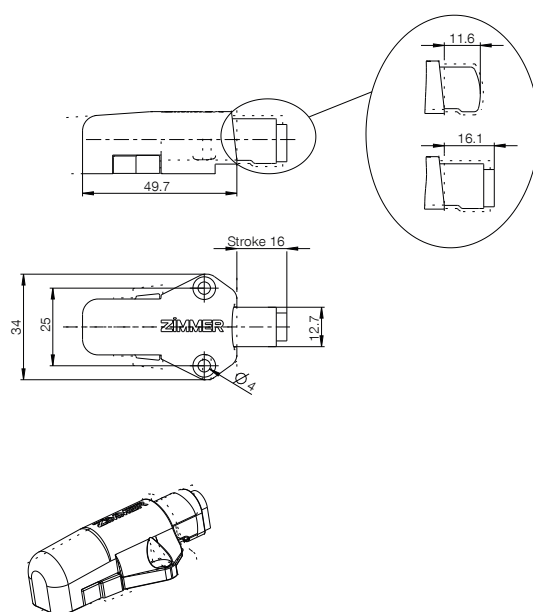
### ▶ APPLICATION AREAS

 Door	
 Sliding door	
 Drawer	
 Hinge	●

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Volpino	15.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ▶ TECHNICAL DATA

<b>Order no.</b>	<b>B015-10-009</b>
Technology	Defined Comfort
Damper characteristic curve	Linear-increasing
Damper force [N]	40
Damper tolerance [N]	+15/-15
Damper speed [mm/s]	50
Free-run	No
Free-run length [mm]	0.0
Damper spring return	Yes
Damper housing color	Gray RAL7035
Damper cover color	Gray RAL7035
Damper Ø housing [mm]	
Damper housing length [mm]	49.7
Damper Ø piston rod [mm]	
Damper housing connection	
Damper piston rod connection	
Application environment	Standard

# FLUID DAMPERS

## SERIES MASSIMO

### ▶ PRODUCT SPECIFICATIONS



The compact Massimo absorbs high forces despite its exceptionally small type of construction. It is ideal for all applications where a high mass needs to be braked over a short distance.

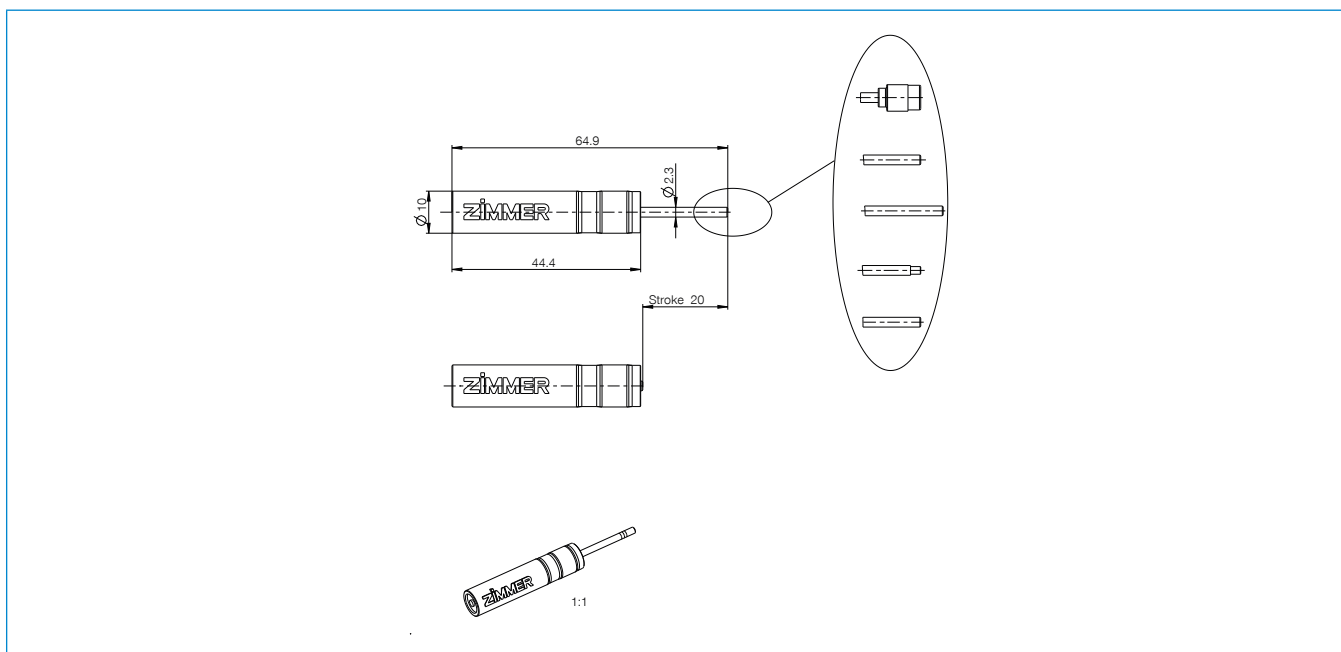
### ▶ APPLICATION AREAS

 Door	•
 Sliding door	
 Drawer	
 Hinge	•

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Massimo	20.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

Order no.	F020-10-009	F020-10-041	F020-10-042
Technology	Defined Comfort	Defined Versatile	Defined Versatile
Damper characteristic curve	S-curve	S-curve	S-curve
Damper force [N]	70	30	90
Damper tolerance [N]	+15/-15	+5/-5	+10/-10
Damper speed [mm/s]	10	10	10
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Damper spring return	Yes	Yes	Yes
Damper housing color	Green PMS364C	Brown RAL8004	Brown RAL8000
Damper cover color	Gray RAL7035	Gray RAL7035	Gray RAL7035
Damper Ø housing [mm]	10.0	10.0	10.0
Damper housing length [mm]	44.4	45.0	45.0
Damper Ø piston rod [mm]	2.3	2.3	2.3
Damper housing connection	Without connection	Without connection	Without connection
Damper piston rod connection	No head	No head	No head
Application environment	Standard	Standard	Standard

# FLUID DAMPERS

## SERIES ESTREMO

### ▶ PRODUCT SPECIFICATIONS



Estremo expands the class of dampers with an outer diameter of 10 mm by adding a powerful unit with a 10 mm longer stroke. This makes controlled damping of even greater forces possible.

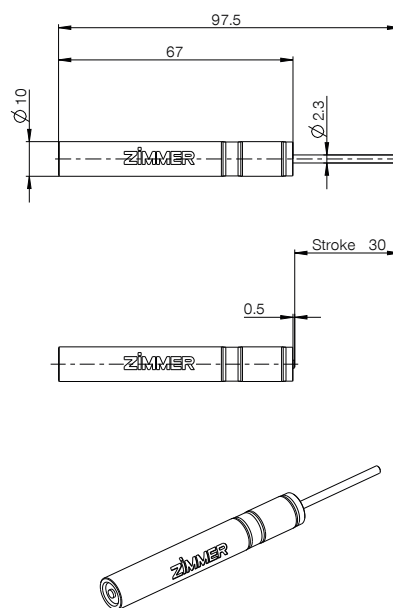
### ▶ APPLICATION AREAS

 Door	•
 Sliding door	
 Drawer	•
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Estremo	30.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	F030-10-001	F030-10-004
Technology	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant	Linear-constant
Damper force [N]	150	45
Damper tolerance [N]	+50/-50	+5/-5
Damper speed [mm/s]	50	50
Free-run	No	No
Free-run length [mm]	0.0	0.0
Damper spring return	Yes	Yes
Damper housing color	Blue PMS286C	Blue PMS286C
Damper cover color	Gray RAL7035	Gray RAL7035
Damper Ø housing [mm]	10.0	10.0
Damper housing length [mm]	67.0	67.0
Damper Ø piston rod [mm]	2.3	2.3
Damper housing connection	Without connection	Without connection
Damper piston rod connection	No head	No head
Application environment	Standard	Standard

# FLUID DAMPERS

## SERIES LUNGO

### ▶ PRODUCT SPECIFICATIONS



One of the most slender Zimmer hydraulic dampers has an outside diameter of just 6 mm. It enables soft damping over a stroke of 30 mm.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer

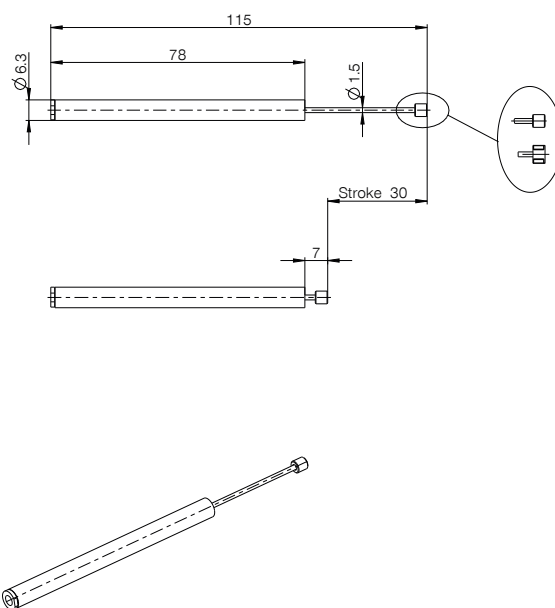


Hinge

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Lungo	30.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

<b>Order no.</b>	<b>F030-06-009</b>
Technology	Defined Comfort
Damper characteristic curve	Linear-constant with free-run
Damper force [N]	15
Damper tolerance [N]	+2/-2
Damper speed [mm/s]	33
Free-run	Yes
Free-run length [mm]	9.0
Damper spring return	No
Damper housing color	Gray RAL7040
Damper cover color	Gray RAL7040
Damper Ø housing [mm]	6.3
Damper housing length [mm]	77.9
Damper Ø piston rod [mm]	1.5
Damper housing connection	Without connection
Damper piston rod connection	Collar
Application environment	Standard

# FLUID DAMPERS

## SERIES GALANTE

### ▶ PRODUCT SPECIFICATIONS



Suitable for long-term use! A service life of over 100,000 cycles is guaranteed for this product. This is enabled by the use of high-quality materials and automated production methods on the highest level.

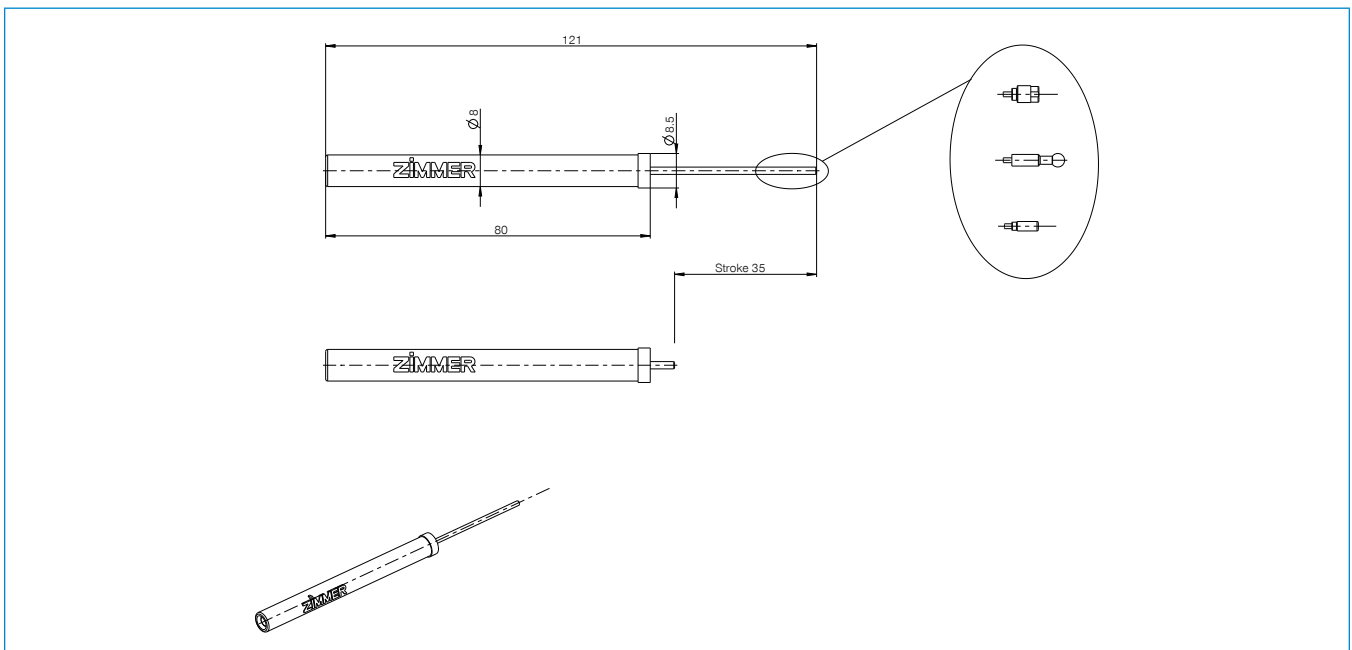
### ▶ APPLICATION AREAS

 Door	
 Sliding door	•
 Drawer	•
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Galante	35.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	F035-08-002	F035-08-007	F035-08-011	F035-08-014
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant	Linear-constant with free-run	Linear-constant with free-run	Linear-constant with free-run
Damper force [N]	11	9	46	5
Damper tolerance [N]	+2/-2	+2/-2	+5/-5	+1/-1
Damper speed [mm/s]	50	50	50	10
Free-run	Yes	Yes	Yes	Yes
Free-run length [mm]	10.0	10.0	10.0	10.0
Damper spring return	Yes	Yes	Yes	Yes
Damper housing color	Red RAL3027	Gray RAL7042	Natural	Gray RAL7042
Damper cover color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
Damper Ø housing [mm]	8.0	8.0	8.0	8.0
Damper housing length [mm]	80.0	80.0	80.0	80.0
Damper Ø piston rod [mm]	1.8	1.8	1.8	1.8
Damper housing connection	Collar	Collar	Collar	Collar
Damper piston rod connection	Bumper	Bumper	Bumper	Ball head
Application environment	Standard	Standard	Standard	Standard

Order no.	F035-08-017	F035-08-022
Technology	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant with free-run	Linear-constant with free-run
Damper force [N]	79	25
Damper tolerance [N]	+9/-9	+5/-5
Damper speed [mm/s]	50	50
Free-run	Yes	Yes
Free-run length [mm]	10.0	10.0
Damper spring return	Yes	Yes
Damper housing color	Natural	Natural
Damper cover color	Gray RAL7035	Green PMS364C
Damper Ø housing [mm]	8.0	8.0
Damper housing length [mm]	80.0	80.0
Damper Ø piston rod [mm]	1.8	1.8
Damper housing connection	Collar	Collar
Damper piston rod connection	Bumper	No head
Application environment	Standard	Standard

# FLUID DAMPERS




## SERIES PICCOLO FLUIDO

### ▶ PRODUCT SPECIFICATIONS



Piccolo Fluido is exceptionally well suited for integration into drawer fittings. The robust stainless steel piston rod has a plastic coupler for secure fastening in the system.

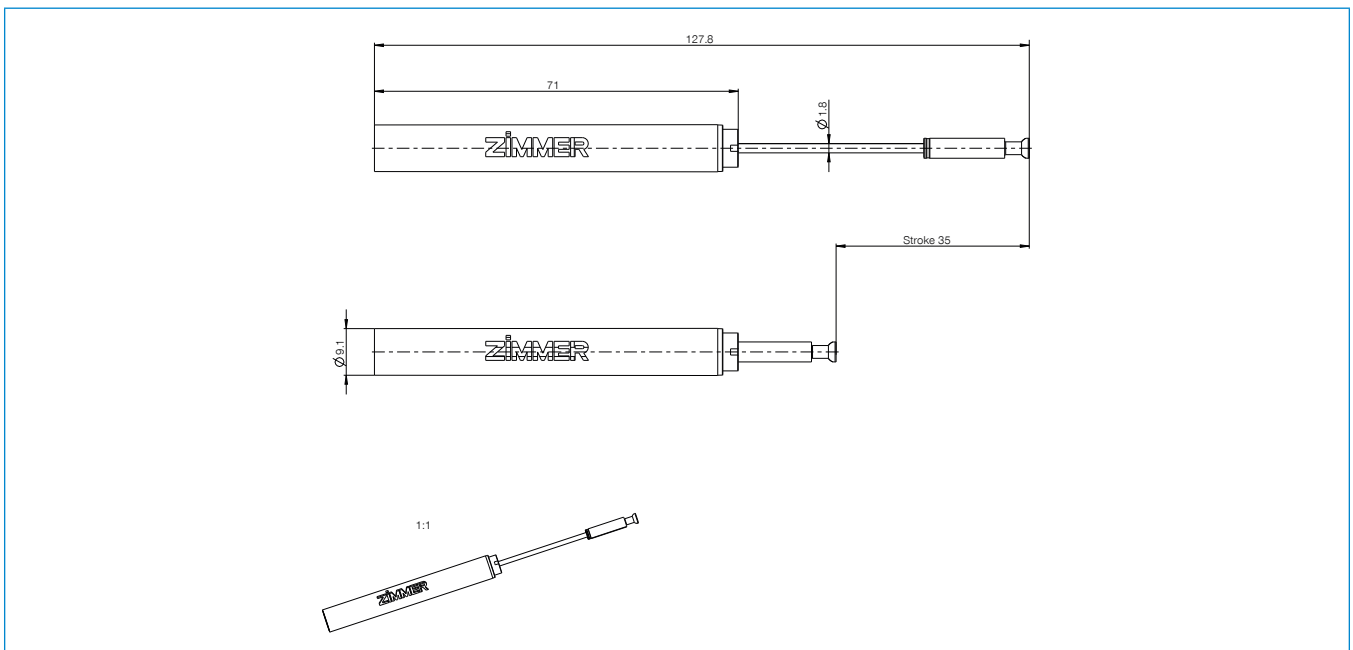
### ▶ APPLICATION AREAS

 Door	
 Sliding door	
 Drawer	●
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Piccolo Fluido	35.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

Order no.	F035-09-006
Technology	Defined Comfort
Damper characteristic curve	Linear-constant with free-run
Damper force [N]	12
Damper tolerance [N]	+3/-3
Damper speed [mm/s]	50
Free-run	Yes
Free-run length [mm]	5.0
Damper spring return	No
Damper housing color	Gray RAL7016
Damper cover color	Gray RAL7016
Damper Ø housing [mm]	9.2
Damper housing length [mm]	68.0
Damper Ø piston rod [mm]	1.8
Damper housing connection	Notches
Damper piston rod connection	Mushroom head
Application environment	Standard

# FLUID DAMPERS

## SERIES ROBUSTO

### ▶ PRODUCT SPECIFICATIONS



The optimal compromise between power and size allows this damper to be used everywhere. The integrated return spring allows the piston rod to be extended once again after actuation.

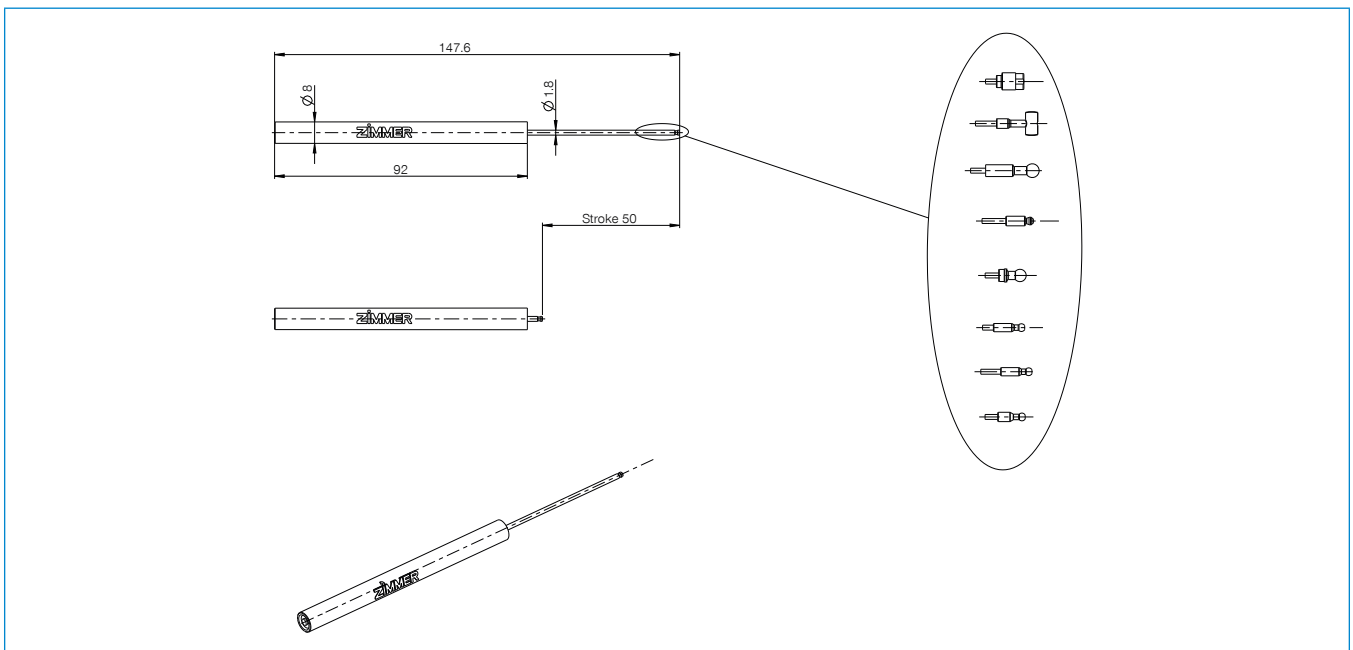
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	●
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Robusto	50.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	B045-08-002	F050-08-012	F050-08-054	F050-08-062
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Defined Comfort
Damper characteristic curve	S-curve with free-run	Linear-constant	Linear-constant	Linear-constant with free-run
Damper force [N]	15	18	50	20
Damper tolerance [N]	+3/-3	+5/-5	+7/-7	+4/-4
Damper speed [mm/s]	50	12	50	50
Free-run	Yes	No	No	Yes
Free-run length [mm]	3.0	0.0	0.0	8.0
Damper spring return	No	Yes	Yes	Yes
Damper housing color	Gray RAL7016	Gray RAL7035	Blue PMS286C	Gray RAL7042
Damper cover color	Natural	Brown RAL8011	Natural	Natural
Damper Ø housing [mm]	8.0	8.0	8.0	8.0
Damper housing length [mm]	95.4	92.1	92.1	92.1
Damper Ø piston rod [mm]	1.8	1.8	1.8	1.8
Damper housing connection	Notches	Without connection	Without connection	Without connection
Damper piston rod connection	Ball head	No head	Bumper	Bumper
Application environment	Standard	Standard	Standard	Standard

Order no.	F050-08-063	F050-08-217
Technology	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant with free-run	Linear-constant with free-run
Damper force [N]	40	35
Damper tolerance [N]	+7/-7	+5/-5
Damper speed [mm/s]	50	50
Free-run	Yes	Yes
Free-run length [mm]	8.0	8.0
Damper spring return	Yes	No
Damper housing color	Gray RAL7042	Gray RAL7016
Damper cover color	Natural	Natural
Damper Ø housing [mm]	8.0	8.0
Damper housing length [mm]	92.1	77.0
Damper Ø piston rod [mm]	1.8	1.8
Damper housing connection	Without connection	Without connection
Damper piston rod connection	Bumper	Ball head
Application environment	Standard	Standard

# FLUID DAMPERS



## SERIES ROBUSTINO

### ▶ PRODUCT SPECIFICATIONS



The optimal compromise between power and size allows this damper to be used everywhere. A return spring was omitted here. The piston rod does not extend automatically after actuation.

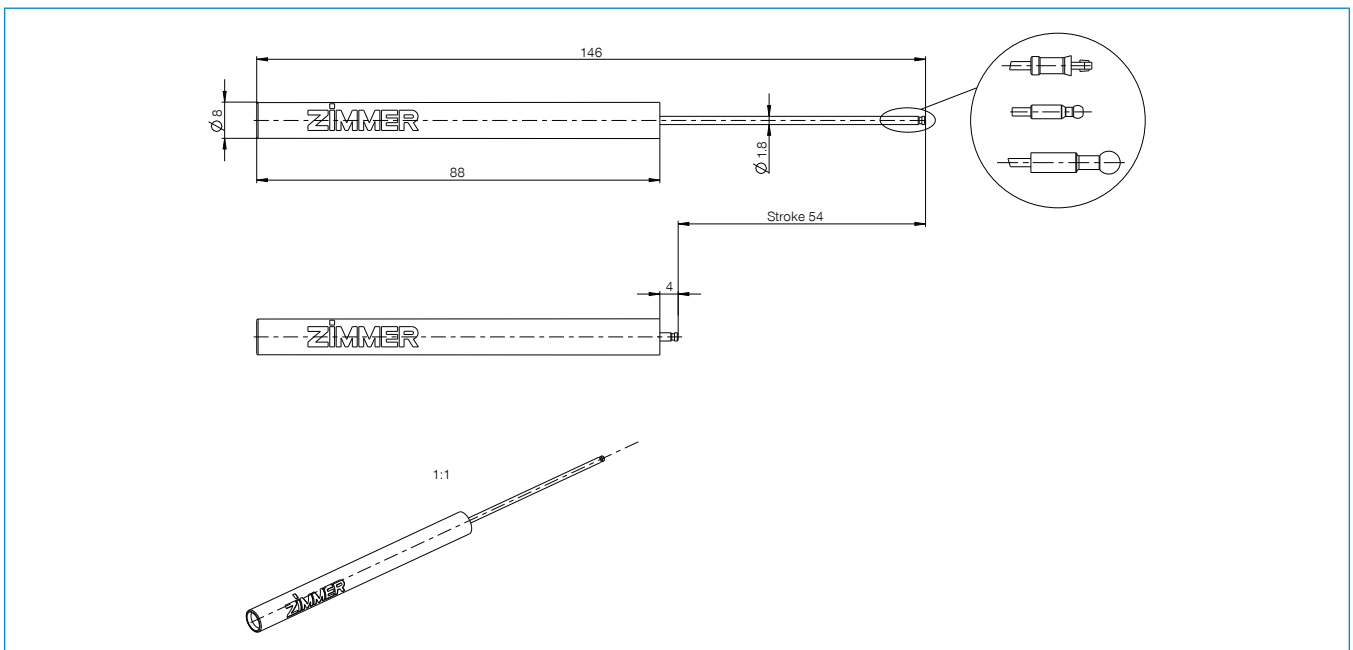
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	●
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Robustino	54.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

<b>Order no.</b>	<b>F054-08-205</b>
Technology	Defined Comfort
Damper characteristic curve	Linear-constant
Damper force [N]	6
Damper tolerance [N]	+2/-2
Damper speed [mm/s]	25
Free-run	No
Free-run length [mm]	0.0
Damper spring return	No
Damper housing color	Gray RAL7035
Damper cover color	Natural
Damper Ø housing [mm]	8.0
Damper housing length [mm]	88.0
Damper Ø piston rod [mm]	1.8
Damper housing connection	Square
Damper piston rod connection	Ball head
Application environment	Standard

# FLUID DAMPERS

## SERIES SETTANTINO

### ▶ PRODUCT SPECIFICATIONS



The long stroke makes it possible to absorb even more force. A new technology allows the damper to be equipped with a certain intelligence. Thus the damping force is present exactly when it is needed.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer



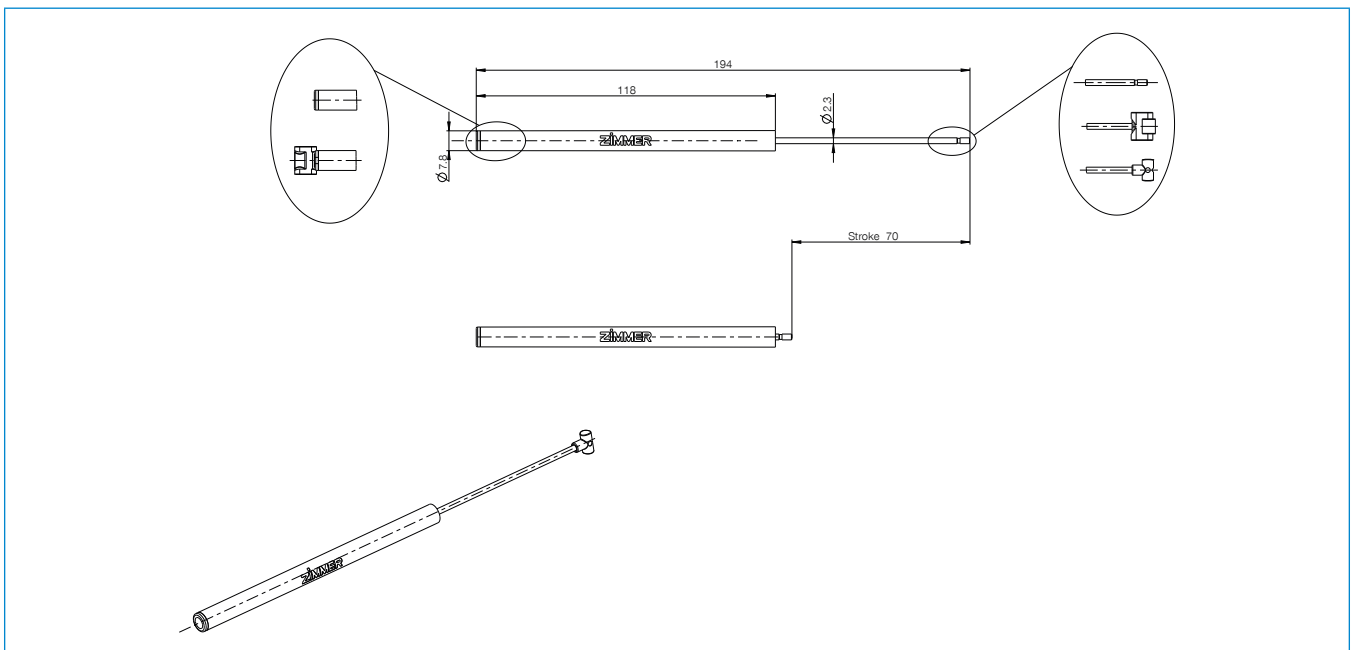
Hinge



### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Settantino	70.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	F070-08-202	F070-08-203	F070-08-204
Technology	Defined Comfort	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant	Linear-constant	Linear-constant
Damper force [N]	27	37	47
Damper tolerance [N]	+4/-4	+5/-5	+5/-5
Damper speed [mm/s]	50	50	50
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Damper spring return	No	No	No
Damper housing color	Natural	Natural	Natural
Damper cover color	Natural	Natural	Natural
Damper Ø housing [mm]	8.0	8.0	8.0
Damper housing length [mm]	117.6	117.6	117.6
Damper Ø piston rod [mm]	2.3	2.3	2.3
Damper housing connection	Without connection	Without connection	Without connection
Damper piston rod connection	T-head	T-head	T-head
Application environment	Standard	Standard	Standard

# FLUID DAMPERS

## SERIES CENTINO

### ▶ PRODUCT SPECIFICATIONS



The longest Zimmer hydraulic damper to date. A new technology allows the damper to be equipped with a certain intelligence. The damping force is therefore present exactly when it is needed.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer

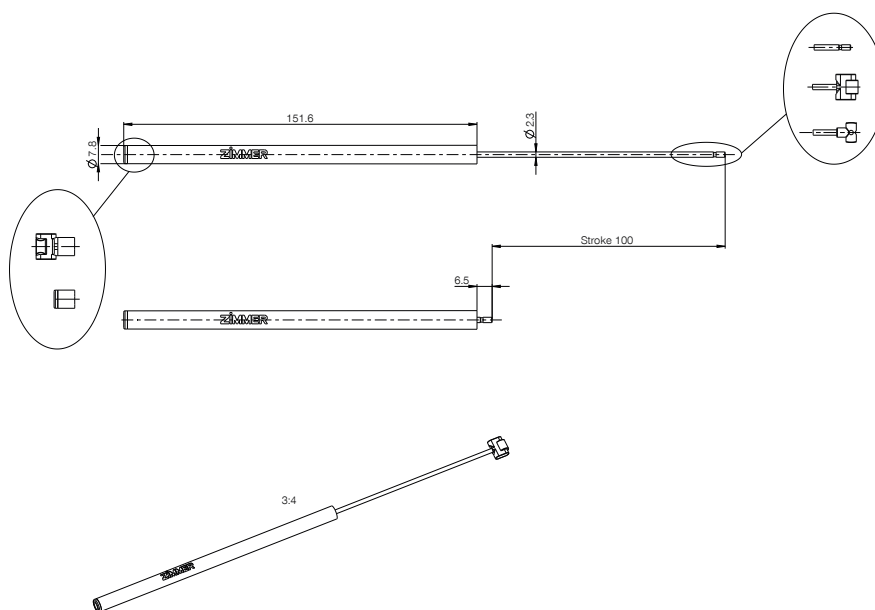


Hinge

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Centino	100.0	Fluid	Pressure dampers

### ▶ TECHNICAL DRAWING

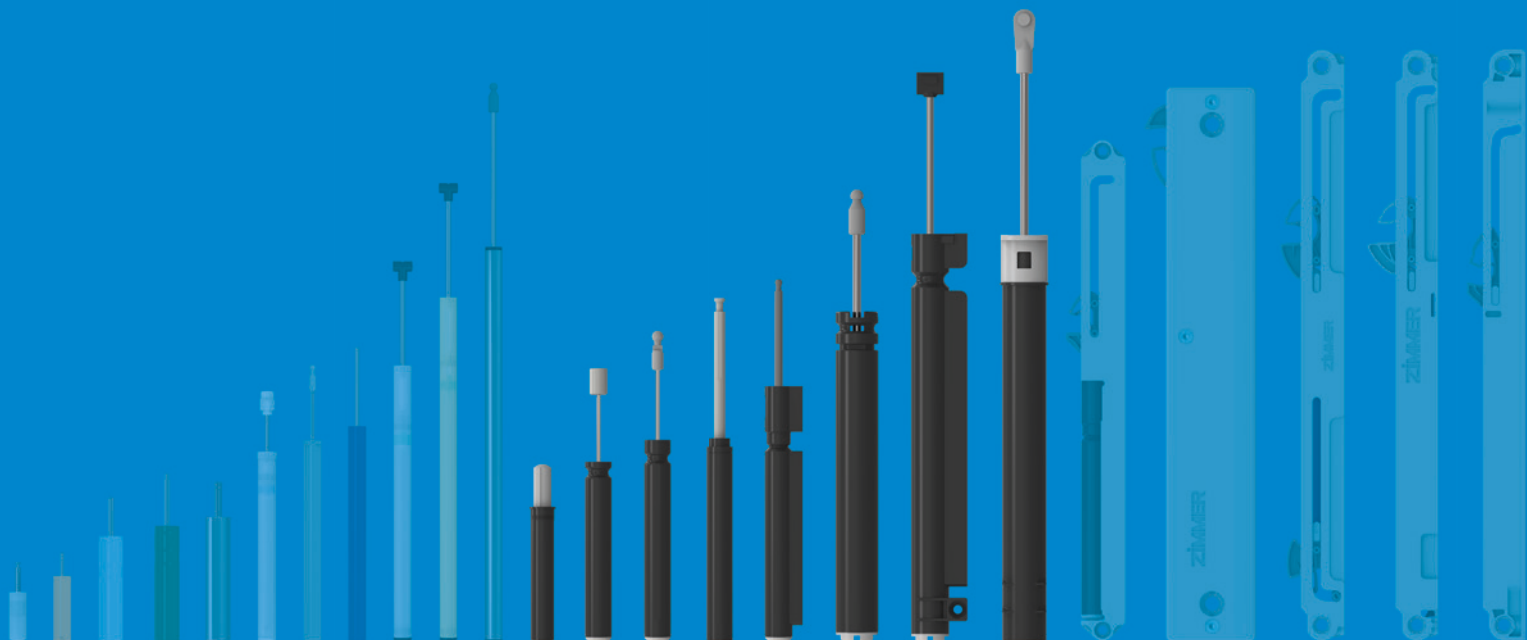




## ► TECHNICAL DATA

Order no.	F100-08-203	F100-08-205	F100-08-301
Technology	Defined Comfort	Defined Comfort	Smooth Comfort M
Damper characteristic curve	Linear-constant	Linear-constant	Linear-increasing, constant
Damper force [N]	20	40	45
Damper tolerance [N]	+4/-4	+5/-5	+10/-10
Damper speed [mm/s]	50	50	50
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Damper spring return	No	No	No
Damper housing color	Yellow RAL1018	Yellow RAL1018	Blue RAL5017
Damper cover color	Natural	Natural	Black RAL9005
Damper Ø housing [mm]	8.0	8.0	8.0
Damper housing length [mm]	151.6	151.6	151.6
Damper Ø piston rod [mm]	2.3	2.3	2.3
Damper housing connection	Without connection	Without connection	Without connection
Damper piston rod connection	T-head	T-head	Coupler
Application environment	Standard	Standard	Standard

# AIR FRICTION DAMPERS



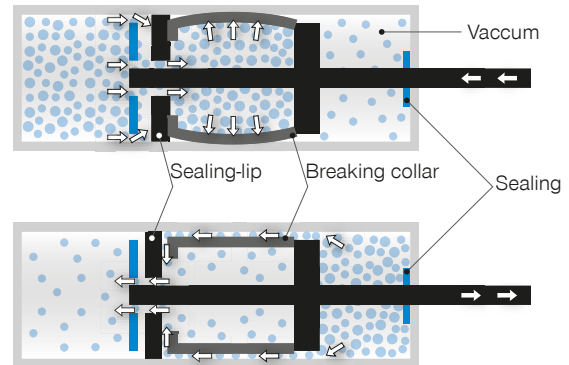


# INDIVIDUAL DAMPERS

## AIR FRICTION DAMPERS

### PRINCIPLE OF FUNCTION

- ▶ In a sealed housing there is a piston which is moving back- and forward. By means of the pressure-difference which results within the closing-movement the sealing-lip will be pressed against the breaking-collar. This breaking-collar expand and presses the cylinder in which it moves. Thus the friction-energy is generated.
- ▶ No oil-leakage possible
- ▶ Friction force is related to the pressure



### DAMPER WITH AND WITHOUT RESET-FUNCTION

Damper **without** reset-function needs a coupler onto the pistonrod is needed to be used within the fitting. The pistonrod do not extract by itself, it has to be extracted manually.



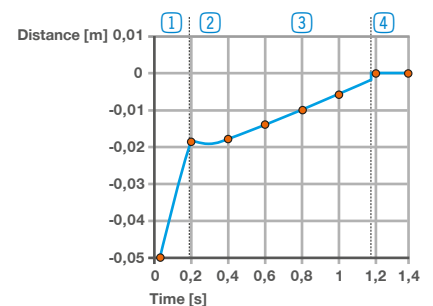
Damper **with** an integrated reset-function a Coupler is not needed onto the pistonrod within the fitting. The pistonrod will be extracted automatically.



### GRAPH AIR FRICTION DAMPER IN SELF-CLOSING UNITS

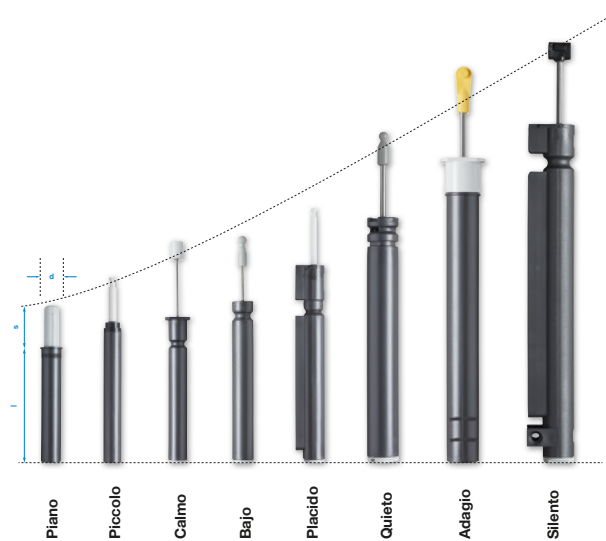
#### Characteristic curve air friction damper

- Phase ① : sharp breakage
- Phase ② : short stop, returning point
- Phase ③ : dampened moving-in
- Phase ④ : unit closed











## PRODUCT RANGE AIR-FRICTION DAMPER

- ▶ Housing length (l): 56 mm bis 164 mm
- ▶ Housing diameter (d): 9 mm bis 16,6 mm
- ▶ Stroke (s): 19 mm bis 110 mm



# AIR FRICTION DAMPERS

## THE SERIES AT A GLANCE

		Operating direction	Stroke [mm]
	Piano	Pressure dampers	19.0
	Piccolo	Pressure dampers	35.0
	Calmo	Pressure dampers	42.0
	Bajo	Pressure dampers	48.0
	Placido	Pressure dampers	50.0
	Quieto	Pressure dampers	70.0
	Adagio	Tension damper	110.0
	Silento	Pressure dampers	110.0

Application areas				
				
Damper Ø housing [mm]	Door	Sliding door	Drawer	Hinge
9.9			•	•
9.2			•	
10.4			•	
10.4			•	
10.4			•	
15.5		•	•	
16.0		•		
15.5		•		

# AIR DAMPERS

## SERIES PIANO

### ▶ PRODUCT SPECIFICATIONS



Universally usable pneumatic damper that extends again automatically after actuation. Can be inserted into a drilled hole for installation or fastened using the adapter.

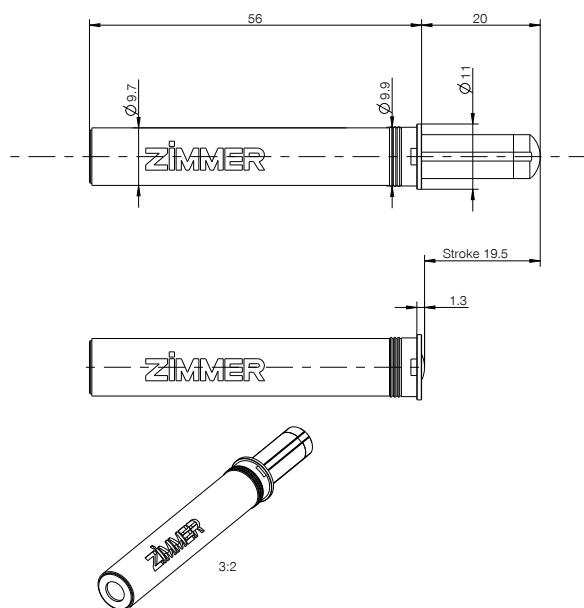
### ▶ APPLICATION AREAS

 Door	
 Sliding door	
 Drawer	•
 Hinge	•

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Piano	19.0	Air	Pressure dampers

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

<b>Order no.</b>	<b>A019-10-002</b>
Mass to be braked [kg]	6.0
Damper Ø housing [mm]	9.9
Damper housing length [mm]	56.0
Damper Ø piston rod [mm]	1.5
Damper housing connection	Without connection
Damper piston rod connection	Bumper
Free-run	Yes
Free-run length [mm]	5.0
Damper reversal point [mm]	5.0
Damper reversal point tolerance [mm]	+2/-1.6
Damper closing time [s]	1.0
Damper closing time tolerance [s]	+0.4/-0.3
Damper housing color	Gray RAL7016
Damper cover color	Gray RAL7035

# AIR DAMPERS

## SERIES PICCOLO

### ▶ PRODUCT SPECIFICATIONS



Piccolo is exceptionally well suited for integration into drawer fittings. During conceptual design, value was placed on cost-effectiveness without compromising performance.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer



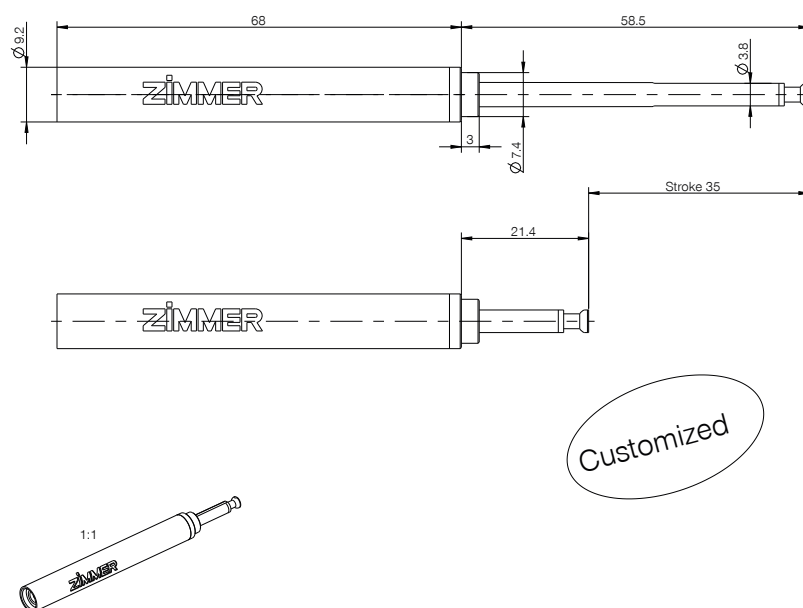
Hinge



### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Piccolo	35.0	Air	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

<b>Order no.</b>	<b>A035-09-019</b>
Mass to be braked [kg]	15.0
Damper Ø housing [mm]	9.2
Damper housing length [mm]	68.0
Damper Ø piston rod [mm]	4.0
Damper housing connection	Collar
Damper piston rod connection	Mushroom head
Free-run	Yes
Free-run length [mm]	5.0
Damper reversal point [mm]	18.0
Damper reversal point tolerance [mm]	+5/-5
Damper closing time [s]	0.9
Damper closing time tolerance [s]	+0.4/-0.4
Damper housing color	Gray RAL7016
Damper cover color	Gray RAL7016

# AIR DAMPERS

## SERIES CALMO

### ▶ PRODUCT SPECIFICATIONS



For installation in the rail. The magnet on the tip makes it ideal for use as end position damping for metal drawers.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer



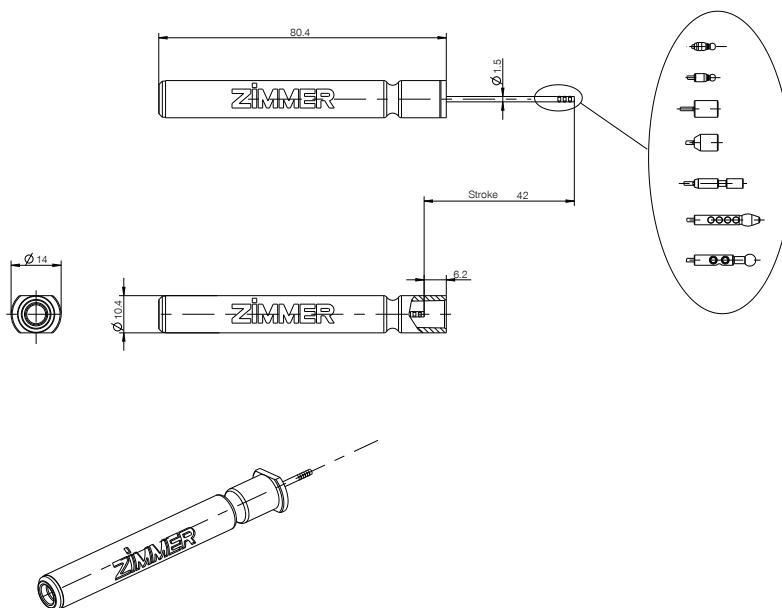
Hinge



### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Calmo	42.0	Air	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	A042-10-006	A042-10-014
Mass to be braked [kg]	20.0	20.0
Damper Ø housing [mm]	10.4	10.4
Damper housing length [mm]	69.6	69.6
Damper Ø piston rod [mm]	1.5	1.5
Damper housing connection	Without connection	Without connection
Damper piston rod connection	Magnet head	Magnet head
Free-run	Yes	Yes
Free-run length [mm]	5.0	5.0
Damper reversal point [mm]	18.0	19.0
Damper reversal point tolerance [mm]	+4/-4	+5/-5
Damper closing time [s]	1.0	1.0
Damper closing time tolerance [s]	+0.5/-0.5	+0.5/-0.5
Damper housing color	Gray RAL7016	Gray RAL7016
Damper cover color	Gray RAL7035	Gray RAL7035

# AIR DAMPERS

## SERIES BAJO

### ▶ PRODUCT SPECIFICATIONS



Damper with a long service life that can be integrated with great versatility. Air friction technology for use in clean rooms without any problems.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer

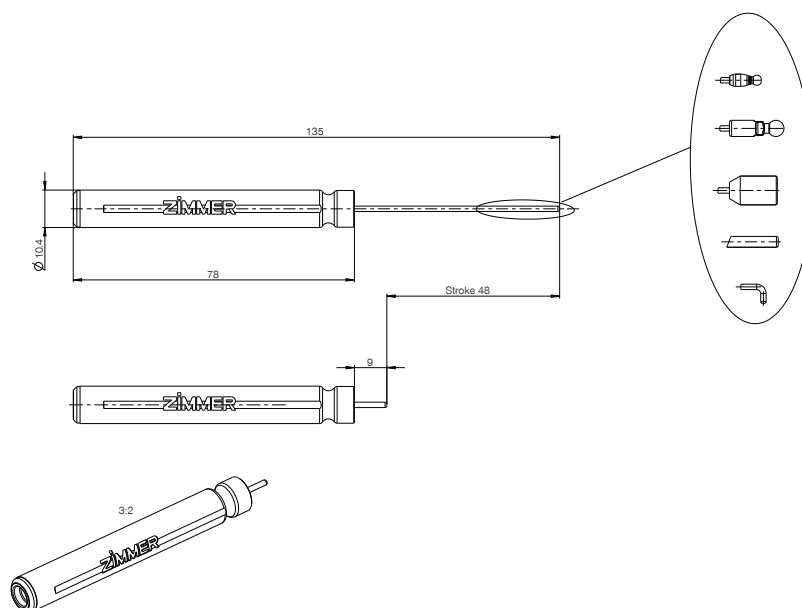


Hinge

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Bajo	48.0	Air	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	A048-10-000	A048-10-009	A048-10-018
Mass to be braked [kg]	25.0	25.0	25.0
Damper Ø housing [mm]	10.4	10.4	10.4
Damper housing length [mm]	78.1	86.1	78.1
Damper Ø piston rod [mm]	1.5	3.0	1.5
Damper housing connection	Without connection	Without connection	Without connection
Damper piston rod connection	Ball head	Magnet head	Ball head
Free-run	Yes	Yes	Yes
Free-run length [mm]	5.0	5.0	5.0
Damper reversal point [mm]	21.0	25.0	21.0
Damper reversal point tolerance [mm]	+4/-3	+5/-4	+4/-3
Damper closing time [s]	1.0	1.3	1.0
Damper closing time tolerance [s]	+0.3/-0.2	+0.5/-0.5	+0.3/-0.2
Damper housing color	Beige RAL1001	Gray RAL7016	Gray RAL7016
Damper cover color	Gray RAL7035	Gray RAL7035	Gray RAL7035

# AIR DAMPERS

## SERIES PLACIDO

### ▶ PRODUCT SPECIFICATIONS



Suitable for installation in the rail and/or fitting. The damper can be integrated into the system using the ball head of the plastic piston rod.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer

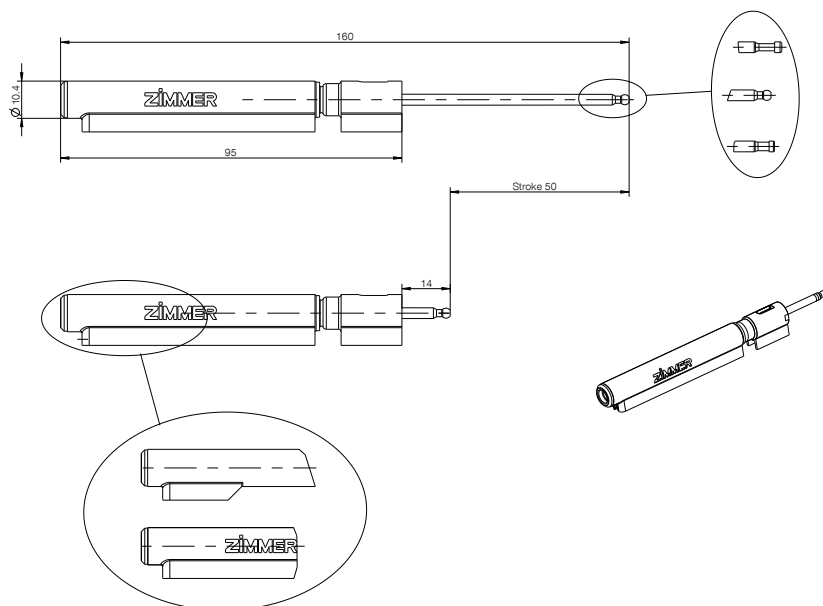


Hinge

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Placido	50.0	Air	Pressure dampers

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

Order no.	A050-10-002	A050-10-012
Mass to be braked [kg]	25.0	25.0
Damper Ø housing [mm]	10.4	10.4
Damper housing length [mm]	95.0	95.0
Damper Ø piston rod [mm]	3.0	3.0
Damper housing connection	Window	Window
Damper piston rod connection	Collar	Ball head
Free-run	Yes	Yes
Free-run length [mm]	10.0	10.0
Damper reversal point [mm]	23.0	23.0
Damper reversal point tolerance [mm]	+5/-5	+5/-5
Damper closing time [s]	1.3	1.3
Damper closing time tolerance [s]	+0.5/-0.5	+0.6/-0.5
Damper housing color	Gray RAL7016	Gray RAL7016
Damper cover color	Gray RAL7035	Gray RAL7035

# AIR DAMPERS

## SERIES QUIETO

### ▶ PRODUCT SPECIFICATIONS



This unit is designed for use in heavy-duty applications. Weights of up to 50 kg can be absorbed by just one damper.

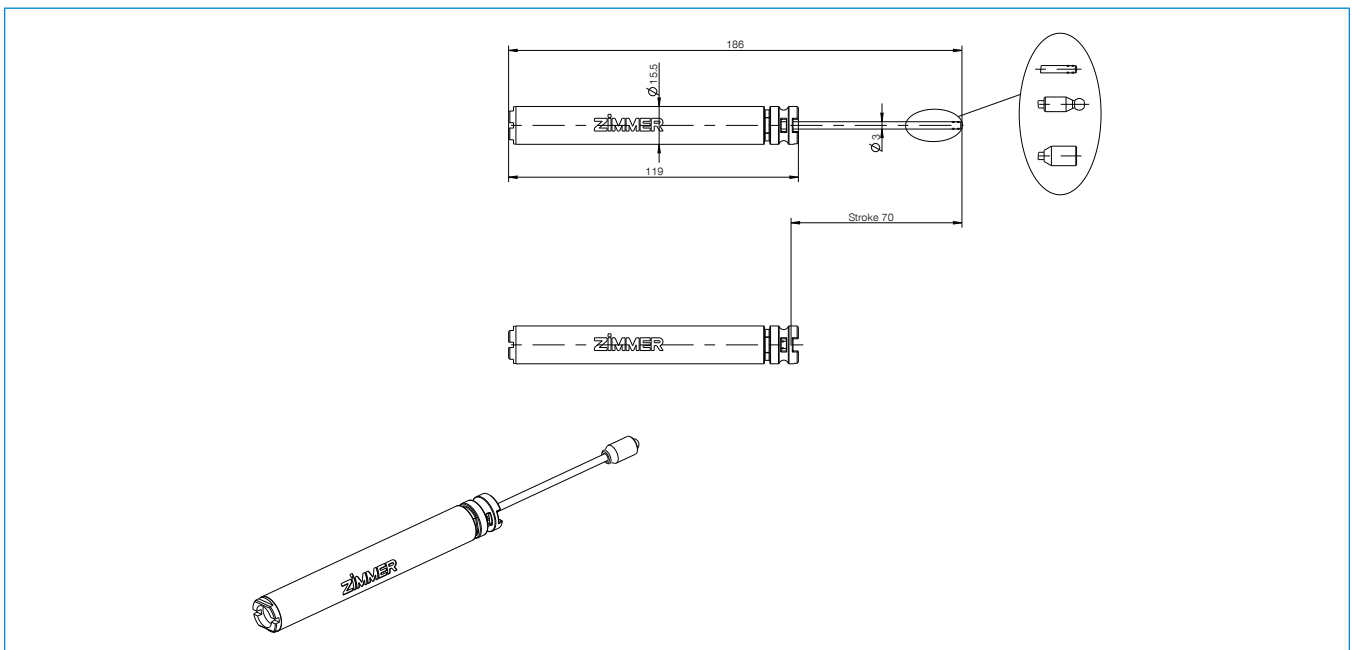
### ▶ APPLICATION AREAS

 Door	
 Sliding door	•
 Drawer	•
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Quieto	70.0	Air	Pressure dampers

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

<b>Order no.</b>	<b>A070-15-005</b>
Mass to be braked [kg]	60.0
Damper Ø housing [mm]	15.5
Damper housing length [mm]	118.7
Damper Ø piston rod [mm]	3.0
Damper housing connection	Window
Damper piston rod connection	Ball head
Free-run	No
Free-run length [mm]	0.0
Damper reversal point [mm]	41.0
Damper reversal point tolerance [mm]	+9/-8
Damper closing time [s]	1.9
Damper closing time tolerance [s]	+0.6/-0.5
Damper housing color	Gray RAL7016
Damper cover color	Gray RAL7035

# AIR DAMPERS

## SERIES ADAGIO

### ▶ PRODUCT SPECIFICATIONS



This tension damper can be attached to an existing system using the coupler fastened to the stainless steel piston rod.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer



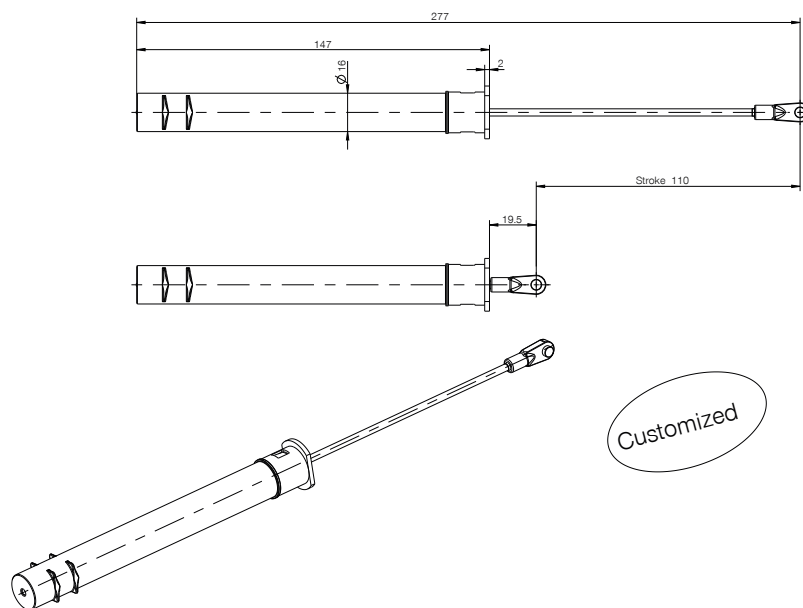
Hinge



### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Adagio	110.0	Air	Tension damper

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	A110-15-028	A110-15-053
Mass to be braked [kg]	50.0	50.0
Damper Ø housing [mm]	16.0	16.0
Damper housing length [mm]	147.1	147.1
Damper Ø piston rod [mm]	3.0	3.0
Damper housing connection	Wing	Wing
Damper piston rod connection	T-head	T-head
Free-run	Yes	Yes
Free-run length [mm]	15.0	15.0
Damper reversal point [mm]	50.0	50.0
Damper reversal point tolerance [mm]	+20/-20	+20/-20
Damper closing time [s]	2.0	2.0
Damper closing time tolerance [s]	+0.5/-0.5	+0.5/-0.5
Damper housing color	Gray RAL7016	Gray RAL7016
Damper cover color	Gray RAL7035	Gray RAL7035

# AIR DAMPERS

## SERIES SILENTO

### ▶ PRODUCT SPECIFICATIONS



Suitable for installation in the rail and/or fitting. The damper can be connected to the system using the coupler on the stainless steel piston rod. Suitable for higher weight classes.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer



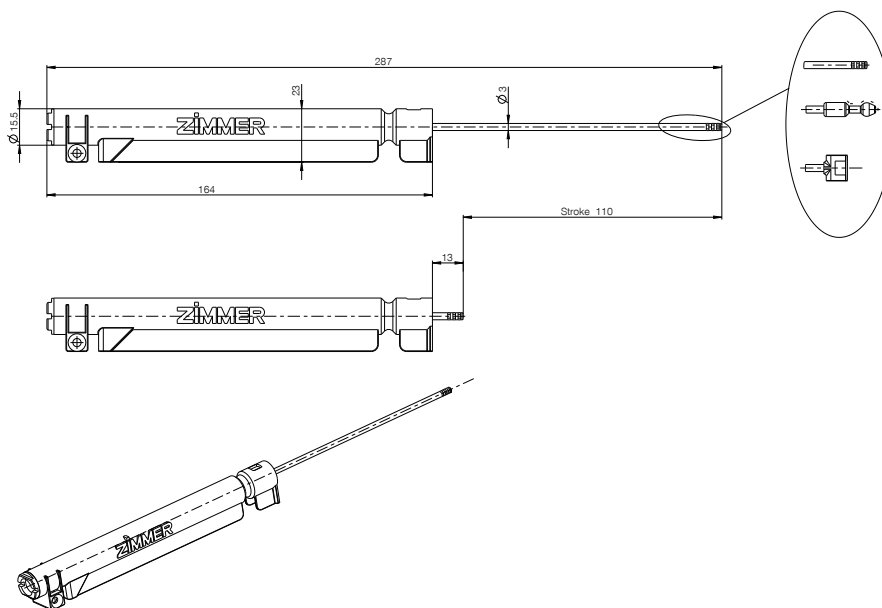
Hinge



### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento	110.0	Air	Pressure dampers

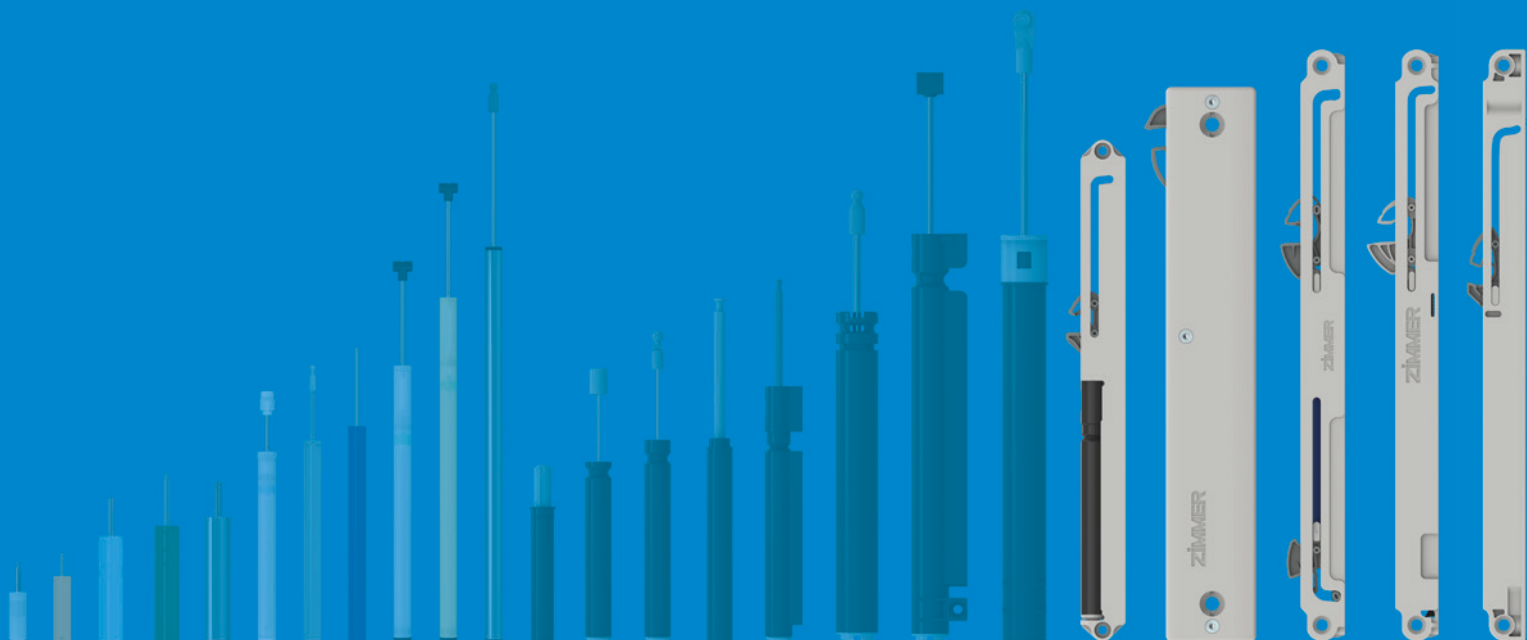
### ▶ TECHNICAL DRAWING



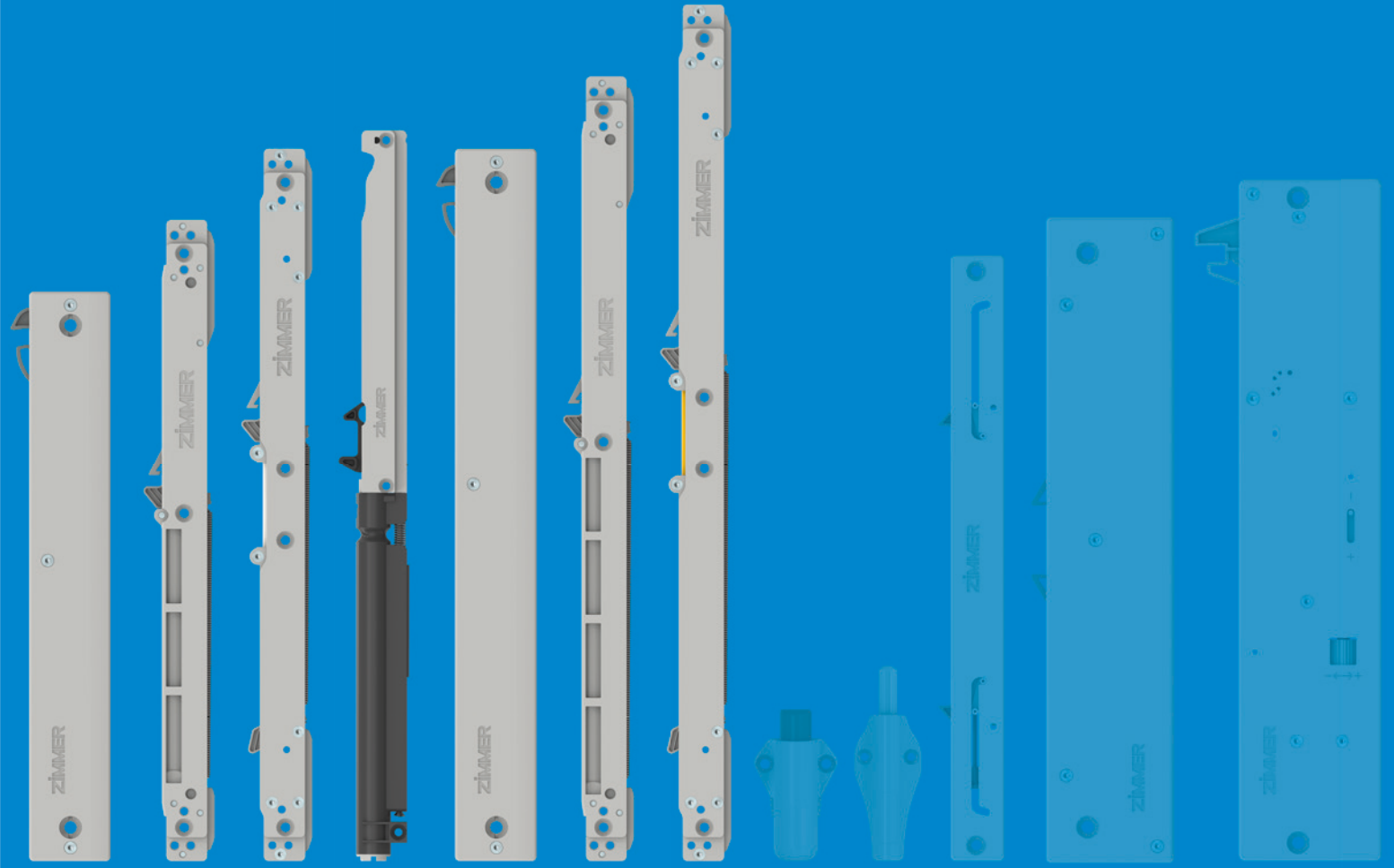
## ► TECHNICAL DATA

Order no.	A110-15-006	A110-15-007
Mass to be braked [kg]	50.0	80.0
Damper Ø housing [mm]	15.5	15.5
Damper housing length [mm]	164.0	164.0
Damper Ø piston rod [mm]	3.0	3.0
Damper housing connection	Window	Window
Damper piston rod connection	Coupler	Coupler
Free-run	Yes	No
Free-run length [mm]	15.0	0.0
Damper reversal point [mm]	65.0	65.0
Damper reversal point tolerance [mm]	+10/-10	+10/-10
Damper closing time [s]	2.0	2.0
Damper closing time tolerance [s]	+0.8/-0.8	+0.8/-0.8
Damper housing color	Gray RAL7016	Gray RAL7016
Damper cover color	Yellow PMS135C	Gray RAL7035

# SELF-CLOSING UNITS







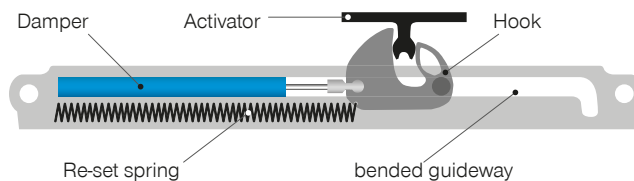
# CLOSING UNITS

## SELF-CLOSING DEVICES

### PRINCIPLE OF FUNCTION

A automatic self-closing unit will be assembled at the cabinet for example whereas the activator is assembled at the drawer itself.

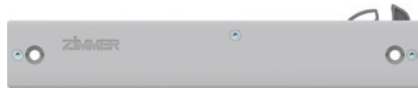
The activator will be linked within the hook thus enabling the transfer of the force. The self-closing unit could however also be assembled at the drawer and the activator at the cabinet.



### TYPES



closing inwards



closing outwards



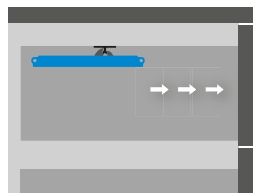
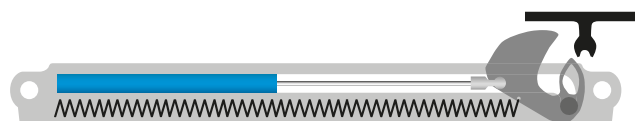
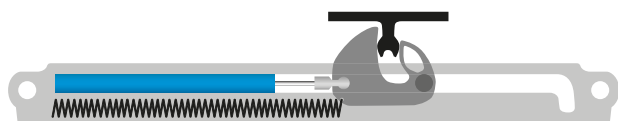
double acting

### CLOSING INWARDS SELF-CLOSING UNITS

At the closed drawer-position the activator is linked within the hook. During opening the hook will be pulled in right direction and the re-set spring will be stretched. The hook will be guided by means of two pins inside the bended guideway.

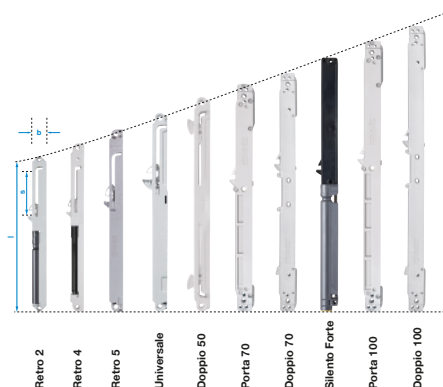
After a certain opening-movement the hook is fitting in the offset-position, this disconnecting the hook and the activator. The drawer can be opened without any further effort.

At the closing of the drawer, the hook will be activated of the activator. The return spring pulls the drawer in end position while damping.



### PRODUCT RANGE SELF-CLOSING (CLOSING INWARDS / DOUBLE ACTING)

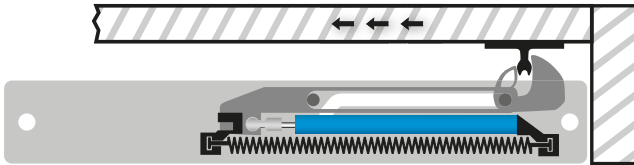
- ▶ Housing length (l): 200 bis 385 mm
- ▶ Housing height (b): 18 bis 25 mm
- ▶ Housing depth (t): 10,4 bis 18 mm
- ▶ Stroke (s): 50 bis 100 mm



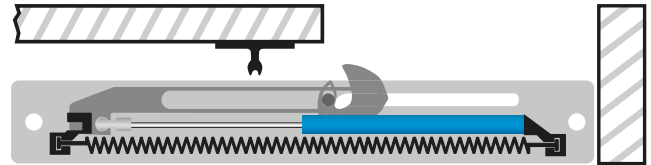
## CLOSING OUTWARDS SELF-CLOSING UNITS

If there might not be sufficient space available for to assemble the activator, an outwards working self-closing unit can be used.

This system has a separate spacer which deflects the force so that the damper works on pressure.



Door closed

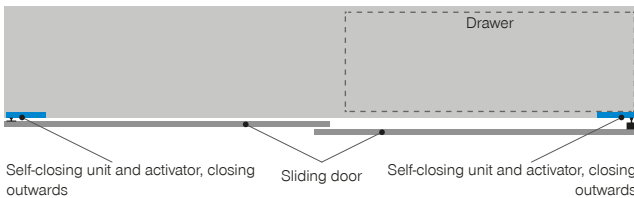


Door open

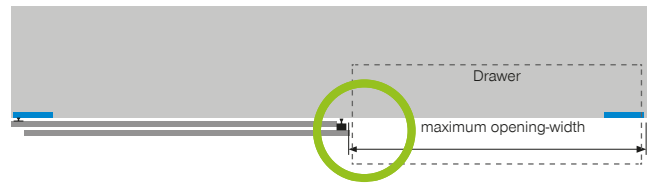
## ASSEMBLY OF THE SELF-CLOSING UNITS

The above example is showing a wardrobe with two sliding-doors. The activators have to be assembled onto the sliding doors as near to the side-wall as possible in order to prevent collision with the second door resp. the cabinet.

Use an outward closing unit.



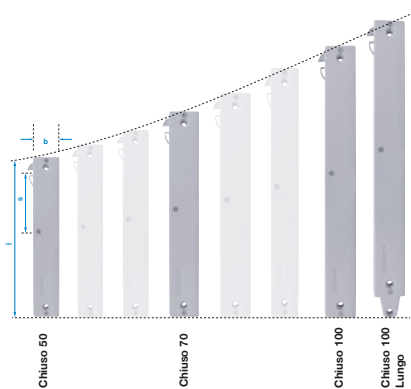
Wardrobe, closed



Wardrobe, open

## PRODUCT RANGE SELF-CLOSING (CLOSING INWARDS / DOUBLE ACTING)

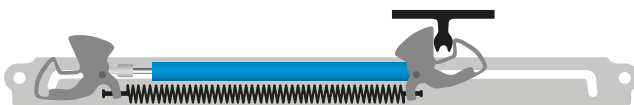
Housing length (l): 200 bis 385 mm  
 Housing bright (b): 18 bis 25 mm  
 Housing depth (t): 10,4 bis 18 mm  
 Stroke (s): 50 bis 100 mm



## DOUBLE ACTING SELF-CLOSING UNITS

In order to dampen sliding doors within both directions double acting self closing units will be used.

The activator will be assembled at the cabinet; the self closing units on top of the sliding door.




















Sliding-door, damping to the right side







Sliding-door, damping to the left side

# SELF-CLOSING UNITS

## THE SERIES AT A GLANCE

		<b>Operating direction</b>	<b>Stroke [mm]</b>
	Retro 2	Inward closing	50.0
	Retro 5	Inward closing	50.0
	Silento Universale	Inward closing	30.0
	Silento Doppio 50	Inward closing on both sides	50.0
	Silento Chiuso 50	Outward closing	50.0
	Silento Porta 70	Inward closing	70.0
	Silento Doppio 70	Inward closing on both sides	70.0
	Silento Chiuso 70	Outward closing	70.0
	Silento Porta 100	Inward closing	100.0
	Silento Doppio 100	Inward closing on both sides	100.0
	Silento Chiuso 100	Outward closing	100.0
	Silento Forte 2.0	Inward closing	110.0
	Silento Forte	Inward closing	110.0
	Silento Forte Duo	Inward closing on both sides	110.0
	Silento Centrato	Inward closing on both sides	50.0
	Silento Centratinio	Inward closing on both sides	50.0
	Impulso	Outward closing	50.0

Total length max. [mm]	Application areas			
	 Door	 Sliding door	 Drawer	 Hinge
201.0		•	•	
237.0		•	•	
237.0		•	•	
237.0		•		
222.0		•		
286.0		•		
318.0		•		
254.0		•		
350.0		•		
382.0		•		
318.0		•		
326.0		•		
326.0		•		
535.0		•		
288.0		•		
270.0		•		
304.3		•	•	

# SELF-CLOSING DEVICE

## SERIES RETRO 2

### ▶ PRODUCT SPECIFICATIONS



This closing unit combines reliability with endurance. In addition, it can be used for numerous specific applications. All common drawers and sliding doors can be expanded easily by adding this damping.

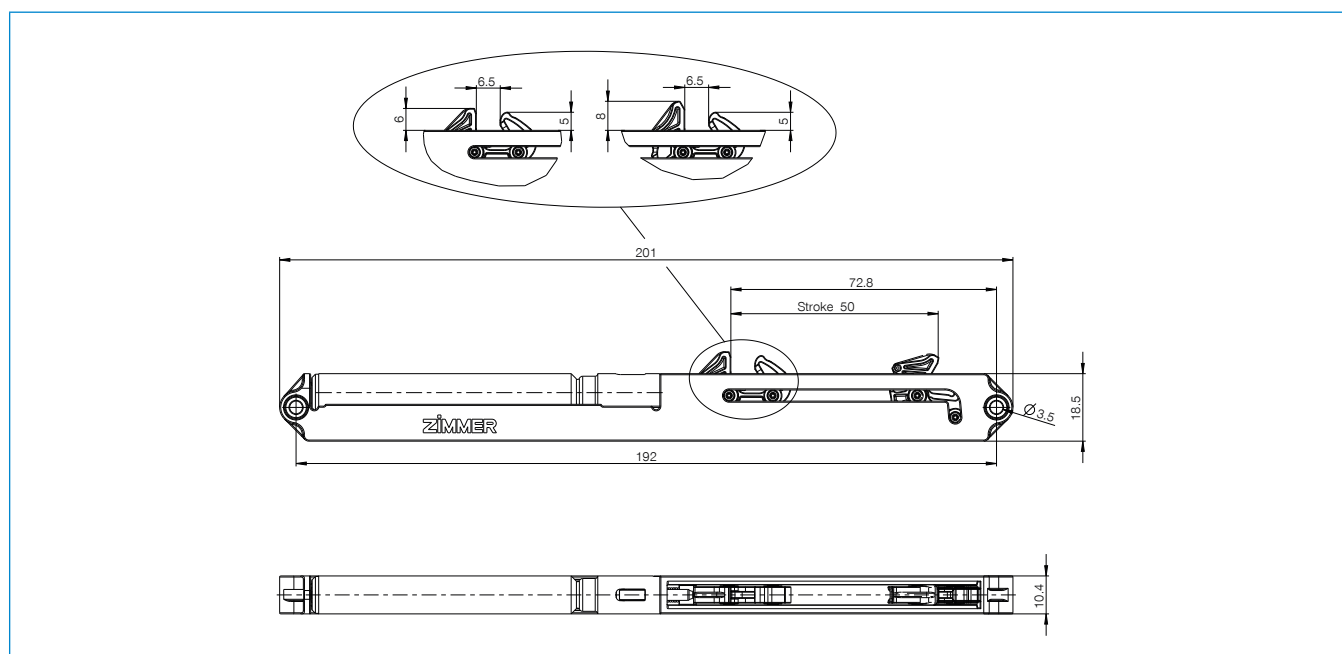
### ▶ APPLICATION AREAS

 Door	
 Sliding door	•
 Drawer	•
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Retro 2	50.0	Air	Inward closing

### ▶ TECHNICAL DRAWING



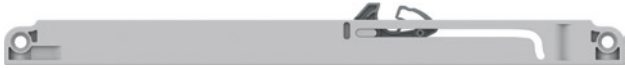
## ► TECHNICAL DATA

Order no.	E050-10-003	E050-10-025
Mass to be braked [kg]	25.0	25.0
Operating direction	Inward closing	Inward closing
Free-run	Yes	Yes
Free-run length [mm]	10.0	10.0
Technology	Friction	Friction
Total length max. [mm]	201.0	201.0
SCU housing color	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7042	Gray RAL7042
SCU Ø drilled holes [mm]	3.5	3.5
SCU width [mm]	10.4	10.4
SCU height [mm]	18.5	18.5
SCU locking lever design	Type A	Type S

# SELF-CLOSING DEVICE

## SERIES RETRO 5

### ▶ PRODUCT SPECIFICATIONS



Even more slender, strong and versatile in use. Retro 5 is easy to handle and ideally suited even for more complex applications.

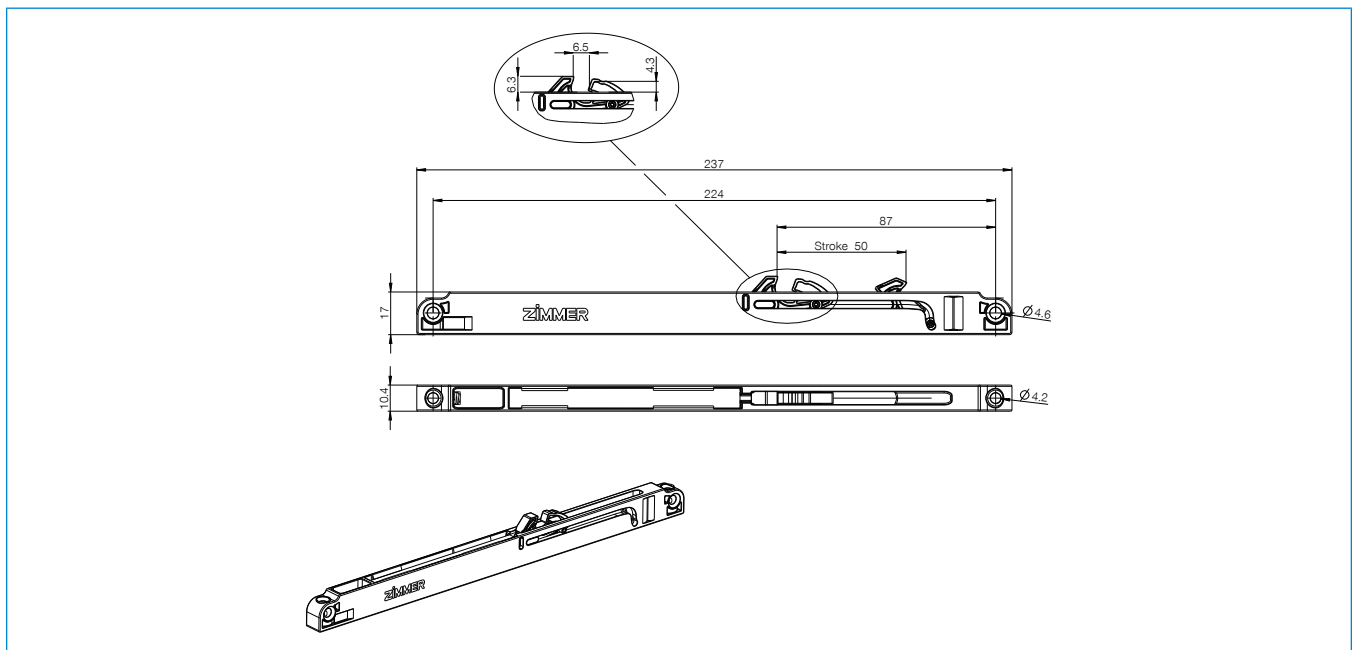
### ▶ APPLICATION AREAS

 Door	
 Sliding door	•
 Drawer	•
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Retro 5	50.0	Fluid	Inward closing

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

Order no.	E050-08-252	E050-08-253	E050-08-254
Mass to be braked [kg]	15.0	30.0	80.0
Operating direction	Inward closing	Inward closing	Inward closing
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	237.0	237.0	237.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	4.2	4.2	4.2
SCU width [mm]	10.4	10.4	10.4
SCU height [mm]	17.0	17.0	17.0
SCU locking lever design	Type S	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES SILENTO UNIVERSALE

### ▶ PRODUCT SPECIFICATIONS



As the name indicates, the Silento Universale is a self-closing unit with extremely versatile application options. As a result of the high market acceptance, this unit is already available in various force variants.

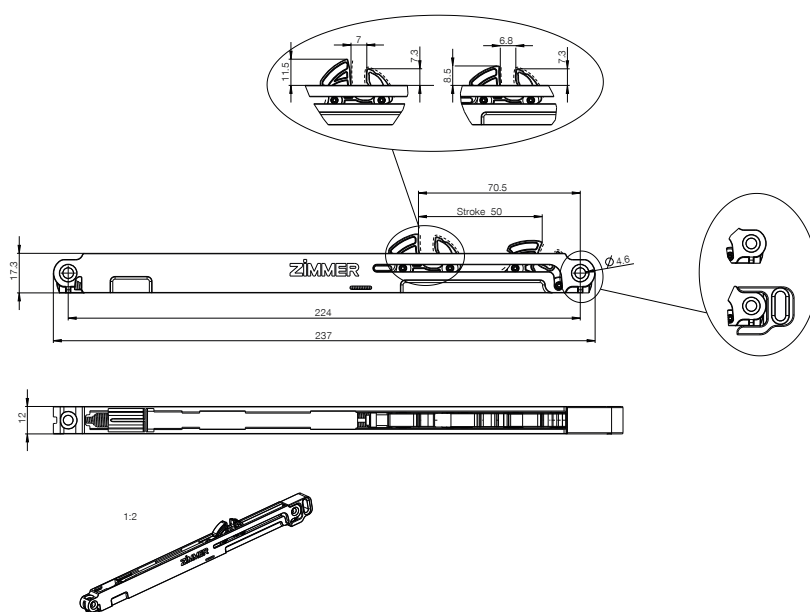
### ▶ APPLICATION AREAS

 Door	
 Sliding door	•
 Drawer	•
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Universale	30.0	Fluid	Inward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E050-08-124	E050-08-133	E050-08-135
Mass to be braked [kg]	30.0	30.0	50.0
Operating direction	Inward closing	Inward closing	Inward closing
Free-run	No	Yes	Yes
Free-run length [mm]	0.0	5.0	5.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	237.0	237.0	237.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7036	Gray RAL7036
SCU Ø drilled holes [mm]	4.2	4.2	4.2
SCU width [mm]	12.0	12.0	12.0
SCU height [mm]	17.3	17.3	17.3
SCU locking lever design	Type S	Type A	Type A

# SELF-CLOSING DEVICE

## SERIES SILENTO DOPPIO 50

### ▶ PRODUCT SPECIFICATIONS



Specially developed damper system for narrow sliding doors. Compact and versatile in use. Suitable for existing slide systems. Easy to retrofit.

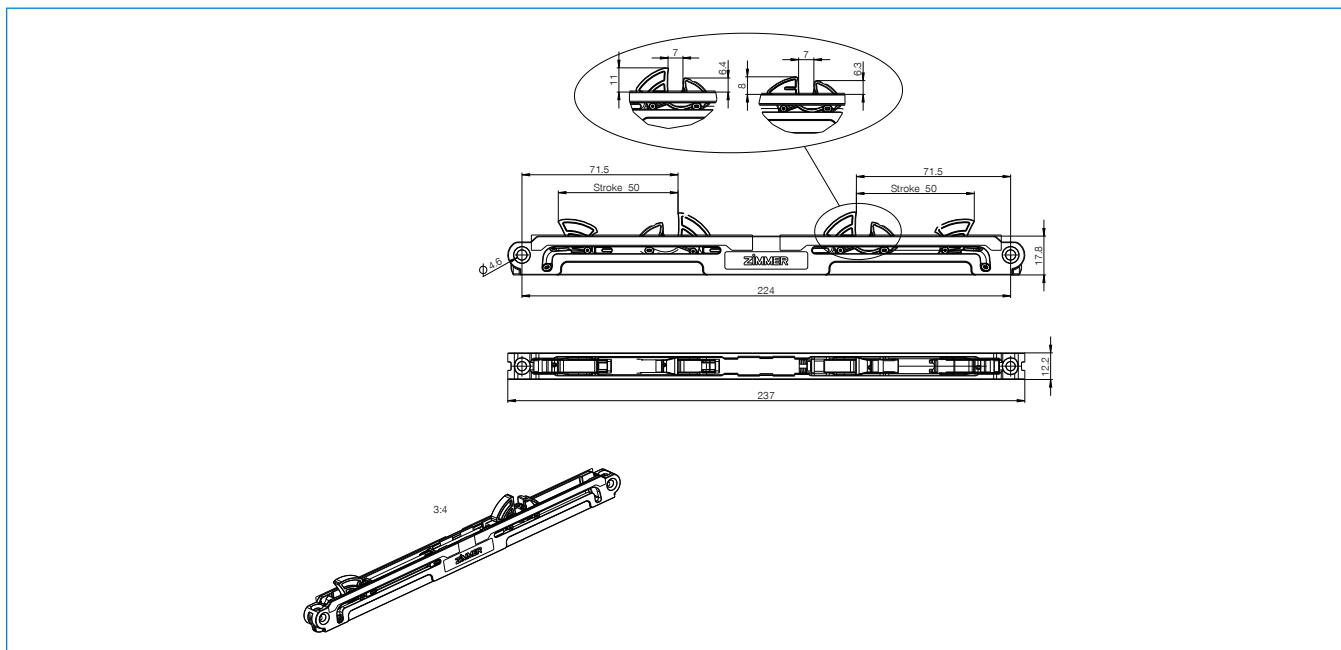
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Doppio 50	50.0	Fluid	Inward closing on both sides

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E050-08-071	E050-08-147	E050-08-236
Mass to be braked [kg]	30.0	50.0	50.0
Operating direction	Inward closing on both sides	Inward closing on both sides	Inward closing on both sides
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	237.0	237.0	237.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Natural	Natural	Natural
SCU Ø drilled holes [mm]	4.2	4.2	4.2
SCU width [mm]	12.2	12.2	12.2
SCU height [mm]	17.8	17.8	17.8
SCU locking lever design	Type A	Type S	Type A

# SELF-CLOSING DEVICE

## SERIES SILENTO CHIUSO 50

### ▶ PRODUCT SPECIFICATIONS



This self-closing device features outward closing, which enables maximum door opening. It is ideally suited for use in the sliding door cabinet. Its compact plastic housing allows it to be discreetly integrated.

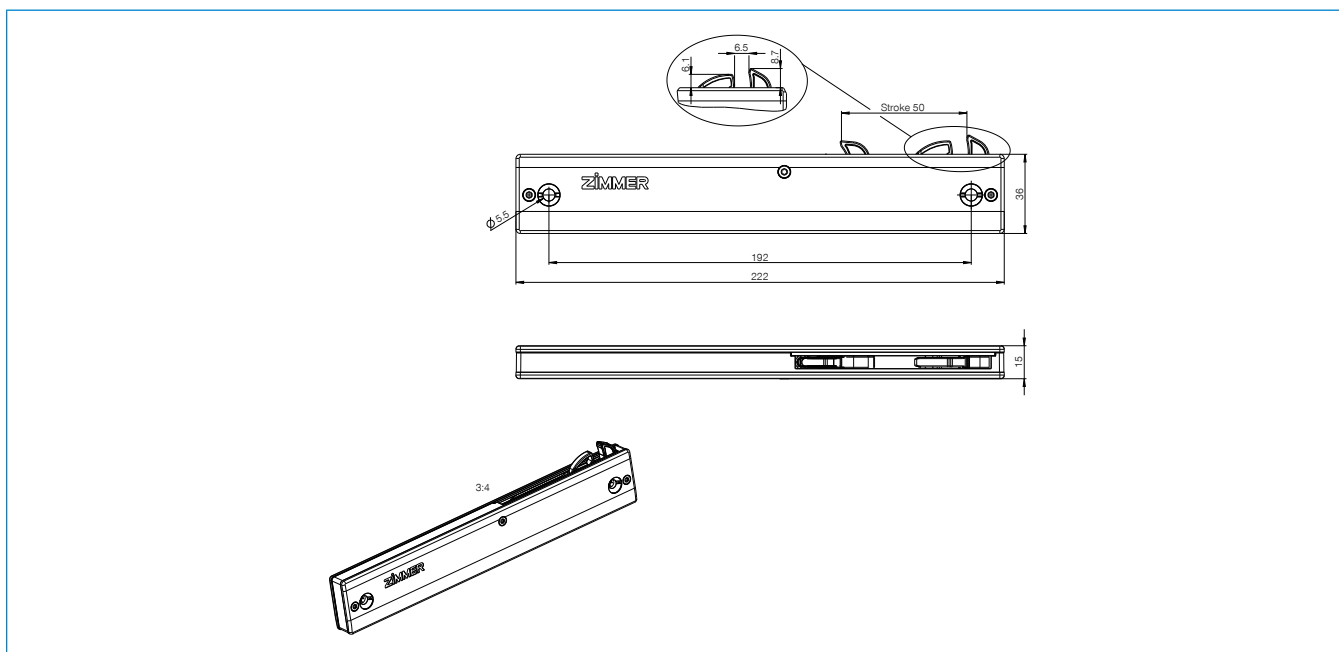
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Chiuso 50	50.0	Fluid	Outward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E050-08-069	E050-08-238
Mass to be braked [kg]	50.0	15.0
Operating direction	Outward closing	Outward closing
Free-run	No	No
Free-run length [mm]	0.0	0.0
Technology	Defined Comfort	Defined Comfort
Total length max. [mm]	222.0	222.0
SCU housing color	Gray RAL7035	Gray RAL7035
SCU locking lever color	Natural	Natural
SCU Ø drilled holes [mm]	5.5	5.5
SCU width [mm]	15.0	15.0
SCU height [mm]	36.0	36.0
SCU locking lever design	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES SILENTO PORTA 70

### ▶ PRODUCT SPECIFICATIONS



Weights of up to 120 kg can be braked gently with this unit. Developed for sliding doors, this system can also be used in other areas. The long stroke results in a homogeneous closing pattern.

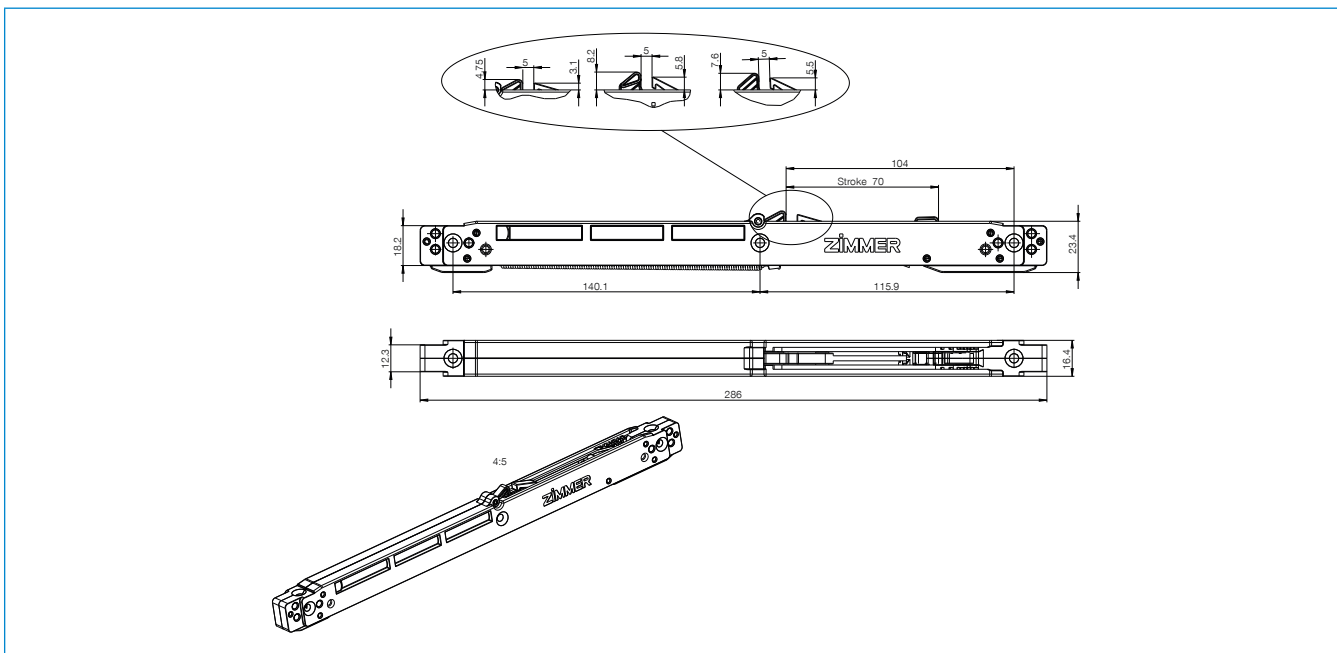
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Porta 70	70.0	Fluid	Inward closing

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

Order no.	E070-08-022	E070-08-025	E070-08-028	E070-08-031
Mass to be braked [kg]	120.0	100.0	70.0	50.0
Operating direction	Inward closing	Inward closing	Inward closing	Inward closing
Free-run	No	No	No	No
Free-run length [mm]	0.0	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	286.0	286.0	286.0	286.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	4.2	4.2	4.2	4.2
SCU width [mm]	16.4	16.4	16.4	16.4
SCU height [mm]	27.0	27.0	27.0	27.0
SCU locking lever design	Type S	Type S	Type S	Type S

Order no.	E070-08-034	E070-08-037
Mass to be braked [kg]	30.0	15.0
Operating direction	Inward closing	Inward closing
Free-run	No	No
Free-run length [mm]	0.0	0.0
Technology	Defined Comfort	Defined Comfort
Total length max. [mm]	286.0	286.0
SCU housing color	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	4.2	4.2
SCU width [mm]	16.4	16.4
SCU height [mm]	27.0	27.0
SCU locking lever design	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES SILENTO DOPPIO 70

### ▶ PRODUCT SPECIFICATIONS



This self-closing unit that operates on both sides makes it possible to dampen a sliding door in both the opening and closing direction. Controlled braking of weights up to 160 kg is possible.

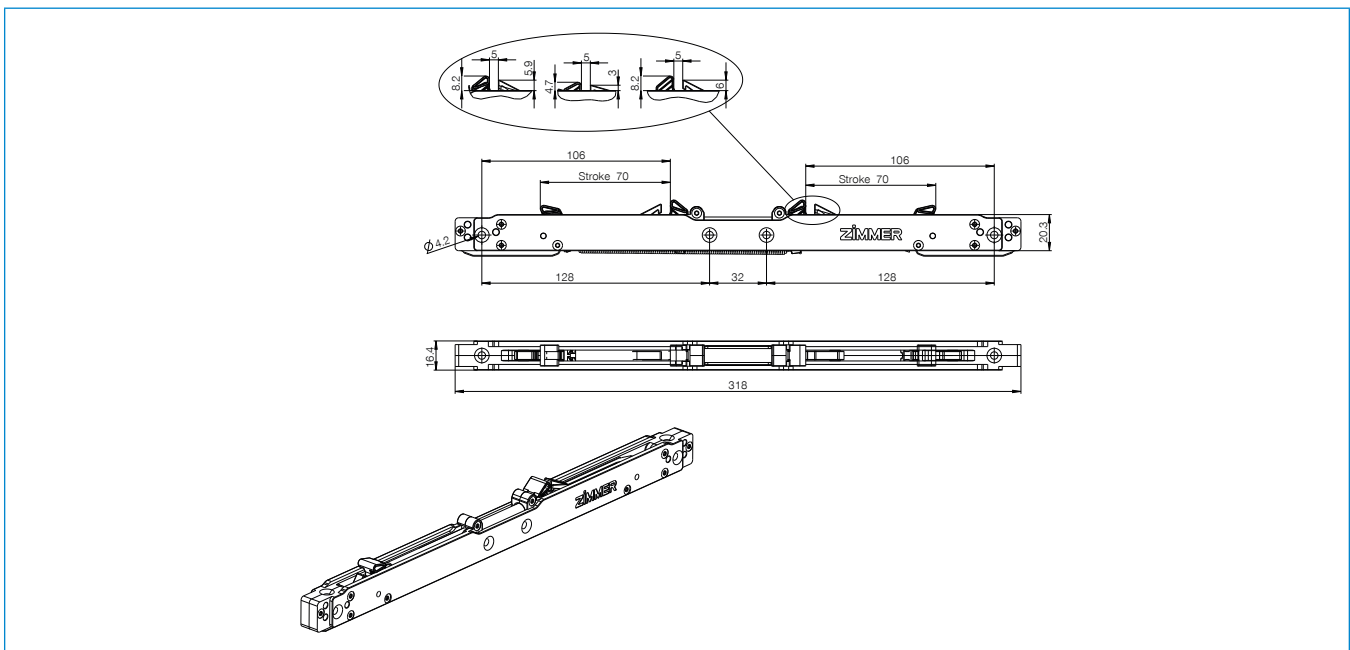
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Doppio 70	70.0	Fluid	Inward closing on both sides

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E070-08-038	E070-08-039	E070-08-047	E070-08-050
Mass to be braked [kg]	120.0	100.0	50.0	30.0
Operating direction	Inward closing on both sides	Inward closing on both sides	Inward closing on both sides	Inward closing on both sides
Free-run	No	No	No	No
Free-run length [mm]	0.0	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	318.0	318.0	318.0	318.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	4.2	4.2	4.2	4.2
SCU width [mm]	16.4	16.4	16.4	16.4
SCU height [mm]	28.0	28.0	28.0	28.0
SCU locking lever design	Type S	Type S	Type S	Type S

Order no.	E070-08-051	E070-08-075
Mass to be braked [kg]	15.0	30.0
Operating direction	Inward closing on both sides	Inward closing on both sides
Free-run	No	No
Free-run length [mm]	0.0	0.0
Technology	Defined Comfort	Defined Comfort
Total length max. [mm]	318.0	318.0
SCU housing color	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	4.2	4.2
SCU width [mm]	16.4	16.4
SCU height [mm]	28.0	28.0
SCU locking lever design	Type S	Type B

# SELF-CLOSING DEVICE

## SERIES SILENTO CHIUSO 70

### ▶ PRODUCT SPECIFICATIONS



This self-closing device features outward closing, which enables maximum door opening. It is ideally suited for use in the sliding door cabinet. Its compact plastic housing allows it to be discreetly integrated.

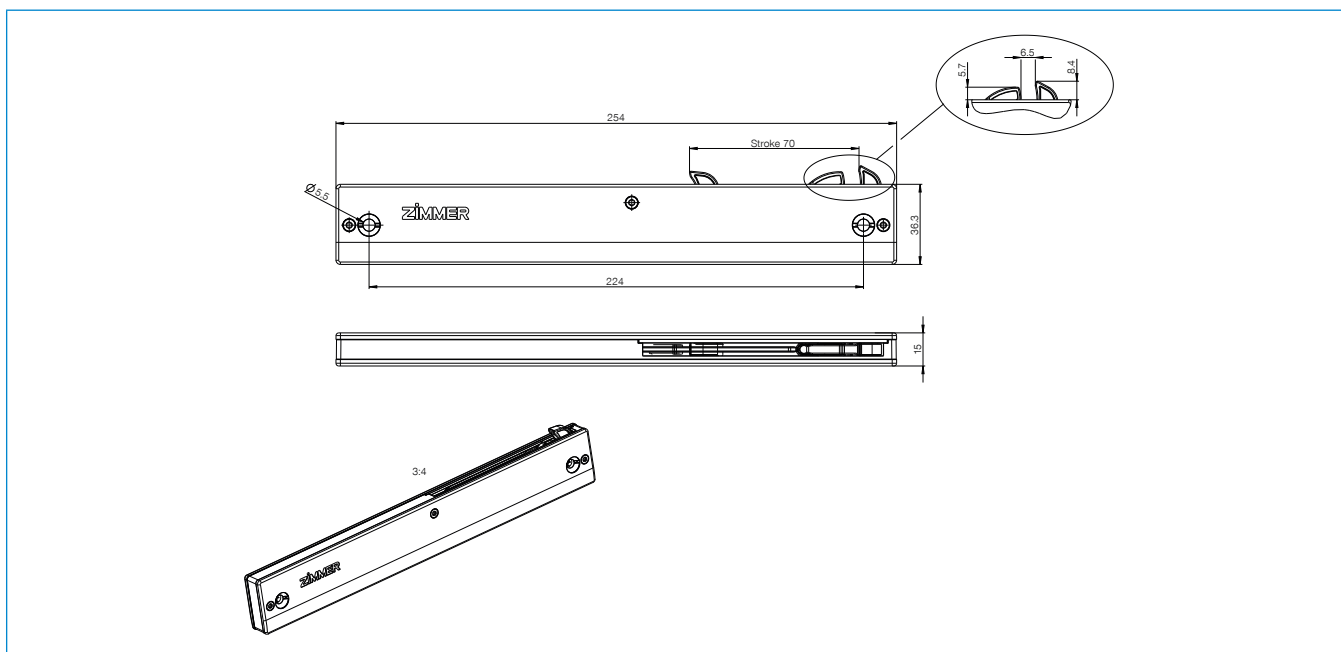
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Chiuso 70	70.0	Fluid	Outward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E070-08-007	E070-08-009	E070-08-010
Mass to be braked [kg]	30.0	50.0	70.0
Operating direction	Outward closing	Outward closing	Outward closing
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	254.0	254.0	254.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Natural	Natural	Natural
SCU Ø drilled holes [mm]	5.5	5.5	5.5
SCU width [mm]	15.0	15.0	15.0
SCU height [mm]	36.3	36.3	36.3
SCU locking lever design	Type S	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES SILENTO PORTA 100

### ▶ PRODUCT SPECIFICATIONS



Weights of up to 160 kg can be braked gently with this unit. Developed for sliding doors, this system can also be used in other areas. The extra-long stroke results in a homogeneous closing pattern.

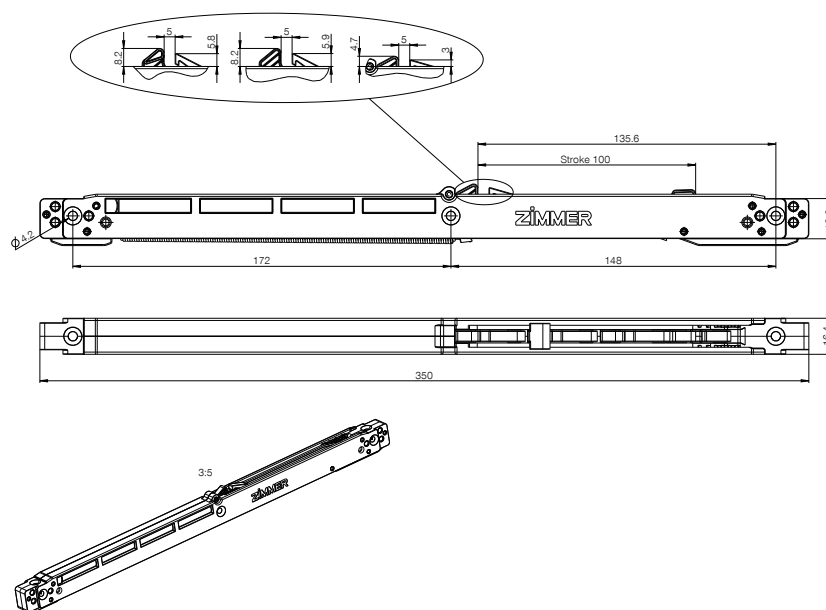
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Porta 100	100.0	Fluid	Inward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E100-08-062	E100-08-065	E100-08-068	E100-08-151
Mass to be braked [kg]	160.0	120.0	100.0	160
Operating direction	Inward closing	Inward closing	Inward closing	Inward closing
Free-run	No	No	No	No
Free-run length [mm]	0.0	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Smooth Comfort M
Total length max. [mm]	350.0	350.0	350.0	350.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	4.2	4.2	4.2	4.2
SCU width [mm]	16.4	16.4	16.4	16.4
SCU height [mm]	27.0	27.0	27.0	27.0
SCU locking lever design	Type S	Type S	Type S	Type S

# SELF-CLOSING DEVICE


## SERIES SILENTO DOPPIO 100

### ▶ PRODUCT SPECIFICATIONS



This self-closing unit that operates on both sides makes it possible to dampen a sliding door in both the opening and closing direction. Controlled braking of weights up to 160 kg is possible.

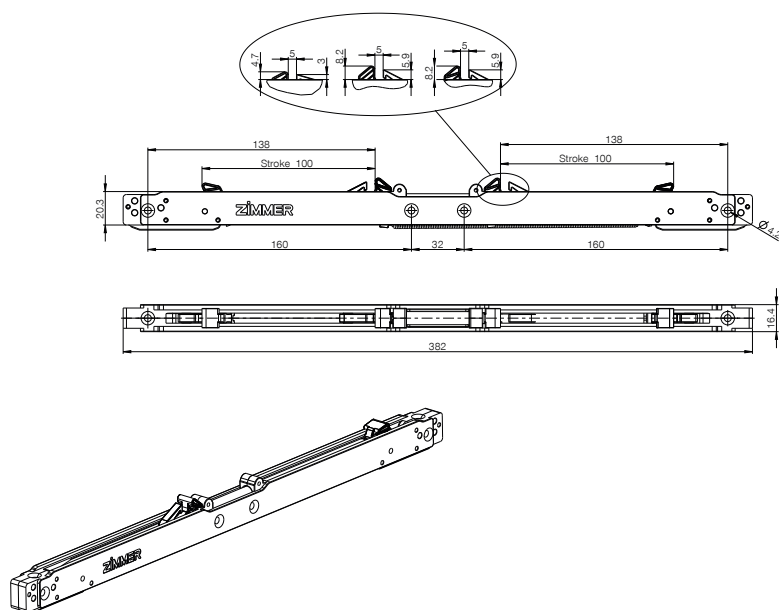
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Doppio 100	100.0	Fluid	Inward closing on both sides

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

Order no.	E100-08-037	E100-08-038	E100-08-041	E100-08-047
Mass to be braked [kg]	160.0	120.0	50.0	70.0
Operating direction	Inward closing on both sides	Inward closing on both sides	Inward closing on both sides	Inward closing on both sides
Free-run	No	No	No	No
Free-run length [mm]	0.0	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	382.0	382.0	382.0	382.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	4.2	4.2	4.2	4.2
SCU width [mm]	16.4	16.4	16.4	16.4
SCU height [mm]	28.0	28.0	28.0	28.0
SCU locking lever design	Type S	Type S	Type S	Type B

Order no.	E100-08-158
Mass to be braked [kg]	120.0
Operating direction	Inward closing on both sides
Free-run	Yes
Free-run length [mm]	10.0
Technology	Defined Comfort
Total length max. [mm]	382.0
SCU housing color	Gray RAL7035
SCU locking lever color	Gray RAL7035
SCU Ø drilled holes [mm]	4.2
SCU width [mm]	16.4
SCU height [mm]	28.0
SCU locking lever design	Type B

# SELF-CLOSING DEVICE

## SERIES SILENTO CHIUSO 100

### ▶ PRODUCT SPECIFICATIONS



This self-closing device features outward closing, which enables maximum door opening. It is ideally suited for use in the sliding door cabinet. Its compact plastic housing allows it to be discreetly integrated.

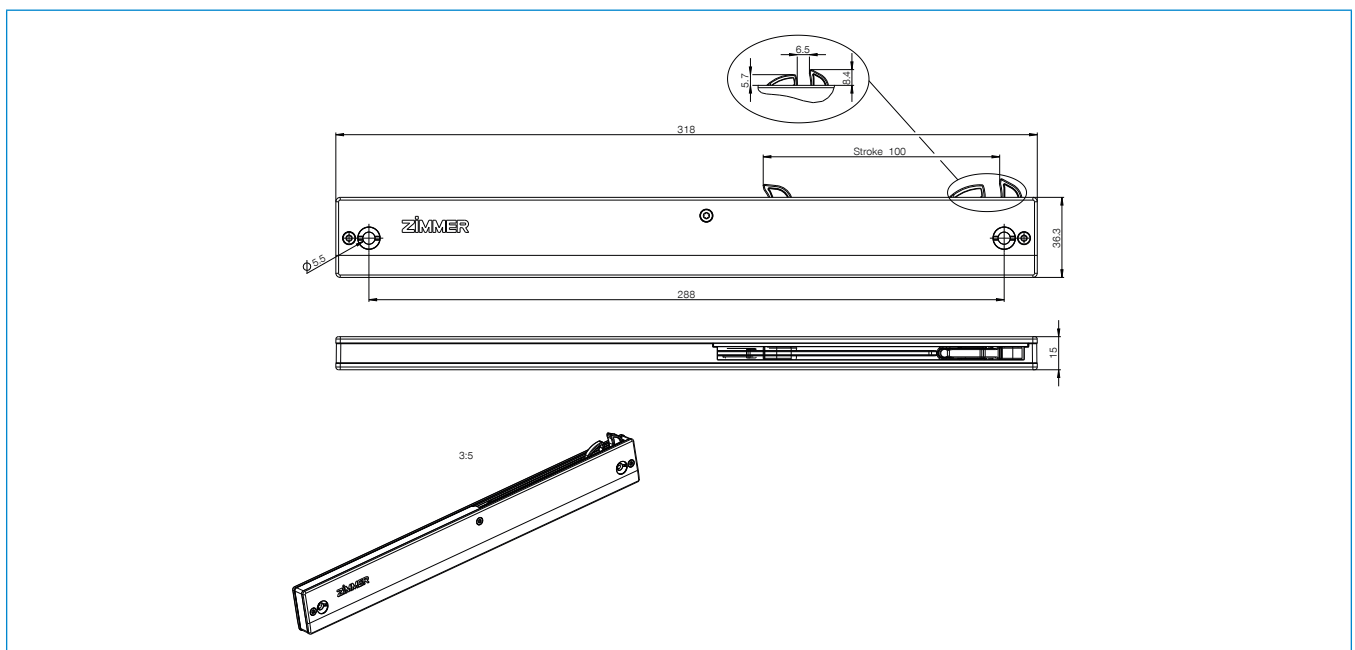
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Chiuso 100	100.0	Fluid	Outward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E100-08-012	E100-08-013
Mass to be braked [kg]	50.0	70.0
Operating direction	Outward closing	Outward closing
Free-run	No	No
Free-run length [mm]	0.0	0.0
Technology	Defined Comfort	Defined Comfort
Total length max. [mm]	318.0	318.0
SCU housing color	Gray RAL7035	Gray RAL7035
SCU locking lever color	Natural	Natural
SCU Ø drilled holes [mm]	5.5	5.5
SCU width [mm]	15.0	15.0
SCU height [mm]	36.3	36.3
SCU locking lever design	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES SILENTO FORTE 2.0

### ▶ PRODUCT SPECIFICATIONS



This self-closing unit is used primarily for damping sliding doors. It is suitable both for retrofitting of systems that previously did not have damping as well as replacing many damping units available on the market.

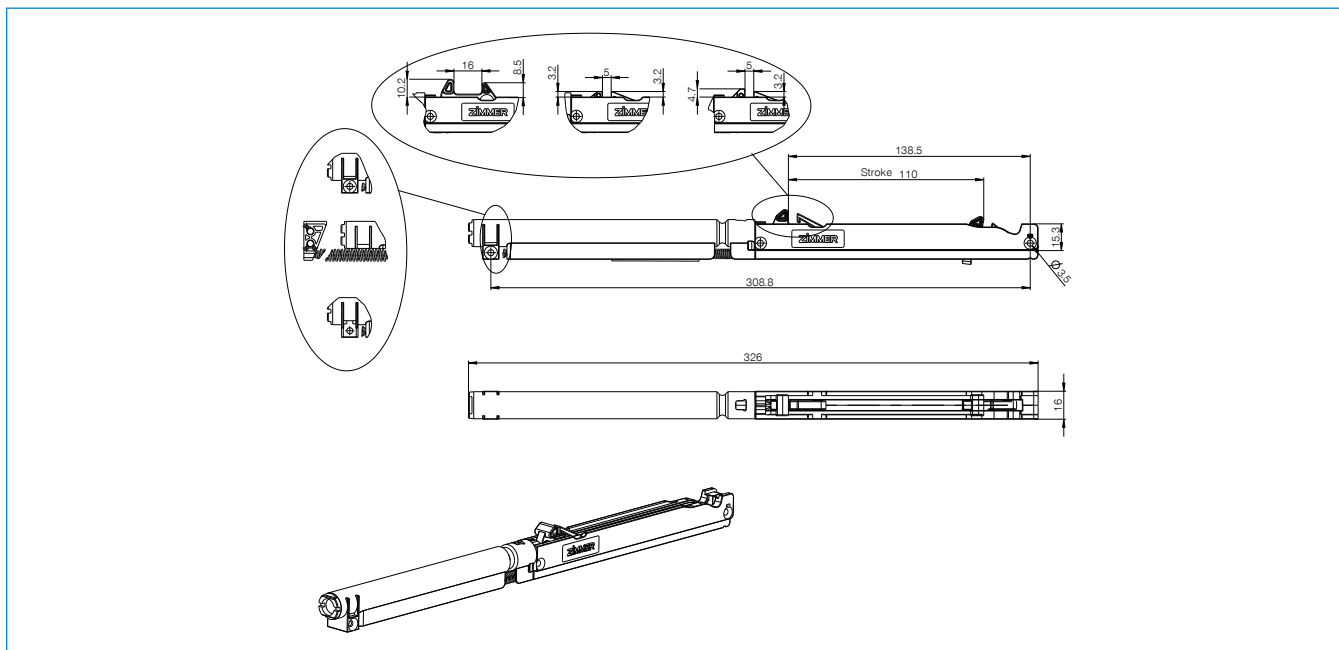
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Forte 2.0	110.0	Air	Inward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E110-15-136	E110-15-137	E110-15-139	E110-15-143
Mass to be braked [kg]	15.0	35.0	50.0	50.0
Operating direction	Inward closing	Inward closing	Inward closing	Inward closing
Free-run	Yes	Yes	No	Yes
Free-run length [mm]	15.0	15.0	0.0	15.0
Technology	Friction	Friction	Friction	Friction
Total length max. [mm]	326.0	326.0	326.0	326.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Black RAL9005	Black RAL9005	Black RAL9005	Black RAL9005
SCU Ø drilled holes [mm]	3.5	3.5	3.5	3.5
SCU width [mm]	16.0	16.0	16.0	16.0
SCU height [mm]	22.8	22.8	22.8	22.8
SCU locking lever design	Type A	Type A	Type B	Type A

Order no.	E110-15-145	E110-15-146	E110-15-147	E110-15-148
Mass to be braked [kg]	15.0	35.0	50.0	50.0
Operating direction	Inward closing	Inward closing	Inward closing	Inward closing
Free-run	Yes	Yes	Yes	No
Free-run length [mm]	15.0	15.0	15.0	0.0
Technology	Friction	Friction	Friction	Friction
Total length max. [mm]	326.0	326.0	326.0	326.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Black RAL9005	Black RAL9005	Black RAL9005	Black RAL9005
SCU Ø drilled holes [mm]	3.5	3.5	3.5	3.5
SCU width [mm]	16.0	16.0	16.0	16.0
SCU height [mm]	22.8	22.8	22.8	22.8
SCU locking lever design	Type A	Type A	Type B	Type B

# SELF-CLOSING DEVICE

## SERIES SILENTO FORTE

### ▶ PRODUCT SPECIFICATIONS



The SILENTO FORTE automatic closing unit features a high load capacity and is also ideal for retrofitting a sliding door that did not previously have a damping or self-closing mechanism.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer

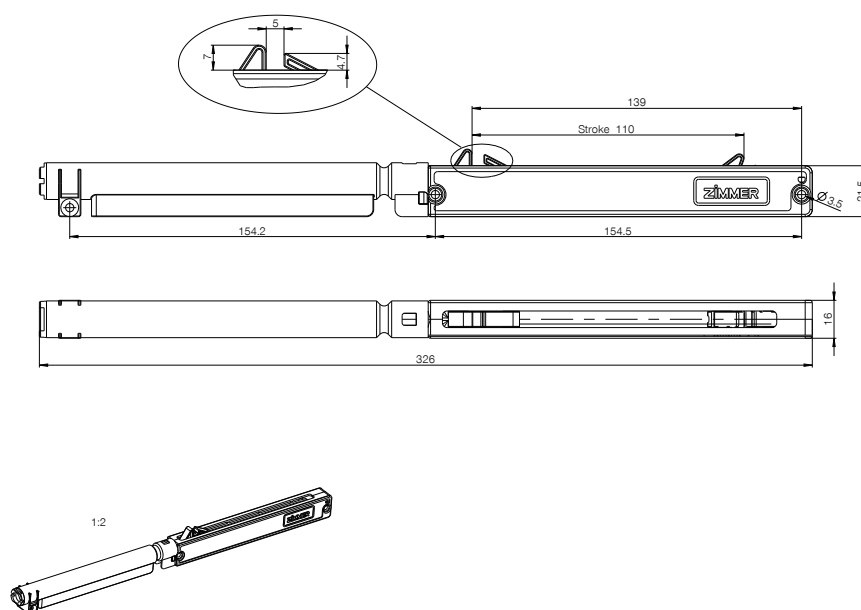


Hinge

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Forte	110.0	Air	Inward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E110-15-110	E110-15-109	E110-15-010
Mass to be braked [kg]	50.0	50.0	80.0
Operating direction	Inward closing	Inward closing	Inward closing
Free-run	No	Yes	No
Free-run length [mm]	0.0	15.0	0.0
Technology	Friction	Friction	Friction
Total length max. [mm]	326.0	326.0	326.0
SCU housing color	Black RAL9005	Black RAL9005	Black RAL9005
SCU locking lever color	Black RAL9005	Black RAL9005	Black RAL9005
SCU Ø drilled holes [mm]	3.5	3.5	3.5
SCU width [mm]	16.0	16.0	16.0
SCU height [mm]	22.8	22.8	22.8
SCU locking lever design	Type S	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES SILENTO FORTE DUO

### ▶ PRODUCT SPECIFICATIONS



Silento Forte 2.0 as duo variant. This self-closing unit that operates on both sides makes it possible to dampen a sliding door in both the opening and closing direction.

### ▶ APPLICATION AREAS



Door



Sliding door



Drawer



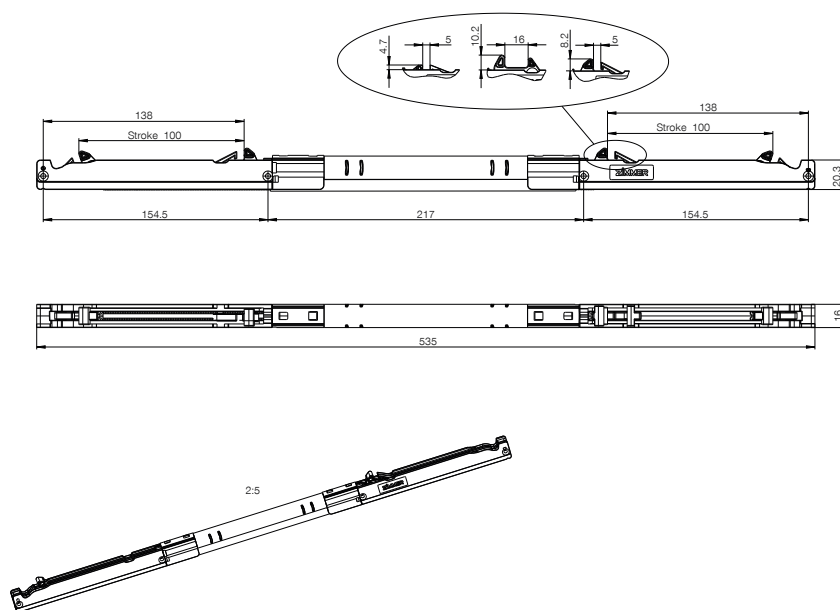
Hinge



### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Forte Duo	110.0	Air	Inward closing on both sides

### ▶ TECHNICAL DRAWING





## ► TECHNICAL DATA

<b>Order no.</b>	<b>E110-16-018</b>
Mass to be braked [kg]	50.0
Operating direction	Inward closing on both sides
Free-run	No
Free-run length [mm]	0.0
Technology	Friction
Total length max. [mm]	535.0
SCU housing color	Gray RAL7035
SCU locking lever color	Black RAL9005
SCU Ø drilled holes [mm]	3.5
SCU width [mm]	16.0
SCU height [mm]	23.5
SCU locking lever design	Type B

# SELF-CLOSING DEVICE

## SERIES SILENTO CENTRATO

### ▶ PRODUCT SPECIFICATIONS



For damping the middle door of a three-door sliding door cabinet, this innovative unit can be installed on the inner bottom. In addition, the door is also held perfectly in the middle position when closed.

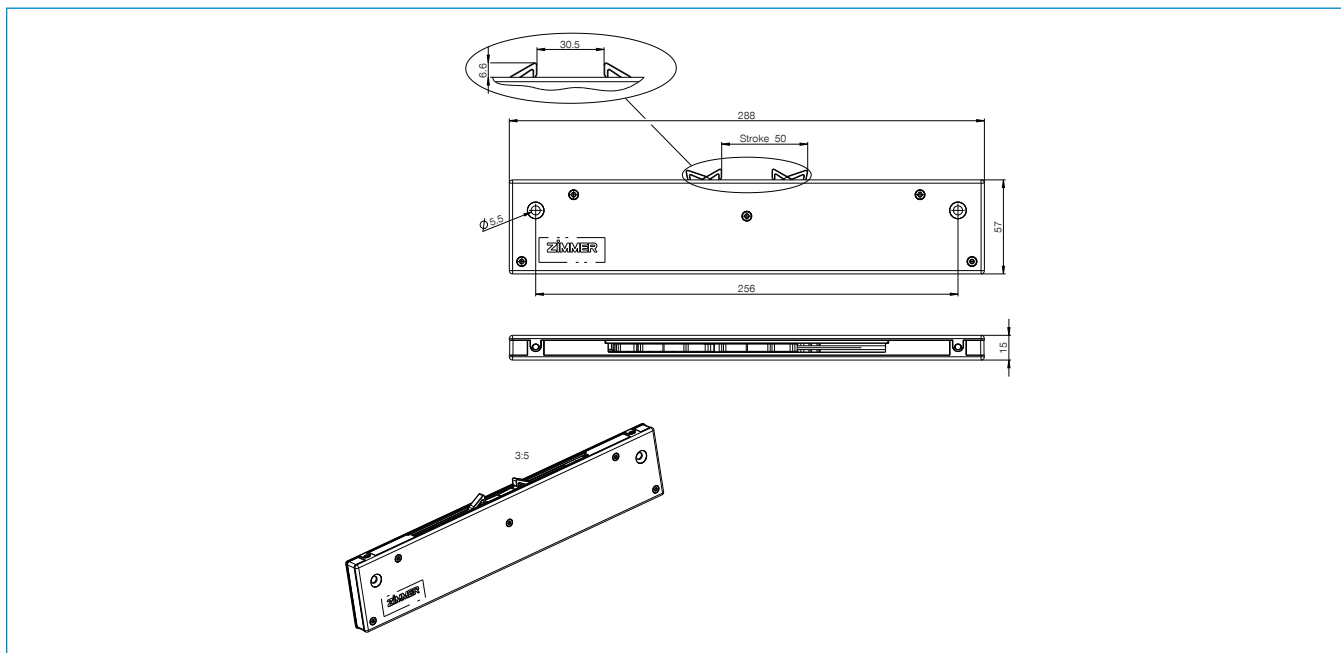
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Centrato	50.0	Fluid	Inward closing on both sides

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E050-08-109	E050-08-130
Mass to be braked [kg]	70.0	30.0
Operating direction	Inward closing on both sides	Inward closing on both sides
Free-run	No	No
Free-run length [mm]	0.0	0.0
Technology	Defined Comfort	Defined Comfort
Total length max. [mm]	288.0	288.0
SCU housing color	Gray RAL7035	Gray RAL7035
SCU locking lever color	Natural	Natural
SCU Ø drilled holes [mm]	5.5	5.5
SCU width [mm]	15.0	15.0
SCU height [mm]	56.7	56.7
SCU locking lever design	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES SILENTO CENTRATINO

### ▶ PRODUCT SPECIFICATIONS



The Centratino is currently the world's smallest center door damper. It is the logical complement to the Silento Chiuso.

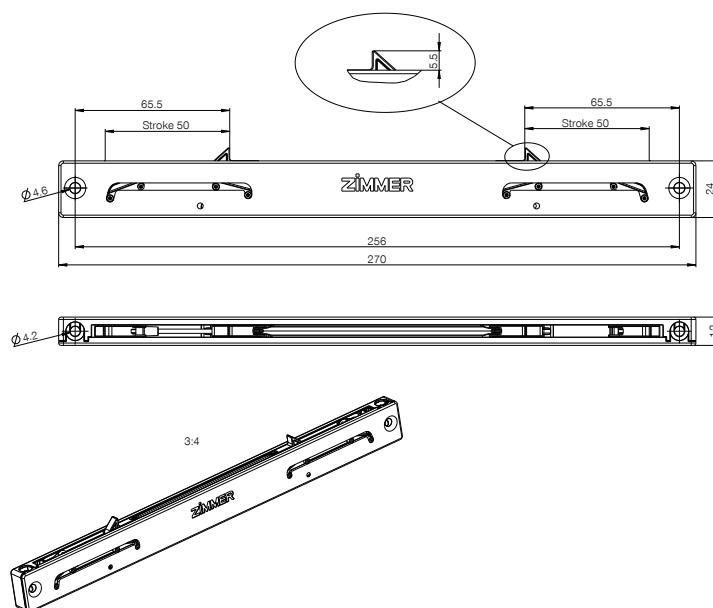
### ▶ APPLICATION AREAS

 Door	
 Sliding door	•
 Drawer	
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Silento Centratino	50.0	Fluid	Inward closing on both sides

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E050-08-182	E050-08-204	E050-08-264
Mass to be braked [kg]	15.0	30.0	20.0
Operating direction	Inward closing on both sides	Inward closing on both sides	Inward closing on both sides
Free-run	No	No	No
Free-run length [mm]	0.0	0.0	0.0
Technology	Defined Comfort	Defined Comfort	Defined Comfort
Total length max. [mm]	270.0	270.0	270.0
SCU housing color	Gray RAL7035	Gray RAL7035	Gray RAL7035
SCU locking lever color	Natural	Natural	Natural
SCU Ø drilled holes [mm]	4.2	4.2	4.2
SCU width [mm]	12.0	12.0	12.0
SCU height [mm]	24.0	24.0	24.0
SCU locking lever design	Type S	Type S	Type S

# SELF-CLOSING DEVICE

## SERIES IMPULSO

### ▶ PRODUCT SPECIFICATIONS



Impulso unites an automatic opening mechanism and a self-closing unit in one product. Tapping activates the ejection. The unit is tightened when it closes and is then held securely in the end position.

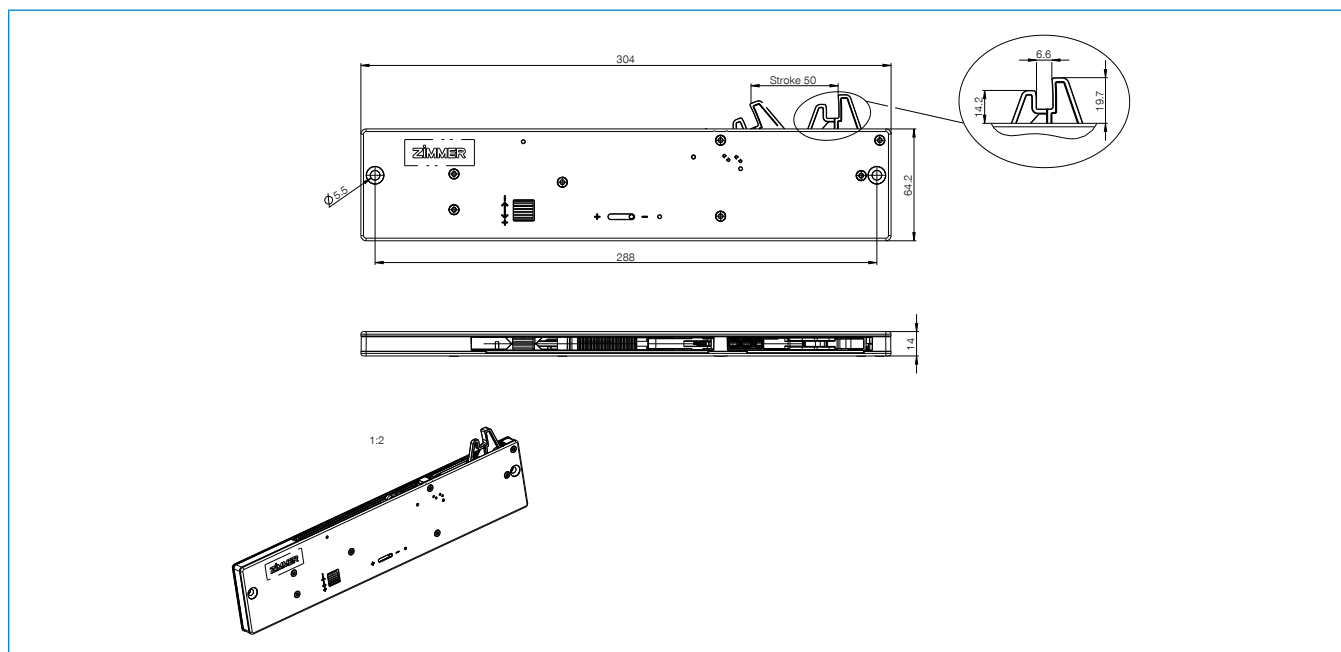
### ▶ APPLICATION AREAS

 Door	
 Sliding door	●
 Drawer	●
 Hinge	

### ▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Impulso	50.0	Fluid	Outward closing

### ▶ TECHNICAL DRAWING



## ► TECHNICAL DATA

Order no.	E050-08-099	E050-08-142
Mass to be braked [kg]	20.0	40.0
Operating direction	Outward closing	Outward closing
Free-run	No	No
Free-run length [mm]	0.0	0.0
Technology	Defined Comfort	Defined Comfort
Total length max. [mm]	304.3	304.3
SCU housing color	Gray RAL7035	Gray RAL7035
SCU locking lever color	Gray RAL7035	Gray RAL7035
SCU Ø drilled holes [mm]	5.5	5.5
SCU width [mm]	14.0	14.0
SCU height [mm]	64.2	64.2
SCU locking lever design	Type A	Type A

# USAGE NOTE

## GENERAL

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