

# LINEARIS

Electrical Linear Motion Drive  
Damper Actuator



LINEARIS

Product Catalogue

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# LINEARIS

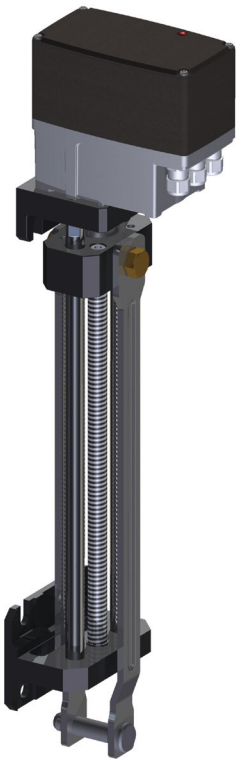
## Linear motion drive with power and precision in movement

With the Linearis ARIS provides an actuator for linear movement. Linear drives in open design, often called damper actuator, are found in industrial areas where valves with high torque requirement or complete flap systems are to be adjusted sensitively.

Particularly in harsh industrial environments, for example in painting lines, the LABS certified linear drive meets all requirements and performs his service there in 3-shift operation for adjustment of complex valve systems. Similarly, the drive heads of Linearis work with highest accuracy to regulate processes in industrial plants precisely.

The rotation of the drive unit is converted into a precise linear motion and can bring up a force of 600 to 5000 N. Thru the high-helix lead screws large strokes are possible with relatively few turns and noise is reduced.

A maintenance-free operation saves time and costs and increases efficiency. It also reduces the risk of accumulation of dirt, because the integrated lubricants of the spindle nut allow a dry run. The practical and connection optimized design of the Linearis, create a comfortable setting, where customers can choose between the classic actuator Nano+ and CL or the fully electronic actuator Tensor. The long holes for bracket mounting ensure a simple, fast and easy installation in any location.



**ARIS Stellantriebe GmbH** – Your experienced partner. For many years, the ARIS brand stands for high quality and customized solutions in all areas of industrial plant and machinery:

- Environmental engineering
- Pharmaceutical industry
- Food industry
- Heater/Burner
- Furnaces
- Public services
- Supplier

### ARIS Actuators and valves work in various applications:

- Dosing pumps
- Industrial burners
- Air conditioning and ventilation
- Boilers
- Painting lines
- Blinds
- Industrial furnaces
- Autoclaves



*Due to the high-helix of the spindle, the required engine speed is reduced substantially – the engines are more durable because they clearly run cooler and quieter.*



”

„The mechanism of this damper actuator is a relief for the technicians and the entire system.“



*By the dry run of the spindle, no lubrication is required. Dirt deposits are minimized and wear reduced.*

”

„The low maintenance and cleaning requirements save us a lot of time and costs.“

*Easy installation thanks to long holes, aluminum milled parts and separately interchangeable drive head.*

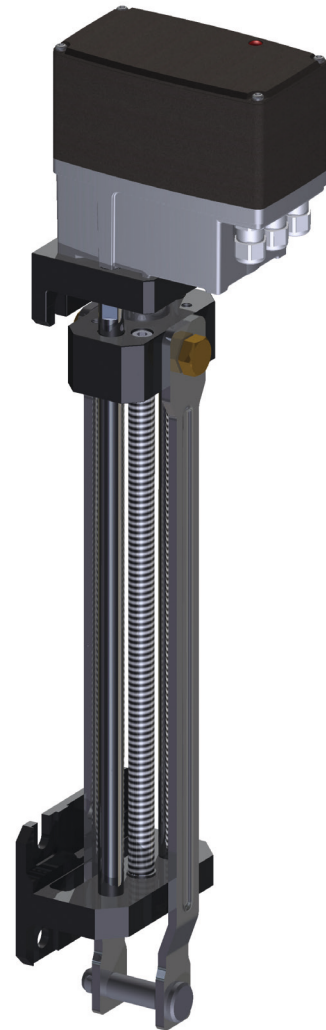


”

„The assembly of the Linearis always runs smoothly and on exchanging the drive the linear unit simply remains in position.“

## Linearis TE Tensor Drive

- Robust industrial design
- Installable in any position
- Maintenance-free
- Permanently monitored BLDC motor
- Electronic setting of end and intermediate positions
- Electronic wear- and backlash-free position indication via 2 Hall sensors
- Multi voltage power supply (85-265 V AC) or Low voltage power supply (24 V DC)
- Several add-ons (bus, PID controller, electronic poti, position indicator, special characteristic curve etc.)



### Specifications

<b>Force</b>	max. 5000 N (higer forces upon request)
<b>Actuating time</b>	0.5 mm...4 mm/sec
<b>Travel</b>	150/300 mm stroke (more stroke lengths upon request)
<b>Voltage</b>	Multi voltage (85-265 V AC) or low voltage (24 V DC)
<b>Ambient temperature</b>	-15 °C...+60 °C
<b>Protection class</b>	IP 65
<b>Duty cycle</b>	100%

LABS free, according to Daimler Test Standard, approved by Fraunhofer Institute.

# LINEARIS

## Drive unit

Type Linearis TE	Force N	Actuating time mm/sec
06-07	600	0.7
06-17	600	1.7
06-20	600	2.0
06-33	600	3.3
06-40	600	4.0
12-07	1200	0.7
12-17	1200	1.7
12-25	1200	2.5
18-07	1800	0.7
18-10	1800	1.0
18-13	1800	1.3
25-12	2500	1.2
32-08	3200	0.8
40-06	4000	0.6
50-05	5000	0.5

Type Linearis TE	Force N	Actuating time mm/sec
06-07	600	0.7
06-17	600	1.7
06-20	600	2.0
06-33	600	3.3
06-40	600	4.0
12-07	1200	0.7
12-17	1200	1.7
12-25	1200	2.5
18-07	1800	0.7
18-10	1800	1.0
18-13	1800	1.3
25-12	2500	1.2
32-08	3200	0.8
40-06	4000	0.6
50-05	5000	0.5

Intermediate values upon request.

## Linear unit

Type	Stroke mm	Weight (incl. drive) kg
150	150	8
300	300	9

More stroke lengths upon request.

Type example: Linearis TE 06-33 150 —> Drive 600 N (3.3 mm/sec) with 150 mm linear unit



## Linearis N+ Nano+ Drive

- Robust industrial design
- Installable in any position
- Maintenance free
- Short-circuit proof synchronous motor
- Precisely adjustable switching cams
- Numerous options, e.g. additional switches, potentiometer, position indicator, position controller, manual override etc.
- Controller card PMR-Nano optional



### Specifications

<b>Force</b>	max. 5000 N (higher forces upon request)
<b>Actuating time</b>	0.5 mm...13 mm/s (load independant at AC)
<b>Travel</b>	150/300 mm stroke (more stroke lengths upon request)
<b>Voltage</b>	230 V AC, 50/60 Hz (Option 24/115 V AC, 24 V DC)
<b>Ambient temperature</b>	-15 °C...+60 °C
<b>Protection class</b>	IP 65
<b>Duty cycle</b>	100%

LABS free according to Daimler test standard approved by Fraunhofer Institute.

# LINEARIS

## Drive unit

Type Linearis N+	Force N	Actuating time mm/sec	Voltage
06-07	600	0.7	230 V AC 115 V AC 24 V AC
06-17	600	1.7	
06-33	600	3.3	
06-66	600	6.6	
06-125	600	12.5	
12-07	1200	0.7	
12-17	1200	1.7	
12-33	1200	3.3	
12-66	1200	6.6	
18-03	1800	0.3	
18-07	1800	0.7	
18-17	1800	1.7	
18-26	1800	2.6	
18-66	1800	6.6	
32-30	3200	3.0	
40-08	4000	0.8	
50-08	5000	0.8	
50-20	5000	2.0	

Type Linearis N+	Force N	Actuating time mm/sec	Voltage
06-07	600	0.7	24 V DC
06-17	600	1.7	
06-33	600	3.3	
06-66	600	6.6	
06-125	600	12.5	
12-07	1200	0.7	
12-17	1200	1.7	
12-33	1200	3.3	
12-66	1200	6.6	
18-03	1800	0.3	
18-07	1800	0.7	
18-17	1800	1.7	
18-26	1800	2.6	
18-66	1800	6.6	
25-14	2500	1.4	
32-10	3200	1.0	
40-05	4000	0.5	
50-05	5000	0.5	

Intermediate values upon request.

## Linear unit

Type	Stroke mm	Weight (incl. drive) kg
150	150	8.5
300	300	9.0

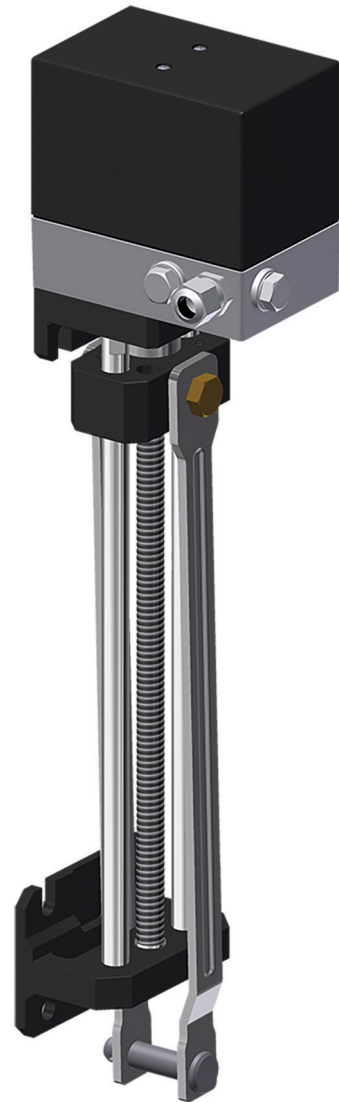
More stroke lengths upon request.

Type example: Linearis N+ 06-33 150 → Drive 600 N (3.3 mm/sec) with 150 mm linear unit



## Linearis CL CL Drive

- Robust industrial design
- Installable in any position
- Maintenance free
- Short-circuit proof synchronous motor
- Precisely adjustable switching cams
- Numerous options, e.g. additional switches, potentiometer, position indicator, position controller, manual override etc.
- Controller card PMR-Nano optional
- Cover 98-178 mm, depending on options
- Controller card PMR-CL optional



### Specifications

<b>Force</b>	max. 5000 N
<b>Actuating time</b>	1.3 mm...8.5 mm/s (load independant at AC)
<b>Travel</b>	150/300 mm Hub (more stroke lengths upon request)
<b>Voltage</b>	230V AC, 50/60 Hz (Option 24/115 V AC, 400 V DS, 12/24 V DC)
<b>Ambient temperature</b>	-15 °C...+60 °C (optional -40 °C...+80 °C)
<b>Protection class</b>	IP 65
<b>Duty cycle</b>	100%

LABS free according to Daimler test standard approved by Fraunhofer Institute.



# LINEARIS

## Drive unit

Type Linearis CL	Force N	Actuating time mm/sec	Voltage	
06-17	600	1.7	230 V AC 115 V AC 24 V AC	
06-20	600	2.0		
06-33	600	3.3		
06-67	600	6.7		
12-17	1200	1.7		
12-25	1200	2.5		
12-33	1200	3.3		
12-71	1200	7.1		
18-14	1800	1.4		
18-37	1800	3.7		
25-14	2500	1.4		
25-37	2500	3.7		
32-14	3200	1.4		
32-37	3200	3.7		
50-07	5000	0.7		
50-17	5000	1.7		
Type Linearis CL	Force N	Actuating time mm/sec		Voltage
06-17	600	1.7		24 V DC
06-33	600	3.3		
06-51	600	5.1		
06-85	600	8.5		
12-17	1200	1.7		
12-33	1200	3.3		
12-51	1200	5.1		
12-85	1200	8.5		
18-17	1800	1.7		
18-56	1800	5.6		
25-17	2500	1.7		
25-33	2500	3.3		
32-17	3200	1.7		
32-33	3200	3.3		
50-25	5000	2.5		

## Linear unit

Type	Stroke mm	Weight (incl. drive) kg
150	150	9
300	300	10

More stroke lengths upon request.

Type example: Linearis CL 06-33 150 → Drive 600 N (3.3 mm/sec) with 150 mm linear unit

# LINEARIS

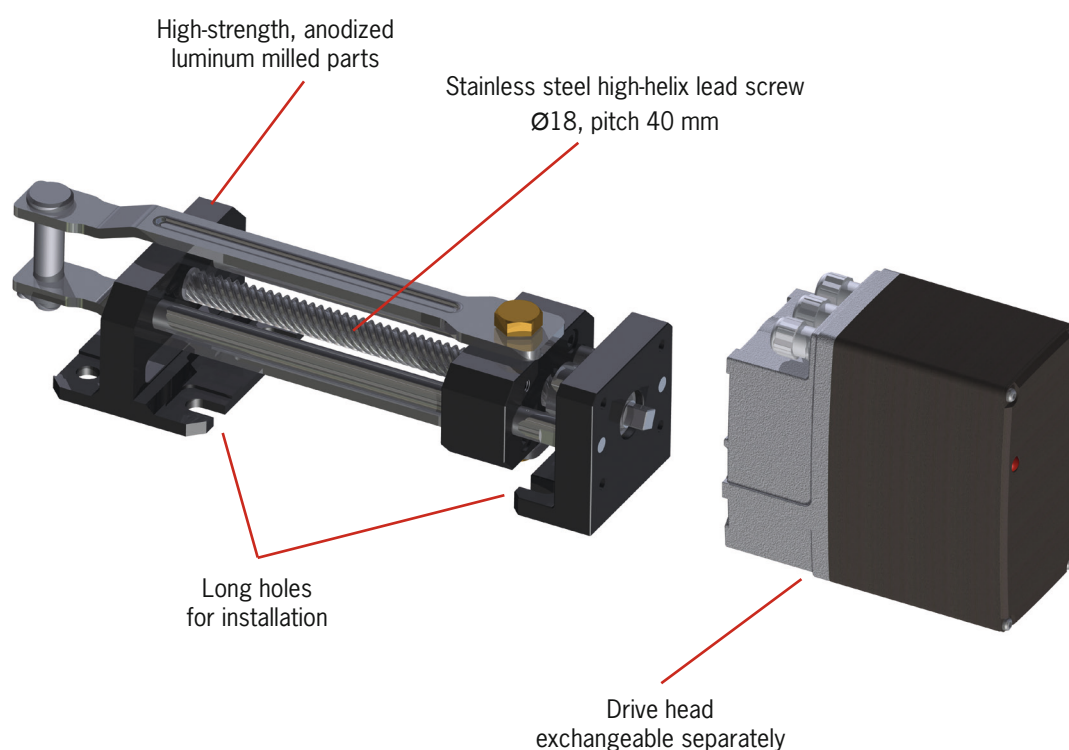
## Linear unit

- Stainless steel high-helix lead screw Ø18
- Lead 40 mm with optimized efficiency
- Less turns per stroke length
- Long-life motor
- Slow and smooth motor movement
- Low noise and vibration
- Holding torque by self-hold of the actuator
- Separately exchangeable actuator
- High-strength, anodized aluminum milled parts, corrosion resistant and lightweight
- Long holes for fastening, i.e. easy installation
- Maintenance-free by dry-run, no lubrication necessary, no dirt deposits on grease (longer life span)
- Embedded (dry) lubricants inside the lead screw nut
- High quality „dryspin® technology“. Lead screw and nut made by igus©

## Materials linear unit

<b>Bearing support</b>	EN AW 7075
<b>Holder lead screw nut</b>	EN AW 7075
<b>Connecting rod</b>	Stahl verzinkt
<b>High-helix lead screw</b>	1.4301
<b>Twist lock</b>	1.4301
<b>Thrust collar</b>	1.4021
<b>Lead screw nut</b>	iglidur® J; Brass nut (CuSn12) with grease nipple upon request
<b>Connecting rod pin</b>	Messing
<b>Stroke limiter</b>	1.4301
<b>Bushings</b>	iglidur® J
<b>Bolts Steel, galvanized</b>	Stahl verzinkt





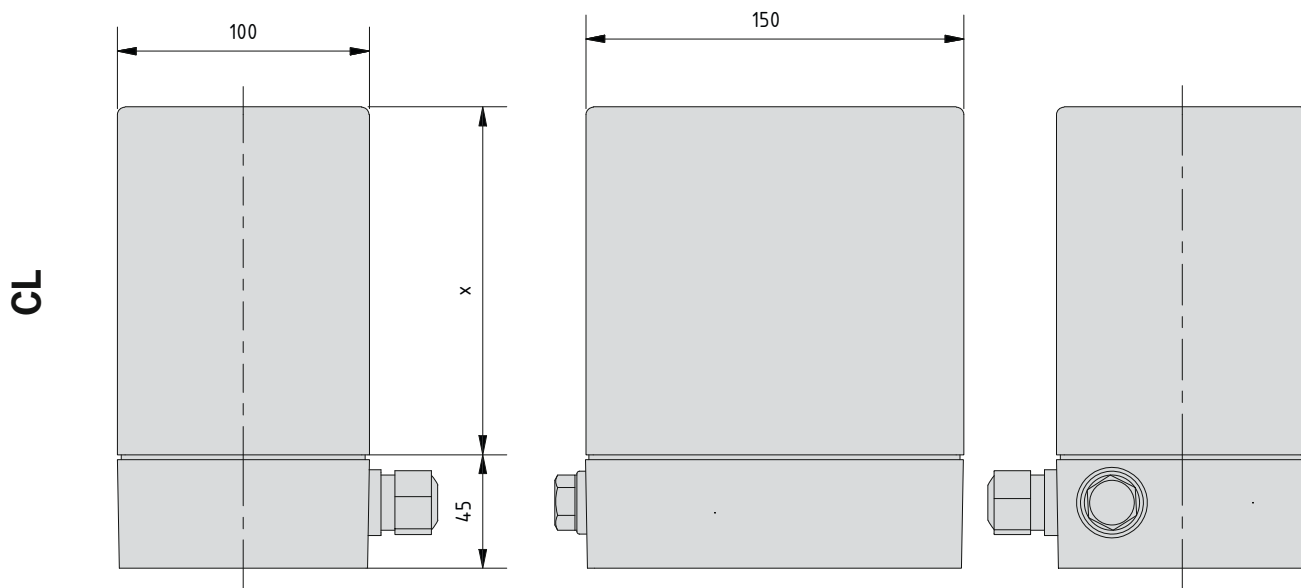
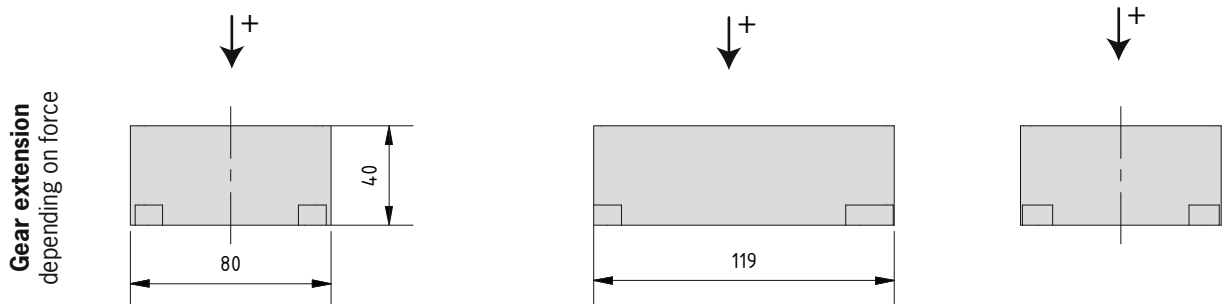
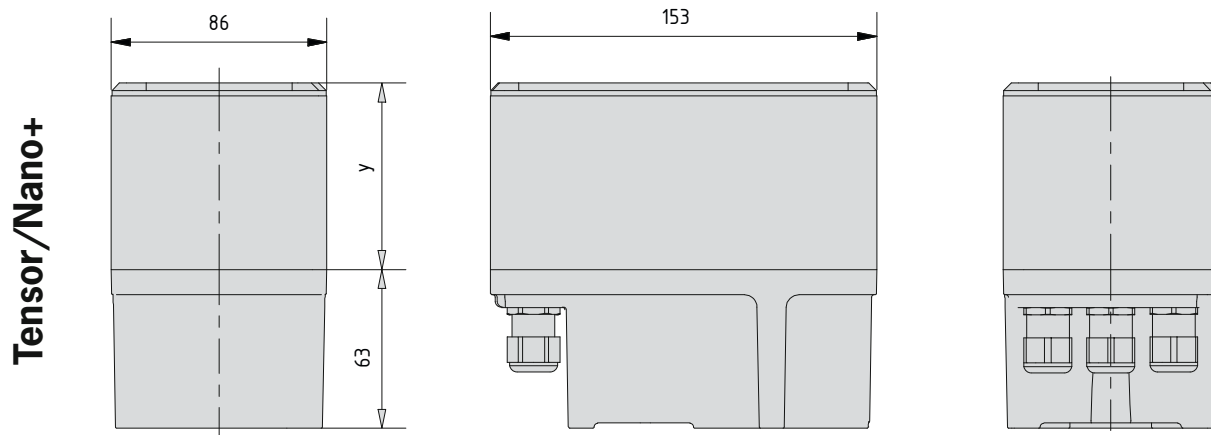
**\* dryspin® technology high-helix: Higher life span and efficiency**

The dryspin® technology is based on wear-resistant igus® high performance polymers, specially designed for screw drives, dryspin® offers a higher life span and efficiency to high-helices by their characteristics and geometries, specially matched to the nut and lead screw. By their freedom from lubrication, dryspin® screw drives are suitable for usage in rough industrial just as in clean and hygienic environments (e.g. laboratory automation).

***dryspin® spindle nut***

- Lubricant-free
- High-tech polymer iglidur® J inside aluminum block
- Optimal transmission of the torque by form closure
- Vibration-isolating
- Smooth and steady run

**Dimensions Drives**



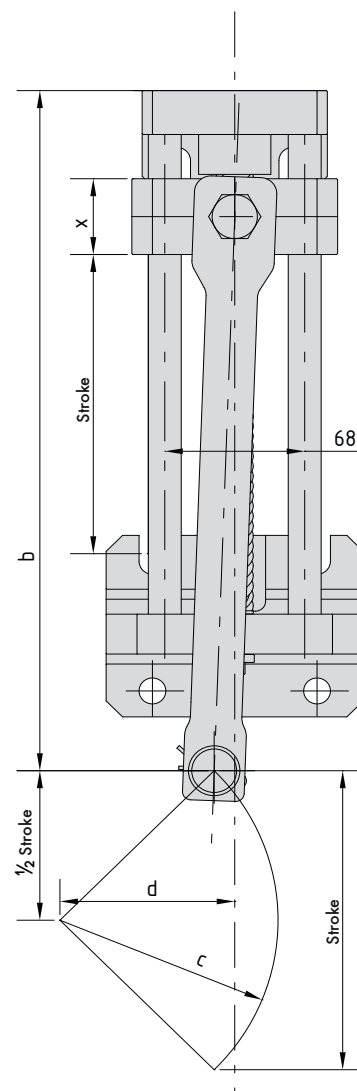
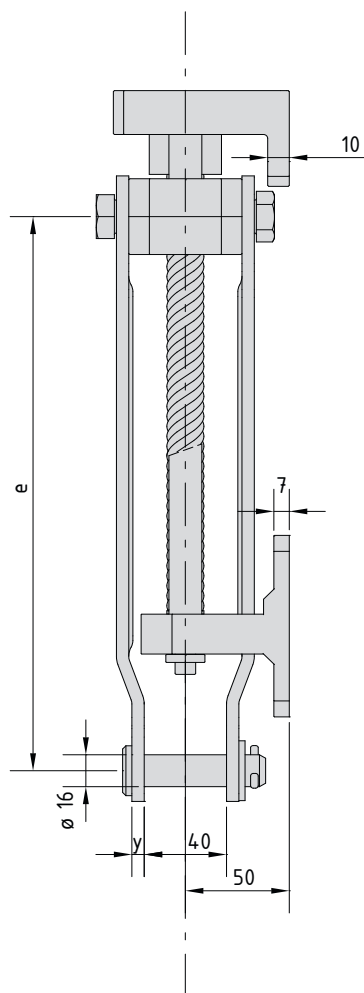
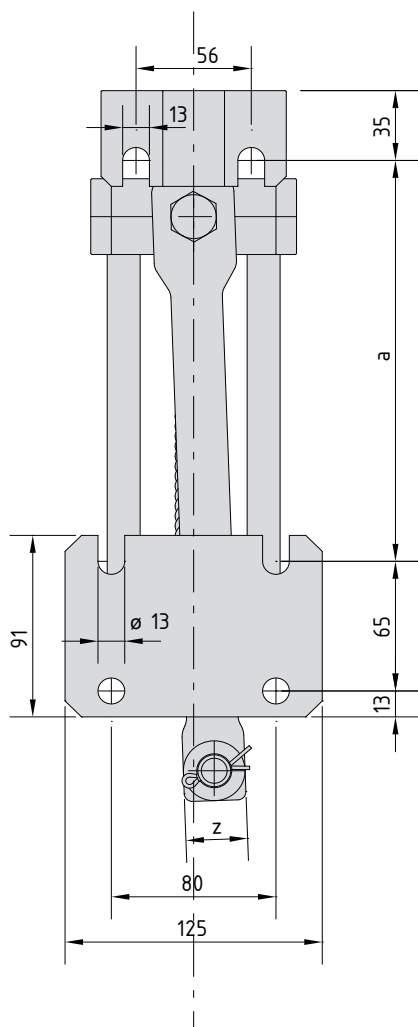
y (Cover height) depending on options: 74-145 mm

x (Cover height) depending on options: 98-178 mm



Dimensions linear unit

# LINEARIS



Stroke	a	b	c	d	e
150	201	341	106	85	278
300	351	491	212	170	428

Force	x	y	z
600...3200	33	6	30
3200...5000	65	8	32



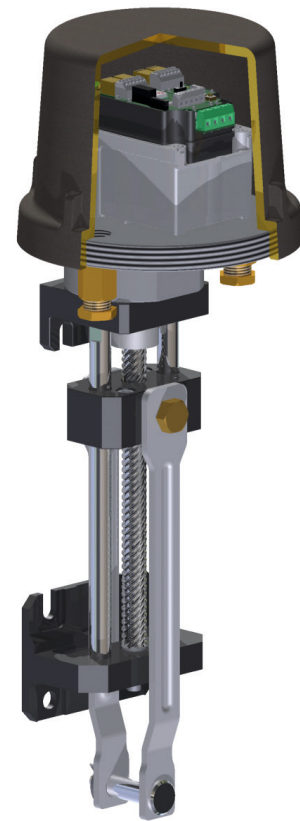
## Linearis Ex for Zone 1

Damper actuator for explosive atmospheres

### Ex II 2G Ex d IIC T6 Gb

- Applicable for Zone 1 and Zone 2
- Appliance category 2G and 3G
- Pressurized encapsulation „d“
- Applicable for gases with increased flame transmission capacity „C“
- Highest temperature class T6
- For gases with ignition temperature > 85 °C
- Stainless steel connecting rods
- Electric conductive slide bearings

<b>Ambient temperature</b>	-20 °C...+60 °C
<b>Cable glands</b>	1x M20x1.5 or 1x M20x1.5 + 1x M16x1.5
<b>Housing</b>	Aluminum (painted), base steel
<b>Ex protection class</b>	Ex II 2G Ex d IIC T6 Gb
<b>Protection class</b>	IP65

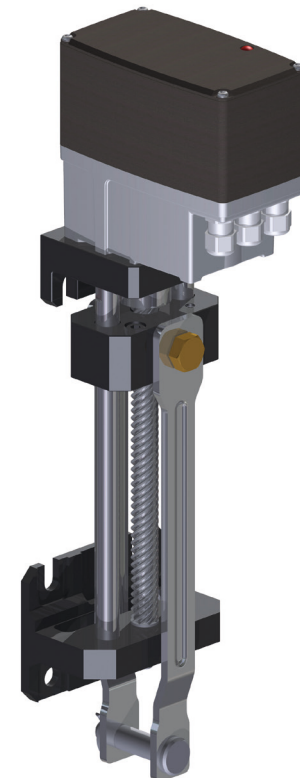


## Linearis Ex for Zone 2/22

### II 3G Ex ec IIC T4 Gc X (Zone 2)

### II 3D Ex tc IIIC T80°C Dc X (Zone 22) Ambient temperature: $-15\text{ °C} \leq T_a \leq 45\text{ °C}$

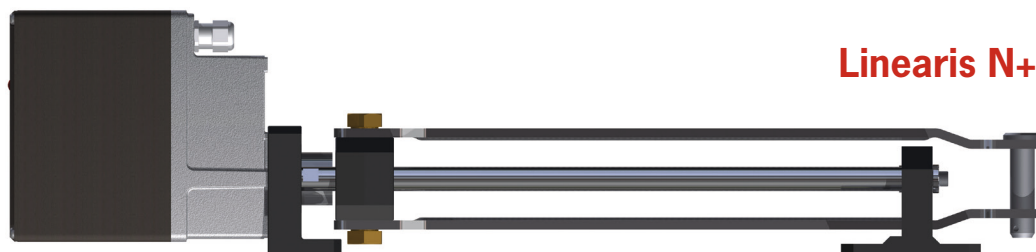
- Compact design (Dimensions and specifications as standard drive N+)
- Small surcharge from standard drive, lower price than with pressurized encapsulation
- Applicable in Zone 2 or 22
- Stainless steel connecting rods
- Electric conductive slide bearings
- High safety by single check at factory



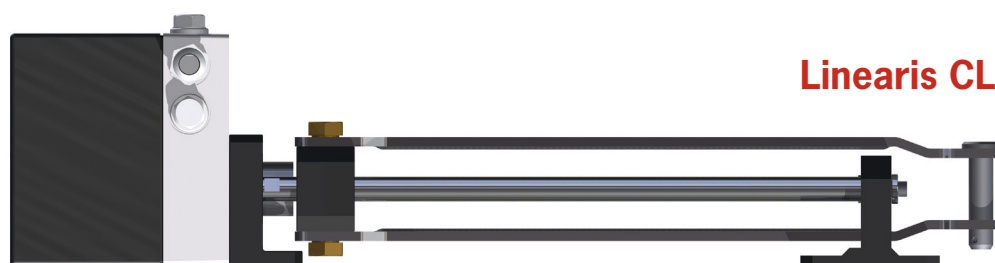
## Type overview



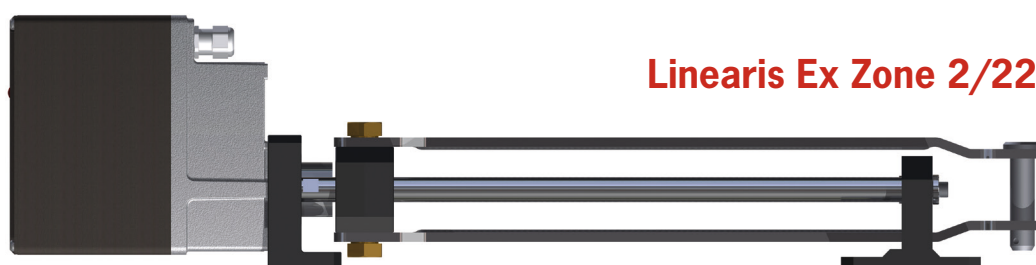
**Linearis TE**



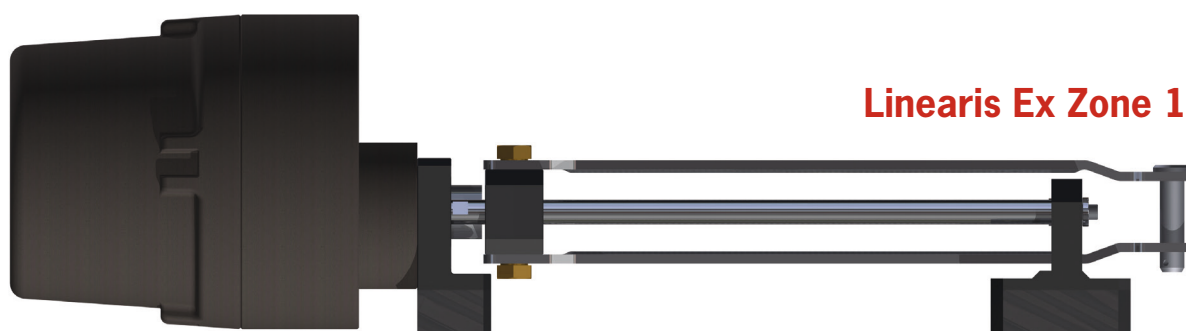
**Linearis N+**




**Linearis CL**



**Linearis Ex Zone 2/22**



**Linearis Ex Zone 1**



Your specialist for up-to-date  
drive and control technology  
for more than 40 years

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