

TECHLINE®
Product overview



LINAK® - We improve your life

Linear actuator movement might be the simplest movement in the world. And yet, perfecting something simple is one of the hardest challenges.

Since LINAK® founder Bent Jensen came up with the idea for the first electric actuator in order to help a friend in a wheelchair, every engineer and specialist employed by LINAK has aimed to solve real-life challenges for real people.

To this day, our motto: 'We Improve Your Life' is reflected in everything we do. Whether we engage in product development, operation or implementation of technology, we always look for ways to make it easier for our customers to enter into collaborations and partnerships with us and to ultimately improve the lives and working conditions of end users.

Our solutions move people – their work and their lives.
We Improve Your Life!



















About our actuators

LINAK® industrial actuators offer a versatile array of movement solutions with high lifting capacity and strong holding force. Their robust design with aluminum housing, high IP rating (up to IP66 dynamic/IP69K static) and operating temperatures between -40°C and +85°C, make them suitable for most settings. Harsh environments, extreme conditions and confined spaces are no challenge.

The IC Integrated Controller™ is a powerful tool that combines actuator power and precision with controller

intelligence and flexibility. This seamless combination provides efficient solutions for a wide range of applications within agriculture, industrial automation, mobile off-highway machinery, ventilation, farming and many others.

We design and test our industrial actuators to withstand salt, water, wind and direct sunlight. Reliable operation for years and no maintenance make them a valuable investment for any project.

Technical Data					
Model		Load (up to)	Stroke length	Voltage	Interfaces
LA77		15,000 N	100-600 mm	24 or 48 V DC	         
LA76		6,800 N	100-1200 mm	24 or 48 V DC	
LA37		15,000 N	100-600 mm	12, 24 or 48 V DC	
LA36		6,800 N	100-1200 mm	12, 24 or 48 V DC	
LA33		5,000 N	100-600 mm	12, 24 or 48 V DC	
LA21		3,500 N	50-800 mm	12, 24 or 48 V DC	
LA25		2,500 N	20-300 mm	12 or 24 V DC	
LA14		750 N	19-130 mm	12 or 24 V DC	

Actuators



Actuator	LA77	LA76
Interfaces		
Load	Up to 15,000 N/3,367 lbs	Up to 6,800 N/1,529 lbs
Speed	Up to 7 mm/s (0.28 in/s)	Up to 142 mm/s (5.6 in/s)
Stroke length	100-600 mm	100-1200 mm
Voltage	24 or 48 V DC	24 or 48 V DC
Duty cycle	10 %	20 %
Ambient operating temperature	-30°C to 85°C	-30°C to 85°C
IP rating	IP66 dynamic and IP69K static	IP66 dynamic and IP69K static
Options (add-ons)	<ul style="list-style-type: none"> Parallel run of up to 8 actuators 	<ul style="list-style-type: none"> Parallel run of up to 8 actuators
Important facts	<ul style="list-style-type: none"> Brushless DC motor for extended life An Integrated Controller for various industrial interfaces Heavy-duty reinforced aluminum housing and solid metal construction Designed for outdoor use Many customization options (stroke length, built-in dimensions etc.) 	<ul style="list-style-type: none"> Brushless DC motor for extended life An Integrated Controller for various industrial interfaces Heavy-duty reinforced aluminum housing and solid metal construction Designed for outdoor use Many customization options (stroke length, built-in dimensions etc.)

Actuators



Actuator	LA37	LA36
Interfaces	 	
Load	Up to 15,000 N/3,367 lbs	Up to 6,800 N/1,529 lbs
Speed	Up to 10 mm/s (0.39 in/s)	Up to 168 mm/s (6.3 in/s)
Stroke length	100-600 mm	100-1200 mm
Voltage	12, 24 or 48 V DC	12, 24, 36 or 48 V DC
Duty cycle	10 %	20 %
Ambient operating temperature	-30°C to 85°C	-30°C to 85°C
IP rating	IP66 dynamic and IP69K static	IP66 dynamic and IP69K static
Options (add-ons)	<ul style="list-style-type: none"> Parallel run of up to 8 actuators An Integrated Controller for various industrial interfaces Variant tailored for off-highway machinery 	<ul style="list-style-type: none"> A special anodized aluminum housing for harsh environments Parallel run of up to 8 actuators An Integrated Controller for various industrial interfaces IECEX/ATEX certification UL 508 Variant tailored for off-highway machinery
Important facts	<ul style="list-style-type: none"> Heavy-duty reinforced aluminum housing and solid metal construction Designed for outdoor use Many customization options (stroke length, built-in dimensions etc.) 	<ul style="list-style-type: none"> Heavy-duty reinforced aluminum housing and solid metal construction Designed for outdoor use Many customization options (stroke length, built-in dimensions etc.)





Explore all
TECHLINE
actuators






Actuators



Actuator	LA33	LA25
Interfaces	         	
Load	Up to 5,000 N (1,124 lbs)	Up to 2,500 N (561 lbs)
Speed	Up to 70 mm/s (2.76 in/s)	Up to 25 mm/s (0.98 in/s)
Stroke length	100-600 mm	20-300 mm
Voltage	12, 24 or 48 V DC	12 or 24 V DC
Duty cycle	20 %	20 %
Ambient operating temperature	-40°C to +85°C	-40°C to +85°C
IP rating	IP66 dynamic and IP69K static	IP66 dynamic and IP69K static
Options (add-ons)	<ul style="list-style-type: none"> • Large variety of back fixtures and piston rod eyes • Parallel run of up to 8 actuators • An Integrated Controller for various industrial interfaces • Gear options: Standard, increased speed or low noise 	<ul style="list-style-type: none"> • Large variety of back fixtures and piston rod eyes • A special anodized aluminum housing for the harshest environments • Parallel run of up to 8 actuators • An Integrated Controller for various industrial interfaces • IECEx/ATEX certification
Important facts	<ul style="list-style-type: none"> • Heavy-duty aluminum housing and solid metal construction • Designed for outdoor use • Many customization options (stroke length, built-in dimensions etc.) 	<ul style="list-style-type: none"> • Heavy duty aluminum housing and solid metal construction • Designed for outdoor use • Many customization options (stroke length, built-in dimensions etc.)











Explore all
TECHLINE
actuators






Actuators



Actuator	LA21	LA14
Interfaces	         	
Load	Up to 3,500 N (787 lbs)	Up to 750 N (168 lbs)
Speed	Up to 85 mm/s (3.35 in/s)	Up to 45 mm/s (1.77 in/s)
Stroke length	50-800 mm	19 - 130 mm
Voltage	12, 24 or 48 V DC	12 or 24 V DC
Duty cycle	20 %	20 %
Ambient operating temperature	-40°C to +85°C	-40°C to +85°C
IP rating	IP66 dynamic and IP69K static	IP66 dynamic and IP69K static
Options (add-ons)	<ul style="list-style-type: none"> Parallel run of up to 8 actuators Back Fixture options as male adapter and various slotted in both 0 or 90 degrees Piston Rod Eyes options as male adapter, various slotted and ball eyes Exchangeable cables in different lengths A special anodized aluminum housing for harsh environments When ordering AISI 304 piston rod eye and back fixture, stainless steel screws are automatically included Feedback interfaces: <ol style="list-style-type: none"> Built-in endstop switches Analog or digital position feedback from hall effect sensor 	<ul style="list-style-type: none"> Large variety of back fixtures and piston rod eyes A special anodized aluminum housing for the harshest environments Parallel run of up to 8 actuators An Integrated Controller for IC Basic, IC Advanced, IC Parallel and various industrial interfaces IECEX/ATEX certification
Important facts	<ul style="list-style-type: none"> Heavy-duty reinforced aluminum housing and solid metal construction Designed for outdoor use Many customization options (stroke length, built-in dimensions etc.) 	<ul style="list-style-type: none"> Designed for outdoor use Compact design Tested inside and out to the extreme in a wide range of tests Many customization options (stroke length, built-in dimensions etc.)



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About our lifting columns

LINAK® industrial lifting columns convert rotational movement in low-voltage DC motors into linear push/pull movement. Our vertical electric lifting columns are solid, stable, and capable of handling high bending moments, both dynamic and static. They are quiet, powerful, and fast, and can be mounted upright as well as upside down in a vertical direction, which makes them a versatile option for various industrial applications.

The lifting columns are controlled with our IC Integrated Controller™ or an external control box and are easy to integrate into your application. There are several interfaces with various feedback options, depending on the model.

Our lifting columns are an excellent choice for various industrial applications.

Technical Data				
Model		Load	Speed	Options (add-on)
ELEVATE™		Up to 1,000 N (push and pull) (224 lbs)	Up to 100 mm/s (3.93 in/s)	<ul style="list-style-type: none"> · Digital and analog I/O · Modbus TCP/IP · Ethernet · Simultaneous run
LC3 2-stage LC3 3-stage		Up to 6,000 N (push) (1,349 lbs) Up to 4,000 N (pull) (899 lbs)	Up to 29 mm/s (1.14 m/s)	<ul style="list-style-type: none"> · Built-in end-stop switch · Dual Hall position feedback
LC1 DESKLINE		Up to 4,000 N (push) (899 lbs) Up to 2,000 N (pull) (449 lbs)	Up to 30 mm/s (1.18 in/s)	<ul style="list-style-type: none"> · Single drive or parallel drive · Signal switch · Dual Hall position feedback
DL2		Up to 2,500 N (push) (561 lbs)	Up to 20 mm/s (0.79 in/s)	<ul style="list-style-type: none"> · Built-in limit switch · Single drive or parallel drive
BL1		Up to 2,000 N (push) (449 lbs)	Up to 46 mm/s (1.81 in/s)	<ul style="list-style-type: none"> · Built-in end-stop switch · Dual Hall position feedback

Explore all
TECHLINE
lifting
columns





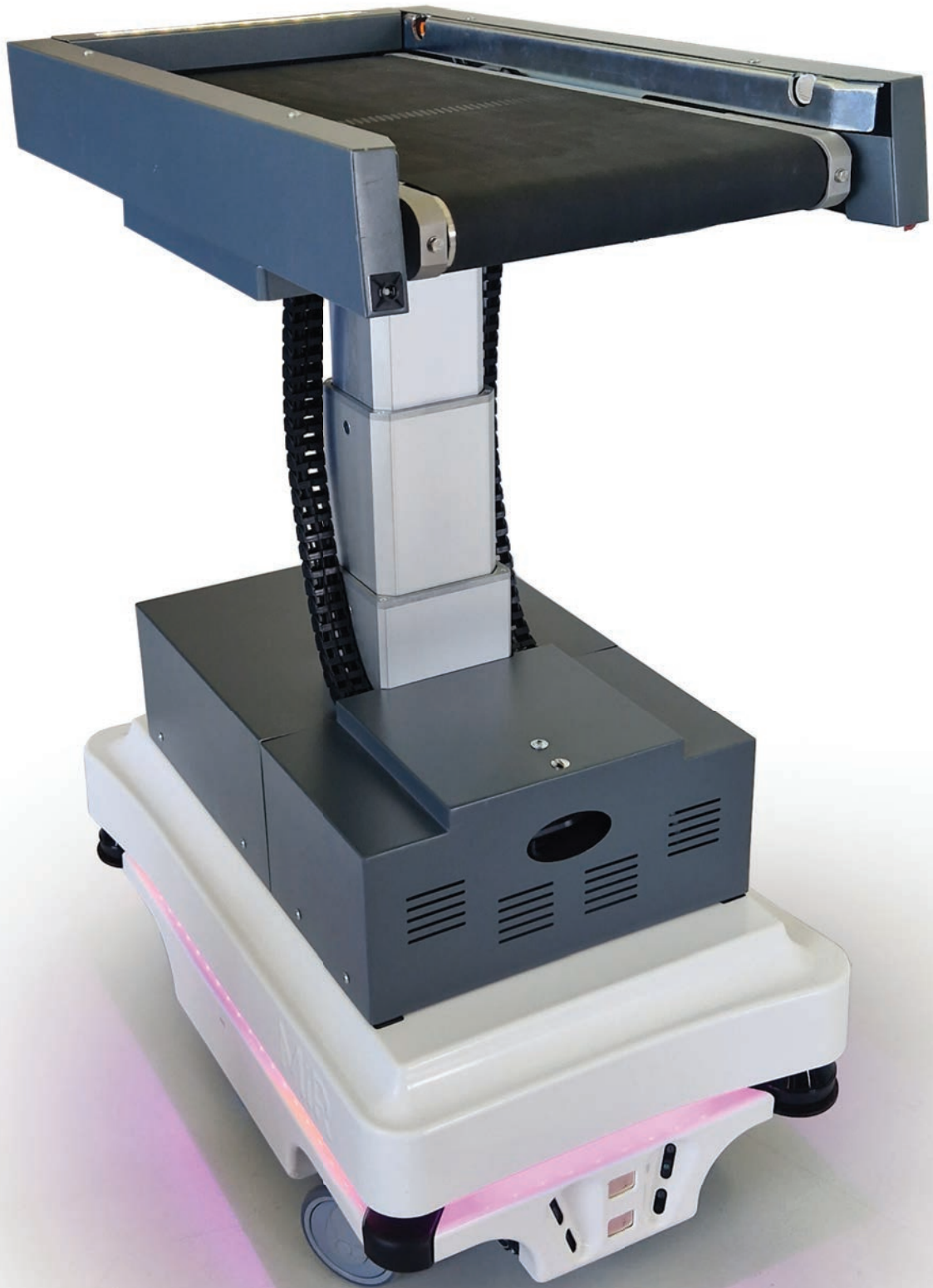
Lifting columns



Lifting columns	ELEVATE™
Load	Up to 1,000 N (push and pull) (224 lbs)
Speed	Up to 100 mm/s (3,93 in/s)
Stroke length	Up to 1100 mm
Voltage	24 V DC
Bending moment	Static: 3,000 Nm / Dynamic: 1,400 N
Duty cycle	20 %
Ambient temperature	+5°C to +40°C (operation)
IP rating	IP4X
Options (add-ons)	<ul style="list-style-type: none"> · Digital and analog I/O · Ethernet Modbus TCP/IP · Simultaneous run
Important facts	<ul style="list-style-type: none"> · Designed for cobot palletizing · Available with different mounting plates and cable kits · ELEVATE uses our powerful LC3 IC Compatible with: <ul style="list-style-type: none"> · Universal Robots cobots with URCap · Cobots from Techman Robot and OMRON™ with ELEVATE™ components for TMFlow · Cobots from Kassow Robots with Cbun · Pally URCap and MyRobot.cloud

Learn more about ELEVATE™





Lifting columns



Lifting columns	LC3 2-stage and 3-stage	LCI DESKLINE
Load	Up to 6,000 N (push) (1,349 lbs) Up to 4,000 N (pull) (899 lbs)	Up to 4,000 N (push) (899 lbs) Up to 2,000 N (pull) (449 lbs)
Speed	Up to 29 mm/s (1.14 m/s)	Up to 30 mm/s (1.18 in/s)
Stroke length	3-stage: 200-700 mm in steps of 50 mm (1 mm on request) 2-stage: 200-700 mm in steps of 50 mm (1 mm on request)	200-665 mm
Voltage	24 V DC	24 V DC
Bending moment	Static: 3,000 Nm/ Dynamic: 1,400 Nm	Static: 900 Nm / Dynamic: 250 Nm
Duty cycle	10 %	10 %
Ambient temperature	+5°C to +40°C (operation)	+5°C to +40°C (operation)
IP rating	IPX4 standard, IPX6 optional	IPX0 (top plate down), IPX6 (top plate up)
Options (add-ons)	<ul style="list-style-type: none"> · Built-in end-stop switch · Dual Hall position feedback 	<ul style="list-style-type: none"> · Single drive or parallel drive · Signal switch · Dual Hall position feedback
Important facts	<ul style="list-style-type: none"> · Low noise level · Compact and mounting friendly design · Parallel drive 	<ul style="list-style-type: none"> · Low noise level · Strong and stable

Explore all
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lifting
columns





Lifting columns



Lifting columns	DL2	BL1
Load	Up to 2,500 N (push) (561 lbs)	Up to 2,000 N (push) (449 lbs)
Speed	Up to 20 mm/s (0.79 in/s)	Up to 46 mm/s (1.81 in/s)
Stroke length	300-500 mm	200-400 mm
Voltage	12 V DC	12 V DC or 24 V DC
Bending moment	Static: 500 Nm / Dynamic: 250 Nm	Dynamic: 250 Nm
Duty cycle	5%	10 %
Ambient temperature	+10°C to +40°C (operation)	+5°C to +40°C (operation)
IP rating		IPX6
Options (add-ons)	<ul style="list-style-type: none"> · Built-in limit switch · Single drive or parallel drive 	<ul style="list-style-type: none"> · Built-in end-stop switch · Dual Hall position feedback
Important facts	<ul style="list-style-type: none"> · Low noise level · Strong and stable 	<ul style="list-style-type: none"> · Low noise level · High degree of stability · Short installation dimension and long stroke length

Explore all
TECHLINE
lifting
columns



IC™ - move smarter

Our IC actuators with integrated controller cut down actuator installation time and boost productivity on any application.

The integrated controller reduces the number of external components and the need for third party power electronics. IC also gives you access to

productivity-enhancing data and industrial interfaces to ease your design and integration processes – even into complex systems.

IC actuators ease every stage of your application process, from development, installation and integration to tailored movement and improved productivity.

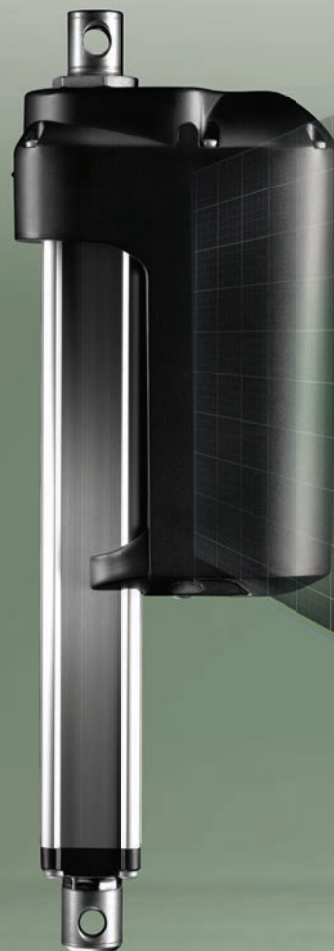
- **Speed up your R&D processes**
- **Enjoy easy integration**
- **Boost productivity**

INTEGRATED CONTROLLER

Learn more about IC



Learn more about interfaces



Interfaces and protocols



The flexible LINAK® I/O™ interface enables a range of movements and choice of input control and data outputs. It offers endless modifications for full control of the exact functionalities you need and lets you move swiftly from innovation to action.



CANopen® is a communications protocol that relies on the CiA 301 standard and is one of the main network architectures used in industries such as Railway, Agriculture, Heavy Truck & Bus, Marine, Off-Highway and Factory Automation.



IO-Link® is a point-to-point industrial network standard used to connect digital sensors and actuators to an industrial Fieldbus or Ethernet. IO-Link increases efficiency and reduces downtime in e.g. industrial automation and packaging machinery.



CAN SAE J1939® is a set of standards defining how ECUs (Electronic Control Unit) communicate via CAN – offering a common language for all manufacturers. The protocol is widely used in mobile off-highway machinery as it supports smart automation.



PLUS+® is a development tool where engineers can add, move, drag and drop components when designing modern heavy-duty machinery. A software extension makes it possible to add LINAK® actuators to the platform as easy as drag and drop.



EtherNet/IP™ is a network protocol that allows industrial devices, including actuators, to communicate over Ethernet. It supports real-time control and data exchange, making it ideal for applications like automated manufacturing, robotic systems, and process control.



LIN bus is a cost-effective supplement to CAN bus. The overall performance and reliability of the network is lower compared to CAN bus, but the protocol is very suitable for non-critical components.



Modbus®RTU is a serial communications protocol used for industrial electronic devices, which is often connected to a PLC. Using Modbus®RTU makes it easy to integrate and maintain many devices on the same network. Actuators with Modbus®RTU can e.g. be used for industrial automation and solar tracking.



Modbus® TCP/IP is a protocol that enables industrial devices, such as actuators, to connect over Ethernet. It simplifies integration and maintenance of devices on the same network, suitable for applications like HVAC systems, energy management, and factory automation.



Profinet is an open industrial Ethernet standard. This Ethernet interface connects devices, systems, and cells which facilitates manufacturing by increasing quality, speed and safety. Profinet easily integrates with existing systems and equipment, bringing

the capabilities of Ethernet to the factory floor. This communication protocol acts as an essential tool within the automation industry, enabling real-time data exchange between controllers and devices, allowing for seamless communication across various devices.

Configuration tools



LINAK Actuator Connect configurator helps you configure actuators with IC Integrated Controller, when working with the I/O interface. Adjust parameters such as start/stop settings, virtual limits, and current limits, and read-out real-time and historical usage data.

Download a free version of Actuator Connect. [Link](#)





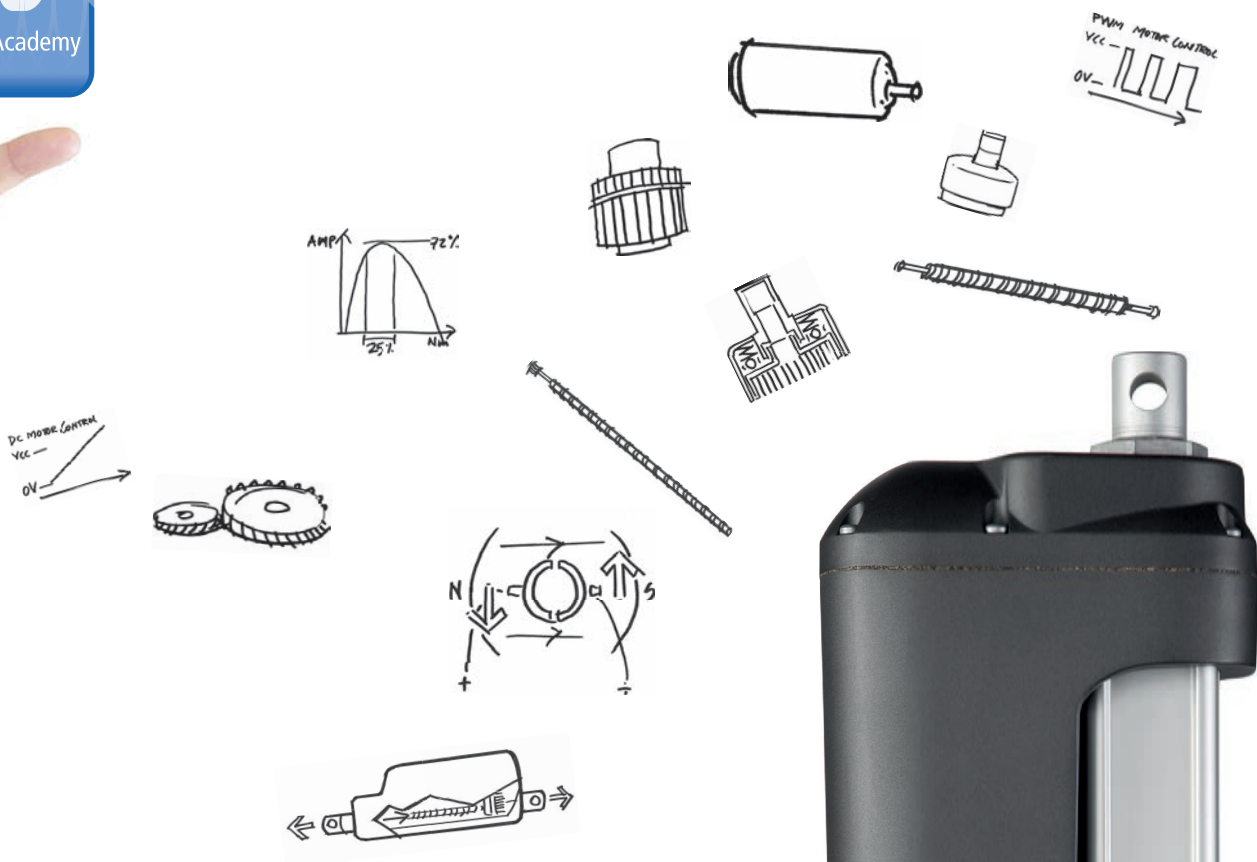
Explore the technology behind actuators


At the Actuator Academy™, you will find a library of videos and information about actuator components, actuator testing, and intelligent actuator control.

Find out what to expect of a good industrial actuator, what affects its performance and efficiency, and how to best utilize your electric linear actuator.

We hope to inspire you and ultimately make you curious about the moving electric revolution that we are all a part of.

Happy exploring!



Check out the Actuator Academy 





LINKA
Designed in Denmark
2nd - 5430 Hørsholm
Type 363A75-00150160
Rev. No. 361936-00
Prod. Date 2018.05.23
Max. Load Push 2600 N / Pull 2600 N IP66
Power Rating 12 V^{DC} Max. 26 A
Temp. Range 25 °C, Max. 4 min. 70min.
DO NOT OPEN BY UNAUTHORIZED PERSONNEL
NE PAS OUVRIRE PAR DU PERSONNEL NON AUTORISÉ
1070 361936-0007 MADE IN DENMARK

Learn
how we
test



Testing program

In any industrial application, the actuator is just one of many components, but that does not diminish the importance of smooth and reliable operation. For this reason, we ensure that every actuator leaving our factory undergoes a comprehensive 100% function test.

Depending on the actuator type, various tests are carried through. To get a detailed overview of the tests performed, please consult your local LINAK® office or refer to the relevant actuator data sheet.

Our commitment to testing is your guarantee that your electric actuators will work reliably for many years.

		
<p>Climatic tests: In the climatic test the actuators are tested to operate in extreme temperatures as well as to endure rapid changes in temperature. In a dunk test, the actuators have to withstand repeating temperature fluctuations between +85°C to -40°C while maintaining its full functionality and ingress protection.</p> <p>EN60529-IP6X: dust EN60529-IPX6: water ISO16750- IP69K: high-pressure cleaning IEC60068-2-3: moisture storage IEC60068-2-30: operation in moisture ISO16750-4:2010: dunk test EN60068-2-52: salt spray BS7691 Section 6.11.2.4: chemicals</p>	<p>Mechanical tests: Vibration: The actuator must withstand continuous vibration in three directions. Shock: The shock test puts the actuator through 3 shocks of up to 50 G in each of six directions. Bump: The actuator receives bumps of up to 30 G in each of six directions several hundred times.</p> <p>EN60068-2-64 (Fh): random vibration EN60068-2-27 (Ea): shock EN60068-2-29 (Eb): bump</p>	<p>Electrical tests: All electrical parts are tested i.e. power supply, power and signal cables, control signals etc. Electrical immunity is tested according to industrial standards i.e. for radio noise, electrical discharge and burst.*</p> <p>EN/IEC 61000-6-4: generic standard emission industry EN/IEC 60204: electrical equipment of machinery EN 50121-3-2: railway applications - Rolling stock apparatus 94/25/EC: recreational crafts directive EN/ISO 13766: earth moving machinery EN/IEC 61000-6-2: generic standard immunity industry 2004/104/EC: automotive Directive EN/ISO 14982: agricultural and forestry machines EN/ISO 13309: construction machinery</p>



For further information about **TECHLINE:**
[LINAK-US.COM/SEGMENTS/TECHLINE/](https://www.linak-us.com/segments/techline/)

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QUALITY

Built by market leading experts, using state-of-the-art technologies and perfected production methods, you can expect the same quality worldwide.



INNOVATION

Innovation is in our core. We take the lead and have the courage to make it real.



RESPONSIBILITY

We are responsible in what we do – towards customers, employees and environment. Creating trust is a natural part of who we are.



LOCAL
& GLOBAL

From global presence to local understanding. We believe in worldwide support and being close to our customers.