

Focus on
Mobility



www.linak.com/techline

LINAK® 
WE IMPROVE YOUR LIFE

Understanding **your needs**

Physical disability does not necessarily mean reduced activity, but simply reduced mobility. Persons with disabilities face many challenges when it comes to mobility, e.g. in their homes, in the office, in the shopping mall, in the cinema or in their cars. It is an everyday occurrence. However, with the technological development, a wide range of aids to increase mobility are available for persons with disabilities today.

LINAK® has many years of experience as a sub-supplier within this business and knows what it takes to supply reliable actuator systems that put self-reliance, people's safety and quality of life first.

Fittings for cars

As an example, LINAK can provide a wide range of low voltage actuators for all kinds of movement in vehicle fittings for persons with disabilities. So why is LINAK the perfect partner for this exact application?

On the hardware side because

LINAK actuators:

- Are very easy to install and they fit immediately to the electrical system of the vehicle
- **Can be supplied with extra safety features**
- Lift up to 1000 kg fast and steadily
- Are easy and fast to operate by means of hand controls, remote controls or switches
- Are designed to operate under harsh and rugged conditions with vibrations etc.
- Are maintenance-free products
- Offer a high degree of flexibility
- Offer a good price/performance ratio compared to hydraulics



LINAK as your partner

We do not want to be merely another supplier to our customers. We want to be your partner.

When partnering with LINAK you get more than just a product in your hands. Our goal is to create added value to our customers by offering innovative solutions, extensive knowledge, world-class production and global presence.



What LINAK actuators do for the car

TECHLINE® actuator solutions provide easy electric linear movement for a wide range of vehicles especially designed to increase mobility for persons with disabilities. Their light weight, precise and smooth motion control as well as reliable performance in rough conditions make LINAK® actuators an ideal choice for these applications.

For the car, LINAK actuators offer improved ergonomics, easy access and exit of the vehicle, as well as easy loading of small mobility solutions such as wheelchairs etc.

Rear door opener
Remote opening/closing of the rear door. Simple operation of the rear door will be mandatory for a wheelchair user



Lift
Easily loading wheelchairs or scooters into boots. A lift like this can increase the independency of the user and make travelling easier



Electrical seat

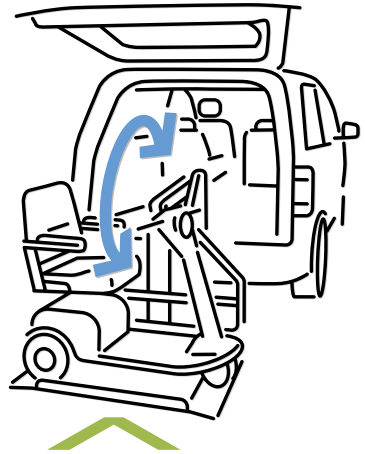
Gaining easy access to the driver's seat from a wheelchair with electric turntable seats



What LINAK actuators do for the minivan

LINAK® actuators ensure user-friendly operation as well as **high-quality** and long lasting performance in various mobility solutions for minivans.

Due to their high flexibility the actuators can easily be customised for a specific mobility solution. Also, their small size and ability to interface with programmable control systems makes installation into applications even easier.



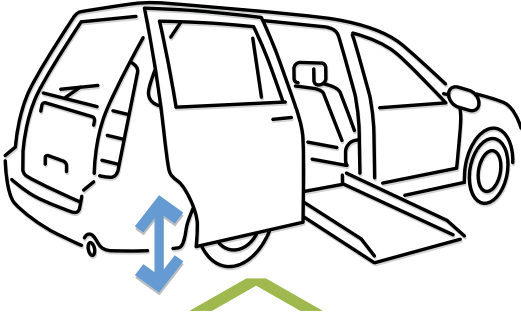
Scooter platform lift
Automatic lifting and storing of a scooter into the boot by the push of a button

Foldout ramp
Folding or unfolding of the wheelchair ramp for easy exit/entry for users of wheelchairs or scooters



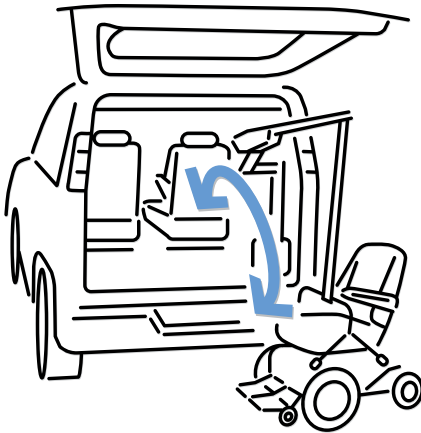
Safety

LINAK products are tested and approved according to the highest standards. At the end of the day, safety is what really matters to the end-user.



Kneeling system

Lowering of the vehicle to reduce the ramp angle for **easy and effortless entry/** exit for scooter or wheelchair users

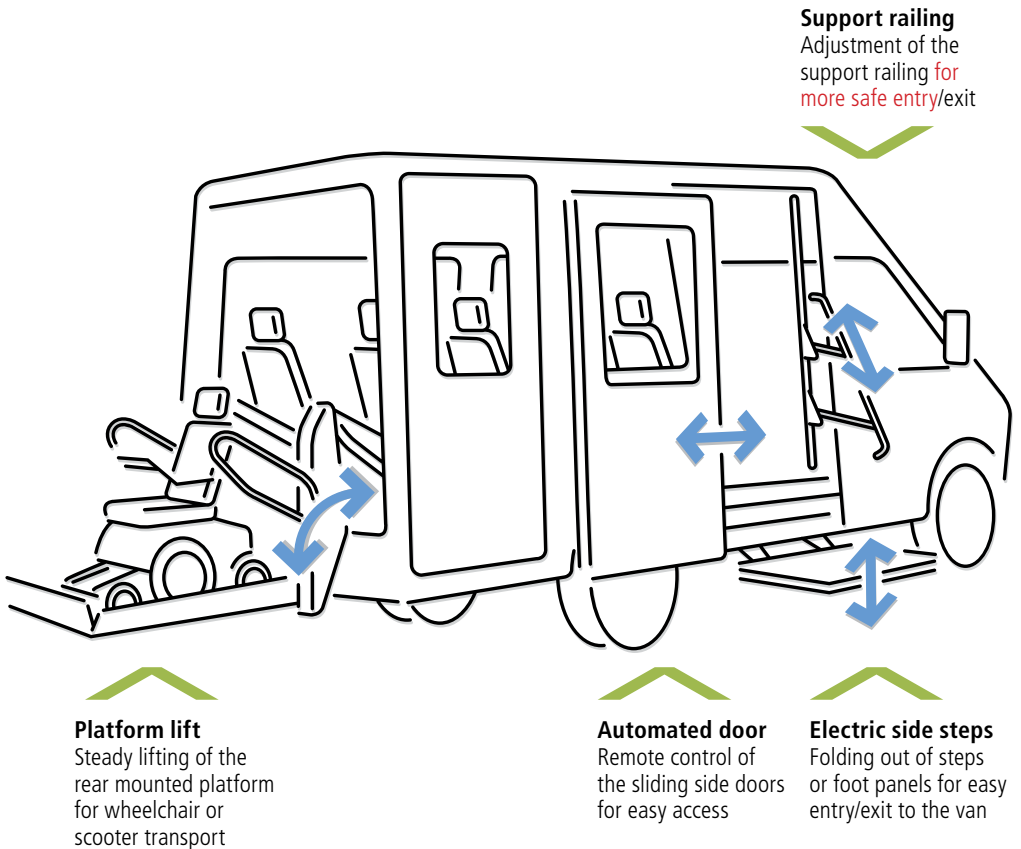


Curbsider lift

Lifting and storing of a scooter for easy transport

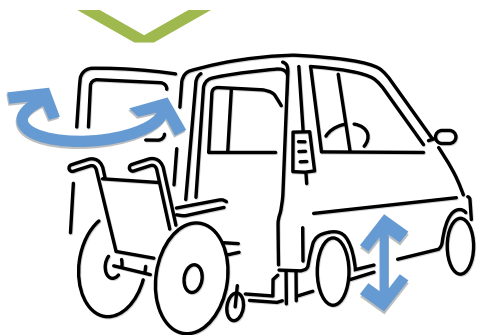
What LINAK actuators do for the van and small cars for wheelchair users

Within vans and small cars for wheelchair users, LINAK® actuators will help enhance safety and reliability while providing easy adjustment for ergonomic, self-reliance and comfort purposes.



Door automation

Remote opening and closing of the rear door for easy entrance/exit

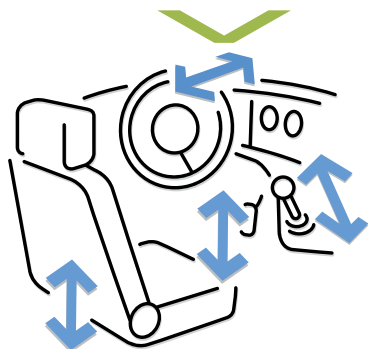


Rear end lowering

Lowering of the back of the vehicle to ground level in order for a wheelchair to gain direct access from the street

Steering wheel

Adjustment of the steering wheel position for enhanced convenience



Gearshift

Retraction of the gearshift for easy access to the driver's area

Adjustable car seat

Adjustment of the driver's seat for increased accessibility and comfort

Clutch and break

Controlling of the clutch and break for increased user-friendliness

MOVE FOR THE FUTURE



Step into the future world of movement and enhance your competitive edge.

Do you want cost-effective performance, innovative technology and a competitive edge?

Go for IC™ and Move for the Future™



IC movement for mobility

IC is the range of integrated control options for TECHLINE® actuators that present you with almost unlimited possibilities for superior control and monitoring, to enhance the value and performance of your application.

For mobility applications, actuators with IC provide cost-effective performance and innovative technology:

- Simple installation with built-in electronics.
- Easy overview and precise control of the actuator movement.

- The actuator can be customised on site to fit multiple solutions in a single application.
- Easy monitoring of the actuator's condition which ensures a minimum of downtime.
- All IC options are based on the same well-tested interface, which is covered by the actuator's IP degree.

If you are looking for a movement solution that will help you stay competitive in the future, then go for LINAK actuators with integrated controller, and Move for the Future.

Integrated Controller:

- Customisable feedbacks
- Parallel movement
- BUS communication

INTEGRATED CONTROLLER

For more information on IC, please go to www.linak.com/techline/moveforthefuture

Actuators for **mobility**

Actuator LA37 - solid and powerful

Tough applications require equally tough actuator solutions. The actuator LA37 is specifically developed for heavy-duty applications in harsh environments, where there is a need for high lifting capacity and holding force. The LA37 offers the well-known LINAK quality, guaranteeing you a maintenance-free product with a long lifetime.



LA37 features:

- Max thrust up to 15,000 N
- Max speed up to 3.5 mm/sec
- Standard stroke 100-600 mm
- Protection class IP66 / IP69K
- Voltage 12 or 24V DC
- Heavy-duty aluminum housing for harsh conditions
- Integrated brake, high self-locking ability
- Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length
- Built-in endstop
- Solid metal construction
- Hand crank for manual operation
- Salt spray and chemical tested
- High-pressure cleaning resistant
- **Available with IC™**



Actuator LA36 - reliable and tough

The actuator LA36 is one of the most solid and powerful LINAK actuators, designed to operate under extreme conditions. The LA36 is a maintenance-free product with a long lifetime and a high IP degree. This high-quality actuator offers a very strong alternative to hydraulic solutions.



LA36 features:

- Max thrust up to 10,000 N
- Max speed up to 160 mm/sec
- Standard stroke 100-999 mm
- Protection class IP66 / IP69K
- Voltage 12, 24 or 36 V DC
- Heavy-duty aluminum housing for harsh conditions
- Integrated brake, high self-locking ability
- Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length
- Endstops: slip clutch or built-in limit switches
- Solid metal construction
- Hand crank for manual operation
- Salt and chemical tested
- High-pressure cleaning resistant
- **Available with IC™**



Actuators for mobility

Actuator LA35 - flexible and powerful

The actuator LA35 is a powerful actuator with a low noise level. It is designed for a variety of both indoor and outdoor applications and provides a practical, cost-effective solution with low power consumption.



LA35 features:

- Max thrust up to 6,000 N in push and up to 4,000 N in pull
- Stroke up to 600 mm
- Protection class IP66 dynamic / IP69K static
- Voltage 12 or 24 V DC
- Heavy-duty aluminium housing for harsh conditions
- Easy to use interface – with integrated power electronics for direct connection to control system
- Potential free limit switches as an option
- Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length
- Built-in limit switches and brake
- **Available with Basic IC™**



Actuator LA33 - tough and powerful

The actuator LA33 is a true mid-size actuator that combines compact design and high power in one solution, fit for use in the most extreme environments. A thorough and demanding testing programme forms the basis for the maintenance-free and long lasting performance of this solid and high-quality actuator.



LA33 features:

- Max thrust up to 5,000 N
- Max speed up to 30 mm/sec
- Standard stroke 100-600 mm
- Heavy-duty aluminium housing for harsh conditions
- Solid metal construction
- Protection class IP66 / IP69K
- Integrated brake, high self-locking ability
- Voltage 12 or 24 V DC
- Hall sensors for relative or absolute feedback, regardless of the stroke length
- Built-in endstop switches
- Hand crank for manual operation
- Salt spray and chemical tested
- **Available with IC™**



Actuators for mobility

Actuator LA25 - tough and compact

With its robust design, high IP degree and aluminium housing, the actuator LA25 is ideal for harsh environments where operation under extreme conditions is required. Furthermore, the compact dimensions of the LA25 make it applicable for confined spaces.



LA25 features:

- Max thrust up to 2,500 N
- Max speed 12 mm/sec
- Standard stroke 20-300 mm
- Protection class IP66 and IP69K
- Voltage 12 or 24 V DC
- Built-in electrical endstop
- **Available with IC™**



Actuator LA23 - small and strong

The actuator LA23 is a small and strong push or pull actuator with a high lifting force up to 2500N. The LA23 can be used in various applications where size is important.



LA23 features:

- Max thrust up to 2,500 N
- Max speed 9.4 mm/sec
- Standard stroke 20-300 mm
- Protection class IPX6
- Voltage 12 or 24 V DC
- Electrical and mechanical endstop
- **Available with Basic IC™**



Actuators for mobility

Actuator LA14 - robust and reliable

The actuator LA14 is a very tough actuator with a high IP degree and aluminium housing, making it ideal for use in harsh and demanding environments.

The LA14 offers top quality in every detail and ensures reliable performance in temperatures ranging from -40° to +85 °C. With its small size the LA14 is well suited for applications that require short linear movements.



LA14 features:

- Max thrust up to 750 N
- Max speed up to 45 mm/sec
- Standard stroke 40-130 mm
- Protection class IP66 dynamic / IP69K static
- Stainless steel inner tube and piston rod
- Voltage 12 or 24 V DC
- Heavy-duty aluminium housing for harsh conditions
- Built-in limit switches
- Wide range of customised feedback options
- Operation temperature from -40°C to 85°C
- **Available with IC™**



Actuator LA12 - reliable and compact

Thanks to its small size and outstanding performance, the actuator LA12 provides a practical and cost-effective alternative to small-scale traditional hydraulic and pneumatic systems. The LA12 is ideal for applications requiring short linear movements.

After many years on the market, the actuator LA12 demonstrated that it is a very reliable and robust actuator that can handle almost any situation and challenge.



LA12 features:

- Max thrust up to 750 N
- Max speed up to 40 mm/sec
- Standard stroke 40-130 mm
- Protection class IP66
- Voltage 12 or 24 V DC
- High quality reinforced plastic housing protects motor and gear
- Built-in limit switches and EOP
- Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length
- **Available with Basic IC™**



Accessories for **mobility**

Motor controller TR-EM-208 - Complete control



- Variable power supply 12-36 V DC
 - Overload protection - adjustable current limit 1-20 A
 - Adjustable soft start and stop
 - Several versions for different applications
 - Integrated brake
- (*)

Rocker switch - easy operation



- For all actuators with limit switches
 - Easy operation of actuators without use of further electronics
 - IP66 for outdoor use
 - Easy to install
 - Tested with an LA36 12 V DC for 50,000 operations
- (*)

Remote control - digital radio control



- Remote control transmitting up to 100 metres
 - Dual channel receiver
 - Several transmitters can be programmed for the same receiver
 - Simple to use and install
 - Dynamic codes ensure a high security level
 - Supply voltage 12 or 24 V DC
- (*)

(*) "The specified product is a third party product that is produced by third party and distributed by LINAK as a supplement to LINAK's existing product range. It is the responsibility of the product user to determine the suitability of the product for a specific application. LINAK will at point of delivery replace/repair defective products covered by the warranty if promptly returned to LINAK."



If you use IC there is no need for these accessories!

We understand your business

On the cooperational side, it must be easy for our customers to do business with LINAK®. Therefore, we offer both standard components and customised solutions according to demand. In close cooperation with our sales engineering team you can develop an optimal solution that fits perfectly to your task and demands.

Our LINAK TECHLINE® division is committed to offering innovative solutions that help improve life for you and for the end-user of the system.



Knowledge

At LINAK we focus on our core competence – production of actuator systems. But, we do more than this. We want to understand our customer's business by focusing on the individual customer's needs, market intelligence and application know-how.

100% function tests

In each application, the actuator is just one component of many, but at TECHLINE® we fully appreciate that it is of utmost importance to you and your customers. Not a single actuator leaves LINAK® until it has undergone a 100% function test.

Depending on the actuator type, various tests have been carried through. Please consult your local LINAK office or take a look at the actuator data sheet in question to get a thorough test overview.

This is your guarantee that a solution based on LINAK TECHLINE electric actuator systems is a solution that will work reliably for years and years.

Electrical tests:

All electrical parts are tested i.e. power supply, power and signals cables, control signals etc. Electrical immunity is tested according to industrial standards i.e. for radio noise, electrical discharge and burst.*

(*) These tests do not apply to third party products!

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 some tests, the actuator has to withstand going from a +100°C environment to -30°C repeatedly and still maintain full functionality.

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 100 G in each of 6 directions.

Bump: The actuator receives bumps of up to 40 G in each of six directions several hundred times.

- 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



- EN600068-2-1 (Ab)** - Cold test
- EN60068-2-2 (Bb)** - Dry heat:
- EN60068-2-14** - Change of temperature
- EN60068-2-30** - Damp heat
- EN60068-2-52** - Salt spray
- EN60529-IP66** - Degrees of protection
- BS7691/96 hours** - Chemicals



- EN60068-2-36 (Fdb)** - Vibration
- EN60068-2-29 (Eb)** - Bump
- EN60068-2-27 (Ea)** - Shock





Global presence

LINAK has a well-developed sales and service organisation in Europe, America, Asia and Australia. Therefore, we can assist you and your customers locally, under the global sales concept idea: Be global, act local



For further information, please visit our websites:

www.linak.com/tecline

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