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 in 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!
LINAK® - your system supplier

LINAK produces electric linear actuator solutions specifically designed for the demanding challenges of today’s healthcare environments. When power, accuracy, hygiene and user-friendliness are critical to the market success of your applications, LINAK goes the extra mile to deliver systems and solutions, you can trust.

43 years of experience with linear actuator solutions
Built by market leading experts, using state-of-the-art technologies and perfected production methods, you can expect the same innovative quality worldwide, backed by a global presence that is informed by local understanding of markets and regulations.

Learn more about our complete systems here
Actuators

The actuator system is an important part of your solution and with the close focus LINAK® has on innovation, perfect movement and absolute control, you can expect quality in every detail. And of course, all our actuators are approved for applications within hospital and healthcare equipment.

### Technical Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Thrust (up to)</th>
<th>Stroke</th>
<th>Speed (up to)</th>
<th>Install dim (min)</th>
<th>Position feedback</th>
<th>Safety features</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA20</td>
<td>Push: 2,500 N</td>
<td>20-300 mm</td>
<td>8.9 mm/s</td>
<td>220 mm</td>
<td>Dual Hall Hall potentiometer Built-in limit switches</td>
<td>Safety nut in pull or push and spline.</td>
</tr>
<tr>
<td></td>
<td>Pull: 800 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA23</td>
<td>Push: 2,500 N</td>
<td>20-300 mm</td>
<td>21.8 mm/s</td>
<td>160 mm</td>
<td>Dual Hall Hall potentiometer Built-in limit switches</td>
<td>Exchangeable cable connection. Available with intelligent control. Safety nut in pull or push and spline.</td>
</tr>
<tr>
<td></td>
<td>Pull: 2,500 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA28</td>
<td>Push: 3,500 N</td>
<td>100-600 mm</td>
<td>45.9 mm/s</td>
<td>260 mm</td>
<td>Reed switch</td>
<td>Safety nut in push and spline.</td>
</tr>
<tr>
<td></td>
<td>Pull: 2,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA28C</td>
<td>Push: 3,500 N</td>
<td>100-600 mm</td>
<td>45.9 mm/s</td>
<td>256 mm</td>
<td>Reed switch</td>
<td>Safety nut in push and spline.</td>
</tr>
<tr>
<td></td>
<td>Pull: 2,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA30</td>
<td>Push: 6,000 N</td>
<td>50-500 mm</td>
<td>65.0 mm/s</td>
<td>206 mm</td>
<td>Reed switch Potentiometer</td>
<td>Safety nut in push and brake.</td>
</tr>
<tr>
<td></td>
<td>Pull: 3,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA31C</td>
<td>Push: 6,000 N</td>
<td>50-350 mm</td>
<td>32.6 mm/s</td>
<td>223 mm</td>
<td>Hall Reed switch Hall potentiometer</td>
<td>Safety nut in push.</td>
</tr>
<tr>
<td></td>
<td>Pull: 4,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA27</td>
<td>Push: 6,000 N</td>
<td>50-405 mm</td>
<td>13.0 mm/s</td>
<td>220 mm</td>
<td>Hall</td>
<td>Exchangeable cable connection. Available with hand crank. Safety nut in pull and spline.</td>
</tr>
<tr>
<td></td>
<td>Pull: 4,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA34</td>
<td>Push: 10,000 N</td>
<td>100-600 mm</td>
<td>18.0 mm/s</td>
<td>310 mm</td>
<td>Hall Reed switch Potentiometer Built-in limit switches</td>
<td>Available with Quick Release. Safety nut in pull or push.</td>
</tr>
<tr>
<td></td>
<td>Pull: 4,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA44</td>
<td>Push: 12,000 N</td>
<td>100-400 mm</td>
<td>14.0 mm/s</td>
<td>310 mm</td>
<td>Hall Potentiometer Built-in limit switches</td>
<td>Exchangeable cable connection. Available with manual lowering and Intelligent Control. Safety nut in push and spline.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA40</td>
<td>Push: 8,000 N</td>
<td>50-405 mm</td>
<td>19.2 mm/s</td>
<td>220 mm</td>
<td>Dual Hall</td>
<td>Exchangeable cable connection. Available with hand crank and Quick Release. Available with fast motor.</td>
</tr>
<tr>
<td></td>
<td>Pull: 2,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA40 HP</td>
<td>Push: 8,000 N</td>
<td>50-250 mm</td>
<td>9.2 mm/s</td>
<td>220 mm</td>
<td>Dual Hall Built-in limit switches</td>
<td>Safety nut in push. Available with Quick Release and intelligent Ratched Spline.</td>
</tr>
<tr>
<td></td>
<td>Pull: 2,000 N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA40 PL</td>
<td>Push: 8,000 N</td>
<td>50-400 mm</td>
<td>9.3 mm/s</td>
<td>324 mm</td>
<td>Dual Hall Built-in limit switches</td>
<td>Exchangeable cable connection. Available with manual lowering and Intelligent Control. Safety nut in push.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Actuators

LA20
LA23
LA27
LA28
LA28 Compact
LA30
LA31 CARELINE®
LA34
LA40
LA40 HP
LA40 PL
LA40 QR
LA44

Learn more about our actuators
LINAK® offers a complete lifting column programme. With the two models LC1 and LC3, the programme provides you with a broad range of options to meet your lifting capacity requirements of 2,000 – 6,000 N.

The full LC range supplies the necessary lifting capacity and speed for precise and reliable operation of applications. The LC lifting columns can deliver full stability in use where high bending moment is a must.

With its compact dimension and high bending moment, the LC3 delivers a perfectly balanced performance which is ideal for many unique healthcare applications.

LC1 is ideal for the medium range of applications where a smooth profile and high bending options are necessary. LC1 is available with various profile options for mounting.
Lifting columns

In healthcare, two trends are converging: first, the need for powerful, stable applications which can adhere to increasingly stringent standards of hygiene; second, a move towards simplifying care and adding more ergonomic sound solutions for care workers.

The LINAK® range of lifting columns has continued to expand to handle everything from simple lifting tasks to high loads that demand both power, precision and height flexibility. Elegant, easy-clean surfaces combined with a new design make the columns easy to clean and maintain a high hygiene level.

<table>
<thead>
<tr>
<th>Column</th>
<th>BL1</th>
<th>LC1</th>
<th>LC1 Reinforced</th>
<th>LC1 Dovetail</th>
<th>LC3 3-stage</th>
<th>LC3 3-stage HD</th>
<th>LC3 2-stage</th>
<th>LC3 2-stage HD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push</td>
<td>2,000 N</td>
<td>4,000 N</td>
<td>4,000 N</td>
<td>4,000 N</td>
<td>6,000 N</td>
<td>6,000 N</td>
<td>6,000 N</td>
<td>6,000 N</td>
</tr>
<tr>
<td>Pull</td>
<td>1,000 N</td>
<td>2,000 N</td>
<td>2,000 N</td>
<td>2,000 N</td>
<td>4,000 N</td>
<td>4,000 N</td>
<td>4,000 N</td>
<td>4,000 N</td>
</tr>
<tr>
<td>Dynamic bending moment</td>
<td>250 Nm</td>
<td>1,320 Nm</td>
<td>980 Nm</td>
<td>1,320 Nm</td>
<td>550 Nm</td>
<td>1,400 Nm</td>
<td>1,400 Nm</td>
<td>2,100 Nm</td>
</tr>
<tr>
<td>Static bending moment</td>
<td>500 Nm</td>
<td>1,600 Nm</td>
<td>1,800 Nm</td>
<td>1,600 Nm</td>
<td>1,000 Nm</td>
<td>3,000 Nm</td>
<td>2,000 Nm</td>
<td>3,000 Nm</td>
</tr>
<tr>
<td>Built-in dimension</td>
<td>274 mm</td>
<td>312 mm</td>
<td>Min. 1/2 S + 150 mm</td>
<td>Min. 350 mm Min. 1/2 S + 150 mm</td>
<td>Min. 518 mm</td>
<td>Min. 1/2 S + 186 mm</td>
<td>S + 120 mm Min. 320 mm</td>
<td>1/2 S + 240 mm Min. 440 mm</td>
</tr>
</tbody>
</table>

11
Control boxes

Apart from being able to coordinate multiple actuators to form complex and precise movement patterns, the range of LINAK® control boxes sets new standards for convenience and safety. With improved hygiene features, easy cable management and an inventive bracket solution for more flexible mounting, our comprehensive range of control boxes is designed to make life easier for you and your customers.

- **CA20**
  - 4-channel, 90 W

- **CA30**
  - 2-channel, 120 W

- **CA40**
  - 4-channel, 120 W

- **CO53 OpenBus™**
  - 5-channel, 200 W

- **CA63**
  - 4-channel, 200 W

- **CO61 OpenBus™**
  - 4-channel, 200 W

- **CO65 OpenBus™**
  - 4-channel, 280 W

- **CO71 OpenBus™**
  - 4-channel, 350 W

- **PB6S MK2**
  - 4-channel, 200 W

- **PJ2 OpenBus™**
  - 2-channel

- **OPS OpenBus™**
  - 120 W constantly

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The LINAK control box selector

The control boxes cover a broad power range between 120 W - 350 W. Choose the right control box for your healthcare equipment.

Find more information here
LINAK® LIFT healthcare solutions are designed to make life easier for you, your customers and their patients. We know the challenges. An increase in the aged population, more people suffering from obesity and more stringent regulations for performance and safety. But none of this alters the fact that everyone is still entitled to proper care. And that is what a LINAK LIFT solution is designed to do: Choosing a LINAK LIFT solution for your patient or sit-to-stand lift improves patient care and makes life easier for caregivers and other users. Whether you are designing a standard lift solution or an advanced system solution that needs several intelligent features, LINAK has the right solution for your project.

- Designed with users in mind
- Simple to operate and maintain
- Complex functionality at your fingertips
- Hygienic, easy-clean design
- 30% faster turbo boost
- Wireless operation and data access
- High performance Li-Ion battery

The LIFT system solutions are recommended for healthcare applications like:
- Treatment chairs
- Shower chairs
- Surgery table/chair
- Patient lifts
- Sit-to-stand lifts

### Comparison chart

<table>
<thead>
<tr>
<th>Feature</th>
<th>LIFT40</th>
<th>LIFT40+</th>
<th>LIFT50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed boost</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Easy-read LED info-bar</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Bluetooth®/Bluetooth Low Energy</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Up to 40% smaller than comparable products</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% lower weight than comparable products</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Up to 3 channels</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Li-Ion battery</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPX6</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>IPX6 Washable</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>SoftCon-ready</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Readily available emergency stop</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Effective cable management</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG Inc. and any use of such marks and logos by LINAK® is under license.
The LINAK® LIFT solutions have been redesigned from the inside out for simplicity and user-friendliness, functionality has never looked so sleek.

With the LIFT product series, design is simple, compact and clean looking.

LIFT™

LIFT40™/LIFT40+™
CAL40
BAL40
CHL40

LIFT50™
COL50
BAL50
CHL50

CBJ Home
CH01

Learn more about our complete systems here
Battery testing

It is common industry knowledge that a there is a minuscule risk associated with Li-Ion batteries and just one in ten million cells can fail. But that is one too many. We consider it our responsibility to think ahead and design a battery unit that can mitigate the effects of even this unlikely worst-case scenario.

Tested for real life… and beyond
• 32 channels for testing 32 cells or complete batteries
• Our tests run continuously 24/7/365… every year
• Each new cell test takes approx. 6 months before commissioning
• Batteries charged and discharged as in real life and discharged back into the local grid

By stressing the components in our advanced test labs, we see how they hold up in simulated lifetime scenarios. Not until this work has been done, do we start to develop our products, utilising the components we found to be best in test. And we do not stop there. When a LINAK® product is finally developed, we test again - making sure the combination of components and the design of the entire unit lives up to our demanding safety criteria.

Only the best pass our tests
There are batteries… and then there are LINAK batteries. We test the selected battery cells for many months to simulate product lifetime in the field. During the test period, we look at consistent performance and stability.

Find more information here

Learn more about our testing facilities
LINAK® controls are based on end user research and usability studies. This ensures proper functionality, intuitive interfaces and ergonomic designs across the entire range. In addition, we have added an extra layer of anti-microbial protection to the HB80 and ACO controls to reduce the potential for cross contamination from surfaces, end users frequently interact with.

More about LINAK® Controls
For LINAK actuator systems, there is a variety of control types for different applications. Some come as hand controls, some as footswitches.

Find more information here
For LINAK actuator systems, there is a variety of control types for different applications. Some come as hand controls, some as footswitches.

Find more information here.
Wireless solutions

- HB200
- FS3 wireless
- CO53
- CA63
- CO71
- ABL

More about LINAK® Controls
For LINAK actuator systems, there is a variety of control types for different applications. Some come as hand controls, some as footswitches.

Find more information here
Accessories

Improving the comfort of both patients and caregivers in hospitals, nursing homes, treatment centres and private homes is at the heart of what we do at LINAK®. Our range of accessories give you the opportunity to create solutions that take your customers’ experience to the next level.
### Scan List

<table>
<thead>
<tr>
<th>Devices</th>
<th>Status</th>
<th>Signal Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery Table</td>
<td>![Icon]</td>
<td>![Bar Graph]</td>
</tr>
<tr>
<td>Patient Lift</td>
<td>![Icon]</td>
<td>![Bar Graph]</td>
</tr>
<tr>
<td>Hospital Bed</td>
<td>![Icon]</td>
<td>![Bar Graph]</td>
</tr>
<tr>
<td>Your Product Name</td>
<td>![Icon]</td>
<td>![Bar Graph]</td>
</tr>
<tr>
<td>Your Product Name</td>
<td>![Icon]</td>
<td>![Bar Graph]</td>
</tr>
<tr>
<td>Your Product Name</td>
<td>![Icon]</td>
<td>![Bar Graph]</td>
</tr>
</tbody>
</table>
OneConnect™

OneConnect is your ONE digital solution from LINAK®. One app for your customers and service technicians, One cloud for help content and remote troubleshooting, and One portal where you manage it all. Simply choose a LINAK control box with built-in Bluetooth® and you are ready to join OneConnect.
LINAK® Protect™

Tackling infection where it counts
Never has the need for cleanliness in healthcare been so critical. Nor has the need for bacteria- and microbe-free surfaces been so vital for stopping the spread of infection. At LINAK, we have been taking hygiene seriously for 25 years and created products that support your customers in their hygienic cleaning regimes at all levels - from simple wiping to washing tunnels.

LINAK IPX6 Washable DURA™ leads the way in helping you create hygiene-focused applications that can face tomorrow’s challenges, where keeping hospital beds and other vital equipment rigorously clean is important to stop the spread of multi-resistant bacteria and other infections.

- Efficient and effective cleaning again and again
  Customers can confidently use wash tunnels for beds, shower chairs and patient lifts to take pressure off valuable personnel time.

- Beat bacteria even when bed resources are stretched
  Stepping up scheduled washing procedures when hospitals are under pressure, means that new patients always get a clean and safe bed.

- Antimicrobial protection of hand controls
  The front cover, housing and hook of LINAK hand controls are treated to inhibit and kill microorganisms, proactively protecting from infection.

Learn more about LINAK® Protect™
Find more information here
Safety is mandatory

Different healthcare applications need different safety features. Regardless of what application you are designing, LINAK® offers a wide variety of standard and optional safety features. Based on many years of experience in developing electrical actuator system solutions, LINAK understands the importance of mixing quality with safety, functionality, and design. Below is a selection of some of the LINAK safety features.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-lock</td>
<td>To avoid actuator drifting and potentially creating dangerous situations.</td>
</tr>
<tr>
<td>Mechanical end stop</td>
<td>This is an extra safety feature, making the actuator first-failure safe.</td>
</tr>
<tr>
<td>Safety nut</td>
<td>A safety nut acts as a precaution against potential failure of the main nut.</td>
</tr>
<tr>
<td>Spline</td>
<td>This is an extra safety feature, making the application safe. LINAK offers four different types of spline: mechanical, electrical, ratchet spline and intelligent ratchet spline.</td>
</tr>
<tr>
<td>Quick Release</td>
<td>This is an important functionality that ensures fast lowering of the application in emergency situations, e.g. if CPR is needed.</td>
</tr>
<tr>
<td>Mains indicator</td>
<td>LINAK control boxes have a mains indicator.</td>
</tr>
<tr>
<td>Brake alarm</td>
<td>The LINAK OpenBus™ control boxes have a buzzer which can be used as a brake alarm.</td>
</tr>
<tr>
<td>PU cables</td>
<td>PU cables retain their shape and are not as vulnerable as traditional PVC cables.</td>
</tr>
<tr>
<td>Locking functionality</td>
<td>In accordance with the IEC 60601-2-52, it is required that control functions can be locked.</td>
</tr>
<tr>
<td>Water protection</td>
<td>LINAK systems can rate as high as IPX6 Washable DURA™.</td>
</tr>
</tbody>
</table>

LINAK® - One step ahead

As an active member of the DS Danish Standards, LINAK influences the general requirements for medical electrical equipment. Our actuator solutions are based on future market requirements and accommodate technology trends within healthcare equipment. LINAK is one step ahead adapting development and existing products to fulfill upcoming approval requirements.

Find more information here

Enhancing safety is often a mix of several initiatives.

Enabling healthcare applications to comply with applicable rules requires a broad and dedicated focus.

Find more information here

Learn more about safety
Special accessories

**Power Link™**
To power your needs, LINAK® has developed an easy-to-connect power adaptor, ideal for connecting a third party device such as a reading light.

- 4 W power supply ideal for 12 V lamps
- Easy to mount
- Easy to connect to third party devices
- 0.5 m open end cable
- 0.5 m cable with 6 pin micro fit (angled)
- Easy to control with control box software
Innovation is in our core. We take the lead and have the courage to make it real.

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

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

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

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

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