

NETLINE™
IMPROVING AUTOMATION

IS THIS YOUR WORST NIGHTMARE?

NETLINE™ - KEEPS YOUR LIGHT ON

LINAK begins by understanding the challenges facing the global electricity market. It is LINAK's belief that if we cannot add unique value to our customers then we have no reason to be in the market. With NETLINE LINAK can offer you the following:

Network improvement

At LINAK we have heard three things: The electrical distribution network is old and manual, the supply demands on the network are increasing as are the penalties for failure, and the workforce available to understand these new challenges are fewer and more costly day by day.

Therefore, LINAK believes that if we can take the existing manual infrastructure and help to operate it automatically and remotely; make the whole process simple, safe, reliable, and cost effective, then LINAK would help to improve the industry. NETLINE has achieved this.

Network reliability and stability

LINAK is an actuation and control specialist, it is all we do. In other markets LINAK discovered that an issue emerged when systems were not sourced from a single technology base - we call this a failure to create interoperability. In this case LINAK took ownership of the technology and this radically improved the market. The NETLINE solution does just the same. LINAK offers:

- A complete purpose-built system from one supplier.
- Purposebuilt software for remote control and monitoring, which includes GPRS as well as interface for other communication devices, PAKNET is one example.
- DNP3 and ISaGRAF as standard.
- Weather and pollution resistant and interoperability.

Network investment

An ageing network requires large investments either in new switchgear or in upgrading the existing ones. Manual operation is expensive when considered as a total cost. NETLINE offers:

- Easy upgrade of existing switchgear to the new standard.
- Reduced total costs. The system comes with remote control and monitoring for more efficient operation and easier/less time consuming location of cable faults.
- Improved power supply to the customers.

Improved workforce efficiency

There are two main challenges when it comes to the workforce and that is their availability and finding people with the right skills. The combination of manually operated systems and difficulties in locating the faults means that a lot of time is spent on the road or in the field. NETLINE offers:

- More efficient workforce due to easier localisation of faults and remote control of the switchgear.
- Improved health and safety. The remote control minimises the risk of "Electric Shock".





iSwitch
– one system, one face

LINAK® 
WE IMPROVE YOUR LIFE

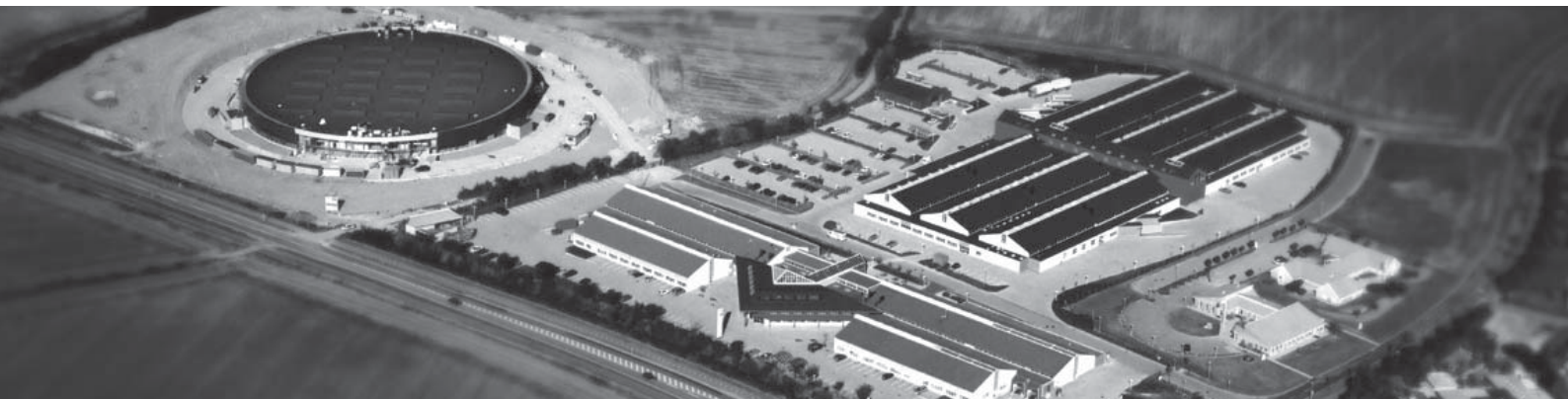
What we stand for



LINAK has over 25 years of experience as a supplier of linear movement in a wide range of applications. Through all the years there has been a clear focus on “improving life” either from a safety, ergonomic, economic or comfort point of view. By adding NETLINE as a new strategic business area of LINAK this vision continues.

Why NETLINE?

Taking a global perspective the efficiency of electricity generation, transmission and distribution is of significant importance to all of our futures. In many cases there is legislative pressure on improving the network efficiency and thereby the quality of supply to the end-user. The challenges are amongst many: ageing manually operated systems, a reduced workforce and knowledge base and limited funds. This is the challenge LINAK meets with our NETLINE system.



Choose LINAK for...



A Knowledgeable Partnership

Multilevel cooperation with our customers is extremely important, for the benefit of both LINAK and the customer. Partnership is the driving force behind R&D, after sales, logistics, manufacturing and marketing.

Who is LINAK?

Why Teamwork?

LINAK is proud of its people. We aim to build our teams on the most experienced and knowledgeable people available from around the world.

The NETLINE team is no less focused. Be it our electronics experts who have designed, in partnership, both the hardware and software architecture; our industrial engineers who have taken a wealth of actuator knowledge and applied it to the mechanical designs; our production team who manufacture

the finished goods or our management team who have conceptualised the industry needs.

Each of us here at LINAK is committed to serving you in a professional, curious, and creative manner.



Choose LINAK for...



Innovation

Innovation is the key word to the success of LINAK. Today LINAK is the company within manufacturing of linear actuator systems to bring most new products to the market and to hold most technology-based patents. Therefore we can always offer the newest technology, giving our customers a competitive edge.



iSwitch – a complete system from one supplier

iMotor

The iMotor provides the movement - either linear or rotary. Three unique elements exist: firstly, we have designed a solution which requires only two types to cover the majority of Ring Main Units/distribution switchgear manufactured. What changes is the mounting arrangement, which is interchangeable between motors. Secondly, once installed, the iMotor remains on the switchgear, manually operable through the equipment using the existing operating handles. Thirdly, is the quick release mechanism, which allows for a safe discharge of stored energy as well as local manual operation of the equipment. We then add to this a robust IP 65 enclosure, simple installation and the LINAK quality promise.

iCom

The iCom provides intelligent communication and control. Local connection to the iCom can be made using a PC operating the NETLINK OC tool. The iCom module contains three main elements:

1. iController – The iController is an intelligent interface capable of using a variety of communication frameworks. The iController forms the main control module for the iSwitch and encompasses the control, monitoring and interlocking functions of the iSwitch.

2. The iPower - The iPower provides comprehensive battery condition monitoring and control functionality – There are 9 DC output voltages available from iPower and they are utilised as follows:

- 2 main high current 'motor' outputs
- 2 battery chargers / standby power input / output
- 4 control and sensor supply outputs
- 1 12 V auxiliary output

3. Interface module – The Interface module provides an easy connection, via IP 66 connectors, for plant and signal cabling.

We then add a robust IP 65 enclosure with a LINAK Mini-Fit connection for simple and reliable installation and operation.

Battery

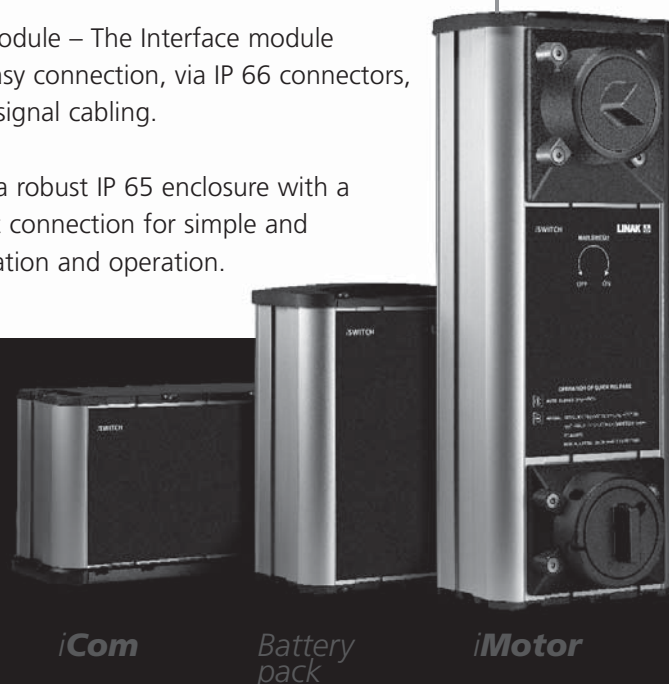
The battery module contains a twin stack of lead acid batteries guaranteed to meet the highest demands of the industry. Our batteries have an operating life of 10 years and when maintenance is required, then simply remove the modular pack and replace it.

Of course we add a robust IP 54 enclosure.

Please refer to the LINAK NETLINE data sheets available on request.

Together, all three modules make

iSwitch



iSwitch is designed to meet all your needs:

Mounting arrangement

The unique mounting method of iSwitch adds significant value to our proposition. The iSwitch is non-intrusive, it remains on the switchgear for electrical and manual operation and it is modular. This means that all elements can be interchanged within similar switchgear. The way we achieve this unique feature begins with LINAK's passion for interoperability; we understood that as little

variation as possible was going to help when installing or moving one iSwitch system from one switchgear type to another. The most cost effective area of change is the coupling arrangement and the mounting frame; LINAK calls this the mounting kit, which will be specified at the time of ordering. If you have various switchgear types or you simply want to move your new automation solution to another location, then

just order a new mounting kit and away you go. The other modules should remain the same. In the unlikely event that they do not, or if you need to replace a unit, then everything is designed to work within the family. This is true "plug & play" technology that does not conflict with the existing switchgear functionality.



Quality in everything we do

With more than 25 years of experience in developing actuator systems LINAK understands the importance of quality. We know exactly how important quality and safety are when dealing with people and their well-being. The same caution has been built into the NETLINE system.



Choose LINAK for...



Robust and powerful

LINAK products are reliable products, made to last! High quality is the trademark of LINAK, and an element of the highest importance to us.

iSwitch put to the test!

You can expect the same rigorous standards from the NETLINE team. Of course every unit will, at least, have the following input as routine testing; furthermore, each iSwitch will be approved to local standards as we progress - that is just what LINAK does. With this in mind, it is reassuring to know that all LINAK products are fully system tested by us, independent test houses and our partners in the industry; only then are we happy to place and support

our LINAK Global Warranty. The iSwitch also offers a self-diagnosis-system or LINAK SDS. This system monitors consumable items such as batteries and reports on changes through the iCom remotely or locally using the NETLINK PC tool. If the worst happens you can be confident in the knowledge that we warranty our product. LINAK is a global organisation and we have a global guarantee honoured by 38 operations throughout the world.

Tests performed on iSwitch

- System testing
- Functional testing
- Software testing
- Environmental testing
- EMC testing
- Lifetime testing
- Safety testing
- Mechanical load testing



LINAK in brief

LINAK is the world leader in designing and manufacturing linear actuator systems for a variety of applications such as Switchgear, hospital beds, patient lifts harvesters, and other applications in various industries.

LINAK is a global company with subsidiaries all over the world and

production facilities in Denmark, the USA and latest in Shenzhen, China. In total LINAK employs approximately 1500 employees worldwide.

LINAK's purpose and mission is to provide products that improve people's quality of life and working environment. For our customers this means that all through the value

chain we only engage in processes that are value-adding to our customers. In order to fulfil this, LINAK has implemented the LEAN principles in the entire organisation from order handling through production to delivery and sales.

Key figures:

- Development, production, and sale of quality actuators
- 3 factories
- 27 subsidiaries
- 11 distributors
- 1600 dedicated employees
- Founded in 1907



Choose LINAK for...



Global Presence

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

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IMPROVING AUTOMATION



iSwitch
– one system, one face

WE PROVIDE INNOVATIVE ACTUATION SOLUTIONS THAT IMPROVE
PEOPLE'S QUALITY OF LIFE AND WORKING ENVIRONMENT

A HISTORY OF TRADITION AND INNOVATION

LINAK has gone through a remarkable transformation since being established back in 1907. When Bent Jensen, CEO and Owner took over the company in 1976 he brought a brand new idea with him. An idea which led to the development of the very first linear actuator in 1980.

It soon became obvious that this new invention had an even larger potential than anyone could have imagined. The linear actuator was going to facilitate ergonomic improvements in workplaces as diverse as offices, hospitals, comfort furniture, farms, and industry.

Throughout this process of improvement and transformation, LINAK's commitment to quality remains the same. The quality of our products affects the quality of people's lives, and we are very much aware of our responsibility. All products are thoroughly tested according to the most demanding standards, and all assembly processes utilise modern technologies.

As we have grown, so has our network of international offices around the world. Today we are present in 35 countries across the globe.

TERMS OF USE

The user is responsible for determining the suitability of LINAK products for a specific application.

LINAK takes great care in providing accurate and up-to-date information on its products. However, due to continuous development in order to improve its products, LINAK products are subject to frequent modifications and changes without prior notice. Therefore, LINAK cannot guarantee the correct and actual status of said information on its products. While LINAK uses its best efforts to fulfil orders, LINAK cannot, for the same reasons as mentioned above, guarantee the availability of any particular product. Therefore, LINAK reserves the right to discontinue the sale of any product displayed on its website or listed in its catalogues or other written material drawn up by LINAK.

All sales are subject to the Standard Terms of Sale and Delivery for LINAK. For a copy thereof, please contact LINAK

www.linak.com

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