TECHLINE®
Product overview

LINAK®
WE IMPROVE YOUR LIFE

Actuators

LA37

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.

The LA37 is also available with:

IC INTEGRATED CONTROLLER™

Features:

Thrust:	10,000 N - 15,000 N
Speed:	3.5 mm/s
Stroke length:	600 mm
Duty Cycle:	15 % at -30° C to +70° C
Voltage:	12 or 24 V DC
Endstop:	Built-in electrical endstop
IP rating:	IP66 dynamic and IP69K static

Options:

- Trunnion mounting
- Hall effect sensor
- Endstop signals
- Analogue or digital feedback for precise positioning
- Possible IC options for LA37: IC Basic, IC Advanced, LINbus, CAN bus, Modbus and Parallel

Scope of application:

- Agricultural applications
- Mobile "off-highway" applications
- Forestry and construction machines
- Hood lifting
- Cabin tilt
- Solar tracking

Facts:

- Heavy-duty aluminium housing for harsh conditions
- Easy to use interface – with integrated power electronics
- Hall sensors or potentiometer for relative or absolute feedback
- Hand crank for manual operation
- Salt spray and chemical tested
- High-pressure cleaner proof
- Designed for outdoor use

LA36

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.

The LA36 is also available with:

IC INTEGRATED CONTROLLER™ Ex

Features:

Thrust:	10,000 N
Speed:	Up to 160 mm/s
Stroke length:	100 - 999 mm
Duty Cycle:	20 %
Voltage:	12, 24 or 36 V DC
Endstop:	Slip clutch or built-in limit switches
IP rating:	IP66 dynamic and IP69K static

Options:

- Potentiometer
- Hall effect sensor
- Endstop signals
- Possible IC options for LA36: IC Basic, IC Advanced, LINbus, CAN bus, Modbus and Parallel
- IECEx/ATEX certification

Scope of application:

- Agricultural applications
- Mobile "off-highway" applications
- Floorsweeper and scrubber
- Industrial automation
- Solar tracking

Facts:

- Heavy-duty aluminium housing for harsh conditions
- Solid metal construction
- Hand crank for manual operation
- Salt spray and chemical tested
- High-pressure cleaner proof
- Designed for outdoor use

LA35

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.

The LA35 is also available with:

INTEGRATED CONTROLLER

Features:

Thrust:	Up to 6,000 N in push and 4,000 in pull
Speed:	Max. 19 mm/s
Stroke length:	600 mm
Duty Cycle:	10 %
Voltage:	12 or 24 V DC
Endstop:	Built-in limit switches and brake
IP rating:	IP66 dynamic and IP69K static

Options:
- Hall effect sensor
- Potential free endstop signals
- Safety nut in push
- Possible IC options for LA35: IC Basic and Modbus

Scope of application:
- Agricultural applications
- Mobile "off-highway" applications
- Floorsweeper and scrubber
- Industrial automation
- Solar tracking

Facts:
- Heavy-duty aluminium housing for harsh conditions
- Easy to use interface – with integrated power electronics for direct connection to control system
- Hall sensors or potentiometer for relative or absolute feedback, regardless of the stroke length
- Designed for outdoor use

LA33

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.

The LA33 is also available with:

INTEGRATED CONTROLLER

Features:

Thrust:	Max. 5,000 N
Speed:	30 mm/s
Stroke length:	100 - 600 mm
Duty Cycle:	20 %
Voltage:	12 or 24 V DC
Endstop:	Built-in limit switches
IP rating:	IP66 dynamic and IP69K static

Options:
- Hall effect sensor
- Endstop signals
- Possible with extra socket
- Possible IC options for LA33: IC Basic, IC Advanced, Proportional control, CANbus, Parallel and LINbus

Scope of application:
- Agricultural applications
- Construction machines
- Grain- and bulk handling
- Industrial automation
- Marine
- Mobile "off-highway" applications
- Outdoor power equipment
- Ventilation and farming solutions

Facts:
- Heavy-duty aluminium housing for harsh conditions
- Solid metal construction
- Hand crank for manual operation
- Salt spray and chemical tested
- High-pressure cleaner proof
- Designed for outdoor use

Actuators

LA32

The actuator LA32 is a powerful actuator that can be supplied with a ball screw spindle to give outstanding performance. The ideal choice for a wide range of applications.

Features:

Thrust:	Max. 6,000 N
Speed:	5,5 - 15 mm/s
Stroke length:	100 - 400 mm
Duty Cycle:	Max. 10 %
Voltage:	12, 24 V DC
Endstop:	Current cut-off

Options:
- Powerful strong motor
- Potentiometer
- Reed switch
- IP66 housing
- Ball screw spindle
- Safety nut

Scope of application:
- Agricultural applications
- Lawn and garden equipment
- Floor sweepers
- Factory automation

Facts:
- Powerful and quiet operation
- Only for "push" applications

LA30

The actuator LA30 is a powerful actuator yet small enough to fit to most applications. The actuator can be supplied with options such as built-in potentiometer for servo operation or an extra powerful motor for increased speed and strength (S-motor).

Features:

Thrust:	Max. 6,000 N
Speed:	Up to 65 mm/s
Stroke length:	50 - 500 mm
Duty Cycle:	Up to 20 %
Voltage:	12, 24 or 36 V DC
Endstop:	LS/LSD or current cut-off

Options:
- Powerful strong motor
- Potentiometer
- Reed switch
- IP66 housing
- Ball screw spindle
- Safety nut

Scope of application:
- Agricultural applications
- Lawn and garden equipment
- Floor sweepers
- Industrial automation

Facts:
- Solid metal construction
- Compact and powerful
- Suitable for harsh conditions
- Stainless steel piston rod
- Self-locking ability

LA28

The actuator LA28 (with standard or fast motor) is a very quiet and powerful actuator, designed for use in furniture, rehabilitation, and hospital bed industries. Agricultural machinery and other outdoor euipment are also other main areas of application.

Features:

Thrust:	Max. 3,500 N
Speed:	3 - 46 mm/s
Stroke length:	100 - 500 mm
Duty Cycle:	10 %
Voltage:	12, 24 V DC
Endstop:	Current cut-off

Options:
- Powerful strong motor
- Reed switch
- IP66 housing
- Safety nut

Scope of application:
- Agricultural applications
- Lawn and garden equipment
- Floor sweepers
- Factory automation

Facts:
- Powerful and quiet operation
- Reinforced glass fibre
- Only for "push" applications

LA25

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.

The LA25 is also available with:

IC INTEGRATED CONTROLLER™

Features:

Thrust:	Max. 2,500 N
Speed:	Max. 13 mm/s
Stroke length:	20 - 300 mm
Duty Cycle:	20 %
Voltage:	12 or 24 V DC
Endstop:	Built-in endstop switches
IP rating:	IP66 dynamic and IP69K static

Options:
- Hall effect sensor
- Endstop signals
- Safety nut in push or pull
- Possible IC options for LA25: IC Basic, IC Advanced, CAN bus and Parallel
- IECEx/ATEX certification

Scope of application:
- Agricultural applications
- Outdoor Power Equipment
- Pergola and louvre
- Marine
- Industrial automation
- Ventilation and farming solutions

Facts:
- Heavy duty aluminium housing for harsh conditions
- Compact design
- Small and strong

Actuators

LA23

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.

The LA23 is also available with:

IC INTEGRATED CONTROLLER™

Features:

Thrust:	Max. 2,500 N
Speed:	9.4 mm/s
Stroke length:	20 - 300 mm
Duty Cycle:	10 %
Voltage:	12, 24 V DC
Endstop:	Electrical and mechanical end-stop

Options:
- Exchangeable cable
- Potential free endstop signals
- Safety nut
- Mechanical spline
- IPX6
- Possible IC option for LA23: IC Basic

Scope of application:
- Agricultural applications
- Ventilation and farming solutions
- Industrial automation
- Wind turbines

Facts:
- Small and strong
- Compact design
- High lifting force
- Designed for outdoor use

LA22

The actuator LA22 is an inline actuator specially designed with a small overall dimension for easy use in Industrial automation, agricultural machinery and rehabilitation applications. Thanks to its small outer dimensions and linear design, the LA22 is well suited for applications where installation space is limited, such as on wheelchairs.

Features:

Thrust:	Up to 400 N
Speed:	13 - 37 mm/s
Stroke length:	Max. 200 mm
Duty Cycle:	10 %
Voltage:	12 or 24 V DC
Endstop:	LS/LSD or current cut-off

Options:
- IP65 housing
- Different back fixtures
- Various piston rod eyes

Scope of application:
- Agricultural applications
- Wheelchairs
- Industrial automation

Facts:
- Solid metal construction
- Unique space saving design
- Low noise level

LA14

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.

The LA14 is also available with:

INTEGRATED CONTROLLER

Features:

Thrust:	Max. 750 N
Speed:	Max. 45 mm/s
Stroke length:	20 - 130 mm
Duty Cycle:	Up to 20 %
Voltage:	12 or 24 V DC
Endstop:	Built-in limit switches
IP rating:	IP66 dynamic and IP69K static

Options:
- Potentiometer
- Reed switch
- Possible IC options for LA14: IC Basic, IC Advanced, CAN bus and Parallel
- IECEx/ATEX certification

Scope of application:
- All kinds of mobile applications, especially fertiliser spreaders and salt gritters
- Industrial automation
- Ventilation
- Valves
- Dosage

Facts:
- Heavy-duty aluminium housing for harsh conditions
- Stainless steel inner tube and piston rod
- Designed for outdoor use

LA12

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.

The LA12 is also available with:

INTEGRATED CONTROLLER

Features:

Thrust:	Max. 750 N
Speed:	Max. 40 mm/s
Stroke length:	40 - 130 mm
Duty Cycle:	Up to 20 %
Voltage:	12 or 24 V DC
Endstop:	Built-in limit switches

Options:
- Potentiometer
- Reed switch
- IP66 housing
- Possible IC option for LA12: IC Basic

Scope of application:
- All kinds of mobile applications
- Industrial automation
- Ventilation
- Valves
- Dosage

Facts:
- Compact and lightweight
- Reinforced glass fibre piston rod
- Designed for outdoor use

Lifting columns

DL2

The lifting column DL2 is designed for workstations and is the ideal choice for duties such as height adjustment on computer workstations, work benches or a wide selection of other duties. Inside each column is a modified LA31 actuator.

Features:

Thrust:	Max. 2,500 N
Speed:	43 mm/s
Stroke length:	500 mm
Duty Cycle:	5 %

Options:
- Mounting bracket (order number 0578006)
- Hall sensors to ensure memory drive and prallel drive with CBD4/CBD5/CBD6
- CBD2 or CBD5 mounted in the DL2

Scope of application:
- Computer workstations
- Work benches
- Platforms

Facts:
- Low noise level
- Compact and mounting friendly design
- Single drive (CBD2 and CBD4)
- Parallel drive (only CBD4)

BL1

The 3-part lifting column BL1 is specially designed for applications where compact lifting is necessary in connection with a long stroke length. With its strong stability it is suited for boat applications and recreational vehicles.

Features:

Thrust:	Max. 2,000 N
Speed:	Max. 18 mm/s
Duty Cycle:	10 %

Options:
- Dual Hall for positioning
- Safety nut

Scope of application:
- Recreational vehicles (RV)
- Boats
- Pet/Veterinary equipment

Facts:
- High degree of stability
- Esthetic and compact design
- Synchronised movement of profiles in column
- Easy cleaning and low maintenance
- Low noise level, increased comfort

LP2

The lifting column LP2 is the ideal choice for height adjustment of examination tables, work benches and industrial applications. It can be operated with two, three or four columns in parallel.

Features:
Thrust: Max. 6,300 N
Stroke length: 100 - 400 mm
Duty Cycle: 10 %

Options:
- Reed switch
- Safety nut
- Mounting bracket
- Gas spring for increased lifting capacity (only LP2-5)

Scope of application:
- Height adjustment on computer workstations
- Work benches

Facts:
- Advanced design
- High quality design
- Ideal for operation with up to a max. of 4 units

LP3

The lifting column LP3 is ideal for applications where there is a demand for both lifting height and small installation dimensions. The telescopic column is compatible with LINAK's control units and can operate individually or in parallel.

Features:
Thrust: Max. 2,400 N
Stroke length: 300 - 600 mm
Duty Cycle: 10 %

Options:
- Reed switch
- Mounting bracket
- Safety nut

Scope of application:
- Height adjustable conveyours
- Factory automation
- Ergonomic work spaces
- Workstations

Facts:
- Very compact 3-stage column
- Robust anodised aluminium surface
- Compatible with CB8 and CB12
- Extremely low noise level

Accessories

SMPS-T160

The SMPS-T160 is a powerful Switch Mode Power Supply typically used for outdoor applications within the TECHLINE® segments. SMPS-T160 is an eco-friendly solution due to a low standby power consumption compared to traditional transformer solutions. The universal input voltage makes the SMPS adaptable to the worldwide market irrespective of the input voltage.

Features:
- Nominal input voltage (mains voltage):100VAC - 240VAC +10/-15%
- Nominal input frequency: 50 Hz/60 Hz
- Typical standby power consumption: Approx. 0.1 W
- IP rating: IP66
- Compatible with: LA12 IC™, LA14 IC, LA23 IC, LA25 IC and LA35 IC

Facts:
- Exchangeable mains and output cables
- Leight weight and compact design
- Plug & Play solution

Scope of application:
- Pergola
- Farming solutions
- Food and beverage
- Valves
- Traffic management
- Energy solutions

Flange Mounting Bracket

The Flange Mounting Bracket serves an easy flange mounting of LINAK electric actuators on industrial valves typically used in waste-water treatment facilities. The bracket interface dimensions are in accordance with the industry standards ISO 5210 and ISO 5211, and it fits with the flange types F07 and F10.

Features:
- Flange mounting possibilities
- Surface treatment: Stainless steel
- Compatible with: LA36, LA37

Facts:
- Bracket for flange mounting of actuators
- In accordance with ISO 5210 and ISO 5211
- Flanges F07 and F10

Scope of application:
- Valves

Controls

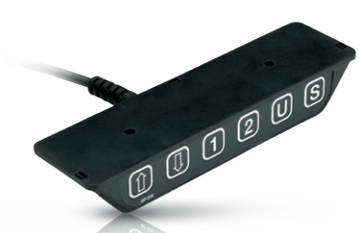
HB40

The TECHLINE HB40 handset is intended to be used with the SMPS-T160. This sturdy compact unit is ergonomically designed and ideal for a vast range of applications.

Facts:
- Ergonomic, compact design
- Robust plastic housing
- IP rating: IP66
- Compatible via SMPS-T160 with: LA12 IC, LA14 IC, LA23 IC, LA25 IC, LA35 IC
- Compatible with: LA33 IC, LA36 IC, LA37 IC

DP

The DP has a compact design and can control up to three actuators independently.



Facts:
- IP rating: IP30
- Compatible via SMPS-T160 with: LA12 IC, LA14 IC, LA23 IC, LA25 IC, LA35 IC
- Compatible with: LA33 IC, LA36 IC, LA37 IC

RF Receiver

The small and compact RF receiver enables easy control of the actuator with the two below remote controls. Its small form factor makes this device easy to implement into your application.

Features:

- Operating temperature: -20° C +45° C
- Working frequency: 868.3 MHz (EU) and 916 MHz (US)
- Range in open space: up to 80 metres
- Protection Class: IP66
- Housing material: polycarbonate
- Cables: integrated
- Cable length: 1500mm
- Compatible via SMPS-T160 with: LA12 IC, LA14 IC, LA23 IC, LA25 IC, LA35 IC
- Compatible with: LA33 IC, LA36 IC, LA37 IC

RF Controls

EVO

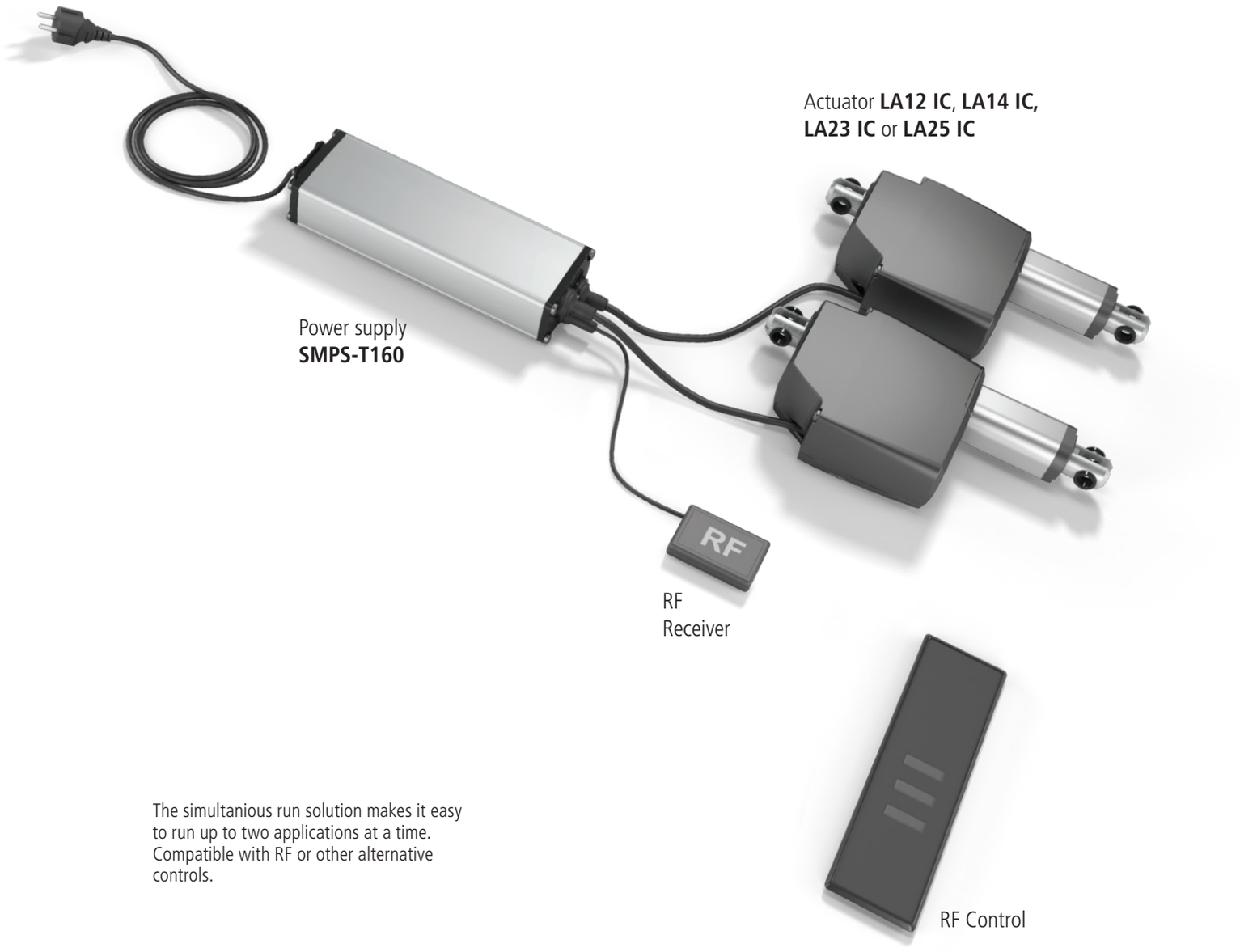
- Dimensions: 125 x 40 x 10 mm
- Compatible with RF receiver

TXP

- Dimensions: 60 x 30 x 10 mm
- Compatible with RF receiver

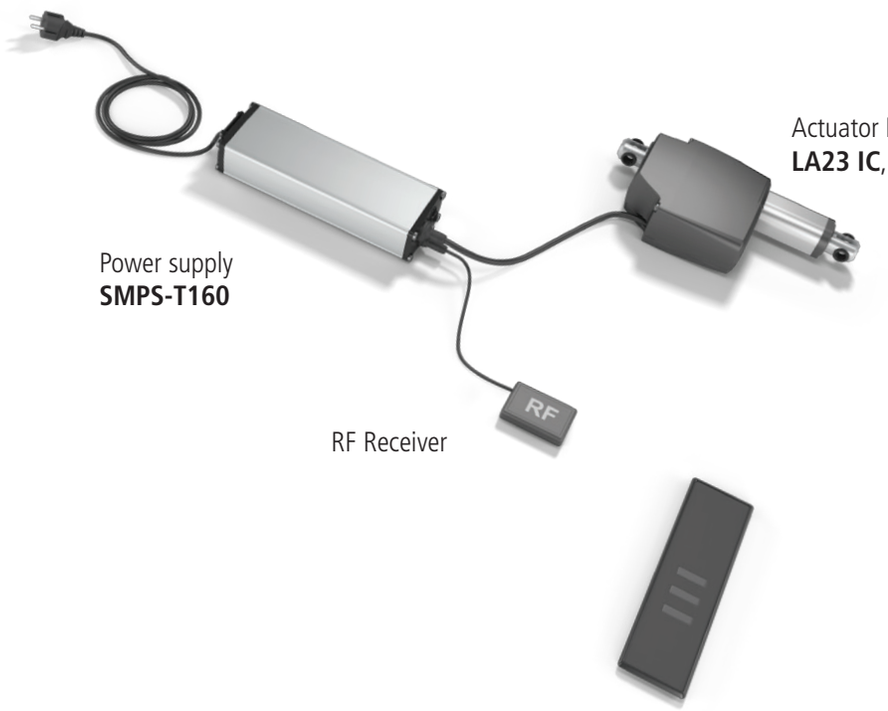
TECHLINE® system solution examples

Simultanious run Solution

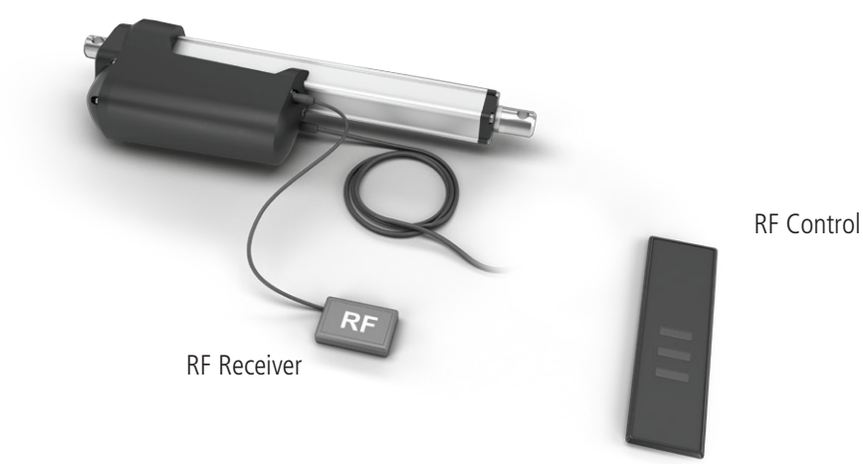


The simultanious run solution makes it easy to run up to two applications at a time. Compatible with RF or other alternative controls.

RF Solution



Actuator **LA33, LA36 IC** or **LA37 IC**

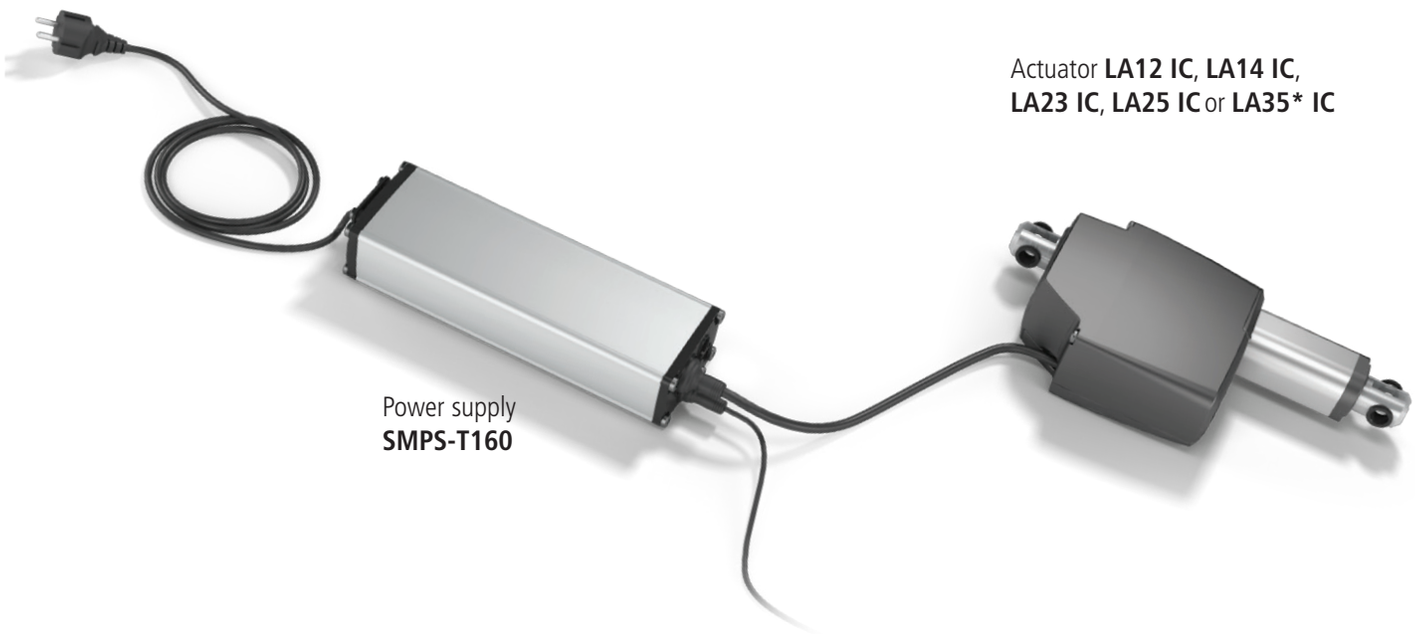


TECHLINE system solutions improve functionality and add value to your application. Our systems offer:

- Simple Plug & Play functionality
- Easy integration into your application
- Time saving installation
- Significant minimisation of installation failures

TECHLINE® system solution examples

Flying wire Solution



Signal cables with open leads enables you to easily connect the SMPS-T160 and actuator to your own controller/switch along with an RF solution.

Cables are available in the following lengths:

- 1.5 meters
- 5 meters

* Please note that with an LA35 flying wire solution, the signal cable is connected to the actuator itself, and not the SMPS.

Resting on the pillars of the LINAK values

PARTNERSHIP

Strategic partnerships within R&D, after-sales, logistics, marketing and manufacturing

INNOVATION

Meaningful value by converting great new ideas into solutions of tomorrow

LEAN
WORLD-CLASS PRODUCTION

Process automation built on newest technology and run by LEAN principles

GLOBAL PRESENCE

Updated market insights and local support offered to every customer

KNOWLEDGE

In-depth knowledge of the market and the market trends makes LINAK a true solutions provider.

Enhance your competitive edge and step into the future world of movement

Cost-effective performance

When we claim that we can make your application more cost-effective, we base it on our ability to help you ensure less downtime, less time spent on maintenance, easier and faster set-up, more intelligent control and more accuracy in your application. All in all this can ensure a more cost-effective use of your application.

Ready for the future

To be ready for the future can mean different things. In our terminology it means being able to ensure that your application has the most convenient, up-to-date and clever features for performing at its best in regards to control, accuracy and speed.

Competitive edge

Cost-effective performance and innovative technology is exactly what you need in your application to make sure that you always keep your competitive edge and your ability to survive as a company in a highly competitive world.

Do you want cost-effective performance, innovative technology and a competitive edge? Go for LINAK actuators with integrated controller, and Move for the Future.

MOVE FOR THE FUTURE

IC - Integrated Controller

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.

Choose between four IC variants:

IC BASIC

The plug and play option that comes pre-configured to meet your exact requirements.

IC ADVANCED

The customisable option with enhanced monitoring and read-out of actuator information.

PARALLEL

The smart and self-configurable option that allows for parallel drive of up to 8 actuators.

BUS

The BUS communication option with either Modbus RTU RS485, Linbus or CAN bus SAE J1939.

For more information about the possibilities with an integrated controller (IC), please contact LINAK TECHLINE, or go to linak.com/techline/moveforthefuture

IC INTEGRATED CONTROLLER

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.

Actuator testing

See how LINAK industrial actuators are tested:
LINAK.COM/SEGMENTS/TECHLINE/TECH-TRENDS/TESTING/

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

For further information about TECHLINE:
LINAK.COM/SEGMENTS/TECHLINE/

Global presence

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

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 hereof, please contact LINAK.

LINAK has a world-class sales and service organisation.
Today we are present in 35 countries all over the world.
For further information, please visit our website: **LINAK.COM**

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MA M9-02-436-T - 2019.01 - Printer: grafisk arbejde