



Focus on Pergolas

Understanding your needs

From small domestic pergolas to larger public pergola systems, LINA^K® offers you high-quality electric actuator solutions - making your pergola system easy to use.

When your customers step into their pergola they look for easy regulation of the shading in order to increase comfort and wellbeing.

System solutions from LINA^KTECHLINE® are user-friendly and fit for use in various weather conditions. Come snow, rain or sun, you can rely on the LINA^K actuator to do the job.

With many years of experience, LINA^K is an excellent choice when considering linear electric actuator solutions for optimal adjustment of pergola blinds.

So what can LINA^K® offer you:

- Maintenance-free products that can withstand extreme weather conditions
- Low noise level
- Low power consumption
- Actuators that are easy and fast to operate by means of remote controls, app or switches

- Easy to install actuator solution that fits immediately into your application
- Precise positioning and accurate variable control over acceleration and velocity

LINA^K as your partner

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

It is important to us that your pergolas work relentlessly in all situations. All our actuators have been put through extensive testing so you can rest assured that your TECHLINE actuator solutions will do the job no matter what.

Furthermore, all members of the TECHLINE team of engineers and consultants have vast product and application expertise.



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

Opening and closing
Simple actuator movement
for opening and closing the
pergola blinds



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 pergolas

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 pergola systems, 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



For more information on IC, please go to

[LINAK.COM/SEGMENTS/TECHLINE/TECH-TRENDS/INTEGRATED-CONTROL/](https://www.linak.com/segments/techline/tech-trends/integrated-control/)

Actuators for pergola systems

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
- Voltage 12 or 24 V DC
- Electrical and mechanical endstop
- **Available with Basic IC™**

Actuators for pergola systems

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™**



Accessories for pergola systems

SMPS-T160

The SMPS-T160 is a powerful Switch Mode Power Supply typically used for outdoor applications within the TECHLINE® segment. 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.



SMPS-T160 features:

- Input: 100VAC to 240VAC
- Output: 29V DC, 5.5Amp, 20% duty cycle at 25°C
- Standby: 0.1W
- Protection Class: IP66
- Housing: Anodised aluminium
- Cables: Exchangeable
- Compatible with LA12 IC™, LA14 IC, LA23 IC, LA25 IC and LA35 IC

Accessories for pergola systems

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
- Possibility of running up to two applications at a time with simultaneous run.
- Easy connection of the SMPS-T160 and actuator to your own controller/switch.
- Signal cable with open leads enables you to connect your own control along with an RF or Bluetooth solution. These can be run at the same time.

Bluetooth receiver

The small and compact TECHLINE® Bluetooth receiver enables easy control of the actuator with an iPhone 4s and up or Android device. Its small form factor makes this device easy to implement into your application.



Features:

- Power supply: 24V DC
- Operation current: 20 mA
- Range in open space: up to 12 metres
- Protection class: IP66
- Housing: ABS
- Cables: integrated
- Cable length: 150mm
- 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
- 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



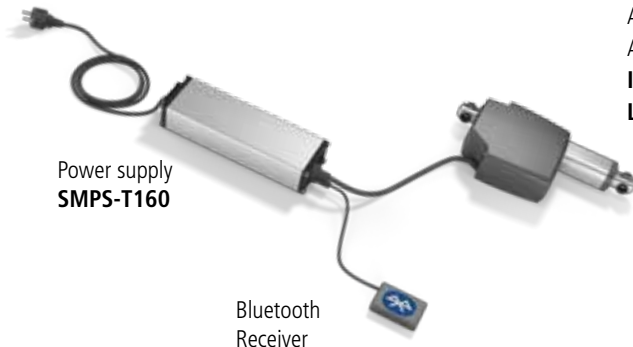
TXP

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



TECHLINE® system solution examples

Bluetooth™ Solution

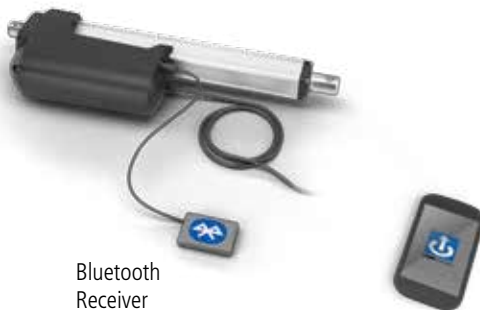


Power supply
SMPS-T160

Bluetooth
Receiver

Actuator
Actuator **LA12 IC™, LA14 IC, LA23 IC, LA25 IC** or **LA35 IC**

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



Bluetooth
Receiver

App compatible with
iPhone 4s and up
plus Android
LINAK Control

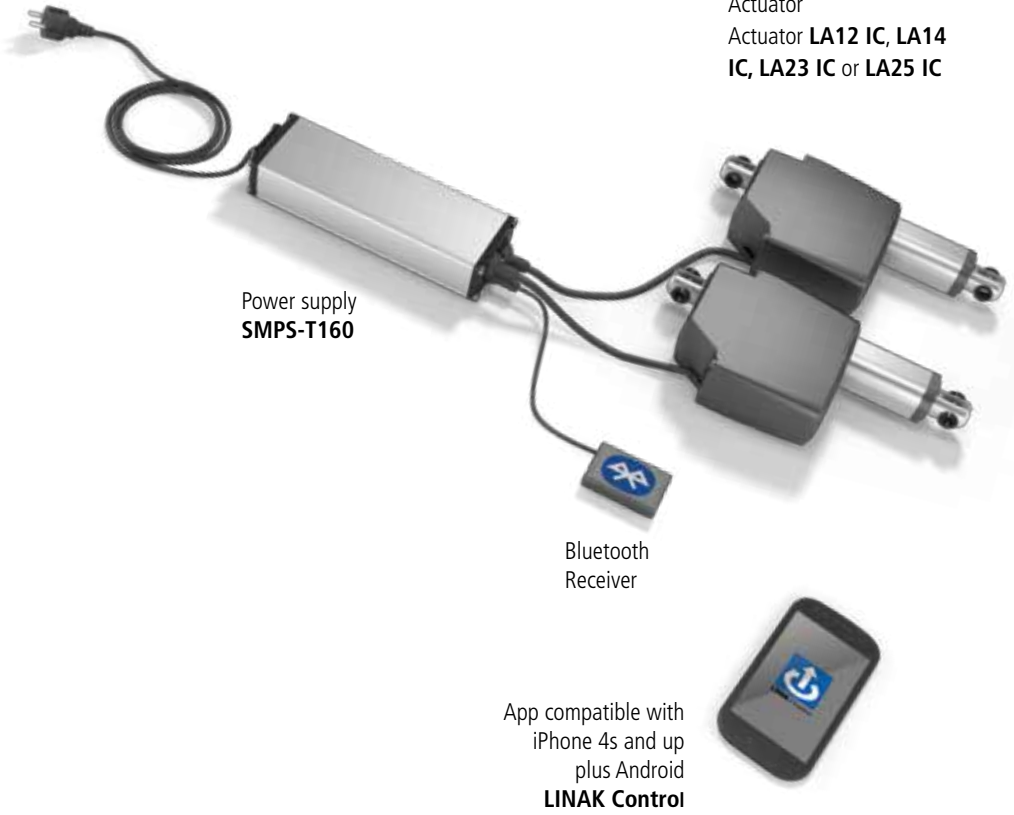
App compatible with
iPhone 4s and up
plus Android
LINAK Control

The TECHLINE Bluetooth solutions run via a **LINAK® Bluetooth control app**. Download it on:



Bluetooth is a registered trademark of Bluetooth SIG, Inc. and any use of such marks by LINAK is under license.

Simultaneous run Solution



Actuator
Actuator **LA12 IC, LA14 IC, LA23 IC or LA25 IC**

Power supply
SMPS-T160

Bluetooth
Receiver

App compatible with
iPhone 4s and up
plus Android
LINAK Control

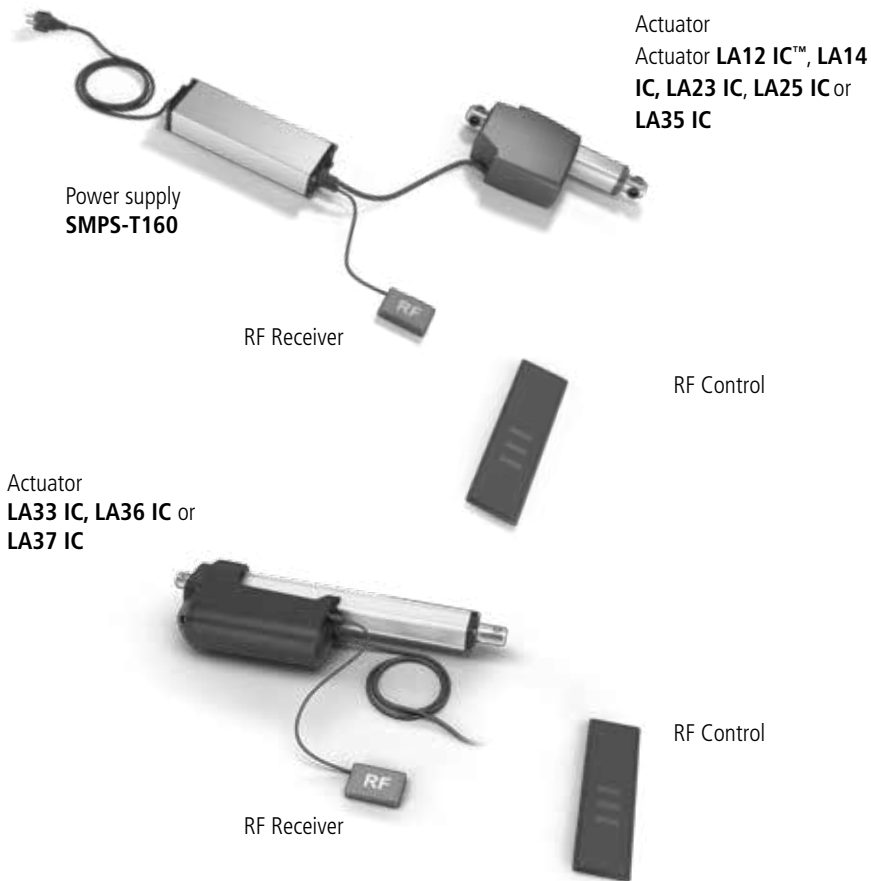
Compatible with Bluetooth, RF or other alternative controls.

The cable(s) between the SMPS-T160 and the actuators LA14 and LA25 can be either 300mm or 1500mm.

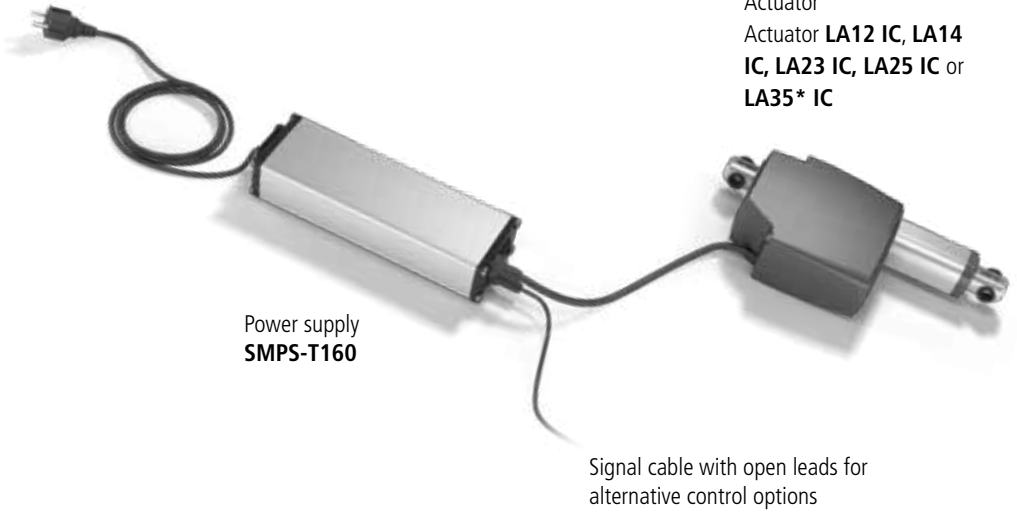
The cable(s) between the SMPS-T160 and the actuators LA12, LA23 and LA35 are 1500mm.

TECHLINE® system solution examples

RF Solution



Flying wire solution



Actuator
Actuator **LA12 IC, LA14 IC, LA23 IC, LA25 IC or LA35* IC**

Power supply
SMPS-T160

Signal cable with open leads for alternative control options

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

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.

Other capabilities

TECHLINE - for harsh conditions

The TECHLINE systems ease the load and make work easier. The remarkably wide product range offers something for any imaginable type of movement i.e. in industrial and agricultural machinery. With these actuators you can easily reach inaccessible places, open or close sun blinds and roof windows, regulate ventilators, close gates automatically – and save yourself exertion.

- For harsh conditions
- High speed
- Strong forces
- Long lifetime
- No maintenance
- Easy control

Stationary applications

Linear actuators make it possible to adjust various functions in a wide number of stationary applications easily and economically. LINAK TECHLINE solutions can improve several facets of your company's working environment including

ergonomic lifting, cost-effective automation and ventilation.

Our comprehensive product programme can be tailored to match your specific needs. LINAK TECHLINE solutions allow you to adapt your workplace to your workers rather than the other way round.

Mobile applications

Linear actuators from LINAK can be used for thousands of different applications. We offer big advantages compared to other linear movements in mobile equipment. Please contact your local LINAK office where they have extensive experience in integrating our products into different applications.

When LINAK develops and produces products, quality is the keyword for our employees. LINAK constantly strives to improve the quality and to reduce the risk of faults, which contributes to the fact that our customers experience LINAK as a supplier of high-quality products.

Agricultural machinery



Construction & machinery



Solar tracking & wind energy



Ventilation & farming solutions



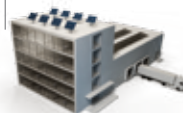
Outdoor power equipment



Food & beverage automation



Industrial automation



Vehicles automation for disabled



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 electric 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, electric 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, the Americas, 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 website:

[LINAK.COM/BUSINESS-AREAS/SOLAR-SHADING/PERGOLAS/](https://www.linak.com/business-areas/solar-shading/ pergolas/)

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](https://www.linak.com)

