

# LA10 system

# **Data Sheet**





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#### Introduction



The LA10 system consists of one or more Linear Actuators LA10, a Bluetooth® dongle, a control unit, and a charging point. The solution is designed for adjustable recliner chairs and meets user requirements for reduced number of cables in the system. A Bluetooth® dongle ensures the wireless connection to the control unit, which is a wireless control placed in a bracket. To complete the design, the charging point is available in different versions. The entire system is designed to meet user preferences and to fit the elegant design of modern living-room furniture. In the newest system, the Battery Box BA002 offers a powerful solution without a permanent cable to the application.

## Features/Options/Usage

#### **Linear Actuator LA10**



#### **Features**

- 18 to 31 V DC supply with DC cable
- Max load
  - Push: 3500 NPull: 2500 N
- Max. speed: 16 mm/s
- Compact design
- Stroke length: min. 25 mm max. 300 mm
- Installation dimension: stroke + 128 mm
  - Maximum tolerance: 1 mm
- Adjustable BID
  - Up to 2 mm longer
- Colour: Black (RAL 9005)
- PVC-Free™

#### **Options**

- Various pre-set back fixture directions (0°, 45°, 90°, or 135°)
- Mechanical spline
- Customer ID

#### **Usage**

- Duty cycle: 10 % ≈ 1 minutes at continuous use followed by 9 minutes pause
- Ambient temperature: 5 to 40 °C
- Storage and transportation temperature: -10 to +50 °C
- Compatible with SMPS001\* and SMPS006
- Complies with EN 60335-1
  - \*: Only SMPS001 devices produced after 7 August 2020 are compatible with the system. The production date is stated as part of the PO number on the label (the last six digits YYMMDD. For example, PO20119727CY200807 means the production date is 7 August 2020.



## Bluetooth® dongle

In case you have an LA10 system without battery, the Bluetooth® dongle is the "brain" of your system and allows you to adjust your product wirelessly from an app or a Bluetooth® hand control. Simply plug the dongle into one of the actuators and pair your device to the system.

The dongle is a very compact unit requiring a minimum of space. No mounting is needed, just plug in the dongle and you are ready.



#### **Features**

- Bluetooth® Low Energy Technology (Version 4.0 of the Bluetooth® specification)
- Compact
- Simple plug-in, no mounting required
- Easy pairing
- PVC-free™
- Up to four favourite positions

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#### **Control Unit BP10**

The Control Unit BP10 product series is designed for the control of recliner chairs with the LA10 system. The control unit is a small hand-held control which can optionally be placed in a bracket in the recliner chair and used as a panel. The control unit is available in three different version - BP11, BP12 and BP13 - controlling 1, 2 or 3 channels, respectively.

The Control Unit BP10 product series combines ergonomic design and functionality into a user-friendly control with intuitive buttons.



#### **Features**

- Control unit controlling up to three channels
- Ergonomic and elegant design
- Magnetic
- Intuitive use
- Replaceable CR2032 battery
- PVC-Free™
- Supports sleep mode \*

#### **Options**

- Customised silk screen print on cover
- Customised colour
- Customised logo on battery cover

#### **Usage**

- Ambient temperature: 5 to 40 °C
- Storage and transportation temperature: -10 to +50 °C
- Compatible with all HOMELINE® products with integrated Bluetooth®
- Complies with EN 60335-1

When no key is pressed, the control unit will enter sleep mode 5 seconds after last operation. If a key (or a key combination) is pressed for more than 2 minutes, the control unit enters power-saving mode even if the control unit at that time is connected to a system. When this happens, the control unit will disconnect from the system (if connected) and enter a power-saving mode where the keys are scanned every 500 ms for changes (the control unit is sleeping the rest of the time). This is done to conserve power if a key becomes stuck during transportation. The power-saving mode is left when all keys are released.

<sup>\*</sup> Sleep mode:

#### **Charging Point CP001/CP002/CP003**

The Charging Point is the connection between power and your application. It is designed to fit into all designs and comes in three different versions; CP001, CP002, and CP003.

The CP001 is a simple cable with a jack plug that gets connected directly to the power cable. This charging point is very discreet and compact.

The CP002 also comes with a jack plug and has a light indicator that lights up when the system is connected to power.

The CP003 is a magnetic charging point that has a light indicator which lights up when the system is connected to power. The magnetic function protects the application by snapping apart if the charging cable is being pulled.

The Charging Points CP001, CP002 and CP003 are designed for an intuitive use when connecting your application to power.

A safety release cable is optional for CP001 and CP002. It protects the application by snapping apart if the charging cable is being pulled.



#### **Features**

- Three versions: Simple, Basic, and Magnetic
- Easy to mount, no screws required
- LED light indicator (CP002 and CP003)
- PVC-Free™

#### **Options**

- Safety release cable (for CP001 and CP002)
- Different charging point options

#### **Usage**

- Compatible with SMPS001/006
- Ambient temperature: 5 to 40 °C
- Storage and transport temperature: -10 to +50 °C
- Complies with EN 60335-1 (CP001 and CP002)

### **Battery Box BA002**

With the new Battery Box BA002, LINAK has developed a reliable and compact battery solution for HOMELINE® systems based on PLC (Power Line Communication).

A battery is the perfect solution for applications in which an aesthetically pleasing appearance is disturbed by a mains cable.

The BA002 is a high-performance lithium-ion battery with a capacity of 2.5 Ah. An audio alarm in three stages indicates low battery. The BA002 is a very compact unit. Optionally a battery bracket can be ordered for easy mounting of the battery.



#### **Features**

- Compact unit for easy handling and installation
- BA002 featuring high quality, rechargeable Li-ion battery cells
- Audio alarm when charging is needed
- Running immediately after power connection (SW ver. 1.06 and newer)
- Thermal switch protection, over-current protection
- Colour: black
- Battery capacity: 2.5 Ah / 40 Wh
- Nominal voltage: 24 V
- Discharge current: 6 A (max)
- Maximum charging voltage: 32 V DC
- Charging current: 1.3 A
- Weight: 550 g

## **Options**

Mounting bracket for easy mounting/demounting (must be ordered separately)

#### **Usage**

- Ambient temperature: 5 to 40 °C
- Storage temperature: 0 to 45 °C
- Compatible with HOMELINE systems using PLC (Power Line Communication)
- Approved in accordance with:
  - EN 62133-2 (Battery safety testing)
  - UL 1642 (Lithium cells, standard test)
  - UN 38.3 (transportation of Lithium batteries)

LINAK® will remedy defective Li-Ion batteries built into LINAK products in accordance with the terms stipulated in the LINAK Li-Ion battery disclaimer available on the LINAK website. LINAK explicitly disclaims all other remedies and liability.

# **Ordering**

ACTUATOR TYPE	10	<b>10</b> = LA10
SPINDLE PITCH	040	<b>040</b> = 4 mm
STROKE LENGTH	XXX	XXX = xxx mm (INSTALLATION DIMENSION - 128 mm) 1
SAFETY	00	00 = Standard 0D = Mechanical spline
FEEDBACK	00	00 = PLC HOMELINE
PLATFORM	0	0 = Standard
MOTOR TYPE	В	B = 24 V DC Normal
OPTION	0	0 = Standard
IP	0	0 = None
COLOUR		- = Black (RAL 9005)
INSTALLATION DIMENSION *	XXX	XXX = xxx mm <sup>2</sup>
BACK FIXTURE DIRECTION **	2	1 = Standard 0° 2 = Turned 90° 3 = Turned 45° 4 = Turned 135°
BACK FIXTURE	1	1 = Slot $\emptyset 8.2$ 2 = Slot $\emptyset 10.2$ 3 = Slot $\emptyset 12.2$
PISTON ROD	1	1 = Plastic with slot Ø8.2 2 = Plastic with slot Ø10.2
BRAKE	0	0 = No brake
CONFIGURE FOR SW	OA	<b>OA</b> = Standard configuration OB = Special configuration <sup>3</sup>
OPTION	0	0 = Standard
OPTION	0	0 = Standard
FIRE CATEGORY	1	1 = 5 VA
CUSTOMER ID	0	0 = None 1 = Customer ID

\*: See table below

\*\*: See photos below

1: 4 mm pitch: Min. 25 mm, Max. 200 mm 6 mm pitch: Min. 25 mm, Max. 300 mm

<sup>2</sup>: 4 mm pitch: Min. 153 mm, Max. 328 mm 6 mm pitch: Min. 153 mm, Max. 428 mm

<sup>3</sup>: Remember to attach a configuration file when ordering a special item via system spec.



Installation dimension [mm]	153	188	220	228	263	278
Stroke length [mm]	25	60	92	100	135	150

An actuator with a different installation dimension than the ones mentioned in the table above requires a minimum order quantity of 2,500 pcs/year. The stroke length can be configured individually to a shorter length.



Additional items, cables, and SMPS must be ordered separately.

# Additional items for the LA10 system

Name	Item number	Description		
Bluetooth® dongle	BLE2DC000	Dongle for wireless connection to the control unit		
BP11	BP11BL0000	Control unit, 1 channel		
BP12	BP12BL0001	Control unit, 2 channels		
BP13	BP13BL0000	Control unit with home button, 3 channels		
	BP13BL1000	Control unit with under-bed-light button, 3 channels		
Bracket for BP10	cket for BP10 MB001 Bracket with metal plate			
	MB002	Metal plate for under-cover mounting		
Charging point	CP001-0500	Simple charging point with Jack connector; length 500 mm		
	CP002-0500	Basic charging point with Jack connector and light; length 500 mm		
	CP003-0500	Magnetic charging point with magnetic connector and light; length 500 mm		
BA002	BA002100	Battery box		
Bracket for BA002	BA002_bracket	Mounting bracket for easy mounting/demounting of BA002		

Minimum order quantity (MOQ) for control units (BP11, BP12 and BP13):

- Standard articles: 80 pieces (≈ one box)
- Special articles: 400 pieces (always in multiples of 80 pieces)
- Top part, top cover, and/or battery cover in custom colours: 1040 pieces (always in mulitples of 80 pieces)

# Cables for the LA10 system

Name	Item number	Description	Length
Safety release cable	CAB1059W7007	Black	250 mm
Connection cable	CAB0965362-400	Black; 2-pole mini-fit cable with angle plug in both ends	400 mm
Connection cable	CAB0965362-800	Black; 2-pole mini-fit cable with angle plug in both ends	800 mm
USB2DC	USB2DC001	USB2DC cable for configuration of products	1800 mm + 100 mm
Charging cable for CP001/CP002	CAB1059W7010	Black	2500 mm
Charging cable for	CAB1059W7012	Black; angled	2500 mm
CP003	CAB1059W7014	Black; straight	2500 mm

#### **SMPS**

SMPS001 = 230 V version (<u>link</u>)

SMPS006 = Universal input 100 to 240 V version (link)

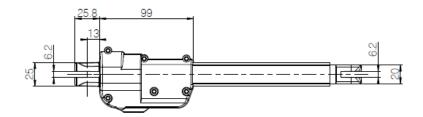


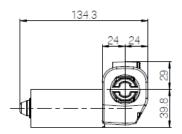
# **Dimension drawings**

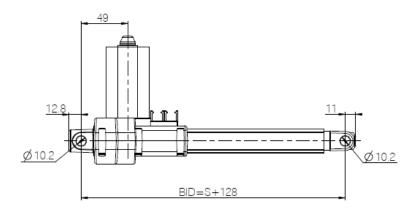


All dimensions are in mm.

# **Linear Actuator LA10**







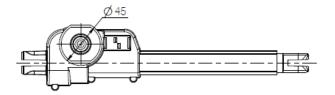
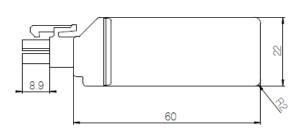


Figure 1 LA10

# Bluetooth® dongle





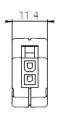


Figure 2 Bluetooth® dongle

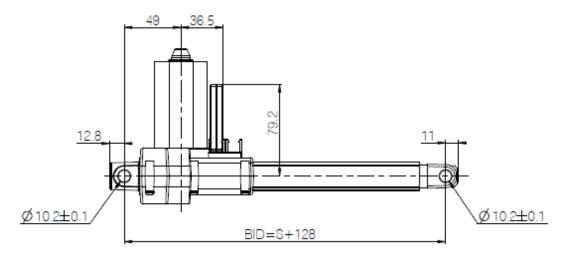
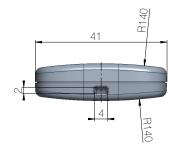
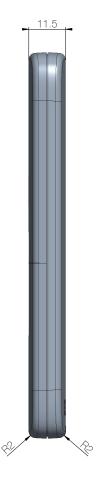
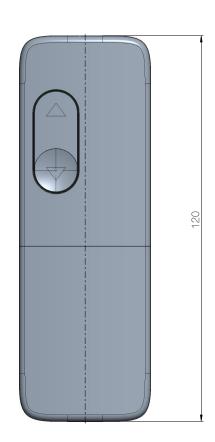


Figure 3 Bluetooth® dongle mounted in the LA10

# **Control Unit BP10**







Drawing no. 1055W4009

Figure 4 BP11

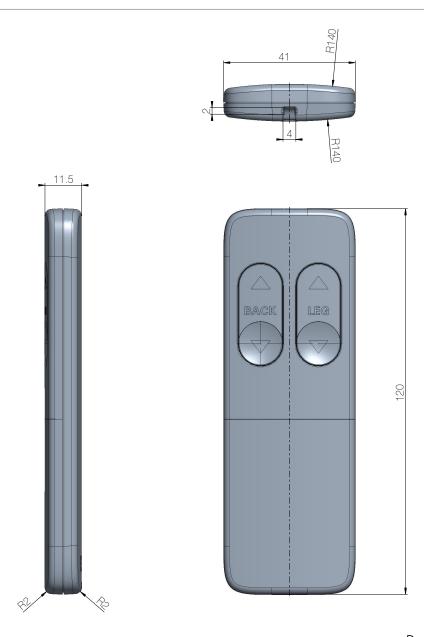


Figure 5 BP12

Drawing no. 1055W4006

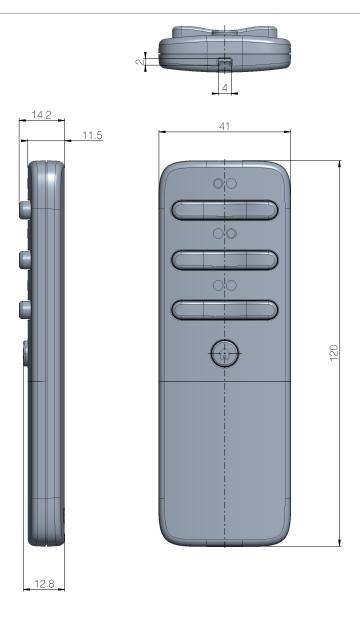


Figure 6 BP13

Drawing no. 1055W4015

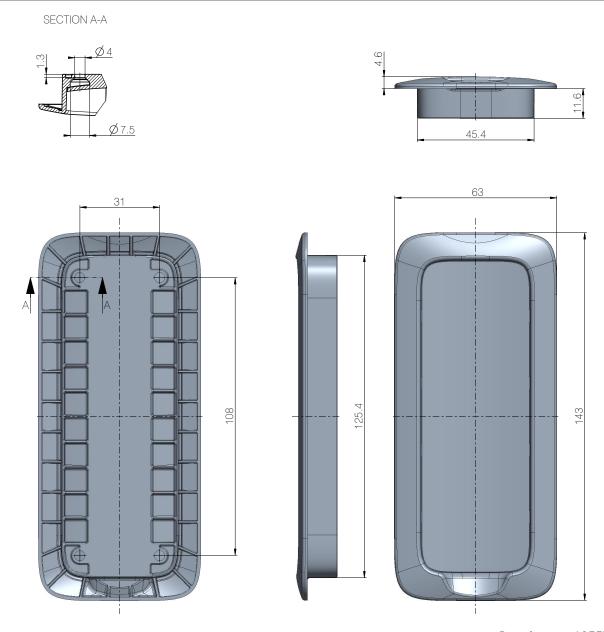


Figure 7 Bracket for the BP10 series

Drawing no. 1055W4008

# **Charging Point CP002/CP003**

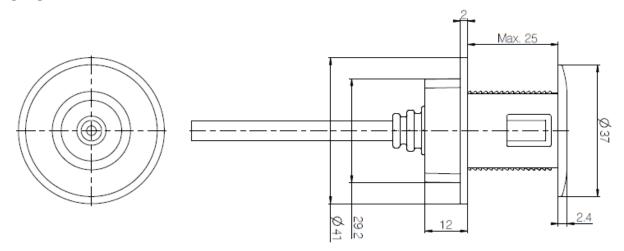


Figure 8 CP002

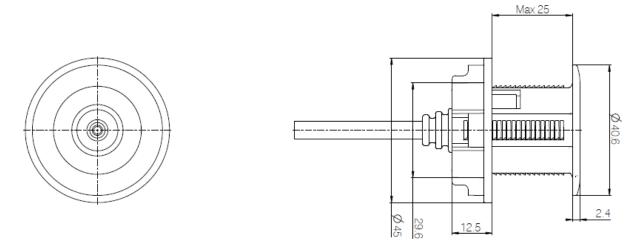
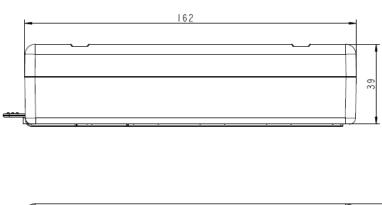
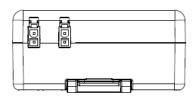


Figure 9 CP003

# **Battery Box BA002**





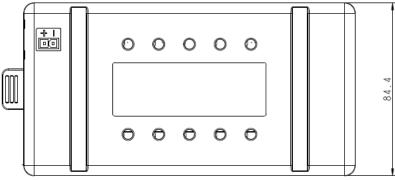
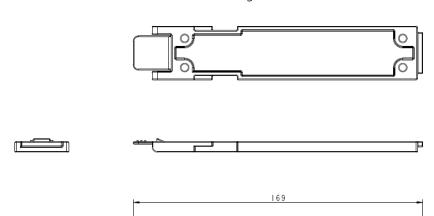
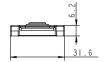


Figure 10 BA002





0

Figure 11 BA002 mounting bracket

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