



# DL21 with CBD6S User manual

# Contents

<b>Preface</b> .....	3
<b>Valid for</b> .....	4
<b>Important information</b> .....	5
<b>Safety instructions</b> .....	5
General .....	5
Before installation, reinstallation or troubleshooting .....	6
Before start-up .....	6
During operation .....	6
Misc. ....	6
<b>Only for EU markets</b> .....	7
<b>Only for Non EU markets</b> .....	7
<b>Misuse</b> .....	7
<b>Repairs</b> .....	8
<b>Declaration of incorporation of partly completed machinery</b> .....	8
<b>Declaration of conformity</b> .....	9
<b>Misc. on the DESKLINE® DL21 system</b> .....	10
Warranty .....	10
Maintenance .....	10
Service of double-insulated products .....	10
<b>ETL-markering</b> .....	11
<b>Description of the DESKLINE® DL21</b> .....	12
Installation .....	13
Mounting the DL21 .....	13
Mounting the feet .....	14
Mounting of the tabletop .....	15
Placing the monitor .....	15
<b>Mounting guidelines CBD6S (SMPS)</b> .....	16
Bottom with cable grooves .....	16
<b>Electric connection of the DL21 system</b> .....	17
<b>Initialisation of the DESKLINE® DL21 parallel systems</b> .....	18
<b>Anti-Collision</b> .....	19
<b>PIEZO™ description (optional)</b> .....	20
<b>Accessories</b> .....	21
<b>Disposal of LINAK product</b> .....	22
<b>Labels</b> .....	23
<b>Drawing appendix</b> .....	24
<b>Addresses</b> .....	29

# Preface

Dear User,

We are delighted that you have chosen a product from LINAK®.

LINAK systems are high-tech products based on many years of experience in the manufacture and development of actuators, electric control boxes, controls and chargers.

This User Manual does not address the end-user. It is intended as a source of information for the manufacturer of the equipment or system only, and it will tell you how to install, use and maintain your LINAK electronics. It is the responsibility of the manufacturer of the end-user product to provide a User Manual where relevant safety information from this manual is passed on to the end-user.

We are sure that your LINAK product/system will give you many years of problem-free operation.

Before our products leave the factory, they undergo full function and quality testing. Should you nevertheless experience problems with your LINAK product/system, you are always welcome to contact your local contact. LINAK subsidiaries and some distributors situated all over the world have authorised service centres, which are always ready to help you.

LINAK provides a limited warranty on its products. This warranty is, however, subject to correct use in accordance with the specifications, maintenance being done correctly, and any repairs being carried out at a service centre, which is authorised to repair LINAK products. Changes in installation and use of LINAK products/systems can affect their operation and durability. The products are not to be opened by unauthorised personnel. You can review the full terms of the LINAK warranty on the LINAK website [www.linak.com/warranty](http://www.linak.com/warranty).

The User Manual has been written based on our present technical knowledge. We are constantly working on updating the information and we therefore reserve the right to carry out technical modifications.

**LINAK A/S**

## Valid for:

This User Manual is valid for the following products:

(See the first 3 - 5 characters on the label)

Columns: 1 single DL21 or 2 in parallel

Control boxes: CBD6S 200 W, CBD6S 300 W

Controls: DPF1M/DPG1M/DPG1B (if memory function is required)  
DP1CS/DPT/DPF1C/DPG1C (if memory function and display is required) or  
DPA/DPB/DPH/DP1K/DPF1K/DPG1K (if only up/down is required) or DPF1D (if display is required).

## Important information

Important information on LINAK® products can be found under the following headings:



### Warning!

Failure to comply with these instructions may result in accidents involving serious personal injury.



Failing to follow these instructions can result in the product being damaged or being destroyed.

---

## Safety instruction



### General

Safe use of the system is possible only when the operating instructions are read completely and the instructions contained are strictly observed.

Failure to comply with instructions marked with the "NOTE" symbol may result in serious damage to the system or one of its components.



It is important for everyone who is to connect, install, or use the systems to have the necessary information and access to this User Manual. Follow the instructions for mounting – there is a risk of injury if these instructions are not followed.



The appliance is not intended for use by young children or infirm persons without supervision.



If there is visible damage to the product, do not install it.



Please note that during construction of applications in which the actuator is to be fitted, there must be no possibility of personal injury, for example squeezing of fingers or arms.



Assure free space for movement of the application in both directions to avoid blockades.

## **Before installation, re-installation, or troubleshooting:**

- Stop the DL
- Pull out the mains plug.
- Relieve the DL of any loads, which may be released during the work.

## **Before start-up:**

- Make sure that the system has been installed as instructed in this User Manual.
- Make sure that the voltage of the control box is correct before connecting the system to the mains.
- System connection. The individual parts must be connected before connecting the control box to the mains. See the User Manual for LINAK actuators, if necessary.

## **During operation**

- If the control box makes unusual noise or smells, switch off the mains voltage immediately.
- Take care that the cables are not damaged.
- Unplug the mains cable on mobile equipment before moving it.
- The products must only be used in an environment, that corresponds to their IP protection.

## **Misc.**

The actuator system has a sound level below 55 dB (A) in typical applications.

Updated manuals and declarations can always be found here:  
[www.linak.com/deskline](http://www.linak.com/deskline)

### **Only for EU markets**



This appliance can be used by children aged from aged 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.



Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

### **Only for Non EU markets**



Persons who do not have the necessary experience or knowledge of the product/products must not use the product/products. Besides, persons with reduced physical, sensory or mental abilities must not use the product/products, unless they are under surveillance or they have been thoroughly instructed in the use of the apparatus by a person who is responsible for the safety of these persons.



Moreover, children must be under surveillance to ensure that they do not play with the product.

### **Misuse**



Do not overload the actuators – this can cause danger of personal injury and damage to the system.



Do not use the actuator system for lifting persons. Do not sit or stand on a table while operating – risk of personal injury.



Do not use the system in environments other than the intended indoor use

# Repairs

In order to avoid the risk of malfunction, all DESKLINE® repairs must only be carried out by authorised LINAK service centres or repairers, as special tools must be used and special gaskets must be fitted. Products under warranty must also be returned to authorised LINAK service centres.

Further information on DESKLINE warranty can be found on the LINAK website [www.linak.com/warranty](http://www.linak.com/warranty).



## Warning!

If any of the DESKLINE® products are opened, there will be a risk of subsequent malfunction.



## Warning!

The DESKLINE® systems do not withstand cutting oil.

### DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINERY

LINAK A/S  
Smedevænget 8  
DK - 6430 Nordborg

Herewith declares that LINAK DESKLINE® products as characterized by the following models and types:

**Control Boxes:** CBD65a000b0A-c09 (Where -a: can be P, C or H, -b: can be 2, 3 or 4 and -c: can be 0 or 7)

**Linear Actuators:** LA31

**Built in actuator(s):** DB5, DB6, DB14,

**Lifting Columns:** DL1A, DL4S, DL2, DLS, DL6, DL7, DL8, DL9, DL10, DL11, DL12, DL14, DL15, DL16, DL17, DL18, DL19, DL20, DL21

**Desk Panels:** DPA, DPB, DPH, DPF1K, DPF1M, DPF2K, DPF3K, DPF1C, DPF1D, DPF1U, DPF1W, DPF4T, DPG1K, DPG1M, DPG1B, DPG1C, DPT, DP1V01, DP1CS, DP1K, DP1U, DP2K, DP3K, DPN, DPWA

**Accessories:** BLE2LIN002, BLE2LIN003, DESK SENSOR 1, USB2LIN, DCConnector

complies with the following parts of the Machinery Directive 2006/42/EC, ANNEX I, *Essential health and safety requirements relating to the design and construction of machinery*.

1.1.2 a) Special use\*

1.1.2 b) Selection of the most appropriate methods\*

1.1.2 c) Foreseeable misuse\*

1.1.2 d) Operator constraints due to the use of personal protective equipment\*

1.1.3 Materials and products\*

1.2.1 Safety and reliability of control systems

1.2.2 Control devices. Shape, readability, overview\*

1.2.3 Starting\*

1.2.4 Stopping\*

1.5.1 Electricity supply

1.5.10 Radiation. EMC. Emission of electromagnetic radiation, X-rays, γ-rays\*

1.5.11 External radiation\*

\*need to be further evaluated in the end product

We confirm that prior to market introduction the relevant technical documentation is compiled in accordance with part B of Annex VII and the assembly instruction pursuant to Annex VI.

This documentation or part hereof will be transmitted by post or electronically to a reasoned request by the national authorities.

The products mentioned in this document are to be combined for use in height adjustable furniture.

**This partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive 2006/42/EC where appropriate.**

Nordborg, 2020-10-28

LINAK A/S  
Dragan Macura,  
Regulatory Compliance Manager  
Desklina and Homeline Segments  
Authorized to compile the relevant technical documentation

Original Declaration



# DECLARATION OF CONFORMITY

LINAK A/S  
Smedevænget 8  
DK - 6430 Nordborg

hereby declares that LINAK Actuator System for DESKLINE composed of:

Control Box(s)	CBD6Sa000b0A-c09, (Where -a: can be P, C or H, -b: can be 2, 3 or 4 and -c: can be 0 or 7)
And Linear Actuator(s)	<b>LA31:</b> 31abCH-defff50S, (Where -a: can be 1, 3, 6 or 7; - b can be from 1 to 8, or A or B; - c can be from 0 to 4; - d can be 0 or 1; - e can be 0 or 1; - fff can be max 500)
Built in actuator(s)	<b>DB5, DB6, DB14:</b> DBabbcdefghhiii, (Where: - a: can be 5, 6 or 14; - b: can be 0, 1, 3 or 9; - c: can be 0, 1, B, L or S; - d: can be 0, 1 or 2; - e: can be 0, A, B or X; - f: can be 0, or A; - g: can be from 0, M, S or E; - hhh: can be from 000 to 675; - iii: can be from 000 to 630);
Lifting Column(s)	<b>Standard columns:</b> DLabbcdefghhiii, (Where: - a: can be 1A, 4S, 5, 6, from 8 to 12, from 14 to 21; - b: can be 0, 1, 3, 7, A or B; - c: can be 0, 1, 2, 3, A, B, E, G or R; - d: can be 0, 1, C, L, R or X; - e: can be 0, A, B, C, D or X; - f: can be 0, E, N, or P; - g: can be 0, 4, E, M or S; - hhh: can be from 000 to 1100; - iii: can be from 000 to 916); <b>DL12:</b> DL12abdcdefggghh (where - a can be A or R; - b can be 0 or E; -c can be 0, L, R or X; - d can be A, B, D or X; - e can be 0 or M; - f can be 0 or E; - ggg can be max 1100; - hhh can be max 785) <b>DL7:</b> DL73a0b00470645 (where - a can be 0 or R; - b can be A, B, C or D) <b>DL2:</b> DL2abCdefffggg (where - a can be 3, 6 or 7; - b can be from 0 to 3; - c can be A or B; - d can be 0, F or G; -e can be from 0 to 7; - fff can be from 300 to 500; -ggg can be from 445 to 655) <b>BASELIFT:</b> BASE1000A0F100100
Desk Panel(s)	DPA, DPB, DPH, DPF1K, DPF1M, DPF2K, DPF3K, DPF1C, DPF1D, DPF1U, DPF1W, DPF4T, DPG1K, DPG1M, DPG1B, DPG1C, DPT, DP1V01, DP1CS, DP1K, DP1U, DP2K, DP3K, DPN, DPWA
Accessories	BLE2LIN002, BLE2LIN003, DESK SENSOR 1, USB2LIN, DCConnector

Complies with EMC Directive: **2014/30/EU** according to following standards:

EN 61000-4-2:2009  
EN 61000-4-3: 2010;  
EN 61000-4-4:2012;  
EN 55014-1:2007+A1:2009+A2:2011;  
EN 55022:2011;  
EN 62233:2008 + AC:2008.

Complies with Low Voltage Directive **2014/35/EU** according to the standard:

EN 60335-1:2012+AC:2014 + A11:2014+A13:2017 +A1:2019 +A14:2019 +A2:2019

Complies with RoHS2 Directive **2011/65/EU** according to the standard:

EN 50581:2012

And the applicable Desk Panels and Accessories complies with the Radio Equipment Directive **2014/53/EU** according to the standards listed in the RED DoC for the individual radio products.

Additional information:

The system does also comply with the standard: EN 13849-1:2015 SRP/CS Cat. B, PL = b and SRESW PL = b  
Note 1: Exempted CBD6S with SW03003007 printed on the label.

Nordborg, 2020-10-28

**LINAK A/S**  
Dragan Macura  
Regulatory Compliance Manager  
Desklene and Homeline Segments  
Authorized to compile the relevant technical documentation

Original Declaration

The RoHS mark is only applicable for the end product. Therefore, it must be obtained by the manufacturer of the end products. LINAK® can, however, supply the required material information on our products.

For more information, visit: <https://www.linak.com/about-linak/csr/declarations/>

or contact: [chemicalcompliance@linak.com](mailto:chemicalcompliance@linak.com)

## Misc. on the DESKLINE® DL21

This system is a DESKLINE system developed for desks applications ranging from industry to office desks and for indoor use. Do not use it in industrial kitchens or in other environments that have to be cleaned with aggressive detergents. Do not bolt the legs to the floor so that free movement is prevented. This could cause serious damage to the legs in fault situations.

### Warranty

This DESKLINE product is subject to warranty pursuant to the terms of LINAK DESKLINE Warranty Paper, available on the LINAK website [www.linak.com/warranty](http://www.linak.com/warranty).

### Maintenance

Clean dust and dirt on the outside of the system at appropriate intervals and inspect them for damage and breaks. Inspect the connections, cables, and plugs and check for correct functioning as well as fixing points.

### Service of double-insulated products:



#### Class II

A Class II or **double insulated** electrical appliance is one which has been designed in such a way that it does not require a safety electric earth connection (US: ground). The basic requirement is that no single failure can result in dangerous voltage becoming exposed so that it might cause an electric shock and that this is achieved without relying on an earthed metal casing. This is usually achieved at least in part by having two layers of insulating material surrounding live parts or by using reinforced insulation. There is no earthing/grounding means provided on the product, and no earthing/grounding means is to be added to the product. In Europe, a double insulated appliance must be labelled "Class II", "double insulated" or bear the double insulation symbol (a square inside another square). Servicing a double-insulated product requires extreme care and knowledge of the system, and is to be done only by qualified service personnel. Replacement parts for a double-insulated product must be identical to the parts they replace.



**Cleaners and disinfectants must not be highly alkaline or acidic (pH value 6-8).**

# ETL-marking

Due to space limitations, the complete ETL-marking demands are not represented on the marking plates.  
The full ETL Recognized Component markings are shown here.



C/N 120690  
Conforms to UL962  
Cert. to CSA Std. C22.2 No. 68-09  
ETL Recognized Component mark for Canada and United States



C/N 9901916  
Conforms to UL962  
Cert. to CSA Std. C22.2 No. 68-09  
ETL Recognized Component mark for Canada and United States



C/N 4008003  
Conforms to UL962  
Cert. to CSA Std. C22.2 No. 68-09  
ETL Recognized Component mark for Canada and United States



C/N 4008004  
Conforms to UL962  
Cert. to CSA Std. C22.2 No. 68-09  
ETL Recognized Component mark for Canada and United States



C/N 4008005  
Conforms to UL962  
Cert. to CSA Std. C22.2 No. 68-09  
ETL Recognized Component mark for Canada and United States



C/N 4008671  
Conforms to UL962  
Cert. to CSA Std. C22.2 No. 68-09  
ETL Recognized Component mark for Canada and United States



C/N 4009507  
Conforms to UL962  
Cert. to CSA Std. C22.2 No. 68-09  
ETL Recognized Component mark for Canada and United States

## Description of the DESKLINE® DL21

Each DESKLINE® DL21 lifting unit is equipped with a motor, and parallel/memory drive is ensured by means of software in the CBD6S (SMPS) that also takes account of oblique load on the desk. Soft start and stop are also part of this software, which ensures a soft start and stop when adjusting the desk.

### Application of the DESKLINE® DL21:

Irrespective of the load the **duty cycle 10 %  $\approx$  2 minutes continuous use at full load, followed by 18 minutes pause** stated in the data sheets, must **NOT** be exceeded as this will result in a superheating of the motor, the brake and the spindle nut. Exceeding the duty cycle will result in a dramatic reduction of the life of the system.

The DESKLINE® DL21 system range contains the following products:

- 1 control box CBD6S 200 W or CBD6S 300 W (SMPS - Switch Mode Power Supply)
- 1 single DL21 or 2 in parallel
- 1 exchangeable mains cable
- 1 or 2 motor cables
- DP1U/DPF1M/DPG1M/DPG1B (if memory function is required)  
DP1C/DPT/DPF1C/DPG1C (if memory function and display is required) or  
DPA/DPB/DPH/DP1K/DP1V/DPF1K/DPG1K (if only up/down is required) or DPF1D (if display is required).

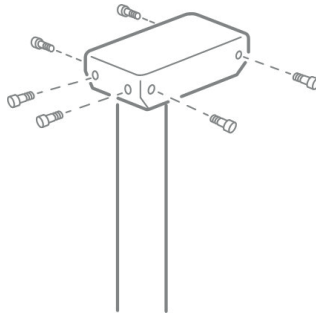
# Installation

## Mounting the DL21

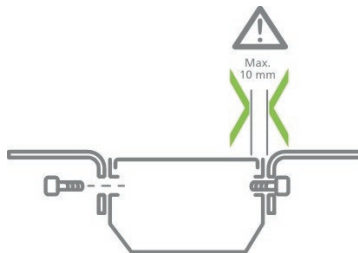
### Mounting the motor housing

The motor housing is supplied with six M6 threaded holes for mounting on the top frame.

1. Mount the motor housing on the top frame using six M6 screws with the following specifications:  
Quality: Min. grade 8.8  
Length: Max. 10 mm (plus top frame thickness). The screw must not go further than max. 10 mm into the motor housing
2. Fasten the screws thoroughly (torque: max. 7.5 Nm).



Always use six M6 screws for mounting the motor housing on the top frame



The mounting screws must not go further than max. 10 mm into the motor housing



Sufficient stability of the desk is only obtained if all six M6 screws are used for mounting the motor housing on the top frame. Tests with fixing the motor housing using only four M6 screws have proved that the torsional stability of the desk this is insufficient.



LINAK recommends using the DL21 DESKLINE® system in push applications with the motor housing mounted upwards.

## Mounting the feet

The DL21 bottom plate is supplied with four M6 and two M8 threaded holes.

1. Mount the feet on the column bottom using four M6 or two M8 screws with the following specifications:

Quality: Min. grade 8.8

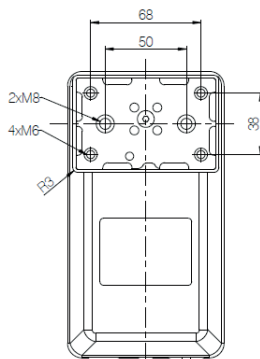
Length: Min. 10 mm (plus foot thickness);

Max. 16 mm (plus foot thickness) for M6

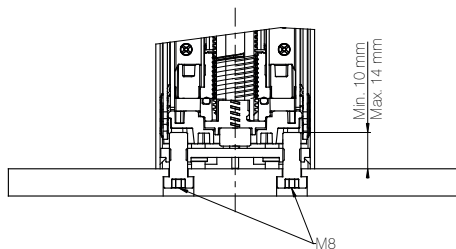
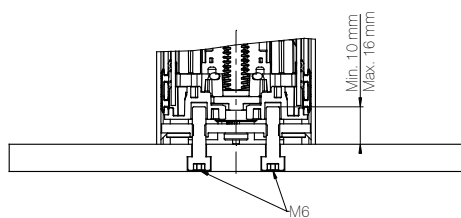
Max. 14 mm (plus foot thickness) for M8

2. Fasten the screws thoroughly (torque: max. 10 Nm).

The holes in the foot must be sufficiently larger than  $\varnothing 6/\varnothing 8$  to ensure space for the screw heads to be screwed fully into the foot.



DL21 bottom plate

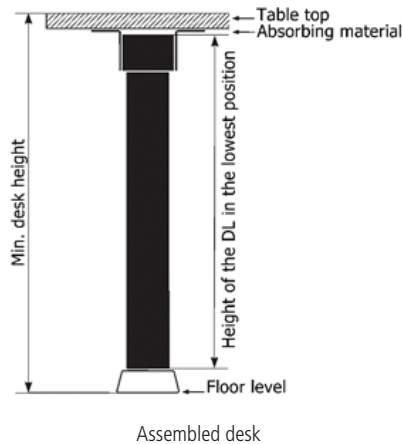


Column bottom mounted on desk foot (left: M6; right: M8)

## Mounting of the tabletop

The sound from the lifting column spreads as vibrations to the tabletop which amplifies the sound. This can, however, be reduced.

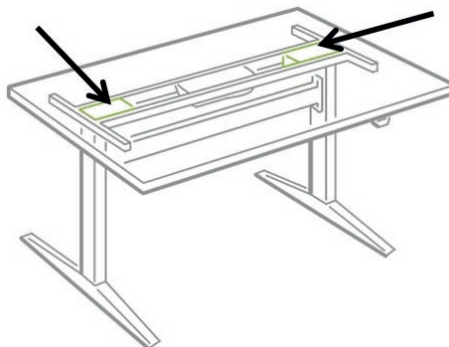
1. Place vibration/shock-absorbing material between tabletop and top frame.



## Placing the monitor

Placement of a monitor directly above the motor housing may cause malfunction of the monitor.

Magnets inside the motor may interrupt the picture on the monitor depending on distance and type of monitor. If this is the case, the problem may be solved by placing an iron plate/tube or another magnetic material, somewhat larger than the motor housing, between the motor and the tabletop.



Recommended placement of an iron plate/tube or another magnetic material

## Mounting guidelines CBD6S (SMPS)

The control box is to be fastened with 2 screws with a head diameter of 10 mm (8 to 10 mm can be used). With regard to the tension  $\varnothing$  10 mm is preferable due to a lower surface tension. See drawing appendix for placing of mounting holes and the space the CBD takes up.



CBD6S 200 W and CBD6S 300 W

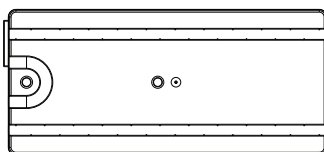


Do not pack the CBD6S in heat insulating material.  
Place the CBD6S so it can emit heat through its surface to the surroundings.

- The mains plug must be accessible when the CBD is mounted so that the supply to the CBD can be disconnected if replacement is required.
- The mounting screws on the control box must be fastened with a max. torque of 1 Nm.
- The mounting surface to which the control box is attached should have a surface evenness of better than  $\pm 0.5$  mm.

### Bottom with cable grooves

The bottom of the CBD6S (SMPS) is equipped with two cable grooves improving the cable management when mounting. The grooves can be used to bypass the CBD for both motor cables and the mains cable (EU version only) from one side to the other, giving a cleaner design.



Remember to lead the cables through the grooves before mounting the control box.

**For mounting and operation of the desk panel, please see the separate user manual for desk panels.**



# Electric connection of the DL21

The DESKLINE® DL21 is to be connected as shown on figure 5. Each DL21 is to be connected to the sockets on the control box by means of the motor cables, which have a 6-pin plug in each end.

Finally, the mains cable is to be mounted and power switched on.



Please note that the control box must only be connected to the voltage stated on the label.



Figure 4

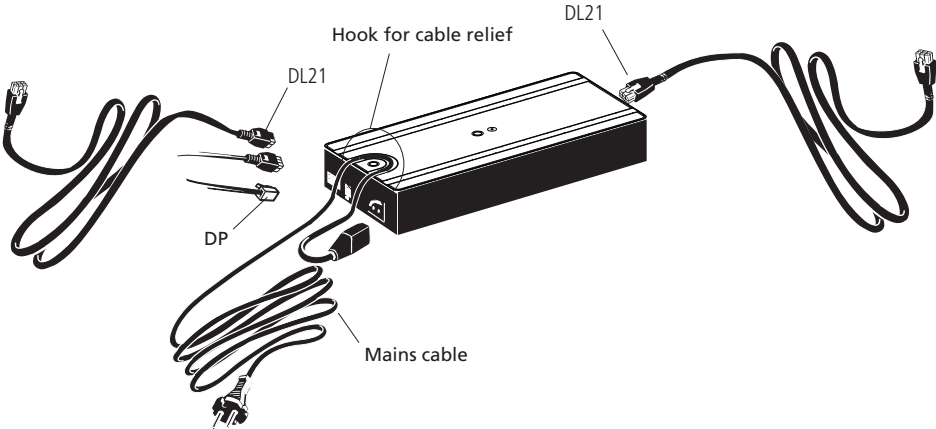


Figure 5

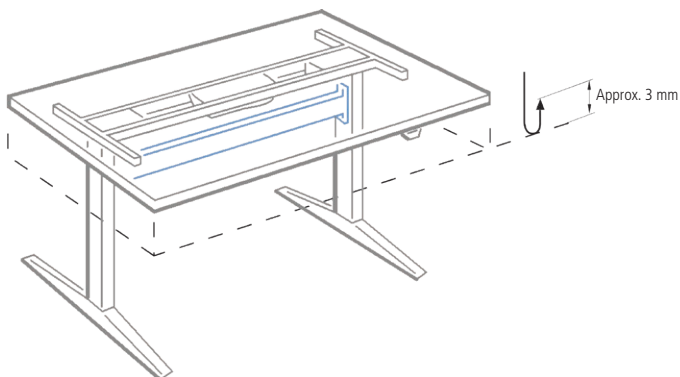
## Initialisation of the DESKLINE® DL21 parallel systems

The DESKLINE system is initialised by pressing the down button once or twice and holding it down until DL21 runs into end stop, it will then automatically run approx. 3 mm out again and hereafter slowly run in again. Only release the down button when the movement has stopped completely.



If the key is released before the sequence is completed then the initialisation is interrupted and must be started again from the beginning.

It is sometimes necessary to press the down button twice to start the initialisation. This is because the system can be in different modes when the initialisation starts.



## Anti-Collision

The function (Anti-Collision) is an option for the standard CBD6S (SMPS) control box. A system with Anti-Collision can limit material damages to a desk if a collision with a solid object should occur.

### Enabling the anti-collision

To enable the Anti-Collision function a little plug called a dongle must be mounted in one of the 2 control ports. The function is only active when the dongle is mounted. – If you remove the dongle again you disable the function.

### Method of operation

When the DL/DBs are running, the CBD6S (SMPS) monitors the current consumption on each channel using a special algorithm. If the current consumption on one channel is increased more than a predefined slope, a collision is assumed and all channels are stopped immediately and all DL/DBs will start to run in the opposite direction (approx. 50 mm). This return drive is done automatically and continues with or without any control key pressed (for max. 2.5 sec.).

The Anti-Collision sensitivity is different in upward and downward direction. Upwards the force is approx. 20 kg. Downwards the load will be approx. 40 kg + the load on the DL/DB (the desk + what is on top of the desk). The 40 kg are needed to activate the Anti-Collision function.

### Situations where the Anti-Collision function does not work

The Anti-Collision function is not activated if the collision happens:

- during the initialisation procedure
- within the first second of desk panel activation (ramp-up time) or within one second after the desk panel has been released (ramp-down time)
- in downward direction and the load on the desk + the weight of the legs is less than 40 kg
- over too long time, e.g. if the collision is with a soft object

## PIEZO™ description (optional)

For optimised safety against squeezing and blocking on a desk, LINAK has developed DL columns with an integrated sensor, called PIEZO. The option minimises the risk of damage to a desk caused by squeezing or blocking of obstacles in up and down direction. Examples could be driving down into an office chair or into a container or up into a windowsill. To a certain extent, the system also increases the personal safety, but it does not comply with legislation describing personal safety.

PIEZO allows the DL columns to have the standard built-in dimension and the standard stroke length. There are no visible changes to the column.



Do not use the DL with PIEZO in combination with a crossbar or a foot construction where you place the column in a tube welded on the foot.



Examples where PIEZO avoids squeezing situations.

## Accessories

### Ordering accessories

Order from your nearest LINAK® contact, distributor or subsidiary.

### Accessories

Please contact your nearest LINAK contract, distributor or subsidiary.



### Warning!

By unauthorised opening of the system there is a risk that it may malfunction at a later date.

### Spare parts

Please contact your nearest LINAK contact for information on spare parts.

## Disposal of LINAK product

As LINAK customers often ask us how our products can be disposed or scrapped we have prepared this guide that enables a classification to different waste fractions for recycling or combustion.

### Guide

We recommend our products to be disassembled as much as possible and divided into different waste groups for recycling or combustion.

For example, waste can be sorted into metals, plastics, cable scrap, combustible material, and recoverable resources.

Some of these main groups can be further divided into subgroups; e.g. metal can be divided into steel/aluminium/copper and plastic can be divided into ABS/PA/PE/PP.

As an example, the table below breaks down the different components in LINAK products to various recycling groups:

Product	Components	Recycling group
<b>Columns/ Actuator :</b>	Spindle and motor Plastic housing Cable PCB boards	Scrap Plastic recycling or combustion Cable scrap or combustion Electronics scrap
<b>Control Box :</b>	PCB boards Plastic housing	Electronics scrap Plastic recycling or combustion
<b>Handset/Control :</b>	Plastic housing Cable PCB board	Plastic recycling or combustion Cable scrap or combustion Electronics scrap

By now almost all our casted plastic parts are supplied with an interior code for plastic type and fibre content, if any.

## Main groups of disposal

Product main groups	Metal Scrap	Cable scrap	Electronics scrap	Plastic recycling or combustin	Comments
DL21	X	X	X	X	
CBD6S (SMP5)			X	X	
DP		X	X	X	

## Disposal of batteries

Details regarding safe disposal of used and leaking batteries:

Batteries should be disposed in accordance with appropriate federal, state and local regulations. LINAK recommends that used or leaking batteries are disposed through local recycling system. Please do not throw used or leaking batteries in normal household waste or in nature. This will cause damage to the enviroment.

### How to deal with leaking batteries

Leaking batteries should be disposed as described above.

If leaking batteries are discovered in the products, the batteries must be removed immediately to minimise damage to the product. If leaking batteries are left in the product it might become defect.

It is recommended to use plastic gloves when handling leaking batteries. The contents of leaking batteries can cause chemical burns and respiratory irritation.

If exposed to the contents of a leaking battery, please wash with soap and water. If irritation persists, please seek medical attention. In case of eye contact, please flush eyes thoroughly with water for 15 minutes and seek medical attention.”




# Labels

Label for DL21


**LINAK®**

Designed in Denmark  
DK - 6430 Nordborg

Item No. : DL210B0BP0650560  
Prod. Date : 2021.01.18  
Max. Load : 800 N  
Power Rate: 18 V<sup>m</sup>, Max. 10.0 A  
Duty Cycle : 10%, Max 2 min. / 18 min.



NOT TO BE OPENED BY UNAUTHORIZED PERSONNEL  
NE PAS OUVRIER PAR DU PERSONNEL NON AUTORISÉ



Label for CBD6S 200W (SMPS)

**LINAK®**

GROUP HEADQUARTERS  
SMEDEVAENGET 8  
DK 6430 NORDBORG

WE IMPROVE YOUR LIFE  
DESIGNED IN DENMARK

Item : CBD6SP00020A-009  
Date : 2012.11.09  
U In : 230 V~, 50 Hz  
P In : 300 W  
U Out: 12 V<sup>m</sup> - 40 V<sup>m</sup>  
Op. : Int. 10 %, Max. 2 min. / 18 min.  
S.W. P/N.: 03002000 Ver. B1.00



NOT TO BE OPENED BY UNAUTHORIZED PERSONNEL



Label for CBD6S 300W (SMPS)  
up to 4 channels

**LINAK®**

GROUP HEADQUARTERS  
SMEDEVAENGET 8  
DK 6430 NORDBORG

WE IMPROVE YOUR LIFE  
DESIGNED IN DENMARK

Item : CBD6SP00020A-709  
Date : 2014.02.07  
U In : 90 V - 240 V~, 48 Hz - 63 HZ  
P In : 450 W  
U Out: 12 V<sup>m</sup> - 40 V<sup>m</sup>  
Op. : Int. 10%, Max. 2 min./18 min.  
S.W. P/N.: 03002000 Ver. XXX



NOT TO BE OPENED BY UNAUTHORIZED PERSONNEL

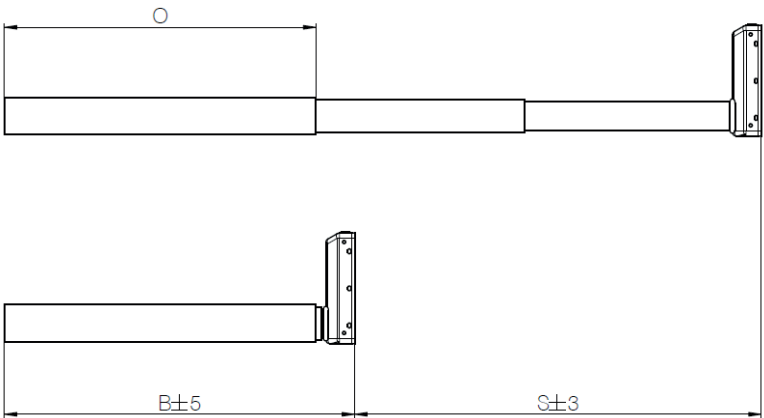


DRAWING APPENDIX

DL21



All measurements are without powder coating.

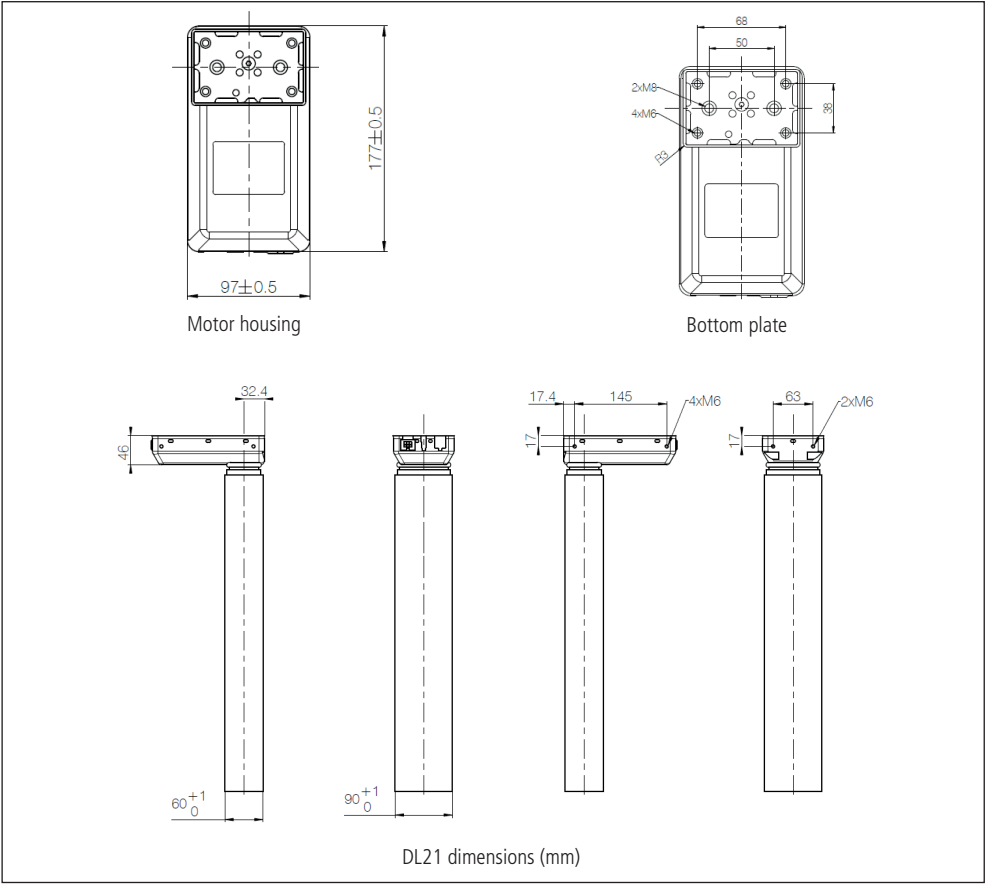


Version	Combination code	B (Built-in length) [mm]	S (Stroke length) [mm]	O (Outer profile length) [mm]
EU	DL21xxxxx650560	560	650	498
BIFMA	DL21xxxxx665518	518	665	456

DL21 built-in length, stroke length, and outer profile length (mm)

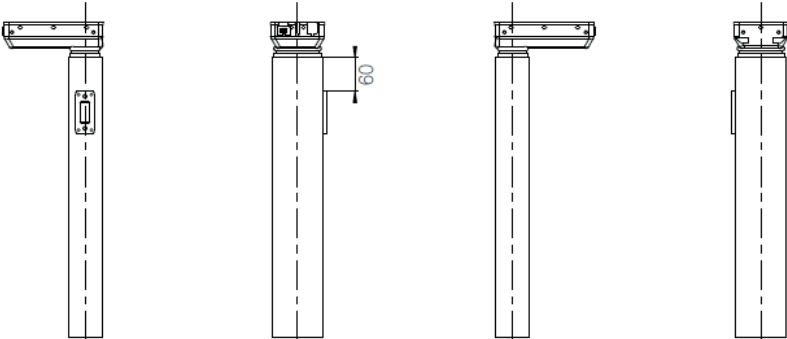


DL21 motor housing and profile dimensions (mm)

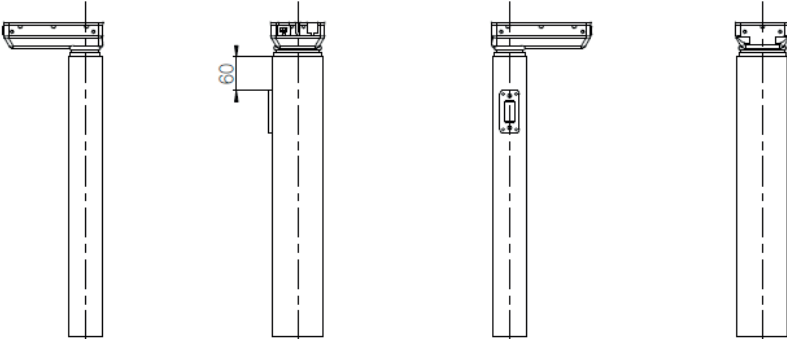


DL21 Bracket options

Bench left



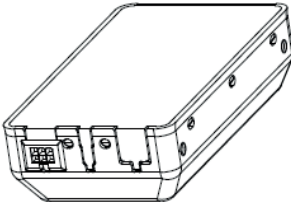
Bench right



Combination code	Bench left	Bench right
DL21xxLxxxxxxxxxx	X	
DL21xxRxxxxxxxxxx		X

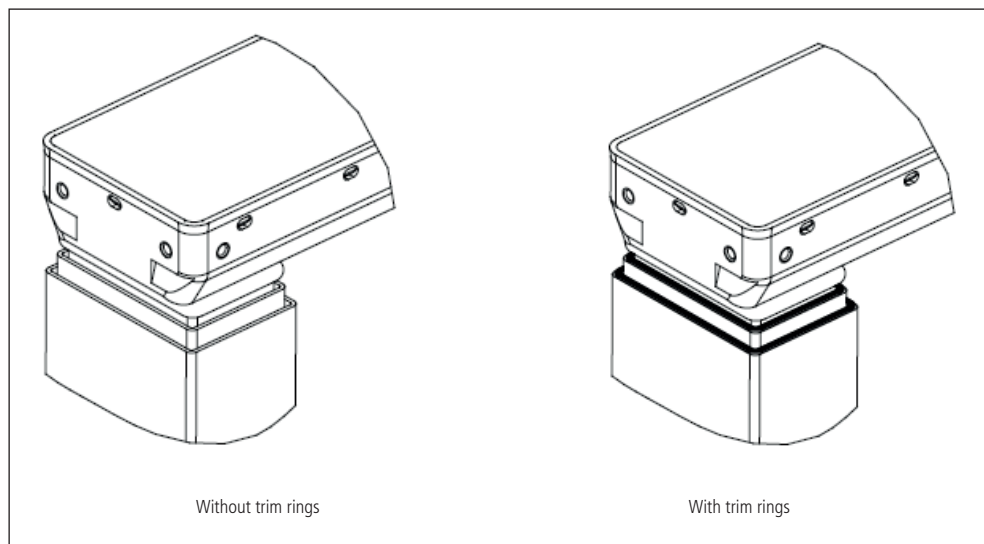
Bracket options (dimensions in mm)

Sockets

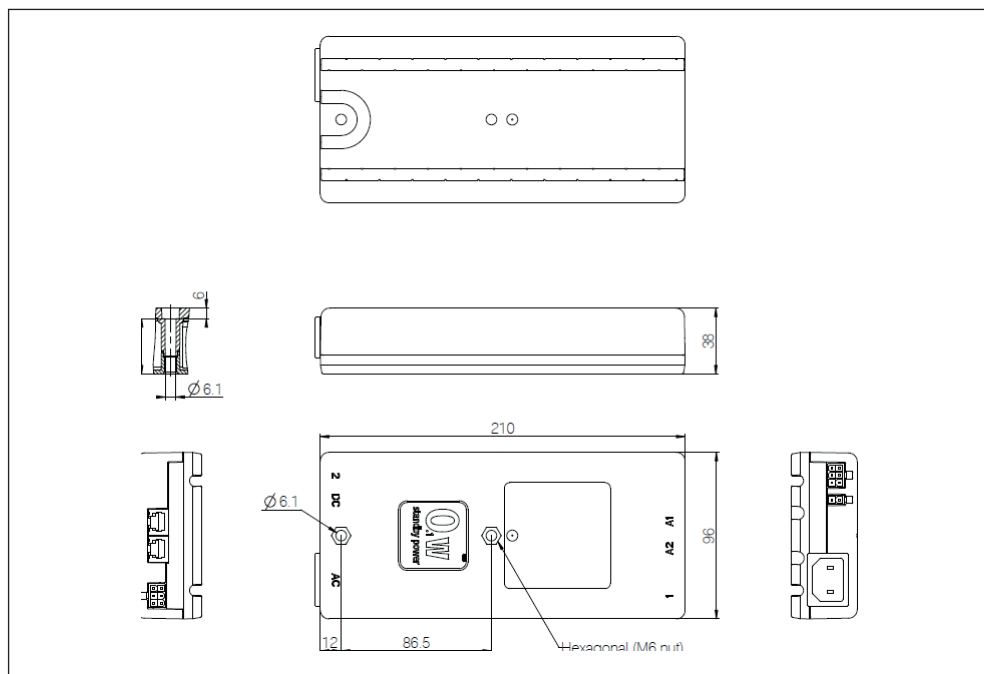


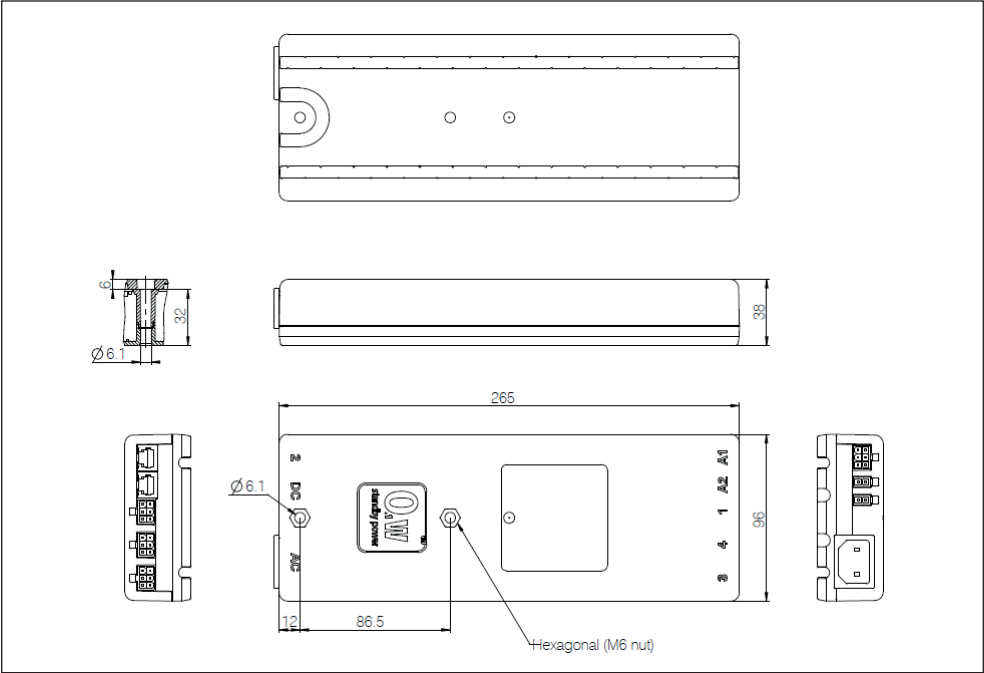
Standard

Combination code	Type
DL21xxxxxxxxxxxxx	Standard



CBD6S 200W (SMPS)





**LINAK APPLICATION POLICY**

The purpose of the application policy is to define areas of responsibilities in relation to applying a LINAK product defined as hardware, software, technical advice, etc. related to an existing or a new customer application.

LINAK products, as defined above, are applicable for a wide range of applications within the Medical, Furniture, Desk and Industry areas. Yet, LINAK cannot know all the conditions under which LINAK products will be installed, used, and operated, as each individual application is unique.

The suitability and functionality of the LINAK product and its performance under varying conditions (application, vibration, load, humidity, temperature, frequency, etc.) can only be verified by testing, and shall ultimately be the responsibility of the LINAK customer using any LINAK product.

LINAK shall be responsible solely that LINAK products comply with the specifications set out by LINAK and it shall be the responsibility of the LINAK customer to ensure that the specific LINAK product can be used for the application in question.

## FACTORIES

### China

LINAK (Shenzhen) Actuator Systems, Ltd.  
Phone: +86 755 8610 6656  
Phone: +86 755 8610 6990  
www.linak.cn

### Denmark - Headquarters

LINAK A/S  
Phone: +45 73 15 15 15  
Fax: +45 74 45 80 48  
Fax (Sales): +45 73 15 16 13  
www.linak.com

### Slovakia

LINAK Slovakia s.r.o.  
Phone: +421 51 7563 444  
www.linak.sk

### Thailand

LINAK APAC Ltd.  
Phone: +66 33 265 400  
www.linak.com

### USA

**LINAK U.S. Inc.**  
Americas Headquarters  
Phone: +1 502 253 5595  
Fax: +1 502 253 5596  
www.linak-us.com  
www.linak-latinamerica.com

## SUBSIDIARIES

### Australia

LINAK Australia Pty. Ltd  
Phone: +61 3 8796 9777  
Fax: +61 3 8796 9778  
www.linak.com.au

### Austria

LINAK Repräsentanz - Österreich (Wien)  
Phone: +43 (1) 890 7446  
Fax: +43 (1) 890 744615  
www.linak.at - www.linak.hu

### Belgium

LINAK Actuator-Systems NV/SA  
(Belgium & Luxembourg)  
Phone: +32 (0)9 230 01 09  
www.linak.be - www.fr.linak.be

### Brazil

LINAK Do Brasil Comércio De Atuadores Ltda.  
Phone: +55 (11) 2832 7070  
Fax: +55 (11) 2832 7060  
www.linak.com.br

### Canada

LINAK Canada Inc.  
Phone: +1 502 253 5595  
Fax: +1 416 255 7720  
www.linak-us.com

### Czech Republic

LINAK C&S s.r.o.  
Phone: +42 058 174 1814  
Fax: +42 058 170 2452  
www.linak.cz - www.linak.sk

### Denmark - International

LINAK International  
Phone: +45 73 15 15 15  
www.linak.com

### Denmark - Sales

LINAK DANMARK A/S  
Phone: +45 86 80 36 11  
Fax: +45 86 82 90 51  
www.linak.dk

### Finland

LINAK OY  
Phone: +358 10 841 8700  
www.linak.fi

### France

LINAK FRANCE E.U.R.L.  
Phone: +33 (0) 2 41 36 34 34  
Fax: +33 (0) 2 41 36 35 00  
www.linak.fr

### Germany

LINAK GmbH  
Phone: +49 6043 9655 0  
Fax: +49 6043 9655 60  
www.linak.de

### India

LINAK A/S India Liaison Office  
Phone: +91 120 4531797  
Fax: +91 120 4786428  
www.linak.in

### Ireland

LINAK UK Limited (Ireland)  
Phone: +44 (0)121 544 2211  
Fax: +44 (0)121 544 2552  
+44 (0)796 855 1606 (UK Mobile)  
+35 387 634 6554  
(Republic of Ireland Mobile)  
www.linak.co.uk

### Italy

LINAK ITALIA S.r.l.  
Phone: +39 02 48 46 33 66  
Fax: +39 02 48 46 82 52  
www.linak.it

### Japan

LINAK K.K.  
Phone: 81-45-533-0802  
Fax: 81-45-533-0803  
www.linak.jp

### Malaysia

LINAK Actuators Sdn. Bhd.  
Phone: +60 4 210 6500  
Fax: +60 4 226 8901  
www.linak.my

### Netherlands

LINAK Actuator-Systems B.V.  
Phone: +31 76 5 42 44 40  
www.linak.nl

### New Zealand

LINAK New Zealand Ltd  
Phone: +64 9580 2071  
Fax: +64 9580 2072  
www.linak.com.au

### Norway

LINAK Norge AS  
Phone: +47 32 82 90 90  
www.linak.no

### Poland

LINAK Polska  
LINAK Danmark A/S (Spółka Akcyjna)  
Phone: +48 22 295 09 70 /  
+48 22 295 09 71  
www.linak.pl

### Republic of Korea

LINAK Korea Ltd.  
Phone: +82 2 6231 1515  
Fax: +82 2 6231 1516  
www.linak.kr

### Russia

LINAK LLC  
Phone: +7 495 780 3161  
Fax: +7 495 687 1426  
www.linak.ru

### Spain

LINAK Actuadores, S.L.u  
Phone: +34 93 588 27 77  
Fax: +34 93 588 27 85  
www.linak.es

### Sweden

LINAK Scandinavia AB  
Phone: +46 8 732 20 00  
Fax: +46 8 732 20 50  
www.linak.se

### Switzerland

LINAK AG  
Phone: +41 43 388 31 88  
Fax: +41 43 388 31 87  
www.linak.ch - www.fr.linak.ch  
www.it.linak.ch

### Taiwan

LINAK (Shenzhen) Actuator systems Ltd.  
Taiwan Representative office  
Phone: +886 2 272 90068  
Fax: +886 2 272 90096  
www.linak.tw

### Turkey

LINAK İht. İhr. San. ve Tic. A.Ş.  
Phone: +90 312 4726338  
Fax: +90 312 4726635  
www.linak.com.tr

### United Kingdom

LINAK UK Limited  
Phone: +44 (0)121 544 2211  
Fax: +44 (0)121 544 2552  
www.linak.co.uk

## DISTRIBUTORS

### Argentina

NOVOTEC ARGENTINA SRL  
Phone: 011-4303-8989/8900  
Fax: 011-4032-0184  
www.novotecargentina.com

### Colombia

MEM Ltda  
Phone: +[57] (1) 334-7666  
Fax: +[57] (1) 282-1684  
www.mem.net.co

### India

Mechatronics Control Equipments  
India Pvt Ltd  
Phone: +91-44-28558484, 85  
www.mechatronicscontrol.com

### Indonesia

PT. HIMALAYA EVEREST JAYA  
Phone: +6 221 544 8956,  
+6 221 544 8965  
Fax: +6 221 619 1925  
Fax (Sales): +6 221 619 4658  
www.hej.co.id

### Iraq

Scan Medical Tech  
Phone: +964 770 470 2202

### Israel

NetivTech LTD  
Phone: +972 55-2266-535  
Fax: +972 2-9900-560  
www.netivtech.com

### Kingdom of Bahrain

Mechatronics Industrial Equipments  
Phone: +973 17280059  
Fax: +973 17910045  
www.mechatronicsbh.com

### Qatar

Mechatronics Industrial Equipments  
Phone: +974 44581155  
Fax: +974 44689135  
www.mechatronicsqatar.com

### Russia

OOO FAM  
Phone: +7 812 3319333  
Fax: +7 812 3271454  
www.fam-drive.ru

### Singapore

Servo Dynamics Pte Ltd  
Phone: +65 6844 0288  
Fax (Sales): +65 6844 0070

### South Africa

Industrial Specialised Applications CC  
Phone: +27 011 466 0346  
www.isaza.co.za

### United Arab Emirates

Mechatronics Industrial Equipments LLC  
Phone: +971 4 267 4311  
Fax: +971 4 267 4312  
www.mechatronics.ae