

DL5 IC, DL6 IC, DL15 IC and DL16 IC system

User manual



Contents

Valid for	Preface	3
Safety instructions Safety issues Before installation, reinstallation or troubleshooting To Before start-up During operation Misc Only for EU markets Only for Non-EU markets Seepairs Manufacturer's declaration Declaration of confirmity Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system Warranty Maintenance ETL-marking Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system Mounting the feet Mounting the feet Mounting the feet Mounting the feet Mounting the monitor Connection Accessories Disposal of LINAK products 22 Drawing appendix 24 Drawing appendix 24 Drawing appendix 26 27 Drawing appendix 26 26 27 Drawing appendix 26 26 27 Drawing appendix 26 27 Dayson appendix 26 27 Drawing appendix 26 27 Dayson appendix 26 27 Dayson appendix 26 Dayson appendix 27 Dayson appendix 27 Dayson appendix 28 Dayson appendix 29 Dayson appendix 20 Dayson app	Valid for	4
Safety issues	Important information	5
Before installation, reinstallation or troubleshooting 7 Before start-up 7 During operation 7 Misc 7 Only for EU markets 8 Only for Non-EU markets 8 Repairs 8 Manufacturer's declaration 9 Declaration of confirmity 10 Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 12 Warranty 12 Maintenance 12 ETL-marking 13 Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 14 Installation 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 16 Mounting the feet 17 Mounting a crossbar 18 Mounting the monitor 19 Placing the monitor 19 Connection 20 Accessories 21 Disposal of LINAK products 22 Drawing appendix 24 Dala Placing the monitor 20 Dala Placing the monitor 22 Drawing appendix 24 Dr		
Before start-up		
Misc Only for EU markets 8 Only for Non-EU markets 8 Misuse 8 Repairs 9 Manufacturer's declaration 9 Declaration of confirmity 10 Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 12 Warranty 12 Maintenance 12 ETL-marking 13 Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 14 Installation 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting the feet 17 Mounting the feet 17 Mounting the feet 17 Mounting the tabletop 18 Placing the monitor 19 Connection 20 Accessories 21 Disposal of LINAK products 22 Drawing appendix 22 Drawing appendix 22		
Only for EU markets 8 Only for Non-EU markets 8 Misuse 8 Repairs 9 Manufacturer's declaration 9 Declaration of confirmity 10 Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 12 Warranty 12 Maintenance 12 ETL-marking 13 Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 14 Installation 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting the feet 17 Mounting the feet 18 Mounting the feet 19 Placing the monitor 19 Connection 20 Accessories 21 Disposal of LINAK products 22 Labels 23 Drawing appendix 26	5 1	
Only for Non-EU markets 8 Misuse 8 Semisuse 8 Semisuse 8 Semisuse 8 Semisuse 9 Semisuse		
Misuse		
Repairs	· ·	
Manufacturer's declaration 9 Declaration 9 Confirmity 10 Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 12 Warranty 12 Maintenance 12 Maintenance 12 Maintenance 13 Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 14 Installation 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC (foot part) 16 Mounting the feet 17 Mounting the feet 17 Mounting the tabletop 19 Placing the monitor 19 Connection 20 Accessories 21 Disposal of LINAK products 22 Labels 22 Drawing appendix 22 Drawing appendix 22 Drawing appendix 22 Drawing appendix 25 Drawing appendix 26 Drawing appendix 26 Drawing appendix 26 Drawing appendix 26 Drawing appendix 27 DL16 IC (DL15 IC / DL16 IC (DL15 IC / DL16 IC (foot part) 19		
Declaration of confirmity 10 Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 12 Warranty 12 Maintenance 12 ETL-marking 13 Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system 14 Installation 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC (foot part) 16 Mounting the feet 17 Mounting a crossbar 18 Mounting the tabletop 19 Placing the monitor 19 Connection 20 Accessories 21 Disposal of LINAK products 22 Labels 23 Drawing appendix 22		
Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system		
Warranty		
ETL-marking		
Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system	Maintenance	12
Installation	ETL-marking	13
Installation	Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system	14
Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC system 15 Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC (foot part) 16 Mounting the feet 17 Mounting a crossbar 18 Mounting the tabletop 19 Placing the monitor 19 Connection 20 Accessories 21 Disposal of LINAK products 22 Labels 23 Drawing appendix 24		
Mounting the feet 17 Mounting a crossbar 18 Mounting the tabletop 19 Placing the monitor 19 Connection 20 Accessories 21 Disposal of LINAK products 22 Labels 23 Drawing appendix 24		
Mounting a crossbar	Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC (foot part)	16
Mounting the tabletop	<u> </u>	
Placing the monitor		
Accessories 21 Disposal of LINAK products 22 Labels 23 Drawing appendix 24		
Disposal of LINAK products 22 Labels 23 Drawing appendix 24	Connection	20
Disposal of LINAK products 22 Labels 23 Drawing appendix 24	Accessories	21
Labels		
Drawing appendix		

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.

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: 2 lifting columns DL5 IC standard / DL5 IC PLUS™ / DL6 IC standard / DL6 IC PLUS™ / DL15 IC / DL16 IC

Power supply: SMPS001, SMPS002 or SMPS006

Controls: DPA / DPB / DPH / DP1K / DPF1K / DPG1K

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.



Only the power supply type SMPS001, SMPS002 or SMPS006, shall be used with the system.

The power supply shall not be covered while operating to allow sufficient cooling of this appliance.

Furthermore take care about the connecting wires from the power supply to the DL5 IC / DL6 IC / DL15 IC / DL16 IC system, don't damage this by overrun.



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



The appliance is only to be used with the power supply unit provided with the appliance.

Safety issues



The builder of the equipment shall ensure that the use of the component complies with relevant standards — like the Machine Directive. Care must be taken to avoid squeezing of cables as it can cause movement of the system!



The SMPS001 / SMPS002 / SMPS006 must not be packed in heat insulating material, but must be placed so that it can emit waste heat to the surroundings. There are no ventilation holes to consider, the SMPS emits heat through its surface.



Only the power supply type SMPS001, SMPS002 or SMPS006, shall be used with the system.

Before installation, re-installation, or troubleshooting:

- Stop the DL.
- Switch off the power supply and 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 column 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

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.



It is the operator's responsibility to ensure that there is free space for the application to move without risk for the operator or bystanders before operating the application.

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.



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.

Manufacturer's declaration

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 CBD6S

Linear Actuators DB5, DB6, DB14, LA23, LA31

Lifting Columns DL1A, DL2, DL4S, DL5, DL5IC, DL6, DL6IC, DL7, DL8, DL8IC, DL9, DL9IC,

DL10, DL10IC, DL11, DL11IC, DL12, DL14, DL15, DL16, DL16IC, DL17, DL19. DL19IC. BASE1

DPA, DPB, DPH, DPF, DPG, DPT, DP, DP1CS Desk Panels

RF Controls HB10RF, HB20RF, RFRL

Accessories BA001, BLE2LIN, DS1, DF2, Kick & Click, SLS, SMPS001, SMPS002, SMPS006

comply 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:

1.5.1 Electricity supply

The relevant technical documentation is compiled in accordance with part B of Annex VII and that this documentation or part hereof will be transmitted by post or electronically to a reasoned request by the national authorities.

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, 2019-05-27

John Eling

John Kling, B.Sc.E.E.

Certification and Regulatory Affairs

Authorized to compile the relevant technical documentation

Declaration of confirmity

LINAK A/S Smedevænget 8 DK - 6430 Nordborg

hereby declares that LINAK Actuator System composed of:

Lifting Column with integrated control, DLIC Master: DLXXXXXXMXXXXXX or

DLXXXXXXMXXXXXX

And

Passive Actuators, DLIC Slave DLXXXXXXXXXXX or DLXXXXXXXXXXXX

And

Control panel DP1C, DP1K, DPT, DPB, DPF, DP1L, DP1V, DPA, DPH, DP1U,

WDPL'

complies with EMC Directive: 2014/30/EU according to following standards: EN 61000-6-1:2007, EN 61000-6-3:2007, EN 55022:2010 Class B

complies with Low Voltage Directive 2006/95/EC according to the standards: EN 60335-1:2012

complies with RoHS2 Directive 2011/65/EU according to the standard: EN 50581:2012

And

RF Control: RFRL00x, HB1xRF3000, HB2xRFx000; RFT000

complies with the Radio Equipment Directive 2014/53/EU: EN 300220-2:2006, EN 61000-6-1:2007, EN 61000-6-3:2007, EN 60335-1:2012, EN 62311:2008

complies with RoHS2 Directive 2011/65/EU according to the standard: EN 50581:2012

Nordborg, 2017-08-25

LINAK A/S

John Kling, B.Sc.E.E. Certification and Regulatory Affairs

John Eling

Authorized to compile the relevant technical documentation

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/declarations/

or contact: chemicalcompliance@linak.com

Declaration of confirmity

DECLARATION OF CONFORMITY

LINAK A/S

Smedevænget 8 DK - 6430 Nordborg

hereby declares that LINAK Switch Mode Power Supply, type SMPS006

complies with the EMC Directive: 2014/30/EU according to following standards: EN 61000-6-1:2007, EN 61000-6-3:2007

complies with Low Voltage Directive 2014/35/EU according to the standard: EN 61558-2-16:2009

complies with RoHS2 Directive 2011/65/EU according to the standard: EN 50581:2012

This declaration of conformity is issued under the sole responsibility of the manufacturer

Nordborg, 2020-02-24

Dragan Macura.

Regulatory Compliance Manager Deskline and Homeline Segments

Authorized to compile the relevant technical documentation

Original Declaration

Misc. on the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system

This system is a DESKLINE system developed for desks and for indoor use in offices. 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.

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



C/N 9901916

Conforms to UL962 Cert. to CSA Std. C22.2 No. 68-09

ETL Recognized Component mark for Canada and United



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

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

ETL Recognized Component mark for Canada and United States

Description of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system

Application of the DESKLINE® DL5 IC / DL6 IC / DL15 IC / DL16 IC system:

Irrespective of the load the **duty cycle 10% ~ 2 minutes at continuous use** 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.

A DL IC system typically consists of:

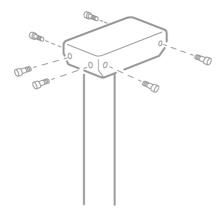
- 2 lifting columns DL5 IC standard / DL5 IC PLUS™ / DL6 IC standard / DL6 IC PLUS™ / DL15 IC / DL16 IC
- Power supply SMPS001, SMPS002 or SMPS006
- Desk panel DPA, DPB, DPH, DP1K, DPF1K, DPG1K
- Exchangeable cables

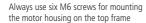
Installation

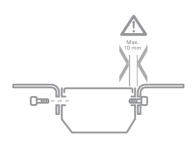
Mounting guidelines for the DESKLINE DL5 IC / DL6 IC / DL15 IC / DL16 IC system

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

- Mount motor housing on 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 screws thoroughly (torque: max. 7.5 Nm).







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 DL IC DESKLINE $^{\circ}$ system in push applications with the motor housing mounted upwards.

Alternatively, use the Kick & Click™ top frame and avoid screws to get easy desk assembly.

Mounting guidelines for the DL5 IC / DL6 IC / DL15 IC / DL16 IC (foot part)

Mounting the feet

The DL5 IC / DL6 IC bottom plate is supplied with four M6 and two M8 threaded holes.

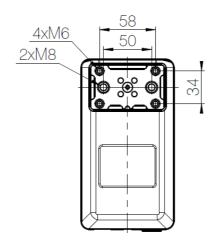
1. Mount column bottom on desk feet using four M6 or two M8 screws with the following specifications:

Quality: Min. grade 8.8

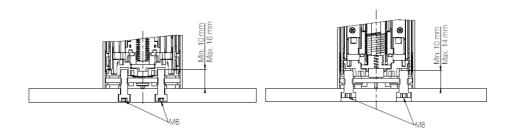
Length: Min. 10 mm (plus foot thickness); Max. 16 mm (plus foot thickness) for M6 Max. 14 mm (plus foot thickness) for M8

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

The holes in the foot must be sufficiently larger than Ø6/Ø8 to ensure space for the screw heads to be screwed fully into the foot.



DL5 IC / DL6 IC bottom plate



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

Mounting the feet

The DL15 IC / DL16 IC bottom plate is supplied with four M6 threaded holes.

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

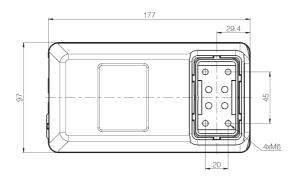
Quality: Min. grade 8.8

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

Max. 20 mm (plus foot thickness)

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

The holes in the foot must be sufficiently larger than ø6 to ensure space for the screw heads to be screwed fully into the foot..

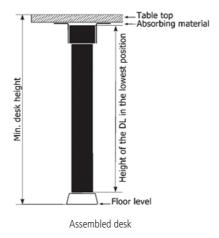


DL15 IC / DL16 IC bottom plate

Mounting the tabletop

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

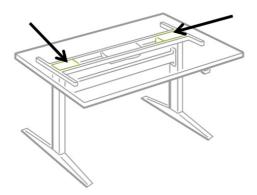
1. Place vibration/shock-absorbing material between tabletop and top frame.



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 the 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.



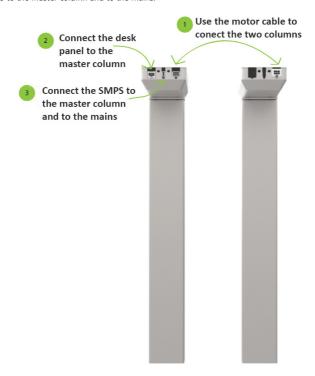
Recommended placement of an iron plate/tube or another magnetic material

Connection:

Items required:



- 1. Connect the master and follower columns using the motor cable.
- 2. Mount the desk panel onto the desk and connect it to the master column.
- 3. Connect the SMPS to the master column and to the mains.



WS .

It is important to ensure that the motor cables are fixed, but not tightened, near the columns. Fix the cable to the tabletop using a clip observing the 30 mm minimum bending radius (R).



Accessories

Ordering accessories

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

Accessories

Please contact your nearest LINAK® contact, 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
Columns/ Actuator :	Spindle and motor Plastic housing Cable PCB boards	Scrap Plastic recycling or combustion Cable scrap or combustion Electronics scrap
Control Box / PCB :	PCB boards Plastic housing Cable Transformer	Electronics scrap Plastic recycling or combustion Cable scrap or combustion Metal scrap
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
DLXX IC	Х	Х	X	X	
DPXX		Х	X	X	
SMPS			Х	Х	

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 environment.

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 moved 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 of leaking batteries. The contents of a 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 DL5 IC Master



Label for DL5 IC PLUS™ Master



Label for DL6 IC Master



Label for DL6 IC PLUS™ Master



Label for DL5 IC Follower



Label for DL5 IC PLUS™ Follower



Label for DL6 IC Follower



Label for DL6 IC PLUS™ Follower



Label for DL15 Master



Label for DL16 Master



Label for SMPS001



Label for DL15 Follower



Label for DL16 Follower



Label for SMPS002

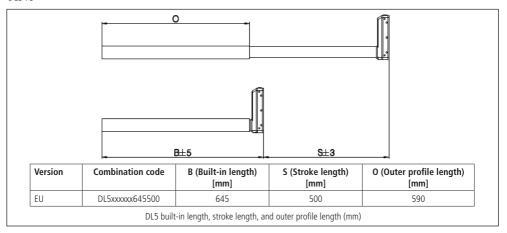


Label for SMPS006

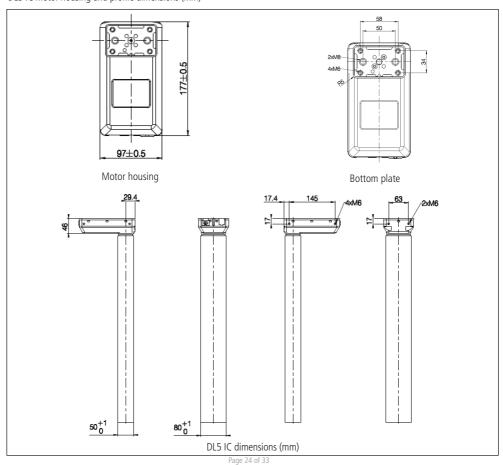


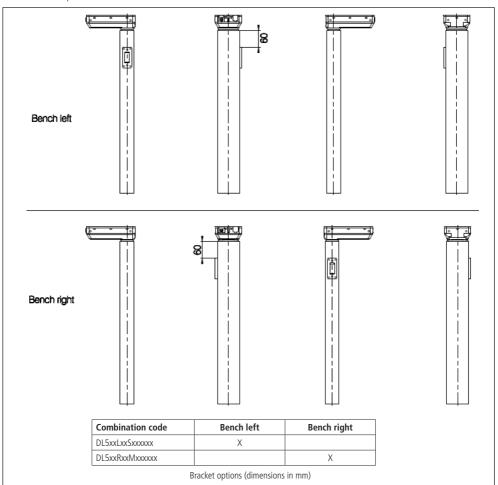
DRAWING APPENDIX

DL5 IC

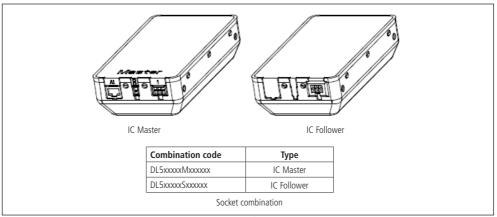


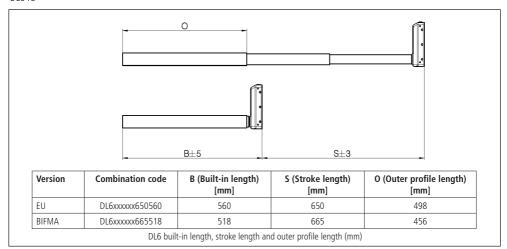
DL5 IC motor housing and profile dimensions (mm)



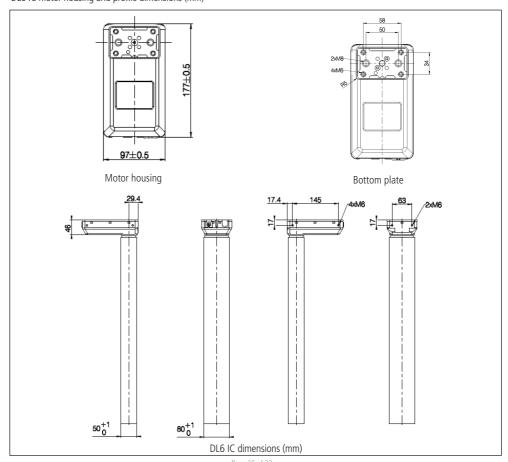


Socket

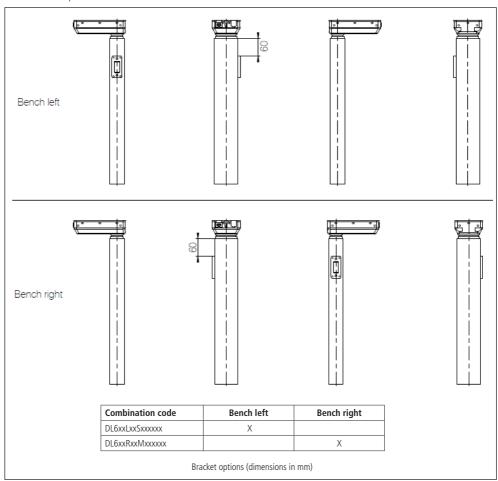




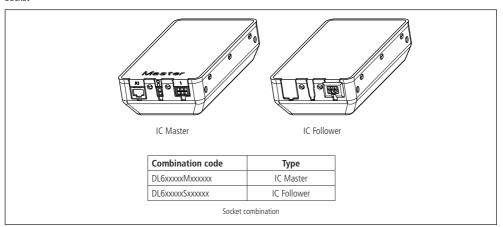
DL6 IC motor housing and profile dimensions (mm)



Page 26 of 33

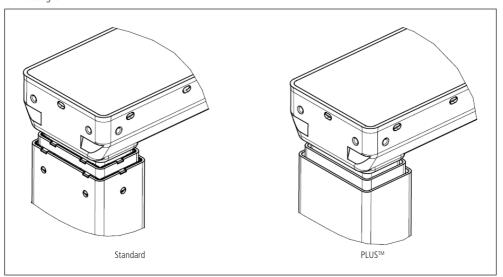


Socket

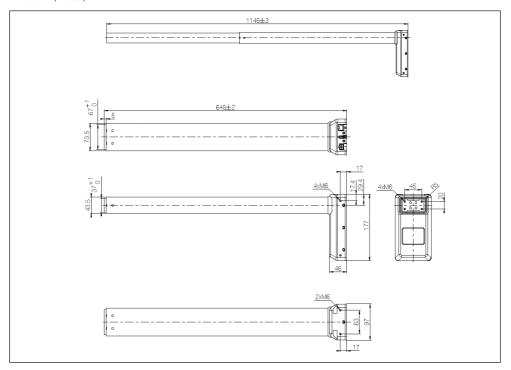


Page 27 of 33

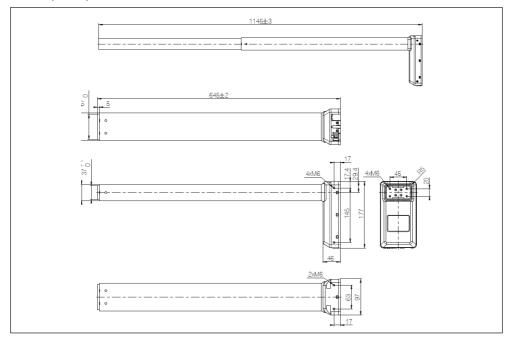
Profile designs



DL15 IC M (Master)

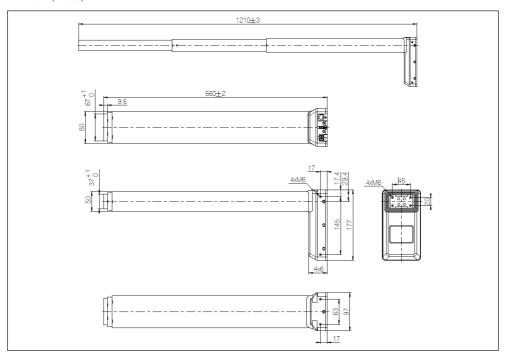


DL15 IC S (Follower)

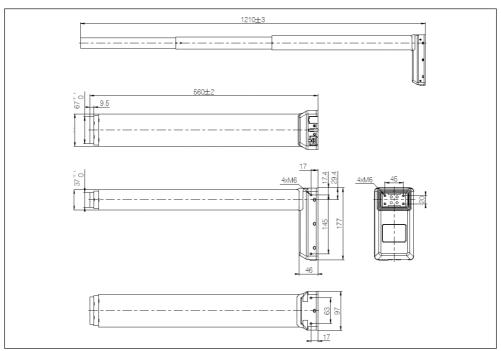


Page 29 of 33

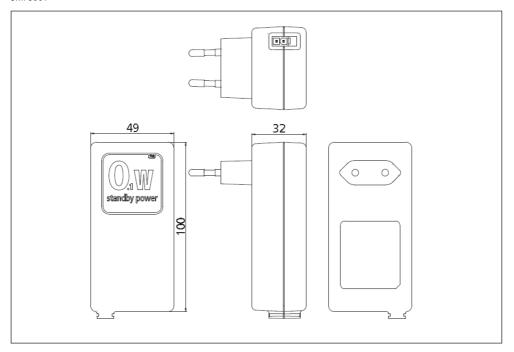
DL16 IC M (Master)



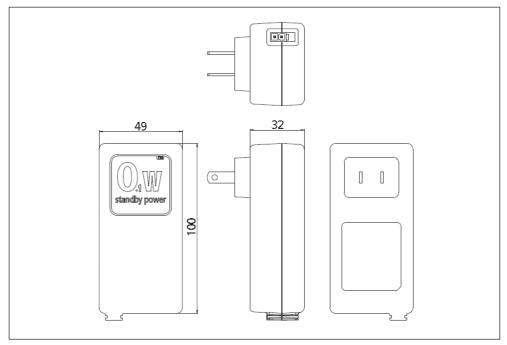
DL16 IC S (Follower)



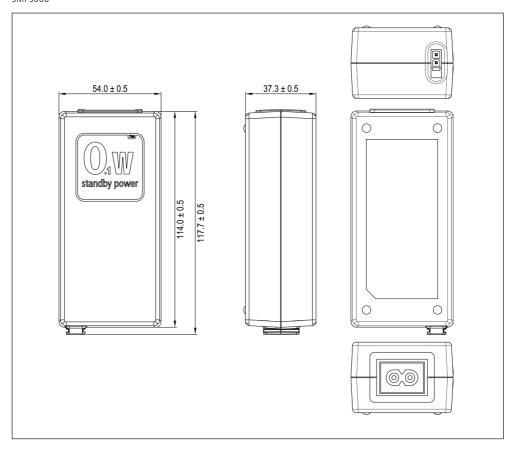
Page 30 of 33



SMPS002



Page 31 of 33



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 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 the 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

Denmark

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

Denmark

I INIAK Profiles Tel: +45 73 70 95 30 www.linak-profiles.com

• China

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

Slovakia

LINAK Slovakia s.r.o. Tel: +421 51 7563 444 Fax: +421 517563 410 www.linak.sk

• Thailand

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

USA

LINAK U.S. Inc.

Americas Headquarters Tel: +1 502 253 5595 Fax: +1 502 253 5596 www.linak-us.com

SUBSIDIARIES

Australia

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

Austria

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

• Belgium

LINAK Benelux (Belgium & Luxembourg) Tel: +32 (0)9 230 01 09 www.linak.be - www.fr.linak.be

Rrazil

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

Canada

LINAK Canada Inc. Tel: +1 502 253 5595 Fax: +1 416 255 7720

www.linak-us.com LINAK (Shenzhen) Actuator Systems, Ltd.

Tel: +86 755 8610 6656 Fax: +86 755 8610 6990 www.linak.cn • Czech Republic

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

• Denmark - Headquarters

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

. Denmark - International

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

• Denmark - Sales

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

Finland

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

• France

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

Germany

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

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

Ireland

LINAK UK Limited (Ireland) Tel: +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. Tel: +39 02 48 46 33 66 Fax: +39 02 48 46 82 52 www.linak.it

Japan

TINAK K.K. Tel: 81-45-533-0802 Fax: 81-45-533-0803

Malaysia

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

Netherlands

LINAK Benelux Tel: +31 76 5 42 44 40 www.linak.nl

New Zealand

LINAK New 7ealand Ltd Tel: +64 9580 2071 Fax: +64 9580 2072 www.linak.com.au

Norway

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

Poland

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

• Republic of Korea

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

Slovakia

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

Spain

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

Sweden

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

Switzerland LINAK AG

Tel: +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 Tel: +886 2 27290068 Fax: +886 2 27290096

www.linak.tw Thailand

LINAK APAC Ltd. Tel: +66 33 265 400

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

• United Kingdom

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

USA

LINAK U.S. Inc.

North and South American Headquarters Tel: +1 502 253 5595 Fax: +1 502 253 5596

www.linak-us.com www.linak-latinamerica.com

DISTRIBUTORS

Argentina

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

Colombia

MFM Itda Tel: +[57] (1) 334-7666 Fax: +[57] (1) 282-1684 www mem net co

• India

Mechatronics Control Equipments India Pvt Ltd Tel: +91-44-28558484.85 www.mechatronicscontrol.com Indonesia

PT. HIMAI AYA EVEREST JAYA Tel: +6 221 544 8956/221 544 8965 Fax: +6 221 619 1925 Fax (Sales): +6 221 619 4658 www.hej.co.id

Iraq

Scan Medical Tech Tel: +964 770 470 2202

Israel

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

• Kingdom of Bahrain

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

Oatar

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

• Singapore

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

• South Africa

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

United Arab Emirates

www.mechatronics.ae

Mechatronics Industrial Equipments LLC Tel: +971 4 267 4311 Fax: +971 4 267 4312

LINAK® accepts no responsibility for possible errors or inaccuracies in catalogues, brochures, and other material. LINAK reserves the right to change its products without prior notice. LINAK cannot guarantee product availability and reserves the right to discontinue the sale of any product.

The user is responsible for determining the suitabil-The user is responsible for determining the suitability of LINAK products for a specific application. All sales are subject to the 'Standard Terms of Sale and o Delivery', available on LINAK websites.

LINAK and the LINAK logotype are registered trademarks of LINAK A/S. All rights reserved.

