

Control Box COL50 MK2

Data Sheet



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Introduction



The control box COL50 MK2 is a part of the LIFT50 product series specially developed for various applications, for instance patient lifts.

LIFT50 is a complete system consisting of the control box COL50 MK2, a battery BAL50 and an external charger CHL50 in a flexible solution. Combined with one or more actuators and a hand control, you have a complete system for modern application design, such as patient lifts.

The control box COL50 MK2 contains a series of features which meet the patient's and caregiver's need for a safe and comfortable lift. It is equipped with 3 channels, Bluetooth®, redundant controls and speed-boosting for faster positioning, and can be programmed to run while on mains and several actuators in parallel.

Combine this with next generation of Li-Ion battery technology for high performance and improved return on investment (ROI) due to long lifetime. Packaged in a light, small and ergonomic package for fast and single-handed battery exchange.

The streamlined design with a clean bright surface makes it easy to integrate the LIFT50 design into the OEM application design.

Feature highlights

- Compact modern design
- Up to 3 channels
- Software configurable
- Optional to run while connected to mains
- Parallel drive
- Speed Boost
- Redundant controls
- IPX6 Washable
- Cable cover in white or light grey

Features and options

Features	COL50 MK2	CBJ Care
Channels	3 channels	3 channels with use of T-cable
Channel extension	+2 (5 in total)	N/A
Output current	12A - CH1, CH2 and CH3. (Duty cycle 2/18 min)	11A - CH1 5.5A - CH2 and CH3 (duty cycle 2/18 min)
Soft start/stop	Yes	Yes
Emergency stop function	Located on BAL50	Located on CBJ Care
Acoustic battery alarm	Yes	Yes
LED Indicators	Battery status (3 green LEDs, first LED on left side switches to orange at lowest status) and system status/service (2 x orange)	Battery status via LED or OLED display
Speed boost	Yes	No
Wireless operation	BLE, Bluetooth® Low Energy	No
Redundant control	Programmable, for instance up and down channel 1	Yes, channel 1 and 2 by use of special front cover
Cable management	Yes	No
Ingress Protection	IPX6 Washable In combination with BAL50, IPX6 Washable can only be guaranteed if a minimum interval of 24 hours between each wash is observed.	IPX4
Learn mode	Standard/Advanced (easy adjustment)	Standard
Battery charging	Internal and external	Internal and external
Battery interface	Charging current 350 mA when no actuators are running	N/A
Software customisation	SoftCon2 + GP094	Special software process
Colour base	Light grey RAL7035	Light grey RAL7035
Cable cover colour	Signal white RAL 9003 or light grey RAL 7035	N/A
Feedback actuators	Yes, parallel and simultaneous movement and memory positions.	No
Service status	LED + Service Data Tool	Display on CBJ Care + Service Data Tool
Low battery information	Still able to get battery status. Orange LED indication + buzzer	Shut-down, no communication

Usage

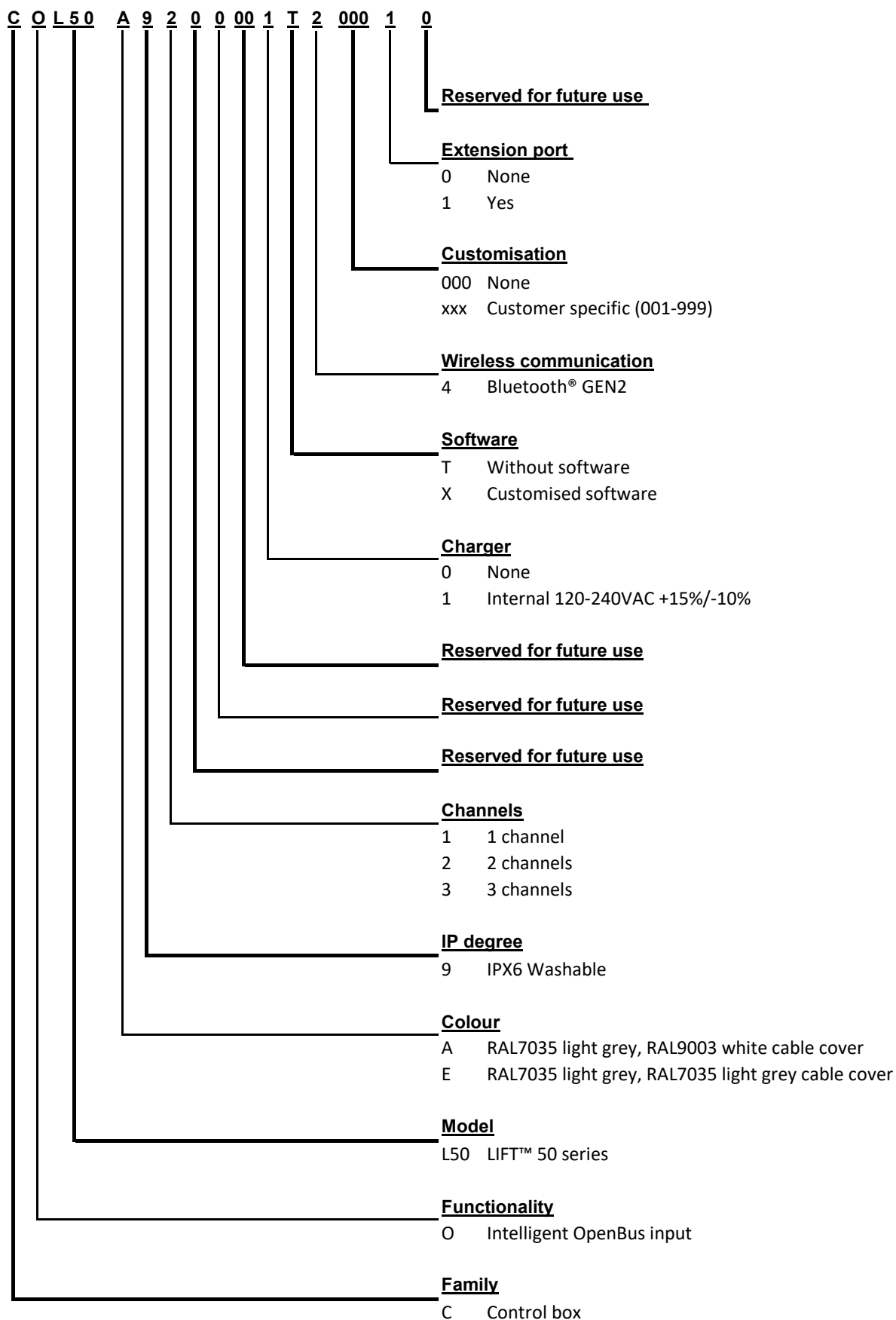
With internal charger:	Nominal current draw max. 350 mA (depending on input voltage) Power consumption (standby) max. 0.5 W power (depending on input voltage) Input voltage range: 120-240 VAC (50/60 Hz) Power consumption (charging) max. 30 W (depending on input voltage)
Duty cycle:	Max. 10% or 2 min. continuous use followed by 18 min. without use
Operating temperature:	+5 °C to +40 °C
Storage temperature:	-10 °C to +50 °C
Relative humidity:	20% to 80% - non-condensing
Atmospheric pressure:	700 to 1060 hPa
Meters above sea level:	Max. 3000 meters

Mains supply grid should be limited to the highest prospective short circuit current of 100 A.

Demands to mains supply safety for the application in accordance with IEC 60601-1 ed. 3.2, § 8.11.5

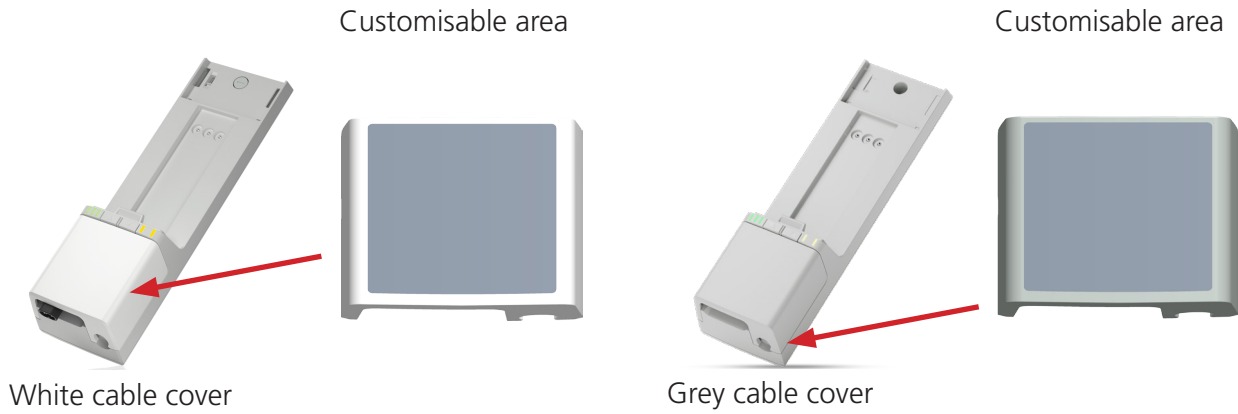
Approvals:	<ul style="list-style-type: none">- EN IEC 60601-1- ANSI/AAMI ES60601-1- CAN/CSA-C22.2 NO. 60601-1- EN IEC 60601-1-2- RED (EU)- FCC ID (US)- IC ID (Canada)- Telec (Japan)
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Ordering example

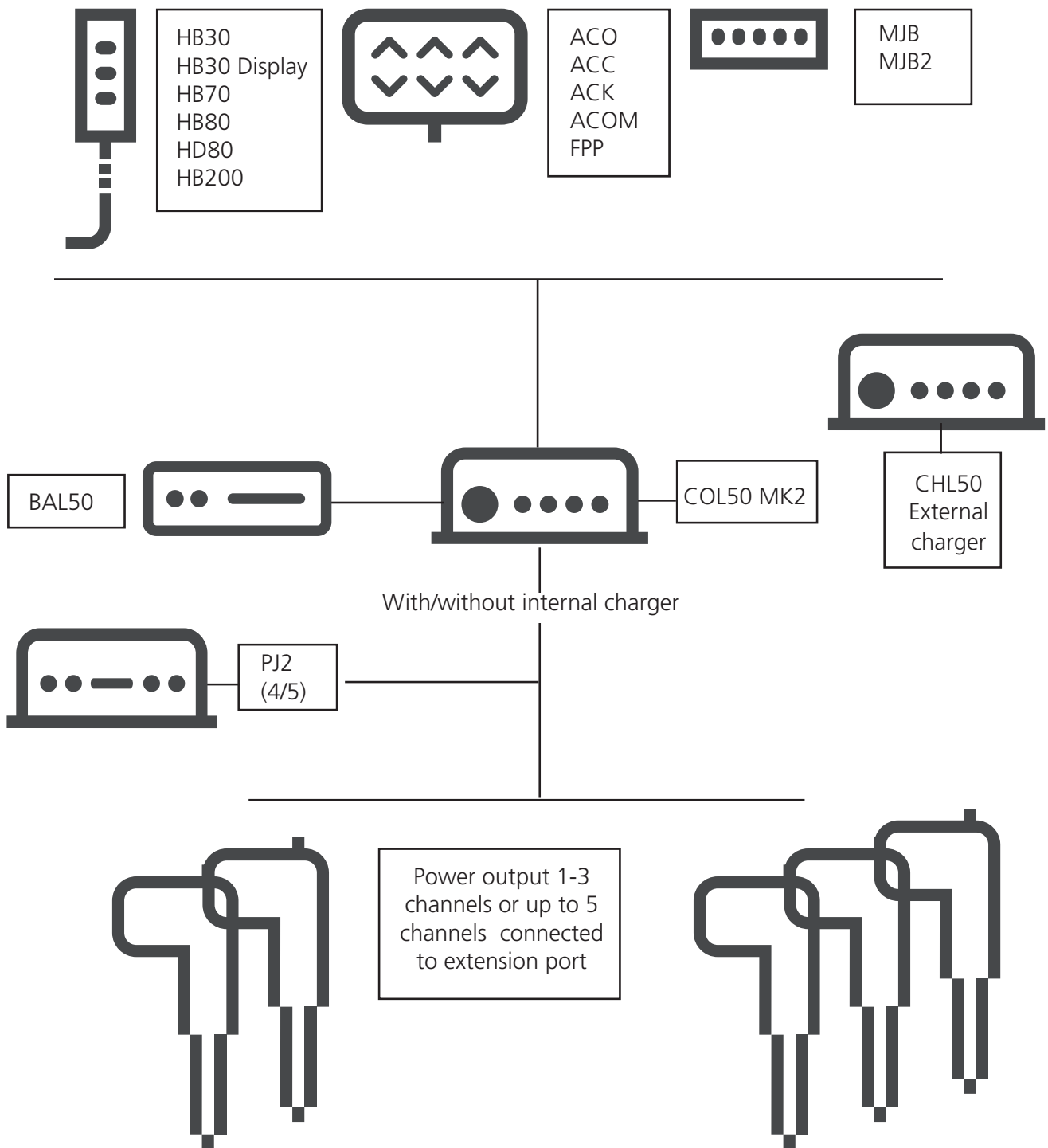


Cable cover colour and print

The COL50 MK2 cable cover can be customised with company name and/or logo through direct printing on either white or light grey cable cover.



System overview



Accessories list

Cable cover	Item no: SA1039W1003 (white) Item no.: 1039W1095 (grey)
Blind plug actuator port*	Item no: 0961318
Blind plug hand control port*	Item no: 0821008
Mounting bracket kit*	Item no: MBL50-1
Cable hanger	Item no.: SA1039W1041

*must be ordered separately

Cable mounting and cable cover

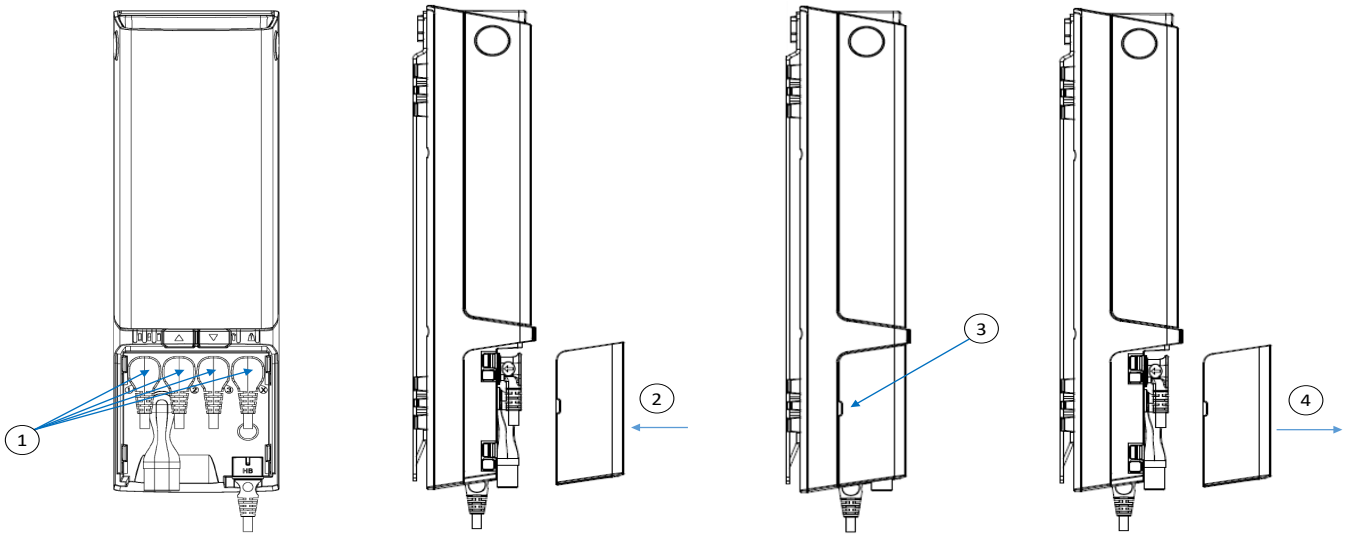
COL50 MK2 has a uniquely designed cable cover which also works as an integrated cable cover when closed.

To close cable cover

- 1) Mount cable plugs in control box (1)
- 2) Push cable cover directly over designated snaps (2)

To open cable cover

- 3) Insert flat head screwdriver in groove (3). Move screwdriver handle carefully towards the back of COL50 MK2. Cable cover is released
- 4) Pull cable cover straight out (4)



Internal battery charger

COL50 MK2 is available with and without internal charger.

The internal SMPS charger makes charging of the batteries very efficient.

The internal charger only works when the COL50 MK2 contains a software. If COL50 MK2 does not have any software, the battery will not charge.

The charging time depends on the battery capacity and condition. Typically, the BAL50 charging time is approx. 4 hours from fully discharged state and depending on connected accessories.

Speed boost

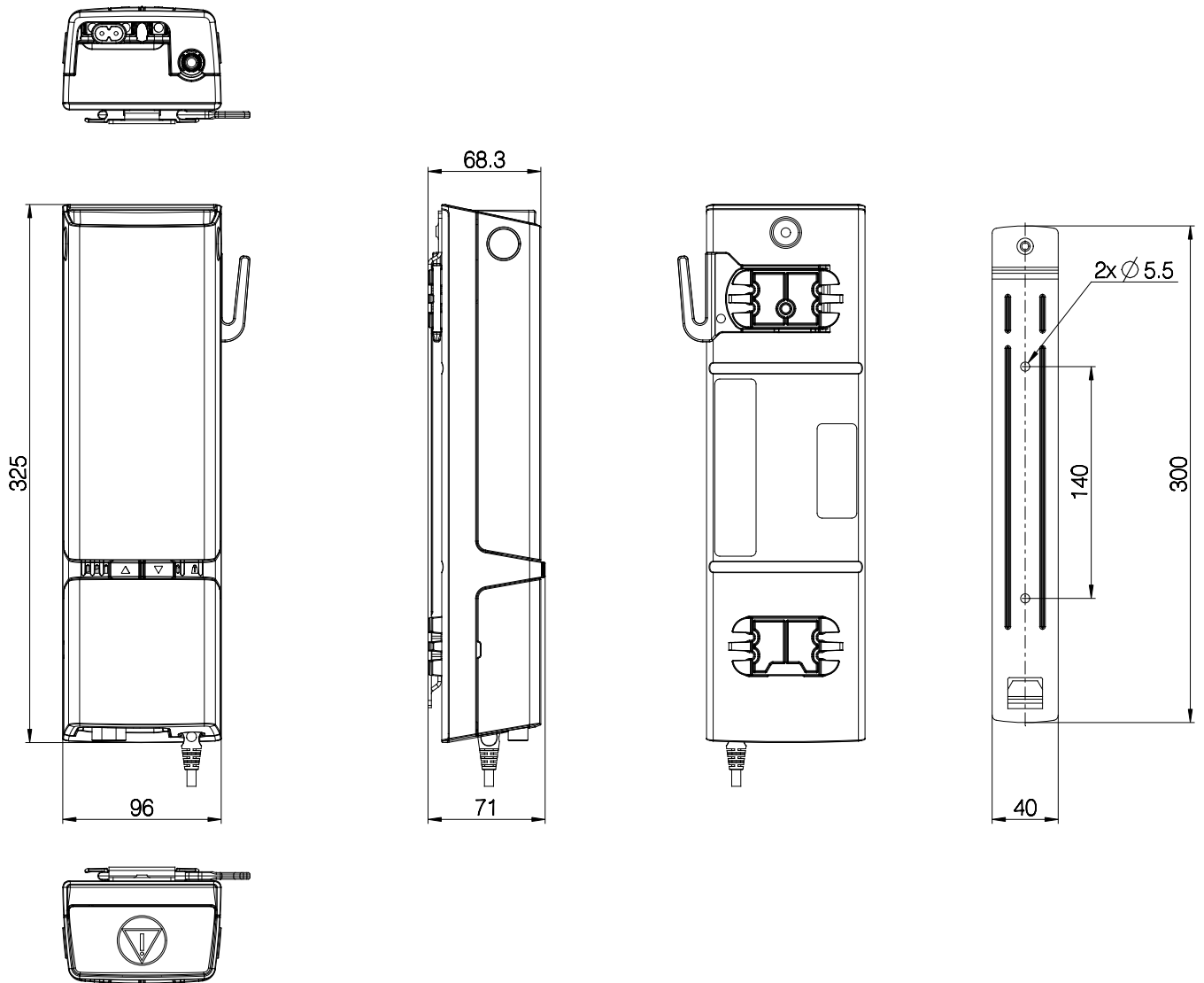
The COL50 MK2 is equipped with speed boost.

The speed boost function can operate unloaded actuators at increased speed – up to 30% higher speed. The speed boost can be used unloaded or at lower workloads (max. boost power approx. 100 W).

The speed boost can be used for increased efficiency. The nurse will save valuable time by faster 'getting-ready-to-lift' before moving the patient. Or to save time after use, when parking the lift in the hallway.

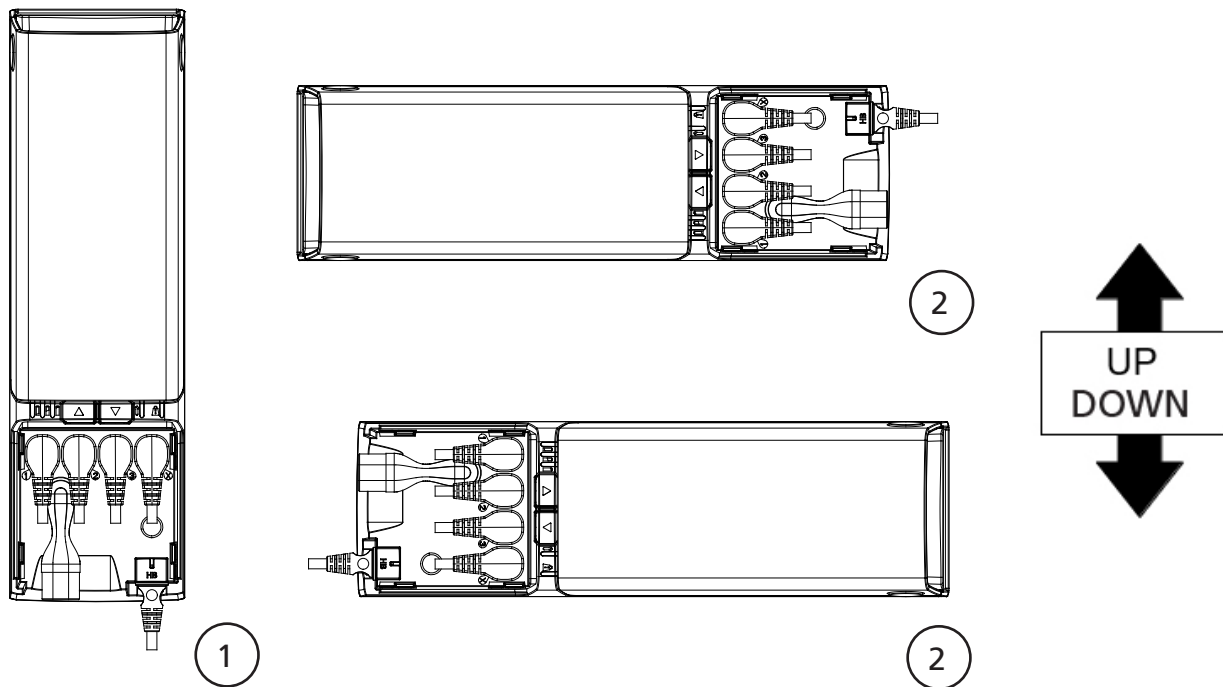
Using the speed boost allows simultaneous use of several channels for running to 'ready for lift' position or 'parking' position.

Dimension drawing



Drawing no. 1039w4000

LIFT50 position for maintaining IP degree



Drawing no. 1039w4000



Recommendations - positioning

LIFT50 only complies with IPX6 when the control box is mounted correctly (see illustration 1 and 2).

LIFT50 can be mounted as shown on the pictures above:

- Battery upwards, cable outlets downwards (see illustration 1)
- Control box lying on either side, seen from the front (see illustrations 2)

Cables and blind plugs must be inserted correctly in the control box to maintain the IP degree in cleaning situations.

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