

Control Box C071

Data Sheet



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Introduction



The LINAK OpenBus™ control box CO71 offers a consolidated range of unprecedented features – all utilising standardised technology, interfaces and compatibility.

The CO71 for LINAK actuators is intended for the control of, for example, hospital bed movement.

Equipped with 350 W SMPS, Bluetooth®, excellent and well thought-out cable management as well as multiple easy mounting options, this control box opens up a wide range of application possibilities for the provident hospital and care products manufacturer.

With the CO71, FET, full bridge, IPX6 Washable DURA™ protection and a PCP 2.0 battery port, are all standard options. The entire product platform supports the LINAK principle 'One World – One box' – worldwide operable and applicable.

WeAssist™ ready

Easily integrated into the WeAssist system solution – smart and intuitive wheel technology for intelligent hospital bed manoeuvrability, enhancing patient care and operational efficiency.

Features and options

Features	CO71
Power supply	Universal, SMPS (Switch Mode Power Supply) 350 W power output 100-240 VAC, 50/60 Hz -15% / +10%
Mains indicator	Yes - Green LED (mains connected)
Actuator interface	4 channel 6-pin Mini-Fit
Hand control interface	1 port 10-pin modular plug
CO-Link™	Link of primary and secondary CO71 - up to 8 channels and combination of all control boxes
Bluetooth®	Bluetooth low energy Gen2 Performance (wireless control) as standard
Programming	Via PB31.
RAPID	For CO71 Gen2 Bluetooth Performance only: LINAK Operating System (LOS): Maintained and operated by LINAK. Customer Application Software (CAS): Built on LOS and tailored to meet specific customer requirements. Customers will be notified of any changes to LOS. Modifications to CAS will only be made following prior written approval from customer.
Service tools	OneConnect for Windows OneConnect for IOS OneConnect for Android See more under tools.
Battery interface	1 port 4-pin Mini-Fit (charging current 300 mA when no actuators are running)
Standby power	Approx. 0.5 W (120/230 V)
Colour	Light grey (RAL 7035)
Output short-circuit protected	Yes
Control concept	FET (no relay noise)
Power supply circuit method	Full bridge technology: independent actuator movement
Duty cycle	10 % - 2/18 min. on/off continuous use. Maximum power is 350 W for 80 seconds and 175 W for 40 seconds at 25 °C.
Weight	Low weight 0.8 kg
Actuator compatibility	Actuators with signal, feedback by Hall and potentiometer
Battery charger	Battery input available No charger, but supports battery with internal charger
Charging indicator	Supported by using BA22



Acoustic warning signal	Internal buzzer
Battery alarm	Integrated or via BA19/BA22
PCP version	PCP 2.0
EOP	Yes
IP-Rating	IPX6 Washable DURA™
Operation	True parallel (Hall feedback)
Max. current	10 A/CH, 2/18 min. Max. 14 A/CH in a limited time period
Accessories	OpenBus™ standard
Power management	High speed at low loads and/or high loads at a lower speed
Overload protection	The CO71 can reduce the output voltages to prevent overload
Safety system	Thermally protected Short-circuit protected Hot-plugging protected
Start/stop	Soft start/ direct stop
Protection class	Class 2 Class 1 is possible with pigtail on mains cable
Cable lock	The control box features an integrated cable lock for actuator, PCP and OpenBus cables. For more details see section "mounting of cables and cable lock" below.
Mounting	Compatible with a wide range of mounting brackets
WeAssist	Compatible



Usage

Operating temperature	+5 °C to +40 °C
Storage temperature	-10 °C to +50 °C
Relative humidity	20% - 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 1,500 A.

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

Approvals	- IEC60601-1 edition 3.1 - ANSI/AAMI ES60601-1:2005/(R) 2012 - CSA CAN/CSA-C22.2 NO. 60601-1:14 - PSE Japan
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Ordering example

Product Type

C = Control Box

Handset Input **0** = Openbus Interface

Control Box Family **7** = CO71

Colour **+** = RAL7035 light gray

H-Bridge **1** = Full Bridge

IP Degree **9** = IPX6 Washable DURA™ **6** = IPX6

Number of Channels **4** = 4 Channels

Maximum Output Power **3** = 350 W (CO71)

Input Voltage **1** = 100-240 VAC +10 % / -15 %

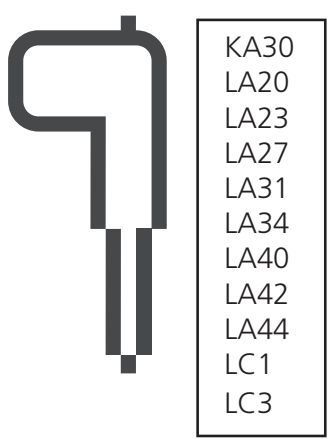
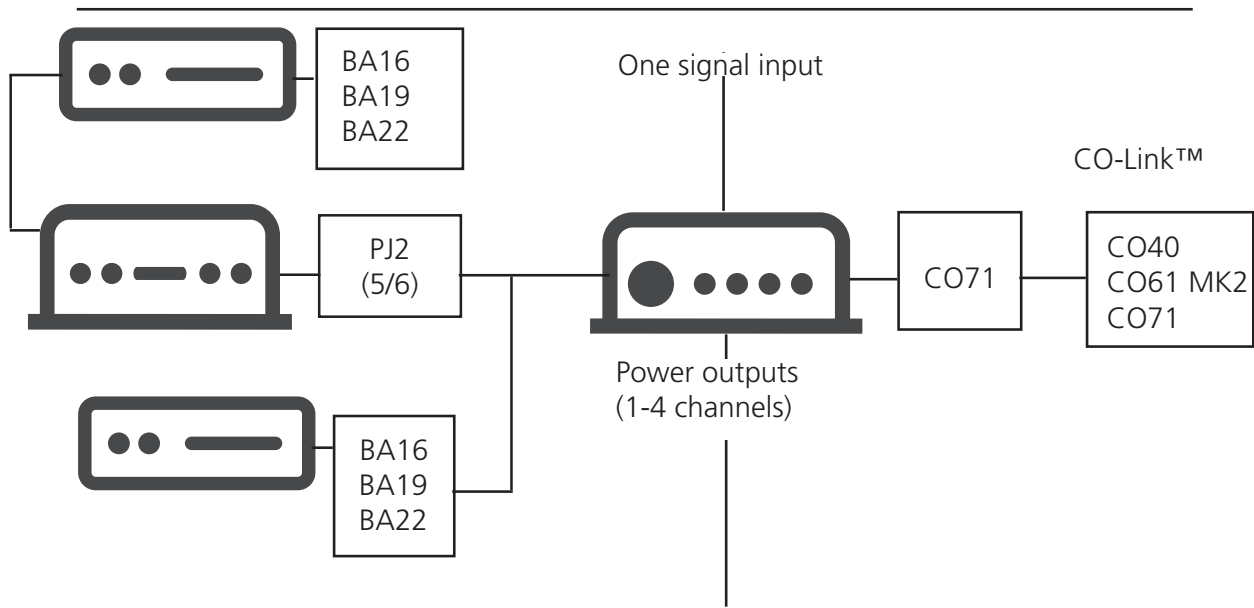
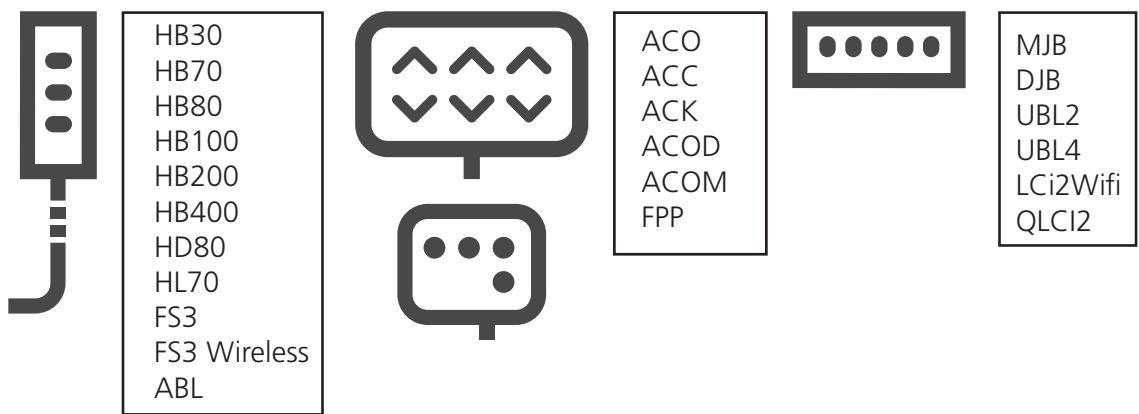
Software **T** = No Application Software **X** = Special Customer Software

Wireless Communication **4** = Bluetooth® Gen2 Performance

Appliance Protection Class **9** = Class II



System overview



LED indicator



CO71 is equipped with a green LED for indication of mains power connected.

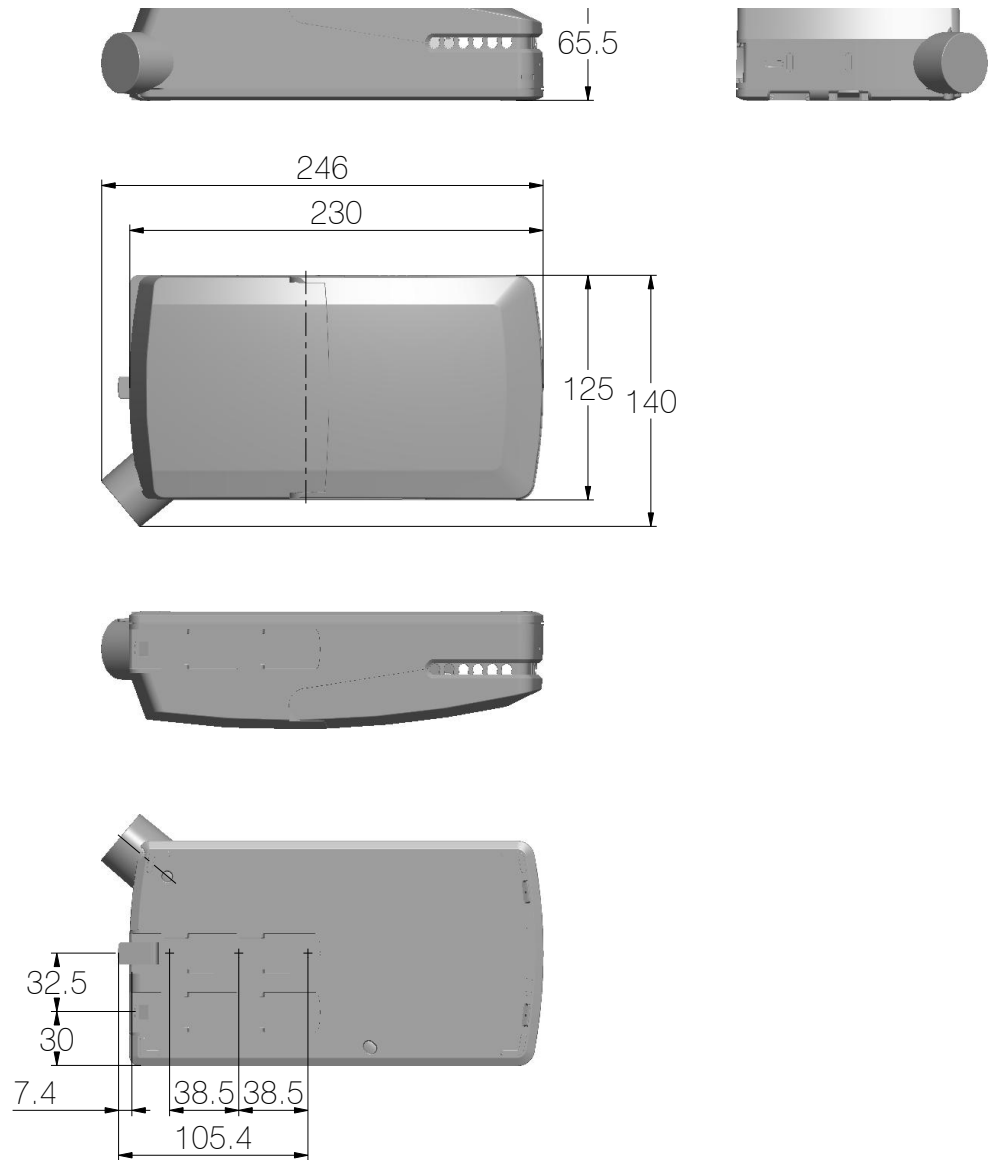
When the CO71 is connected to mains, the LED is green. Connected only to battery, the LED is off.

Acoustic signal functionality

The buzzer will make a warning, when a button on the hand control is pressed, and the battery state of charge is low.

The buzzer can also be activated by the control box to signal other conditions. This must be specified in the control box software.

Dimension drawing

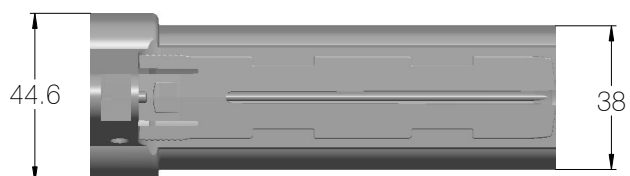
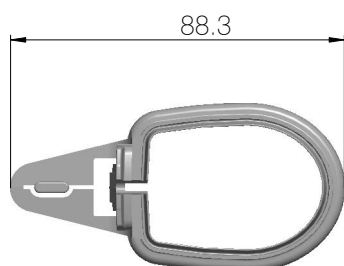
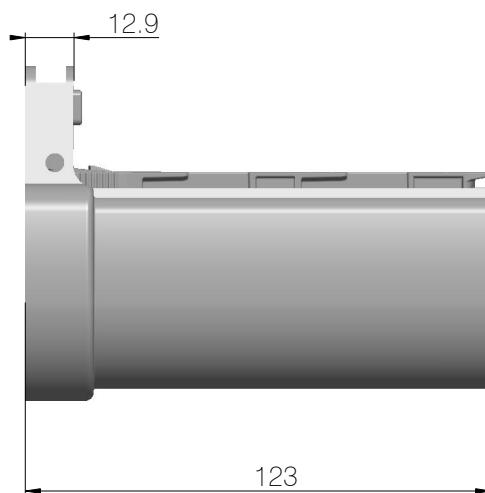
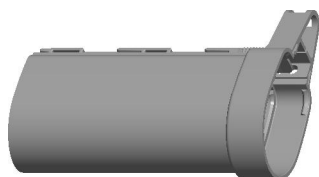


Drawing No.: 1014W4010

Mounting brackets

For mounting with KA30

Article No.: 1015W1011

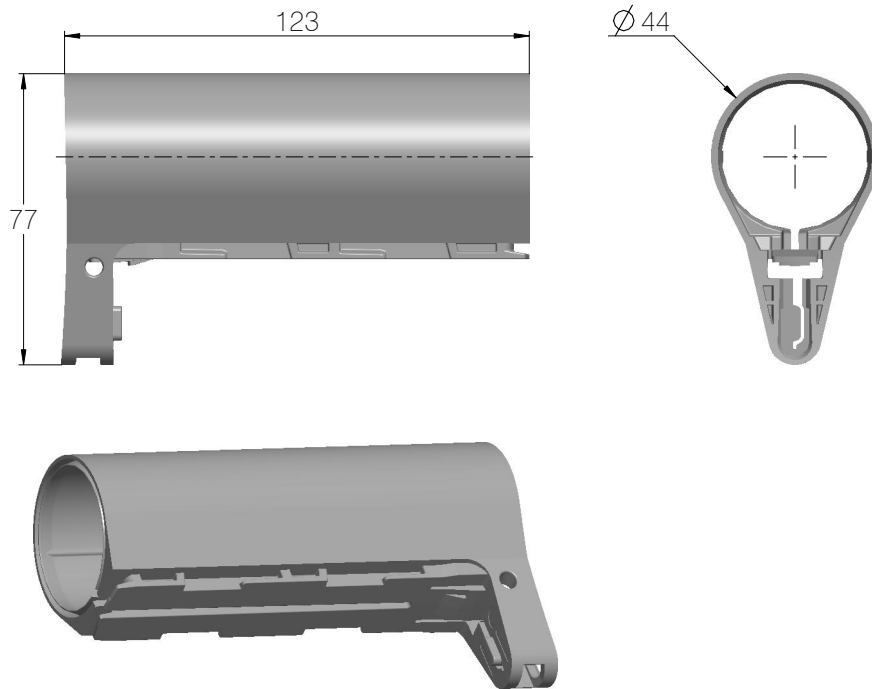


Drawing no.: 1015W4022

Mounting brackets

For mounting with LA40

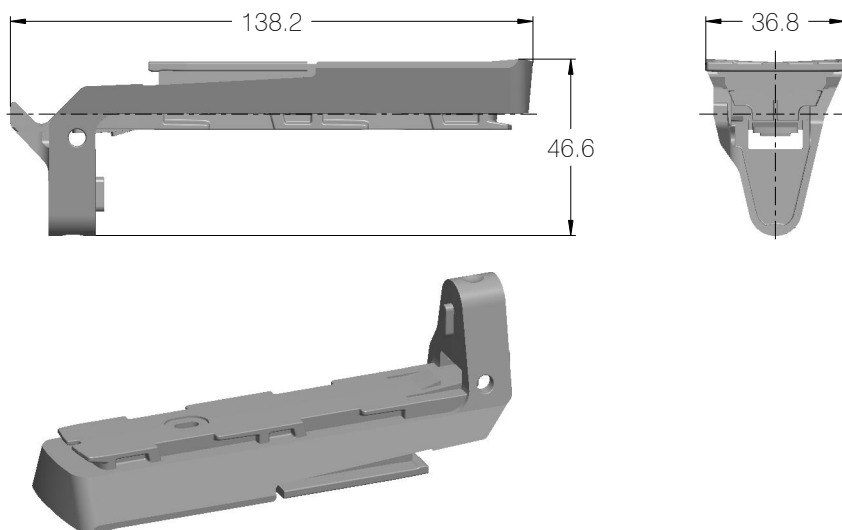
Article No.: 1015W1002



Drawing No.: 1015W4002

For mounting with LA31

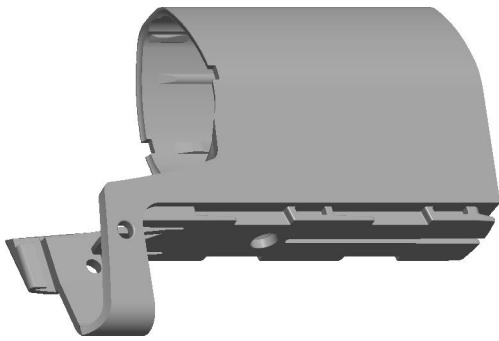
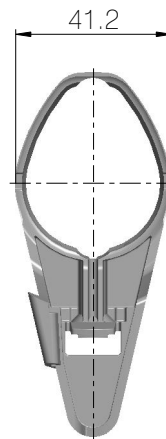
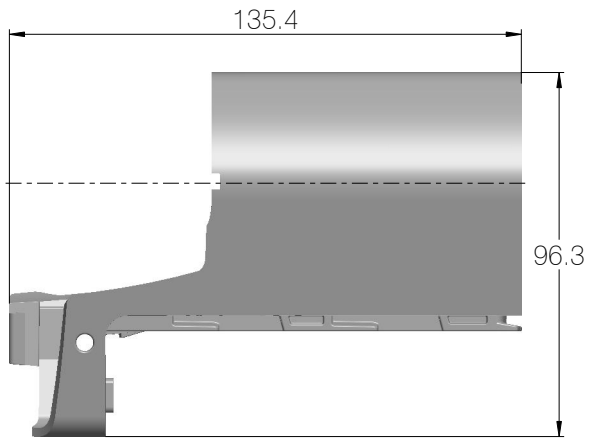
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Drawing No.: 1015W4004

For mounting with LA27

Article No.: 1015W9003

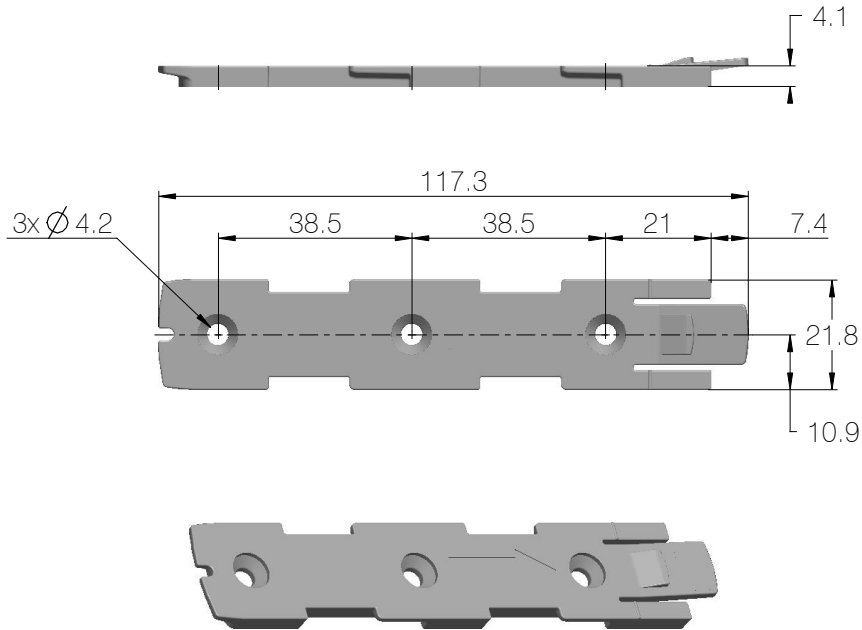


Drawing No: 1015W4003



Mounting bracket (frame flat)

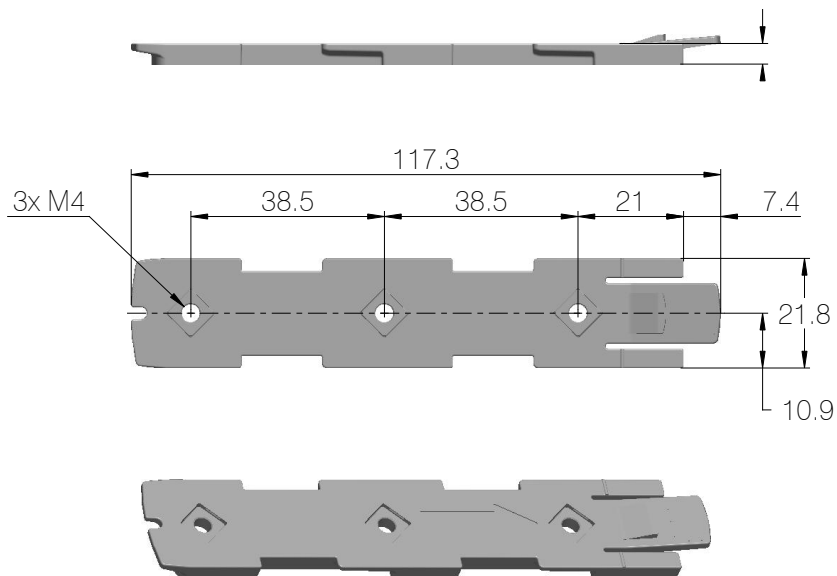
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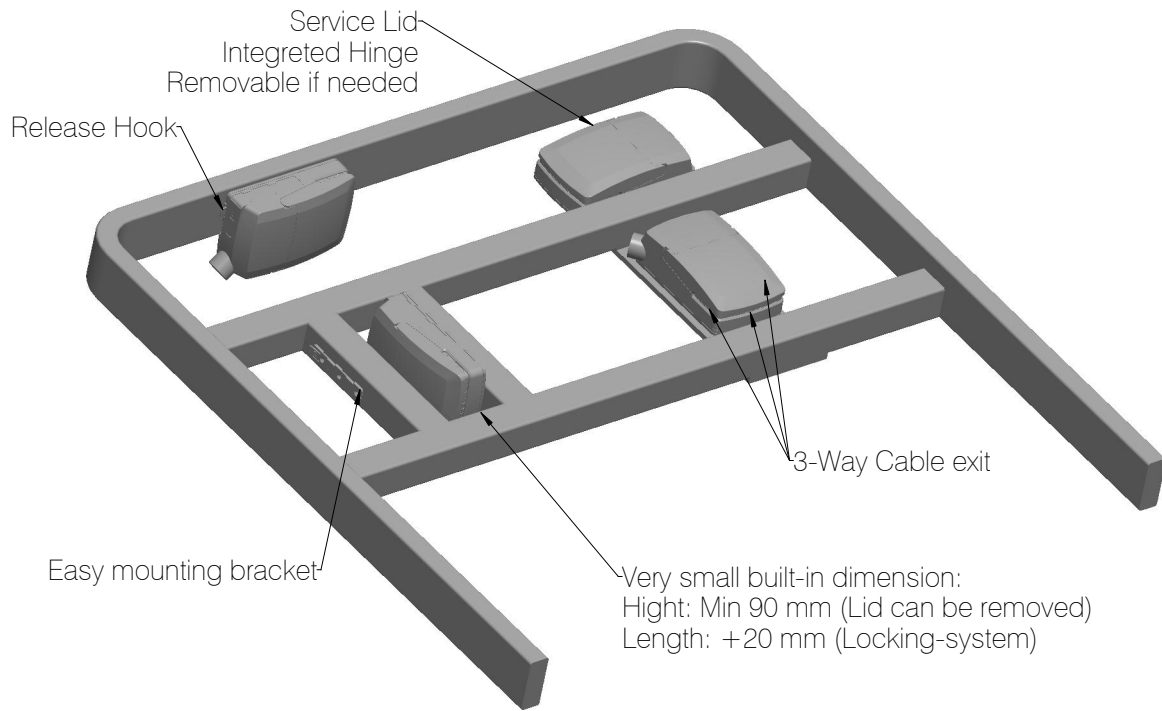
Drawing No.: 1015W4001

Mounting bracket (frame flat) w/M4 nuts

Article No. 1015W9009



Drawing No.: 1015W4009

Mounted on frame

Drawing No.: 1013W4008



Mounting of cables and cable lock

CO71 has a uniquely designed cable lid. The lid also works as an integrated cable lock when closed.

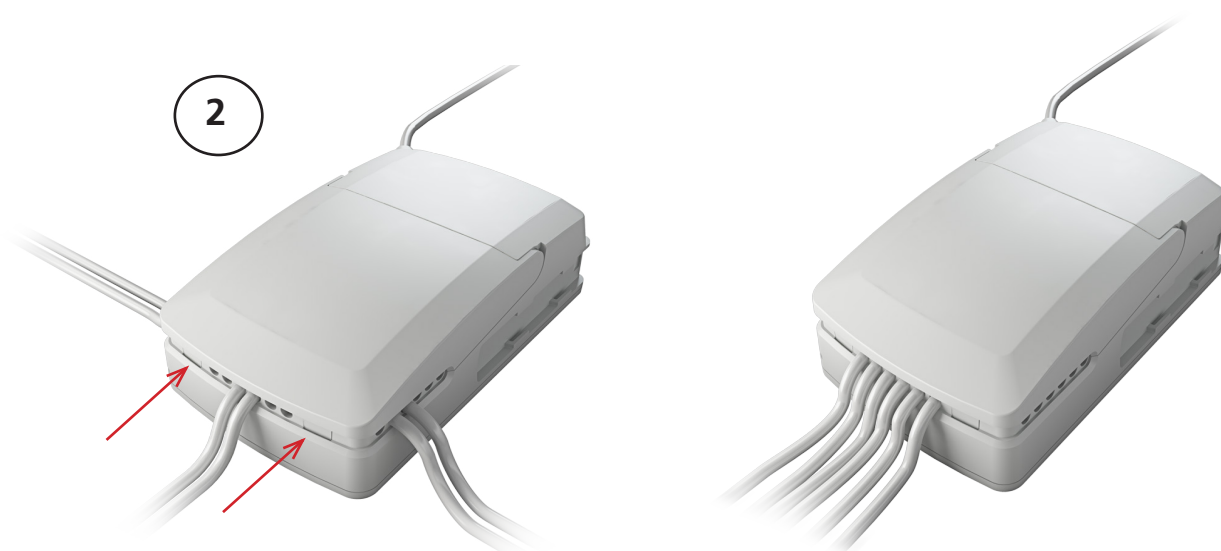
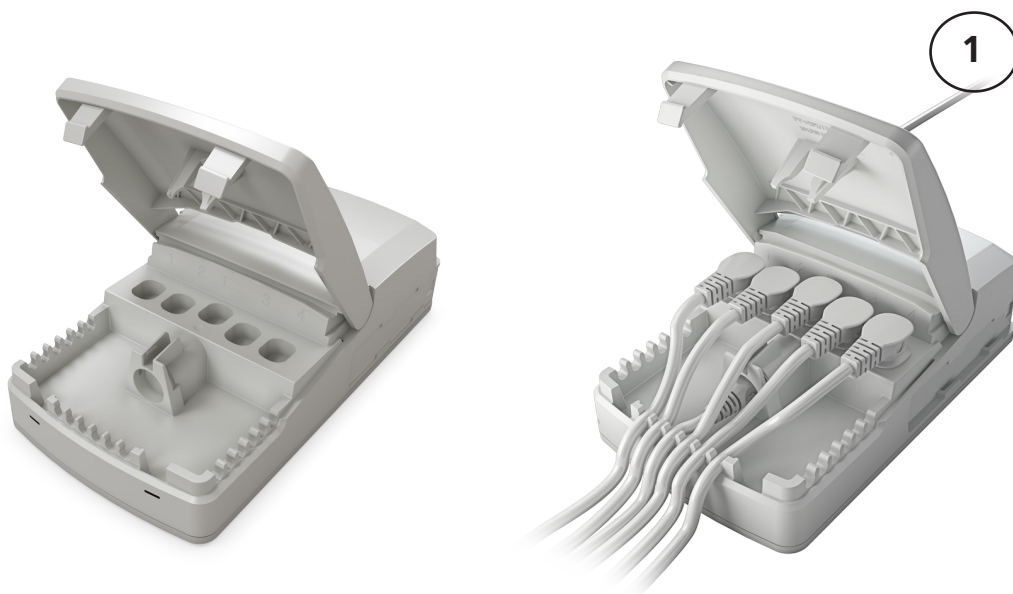
1. Mount cable plugs in control box
2. Close lid until lock snaps into place (see arrows)

To allow free access to the cables, the lid has a rest position when completely opened.

It is possible to remove the lid by lifting it a few degrees and pulling it away from the housing under tight mounting conditions.

3. The mains cable for this control box features an integrated cable lock.
4. These cable locks helps to prevent unintended disconnection, supports reliable operation, and ensures mains port remains sealed during cleaning and ingress protection testing for 60601-1 (e.g. IPX6 Washable DURA™).
5. These cable locks are designed to be only removable using a tool.

Cable management



CO-Link™



Up to 8 channels and 2x350 W (or combinations of all CO-control boxes).

A CO-Link software makes it possible to link two CO71 control boxes (or combinations of all CO-control boxes) into a system with a primary and secondary control box allowing you to run up to 8 channels with 2x350 W.

All CO71 benefits and USPs including:

- 1 control – 2 x CO71
- 8 channels
- 2 x 350 W
- Standard items
- 2 x 2.85 Ah battery backup – 2 x BA22

Tools

With OneConnect it is possible to read out service data from the control box and connected accessories.

Visit the link below for more details on OneConnect:

<https://www.linak.com/segments/medline-careline/oneconnect/>



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