

Control Box CO61 MK2

Data Sheet



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Introduction



The LINAK® control box CO61 MK2 offers a consolidated range of unprecedented features – all utilising standardised technology, interfaces and compatibility.

The CO61 MK2 for LINAK actuators is intended for the control of, for example, hospital bed movement.

Equipped with 200 W SMPS, Bluetooth® Low Energy, 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 CO61 MK2, FET, IPX6 Washable DURA™ protection and a battery port, are all standard options. The entire product platform supports the LINAK principle 'One World – One box' – worldwide operable and applicable.

Features and options

Power supply	Universal, SMPS 200 W power output (Switch Mode Power Supply) 100-240 VAC, 50/60 Hz -15% / +10%
Mains indicator	Yes - Green LED (mains connected)
Actuator interface	4 channels 6-pin Mini-Fit
Hand control interface	1 port 10-pin modular plug
CO-Link™	Link of primary and secondary CO61 MK2 - up to 8 channels and 2x200 W
Bluetooth® Low Energy	Bluetooth Low Energy gen. 2 available as option
Battery interface	1 port 4-pin Mini-Fit (output 300 mA when no actuators are running)
Standby power	w/o Bluetooth Low Energy: Approx. 0.5 W (100-240 V AC) w/ Bluetooth Low Energy: Approx. 0.6 W (100-240 V AC)
Colour	Light grey (RAL 7035)
Output short-circuit protected	Yes
Control concept	FET (no relay noise)
Power Supply Circuit Method	Half bridge/Full bridge
Duty cycle	10% - 2/18 min. on/off continuous use. Maximum power is 200 W for 80 seconds and 100 W for 40 seconds at 25 °C
Weight	Low weight 0.7 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	Supported by using BA22
PCP version	PCP 2.0 (PCP 1.0 available in SW)
EOP	Yes
IP-Rating	IPX6 Washable DURA™

Operation	True parallel (hall feedback)
Max. current	10 A/CH, 2/18 min. Max. 12 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 CO61 MK2 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	Integrated in lid
Mounting	Compatible with a wide range of mounting brackets

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

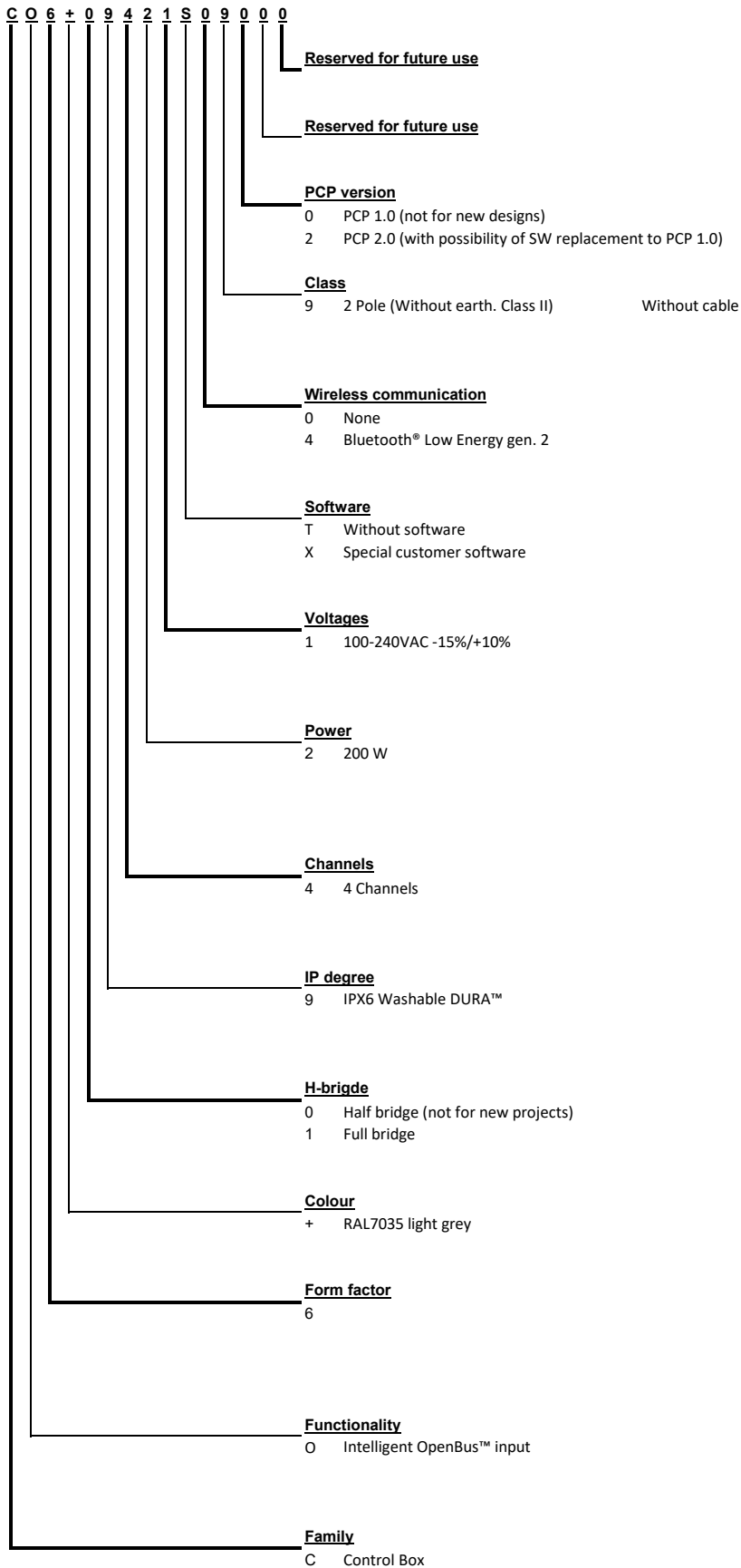
Mains supply grid should be limited to the highest prospective short circuit current of 1,500 A.

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

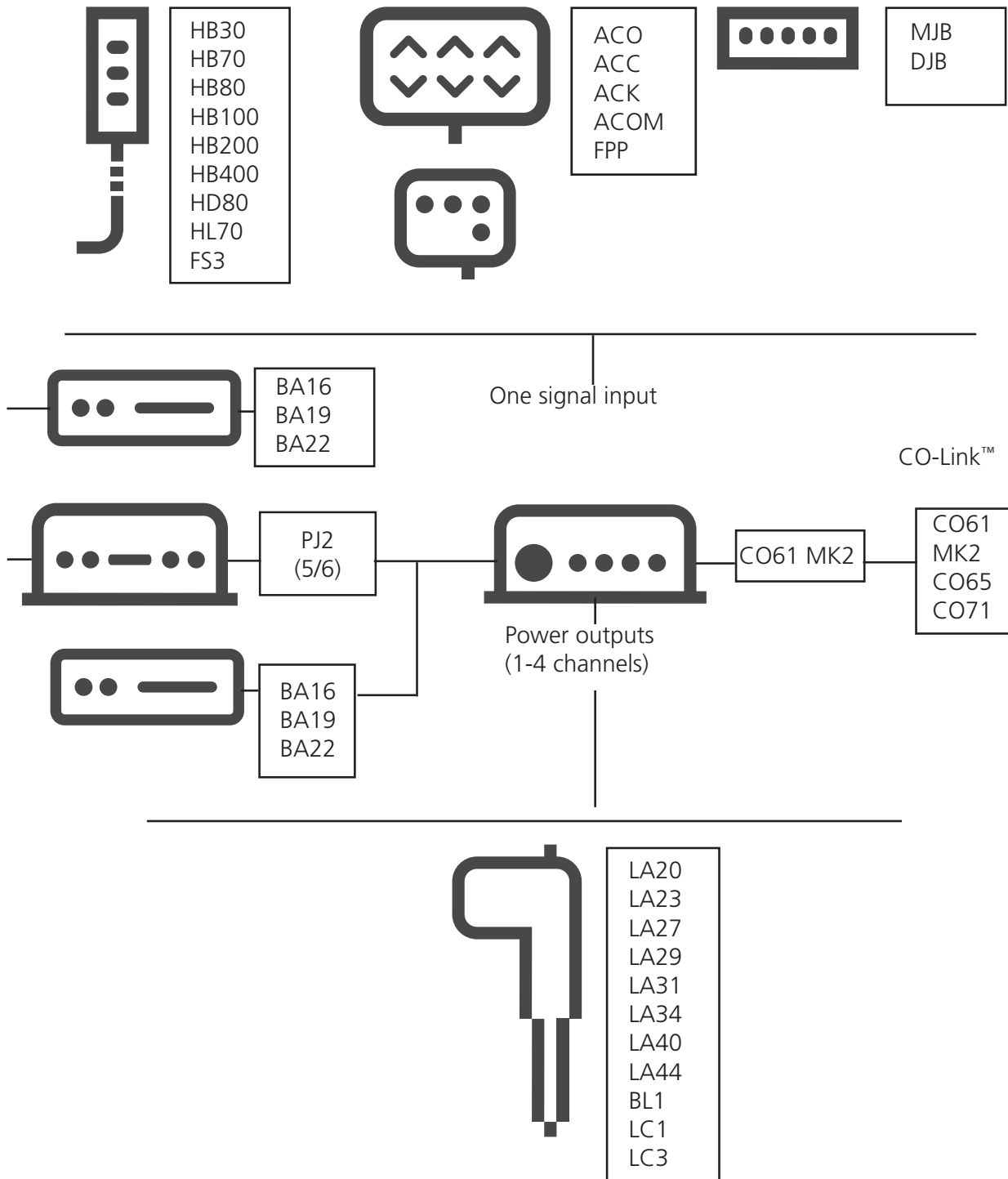
Approvals

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

Ordering example



System overview



LED indicator



CO61 MK2 is equipped with a green LED for indication of mains power connected.

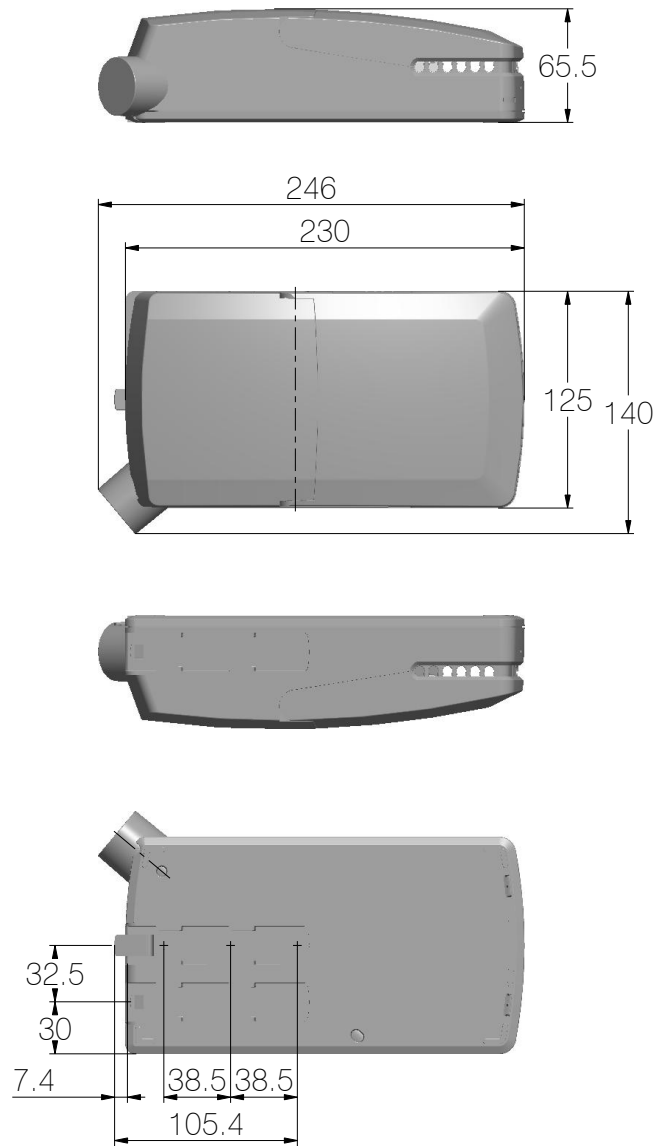
When the CO61 MK2 is connected to mains, the LED is green. Connected only to battery, the LED is off.

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

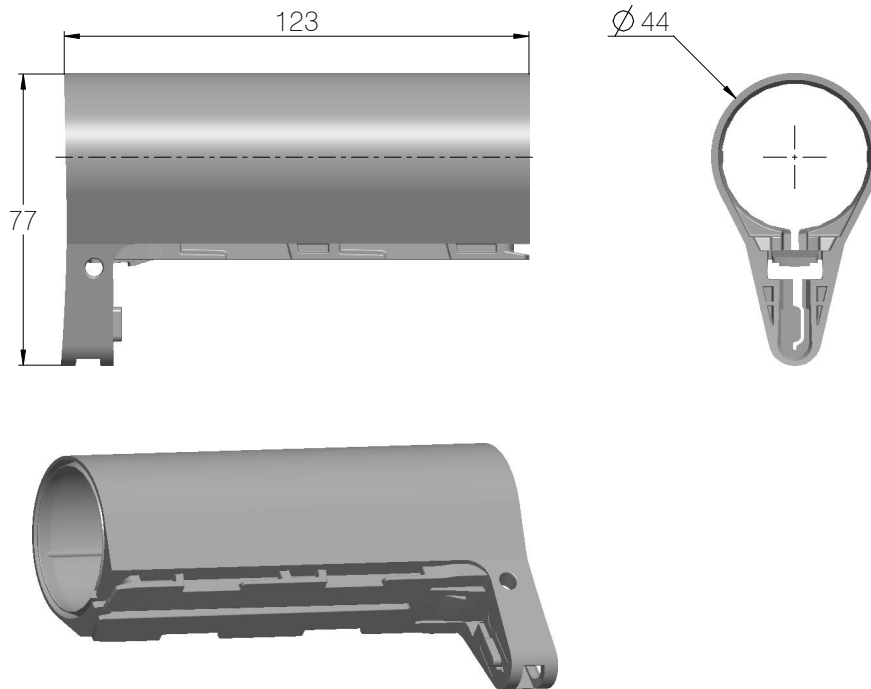


Drawing No.: 1014W4010

Mounting brackets

For mounting with LA40

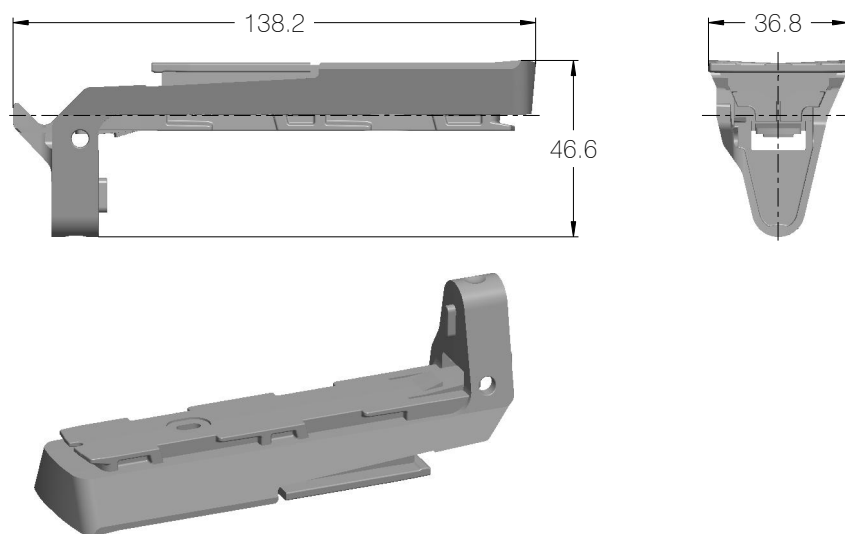
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Drawing No.: 1015W4002

For mounting with LA31

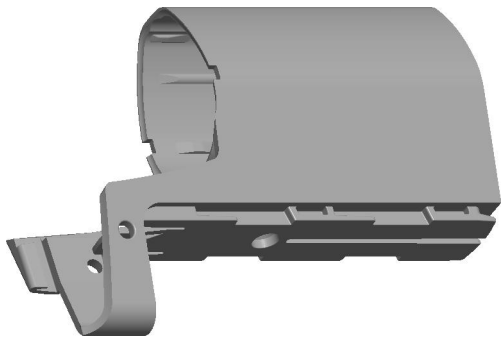
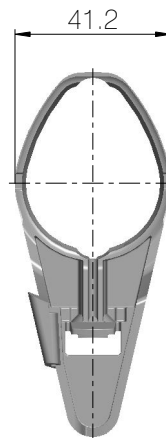
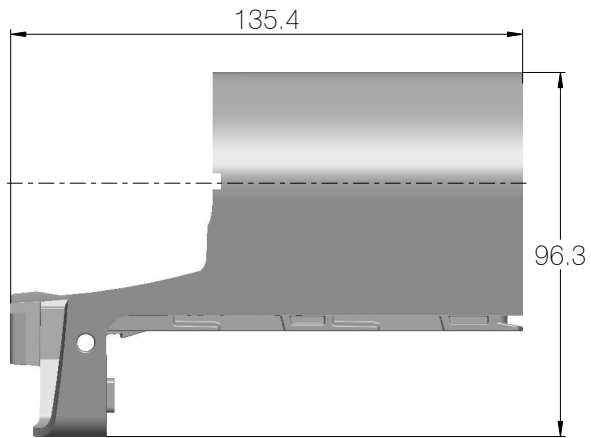
Article No.: 1015W1004



Drawing No.: 1015W4004

For mounting with LA27

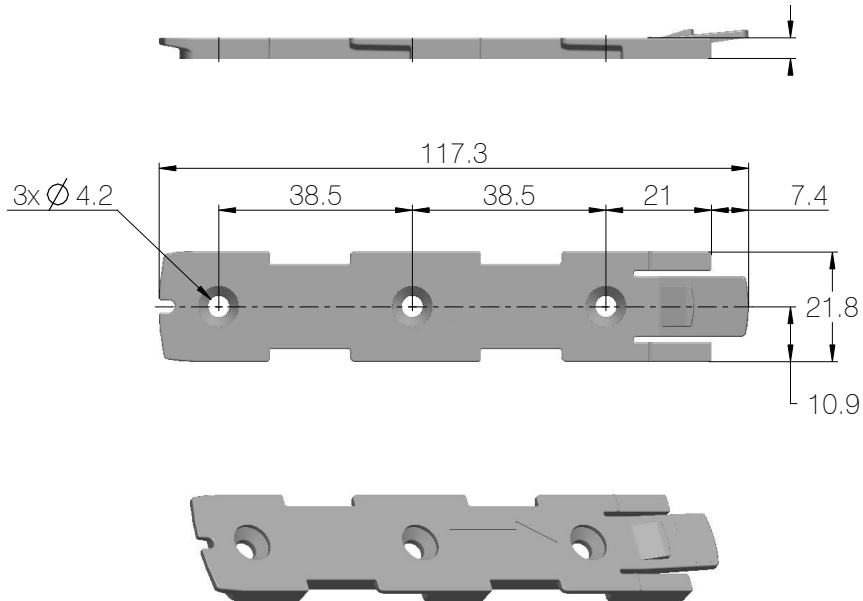
Article No.: 1015W9003



Drawing No: 1015W4003

Mounting bracket (frame flat)

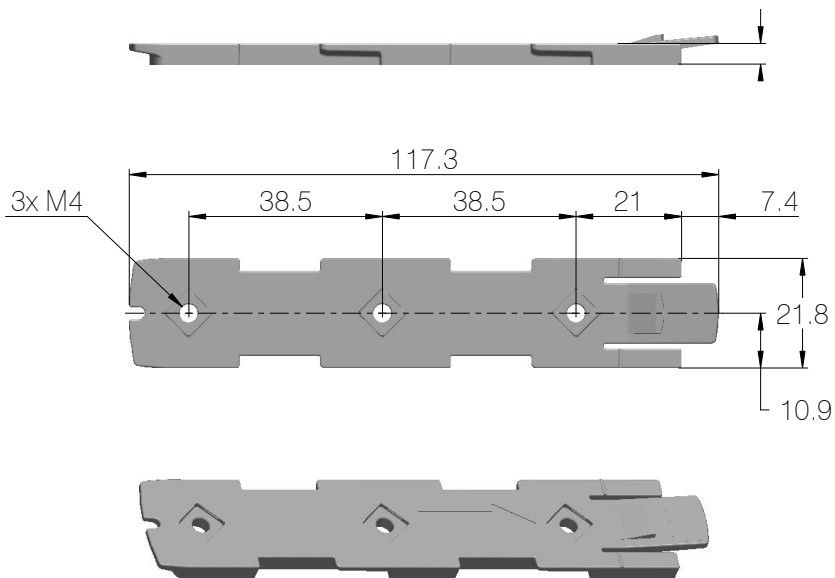
Article No. 1015W1001



Drawing No.: 1015W4001

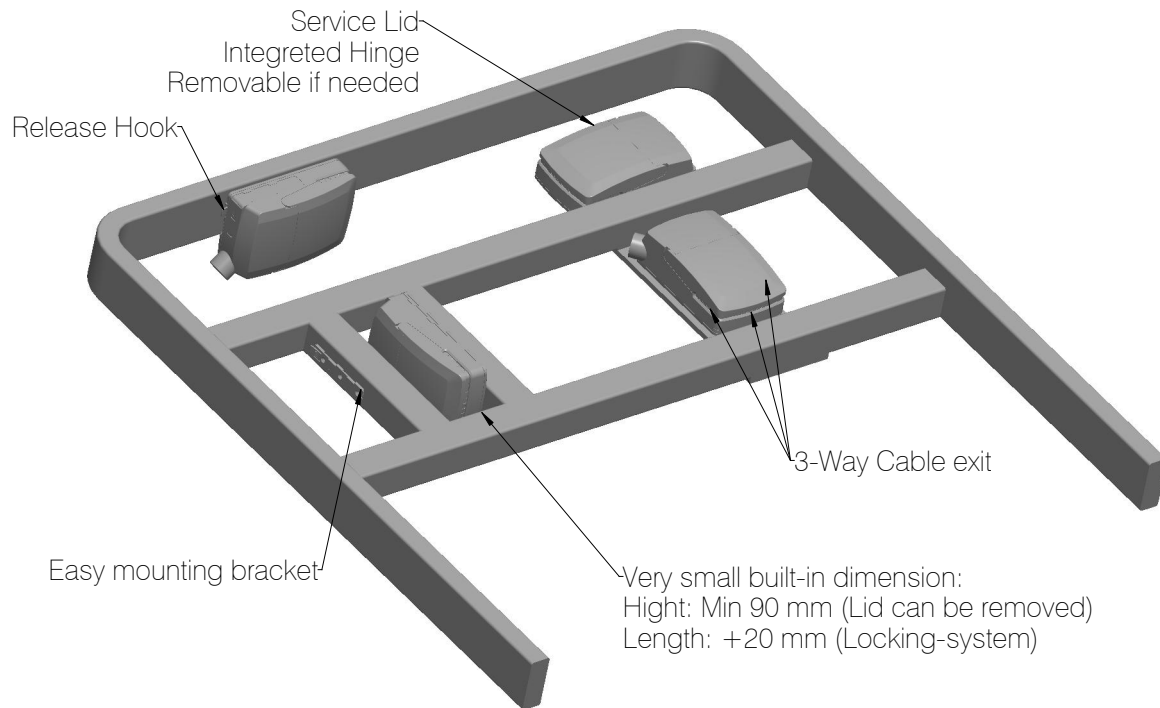
Mounting bracket (frame flat) w/M4 nuts

Article No. 1015W9009



Drawing No.: 1015W4009

Mounted on frame



Drawing No.: 1013W4008

It is recommended to mount the CO61 MK2 in a position that allows water to escape.

Recommended torque: 0.6Nm +/-0.1

The bracket can be mounted to the bed frame or any other application by following one of the following mounting procedures:

1. M6 nut to be placed in bracket and fixed with M6 bolt from the rear side
2. M5 machine screw with flat washer to be fixed through bracket with nut on the rear side
3. Self-tapping screw to be placed through bracket and onto the frame

Mounting of cables and cable lock

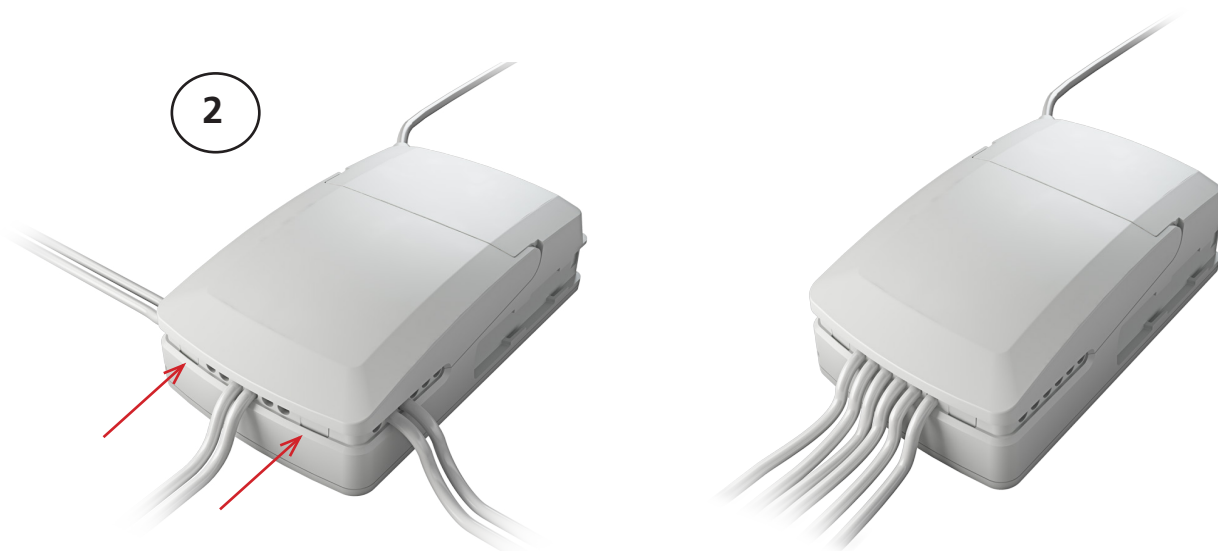
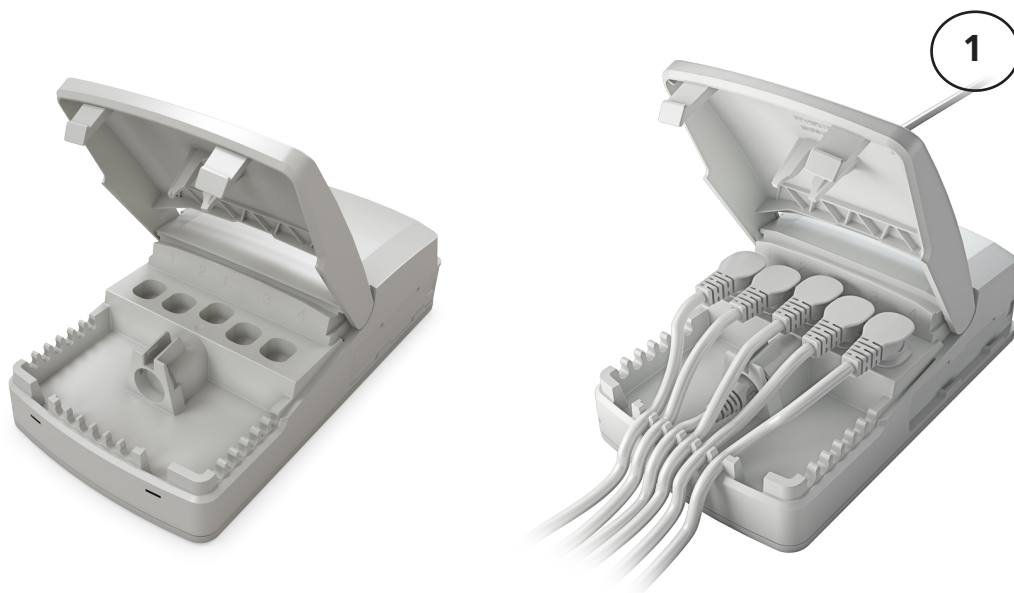
CO61 MK2 has a uniquely designed cable lid. The lid also works as an integrated cable lock when closed.

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.

Cable management



CO-Link™



Up to 8 channels and 2x200 W (or combinations of all CO-control boxes)

A CO-Link software makes it possible to link two CO61 MK2 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 2x200 W.

All CO61 MK2 benefits and USPs including:

- 1 control – 2 x CO61 MK2s
- 8 channels
- 2 x 200 W
- Standard items
- 2 x 2.85 Ah battery backup – 2 x BA22

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