

Quad Load Cell Interface 2 – QLCI2

Data Sheet



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Introduction



The Quad Load Cell Interface 2 (QLCI2) for the hospital and care segment is a scale system accessory with weighing capabilities and Out of Bed functionality.

The housing makes the QLCI2 easy to mount by unique slide-on brackets and has an IPX6 Washable DURA™ ingress protection.

The QLCI2 supports the LINAK OpenBus™ system, offering a high level of customisation.

LINAK A/S delivers the OpenBus system only and is not responsible for any products (i.e. products from 3rd party suppliers) or the compatibility of such products with the LINAK OpenBus system.

Features and options

Housing colour:	Light grey, RAL 7035
Protection class:	IPX6 Washable DURA
Weight:	≈ 400 g
Power consumption:	V-Permanent 40 V = < 50 mA V-Bus 8 V = < 15 mA
Mounting:	Mounting bracket or bed frame
Cable lock:	Integrated in lid
OpenBus interface:	1 port - 10-pin modular plug
Calibration interface:	1 port - 6-pin Micro-Fit
Load cell interface:	4 ports - 6-pin Micro-Fit
Optional relay gateway:	6-pin Mini-Fit with two relays NC-NO
Standby power:	There is no standby consumption if the system is on sleep
Power supply:	Via OpenBus™
Operation mode:	On mains or on battery



Usage

Operation 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
Height above sea level:	Max. 3000 meters
Approvals:	- IEC60601-1 - ANSI/AAMI ES60601-1 - CAN/CSA-22.2 No 60601-1 - EN 45501/OIML R76 - EU type examination according to 2014/31/U
Compatibility:	All OpenBus™ control boxes
Flammability rating:	UL V0
Latex free:	Yes

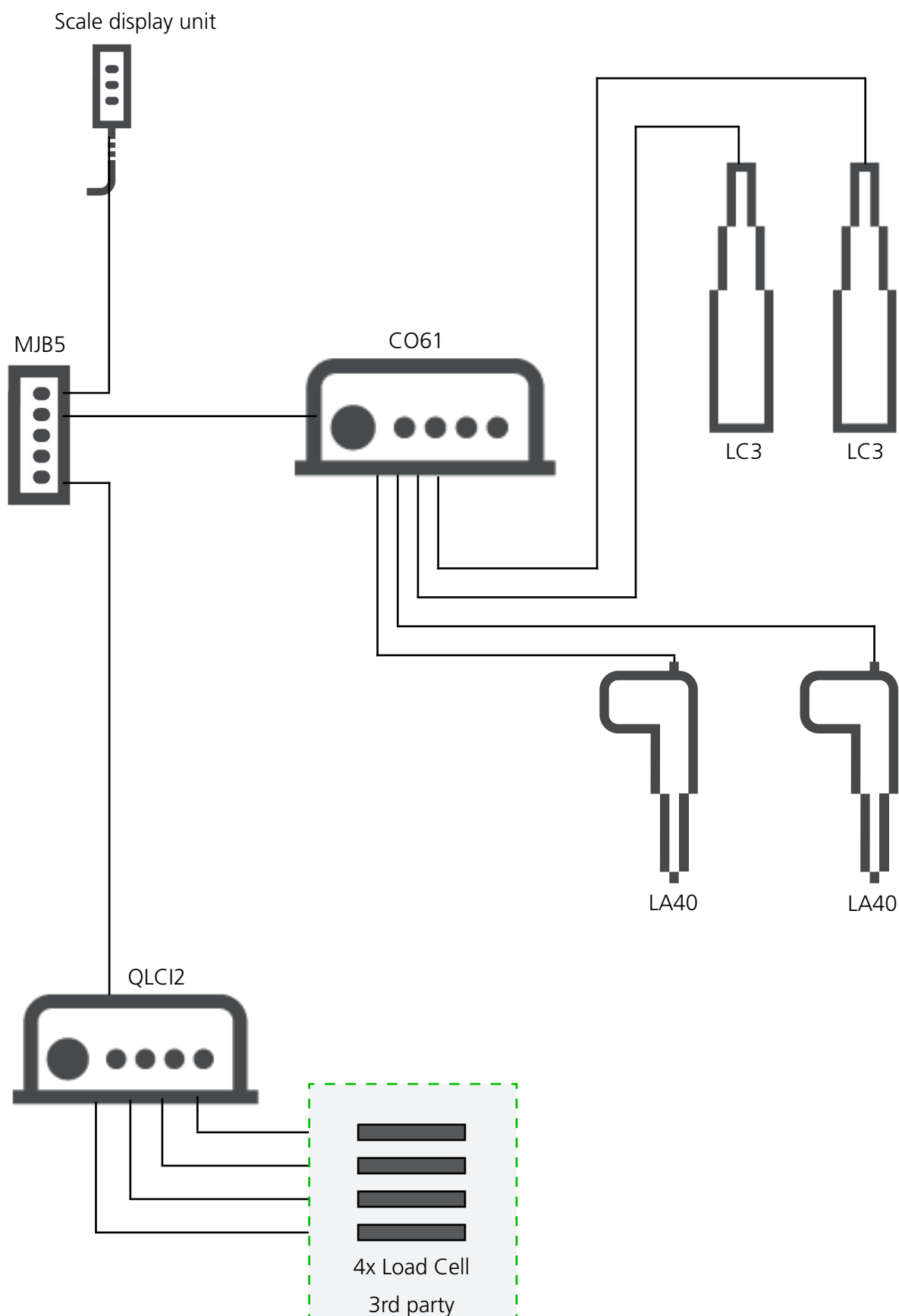


Ordering example

	QLCI2	
Not used	00	00 = Not used
Not used	0	0 = Not used
SW option	0	0 = Standard software X = Special software
Not used	0	0 = Not used
Relay option	A	A = 2 relays B = No relays
HW functionality	1	1 = Standard version X = Special functionality
Housing / Colour	2	2 = RAL7035 (light grey)
IP protection class	9	9 = IPX6 Washable DURA™



System overview



Gateway

The Gateway port provides an interface from the OpenBus™ to a 3rd party hardware, for instance a nurse call system. The Gateway hardware is not a LINAK product and must be supplied by a 3rd party supplier.

3rd party product specifications must be in accordance with the QLCI2 interface description and isolation requirements.

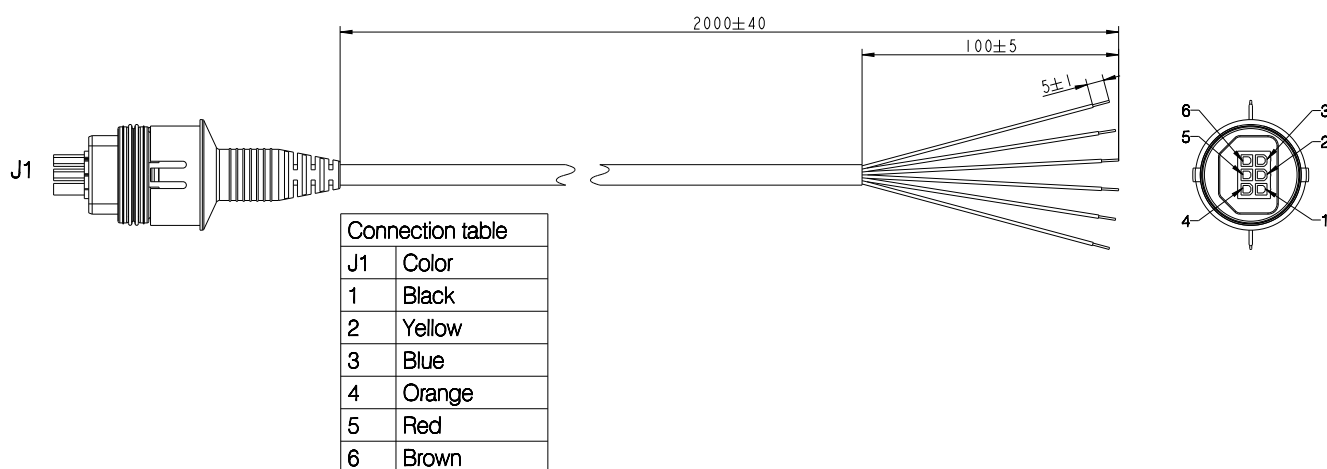
Cables

Gateway cable

Item no.: 1013W7008

Colour: RAL 7035

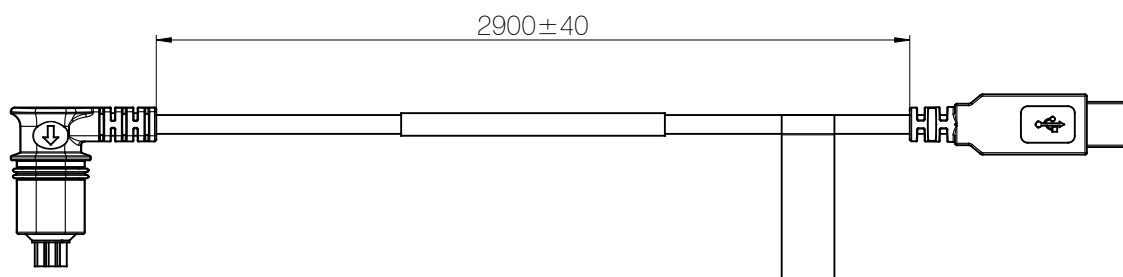
Material: PVC



Drawing No.: 1013W7008

Calibration cable

Item no.: QLCI2CALCABLE-00

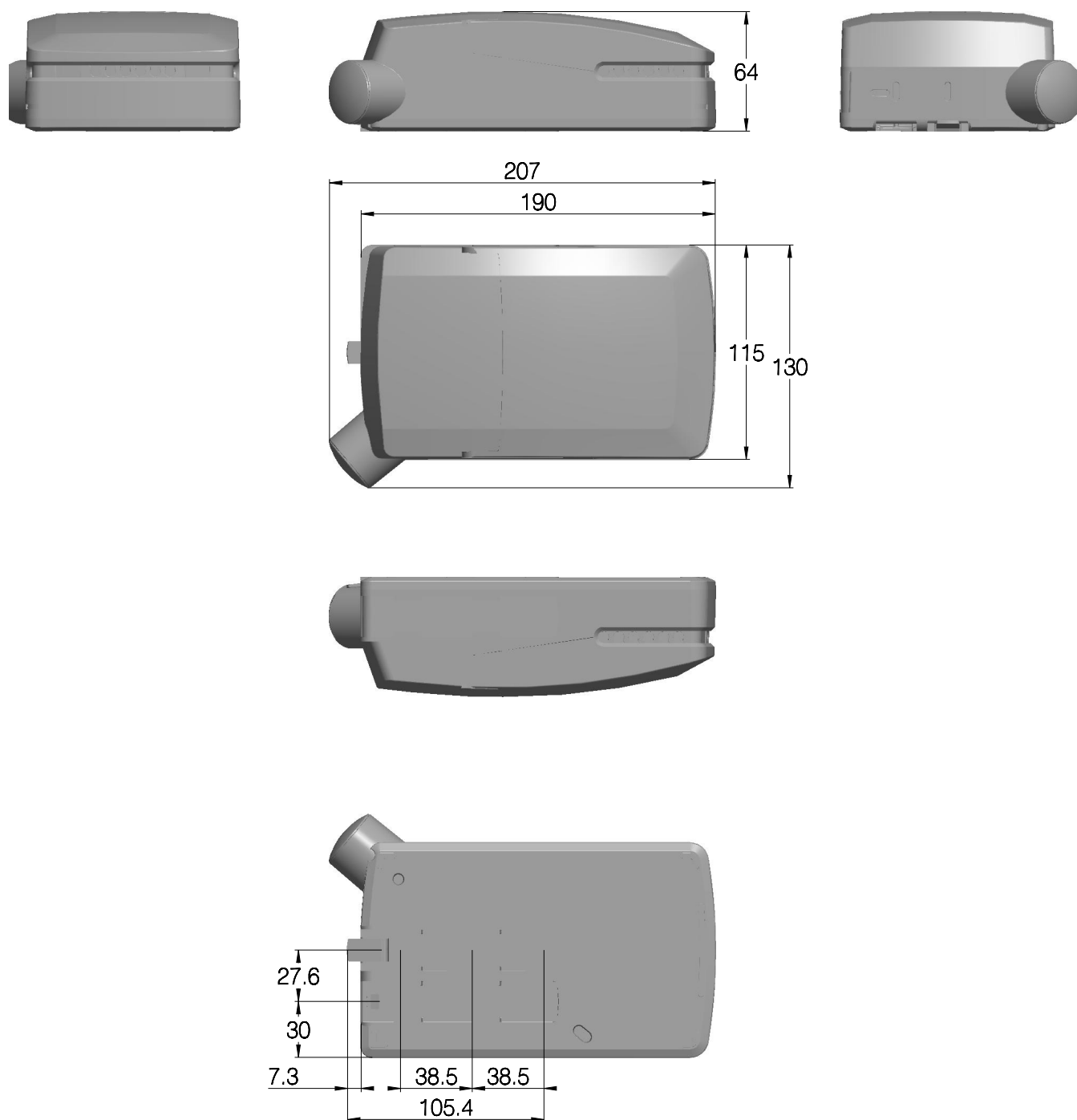


Drawing No.: 1013W7010



Dimension drawings

All dimensions are in mm.

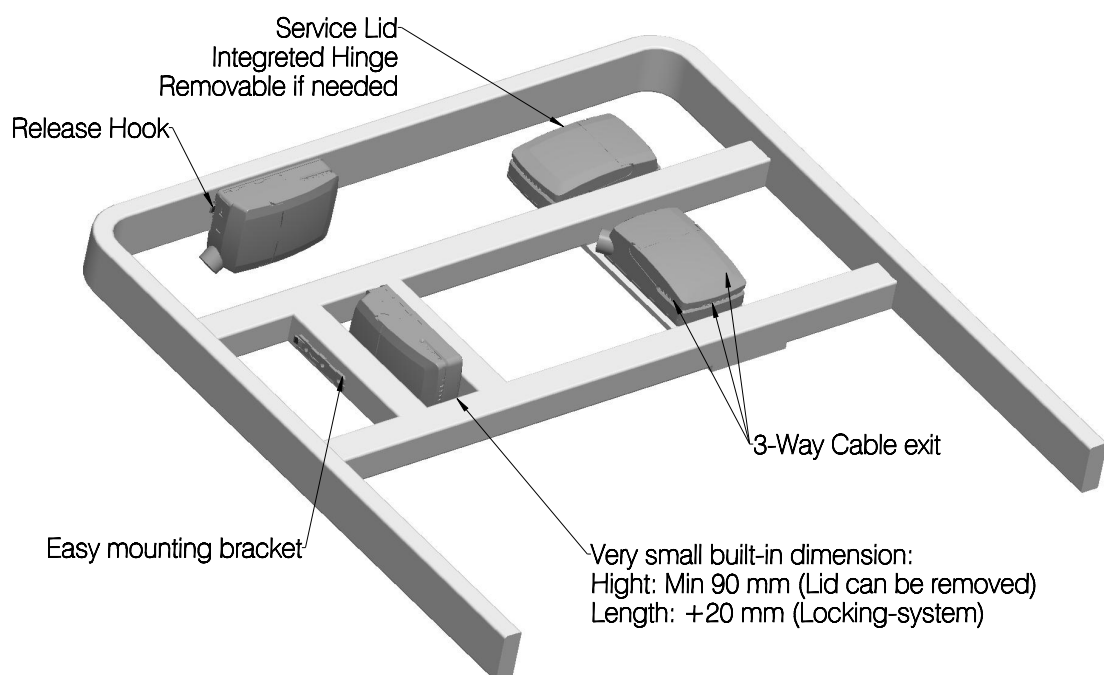


Drawing no.: 1013w4020



Mounting

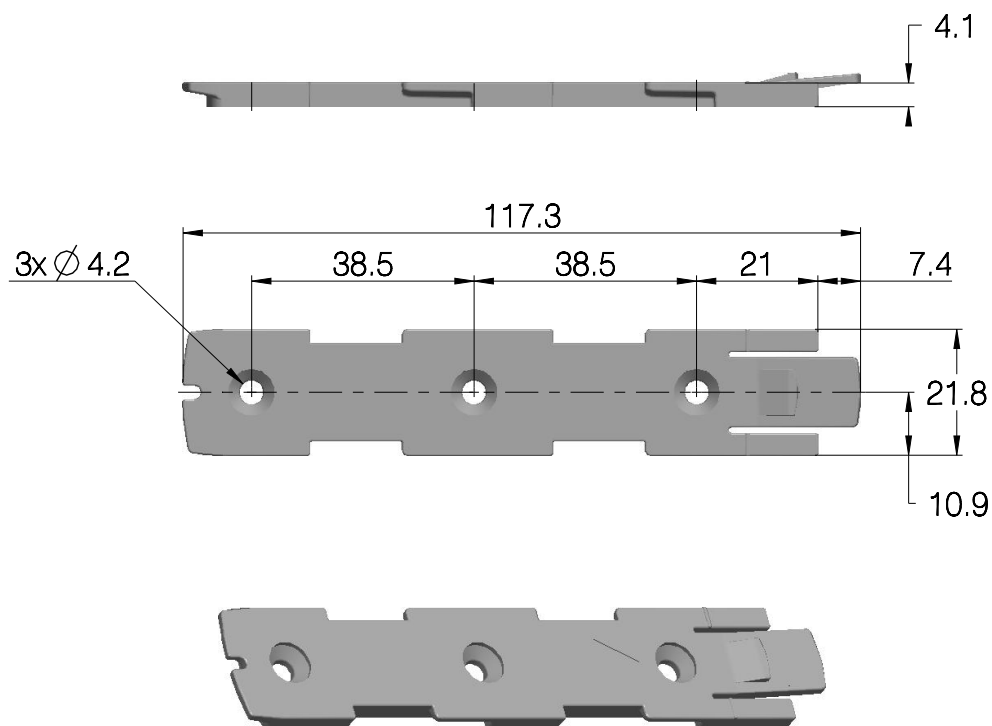
Mounted on frame



Drawing No: 1013W4008

Mounting bracket (frame flat)

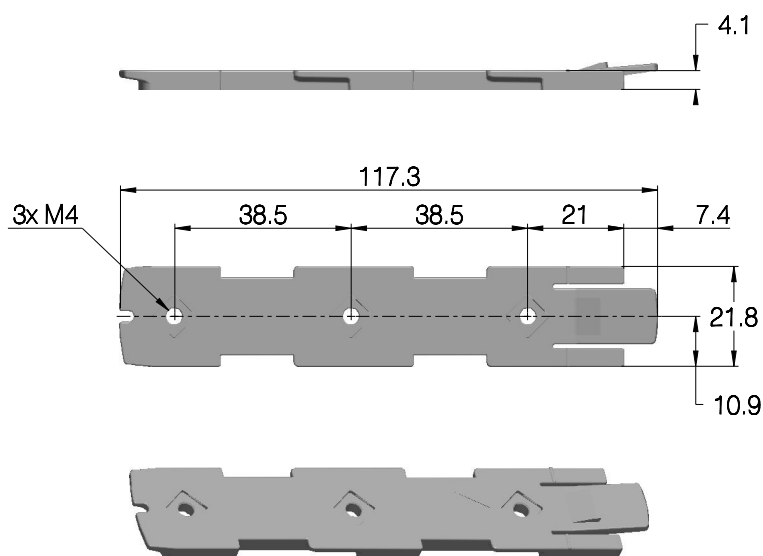
Article No. 1015W1001



Drawing No.: 1015W4001

Mounting bracket (frame flat) w/M4 nuts

Article No. 1015W1009



Drawing No.: 1015W4009

It is recommended to mount the QLCI2 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 means of 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.

The load cells should be mounted in the bottom frame to avoid that adjustment of the top frame affects the measurements.

The load cells must be mounted so that the only force applied is the gravitational force of the load to be measured.



Mounting of cables and cable lock

The QLCI2 have a uniquely designed cable lid. The lid also works as an integrated cable lock when closed.

1. Mount load cell cable plugs in QLCI2
2. Calibrate the system
3. Mount blind plug in calibration port
4. Close lid until lock snaps into place
5. Place calibration void label - only one is needed

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 pull it away from the housing under tight mounting conditions.

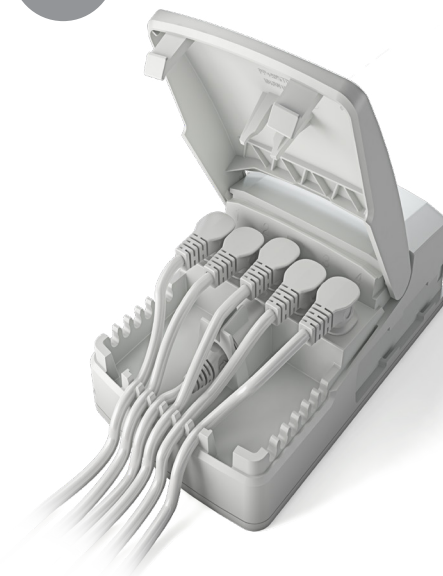
1

Mount load cell cables



2

Calibrate the system



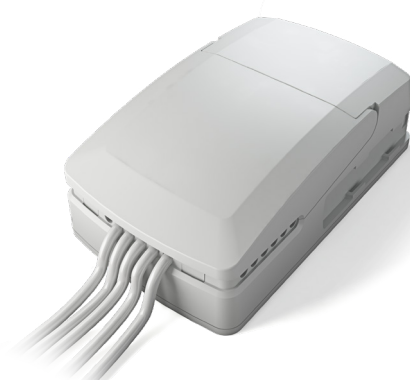
3

Mount blind plug



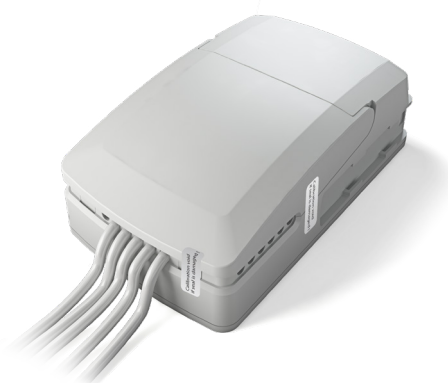
4

Close lid until it snaps



5

Place void label



Only 1 label is required. The label can be placed anywhere along the opening of the lid on the QLCI2 box.

Display option

A scale display unit is a device with the LINAK Weighing Solution, capable of

- displaying the weight of a patient
- setting the Out Of Bed feature
- saving the weight of the patient
- viewing the last 10 saved patient weight entries

Calibration

There are different ways of calibration:

1. Calibration via calibration cable and calibration software
2. Calibration via scale hand control (e.g. HB100)
3. Calibration via console program



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