

Control Box C053

Data Sheet



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Introduction



The LINAK control box CO53 is a new member of the OpenBus™ range. The control box offers a 190W power supply, a small and compact design and the ability to handle multiple hand controls or other OpenBus accessories for applications with a need for more advanced features.

Some of the strong CO53 benefits:

- Up to 5 channels
- Two OpenBus ports for two hand controls or one hand control and an accessory
- Unique OpenBus safety concept which prevents unintended actuator movement
- With special software you can for instance achieve specific and safe movement patterns in the application
- Excellent cable management
- Multiple mounting options
- Bluetooth®

Features and options

Power supply:	SMPS (Switch Mode Power Supply), 190 W power output, 230-240 VAC, 50/60 Hz -15%/+10% or 100-240 VAC, 50/60 Hz -15%/+10%
Mains indicator:	Yes - two-colour LED
Bluetooth®:	Yes
Actuator interface:	4 or 5 channels 6-pin Mini-Fit
Hand control interface:	2 port interface 10-pin modular plug
Battery interface:	1 port interface for BA18
Standby power:	Approx. 0.8 W (230/240 V)
Colour:	Light grey (RAL 7035)
Output short-circuit protected:	No
Control concept:	Relays (EAS protection)
Duty cycle:	10% - 2/18 min. on/off continuous use
Weight:	Low weight 0.7 kg
Actuator compatibility:	Actuators with no feedback/encoded feedback, feedback by Hall and potentiometer
Battery charger:	Yes, in control box
Charging indicator:	Supported
Acoustic warning signal:	Internal buzzer
Battery alarm:	Yes, supported
PCP version:	N/A
EOP:	Yes
IP-Rating:	IPX6
Microprocessor:	128 Kb
Housing type:	V-0, PP, welded (resistant to chemicals)
Operation:	Semi-parallel (feedback possible)
Max. current:	8 A/CH (peak) at single-channel running is covered by all approvals
Accessories:	OpenBus™ standard
Power management:	Not supported

Overload protection:	The CO53 can reduce the output voltages to prevent overload
Safety system:	SMPS version thermally protected by hardware Hot-plugging protected Short-circuit 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

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

Meters above sea level: Max. 3000 meters

Mains supply grid should be limited to the highest prospective short circuit current:

100-240 VAC: 1500 A

230-240 VAC: 35 A

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

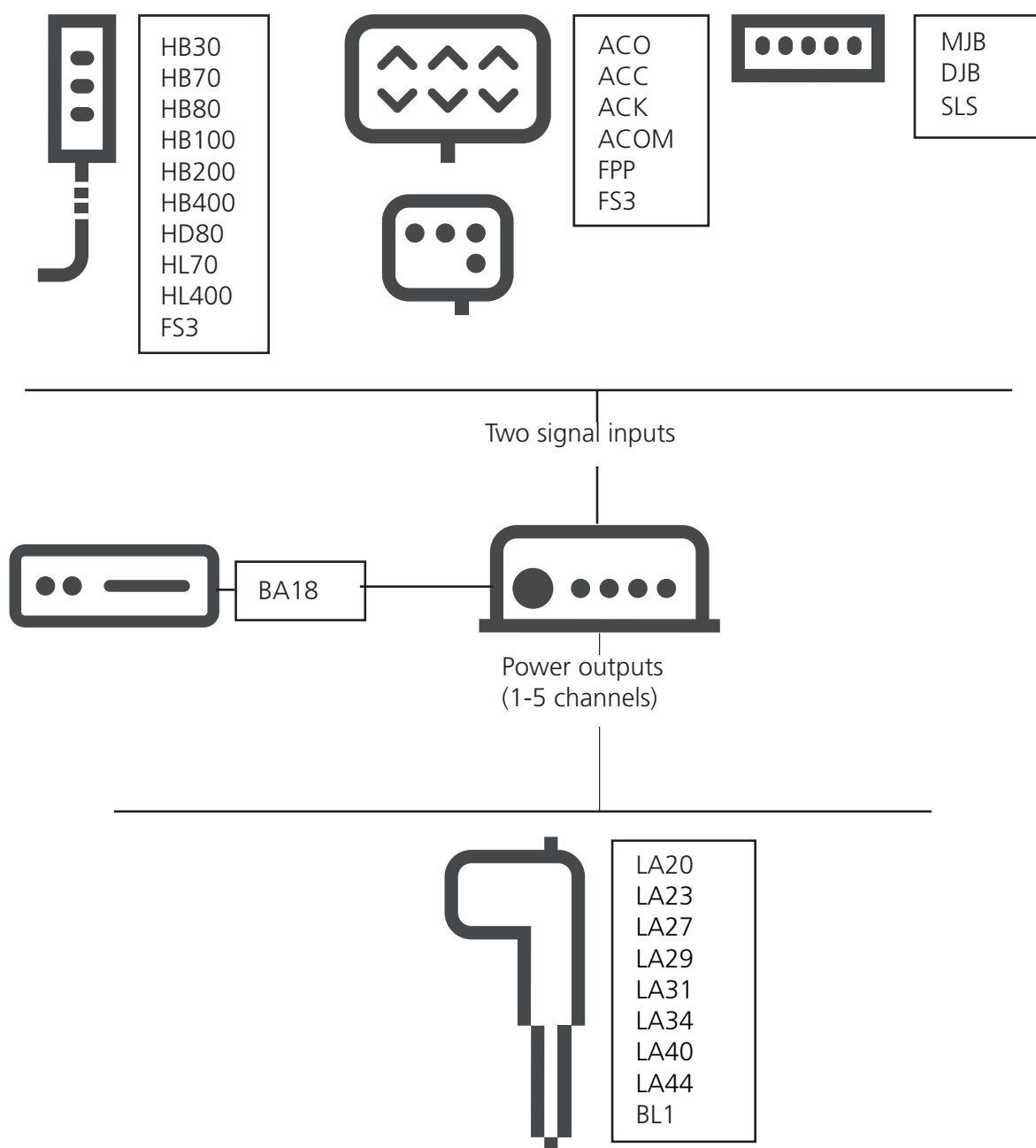
Approvals:

- IEC60601-1
- ANSI/AAMI ES60601-1
- CAN/CSA-22.2 No 60601-1

Ordering example

C	O	5	+	0	6	4	6	2	T	0	9	8	0	0	
															<u>Reserved for future use</u>
															<u>Reserved for future use</u>
															<u>Options</u>
												8			Internal charger and buzzer (old OBMe platform, not for new projects)
												9			Internal charger and buzzer (COXX platform)
															<u>Class</u>
													9		2 Pole (without earth, class II) Without cable
															<u>Wireless communication</u>
													0		None
													2		Bluetooth® (BLE)
															<u>Software</u>
													T		Test software
													X		Special customer software
															<u>Voltages</u>
													1		100-240 VAC +10%/-15%
													2		230-240VAC +10%/-15%
															<u>Power</u>
													6		190W
															<u>Channels</u>
													4		4 Channels
													5		5 Channels
															<u>IP degree</u>
													6		IPX6
															<u>H-bridge</u>
													0		Half bridge
															<u>Colour</u>
													+		RAL7035 light grey
															<u>Control Box family</u>
													5		CO53
															<u>Hand Control input</u>
													0		OpenBus interface
															<u>Family</u>
													C		Control Box

System overview



LED indicator



CO53 is equipped with a green LED for indication of mains power connection and an orange LED for indication of hand or foot control activation.

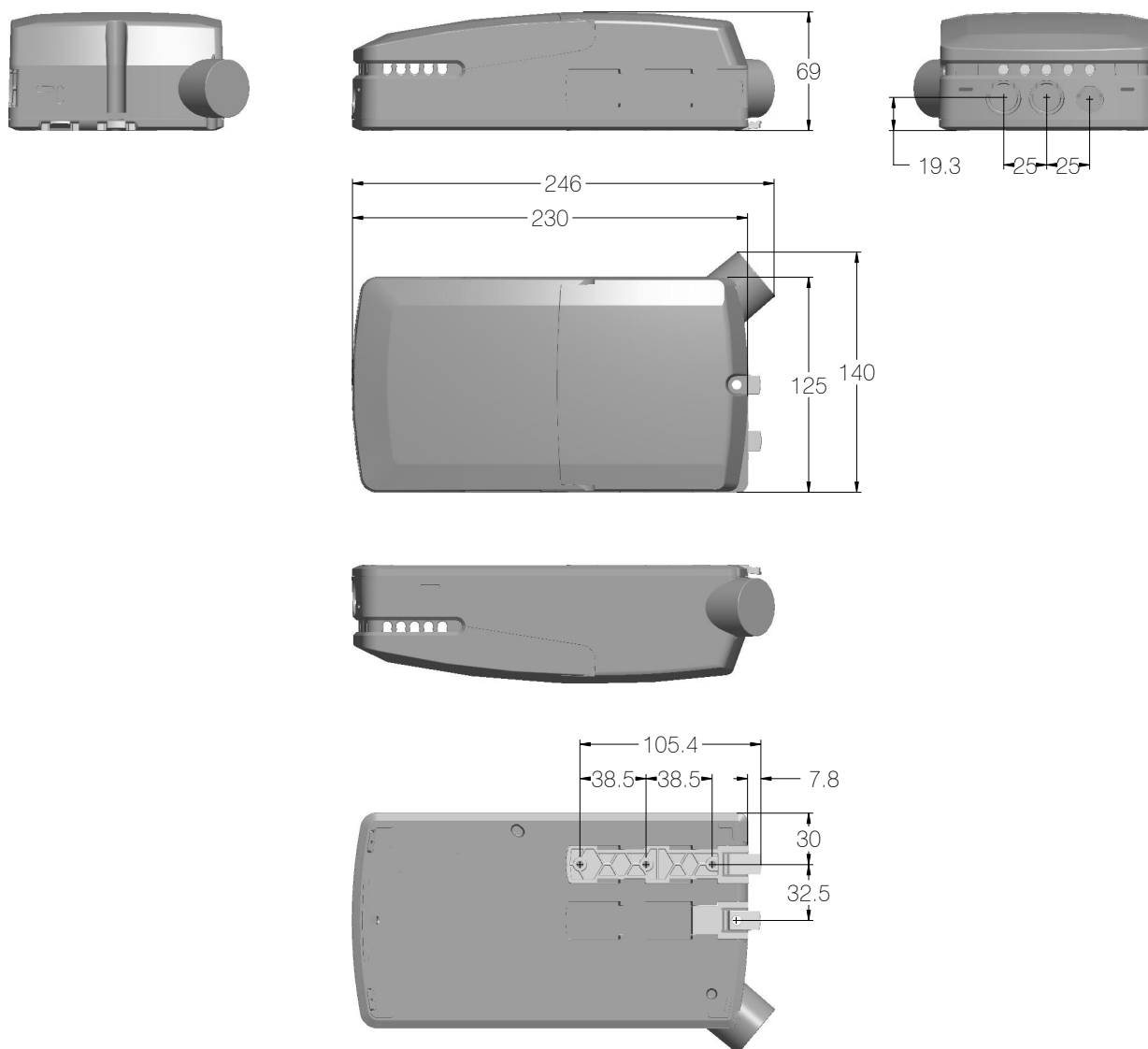
When the CO53 is connected to mains, the LED is green and when connected to battery, the LED is off.

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

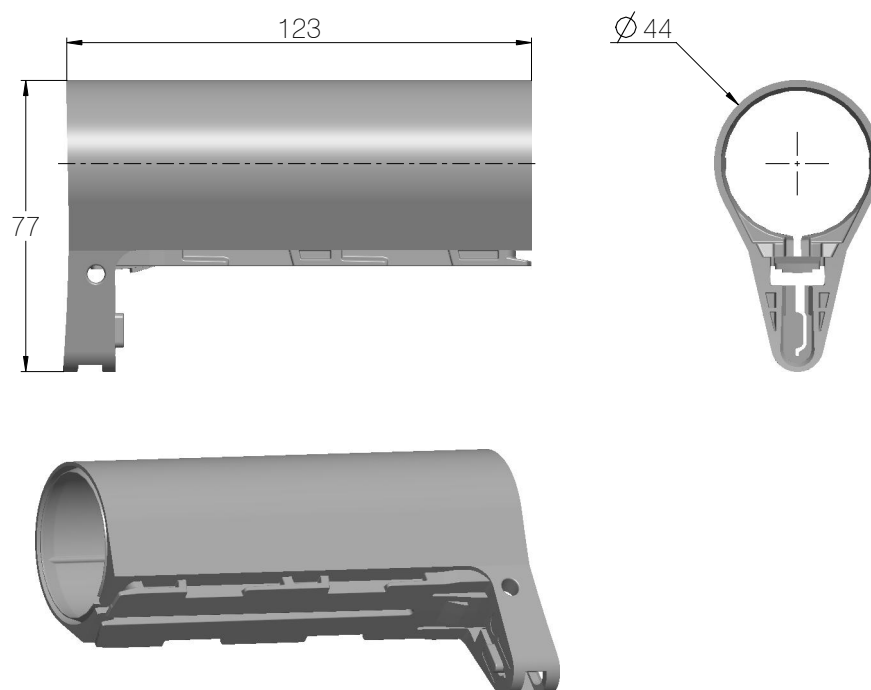


Drawing No.: 1054W4001

Mounting brackets

For mounting with LA40

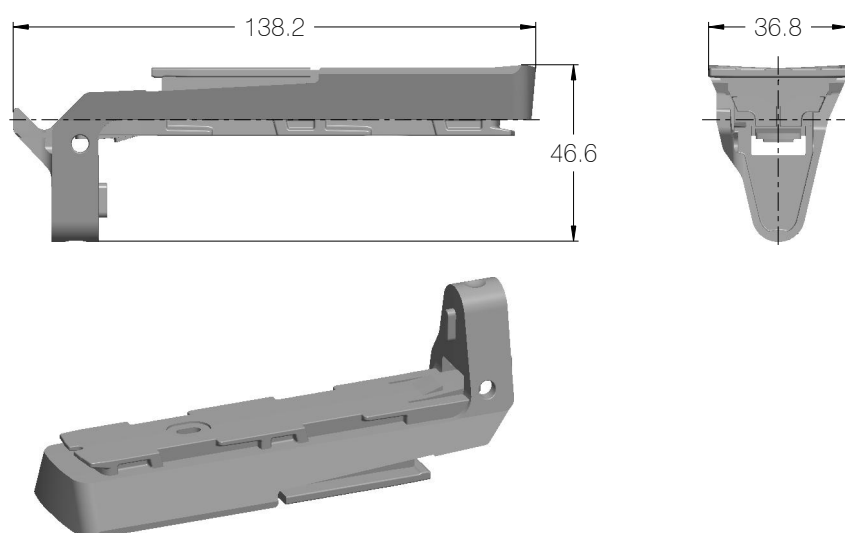
Article No.: 1015W1002



Drawing No.: 1015W4002

For mounting with LA31

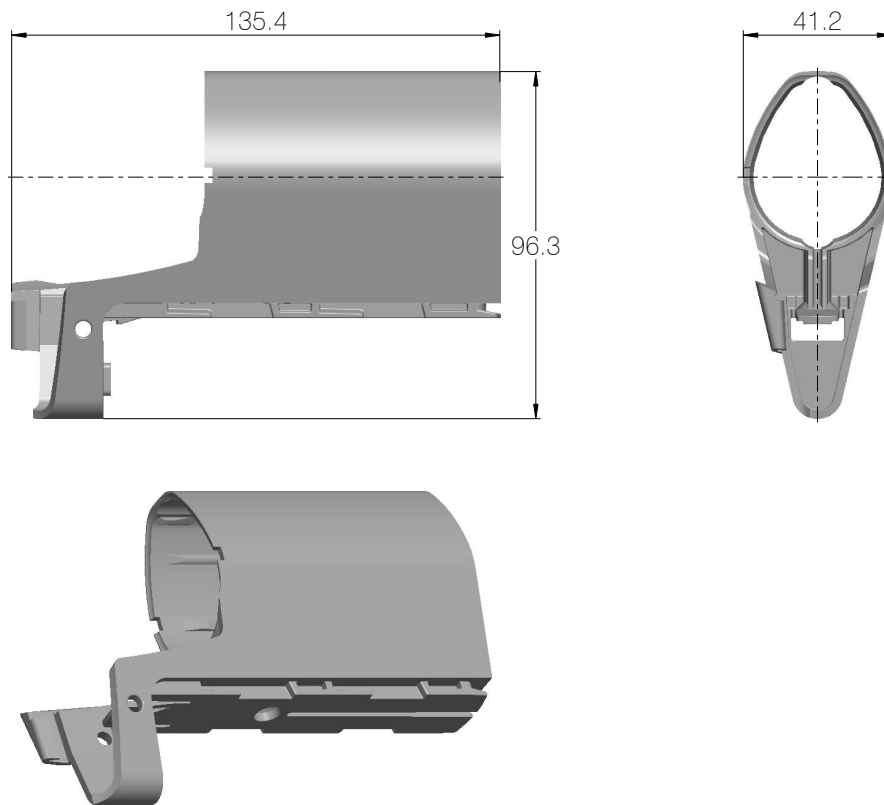
Article No.: 1015W1004



Drawing No.: 1015W4004

For mounting with LA27

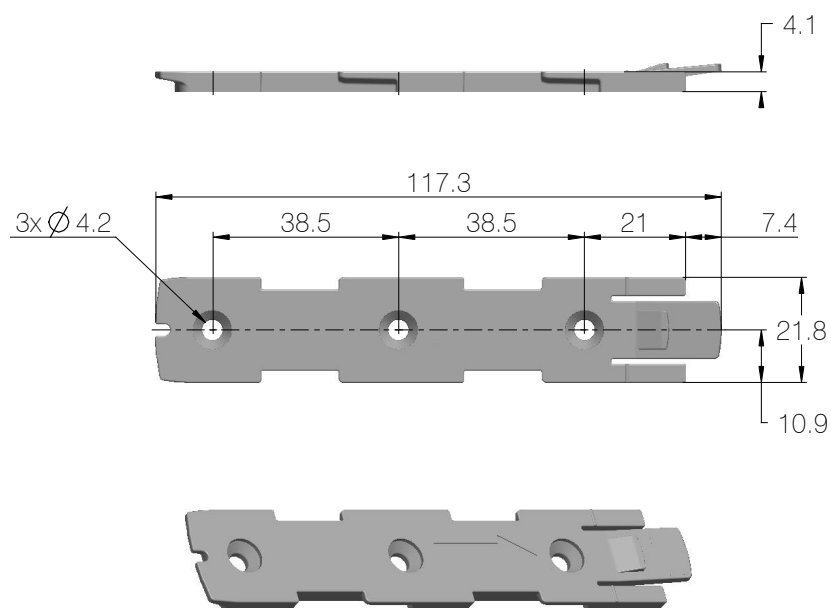
Article No.: 1015W9003



Drawing No: 1015W4003

Mounting bracket (frame flat)

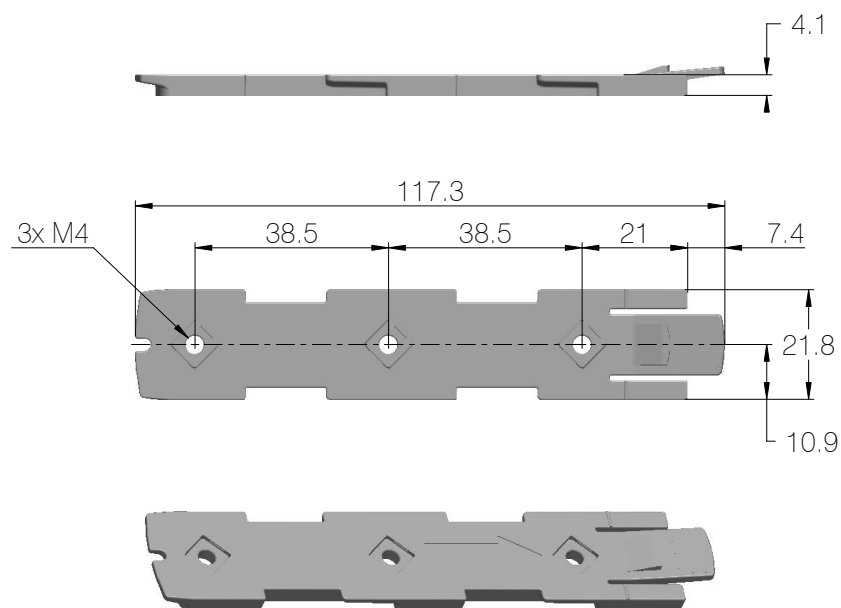
Article No. 1015W1001



Drawing No.: 1015W4001

Mounting bracket (frame flat) w/M4 nuts

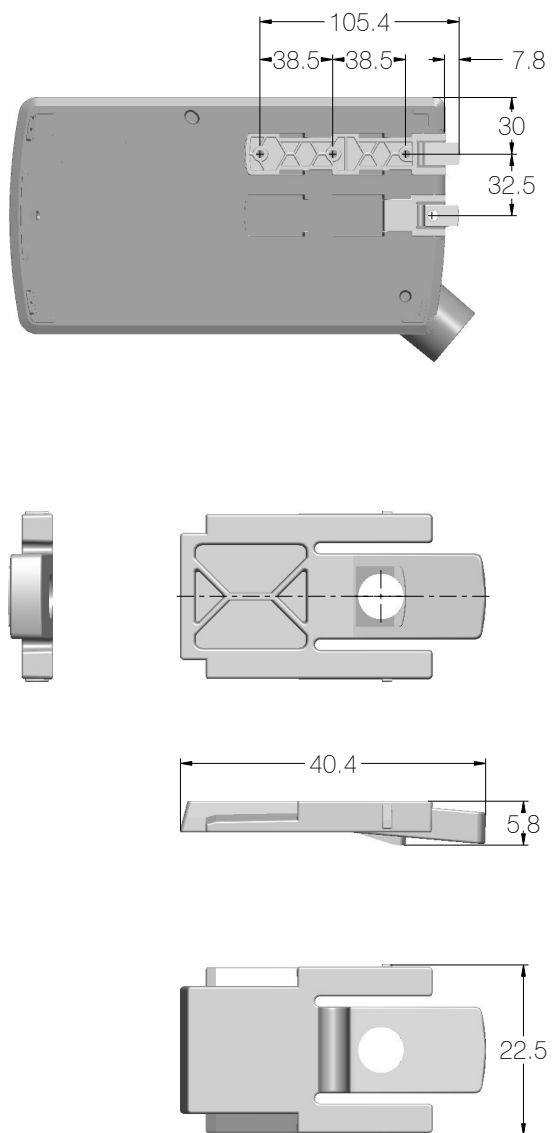
Article No. 1015W9009



Drawing No.: 1015W4009

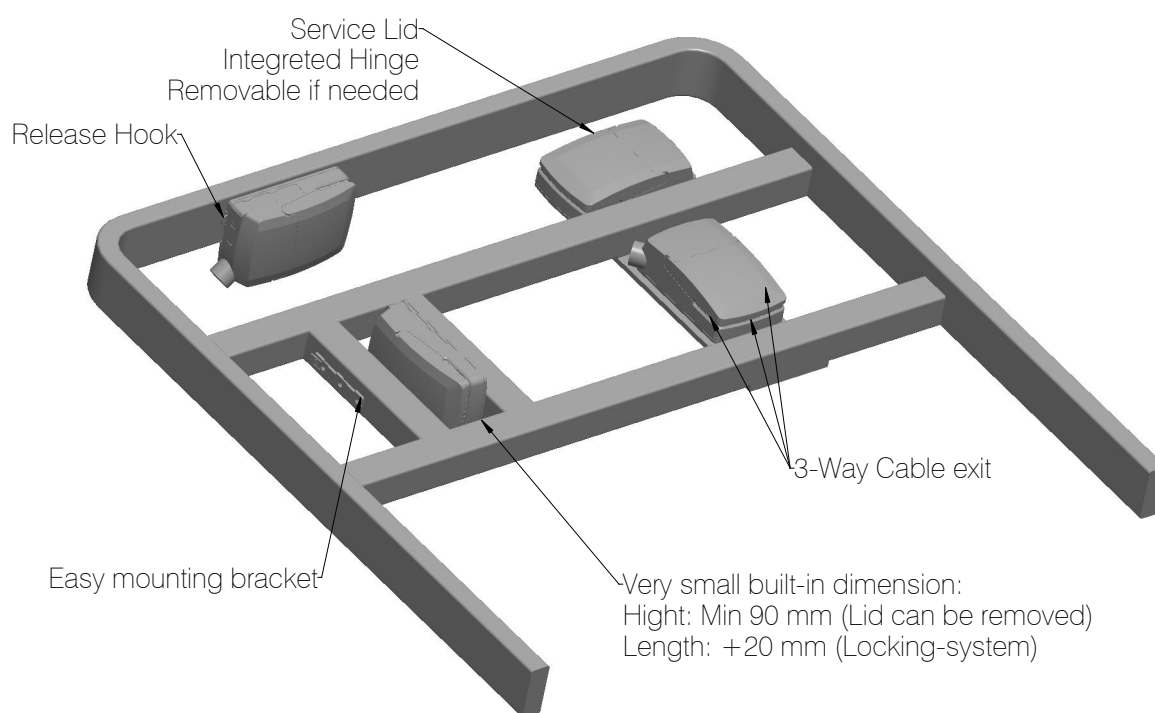
Screw bracket spacer

Article No. 1015W1001



Drawing No.: 1054W4001

Mounted on frame



Drawing No.: 1013W4008

It is recommended to mount the CO53 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

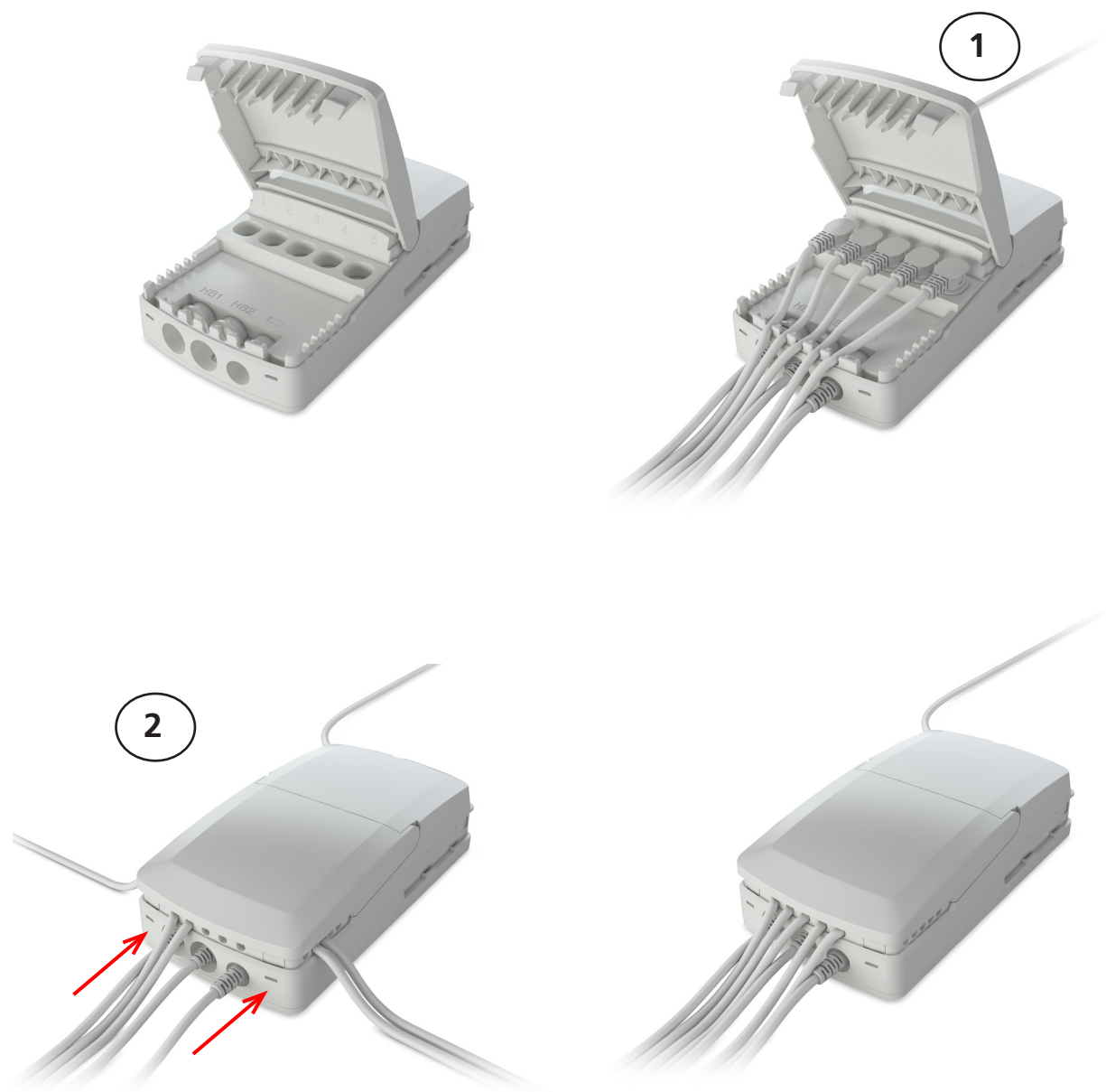
CO53 has a uniquely designed cable lid. The lid also works as an integrated cable lock when closed.

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



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