

# Control Box

## CM41-M

The CM41-M control box can control up to 4 actuators, and uses Moteck's proprietary Bus communication protocol program, so it can be matched with many Moteck's compatible electronic control products to provide advanced and complex functions. CM41-M adopts SMPS power board inside, which makes the appearance thin and light. Using field-effect transistor design, there will be no relay switch noise during action control. If matched with a hand controller with power display, you can check the current power of the external battery box. Different accessories can also be purchased according to different installation method. With IPX6 waterproof design, it is suitable for medical, home care and other applications.



### Features and Options

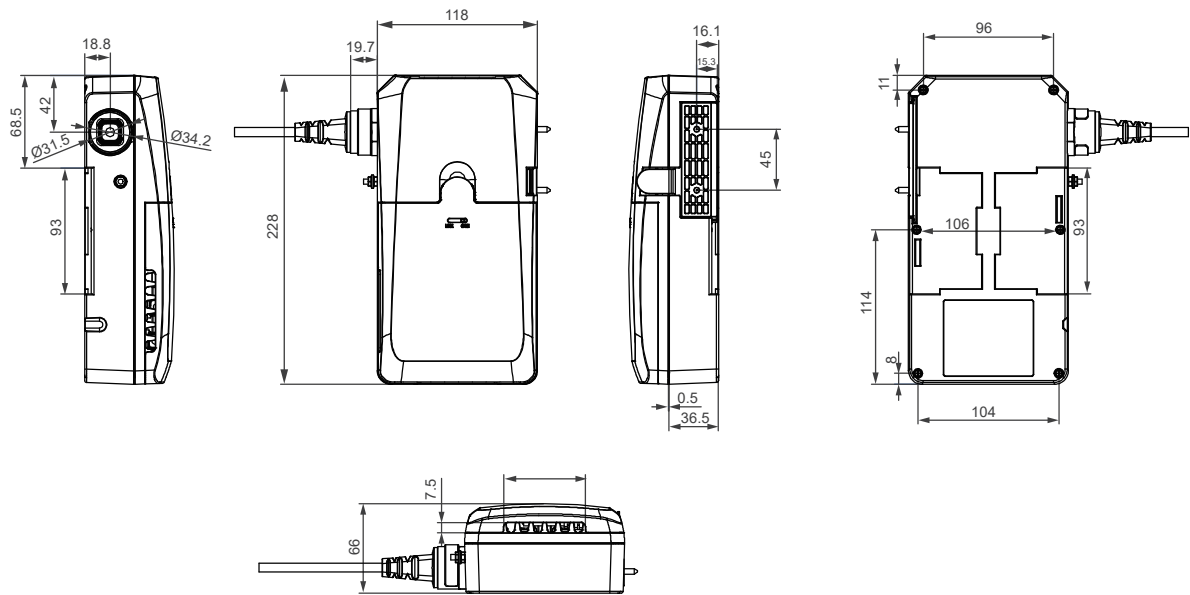
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- Main applications: Home care, medical
- Input: 100 ~ 240V AC, 50/60Hz (SMPS)
- Standby power: <0.5 W
- Output: 32V DC, 5A@110V or 8A@240V
- Max. number of actuators: 4 channels
- FET Control concept (no relay noise)
- Number of controls: 1 channels
- Duty cycle: 10%, maximum 2 minutes continuous use.
- Ambient operation temperature: +5°C~+40°C
- IP Protection level: IPX6
- Protection class against electric shock: Class II (with functional earthing)
- Color: Light gray RAL 7035
- Power cord length: 3000mm straight
- Certified: CE Marking, EN 60601-1, EN60601-1-2, BS EN 60601-1-2, IEC 60601-1-2, EN IEC 61000-3-2, BS EN IEC 61000-3-2, EN 61000-3-3, BS EN 61000-3-3
- The default standard mounting plate can provide flexible installation methods (Refer to p.2, 6)
- Optional mounting clip, can attach to MK31-QR actuators (Refer to p.2, 6)
- Optional function supports an external BTP3 battery box (items purchased separately)
- Option function supports battery power display (need to be connected to a hand controller or control panel with power display)
- Optional function supports an external SB1 stop button (items purchased separately)

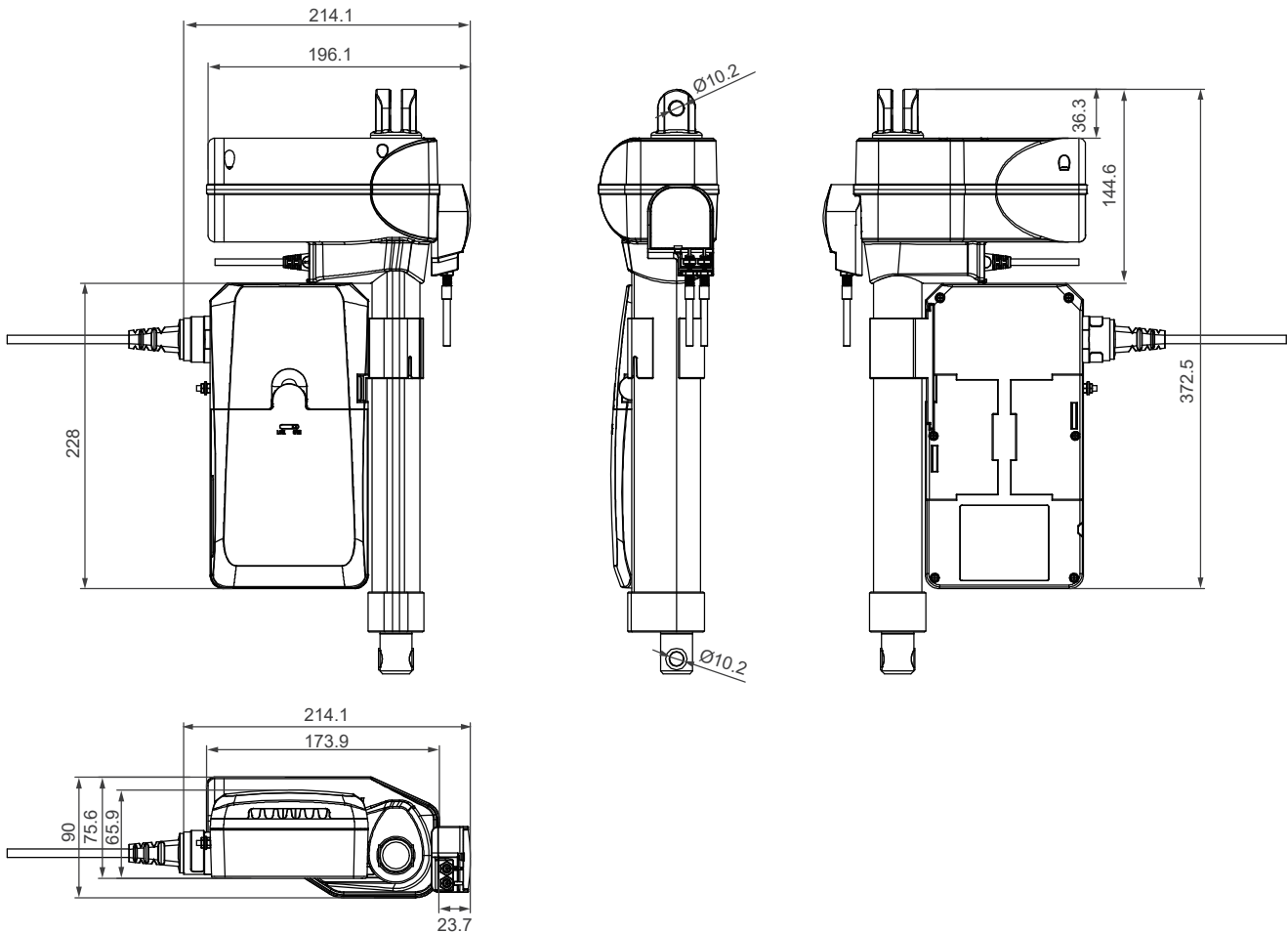
# Dimensions

• With Mounting Plate

Unit: mm



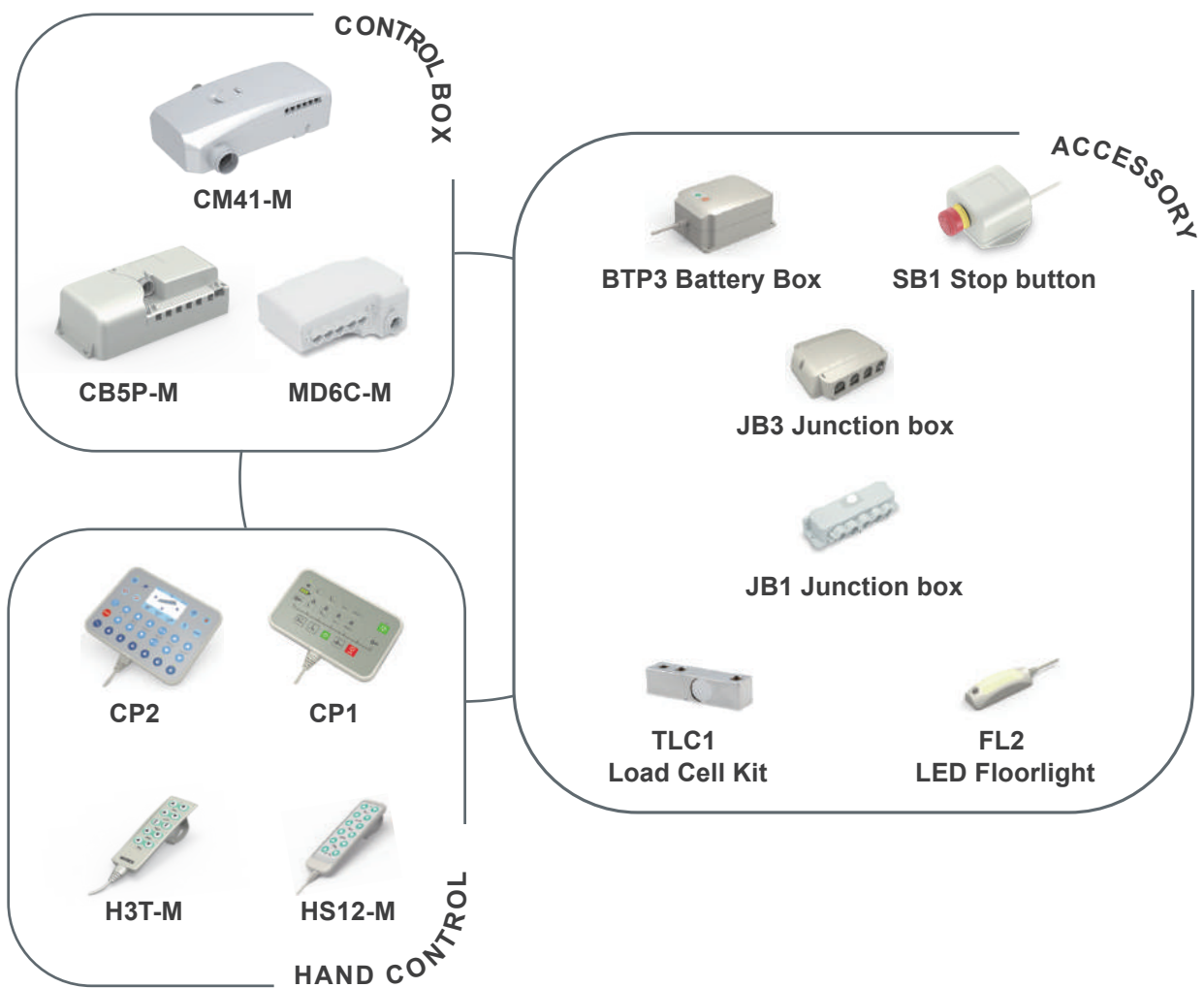
• Attach to MK31-QR actuator with Mounting Clip



## Compatibility

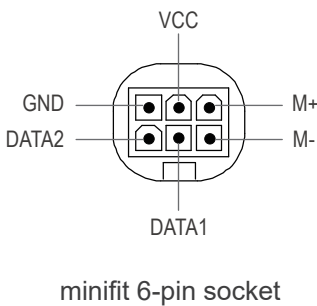
Product	Model	Compatible requirement
<b>Actuator</b>	MD10, MD21, LD3, LD3M, MD66, MD7, MD80, MD82, MK31, MK31-QR	- With Moteck LR-type minifit 6-pin plug
<b>Hand control</b>	CP1, CP2, H3T-M, HS12-M	- With Moteck V-type 7-pin DIN plug
<b>Battery Box</b>	BTP3	- With Moteck L6-type minifit 4-pin plug
<b>Stop button</b>	SB1	- With Moteck V-type 7-pin DIN plug

- Moteck Bus family



# Socket

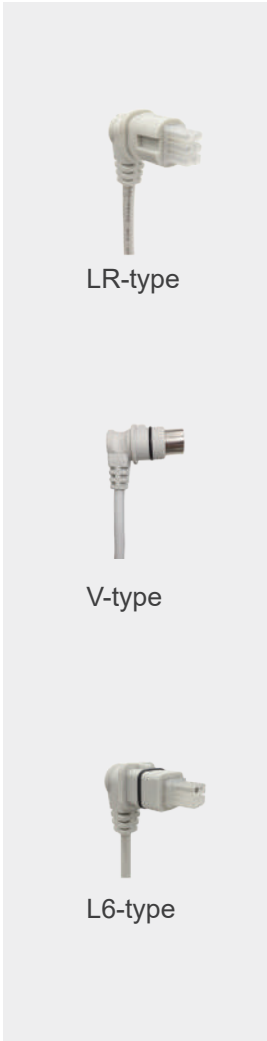
Actuator socket: for Moteck LR-type minifit 6-pin plug



Hand control: for Moteck V-type 7-pin DIN plug



External battery box: for Moteck L6-type minifit 4-pin plug



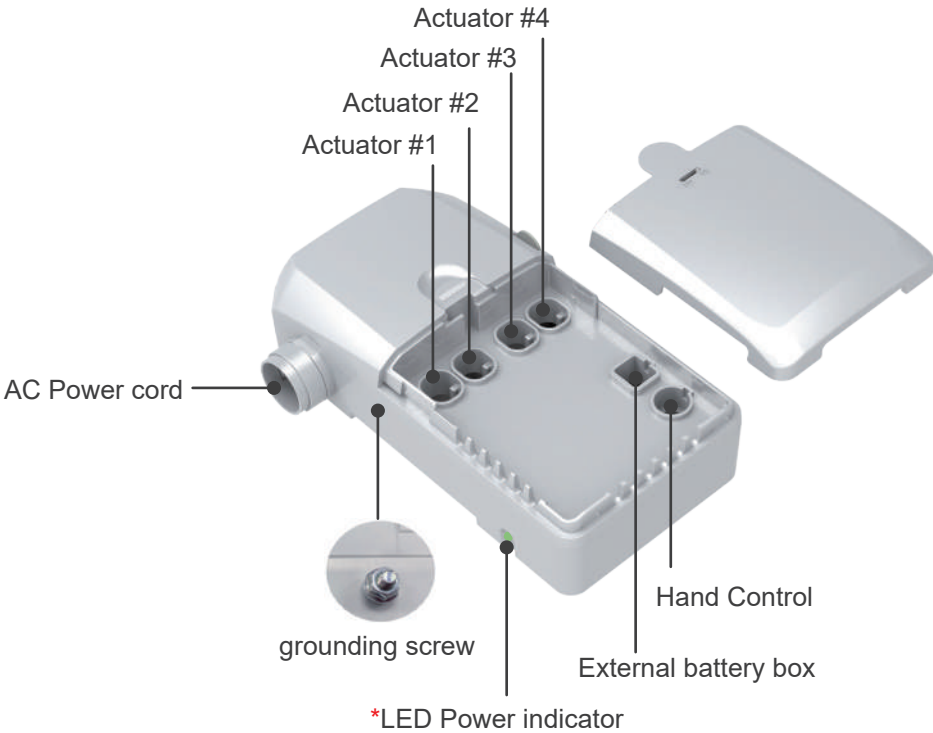
# AC Power Cord

Plug type (plug in the wall)	Connector type (plug in the control box)
<div>A3: US 3-pin plug</div>	<div>• AC power cord length: 3000mm straight</div>
<div>C3: CHINA CCC 3-pin plug</div>	
<div>V3: CEE 7/7(VDE 3P) plug</div>	

Ordering Key

CM41 - M - 32 D - 2 - 0 0 P A3	
Output voltage	32: 32V DC
Power supply	D: Internal SMPS (32V DC, 5A @110V / 8A @ 240V)
Number of actuators	2: 2 actuators 3: 3 actuators 4: 4 actuators
Reserved	0
External battery box	0: None B: Support (separately purchased item)
Accessory	P: Mounting Plate C: Mounting Clip
AC Power cord	A3: US 3-pin plug, 3000mm straight C3: CHINA CCC 3-pin plug, 3000mm straight V3: CEE 7/7(VDE 3P) plug, 3000mm straight 00: Without AC Power cord

I/O Introduction



Remarks:

\* When the control box is connected to AC power, the LED power indicator lights up green, if it is only connected to an external battery, the LED power indicator is off.



## Installation

### - Mounting Plate:



Mounting Plate

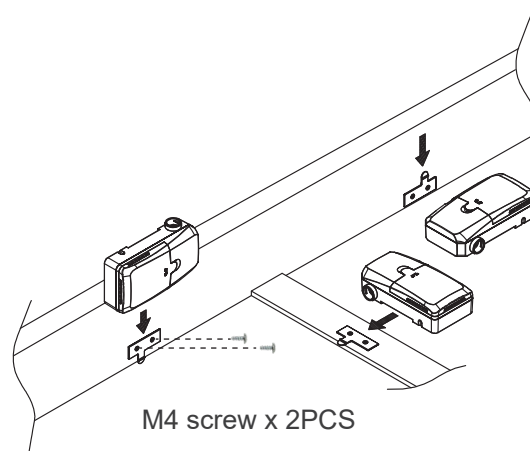


Fig.1

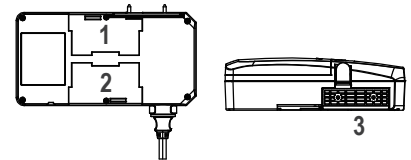


Fig.2

1. As shown in **Fig.1**, the above installation directions are available
2. According to the usage, first fix the mounting plate to the proper position of the bed frame with M4 screws. (**Fig.1**)
3. Align the mounting plate with notch (1~3) on the back of the control box and put it in. (**Fig.1, 2**)

### - Mounting Clip:



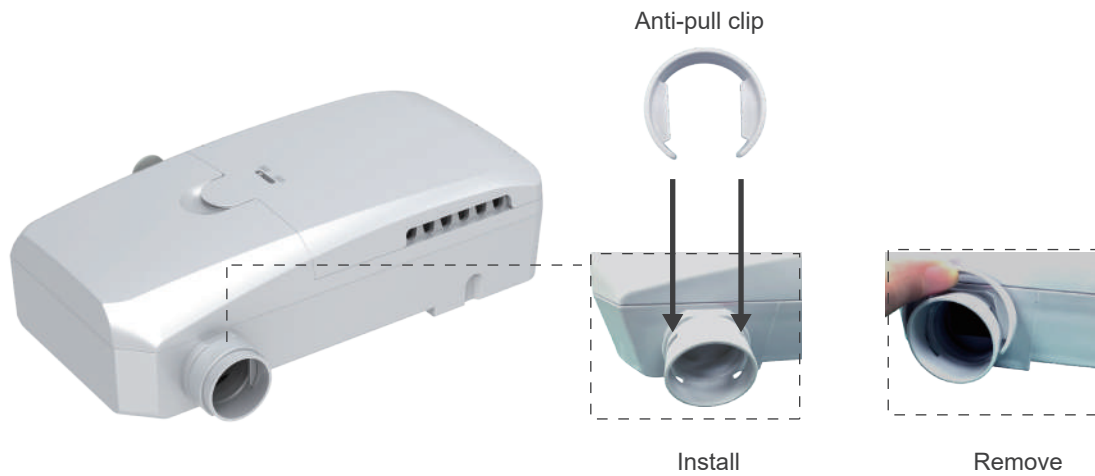
Mounting Clip



1. Put the mounting clip into the MK31-QR actuator first.
2. Then follow the notch of the control box and insert it into the other end.

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## - Anti-pull clip for AC cable



1. Install: Align the latches on both sides of the socket and insert the anti-pull clip
2. Remove: Pull the anti-pull clip upward to remove it

## - OPEN anti-pull cover



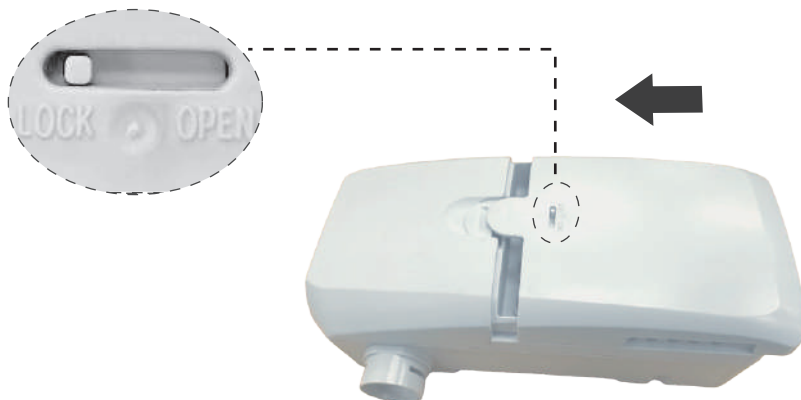
1. Set the lock to **OPEN**.
2. Slide the upper cover out to the end and lift to remove it.

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- Put anti-pull cover back



1. Please see the figure above for the recommended cable management. Please refer to I/O Introduction for port layout.



2. Place the anti-pull cover to align the opening of the chute, and slide it to the bottom and hook it.
3. Set the lock of anti-pull cover to **LOCK** position.

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