

# INSTALLATION MANUAL



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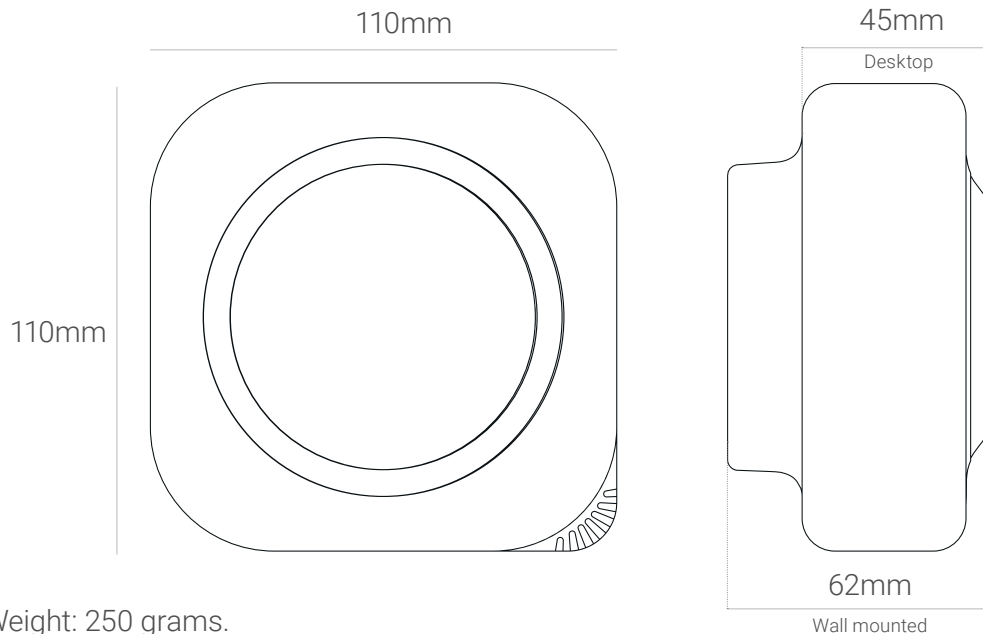
# General information



## Features

Multifunction touch button.  
Customizable status light ring.  
USB type C connector.  
Wi-Fi Connectivity.\*

## Dimensions and weight



Weight: 250 grams.

## Power Supply options

USB type C cable + 5V USB power adapter (desktop only).  
Fast 110 - 240V AC 50-60 Hz 0.2A connector.  
Fast 8 - 36V DC 2A 10W connector.  
Power over Ethernet (PoE) RJ45 54VDC 12.95W connector.

## Other Connectivity options

LoRaWAN.  
Sigfox.  
NB-IoT / LTE-M.  
Ethernet.

## Local Communication options

Modbus RTU (RS-485).  
Modbus TCP/IP (wireless) .  
BACnet IP  
API.  
MQTT.

\*The device can only connect to 2.4 GHz WiFi networks with 802.11 b/g/n (802.11n up to 150 Mbps) protocols.  
Supported authentication and security protocols: WPA2 (Personal), WPA2 Enterprise, WPA3 (Personal), and WPA3 Enterprise.



# IMPORTANT

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BEFORE YOU BEGIN

## Before you begin, follow these steps:

1. Identify what type of installation you are going to do: on the wall or in an electrical box.
2. Check what communication and connectivity options your MICA has at the bottom of the box.



3. Check that the box contents are correct.
4. Remove the MICA from the box and remove the back cover from the case.



Remove bottom screws (2)



Detach the back cover of the MICA

## Recommendations

The recommended height to install the electrical boxes or attach the MICA to the wall is between 110cm and 180cm.



# INSTALLATION

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MICA models

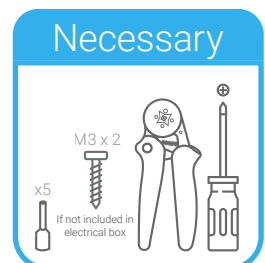
# Wi-Fi

## Concealed Wall Installation



## Description

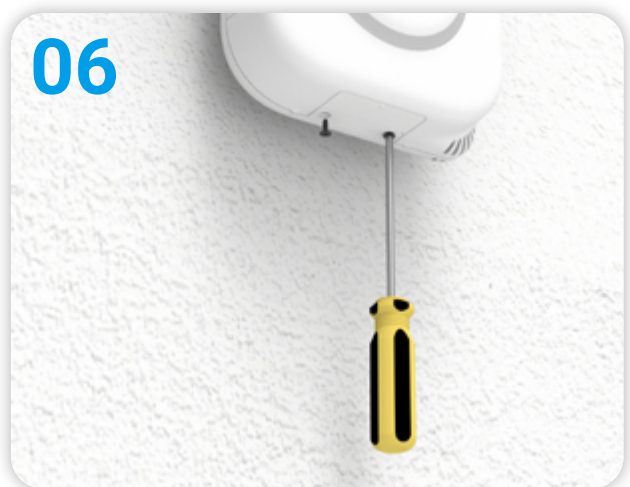
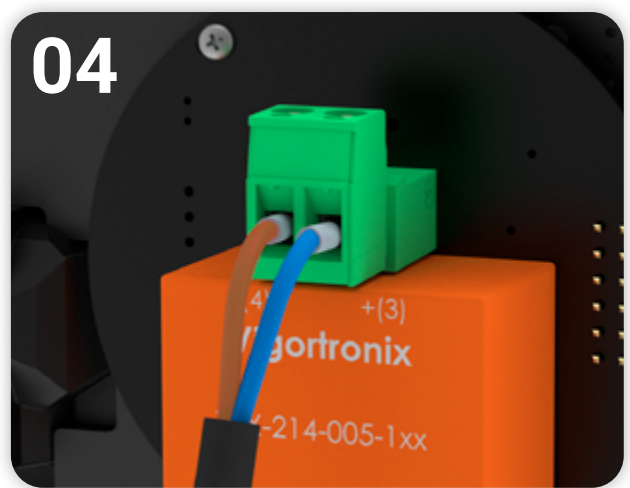
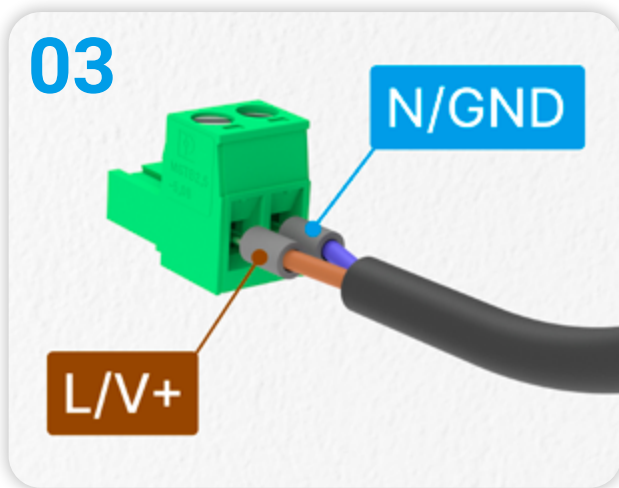
1. Back cover of the case.
2. Back cover inlet hole.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. Electronic Motherboard (MOBO).
6. Female power terminal
7. 1) Assembly guides (x2).  
2) Assembly hooks (x2).
8. Male power terminal.



Note: The recommended height for installation is 120 - 180cm.



## Installation steps





## Description

1. First, mount the back cover of the case to the wall:
  - a. Place two screws into the electrical box.
  - b. Route the cables through the cable inlet hole .
  - c. Insert the screws into the mounting holes .
  - d. Rotate the back cover of the case so that it is straight.
  - e. Tighten the screws to secure in position.
2. Before continuing, add ferrules to the power cables.
3. Secure the power cables to the male power terminal provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
4. Connect the male power terminal to the female terminal located on the MOBO .
5. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
6. To finish, secure the case with the two bottom assembly screws .

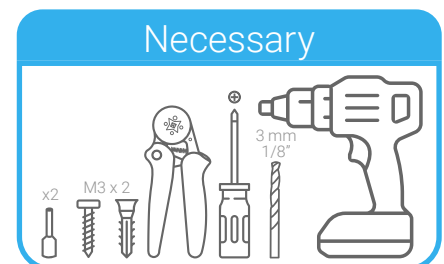
# Wi-Fi

## Wall Installation with Gutter



## Description

1. Back cover of the case.
2. Cable inlet hole.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. Electronic Motherboard (MOBO).
6. Female power terminal
7. 1) Assembly guides (x2).  
2) Assembly hooks (x2).
8. Male power terminal.
9. Drilling guide (boxed).



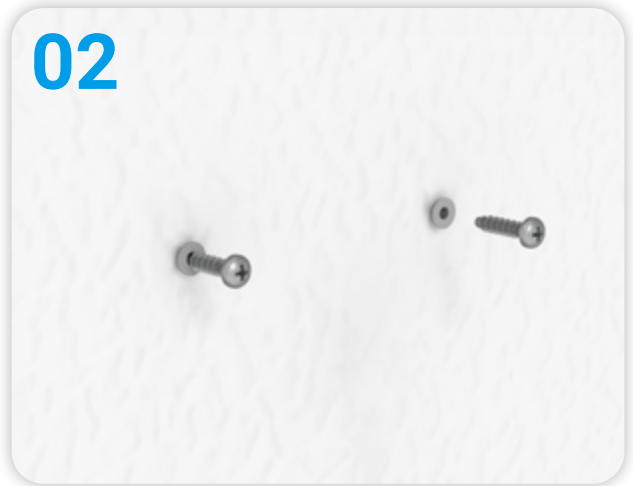
Note: The recommended height for installation is 120 - 180cm.

## Installation steps

01



02



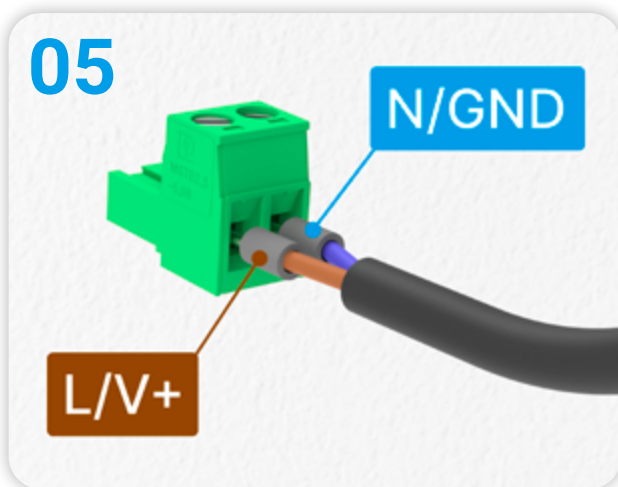
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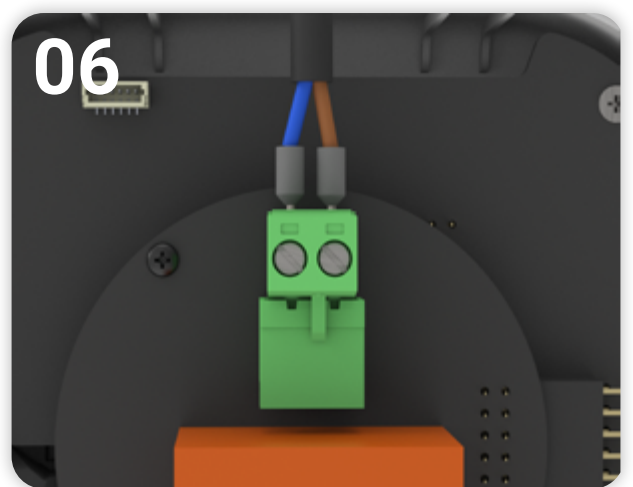
04

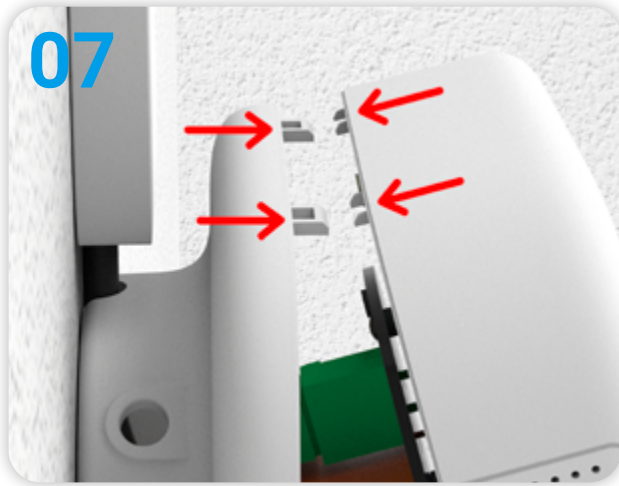


05



06



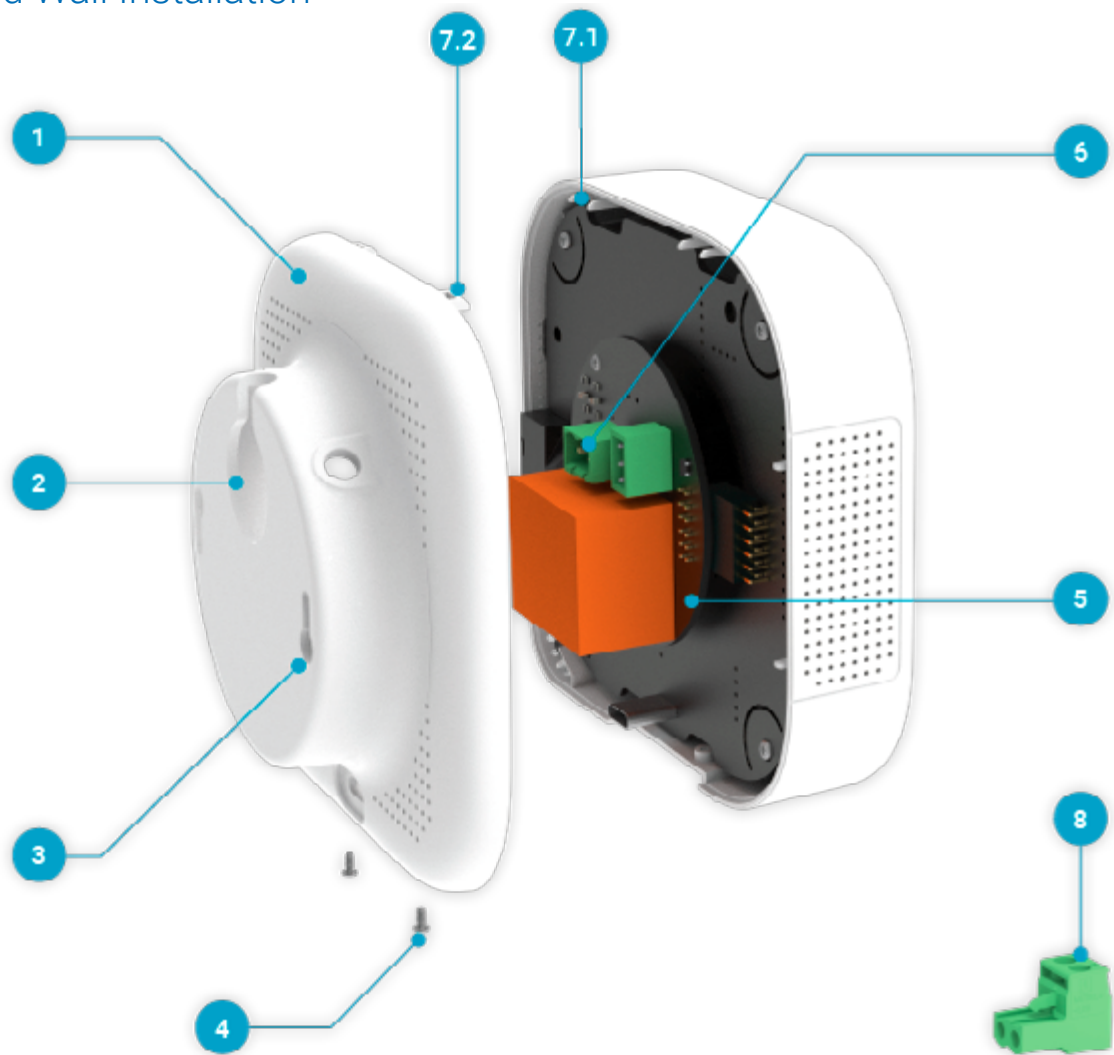


## Description

1. First, drill two holes in the wall (you will need a drill), using the drilling guide included in the box.  
**Recommended height: 120 - 180cm.**
2. Next, insert a screw into each of the holes you have just drilled (use wall plugs if necessary), leaving at least 8mm protruding from the wall.
3. Mount the back cover of the case to the wall:
  - a. Route the cables through the cable inlet hole .
  - b. Insert the screws into the mounting holes .
  - c. Rotate the back cover of the case so that it is straight.
  - d. Tighten the screws to secure in position.
4. Before continuing, add ferrules to the power cables.
5. Secure the power cables to the male power terminal provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
6. Connect the male power terminal to the female terminal located on the MOBO .
7. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
8. To finish, secure the case with the two bottom assembly screws .

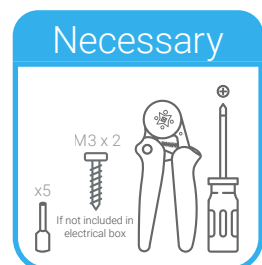
# Modbus TCP/IP / API / MQTT

## Concealed Wall Installation



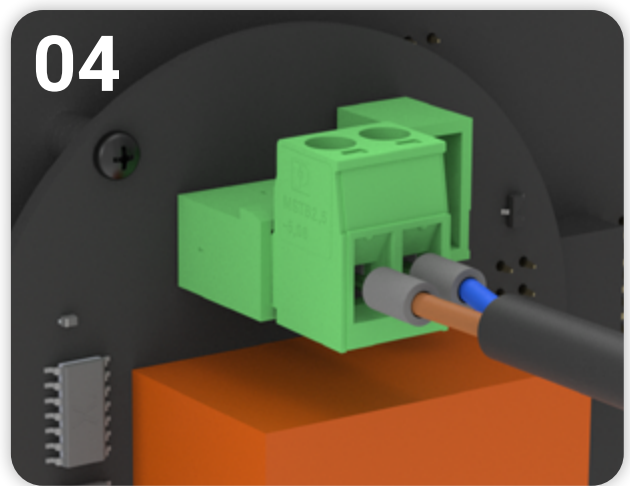
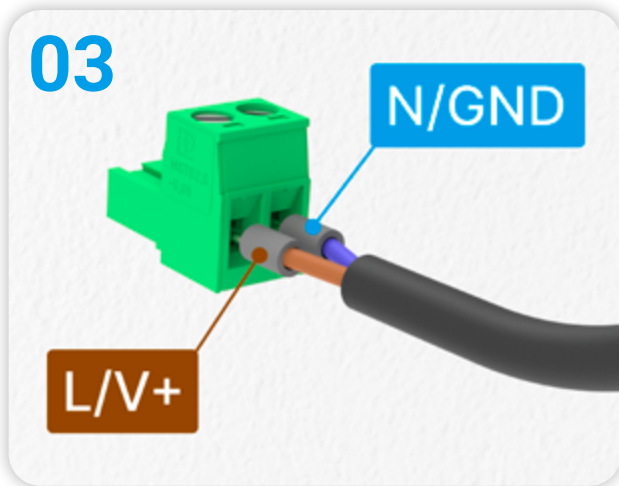
### Description

1. Back cover of the case.
2. Cable inlet hole.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. Electronic Motherboard (MOBO).
6. Female power terminal
7. 1) Assembly guides (x2).  
2) Assembly hooks (x2).
8. Male power terminal.



Note: The recommended height for installation is 120 - 180cm.

## Installation steps





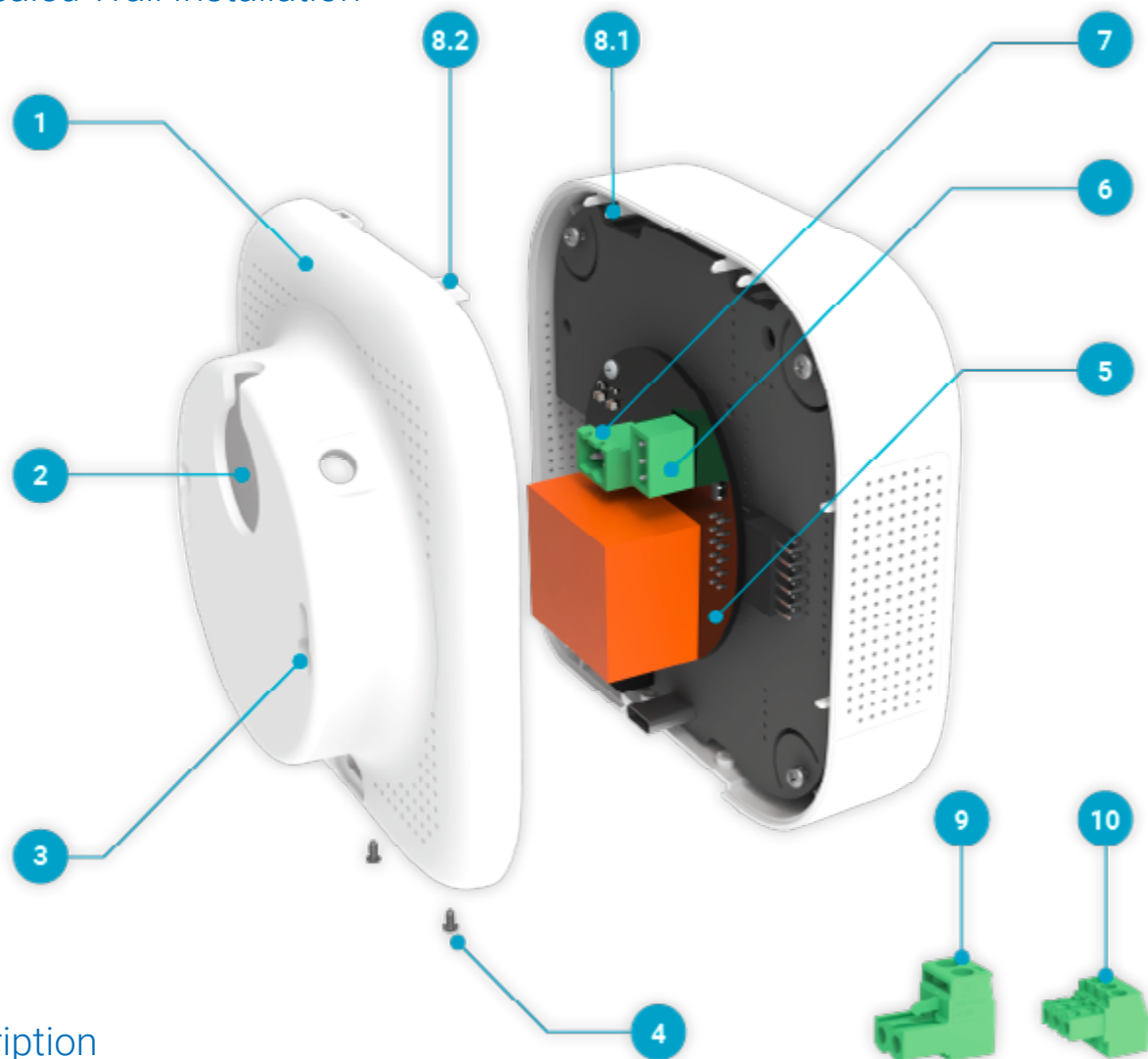
## Description

1. First, mount the back cover of the case to the wall:
  - a. Place two screws into the electrical box.
  - b. Route the cables through the cable inlet hole .
  - c. Insert the screws into the mounting holes .
  - d. Rotate the back cover of the case so that it is straight.
  - e. Tighten the screws to secure in position.
2. Before continuing, add ferrules to the power cables.
3. Secure the power cables to the male power terminal provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
4. Connect the male power terminal to the female terminal located on the MOBO .
5. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
6. To finish, secure the case with the two bottom assembly screws .



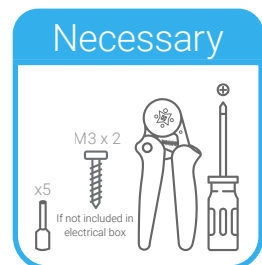
# Modbus RTU

## Concealed Wall Installation



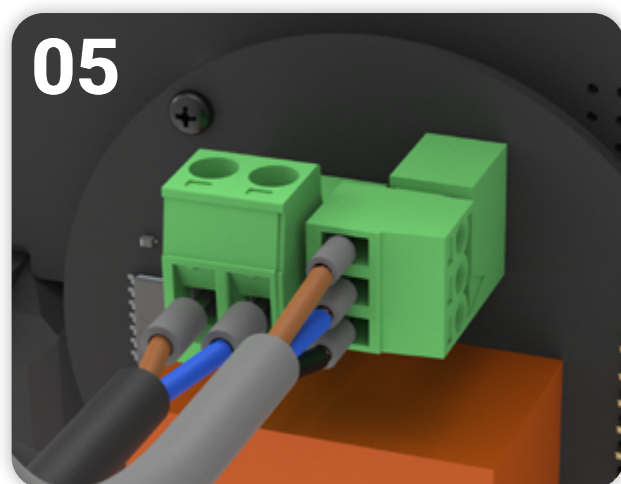
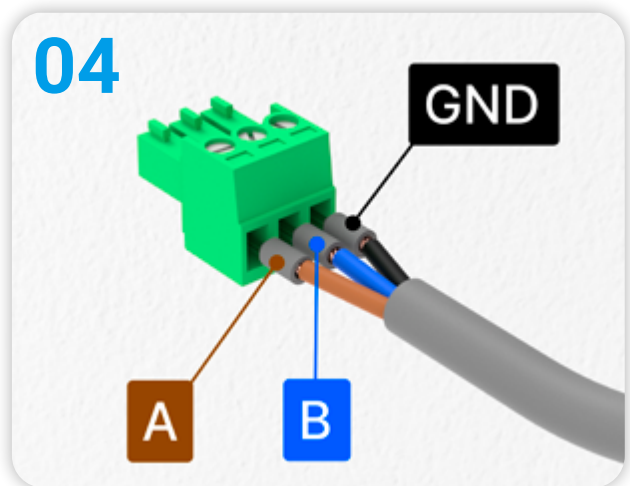
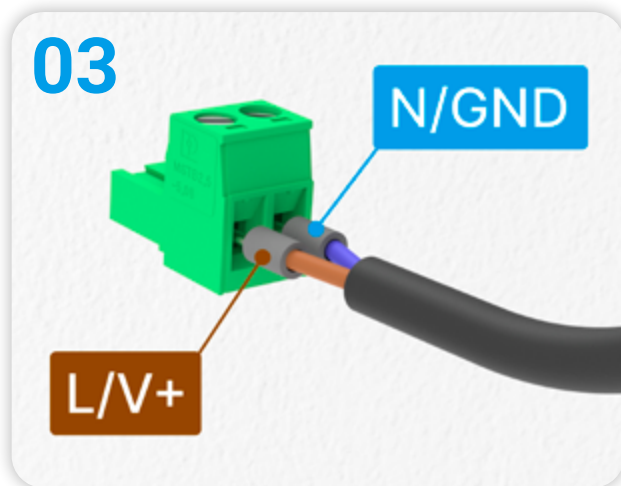
### Description

1. Back cover of the case.
2. Cable inlet hole.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. Electronic Motherboard (MOBO).
6. Female Modbus RTU terminal.
7. Female power terminal
8. 1) Assembly guides (x2).  
2) Assembly hooks (x2).
9. Male power terminal.
10. Male Modbus RTU terminal.



Note: The recommended height for installation is 120 - 180cm.

## Installation steps





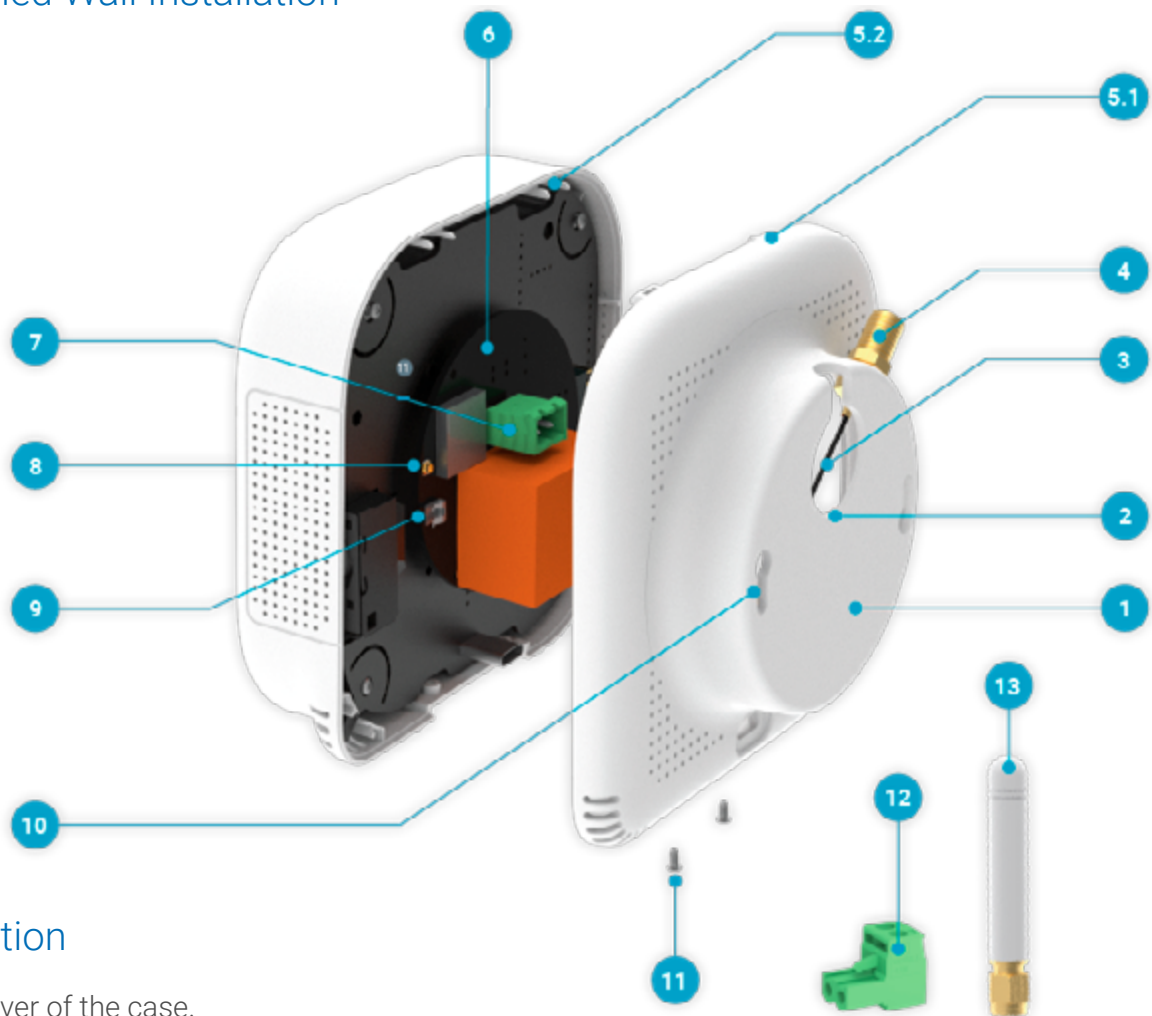
## Description

1. First, mount the back cover of the case to the wall:
  - a. Place two screws into the electrical box.
  - b. Route the cables through the cable inlet hole .
  - c. Insert the screws into the mounting holes .
  - d. Rotate the back cover of the case so that it is straight.
  - e. Tighten the screws to secure in position.
2. Before continuing, add ferrules to the power cables.
3. Secure the power cables to the male power terminal provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
4. Secure the modbus cables to the male modbus terminal provided in the box, following the order of the inputs (GND\* - B - A).
5. Now, connect the male terminals (power and modbus ) to the female terminals ( & ) located on the MOBO .
6. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
7. To finish, secure the case with the two bottom assembly screws .

[\*] GND: From the same device as A and B (master, etc).

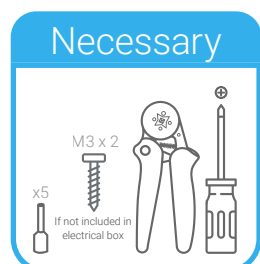
# LoRaWAN / Sigfox

## Concealed Wall Installation



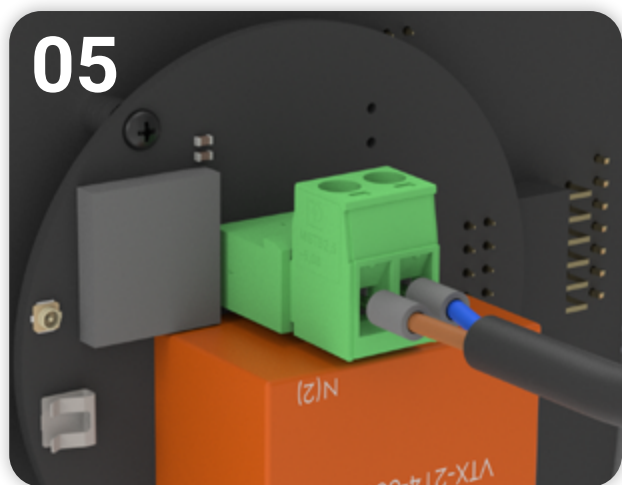
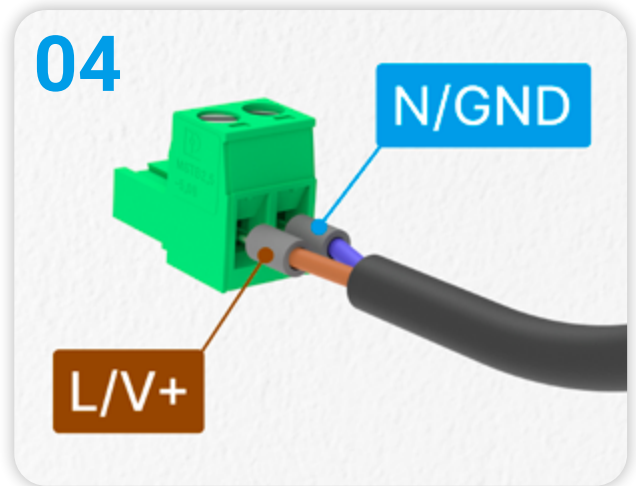
### Description

1. Back cover of the case.
2. Cable inlet hole.
3. Antenna cable.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
6. Electronic Motherboard (MOBO)
7. Female power terminal
8. Antenna connector.
9. Antenna hook.
10. Mounting holes (x2).
11. Assembly screws (x2).
12. Male power terminal.
13. Antenna (boxed).

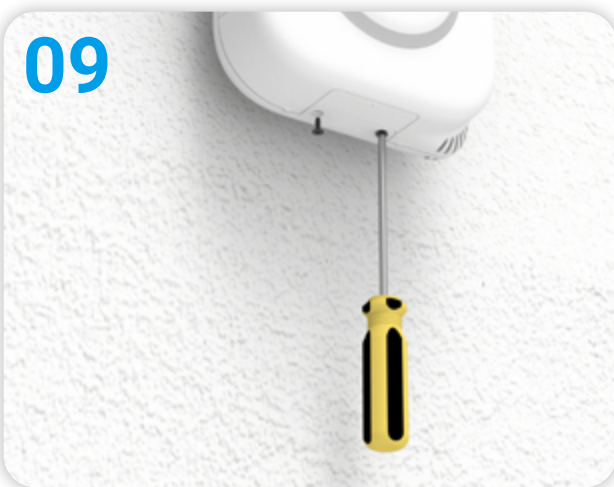
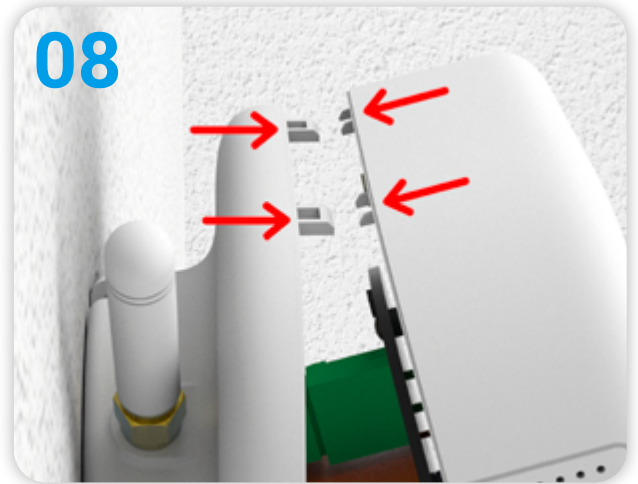


Note: The recommended height for installation is 120 - 180cm.

## Installation steps







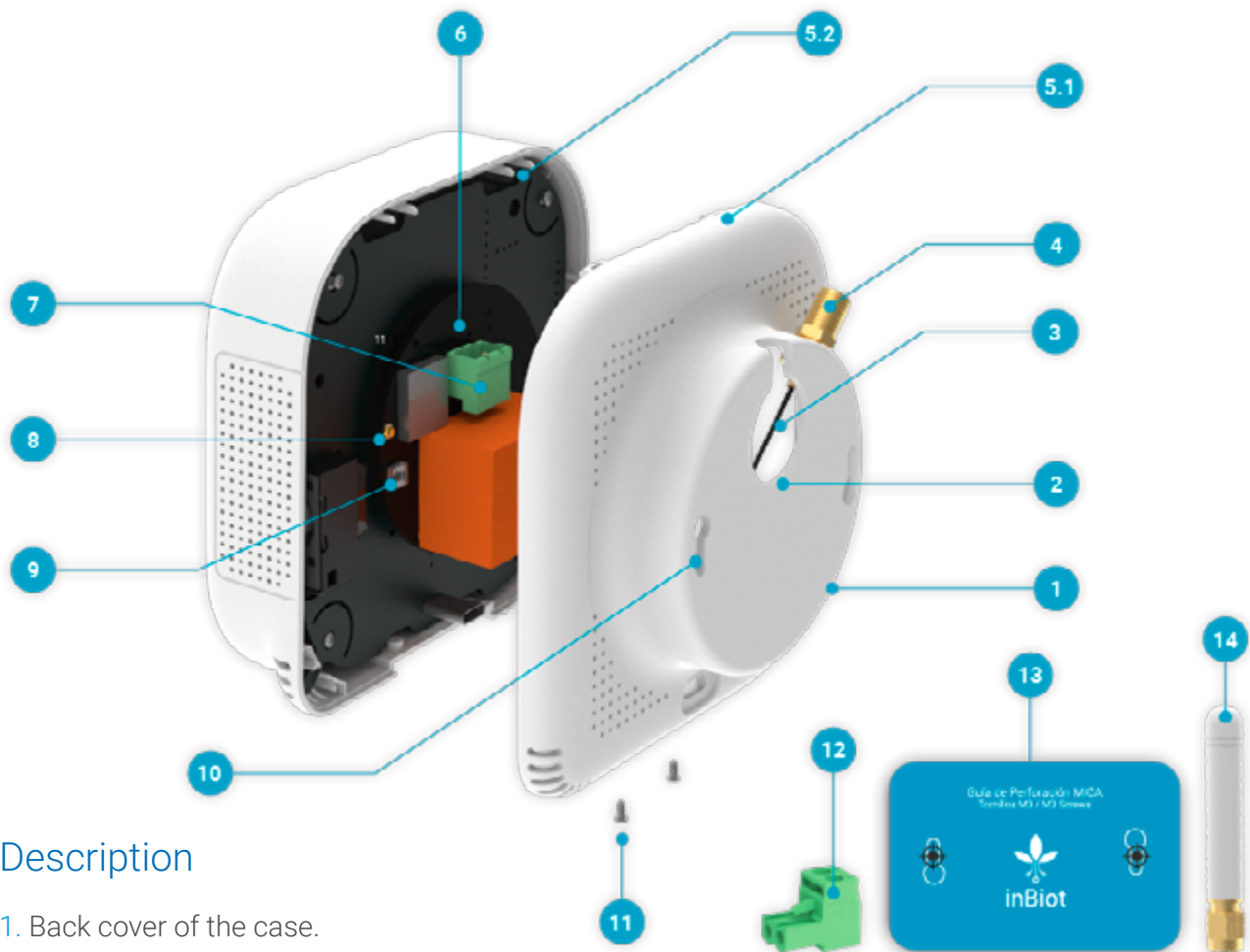
## Description

1. First, secure the provided antenna 13 to the thread fixed on the back cover of the case .
2. Next, mount the back cover of the case to the wall:
  - a. Place two screws into the electrical box.
  - b. Route the cables through the cable inlet hole .
  - c. Insert the screws into the mounting holes .
  - d. Rotate the back cover of the case so that it is straight.
  - e. Tighten the screws to secure in position.
3. Before continuing, add ferrules to the power cables.
4. Secure the power cables to the male power terminal 12 provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
5. Connect the male power terminal 12 to the female terminal located on the MOBO .
6. Connect the antenna cable to its connector located on the MOBO .
7. Before closing the MICA, hook the antenna cable onto the hook located on the MOBO .
8. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
9. To finish, secure the case with the two bottom assembly screws 11.



# LoRaWAN / Sigfox

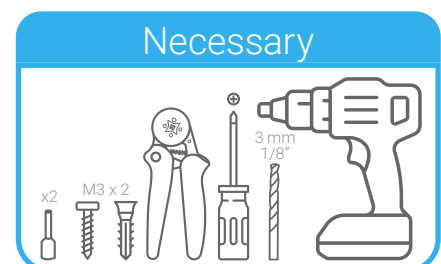
## Wall installation with gutter



## Description

1. Back cover of the case.
2. Cable inlet hole.
3. Antenna cable.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
6. Electronic Motherboard (MOBO)
7. Female power terminal
8. Antenna connector.
9. Antenna hook.
10. Mounting holes (x2).
11. Assembly screws (x2).
12. Male power terminal.
13. Drilling guide (boxed).
14. Antenna (boxed).

Note: The recommended height for installation is 120 - 180cm.

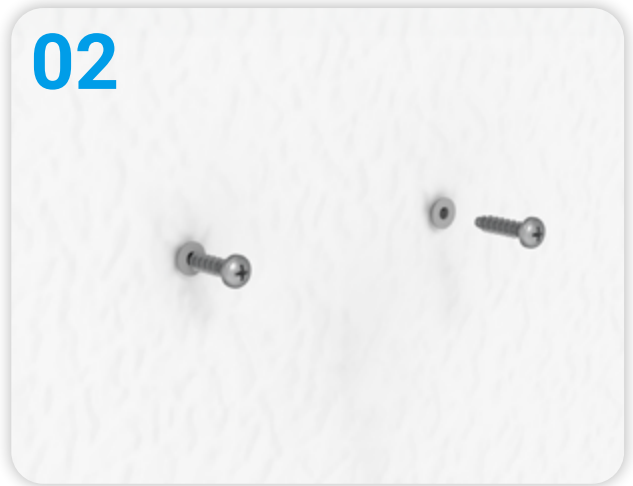


## Installation steps

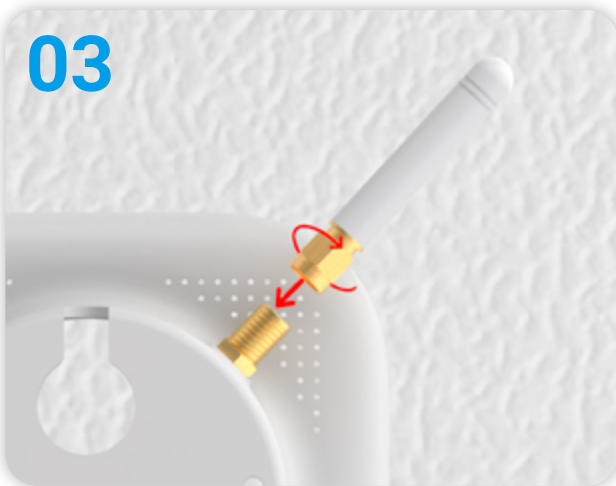
01



02



03



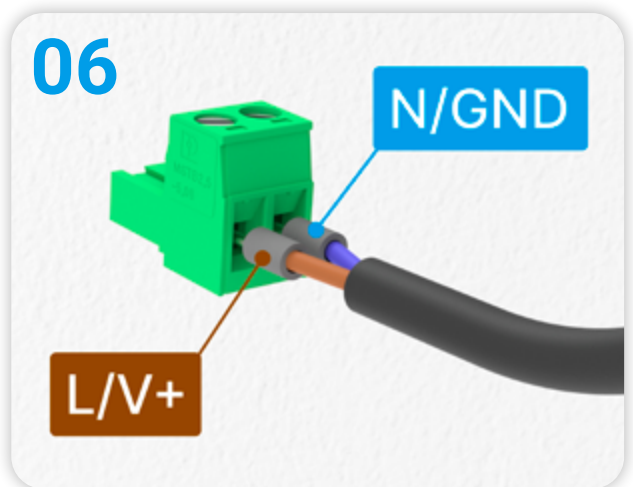
04

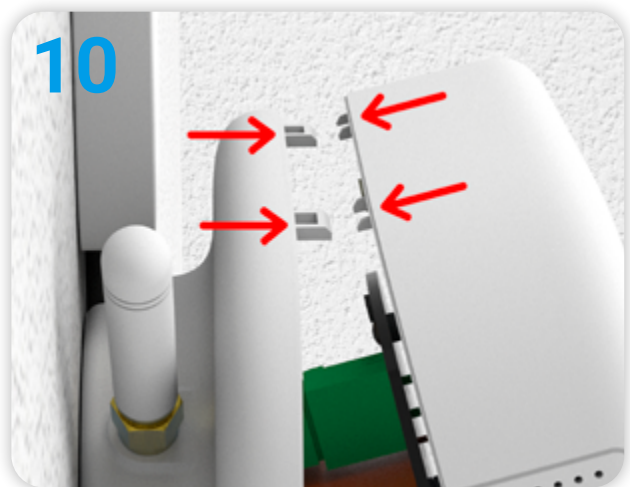
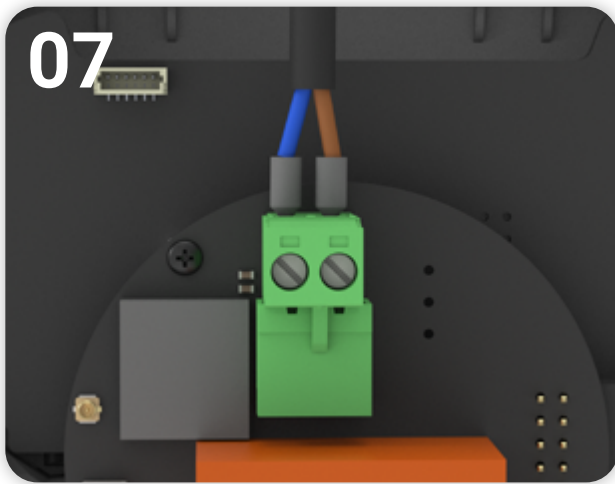


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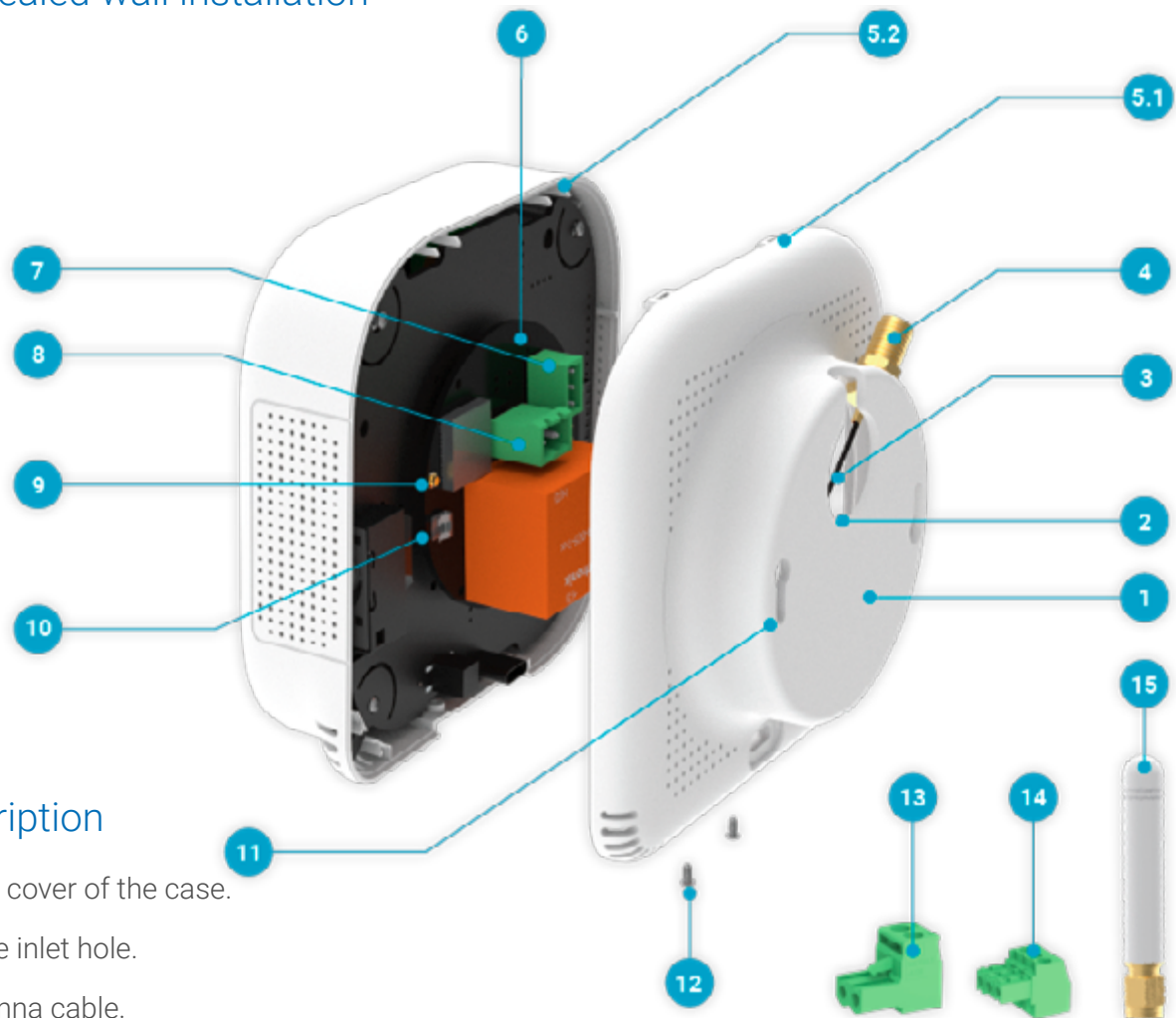


## Description

1. First, drill two holes in the wall (you will need a drill), using the drilling guide 13 included in the box.  
**Recommended height: 120 - 180cm.**
2. Insert a screw into each of the holes you have just drilled (use wall plugs if necessary), leaving at least 8mm protruding from the wall.
3. Then, secure the provided antenna 14 to the thread fixed on the back cover of the case .
4. Next, mount the back cover of the case to the wall:
  - a. Route the cables through the cable inlet hole .
  - b. Insert the screws into the mounting holes .
  - c. Rotate the back cover of the case so that it is straight.
  - d. Tighten the screws to secure in position.
5. Before continuing, add ferrules to the power cables.
6. Secure the power cables to the male power terminal 12 provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
7. Connect the male power terminal 12 to the female terminal located on the MOBO .
8. Connect the antenna cable to its connector located on the MOBO .
9. Before closing the MICA, hook the antenna cable onto the hook located on the MOBO .
10. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
11. To finish, secure the case with the two bottom assembly screws 11

# LoRaWAN / Sigfox + Modbus RTU

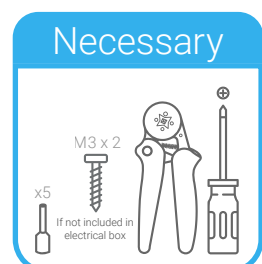
## Concealed wall installation



### Description

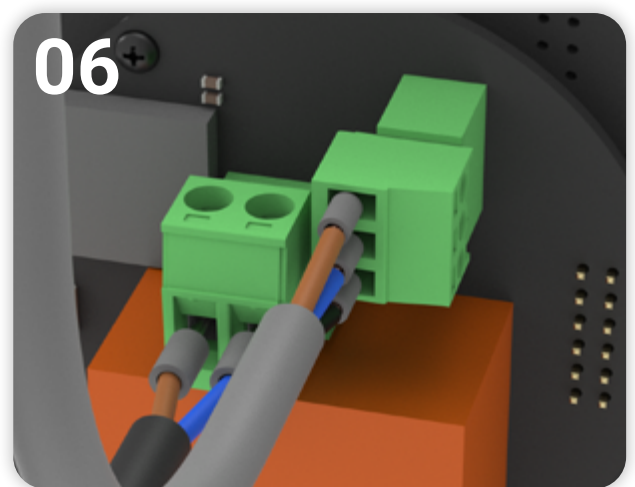
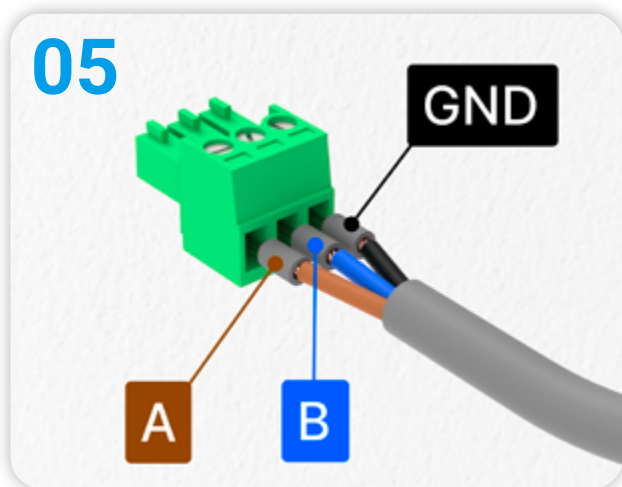
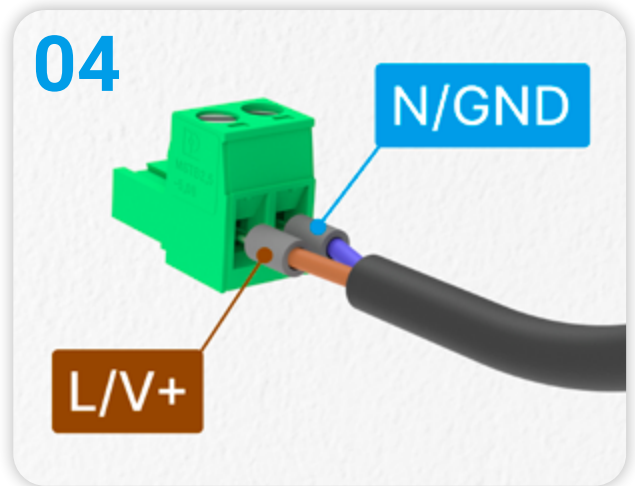
1. Back cover of the case.
2. Cable inlet hole.
3. Antenna cable.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
6. Electronic Motherboard (MOBO)
7. Female Modbus RTU terminal.
8. Female power terminal
9. Antenna connector.
10. Antenna hook.
11. Mounting holes (x2).
12. Assembly screws (x2).
13. Male power terminal.
14. Male Modbus RTU terminal.
15. Antenna (boxed).

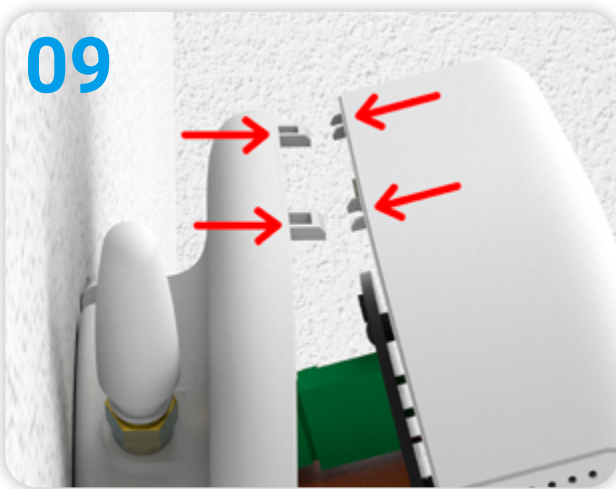
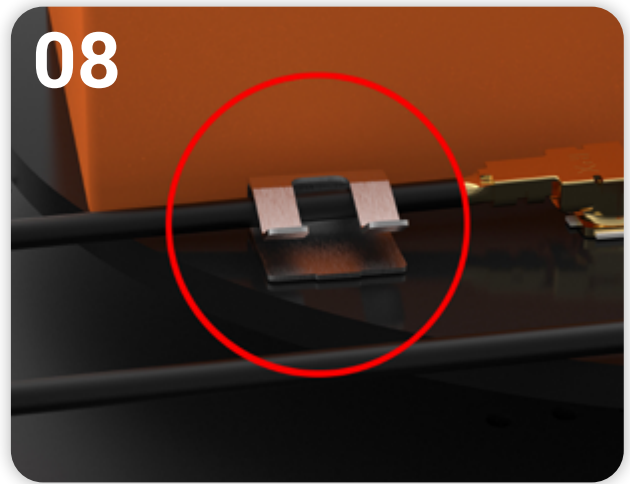
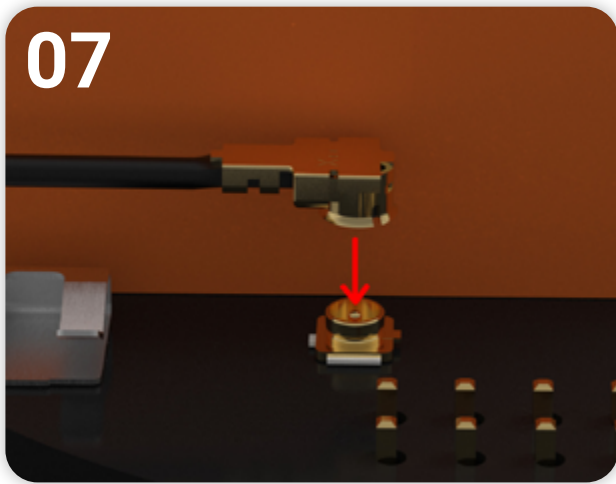
Note: The recommended height for installation is 120 - 180cm.





## Installation steps







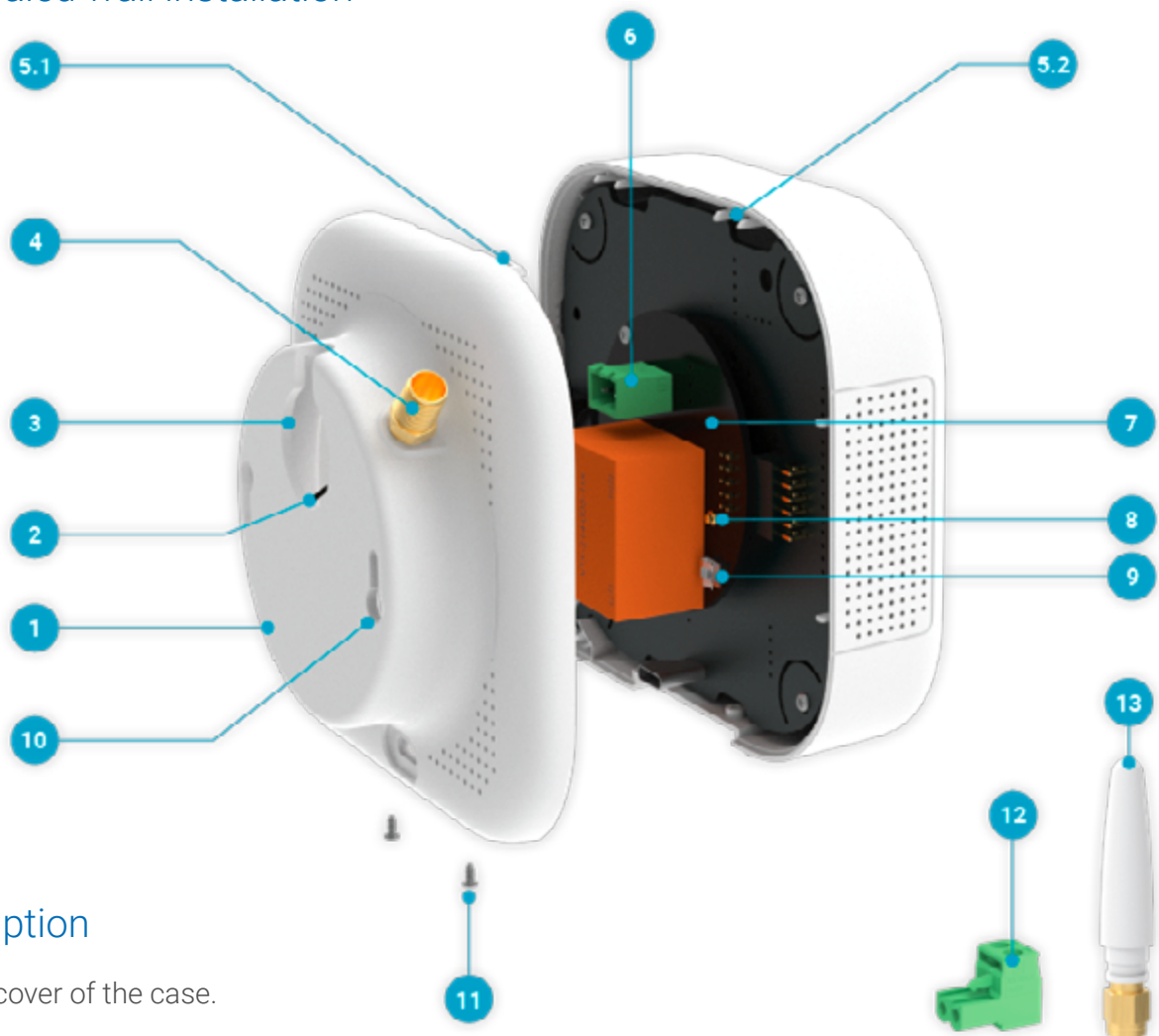
## Description

1. First, secure the provided antenna 15 to the thread fixed on the back cover of the case .
2. Next, mount the back cover of the case to the wall:
  - a. Place two screws into the electrical box.
  - b. Route the cables through the cable inlet hole .
  - c. Insert the screws into the mounting holes 11.
  - d. Rotate the back cover of the case so that it is straight.
  - e. Tighten the screws to secure in position.
3. Before continuing, add ferrules to the power cables.
4. Secure the power cables to the male power terminal 13 provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
5. Secure the modbus cables to the male modbus terminal 14 provided in the box, following the order of the inputs (GND\* - B - A).
6. Now, connect the male terminals (power 13 and modbus 14 ) to the female terminals ( & ) located on the MOBO .
7. Connect the antenna cable to its connector located on the MOBO .
8. Before closing the MICA, hook the antenna cable onto the hook located on the MOBO .
9. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
10. To finish, secure the case with the two bottom assembly screws 12.

[\*] GND: From the same device as A and B (master, etc).

# NB-IoT / LTE-M

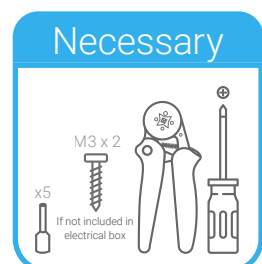
## Concealed wall installation



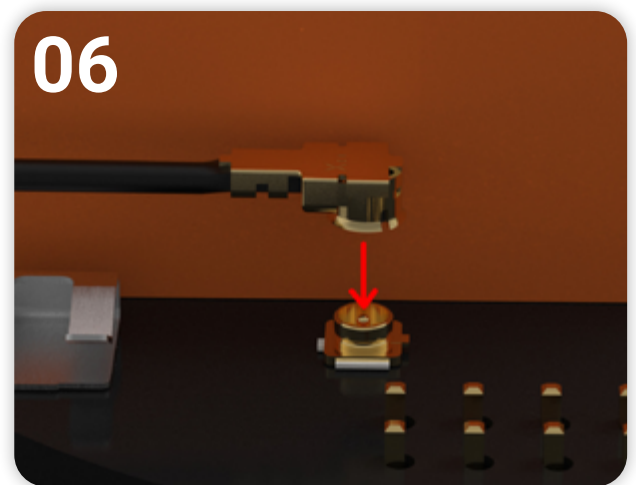
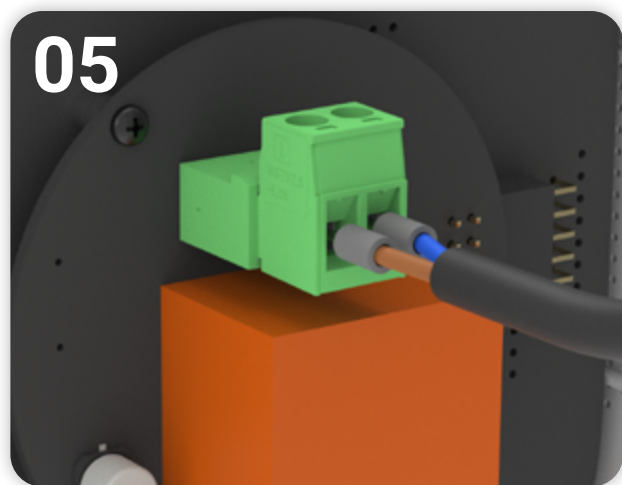
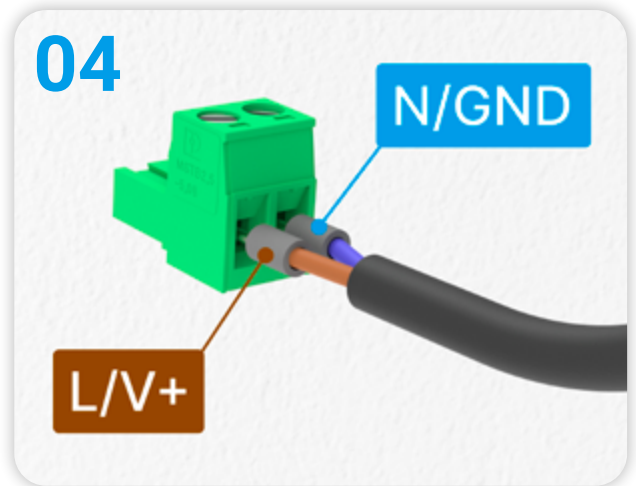
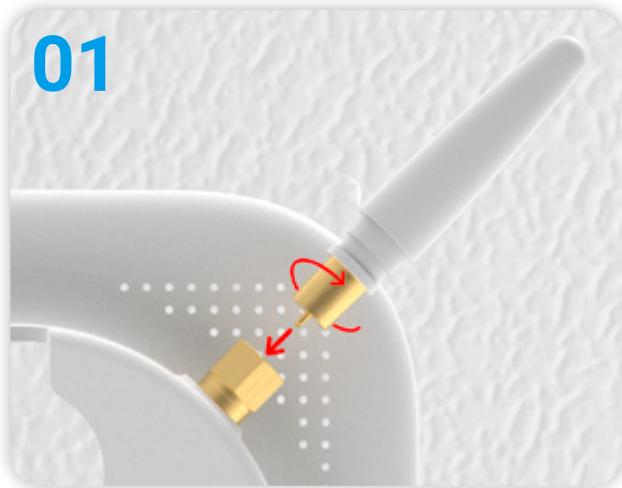
## Description

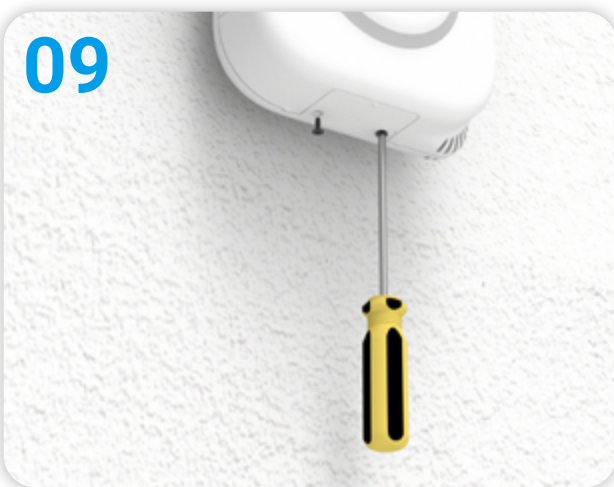
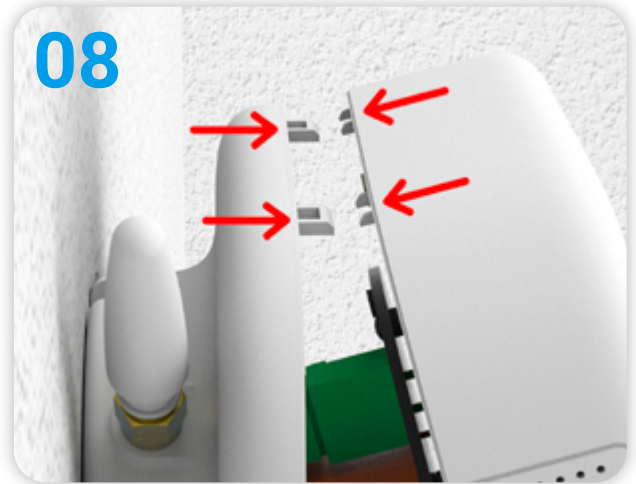
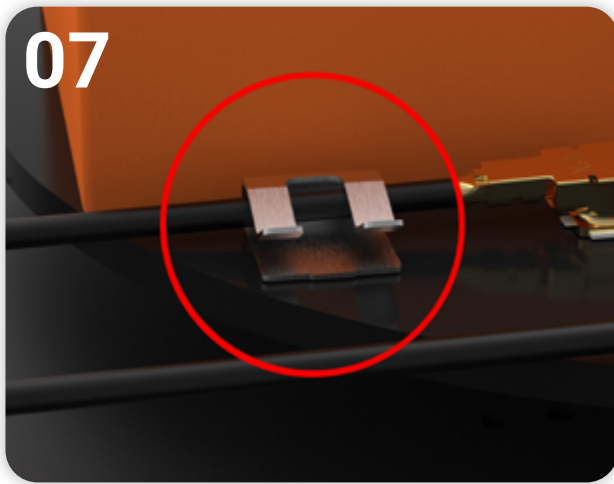
1. Back cover of the case.
2. Antenna cable.
3. Cable inlet hole.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
6. Electronic Motherboard (MOBO).
7. Female power terminal.
8. Antenna connector.
9. Antenna hook.
10. Mounting holes (x2).
11. Assembly screws (x2).
12. Male power terminal.
13. Antenna (boxed).

Note: The recommended height for installation is 120 - 180cm.



## Installation steps



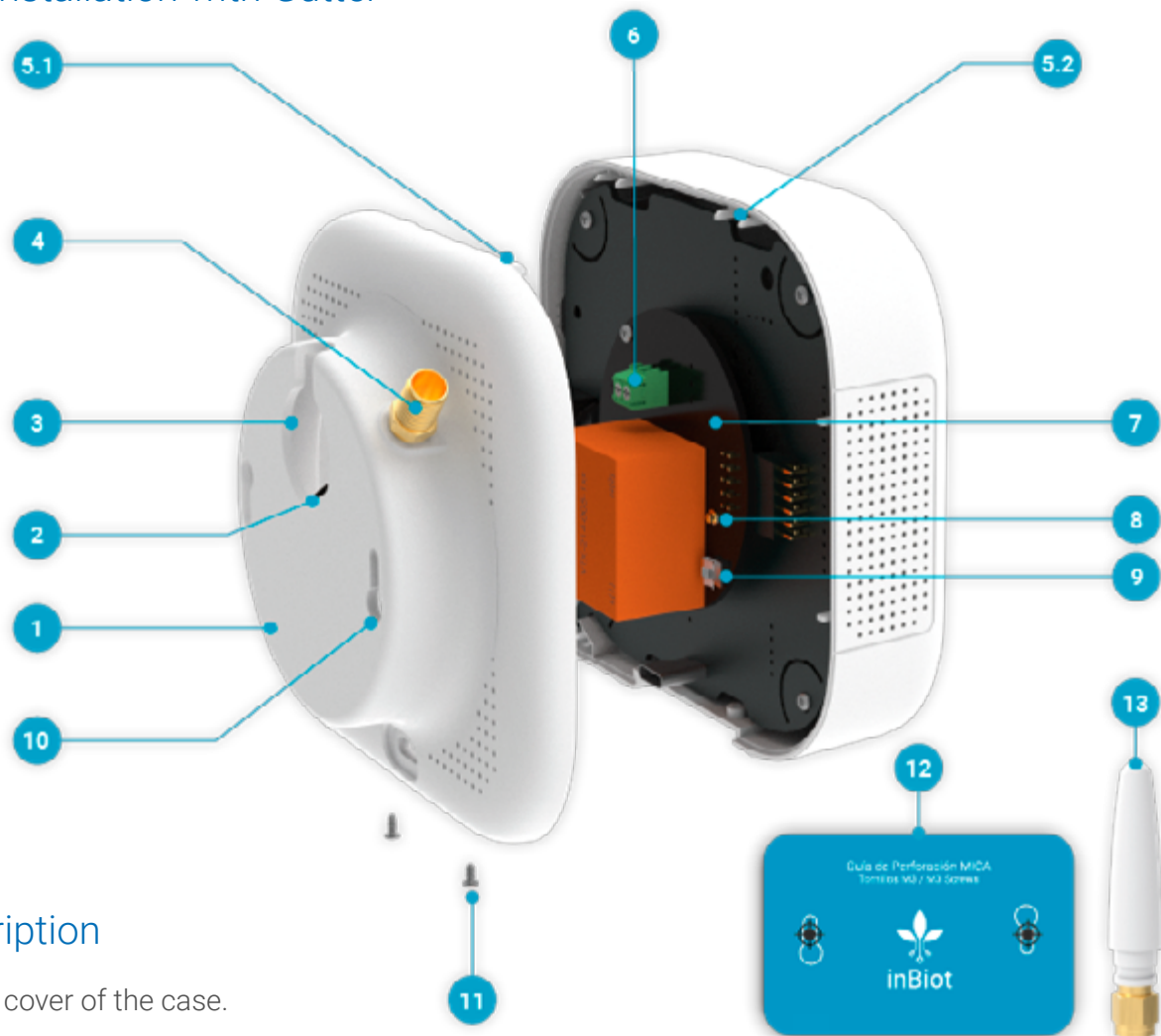


## Description

1. First, secure the provided antenna ⑬ to the thread fixed on the back cover of the case .
2. Next, mount the back cover of the case to the wall:
  - a. Place two screws into the electrical box.
  - b. Route the cables through the cable inlet hole .
  - c. Insert the screws into the mounting holes .
  - d. Rotate the back cover of the case so that it is straight.
  - e. Tighten the screws to secure in position.
3. Before continuing, add ferrules to the power cables.
4. Secure the power cables to the male power terminal ⑫ provided in the box. If the power supply is direct current (8–36V DC), remember to respect the order of the inputs (V–GND).
5. Connect the male power terminal ⑫ to the female terminal located on the MOBO .
6. Connect the antenna cable to its connector located on the MOBO .
7. Before closing the MICA, hook the antenna cable onto the hook located on the MOBO .
8. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
9. To finish, secure the case with the two bottom assembly screws ⑪.

# NB-IoT / LTE-M

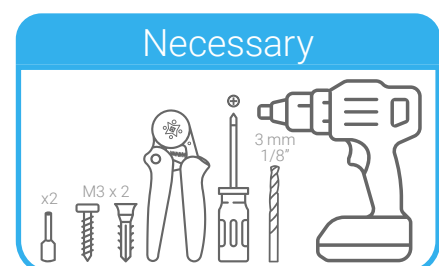
## Wall Installation with Gutter



### Description

1. Back cover of the case.
2. Antenna cable.
3. Cable inlet hole.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
6. Female power terminal.
7. Electronic Motherboard (MOBO).
8. Antenna connector.
9. Antenna hook.
10. Mounting holes (x2).
11. Assembly screws (x2).
12. Drilling guide (boxed).
13. Antenna (boxed).

Note: The recommended height for installation is 120 - 180cm.



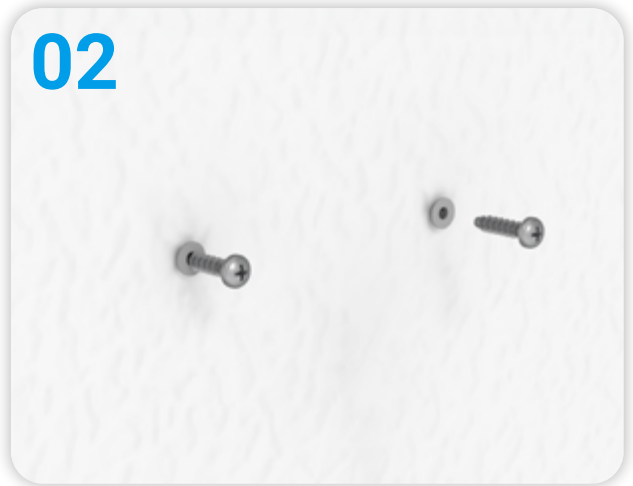


## Installation steps

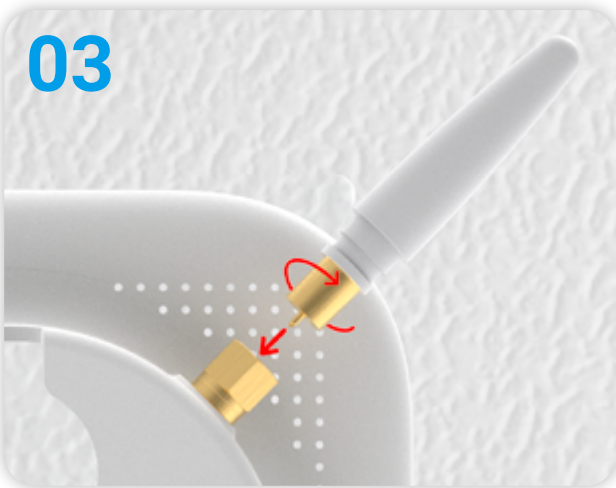
01



02



03

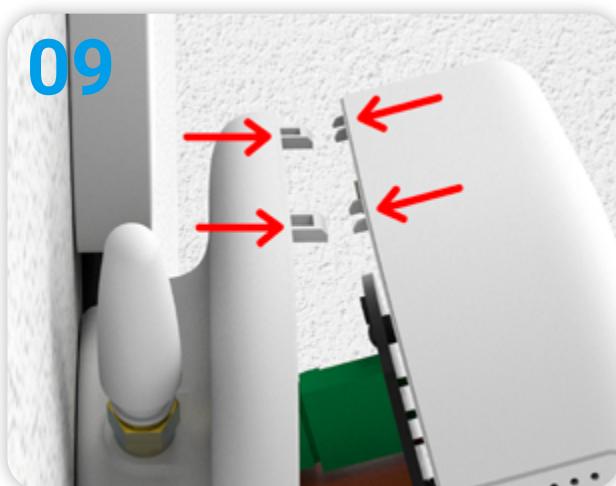
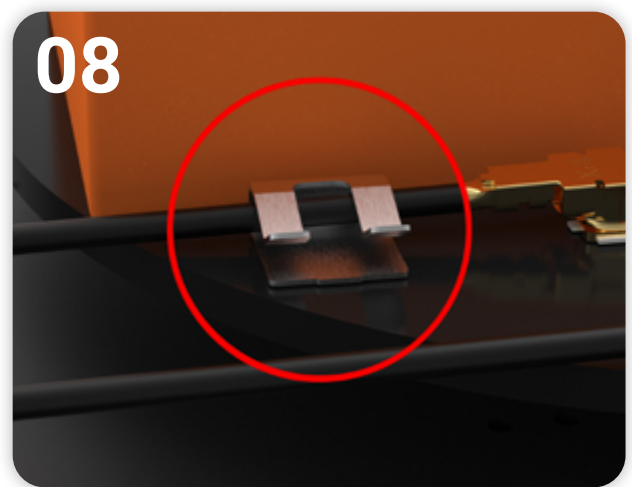
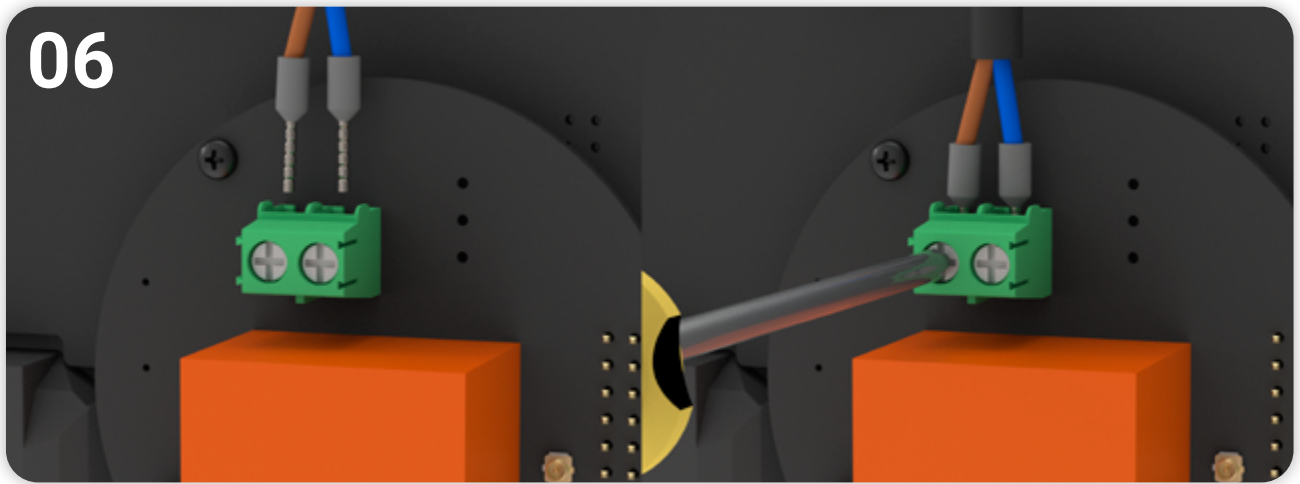


04



05



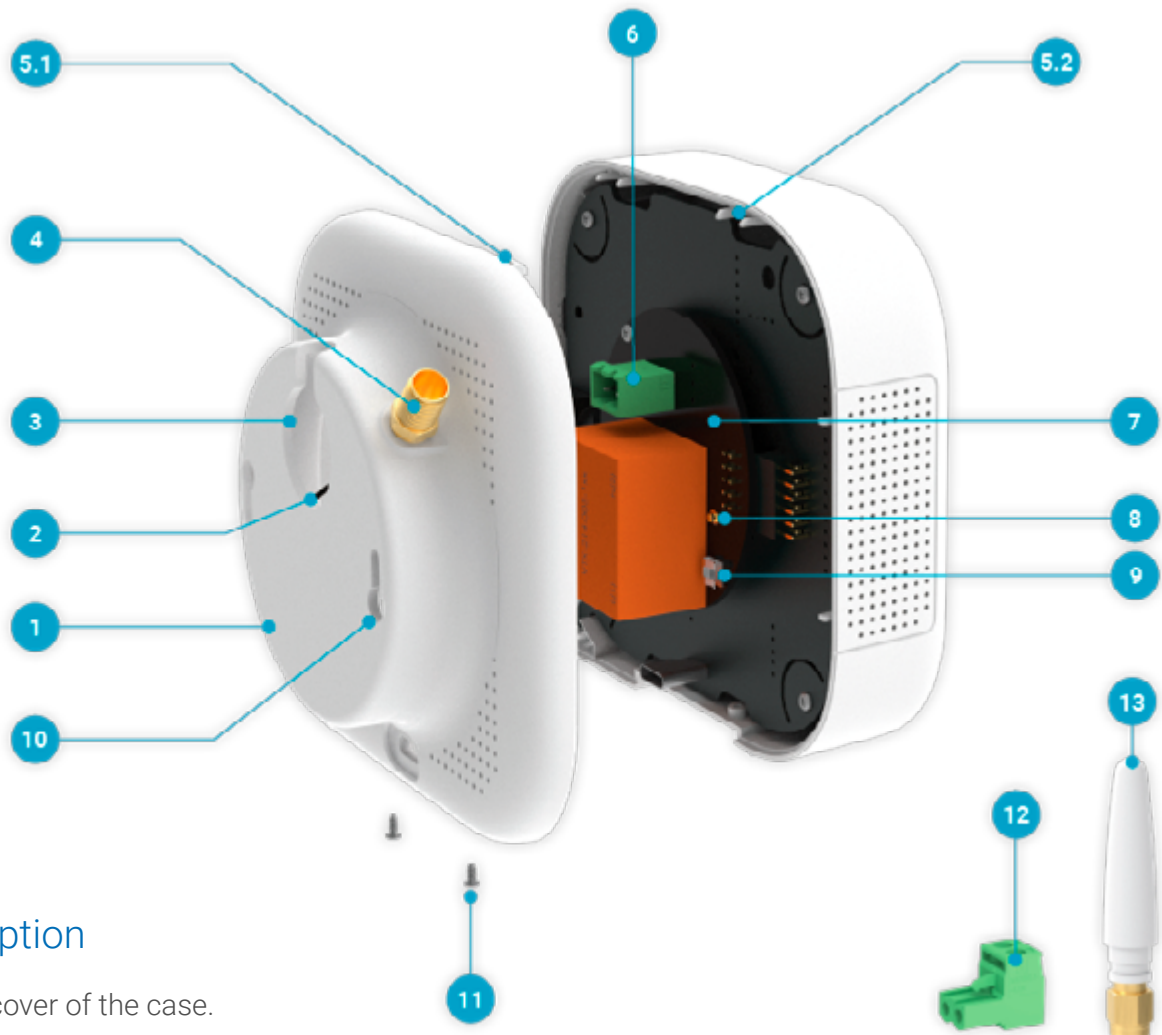


## Description

1. First, drill two holes in the wall (you will need a drill), using the drilling guide 12 included in the box.  
**Recommended height: 120 - 180cm.**
2. Insert a screw into each of the holes you have just drilled (use wall plugs if necessary), leaving at least 8mm protruding from the wall.
3. Then, secure the provided antenna 13 to the thread fixed on the back cover of the case .
4. Next, mount the back cover of the case to the wall:
  - a. Route the cables through the cable inlet hole .
  - b. Insert the screws into the mounting holes .
  - c. Rotate the back cover of the case so that it is straight.
  - d. Tighten the screws to secure in position.
5. Before continuing, add ferrules to the power cables.
6. Now, insert the each end of the power cable into the terminal located on the MOBO , and use a screwdriver to secure the cables.
7. Connect the antenna cable to its connector located on the MOBO .
8. Before closing the MICA, hook the antenna cable onto the hook located on the MOBO .
9. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted), and then close the case.
10. To finish, secure the case with the two bottom assembly screws 11

# NB-IoT / LTE-M + Modbus RTU

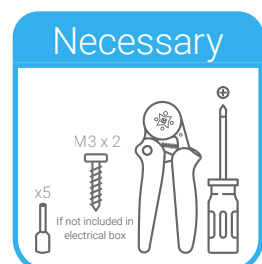
## Concealed Wall Installation



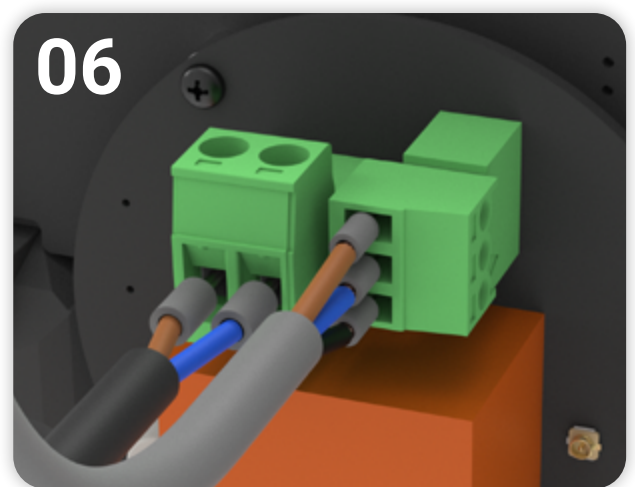
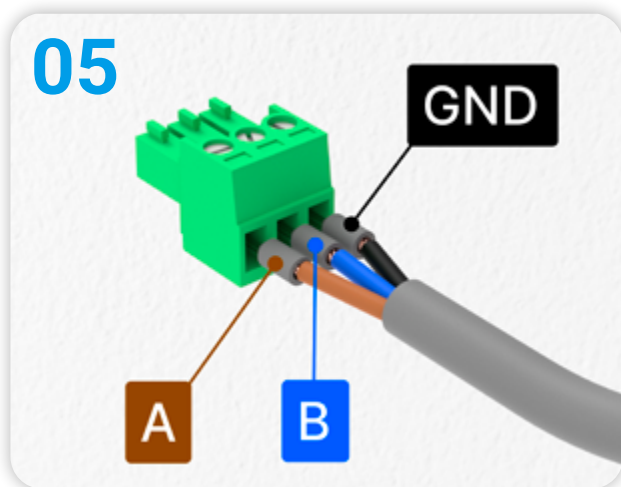
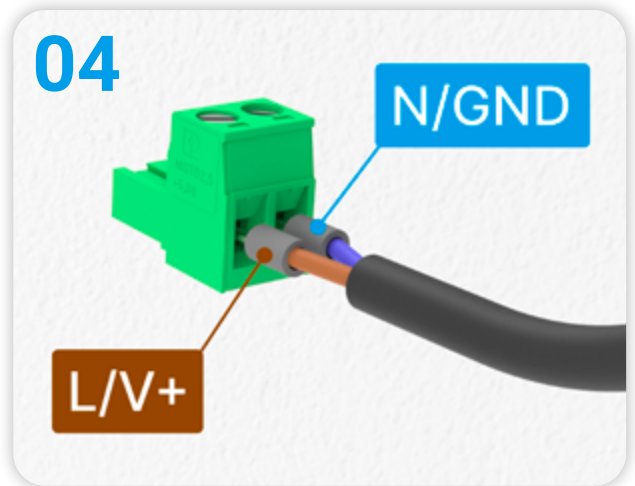
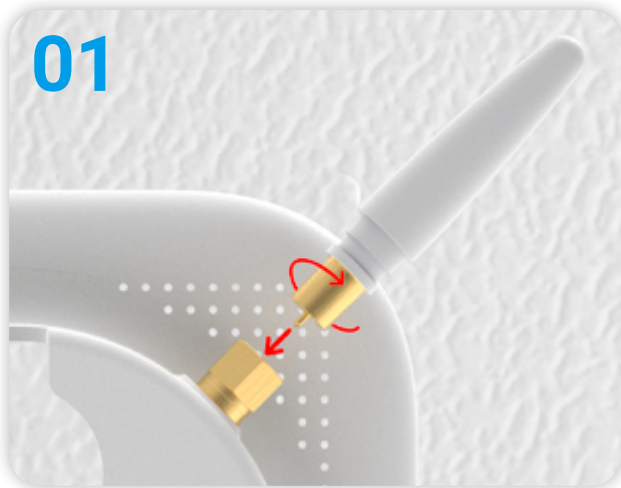
### Description

1. Back cover of the case.
2. Antenna cable.
3. Cable inlet hole.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
6. Electronic Motherboard (MOBO).
7. Female power terminal.
8. Antenna connector.
9. Antenna hook.
10. Mounting holes (x2).
11. Assembly screws (x2).
12. Male power terminal.
13. Antenna (boxed).

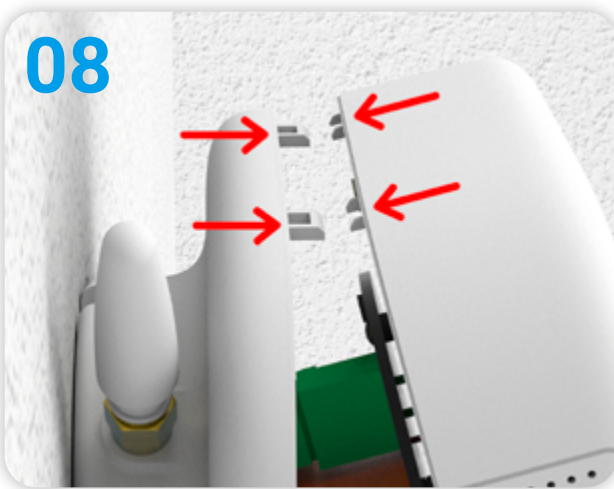
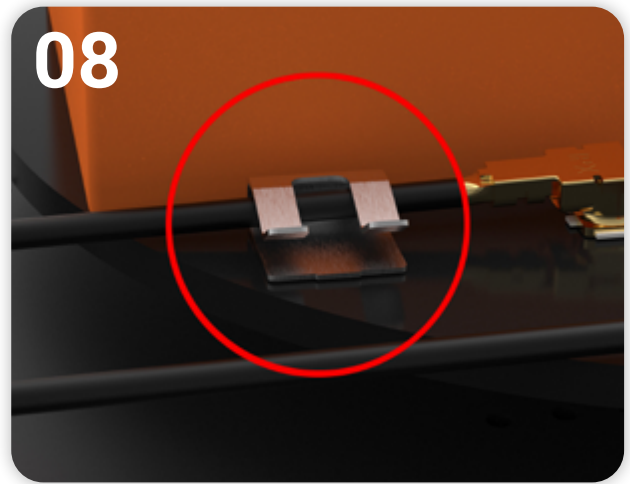
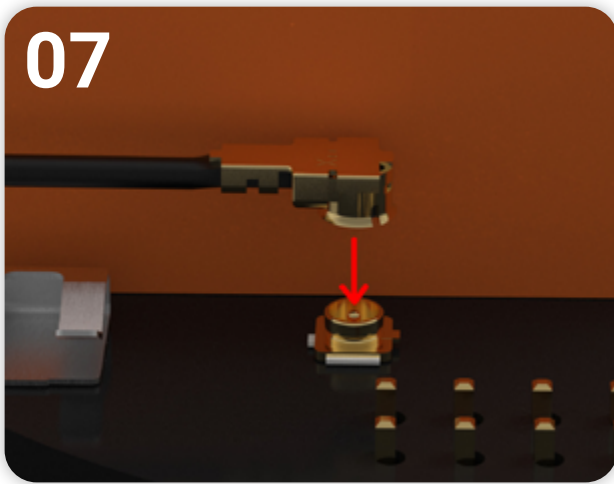
Note: The recommended height for installation is 120 - 180cm.



## Installation steps







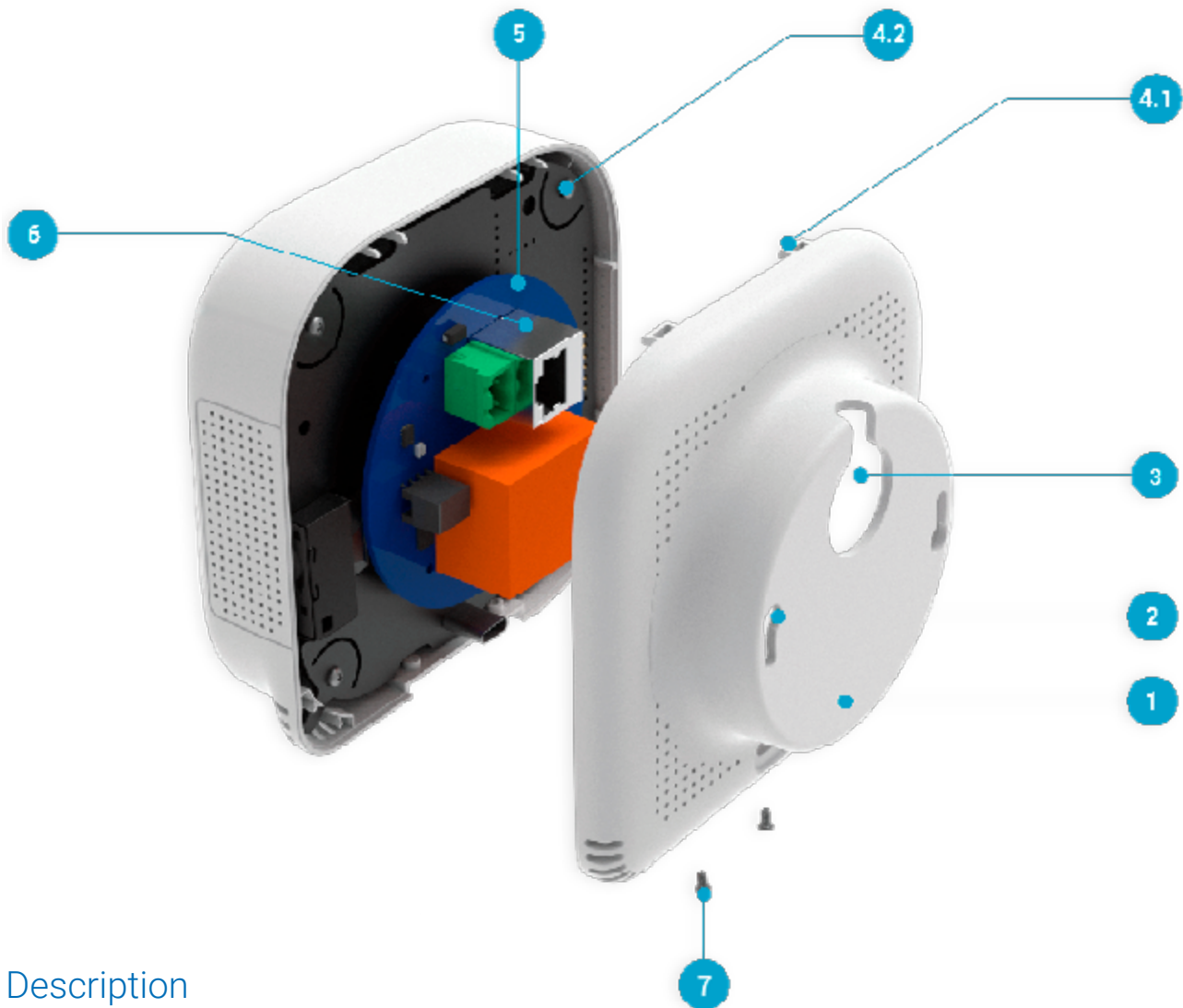


## Description

1. First, secure the provided antenna ⑬ to the thread fixed on the back cover of the case .
2. Next, mount the back cover of the case to the wall:
  - a. Place two screws into the electrical box.
  - b. Route the cables through the cable inlet hole .
  - c. Insert the screws into the mounting holes .
  - d. Rotate the back cover of the case so that it is straight.
  - e. Tighten the screws to secure in position.
3. Before continuing, add ferrules to the power cables.
4. Secure the power cables to the provided male power terminal ⑫. If the power supply is direct current (8 - 36V DC), remember to respect the order of the inputs (V - GND).
5. Connect the male power terminal ⑫ to the female terminal located on the MOBO .
6. Connect the antenna cable to its connector located on the MOBO .
7. Before closing the MICA, hook the antenna cable onto the hook located on the MOBO .
8. To close the MICA, first align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted) and then close the case.
9. To finish, secure the case with the two bottom assembly screws ⑪.

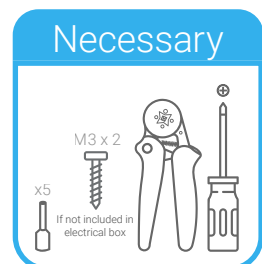
# BACnet PoE

## Concealed Wall Installation



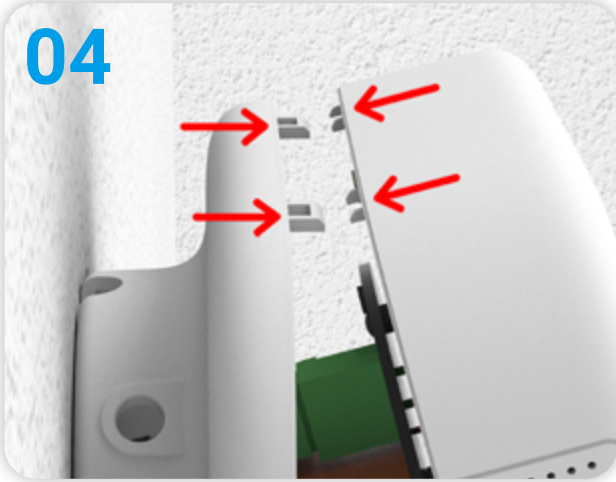
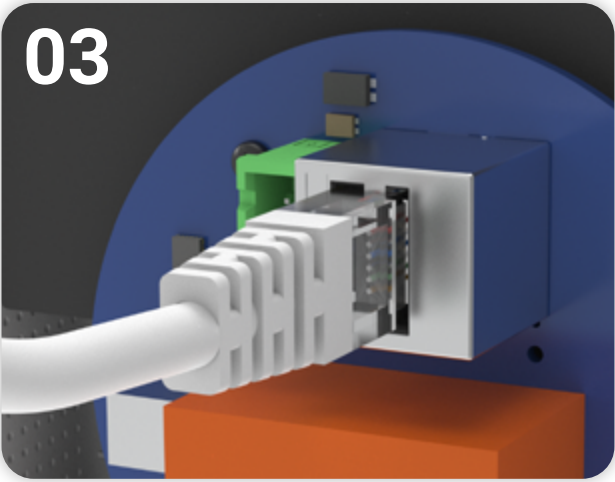
## Description

1. Back cover of the case.
2. Mounting holes (x2).
3. Cable inlet hole.
4. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
5. Electronic Motherboard (MOBO).
6. Female Ethernet terminal.
7. Female power terminal.



Note: The recommended height for installation is 120 - 180cm.

Steps to follow



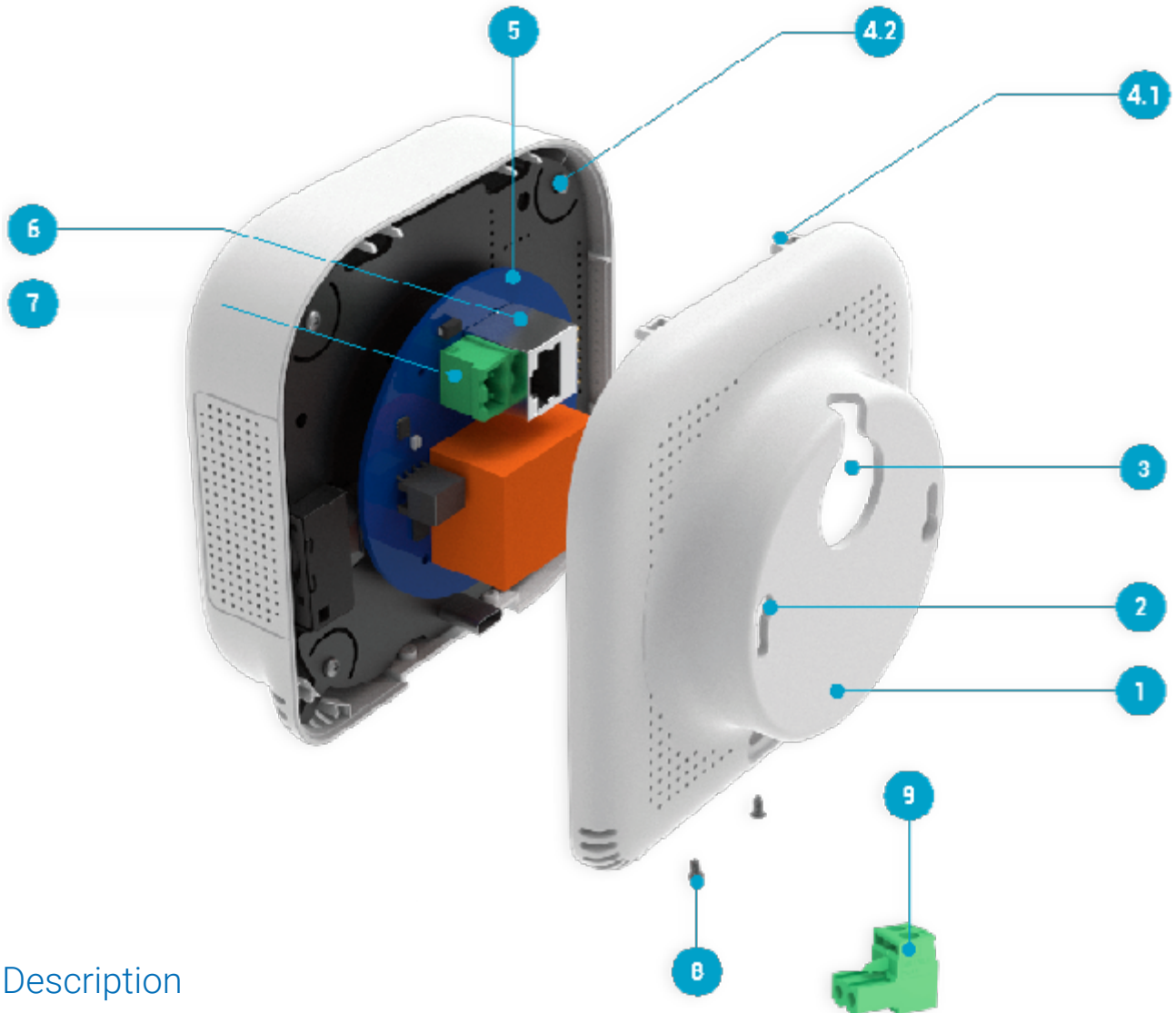
## Description

1. First, place two screws into the electrical box and route the power cable (PoE) through the cable inlet hole .
2. Next, mount the back cover of the case to the wall:
  - a. Insert the screws into the mounting holes .
  - b. Rotate the back cover of the case so that it is straight.
  - c. Tighten the screws to secure in position.
3. Connect the Ethernet cable to the female Ethernet terminal located on the MOBO .
4. You can now close the MICA: Align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted) and then close the case.
5. To finish, secure the case with the two bottom assembly screws .

IMPORTANT: Avoid connecting the device to more than one power source at the same time. This could shorten the device's lifespan.

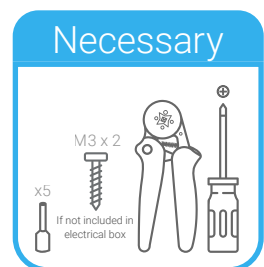
# BACnet 110 - 240V AC / 8 - 36V DC

## Concealed Wall Installation



## Description

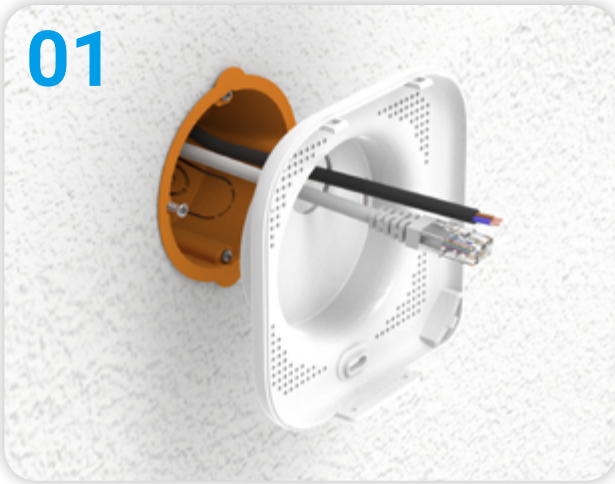
1. Back cover of the case.
2. Mounting holes (x2).
3. Cable inlet hole.
4. 1) Assembly hooks (x2).  
2) Assembly guides (x2).
5. Electronic Motherboard (MOBO).
6. Female Ethernet terminal.
7. Female power terminal.
8. Assembly screws (x2).
9. Male power terminal.



Note: The recommended height for installation is 120 - 180cm.

## Steps to follow

01



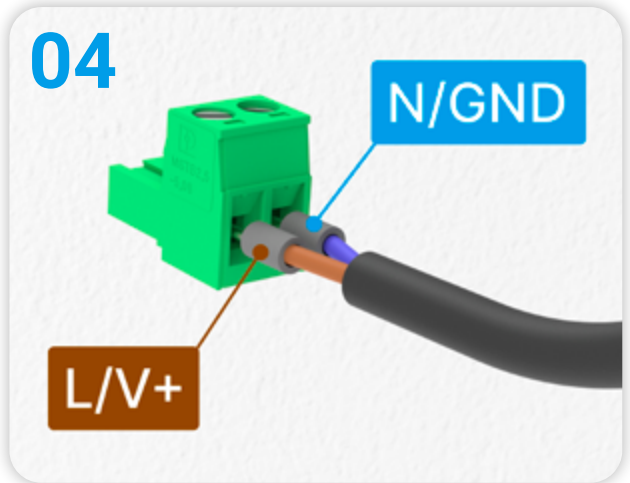
02



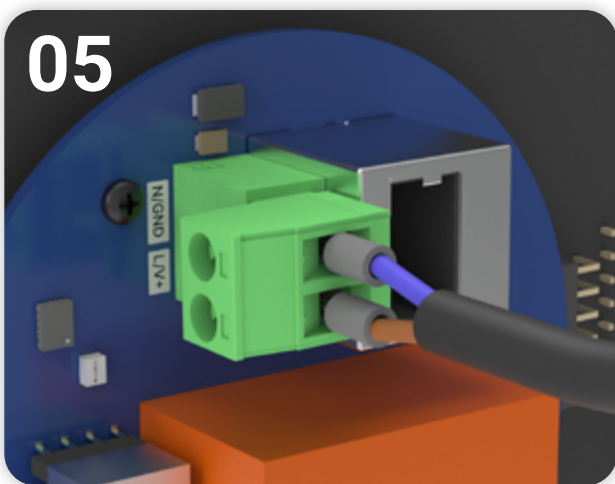
03



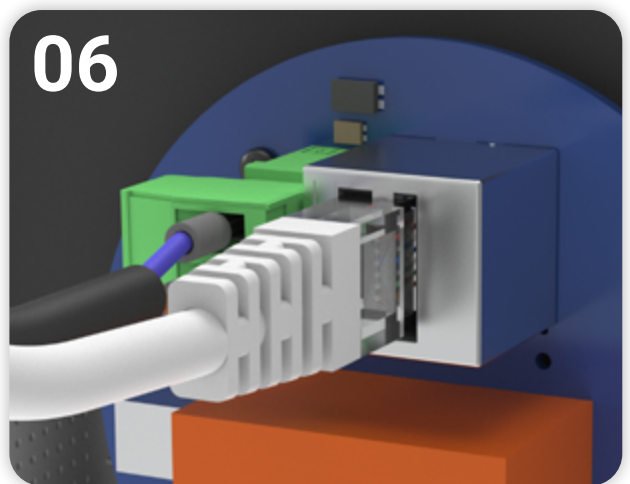
04



05



06







## Description

1. First, place two screws into the electrical box and route the cables (power and ethernet) through the cable inlet hole .
2. Next, mount the back cover of the case to the wall:
  - a. Insert the screws into the mounting holes .
  - b. Rotate the back cover of the case so that it is straight.
  - c. Tighten the screws to secure in position.
3. **Before proceeding**, add ferrules to the wires on the power cable.
4. Next, connect the power wires to the male power terminal provided. If the power supply is **direct current (8 - 36V DC)**, remember to respect the order of the inputs (**V+ and GND**).
5. Connect the power cable to the female power terminal located in the MOBO .
6. Connect the Ethernet cable to the female Ethernet terminal located on the MOBO .
7. You can now close the MICA: Align the assembly guides with the assembly hooks (this must be done with the housing slightly tilted) and then close the case.
8. To finish, secure the case with the two bottom assembly screws .

IMPORTANT: Avoid connecting the device to more than one power source at the same time. This could shorten the device's lifespan.



1. Verify that no electric current is flowing during the installation or maintenance of wall-mounted equipment (for both concealed and non-concealed wall installations).
2. To reduce risks, always entrust the installation and maintenance of the equipment to qualified personnel.
3. IMPORTANT: Avoid connecting the device to more than one power source at the same time. This could shorten the device's lifespan.
4. Download the "inBiot Setup" [mobile application](#) to configure your MICA.
5. For any inquiries, contact the support team through the [form on our support page](#).

