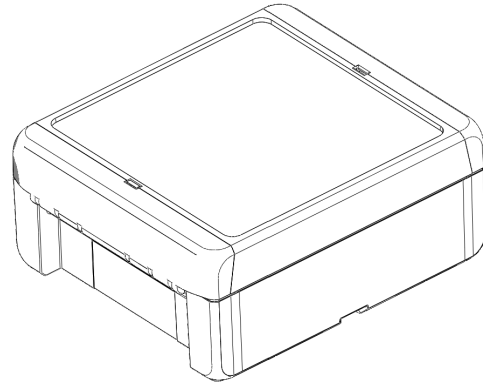
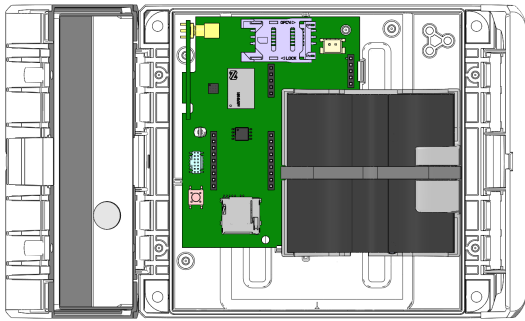


# Product Manual - LOB-GW4-WMBUS



Manufacturer

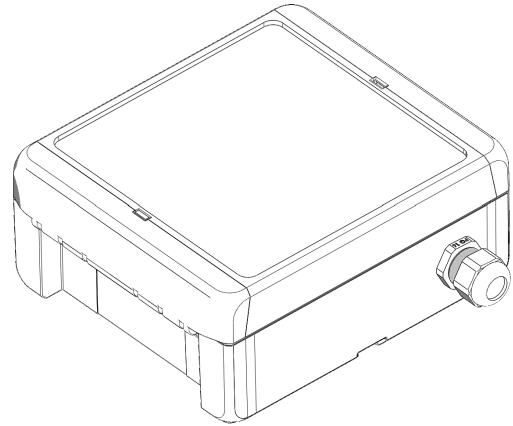
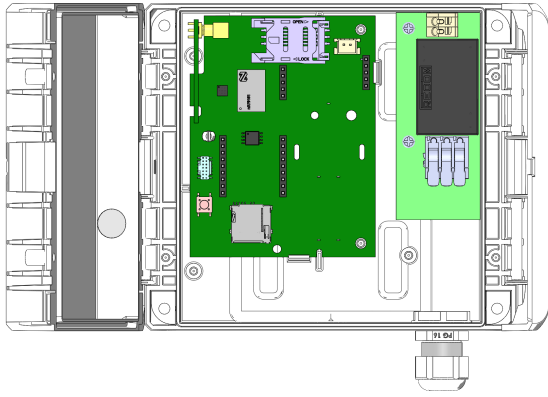


Lobaro GmbH | Stadtdeich 7 |  
D-20097 Hamburg | Germany

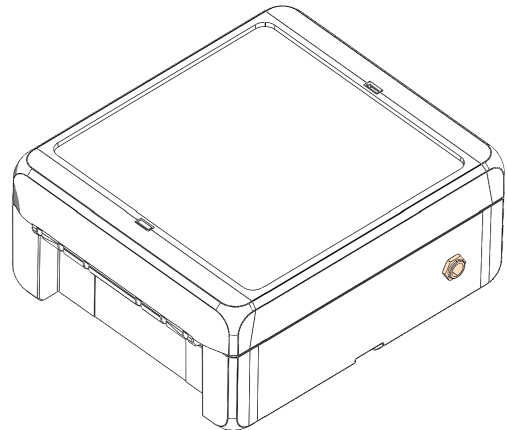
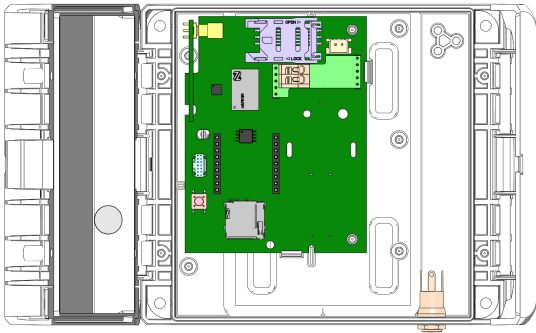
[support@lobaro.de](mailto:support@lobaro.de) | [www.lobaro.de](http://www.lobaro.de)

## Variants

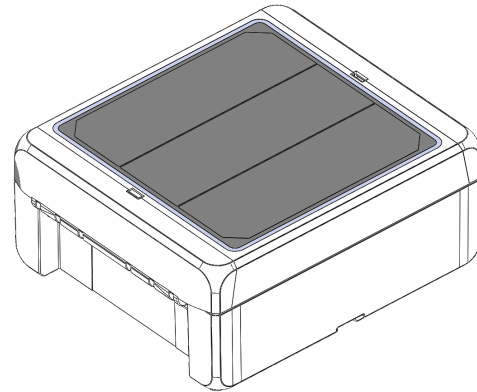
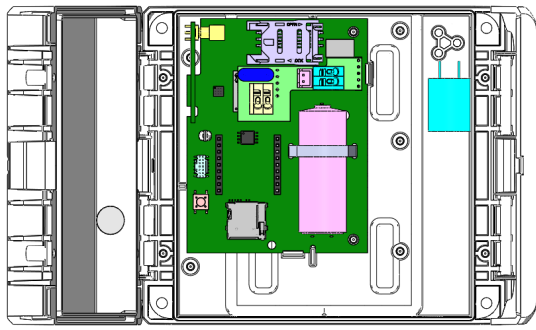
**LOB-GW4-WMBUS-230 V**



### **LOB-GW4-WMBUS-12 V**



### **LOB-GW4-WMBUS-SUN or LOB-GW4-WMBUS-SUN (+ Back-up Battery)**



## Installation

This product may only be installed by trained and qualified personnel according to the specified installation guidelines. When installing in buildings with increased fire protection requirements (e.g., stairwells, escape routes), the installation company or qualified personnel must ensure compliance with the specific requirements according to state building regulations.

These instructions must be carefully read and followed before commissioning. They must be kept throughout the entire service life of the device.

## Battery - LOB-GW4-WMBUS

### Warning

*Dangerous goods!*



## Safety Instructions for Lithium Batteries

This device contains internal, replaceable 3.6V lithium batteries (Li-SOCI2) subject to transport restrictions. Transport regulations of hazard class 9A apply. The battery must be disconnected from the device during transport! Current dangerous goods regulations must be observed for all shipments. Test certificates for approved batteries are available upon request.

## Battery Replacement

### ⚠ Caution

- Risk of explosion if batteries are replaced incorrectly!
- Only to be replaced by qualified personnel
- Use only identical lithium batteries recommended by the manufacturer

## Electrical Installation - LOB-GW4-WMBUS-230 V



Danger to life from electrical mains voltage!

After opening the housing, components that may be under dangerous mains voltage become accessible.

- Interventions only by qualified electricians in compliance with electrical regulations.
- Attention: No disconnecting device present - easily accessible bipolar (L,N) disconnecting device required in the electronic system with contact gap of at least 3mm.
- Gateway must always be disconnected from the mains before carrying out work.
- Personnel must be appropriately trained regarding hazard sources and maintenance measures.

## Intended Use

The Lobar Wireless M-Bus Gateway V4 is used for forwarding data from suitable measuring devices with radio interface via NB-IoT mobile communications, DECT-NR+ or alternatively LoRaWAN. The gateway is intended exclusively for this purpose.

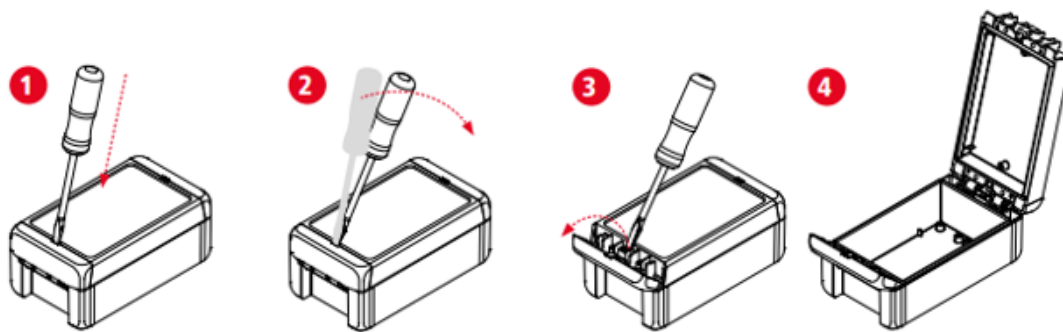
# Technical Data

<p>General</p>	<p>Type: LOB-GW4-WMBUS  Order name: Wireless M-Bus Gateway V4  Input voltage: 3.3V to 5V, 3.6V (Standard)  Article number: 1200326</p> <p>Type: LOB-GW4-WMBUS-230 V  Order name: Wireless M-Bus Gateway V4 (ext. Power, 230 V)  Input voltage: 230 V to 5 V  Article number: 1200474</p> <p>Type: LOB-GW4-WMBUS-12 V  Order name: Wireless M-Bus Gateway V4 (ext. Power, 12 V)  Input voltage: 9 V - 36 V via plug-in power supply (110 V-230 V AC / 5 V DC)  Article number: 1200356</p> <p>Type: LOB-GW4-WMBUS-SOLAR  Order name: Wireless M-Bus Gateway V4 (Solar)  Power supply: Built-in solar cell (Indoor + Outdoor) + Li-Ion battery optional with 3.6 V back-up battery  Article number: 1200378</p>
<p>Metering</p>	<p>Wireless M-Bus: S1, C1/T1 Mode  RX Frequencies: 868.3 MHz, 868.95 MHz  Standard: DIN EN 13757-4  Proprietary Mode: Xylem SensusRF (BubbleUP)  Typ. Range: 30 m (Indoor), 2-3 floors  Typ. Range: 100 m (Outdoor), free field  Storage size: &gt; 64,000 telegrams  Whitelist or Blacklist Filter: ID, M-Field, CI-Field, Type</p>
<p>Radio Technologies</p>	<p><i>NB-IoT/LTE-MLTE</i> Networks: Cat-NB1, Cat-NB2, Cat-M1  LTE Bands: 800 MHz (B20), 900 MHz (B8), 1800 MHz (B3)  TX Power: ≤ 23 dBm  SIM Card: 2FF (Mini SIM)  Data transmission: CoAP via UDP  Encryption: DTLS (optional)  Data format: CBOR or JSON  <i>LoRaWAN</i> Protocol: Class A LoRaWAN 1.0.2 EU868  TX Power: ≤ 14 dBm  Activation: Over-the-air activation (OTAA)</p>

	<p>DECT-NR+ Preparation Band: 1.9 GHz</p>
Batteries	<p>LOB-GW4-WMBUS  Approved type: ER34615-2+SPC1550A/W  Voltage: 3.6V  Other types: On request  Chemistry: Li-SOCl<sub>2</sub>  Capacity: 38 Ah (2 x ER34615), 190mAh (SPC1550A/W)  Continuous current: ≤ 230mA  Weight: ≤ 230 g  Connection: JST-XH 2-Pin  Hazard class 9</p> <p>LOB-GW4-WMBUS-SOLAR (+ Back-up Battery)  Approved types: ER18505 / ER18505M  Voltage: 3.6V  Other types: On request  Chemistry: Li-SOCl<sub>2</sub>  Capacity: 3.5 - 4 Ah  Connection: JST-XH 2-Pin  Not dangerous goods</p>
Solar Cell	<p>Std. Power: 2 W, nom. 2 V (DC)  Energy storage: 250F, 3.8V Lithium Ion Capacitor  Connection: JST-XH 2-Pin  Dimensions: 107 mm x 106 mm x 2 mm</p>
Housing	<p>Dimensions: 151 × 125 × 62,5 mm (incl. DAE)  Material: Polycarbonate UL 94 V0  Protection class: IP 66 / 68 – IP68: 1.2m (2 hrs), suitable for outdoor use  Seal: PU foam  f1 listing according to UL 746C  Color: white, similar to RAL 9003</p>
Environment	<p>Indoor use: -5°C to 55°C, &lt;95% RH (without condensation)  Outdoor use: -20°C to 55°C, &lt;95% RH (without condensation)</p>

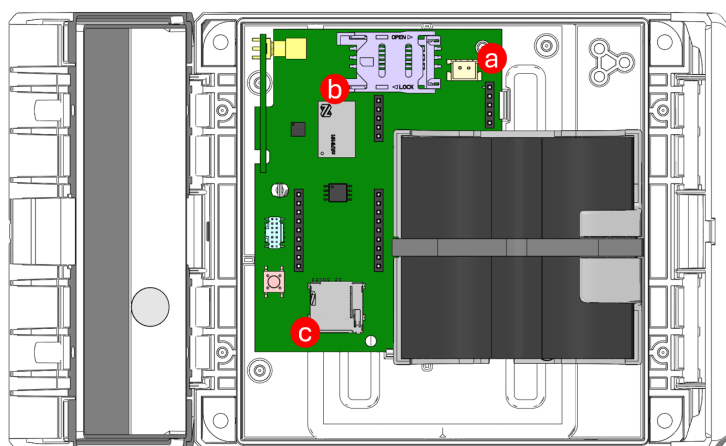
## Installation Steps

1. Open housing using a slotted screwdriver

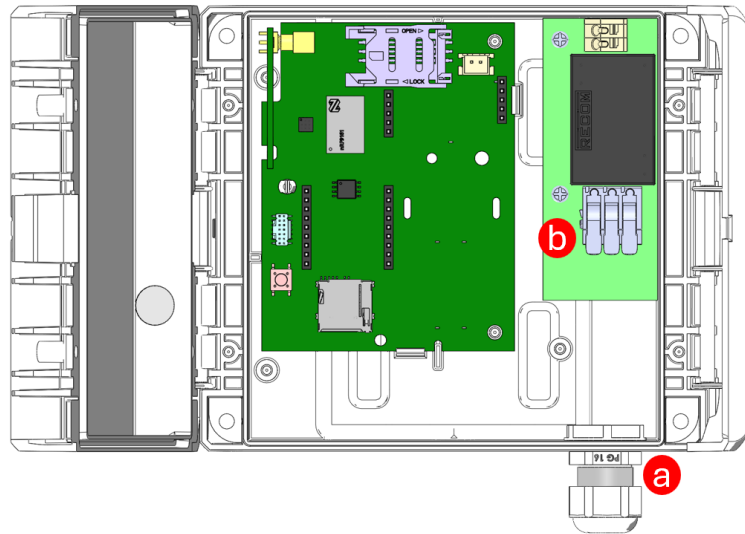


## 2. Device commissioning

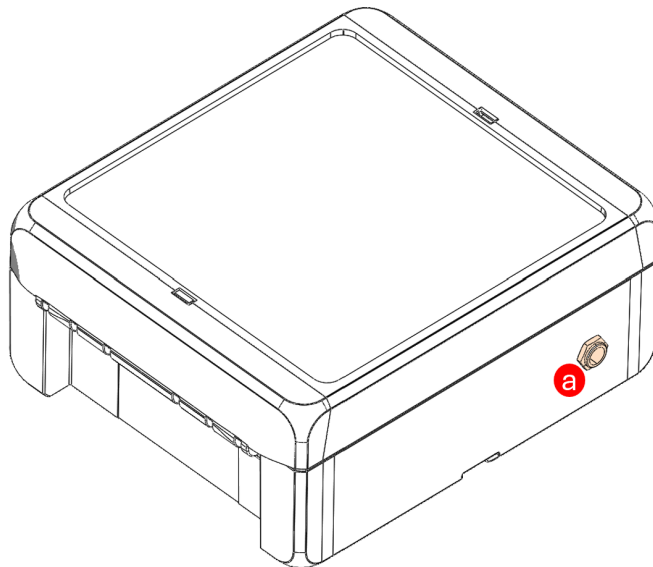
- a. LOB-GW4-WMBUS: Insert battery cable into PCB connector (a), insert LTE-M / NB-IoT SIM card into SIM socket (b). The SD card holder (c) is not used in this product. Alternative to avoid opening of housing using a reed contact and a magnet (no visual feedback via LED given!)



- b. LOB-GW4-WMBUS-230 V: Guide power supply cable through cap nut and PG16 gland (a). Connect cable wires to terminal block (b). Observe polarity. Screw cap nut with cable gland.

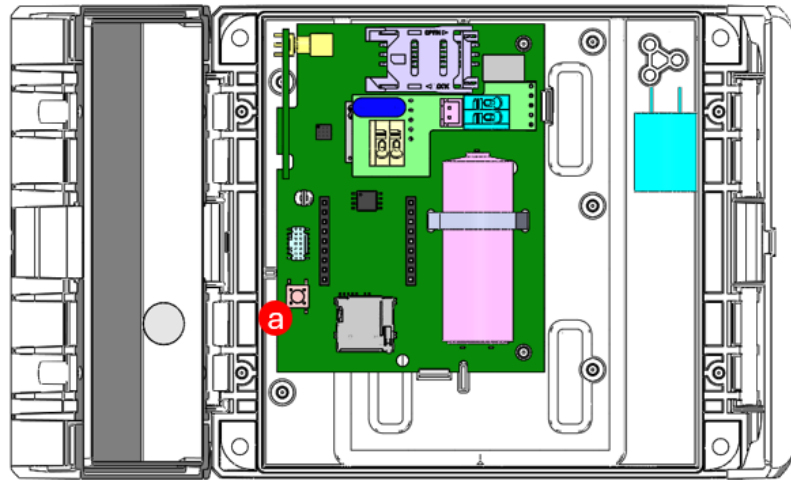


- c. LOB-GW4-WMBUS-12 V: Insert included power adapter with round connector into DC socket (a) of the device and plug the other end into power outlet

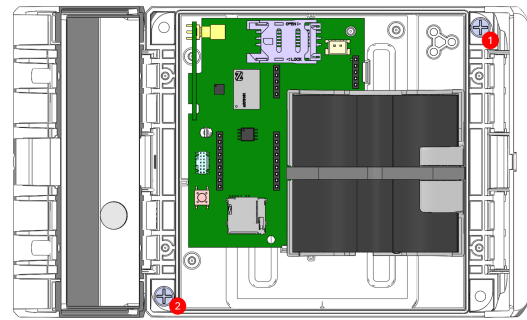
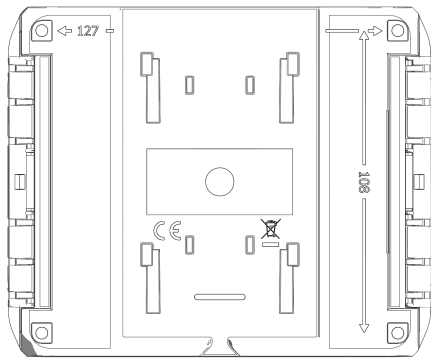


- d. LOB-GW4-WMBUS-SUN: Press reset button (a)

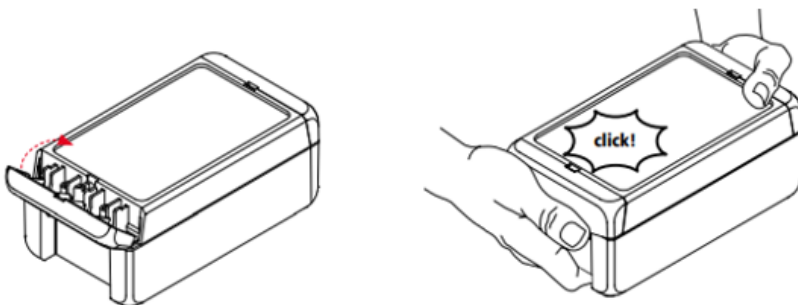




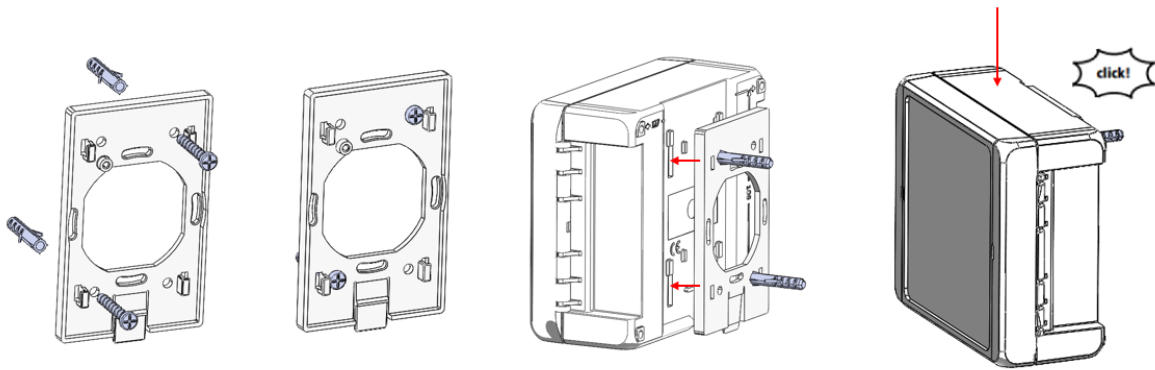
3. Wall mounting **without wall bracket** - attach to wall using two dowels and two screws



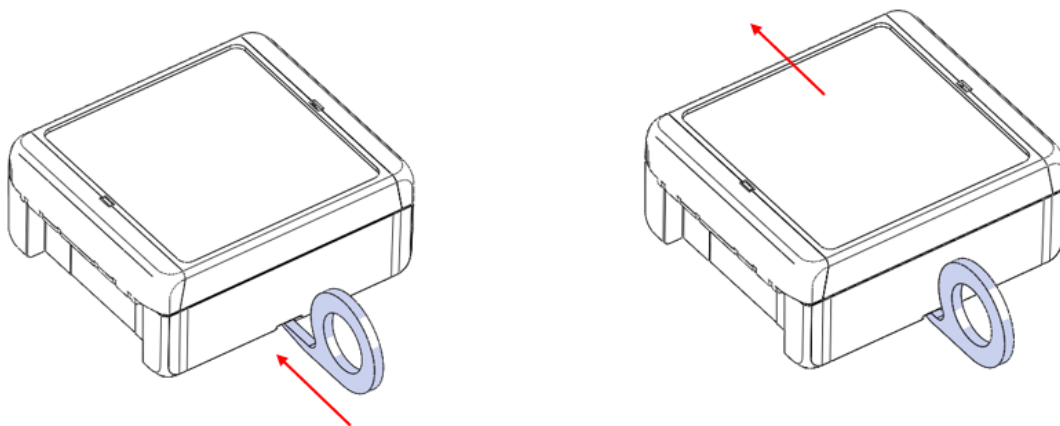
4. Close housing manually



5. Wall mounting **with wall bracket** - attach to wall using two dowels and two screws and mount gateway. Place from above and slide on



6. When using wall bracket, remove the gateway using the included tool. Insert the tool into the groove on the bottom and push up to the housing wall until it stops. Then gently pull the device up and away from the wall.

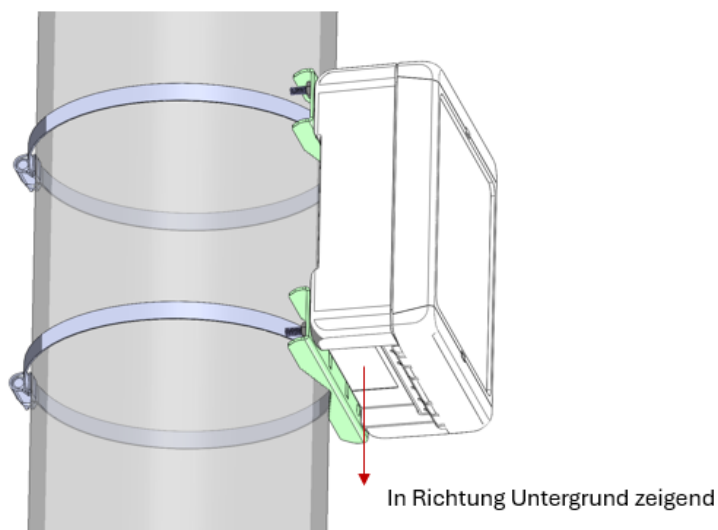
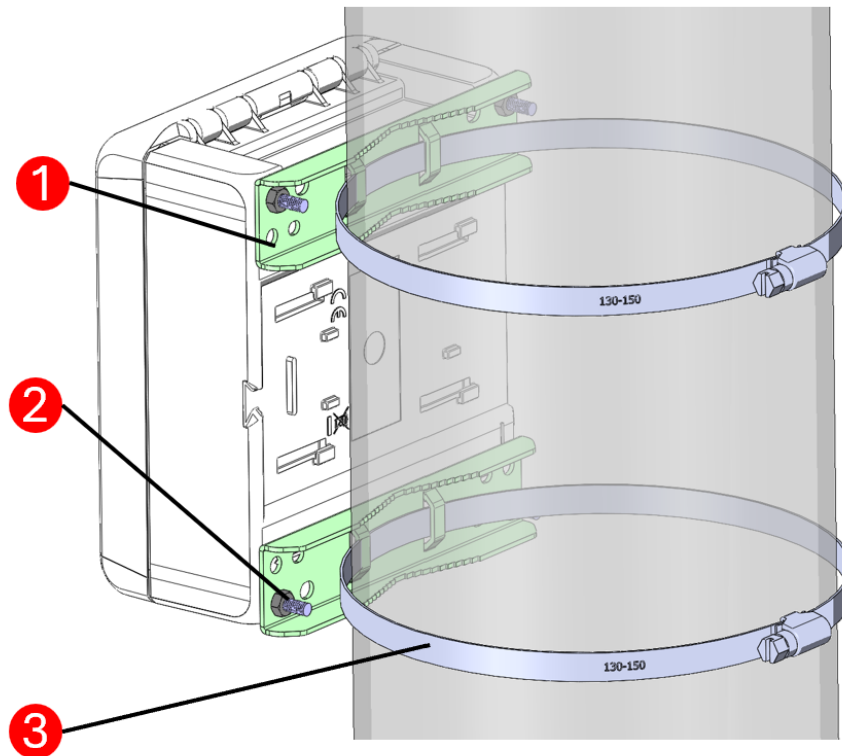


## Pole Mounting

The following additional components are required for mounting to a pole.

Position	Component	Quantity	Description
1	MH 122	2	Pole mount stainless steel V2A, uncoated
2	BSF MH 1	4	Screw M4×16 + Nut M4
3	8000194	2	1 x Screw clamp stainless steel, clamping range 60-170mm, V2A

Pole mounts (1) are connected to the gateway using screws and nuts (2). Then the screw clamps (3) are to be guided through the pole mounting tabs and tightened to a suitable pole using a slotted screwdriver.



## Simplified CE Declaration



Hereby, Lobarö GmbH declares that the gateway LOB-GW4-WMBUS complies with Directives 2014/53/EU (RED) and 2011/65/EU (RoHS). The complete text of the EU Declaration of Conformity is available at the following internet address:  
<https://doc.lobaro.com>

## Disposal



In Germany and for products delivered directly from Germany: Due to applicable regulations, the electrical and electronic devices from Lobarö GmbH may not be disposed of through public collection points for electrical equipment!

To create opportunities for returning old devices, we work with several qualified recycling companies. If a device manufactured by us has become an old device and you would like to return it, please contact:

<https://www.take-away.de/leistungen/>

elektrogesetz-weee-elektrog/b2b-altgeraete-ruecknahme-entsorgung and fill out the questionnaire.

In European Union countries outside Germany:

Information on correct disposal can be obtained from your dealer or the responsible distributor.

## Further Information

Further information, such as detailed technical product description, comprehensive operating instructions, additional recycling and safety instructions are available online at <https://doc.lobaro.com>.