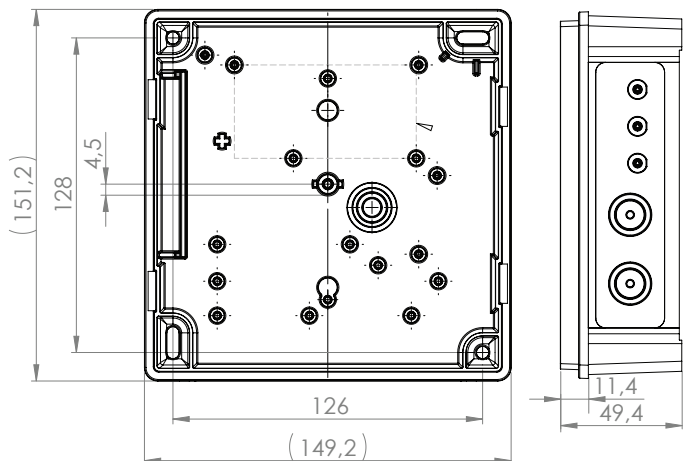


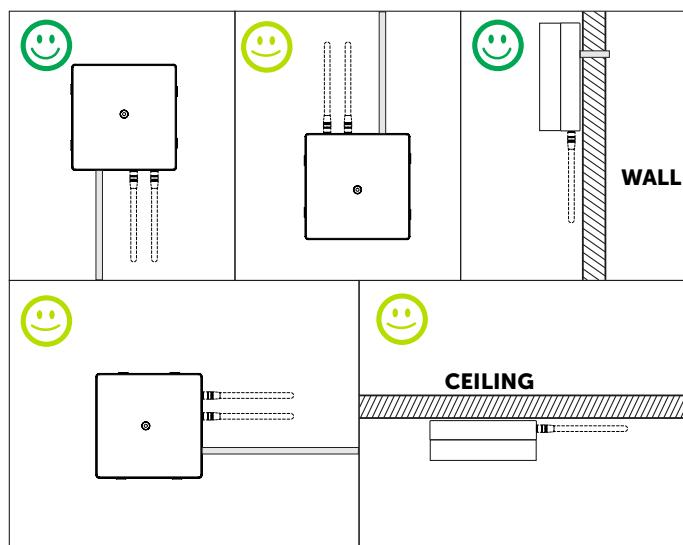
# Fidelix FX-WMBUS-R\*-\*-\*-Ax-\* installation instructions

## Dimensions:



## Installation location and direction:

It is recommended to install repeaters to the wall, but they can also be installed to the ceiling. In case of external dipole antennas attached directly to the repeater, it is highly recommended to install the repeater so that antennas are pointing downwards:



## Installation:

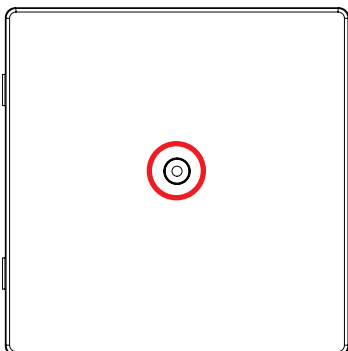
230 VAC versions installation must only be carried out by authorised installers according to the relevant electrical safety regulations. Appropriate disconnect device shall be used as part of the building installation. It should be close to the device and easily accessible to the user. For example: Power supply cable with socket. Note that earth (PE) is not required.

**The unit must have a continuous power supply.** Lighting power supply with movement detectors or timers is not permitted.

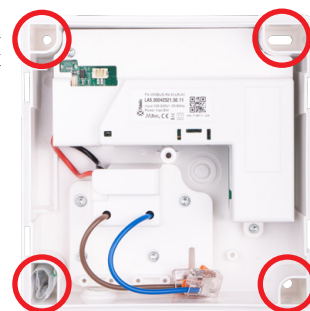
**1.** Find a suitable place to install the repeater.

**2.** Unscrew the screw (marked with a red circle on the image on the right) and remove the cover by pushing the clips at the both side of the cover.

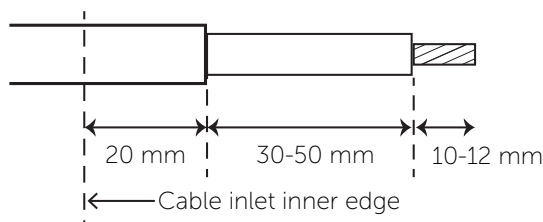
The screw is a Security Torx T20H screw (with a small pin in the middle).



**3.** Mark the holes and pre-drill (depending on the material). Mount the device by using 4 screws.

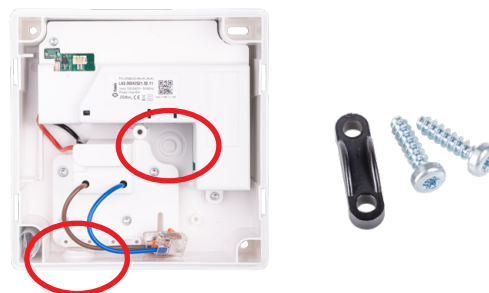


**4.** Strip the connection cable according to the following diagram:



**5.** Thread the power supply cable through the cable inlet. Use either inlet from the back of the repeater or the side one. Connect the 230 VAC to the two connectors.

**Note:** 230 VAC installation must be done by authorised installers according to the relevant electrical safety regulations!



**6.** Make sure to use strain relief if side inlet is used (included in the package).

**7.** Connect power to the unit.

**FX-WMBUS-RX4-M-LR-Ax-X:** A LED will start blinking slowly at first and then quick flashes for every packet it retransmits.

**All other repeaters:** You will hear 3 beeps when it starts up, if another beep is heard inside of a few seconds (~5s) after the first beeps, there is problem with the repeater. This may indicate for instance damage endured during transport or installation.

A LED will start blinking once for every packet the repeater retransmits.

**8.** Fit the cover and secure it by using the screw (circled in red in the image on the left).

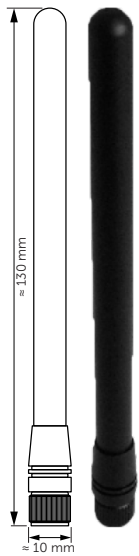
**Steps 9 and 10 (on the next page) are only valid for repeaters with external antenna(s) (FX-WMBUS-R4-M-LR-Ax-X or FX-WMBUS-RX4-M-LR-Ax-X).**

# Fidelix FX-WMBUS-R\*-\*-\*-Ax-\* installation instructions

Steps 9 and 10 are only valid for repeaters with external antenna(s) (FX-WMBUS-R4-M-LR-Ax-X or FX-WMBUS-RX4-M-LR-Ax-X):

**9.** Mount the desired antennas. Make sure to either use a Tx-antenna without gain, or to configure the repeater's antenna gain parameter to a level that is suitable to compensate for your antenna's gain. In its default settings, the repeater transmits at the maximum legal limit.

The Rx antenna can of course be of any size.



FX-WMBUS-R4-M-LR-Ax-X repeater uses one antenna for both sending (Tx) and receiving (Rx).

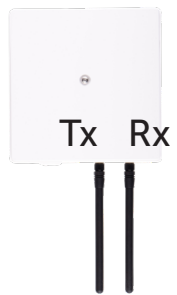
FX-WMBUS-R4-M-LR-Ax-X

FX-WMBUS-RX4-M-LR-Ax-X repeater has a separate antenna connection for sending (Tx) and receiving (Rx).

Several different types of antennas are available.

An example is the standard dipole antenna FX - ANT - 868 - HW - DP (photo and sketch on the left).

FX-WMBUS-RX4-M-LR-Ax-X



## IMPORTANT!

Appropriate disconnect device shall be used as part of the building installation. It should be close to the device and easily accessible to the user. For example: Power supply cable with socket.

## TÄRKEÄ!

Asianmukaista erotuslaitetta on käytettävä osana rakennukseen asennusta. Sen tulee sijaita laitteen lähellä ja olla helposti käyttäjän ulottuvilla. Esimerkiksi: Verkkovirtajohto pistokkeella.

## VIKTIGT!

Elinstallationer måste ha en passande frikopplingsanordning för elnätet. Den ska vara nära enheten och lättåtkomlig för användaren. Till exempel: Strömkabel med plugg.

**10.** It is possible to use an antenna cable SMA (male) to N (male) or SMA (male) to SMA (male). With such cable, the repeater can for example be placed inside and the antennas outside of the building. Note that when using an extension cable, the appropriate antenna is still needed.



SMA (male) to N (male) cable

Currently, cables of 1m and 3m length are available.

**11.** It is possible to temporarily power up repeaters FX-WMBUS-R4-M-LR-Ax and FX-WMBUS-R4-M-LR-Ax-X by using separate battery back (FX-BATT-E-B1). This is useful when trying to find out good installation place for the repeater, with out needing the mains power.



For more information, consult the following product pages:

[FX-WMBUS-R4-M-LR-Ax:](#)  
(230 VAC, IP67)



[FX-WMBUS-R4-M-LR-Ax-X:](#)  
(230 VAC, 1SMA, IP67)



[FX-WMBUS-RX4-M-LR-Ax-X:](#)  
(230 VAC, 2SMA, IP67)

