GB CE

30 014 041 - **1,** 30 014 051 - **1**

RS485 bus energy meters MQTT IP gateway
FGW14W-IP / FGW14WL-IP

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location: -20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity: annual average value <75%.

FGW14W-IP / FGW14WL-IP Gateway with IP interface for Series 14 energy meters:
FGW14W-IP: IP IP interface via WLAN.
FGW14WL-IP: IP interface either via WLAN or LAN.
The gateway supports up to 64 meters on the RS485 bus.
Current values of the electricity meters on the RS485 bus are available via MQTT or REST API.
For more details on MQTT see: www.mqtt.org
Power data according to EEP A5-12-01, A5-12-02 and A5-12-03 are supported.
The data format is described in the REST API documentation.
The REST API is available on the device's online product page.
The MQTT format corresponds to that of the REST API.
Only 0.8 watt standby loss.

Modular device for DIN-EN 60715 TH35 rail mounting.
1 module = 18 mm wide, 58 mm deep.

For operation, the gateway must be integrated into a WLAN or LAN (only FGW14WL-IP) .

The WLAN connection uses the 2.4 GHz frequency band.

The LAN connection is via RJ45 connector with 10/100Base-T.

Connection to the Eltako-RS485 bus.

Bus cross wiring and power supply with jumper. RSA and RSB terminals for connecting three-phase meters.

Operation in conjunction with FAM14 or FTS14KS.

Configurations and updates are made via a web interface.

controls

The gateway has a rotary switch with positions 1, 2, ..., 10 and an integrated LED (green/red).

When delivered, the LED flashes green at approx. 1 Hz, whereby the rotary switch must not be in position 1 or 10.

Once the MQTT configuration has been completed and the connection to an MQTT broker has been established, the LED goes out.

factory reset

If the rotary switch is set to position 1 or 10, the LED lights up green continuously.

If the rotary switch is turned to and from position 1 5 times within 10 seconds, a factory reset is made and the delivery status is restored.

error indication

If an access password has been assigned but data transmission to the MQTT Broker is not possible (e.g. MQTT not configured or data connection interrupted), the LED lights up red continuously. The LED goes out with the next successful data transfer.

If the LED flashes red, approx. 5 times per second, there is a HW error and the device must be replaced.

Device configuration via web browser
IP connection in the delivery state

Via WLAN: A WLAN access point is provided in the delivery state. The connection to the access point can be established using the QR code below or manually:
SSID: Eltako-FGW14-IP
Password: fgw14-ip
The IP address of the device is **192.168.4.1 (WLAN) or 192.168.5.1 (LAN)**
Via LAN (FGW14WL-IP only): when delivered, the LAN port has the IP address 192.168.5.1
The device can now be configured via web browser.
To do this, enter http://192.168.5.1 (LAN) or http://192.168.4.1 (WLAN) in the address line.
In the delivery state, an access password must be assigned first.

Then it´s possible to log in for the configuration with the assigned password.

If there is no access to a website for 10 minutes, the user is automatically logged out.

After logging in, further configuration can be carried out via the menu items:

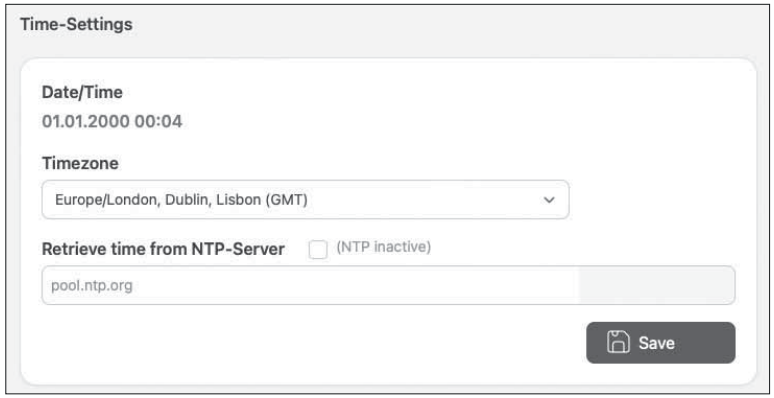
- system
- network
- MQTT
- devices

System

A suitable name with up to 16 characters can be assigned to the gateway here.

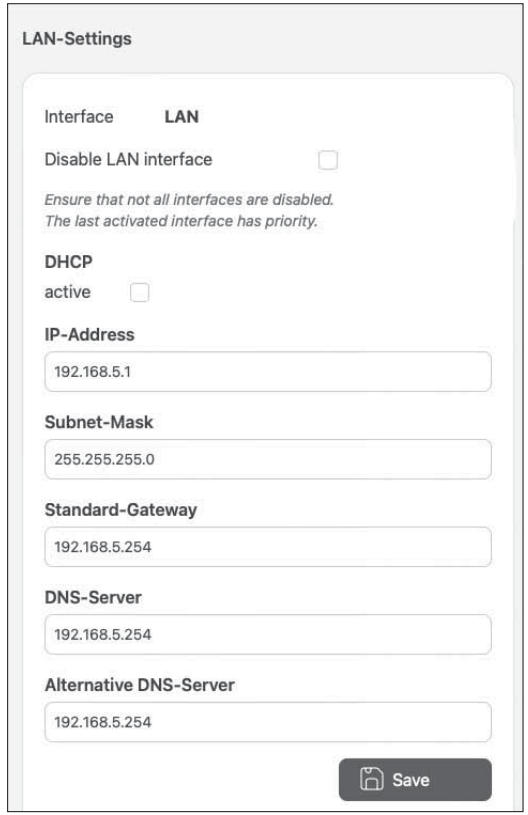
It is also possible to carry out a FW update, change the access password and reset the device to the delivery status.

The system time can be set via NTP (only with an existing Internet connection) or manually.

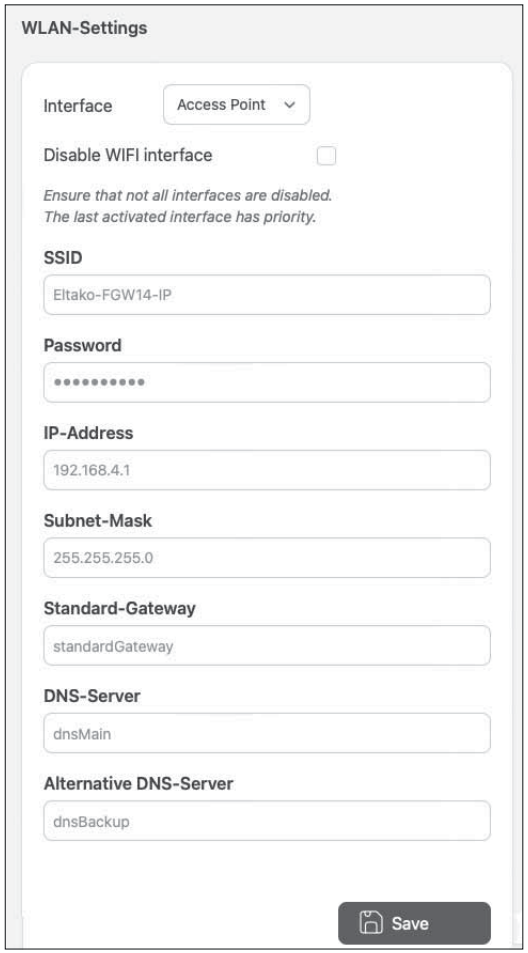


network

The LAN configuration is only possible with the model FGW14WL-IP:

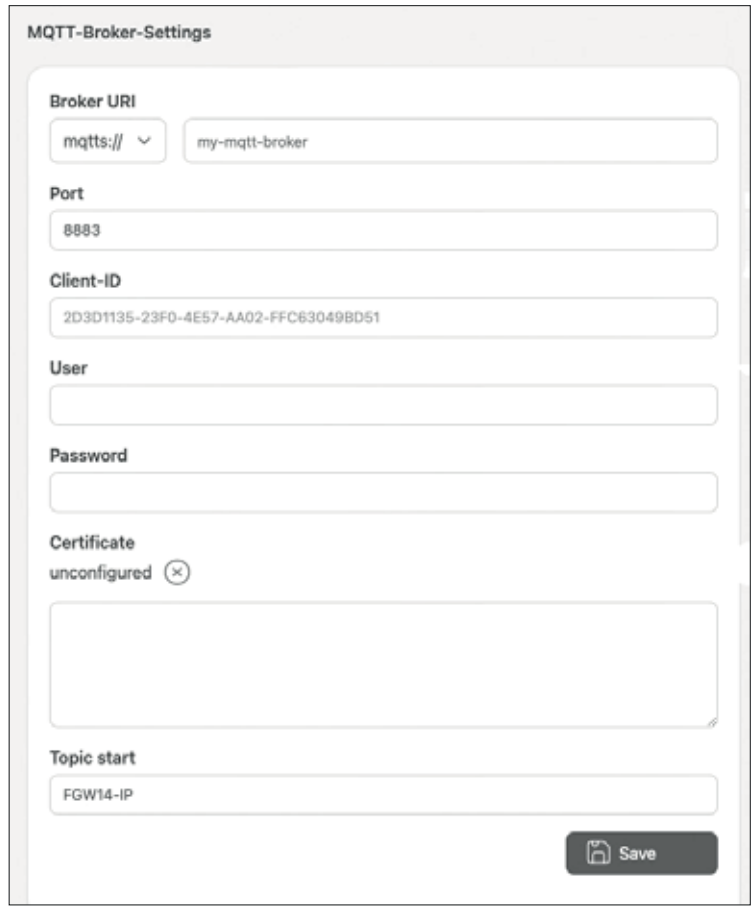


If WLAN is to be used, a connection to an existing WLAN (SSID and password) can be configured.
This deactivates the access point.



The WLAN and the LAN interface can each be deactivated. Otherwise both interfaces are active.
Under no circumstances should both interfaces be deactivated, as access to the device from the network is no longer possible.

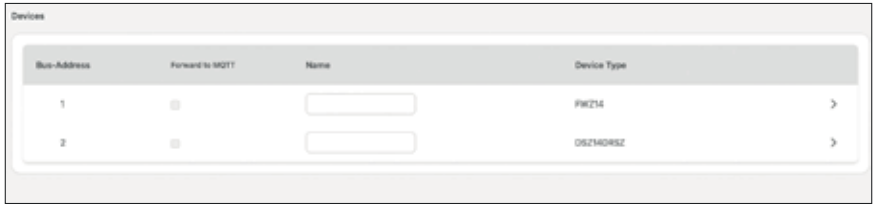
MQTT
Under MQTT, a specific MQTT broker can be defined as the target address for the electricity meter data.
mqtts:// or mqtt:// can be used. The port can be freely selected in the range 1 - 65535.
If provided by the broker, a certificate can optionally be stored.
The name for the MQTT topic (Default FGW14-IP) can also be adjusted.



The maximum data rate depends on the network quality and the response time of the broker.

Devices
All detected electricity meters on the RS485 bus are displayed under devices with their bus address and the meter type.
To do this, a bus scan must be made on the FAM14 or FTS14KS after commissioning the gateway (see FAM14/FTS14KS operating instructions).
The display of all devices after starting the bus scan takes up to 10 seconds.
It can be specified for each payer whether their data is forwarded to the broker.

A refresh of the website is necessary to display the current values via the web browser.
The current meter values are visible by opening the device tab.

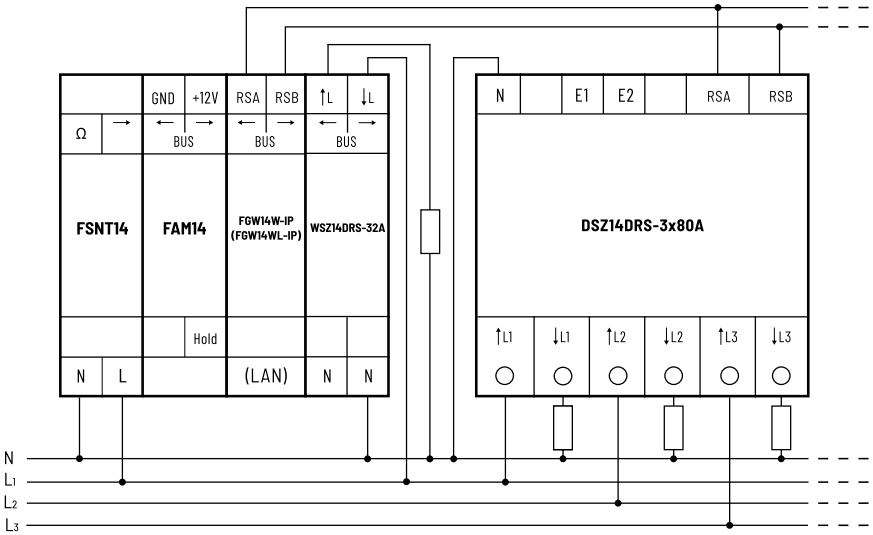


If a device type is displayed as 'unknown', these are new meter types that are not yet handled in the gateway's FW.
In this case, a FW update should be carried out.

Technical data

WLAN	with 2.4 GHz
Transmission power	max. 100 mW
Standby loss (activ power)	0.8 W

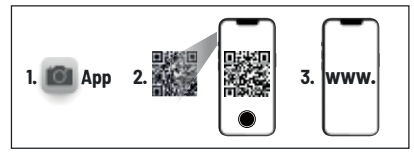
Typical connection



Connection to the WLAN access point
SSID: Eltako-FGW14-IP
Password: fgw14-ip

Manuals and documents in further languages:

http://eltako.com/redirect/FGW14WL-IP_FGW14W-IP



Hereby, Eltako GmbH declares that the radio equipment type FGW14W-IP / FGW14WL-IP is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity can be accessed via the QR code or the internet address under 'Documents'.

Must be kept for later use!
We recommend the housing for operating instructions GBA14.

Eltako GmbH
D-70736 Fellbach
Technical Support English:
☎ +49 711 94350025
✉ technical-support@eltako.de
eltako.com

42/2023 Subject to change without notice.