SMART KITCHEN

Mobile Gateway 3.0

The Mobile Gateway receives data from SmartKitchen measurement devices and transfers it to the SmartKitchen cloud service via mobile network.

Dimensions:	100*58*25 mm
Power supply:	Powered with included USB charger and rechargeable battery. Battery capacity 30 hours.
Protection:	IP65, protected against water jets
Status lights:	The LEDs (red, blue, and green) indicate the operation of the device and possible error conditions
Temperature:	Operating temperature 0° - 40°C
4G/LTE radio:	Channels 3 and 20, Cat M1 and NB1
Bluetooth:	2.4 GHz
LoRa radio:	871.5 MHz

CE

Description of operation

The Mobile Gateway receives measurement data from SmartKitchen measurement devices via Bluetooth and LoRa (also repeated) radios and transfers the measurement data to the SmartKitchen cloud service via mobile network.

The device is meant to be powered from mains current, although it includes an internal rechargeable battery, which keeps the device operating during the short power failures. The battery capacity is enough to support about 30 hours of operation. If the device is disconnected from the mains, its function changes after a certain time so that it transmits the measurement data received by the device to the service once an hour. In this way, the battery and operating capacity of the device last longer, for example during a power failure.

The device operation requires that it is located within the coverage area of the mobile network and within the range of the measurement devices' data transfer signals.

The device scans and chooses the best available network operator during the startup.

The Mobile Gateway does not transfer stored measurement data from the measurement devices, like other SmartKitchen Gateway devices do. If it is necessary to transfer the stored measurement data, it can be done with an Android phone using ioLiving Handy application.

Internet connection

The Mobile Gateway includes a factory assembled international SIM card, and it does not have to be connected to WiFi or LAN network. All the network parameters and settings are preset. The device connects to 4G/LTE network and internet automatically. The SIM card can be removed or replaced only by an authorized service.

The SIM card operates in following countries: Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Latvia, Netherlands, Norway, Poland, Slovakia, Spain, Sweden, and Switzerland. Other countries are also possible.

Starting the use

The Mobile Gateway is activated by connecting the device to the mains and switching it on. At startup, Mobile Gateway searches for available mobile networks and selects the best available. Scanning usually takes a few minutes, depending on the quality of networks.

Functional check in the ioLiving service

Mobile Gateway must be activated in the SmartKitchen service:

➔ Settings menu, under Gateway devices

The Mobile Gateway device is activated by adding its serial number to the service, giving the device a nickname, and selecting "Activate". After the activation, the data transfer device and its information is displayed in the service.

MOBILE GATEWAY 3.0

Gateway device with Internet connection

SMART KITCHEN

Operation of status lights

You can view the operation of the Mobile Gateway with the cover light. The following table describes the operation of the indicator light in different situations.

Status lights on startup (0-15 min)		Status lights after the startup	
TURQUOISE VIOLET	Connecting to mobile network	GREEN TURQUOISE	**On alternately =** The device receives the LoRa message, when connected to the server
BLUE RED	**Blinks alternately =** SIM card is missing or incorrectly inserted. No mobile network connection.	BLUE RED	**Blinks alternately =** SIM card is missing or incorrectly inserted. No mobile network connection.
GREEN	**On 0.5 s =** The device is on and starts operating **On 1 s =** Self-test completed successfully **Constantly on =** The device is connected to a mobile network	RED AND VIOLET	**On alternately =** The device receives the LoRa message. No connection to the server.
BLUE	**Fast blinking =** LoRa module failure **Constantly on =** Connects to a mobile network	BLUE	**Fast blinking =** LoRa module failure **Constantly on =** Connects to a mobile network
RED	**Fast blinks =** IoT module failure **Constantly on =** Could not connect to mobile network	RED	**Fast blinking =** IoT module failure **Fast blinks =** Could not connect to the server
YELLOW	**Blinks 3 times per 0.1 s =** Battery voltage low **Stays on n for a moment =** The device is not connected to the power supply.	YELLOW	**Constantly on =** The device is running on battery power, not connected to the power supply **Blinks every 1 s =** Battery voltage low. If the device is running on battery power when a LoRa message arrives, the LED will blink white.

WHITE	**Constantly on =** The device scans for available mobile networks.	WHITE	If the mobile network connection is lost for any reason, the scan can still occur after start-up.

Manufacturer

SmartKitchen

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