

## KNX Smart Metering

Divisional and cross-vendor



## From the simple meter...



## ... to FacilityWeb, for improved cost control and transparency

In addition to the consumption data for billing purposes, Smart Metering options to control the energy consumption and reduce targeted. This is based on the global standard KNX with its integrated and unified communications over the TCP / IP protocol into the KNX bus.

FacilityWeb makes every KNX bus participants and a web-enabled the detection, mapping, switching and control, and the permanent control of energy consumption.

### The advantages

- Low power consumption of only 150 mW per bus coupler
- Low-cost bus coupler
- functions almost like „big“ web server
- Low start-up costs, since all functions ready
- Little planning effort
- Each bus device has its own website
- No additional software required for the end user

## One solution for everything

KNX Lingg & Janke FacilityWeb offers a savings-and vendor-independent system for the detection of the consumption data. The different consumption of electricity, gas, water and heat meters are transmitted via HTTP and FTP services. Data transfer can be effected as desired over UMTS, GPRS, GSM, ISDN, LAN, WLAN, PLC, or KOAX.



## Read data simply

The meter data is easily readable by the network coupler web history. In the setup menu of the visualization application needs to do is to input the appropriate values: the IP address of the NK-FW followed by the physical address of the counter and the stored password - finished. Each counter has its own browser window here, with the performance and consumption values.

Measuring Point (MSP)	Serial No.	IP-Adresse	Passwort
1. elektrische Energie 200 (kWh)	0000000000	192.168.1.1	12345678
2. elektrische Energie 200 (kWh)	0000000000	192.168.1.2	12345678
3. elektrische Energie 200 (kWh)	0000000000	192.168.1.3	12345678
4. elektrische Energie 200 (kWh)	0000000000	192.168.1.4	12345678
5. elektrische Energie 200 (kWh)	0000000000	192.168.1.5	12345678
6. elektrische Energie 200 (kWh)	0000000000	192.168.1.6	12345678
7. elektrische Energie 200 (kWh)	0000000000	192.168.1.7	12345678
8. elektrische Energie 200 (kWh)	0000000000	192.168.1.8	12345678
9. elektrische Energie 200 (kWh)	0000000000	192.168.1.9	12345678
10. elektrische Energie 200 (kWh)	0000000000	192.168.1.10	12345678

## Applications

- Actual value display
- Storing meter data
- Long-time recording, for example of Temperature gradients
- data processing, for example on Microsoft Excel ®
- Display and read the data via browser interface
- Transfer of data to Consumption accounting
- Remote diagnostics

## Connectivity

The NK-FW network coupler from Lingg & Janke connects the KNX installation bus to the Intranet/Internet. Communication with the KNX bus devices can then be established with any standard web browser based on HTTP/FTP. The data can be transmitted over UMTS, GPRS, GSM, ISDN, LAN, WLAN, PLC or KOAX networks. It is therefore possible to read out the consumption data collected by electronic meters as well as switching states and sensor values. Due to the bidirectional communication capability of FacilityWeb, you can operate switches directly from the user interface of your web browser. With FacilityWeb, you can initiate a variety of service and control tasks from any location - all you need is a PC with network connection and a web browser.




Via the FacilityWeb interface a multiplicity of meters can be connected to KNX, independent of their manufacturer.

## Consumption make transparent

The visualization takes a central role for the acceptance of possible savings and a change in consumer behavior. FacilityWeb means that data can be read at any time via a web browser. Using visualization tools, such as for example the home cockpit software, can the consumer data processing so that they can be prepared as a daily, monthly and annual reports. This gives a homeowner or property managers the opportunity to analyze the energy consumption on a regular basis, specifically to save energy and shift consumption to periods when the energy is more favorable terms.



# Control with FacilityWeb



The availability of load-varying tariffs or time-of-use rates in the future will be an incentive for customers to reduce the peak energy consumption of their consumers and maximize energy-saving potential. With FacilityWeb, household appliances such as water heaters, washing machines, dish washers or freezers can be linked with the electronic meter so that they automatically switch to

the low tariff rate when the corresponding tariff signal is transmitted. Consumers and building equipment can be switched on/off according to the temperature information, window position and current performance data provided through the KNX network - both from a central point or from any location at any time via web browser or Smartphone.



Based on the open **FTP over KNX** standard, smart meter solutions for efficient consumption measurement and analysis can be easily implemented to monitor energy usage and control energy costs.

**Lingg & Janke** supplies innovative products and system solutions for more efficiency, security and installation flexibility in both residential and commercial buildings.

KNX Lingg & Janke FacilityWeb offers a comprehensive counter offer for the detection of the consumption data from electricity, gas, water and heat. KNX FacilityWeb agent interface can be vendor across a variety of meter types easy to integrate to KNX.

## FacilityWeb®

FacilityWeb is a registered trademark of Lingg & Janke. It provides highly effective functions for measuring, visualizing and controlling the consumption of different energy sources via Intranet or Internet. The consumption data is transmitted over the KNX bus via a network coupler to a web page where consumers can be switched on or off directly via the web browser's user interface. Commissioning engineers, house owners or facility managers are now able to obtain operational information or meter readings of the devices from any location via Intranet/Internet. Moreover, energy savings can easily be made during daily operations. FacilityWeb can be used for all types of energy sources.



Just smart products with low self-energy-consumption.