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**Powerline wireless gateway
PL-FGW**

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%.

**Powerline wireless gateway.
Bidirectional.**

53x43 mm, 40 mm deep for mounting in 58 mm switch boxes. Standby loss 1.1 watt
Supply voltage 230 V. Power consumption in operation 1.1 watt.

Powerline telegrams from the grid taught-in into the gateway are automatically transformed and sent into Eltako-wireless telegrams.

Wireless telegrams taught-in into the gateway are transformed into powerline telegrams and modulated to the power supply grid.

By pressing the reset button, the PL-FGW will be put into the teaching-in mode. The rotary switch selects, whether wireless or powerline telegrams should be taught-in. One being taught powerline sensor is automatically assigned by operating in the learning mode , a free radio channel.

A free wireless channel is automatically assigned to a taught-in powerline sensor with confirmation in teaching-in mode.

Up to 80 Powerline sensors or feedbacks can be taught-in. The function as a universal, direction or central pushbutton for a taught-in wireless sensor is assigned via slide switch of the PL-FGW. The Powerline address is set via rotary switch g and e which should be addressed with the wireless sensor. In addition to wireless switches also Eltako wireless sensors such as window contacts and motion detectors can be taught-in. Also

control functions of the GFVS for dimmer switches and roller shutter control is possible. The implementation into practical Powerline telegrams für PL actuators is done automatically. Up to 100 different wireless sensor can be taught-in.

All records and configurations can be accessed via Sienna-Professional software and power supply. Other functions can then be selected which are not available through the direct teaching-in via rotary switch.

In addition, the gateway can be set into the learn and deletion mode, so that a manual teaching-in can be carried out without direct access to the device.

The PL-FGW also serves as a relay station for communication between the temperature controller PL-SAMTEMP with EnOcean actuators FKS-MD1 and FKS-E.

Up to 20 actuators and PL-SAMTEMP are managed here.

The terminals located above are plug-in terminals for conductor cross-sections of 0.2 mm² to 1.5 mm².

Address assignment:

The left rotary switch defines the group address **g** with 16 alphabetical values from A to P.

The right rotary switch defines the element address **e** with 16 numerical values from 0 to 15.

Any number of devices (actuators/sensor inputs) can have the same **g** and **e**.

All actuators with the same **g** and **e** are switched together.

The group address **g** identifies a main group, e.g. all Venetian blind actuators have the same **g** but different **e**.

Elementary address **e**
Sensor inputs with **e = 0** act on all actuators with the same **g** irrespective of **e** (e.g. central control for Venetian blinds).

Addresses can be changed at any time (when power is applied or not applied).

Start-up:

First installation:

Powerline devices are unconfigured in as-delivered state.

1. Switch off the main fuse.
2. Assign the device addresses (actuators/ sensor inputs) by using the rotary switches and fitting all the devices.
3. Switch on the main fuse. **The LEDs of the unconfigured devices flicker.**
4. Press the pushbutton (switch) of an un-configured device (actuator/sensor input) 5 times (10 times) within 5 seconds to generate a new domain (home address). After 5 seconds, all the existing devices in the new domain (home address) are integrated and functioning. **The LEDs of the configured devices are off.**

Extending the installation:

1. Switch off the appropriate fuse.
2. Assign the addresses of the new devices (actuators/sensor inputs) by using the rotary switches and fitting all the new devices.
3. Switch on the main fuse. **The LEDs of the unconfigured devices flicker.**
4. Press the pushbutton (switch) of a **previously installed and configured** device 5 times (10 times) within 5 seconds. The actuator/ sensor input transfers its domains (home address) to the new devices. **The LEDs of the configured devices are off.**

Generate domains (home address) using the PL-FGW:

1. Turn rotary switches g/e on PL-FGW to **P/2**.
2. Press Reset button briefly using a small insulated screwdriver. LED for configured elements goes out after 5 seconds.

Reset to as-delivered state:

With the mains voltage applied, use a small insulated screwdriver to hold down the **Reset** pushbutton for at least 5 seconds. The LED first lights up and flickers after 5 seconds. The as-delivered state is restored.

Important: First clear each of the taught-in wireless sensors separately.

Send node ID:

Use a small insulated screwdriver to briefly press Service Pin **P**. The Powerline node ID is sent.

Teach in wireless sensors into the PL-FGW:

Assigning the address for contacting the wireless sensor:

1. Turn the left rotary switch to the required group address g.
2. Turn the right rotary switch to the required elementary address e.
3. Set the slide switch to the required teach-in function.

UT = Teach in universal pushbutton
ZE/ZA = Teach in central control push-button; central pushbuttons are taught in fully automatically when pressed.

The rocker that is pressed is then defined for switch-on; teach in the other side as NO contact for switch-off, FTK and Hoppe window handle.

RT = Teach in direction pushbutton; direction pushbuttons are taught in fully automatically when pressed. The rocker that is pressed is then defined for switch-on (or dim up). Teach in the other side as NC contact for switch-off (or dim down), FTK and Hoppe window handle.

4. Use a small insulated screwdriver to briefly press the Reset button. The LED flashes at a double pulse rate.
5. Press the teach-in wireless sensor twice in rapid succession ('double-click') (also Hoppe window handles). The LED goes out.

The position of the slide switch does not matter for FBH, FKS and GFVS.

Clear all taught-in wireless sensors:

1. Turn rotary switches g/e to **P/12**.
 2. Hold down the Reset button for 3 seconds using a small insulated screwdriver. The LED lights up and goes out 2 seconds after it is released.
- All taught-in wireless sensors are cleared.

Clear individual taught-in wireless sensors:

1. Turn rotary switches g/e to **P/14**.
2. Hold down the Reset button for 3 seconds using a small insulated screwdriver. The LED flashes at a triple pulse rate.
3. Press the wireless sensor to be cleared. The LED goes out.

Teach in Powerline sensors into the PL-FGW:

Assigning the radio channel is automatic.

1. Turn rotary switches g/e on PL-FGW to **P/4**.
2. Use a small insulated screwdriver to briefly press the Reset button. The LED flashes at a double pulse rate.
3. Confirm the teach-in PL sensor (on the PL-SAMTEMP, change the setpoint using the ▲ or ▼ buttons). The LED goes out.

Then teach in the PL sensor into a wireless actuator (as described in the operating instructions).

Teach in Powerline feedback messages (dimming value, On/Off and temperature telegrams from PL-SAMTEMP) into the PL-FGW:

Up to 80 feedback messages or PL sensors can be taught in. Assigning the wireless channel is automatic.

1. Turn rotary switches g/e on PL-FGW to **P/6**.
2. Use a small insulated screwdriver to briefly press the Reset pushbutton. The LED flashes at a double pulse rate.
3. Confirm the teach-in PL sensor (on the PL-SAMTEMP, change the setpoint using the ▲ or ▼ pushbuttons). The LED goes out.

Teach in Powerline temperature controller PL-SAMTEMP in wireless actuators:

EEP-conformant wireless teach-in telegrams must be generated for PL-SAMTEMP devices already taught-in.

1. Turn rotary switches g/e on PL-FGW to **P/8**.
2. Select the required teach-in function on the wireless actuator.
3. Use a small insulated screwdriver to briefly press the Reset button. The LED flashes at a double pulse rate.
4. Change the setpoint on the PL-SAMTEMP using the ▲ or ▼ buttons. The LED goes out.

The PL telegrams are sent automatically by the PL-FGW as EEP teach-in telegrams. EEP-conformant wireless teach-in telegrams as described above must also be generated for Powerline dimming value telegrams to teach them into wireless actuators.

Clear all taught-in Powerline sensors:

1. Turn rotary switches g/e to **P/10**.
2. Hold down the Reset button for 3 seconds using a small insulated screwdriver. The LED lights up and goes out 2 seconds after it is released.

All Powerline sensors are cleared.

Clear individual taught-in Powerline sensors:

1. Turn the left rotary switch to group address **g** of the PL sensor to be cleared.
2. Turn the right rotary switch to elementary address **e** of the PL sensor to be cleared.
3. Set the slide switch to **UT**.
4. Hold down the Reset button for 3 seconds using a small insulated screwdriver. The LED lights up and goes out 2 seconds after it is released.

Wireless window/door contact and Hoppe window handles FTK:

NO contact: When a window is opened, the contact closes (e.g. control of extractor hoods).

NC contact: When a window is closed, the contact closes. When a window is opened, the contact opens (e.g. for climate control).

Several FTK devices and (or) Hoppe window handles are not linked.

Wireless motion/brightness sensor FBH:

The device switches on when motion is detected. When no more motion is detected, the contact opens.

The Sienna Professional software lets you select a brightness threshold.

Wireless small actuator FKS:

Actuators must be taught in manually into the PL-FGW. You cannot make any inputs in the Sienna Professional software.

The PL-FGW also acts as a relay station to communicate between temperature controller PL-SAMTEMP and the actuators FKS-MD1 and FKS-E. Up to 20 actuators and PL-SAMTEMP devices are managed here.

Only actuators with the required address g/e need be taught into the PL-FGW. During the teach-in process for the PL-FGW, the returning teach-in telegram expected

by the actuator is generated, so forming a pair. If a PL-SAMTEMP device is located in the power supply grid with the same address g/e, its setpoint and actual temperatures are used as control parameters for the actuator and sent when requested by the actuator.

Important: Do not teach in PL-SAMTEMP devices as a PL sensor into the PL-FGW if they are operated in conjunction with an actuator. PL-SAMTEMP actuators taught into the PL-FGW may only be used to control Eltako switch actuators (FSR) or in conjunction with Eltako heating/cooling actuators (FHK).

Wireless Building Visualisation and Control Software GFVS:

GFVS dimming value activation, GFVS temperature setpoint setting for PL-SAMTEMP and GFVS position activation for sunshading with PL-SAM2.



enocean[®]

THE UNIQUE WIRELESS **PROFESSIONAL**
SMART HOME STANDARD

Frequency	868.3 MHz
Transmit power	max. 10 mW

Hereby, Eltako GmbH declares that the radio equipment type PL-FGW is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: eltako.com

Must be kept for later use!

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