### Product Description

#### RPW404P-FTL Room control module

Room control module with temperature sensor with SolarRadio technology, integrated bidirectional EnOcean wireless interface and algorithm for self-learning of utilization time profiles/heating profiles in rooms.

#### Application

Solar-powered, self-learning room control module with LCD and smart communication management.

For measuring room temperature, independent generation of utilization time profiles and their continuous dynamic adjustment/optimization and for wireless transmission of measured values.

Operating elements for manually changing the comfort mode or economy mode status to adjust the room setpoint.

Together with the MD15-FTL radio actuator, the RPW404P-FTL room control module constitutes a functional unit for easy room temperature control.

The following EnOcean Equipment Profiles (EEP) are supported:

- EEP D2-10-30 *

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<td>Status messages</td>
<td>28</td>
</tr>
<tr>
<td>Malfunction messages</td>
<td>30</td>
</tr>
</tbody>
</table>
Important Information on Product Safety

Safety instructions
This data sheet contains information on installing and commissioning the product “RPW404P-FTL”. Read this product description prior to installation, commissioning or operation. No previous special knowledge is required to commission and operate this product.
If you have any questions that are not resolved by this data sheet, you can obtain further information from the supplier or manufacturer.
If the product is not used in accordance with this data sheet, intended use could be impaired. Unauthorized conversion and modifications to the device are not permitted for safety reasons and will result in the loss of all claims against the manufacturer.
The applicable local regulations must be observed when installing and using the device.

Meaning of the symbols

WARNING
 Indicates a hazard of medium risk which can result in death or severe bodily injury if it is not avoided.

CAUTION
 Indicates a hazard of medium risk which can result in material damage or malfunctions if it is not avoided.

NOTE
 Indicates additional information that can simplify the work with the product for you.

Notes on disposal
In accordance with the applicable laws and directives of the European Union countries, the product should not be disposed of with household waste. This ensures environmental protection and sustainable recycling or raw materials.
Private users should contact their local retailer or their local authority for information regarding environmentally safe recycling of old appliances.
Commercial users should contact their supplier and observe the conditions of the purchase agreement. This device may not be disposed of together with other commercial waste.
Care instructions
The room control module should be cleaned with due care. Moisture must not be allowed to enter the housing.

CAUTION
Housing with a sensitive surface.
Shocks and abrasive cleaning materials can lead to scratches and a dulling of the surface.
Remove the protective foil only after you have finished all work.
Do not use any abrasive cleaning materials or cleaning products to clean the device. Clean the housing with a moist, lint-free cloth.

NOTE
This device contains a humidity sensor. This humidity sensor is influenced by chemical substances in the air that can be produced, for example, due to the evaporation of cleaning and care products used to clean the room.

NOTE
The operating modes described here only apply for the self-learning room control consisting of:
- MD15-FTL radio actuator and
- RPW404P-FTL room control module.
Other radio partners, e.g. gateways, can generate other functions.

Comfort mode: Operating mode for a room that is in use (usage status: “Present”). The setpoint for comfort mode is used as the basis for control.

Economy mode: Energy-saving operating mode (usage status: “Absent”) for a room that is not in use. The setpoint for economy mode is used as the basis for control.
Product Description

RPW404P-FTL  Room control module with temperature sensor with SolarRadio technology, integrated bidirectional EnOcean wireless interface.
Automatic determination of the utilization time profile/heating profile in the room for automatic control of comfort mode and economy mode.
For self-learning, energy self-sufficient and occupation-dependent control of the room temperature in conjunction with the MD15-FTL radio actuator.

Technical Data

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominal voltage</strong></td>
<td>Dual power supply consisting of a solar cell and an internal energy storage unit with priority management additional internal energy source uses 2 3.6 V AA lithium batteries</td>
</tr>
<tr>
<td><strong>Measured quantity</strong></td>
<td>Room temperature in homes or offices</td>
</tr>
<tr>
<td><strong>Measuring system</strong></td>
<td>Temperature sensor: - Integrated digital sensor Occupancy sensor: - Integrated PIR (&quot;Passive infrared&quot;) sensor</td>
</tr>
<tr>
<td><strong>Measuring range</strong></td>
<td>0 °C to 50 °C</td>
</tr>
<tr>
<td><strong>Measuring tolerance</strong></td>
<td>Typically ±0.3 K</td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>LCD display: room temperature, date or time, as selected Status indicators</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td>Occupancy button: manually switch between comfort mode/economy mode</td>
</tr>
<tr>
<td></td>
<td>△ Directional button up: increase value</td>
</tr>
<tr>
<td></td>
<td>▽ Directional button down: reduce value</td>
</tr>
<tr>
<td></td>
<td>&lt;&gt; Shift button: for selecting menus or displays</td>
</tr>
<tr>
<td><strong>Interfaces</strong></td>
<td>EnOcean® radio interface: Radiogram: EnOcean radiogram, bidirectional Frequency: 868.3 MHz Duty cycle: &lt; 1% Cyclic transmission/reception intervals</td>
</tr>
<tr>
<td><strong>Communication cycle</strong></td>
<td>10 min</td>
</tr>
<tr>
<td><strong>Transmission power</strong></td>
<td>&lt; 10 mW</td>
</tr>
<tr>
<td><strong>Illumination strength</strong></td>
<td>Min. 150 lux recommended</td>
</tr>
<tr>
<td><strong>Operating range</strong></td>
<td>Radio: Approx. 30 m in buildings (depending on building structure)Occupancy sensor: Approx. 10 m</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>Plastic housing, RAL 9010 (pure white), 7001 Other colors on request</td>
</tr>
<tr>
<td><strong>Protection class</strong></td>
<td>III</td>
</tr>
<tr>
<td><strong>Degree of protection</strong></td>
<td>IP30</td>
</tr>
<tr>
<td><strong>Ambient temperature</strong></td>
<td>0..50 °C</td>
</tr>
<tr>
<td><strong>Ambient humidity</strong></td>
<td>During operation: 20..85% r.h., non-condensing Out of operation: 5..90% r.h., non-condensing</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Flexible mounting using screws or adhesive</td>
</tr>
</tbody>
</table>
Radio Interface

The radio communication with the radio partner is cyclical, bidirectional and includes an intelligent synchronization process.

If the radio communication between the room control module and the radio partner is interrupted, an internal resynchronization algorithm starts automatically. Radio interference is indicated on the screen by corresponding icons (see page 28).

CAUTION

This product uses only EnOcean wireless telegrams. Only devices that support the EncOcean radio standard can be used as radio partners.
Installation

**CAUTION**
This product description describes the specific settings and functions of the RPW404P-FTL room control module. In addition to these instructions, the product description of the radio partner must also be observed.

### General installation instructions

It is not always possible to freely select the installation location of devices which communicate wirelessly, as radio data transmission is influenced to a greater or lesser extent by structural or spatial factors.

In order to establish operational and reliable communication paths, the following aspects must be considered before and during planning:

- Structural factors restrict the transmission ranges which can be reached. Building materials and screening elements (e.g. suspended ceiling elements, installation shafts, fire doors, etc.) must be taken into consideration during planning.

**CAUTION**
Elevated humidity increases natural signal damping.

**NOTE**
Recommendation: Plan radio paths **horizontally on a single level** with max. 30 m between the transmitting and receiving modules.

- Designed only for use in rooms.
- Observe minimum distances to potential sources of interference.
  - Min. 0.5 m to high-frequency sources of interference (such as microwaves, transformers or computers)
  - Min. 0.5 m to transmitters of other radio systems (such as a cordless telephone or headphones)
  - Min. 0.1 m to metal and door frames
- Minimize the effect of wall thickness (for example partition walls or room dividers) by ensuring that the radio signal passes through the walls at as close to a right angle as possible.
- Do not select installation locations in the radio shadow of screening building parts/structures → No direct reception possible.
- Where the device is installed at the limits of reliability, change the position of the transmitter/receiver slightly if possible (reduce overlapping effects of radio waves).
The room control module should be installed in a location where it is exposed to the air circulation in the room so that it can quickly and accurately record the room temperature.

As a result of the autonomous operation and wireless installation of RPW404P-FTL, the selected installation location can be changed and optimized at any time without additional effort.

The installation location must have sufficient lighting; using the device in unlit rooms (such as interior kitchens/bathrooms) shortens long-term functionality.

The solar cell is optimized for indoor use and it works particularly efficiently with diffuse lighting.

**CAUTION**

Prolonged illumination at high intensities, e.g.
- direct sunlight or
- artificial light (such as halogen emitters) can cause damage to the solar cell.
## Controls and functional components

<table>
<thead>
<tr>
<th>Item</th>
<th>Designation</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Display</td>
<td>Displays information regarding the current status</td>
</tr>
<tr>
<td>02</td>
<td>Occupancy sensor</td>
<td>Detects presence/absence for the utilization time profile</td>
</tr>
<tr>
<td>03</td>
<td>Solar cell</td>
<td>Generates energy for the room control module</td>
</tr>
<tr>
<td>04</td>
<td>Directional button up</td>
<td>To set: increase value</td>
</tr>
<tr>
<td>05</td>
<td>Magnetic contact</td>
<td>For selecting the service level, see p. 24</td>
</tr>
<tr>
<td></td>
<td>(below the housing)</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>Directional button down</td>
<td>To set: reduce value</td>
</tr>
<tr>
<td>07</td>
<td>Shift button</td>
<td>For selecting the display or menus</td>
</tr>
<tr>
<td>08</td>
<td>Occupancy button</td>
<td>- Switching between comfort mode/economy mode, see page 17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- For switching the RPW404P-FTL on/off (with the setting button); see page 11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- For setting functions</td>
</tr>
<tr>
<td>09</td>
<td>Setting button</td>
<td>- Switches the room control module on (together with the occupancy button), see page 11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Starts the login process; see page 13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Resets the room control module to factory settings, see page 18</td>
</tr>
<tr>
<td>10</td>
<td>Service connection</td>
<td>For authorized service technicians only</td>
</tr>
<tr>
<td></td>
<td>(underside)</td>
<td></td>
</tr>
</tbody>
</table>
## Indicators on the display

<table>
<thead>
<tr>
<th>Item</th>
<th>Icon/display</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Time</td>
<td>The information field displays the time (HH:mm)</td>
</tr>
<tr>
<td>02</td>
<td>Information field</td>
<td>Display of the room temperature, date, time (= initial display, can be configured) or messages</td>
</tr>
<tr>
<td>03</td>
<td>Windows</td>
<td>Rapid temperature drop detected</td>
</tr>
<tr>
<td>04</td>
<td>Message</td>
<td>Status or malfunction messages present</td>
</tr>
<tr>
<td>05</td>
<td>Battery</td>
<td>Room control module energy storage unit charging state &lt; 30%</td>
</tr>
<tr>
<td>06</td>
<td>Actuators</td>
<td>Teach-in-modes for actuators active</td>
</tr>
<tr>
<td>07</td>
<td>Display lock</td>
<td>Buttons are not responsive</td>
</tr>
<tr>
<td>08</td>
<td>Occupancy</td>
<td>Occupancy sensor is active (test installation location), detected presence/absence and vacation mode</td>
</tr>
<tr>
<td>09</td>
<td>Auto</td>
<td>Learned utilization time profile is active, automatic mode</td>
</tr>
<tr>
<td>10</td>
<td>Bars</td>
<td>Displays the field strength quality of the receiving wireless signal, only in the Info menu</td>
</tr>
<tr>
<td>11</td>
<td>Gateway</td>
<td>Remote access via the EnOcean system gateway, teach-in-modes for gateway active</td>
</tr>
<tr>
<td>12</td>
<td>Antenna</td>
<td>Status of the radio connection</td>
</tr>
<tr>
<td>13</td>
<td>Vacation mode</td>
<td>This icon appears on the display when vacation mode is activated</td>
</tr>
<tr>
<td>14</td>
<td>Sun</td>
<td>The solar cell is active (test installation location). Summer mode is active</td>
</tr>
<tr>
<td>15</td>
<td>PM</td>
<td>Afternoon time, if the 12 hour display is activated</td>
</tr>
<tr>
<td>16</td>
<td>Fahrenheit</td>
<td>Information field displays the temperature in degrees Fahrenheit (°F)</td>
</tr>
<tr>
<td>17</td>
<td>Degrees Celsius</td>
<td>Information field displays the temperature in degrees Celsius (°C)</td>
</tr>
</tbody>
</table>
Commissioning

Switching the device on/off

- **Switching on**
  
The device is delivered in storage mode (switched off).
  All functions are deactivated and the device does not consume any power. The energy storage unit has been fully charged at the factory for initial commissioning.
  
  ▶ Press the “Occupancy button (02)” and the “Setting button (01)” simultaneously for 5 seconds.
  
  The display is activated. The icons “Sun”, “Occupancy” and the text “InSt” appear.
  
  The occupancy sensor and the solar cell are active. (= installation/commissioning mode for evaluating the installation location).

  **NOTE**
  The “Test installation location” function remains active as long as the text “InSt” is displayed (see page 12).

  The room control module switches off again if a radio partner is not taught-in within 15 minutes.

- **Switching off**
  
The room control module must be decommissioned (switched off) before transportation or storage. The device does not consume any power and is sufficiently charged when recommissioned.
  
  ▶ Press the “Setting button (01)” for 5 seconds.
  
  The text “Res” briefly appears on the display.
  
  The display goes completely blank.

  **Or**
  
  ▶ Run the “Restore default settings and switch off room control module” on the service level; see page 24.

  **NOTE**
  The taught-in radio partners are then deleted and the room control module is reset to the default settings.
"Test installation location" function

The room control module provides assistance in selecting the optimum installation location.

This function is active after switching on the device (see the “Switching the Device On/Off” section page 11), provided a radio partner has not been registered (for a maximum of 15 minutes).

The text “InSt” is displayed.

- Switch on the room control module, see p. 11.
  The display switches on. Symbols “Sun” and “Occupancy” and the text "InSt" are displayed. The occupancy sensor and the solar cell are active.

- Position the room control module at the potential installation location.

- Check the “Sun” icon on the display.

- Move about in the room and check the “Occupancy” icon.

**Evaluation**

<table>
<thead>
<tr>
<th>Installation location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>good</td>
<td>The “Sun” icon is permanently displayed and the “Occupancy” icon switches from “Person inside the house” to “Person outside the house” and back again</td>
</tr>
<tr>
<td>bad</td>
<td>The “Sun” icon is not displayed or the “Occupancy” icon does not switch to “Person inside the house” and remains unchanged.</td>
</tr>
</tbody>
</table>

- Once a suitable installation location has been found, the room control module can be mounted and commissioned.

**NOTE**

If a radio partner has not been taught-in after 15 minutes, the room control module automatically switches off.

**NOTE**

If the energy storage unit is empty, the “Sun” icon will not appear even if the location is good. The energy storage unit must be charged first. Charge the energy storage unit by placing the room control module in a source of light for two hours (day light or artificial light, but not direct sun light).

**Occupancy sensor**

The room control module automatically detects a presence in the room with its occupancy sensor. Depending on the distance, the range of movement in the detection area is important. The further a person is away from the occupancy sensor, the greater the movement must be.
Teaching in the MD15-FTL radio partner on the RPW404P-FTL

**CAUTION**
This product description describes the specific settings and functions of the RPW404P-FTL. In addition to these instructions, the product descriptions of the radio partners must also be observed.

Up to four MD15-FTL wireless small actuators can be taught-in on the room control module.

► Switch on the room control module, see page 11.

► Press the Setting button (01) briefly. The text “SERV” briefly appears on the display, followed by the “actuator” icon and the text “ACT”.

► Press the Occupancy button for approximately 5 seconds. The “Antenna” icon also flashes on the display.

► A teach-in radio telegram must be triggered on the MD15-FTL. Details can be found in the documentation for the MD15-FTL.

► If multiple MD15-FTL wireless small actuators are to be taught in, the radio teach-in telegrams must be triggered consecutively.

The number of taught-in wireless small actuators is displayed for approx. 15 seconds following completion of the teach-in process.

Once all wireless small actuators have synchronized successfully after the teach-in process, the “antenna” symbol is also displayed after a further 45 seconds.

Data has been exchanged between the radio partners.

All wireless small actuators must be taught-in within a single teach-in sequence. The time between each wireless small actuator teach-in may not exceed 15 seconds.

The MD15-FTL acknowledges the start of the teach-in process with a signal tone. Successful registration of the MD15-FTL is acknowledged with two signal tones.

If the teach-in process was successful, the “Antenna”, “Auto” and “Occupancy” icons are displayed.

The current room temperature is displayed.

**CAUTION**
If the MD15-FTL wireless small actuator acknowledges registration with a downward sequence of tones (two long tones), this means that an error has occurred and registration has failed. Start the teach-in process again.

The radio actuators are registered on the RPW404P-FTL. The room control module now starts to learn the individual utilization time profile.

The room control module controls the room temperature using the default utilization time profile until it has learned the first utilization time profile.
Default utilization time profile:
Room used: 6:00 AM - 8:00 PM, comfort temperature
Room unused: 8:00 PM - 6:00 AM, economy temperature

NOTE
Once the procedure is complete, it is not possible to add an additional wireless small actuator. If you want to do so, you must teach in all wireless small actuators again.

NOTE
If the room control module was already switched on, the “Switching on the device” item is skipped and the room control module uses the utilization profile that is already taught-in.

Mounting
The room control module can be stuck to smooth, flat surfaces using the wall mount and the adhesive pad supplied, or it can be screwed directly onto level surfaces. Screws and wall plugs are not included in the scope of delivery of the room control module.

WARNING
Flush mounted cabling and piping at the installation location (electricity, gas, water)
Cabling and piping can be damaged by drilling.
Check the installation location for flush mounted piping and cabling, or contact a specialist.

NOTE
Position the wall mount so that the bar (1) can be easily accessed. Ensure a distance of at least 10 cm from other objects (door frames, electrical sockets, cupboards, etc.).

NOTE
Observe the orientation of the wall mount. The bar (1) must be on the right-hand, lower side when the device is installed, see figure 4.

Use the enclosed adhesive numbers (2) to uniquely identify the mounting location and the respective room control module.
- Mark the room control module and the wall mount with a unique number using the enclosed adhesive numbers (2).
**Wall mounting**

- Flexible screw mounting

1. [Image of screw mounting]

   (1) bar  (2) adhesive numbers

**Wall mounting**

- Flexible adhesive mounting with double-sided transparent adhesive strips

**NOTE**

For a permanent connection, remove any dust and grease from the adhesive surface on the wall mount and the wall.
Operating level

Setting the initial display

Briefly pressing the selector button “<< “, enables you to select the following displays:

- Room temperature
- Date
- Time, see example

The last display selected then becomes the initial display.

Setting the setpoint

Using the “△” or “▽” button, you can change the current setpoint manually.

Briefly press the “△” or “▽” button.
The setpoint to be set flashes.

Set the required setpoint using the “△” or “▽” button.
The new selected value flashes for approx. 5 seconds. It is then automatically confirmed and the room control module switches to the initial display.

Manual override will also make the “Auto” icon disappear.

NOTE

The adjusted setpoint in the operating level remains active for a period of two hours.
The setpoints for comfort mode and economy mode that were set on the configuration level then become active again and the “Auto” icon is displayed again.
Manually switching between comfort and economy mode

► You can manually switch between comfort mode and economy mode and vice versa by pressing the “Occupancy button”.

This is displayed by the comfort mode or economy mode icons. The “Auto” icon also disappears from the display.

■ Changing from comfort mode to economy mode:

- economy mode is active for 4 hours.
- The utilization time profile is then active again and the “Auto” icon appears on the display.

Example 1:
Comfort temperature 20 °C, economy temperature: 16 °C
Room used: 6:00 AM - 9:00 AM and 3:00 PM - 9:00 PM
Absence set manually (by pressing the “Occupancy button) 6:00 PM - 10:00 PM

■ Changing from economy mode to comfort mode:

- comfort mode is active for 2 hours.
- The utilization time profile is then active again and the “Auto” icon appears on the display.

Example 2:
Comfort temperature 20 °C, economy temperature: 16 °C
Room used: 6:00 AM - 9:00 AM and 3:00 PM - 9:00 PM
Presence set manually (by pressing the “Occupancy button) 10:00 AM - 12:00 AM
Automatically switching between comfort and economy mode

Automatic switching between comfort or economy mode is performed according to the utilization profile learned.

The utilization profile is generated automatically, and is continuously and dynamically adjusted and optimized.

This is displayed by the comfort mode or economy mode icons. The “Auto” icon also appears in the display.

Presence/absence is recorded by the occupancy sensor in order to learn the utilization profile.

The room control module continuously adapts the operating mode depending on real utilization behavior.

Closing the valve manually

To prevent the formation of mold, it is necessary to adequately ventilate the room.

To save on heating costs, there is also an option to have the wireless small actuator close the valve.

Press and hold the “<” button for 5 seconds.

The “window” icon appears on the display and the “Auto” icon disappears from the display.

The wireless small actuator closes the valve.

When the room has been sufficiently ventilated, the room temperature control switches back to automatic mode.

Hold down the “<” button for 5 s.

The “Window” icon disappears from the display.

NOTE

If the control has not been manually reset to automatic mode, it will be reset upon changeover to the next day.

Restoring defaults

When the defaults are restored, the learned utilization time profile and the wireless connections are deleted and all settings are restored to the factory settings.

Press the “Setting button” for 5 seconds.

The text “RES” appears briefly and the display goes blank.

The room control module is now switched off.
Menu level

NOTE
If no settings are made within approx. 5 seconds, the individual setting functions are exited and saved as required.

Config menu

The following functions are available in the Config menu:

- Setting vacation mode
- Setting the time and date
- Setting the 12/24 hour display
- Switching the temperature scale °C/°F

Setting vacation mode

► Hold down the “Occupancy button” for 5 seconds.
  The text “Menu” briefly appears on the display, followed by “SETP”.

► Release the “Occupancy button”.

► Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “Conf” function.

► Hold down the “Occupancy button” for 5 seconds.
  The “Set vacation” menu item appears in the display.

► Hold the “Occupancy button” down for 5 seconds or press the “∆” or “∇” button.
  The value being set flashes.

► Briefly pressing the “Occupancy button” or the “∆” or “∇” button sets the vacation duration to a maximum of 31 days.

Briefly pressing the “Occupancy button” or the “∆” button increases the current value by +1. Briefly pressing the “∇” button reduces the current value by -1.

Setting “00d” = 0 days deletes all previous settings.

The setting is accepted after 5 seconds of no entry being made. Vacation mode comes into effect upon the end of the day at 0.00 hours.

The display switches back to initial display and the “suitcase” icon appears for vacation mode.
When vacation mode is active, the room control module is in economy mode and control is based on the setpoint for vacation mode, see page 24. The display also shows the (house without little man) symbol. At the end of vacation mode, the comfort mode becomes active at 0.00 for a duration of 6 h.

**Delete vacation mode**
To abort vacation mode, you must set vacation duration to "00d" = 0 days. The settings procedure is the same as previously described.

**Setting the time and date**
The hour, minutes, year, month and day can be set in sequence. The values to be set flash.

1. Hold down the “Occupancy button” for 5 seconds. The text “Menu” briefly appears on the display, followed by “SETP”.
2. Release the “Occupancy button”.
3. Briefly press the “Occupancy button” repeatedly or the “< >” button to select the “Conf” function.
4. Hold down the “Occupancy button” for 5 seconds. The “Set vacation” menu item appears in the display.
5. Briefly press the “Occupancy button” repeatedly or the “< >” button to select the “TIME” button.
6. Hold the “Occupancy button” down for 5 seconds or press the “△” or “▽” button. The display switches to the menu item for setting the “Time and date”. The value being set flashes.
7. Press the “Occupancy button” or the “△” or “▽” button once to confirm the hour displayed or press it several times/hold it down until the required set value is reached.
8. Release the “Occupancy button” or the “△” or “▽” button. The next value to be set will start to flash after approximately 3 seconds. The procedure for setting the minutes, year, month and day is the same as that for setting the hour.

**NOTE**
Press the “Occupancy button” or the “△” button to increase the current value by +1. Holding down the “Occupancy button” or the “△” button increases the value sequentially.
Once the last value for the day has been entered, this is indicated by a moving line on the display. The time and date settings are complete and are saved. The display then switches to the initial display.

**NOTE**
If no input is made for approx. 10 seconds, the display returns to the initial display. Any settings that were previously made are not saved.

Daylight saving time switching occurs automatically according to Central European standards. **Default setting:** current CET Central European Time

### Setting the 12/24 hour display

1. Hold down the “Occupancy button” for 5 seconds.
   The text “Menu” briefly appears on the display, followed by “SETP”.

2. Release the “Occupancy button”.

3. Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “Conf” function.

4. Hold down the “Occupancy button” for 5 seconds.
   The “Set vacation” menu item appears in the display.

5. Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “24h” function.
   Release the “Occupancy button” or the “<>” button.

6. Hold down the “Occupancy button” or the “▼” button for 5 seconds; the 12h display is then set. After approx. 3 seconds, the display returns to the initial display.

   When the 12 hour display is activated, an additional **PM** is shown in the display in the afternoon. **Default setting:** 24h
Switching the temperature scale °C/°F

► Hold down the “Occupancy button” for 5 seconds.
The text “Menu” briefly appears on the display, followed by “SETP”.

► Release the “Occupancy button”.

► Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “Conf” function.

► Hold down the “Occupancy button” for 5 seconds.
The “Set vacation” menu item appears in the display.

► Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “TEMP” function.
► Release the “Occupancy button” or the “<>” button.

► Hold down the “Occupancy button” or the “▼” button for 5 seconds;
the temperature scale °F is then set.
After approx. 3 seconds, the display returns to the initial display and the temperature is displayed in °F only.

Default setting: °C
Info menu

The following information is displayed in the Info menu:

- Status message
- Display of the taught-in radio partners
  - Wireless address of the taught-in radio partners
  - Position indication of the taught-in wireless small actuators
  - Field strength of the receiving wireless signal

Hold down the “Occupancy button” for 5 seconds. The text “Menu” briefly appears on the display, followed by “SETP”.

Hold down the “Occupancy button” for 5 seconds.

Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “Info” function.

Hold down the “Occupancy button” for 5 seconds.

Briefly press the “Occupancy button” repeatedly or the “<>” button to display the aforementioned information one after the other.

If you do not take any other actions, the display will return to the initial display after 5 seconds.

Status message

The status message is displayed. For more information, see page 28.

Display of the taught-in radio partners

If no radio partners have been taught-in, this display does not appear.

First, the number of taught-in wireless small actuators is displayed.

Briefly press the “Occupancy button” repeatedly or the “<>” button to display the individual information for the taught-in radio partners one after the other.

The wireless IDs of the taught-in radio partners are displayed.

The last four hexadecimal digits of the wireless ID of the taught-in radio partner are displayed.

For the wireless small actuators, the position indicator (1) is also displayed in the form of a bar diagram.

The display (2) also indicates which wireless small actuator or EnOcean gateway is currently shown.

- = taught-in EnOcean gateway
- = taught in wireless small actuator 1 to 4
- = trend display of the field strength of the receiving radio signal
Set setpoints in Setpoint menu

The setpoints for comfort mode, economy mode and vacation mode are set here.

► Hold down the “Occupancy button” for 5 seconds.
  The text “Menu” briefly appears on the display, followed by “SETP”.

► Release the “Occupancy button”.
► Hold down the “Occupancy button” for 5 seconds.
► Release the “Occupancy button”.
► Press the “Occupancy button” or the “< >” button to select the setting for the required setpoint – comfort mode, economy mode or vacation mode.

Comfort mode setpoint

► Briefly press the “Occupancy button” or the “∆” or “∇” button to set the required setpoint.
  The setpoint for comfort mode continues to flash while settings are being made.

Default setting: Comfort mode 22 °C

Economy mode setpoint

► Briefly press the “Occupancy button” or the “∆” or “∇” button to set the required setpoint.
  The setpoint for economy mode continues to flash while settings are being made.

Default setting: Economy mode 18 °C

Vacation mode setpoint

► Briefly press the “Occupancy button” or the “∆” or “∇” button to set the required setpoint.
  The setpoint for vacation mode continues to flash while settings are being made.

Default setting: Vacation mode 14 °C

Service level

The following functions are available on the service level:

- Teach in wireless small actuators
- Teach in an EnOcean system gateway
- Delete all taught-in radio partners
- Restore default settings and switch off room control module
- Software version display
Using a magnet (1) or briefly pushing the setting button switches to the service level.

► Briefly slide the magnet along the upper right-hand side of the device (see figure) or briefly press the Setting button. The room control module switches to the service level.

► Briefly press the “Occupancy button” repeatedly or the “<>” button and the aforementioned functions will be offered one after the other. If you do not take any other actions, the display will return to the initial display after 5 seconds.

Teaching in the MD15-FTL radio partner

► Hold down the “Occupancy button” for about 5 seconds and the “Teach in the MD15-FTL radio partner” function will run (see the “Teaching in the MD15-FTL radio partner on the RPW404P-FTL” section on page 13).
Teaching in an EnOcean system gateway

Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “GATE” function.

Hold down the “Occupancy button” for about 5 seconds and the “Teach in an EnOcean system gateway” function will run.

The “Antenna” icon flashes briefly on the display.

A teach-in radiogram is sent to the system gateway and a teach-in radiogram from the system gateway is awaited.

You can find details in the documentation of the EnOcean system gateway.

The display then returns to the initial display. If the teach-in process was successful, the wireless communication icon also appears.

NOTE

An EnOcean system gateway makes it possible to connect to a Building and Energy Management System BEMS.

This makes it possible to generate additional functions such as:
- Visualizing operating states
- Displaying trend curves e.g. for the room temperature or humidity
- Overriding the operating modes with special utilization times such as public holidays.

The resources of the energy source are also used when communicating with a system gateway. The increased transmission frequency has an impact on the service life of the energy source (AA lithium batteries), see p. 29

Deleting all taught-in radio partners

Briefly press the “Occupancy button” repeatedly or the “<>” button to select the “dEL” function.

Hold down the “Occupancy button” for about 5 seconds and the “Delete all taught-in radio partners” function will run.

NOTE

After all the taught-in radio partners have been deleted, the radio partners must be taught in again. Otherwise, the room control module will switch off after 15 minutes.
Restoring default settings and switching off the room control module (see also page 19)

► Briefly press the “Occupancy button” repeatedly or the “< >” button to select the “RES” function.
► Hold down the “Occupancy button” for about 5 seconds and the “Restore default settings and switch off room control module” function will run. The room control module switches off. The display disappears.

NOTE
The taught-in radio partners are then deleted and the room control module is reset to the default settings.

Software version display

► Briefly press the “Occupancy button” repeatedly or the “< >” button to select the “Software version display” function. The software version of internal processor 1 is displayed.

► The press the “Occupancy button” or 5 seconds. The software version of internal processor 2 is displayed.
Messages

Status messages

<table>
<thead>
<tr>
<th>Icon/display</th>
<th>State</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenna</td>
<td>On</td>
<td>Radio connection functioning properly; Er00 is displayed in the Info menu</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>InSt</td>
<td>On</td>
<td>“Test installation location” evaluation function is active</td>
</tr>
<tr>
<td>Antenna</td>
<td>Flashes</td>
<td>Possible to register wireless small actuators</td>
</tr>
<tr>
<td>Er01</td>
<td>On</td>
<td>Radio connection partly interrupted (&gt; 1 hour)</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>At least one wireless small actuator is transmitting</td>
</tr>
<tr>
<td>Er01</td>
<td>Off</td>
<td>Radio connection interrupted (&gt; 1 hour)</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>No wireless small actuator is received</td>
</tr>
<tr>
<td>Er02</td>
<td>On</td>
<td>Radio connection partly interrupted (&gt; 4 hours)</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>At least one wireless small actuator is received</td>
</tr>
<tr>
<td>Er02</td>
<td>Off</td>
<td>No wireless small actuator is received</td>
</tr>
<tr>
<td>Battery</td>
<td>On</td>
<td>Room control module Charge state &lt; 30%</td>
</tr>
<tr>
<td>Er04</td>
<td>On</td>
<td>Wireless small actuator (1 to 4), charge state &lt; 30% for at least one wireless small actuator</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>On the service level, the battery icon also appears next to each drive.</td>
</tr>
<tr>
<td>Window</td>
<td>On</td>
<td>Economy mode for max. 30 minutes or close the valve manually</td>
</tr>
<tr>
<td>Suitcase</td>
<td>On</td>
<td>Vacation mode activated (starts at 0.00)</td>
</tr>
<tr>
<td>Sun</td>
<td>On</td>
<td>Summer mode</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>System in energy saving mode</td>
</tr>
<tr>
<td>Er06</td>
<td>On</td>
<td>Radio connection to EnOcean system gateway interrupted</td>
</tr>
</tbody>
</table>

NOTE
If the Message icon also appears in the display, you can find more information in the Info menu; see page 23.

Radio connection
The “Antenna” displays the current state of the radio connections to the radio partners.
The status of the radio connection is monitored continuously. A message is displayed if the radio connection status changes.

NOTE
Communication is continued automatically once the radio connection between the room control module and the wireless small actuator is functioning properly again. “Er01” or “Er02” disappears and the “Antenna” icon is displayed permanently.
Energy storage unit
The “Battery” icon indicates the current state of the energy storage unit of the room control module. The room control module continuously monitors the charge state of the energy storage unit. The “Battery” icon appears on the display if the charge state drops below 30%.

NOTE
Charge the energy storage unit by placing the RPW404P-FTL in a source of light for two hours (day light or artificial light, but not direct sun light).

Energy source
The internal AA lithium batteries support solar operation. The resources of the energy source are only used when the internal energy storage unit can no longer guarantee the function of the room control module.

The service life of the AA lithium batteries depends on the transmission frequency, the aging of the batteries and the self-discharge. They generally last for several years.

NOTE
If the “Battery” icon begins to appear in the display more and more frequently, it indicates that the AA lithium batteries need to be replaced.

This must be carried out by an authorized service technician.

Please contact your supplier.

Rapid temperature drop
If the room control module detects a rapid drop in temperature (e.g. a window has been opened), the radio actuator closes the valve for a maximum of 30 minutes.

The “Window” icon appears on the RPW404P-FTL display.

The rapid drop in temperature detected is not included in the learned utilization time profile.

NOTE
Press and hold the "<>" button for approx. 5 seconds to end this function early.

Extended absence
The room control module continuously monitors the room utilization. If the room control module detects a longer absence (three days without occupancy), the utilization time profile permanently switches to economy mode and the icon appears on the display.

If the “Occupancy button” is pressed after a longer absence, or if the room control module detects room occupancy for a period of 20 minutes, the utilization time profile switches to comfort mode and the learned utilization time profile becomes active again.

Summer mode
Between June 1 and August 31 of a year, the room temperature control switches to summer mode. Room temperature control is then in economy mode.

The devices only consume a small amount of power.

The “Sun” icon appears and the “Occupancy” icon disappears.
Malfunction messages

<table>
<thead>
<tr>
<th>Icon/display</th>
<th>State</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenna Er08</td>
<td>Off</td>
<td>Transmission function on the RPW404P-FTL malfunctioning</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td></td>
</tr>
<tr>
<td>Er03</td>
<td>On</td>
<td>Synchronization on the RPW404P-FTL malfunctioning</td>
</tr>
</tbody>
</table>

Transmission function malfunctioning
The radio connection is continuously monitored. If a transmission function malfunction is detected in the room control module, the “Er08” icon appears on the display.

The following troubleshooting procedures can be implemented:
► Reset the room control module to factory settings (see p.18).
   The “Er08” symbol disappears from the display.
► Register the radio partners again.
If the “Er08” icon appears again, it means that the room control module has a serious fault. It must be checked by an authorized service technician.

NOTE
If the transmission function on the room control module malfunctions, the MD15-FTL enters self-controlled mode (= emergency mode).
The temperature is controlled to a fixed setpoint of 20 °C using the integrated control function in the wireless small actuator.

System time
The internal system time of the room control module is monitored constantly. If a system time malfunction is detected in the room control module, the “Er03” icon appears on the display.
► Reset the time and date (see page 20).
   The “Er03” icon disappears from the display.
If the “Er03” icon continues to appear, it means that the room control module has a serious fault. It must be checked by an authorized service technician.