Eltako FVS

Smart Metering

(teach-in, evaluating, analysing and load-dependent functionalities)

Infinite flexibility and convenience in building installations

1. Teaching-in meter modules

1. Please refer to the operating instructions "6 steps to success" to perform the presettings and start up your FVS system to license the software and integrate the transceiver module (FAM-USB or BSC-BAP).

2. In the FVS start window, first select "Overview" and start the teach-in dialog.
   Select "Teachin/Teachin dialog" from the menu bar.

3. After the teach-in window appears, trigger a teach-in signal to the related devices:

   a. FWZ12-16A: When you plug the device into the mains, the teach-in signal is sent immediately.

   b. FWZ61-16A: When you plug the device into the mains, the teach-in signal is sent immediately.

   c. FSS12-12V DC: After you set the meter reading and the correct number of S0 impulses, select, confirm and trigger the LRN signal in the device menu. You can also refer to the Operating Instructions for the correct device settings.

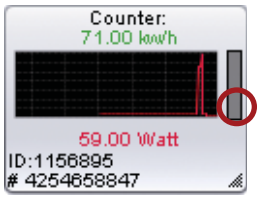
4. The meter appears in the right-hand column of the window under "New sensors". Pull the sensor by drag'n'drop to the corresponding level in the left-hand column (refer to the "Graphic options" instructions for level properties). If no further level was created, the basic level sensor is assigned.

5. To add more sensors, please refer to 3.

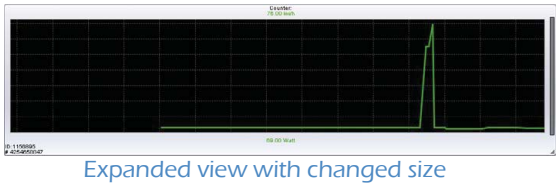
6. Terminate the teach-in process by selecting "Exit".

2. Display functions

Default view



Expanded view


Expanded view with changed size

1. When you terminate the teach-in process, the meter(s) is/are displayed in the level assigned during the teach-in process (default basic level).

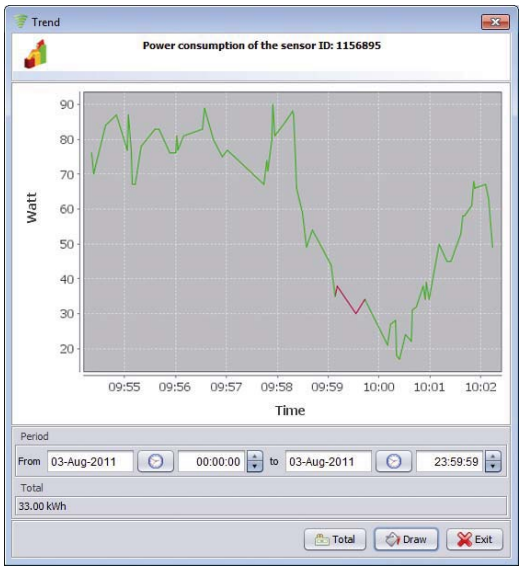
2. To open the expanded view, right-click the mouse to open the Context menu. Select "Advanced" to change the view. You can adapt this view to the screen size.

3. To change the size of the expanded view, left-click the mouse on the small corner **(marked red here).** Then hold down the mouse button and pull the window to the required size.

3. History curves

1. To display the load curve of your meter, first right-click the mouse on the meter to open the Context menu. Then select "Show chart".

2. In the next window, the history curve of the current day is displayed as default.



3. Optionally, select the required period of the history curve in the lower section of the window. If you select a new time range, confirm by clicking on "Draw" to display.

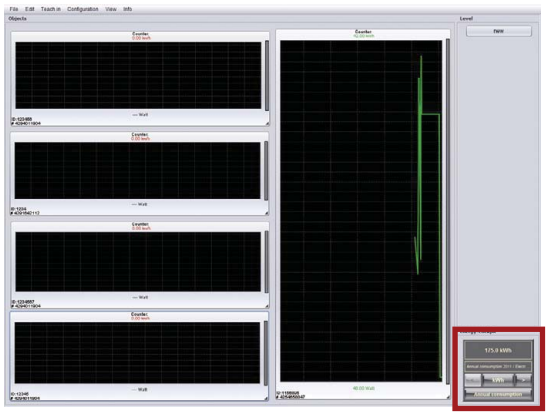
4. In addition, the history view has an "Total" button. This displays all values ever received.

5. Right-click in the history window to open the Context menu and change the other options in the history window, such as zoom functions, printer/save option and display settings.

6. To terminate, select "Exit".

4. Energy Cockpit (small view)

From the moment when the first meter is added to the system, the Energy Cockpit is displayed at the bottom right border of the overview window. It is framed in red in the figure.



1. The total meter reading (default: year) is displayed in the window section framed in green here for the sensors selected in the Energy Cockpit (default: all).

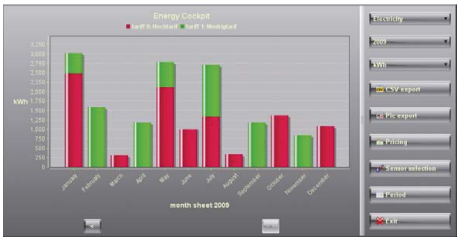
2. Click on the section framed here in red to open the Energy Cockpit main view as described in Point 5 (main view and settings of Energy Cockpit).

3. Click on the button framed here in blue to switch over from annual consumption to monthly or daily consumption.

4. Click on the buttons framed here in orange to toggle between the period selected in blue (e.g. if you are in the annual consumption view for 2011 as shown here, click on the left pointing arrow to access the annual consumption for 2010).

5. Click on the button framed here in yellow to change the displayed unit (default: kWh) over to Euro, provided you saved a price per kWh in the main view.

5. Main view and settings of the Energy Cockpit



1. Open the view from "Overview" as described in Point 4 (Energy Cockpit).
2. Consumption is displayed in the form of a bar chart. If normal rate and off-peak rate are used, the normal rate is displayed as a red bar and the off-peak rate as a green bar.
3. Use the arrow button pointing down to the left to make the display more general (less detail) and the arrow pointing down to the right to make the display more detailed.

1. The "Electricity" setting refers to the selected type of energy (if the system also meters and visualises other energy parameters).
2. The setting "2011" indicates the year under review.
3. The setting "kWh" can be changed from the measurement and display of kWh to Euro, as described in the small view in Point 4. This calculates all the displays based on the prices you entered in "Pricing".
4. The "CSV export" buttons permits the export of data in CSV table form and requests you to select the required saving location.
5. The "Pic export" button would save the bar chart displayed at the time as a png file (image file). The option requests you to select the required saving location.
6. Enter the current price per kWh to be paid under "Pricing". This changes on the bar charts and the display as described in 3. to costs instead of kWh.
7. Select the meters you require for evaluation under "Sensor selection".
8. In "Period", specify the time period for which you require a display of the evaluation.
9. Click on "Exit" to return to the overview window.

6. Assignments for meters

1. If you want to create an assignment of energy parameters to a function/an actuator of the FVS both internally (system function/email) and externally (links/FVS actuators), right-click the mouse to open the Context menu and select "Assignments".

2. Select the following options in the window that opens:

   a. Actors

      I. To assign the meter to an FVS actuator, right-click the mouse in the Context menu and select "Add".
      In this way, an assignment already executed can be removed from the Context menu by selecting "Delete".

II. Select the FVS actuator you require from the selection window that opens and confirm by clicking on "Apply".

III. Several measured values such as meter reading or current parameters can be used here to switch the selected actuator (ON or OFF). Actuators should be assigned several times to ensure that the actuator can be switched on and off again.

b. **Links**

I. This setting corresponds to the setting for actuators (a.). The only thing missing here is the setting of the function value (ON/OFF) since a link can only be triggered here but not interrupted.

c. System functions

I. This setting corresponds to the setting for actuators (a.). However, the only thing missing here is the setting of the function value (ON/OFF) since a system function can only be triggered.

d. E-Mail Addresses

I. This setting corresponds to the setting for actuators (a.). The meter would send an email (the current status with the reference to the assignment which is fulfilled) when the criteria set are fulfilled. This would take place after each new meter wireless signal is sent as long as the condition is fulfilled.