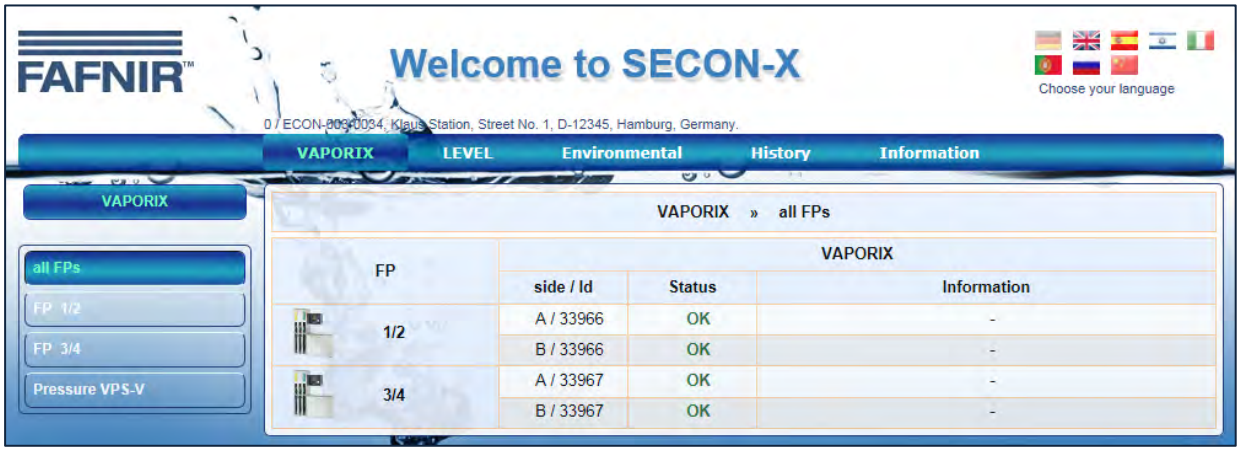
Technical Documentation

SECON-X

SECON-Vap User Guide



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1 Overview

1.1 SECON-X system components

SECON-X is a hardware-software-network system which comprises several components (see figure below) and performs the following tasks:

- Global data access to the SECON clients with web interface
- Remote diagnostics
- Remote display, evaluation and data storage
- Universal data format

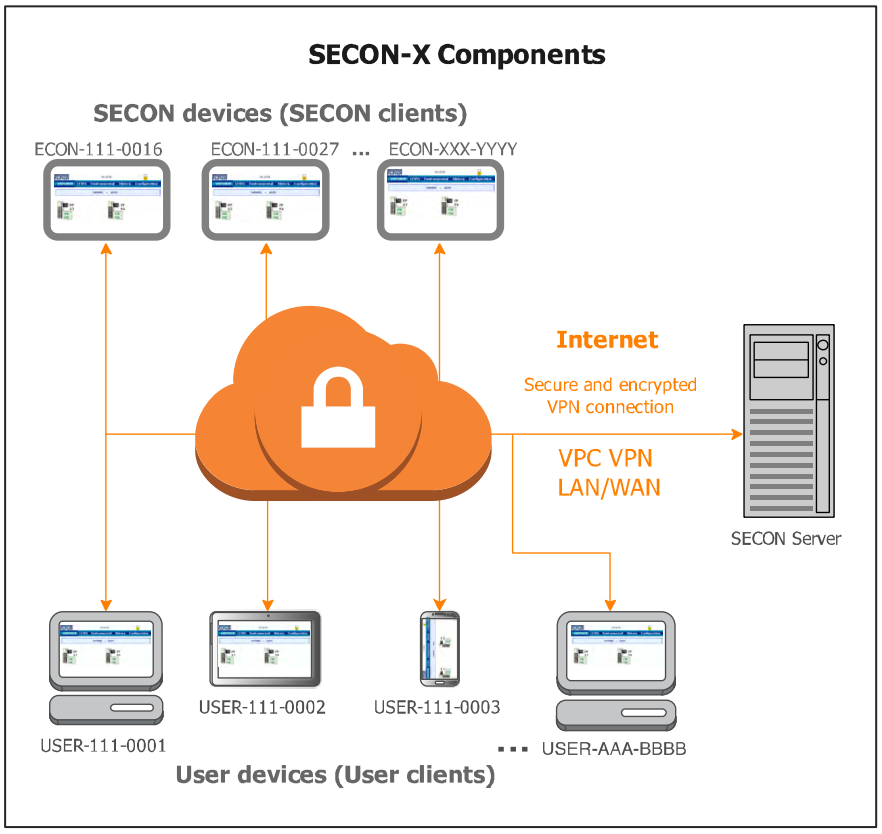


Figure 1: SECON-X system and components

SECON-Vap... is the operating software of the SECON devices with connection to the VAPORIX System.

1.2 SECON-Vap and SECON-Vap+

SECON-Vap is the operating software of the SECON devices with connection to the VAPORIX System, which monitors and evaluates the vapour recovery at fuel dispensers. The SECON device serves as central signalling device for displaying the functional status of the vapour recovery and measured values of the VAPORIX system.

SECON-Vap+ is an extension of the operating software of the SECON devices, which also allows the pressure sensors to be operated via the SECON device. The pressure sensors make it possible to monitor the gas pressure in Otto fuel tanks.

The measured values are displayed on a TFT colour screen. All functions are accessible using the touch screen user interface. Alarms are signalled visually by the display module and also audibly by a buzzer.

SECON-Vap... stores the measured values and the evaluations based on it locally in a database and in archive files. The data can be kept for 10 years+ and displayed on site. The measured values can be displayed locally on the SECON device as well as via a secure VPN connection (remote access). Stored values can also be called up via the secure VPN connection with WebDAV. The synchronisation can be used to compare the locally stored data also with a server.

The SECON device is connected with the VAPORIX evaluation units (a maximum of 16 evaluations for 2 sensors / fuelling points each) as well as with VPS-V pressure sensors, see:

 Technical Documentation, SECON client, art. no. 350076

 Technical Documentation, VAPORIX Flow/Control, art. no. 207083

 Technical Documentation, VPS pressure sensors, art. no. 350204

1.3 About this document

This documentation describes the function and operation of the SECON-Vap and SECON-Vap+ operating software as local application on the SECON devices (SECON clients), as well the remote access via a web browser (USER clients).

For the configuration of the SECON-Vap... software, see:

 Technical Documentation SECON-Vap Administrator, art. no. 350134

For the installation and operation of the OpenVPN software for remote access, see:

 Technical Documentation OpenVPN installation, art. no. 350199

1.4 Safety instructions

The operating software SECON-Vap... is intended for SECON devices. The software must be used exclusively for this purpose. Please observe and follow all product safety notes and operating instructions. The manufacturer accepts no liability for any form of damage resulting from improper use!

The SECON-X system has been developed, manufactured and tested in accordance with state-of-the-art technology and recognised technical safety regulations. Nevertheless, the system may be a source of danger. The following safety precautions must be observed in order to reduce the risk of injury, electric shocks, fire or damage to the equipment:

- Do not change or modify the system or add any equipment without the prior consent of the manufacturer.
- Only use original parts. These comply with the technical requirements specified by the manufacturer.
- The installation, operation and maintenance of the SECON device, together with the SECON-Vap software, may only be carried out by expert personnel.
- Operators, fitters and service technicians must observe all applicable safety regulations. This also applies to any local safety and accident prevention regulations which are not stated in this manual.

If these safety instructions are not observed, it may result in the risk of accident or damage to the SECON-X system.

The SECON touch screen may only be operated using a finger or a stylus designed for this purpose. The use of pointed objects (e.g. screwdrivers, pens) may cause damage to the touch screen.

Useful tips and information in this manual that should be observed are written in italics and identified by this symbol.

2 SECON-Vap... as local application

Certain functions may be activated or deactivated depending on what the software is being used for. In the case of the SECON-VAP, for example, the "Level" function is deactivated.

The lock symbol indicates an existing VPN connection.

2.1 VAPORIX

2.1.1 Fuelling points

Figure 2: VAPORIX main menu

The main view shows the status of the individual VAPORIX-Control fuelling points. When a fuel dispenser (e.g. FP 1/2) is selected, the window shown below is displayed:

Figure 3: Fuelling point 1/2

If you click on the PLUS sign, the status, date and the measured values for an individual fuelling point are displayed (see figure below):

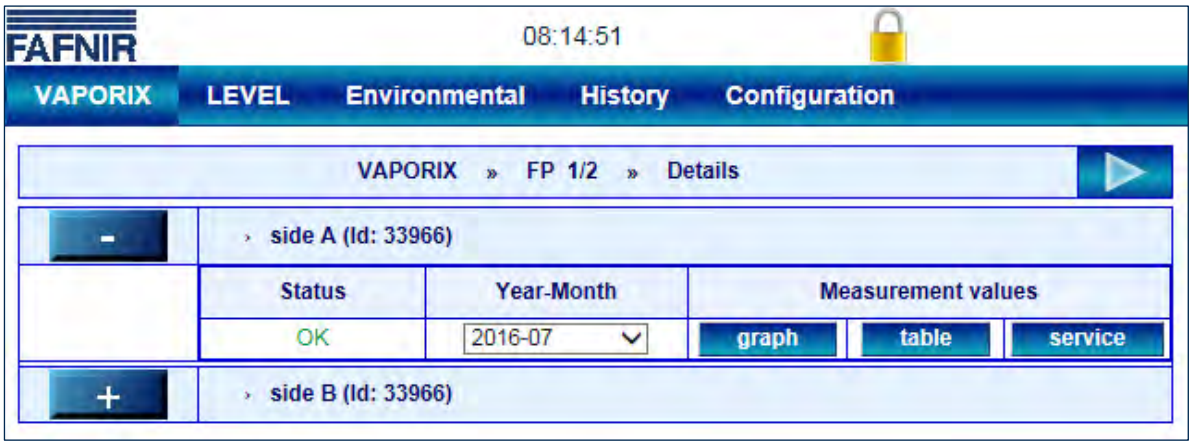


Figure 4: Fuelling point 1/2 – Details

Status: OK, Warning or Fail

Year-Month: Period for which measured values are displayed

Measured values:

- Graph: Graphic display of the recorded data (see Figure 5)
- Table: Tabular display of the recorded data (see Figure 6)
- Service: Tabular display of the services deployed (see Figure 7)

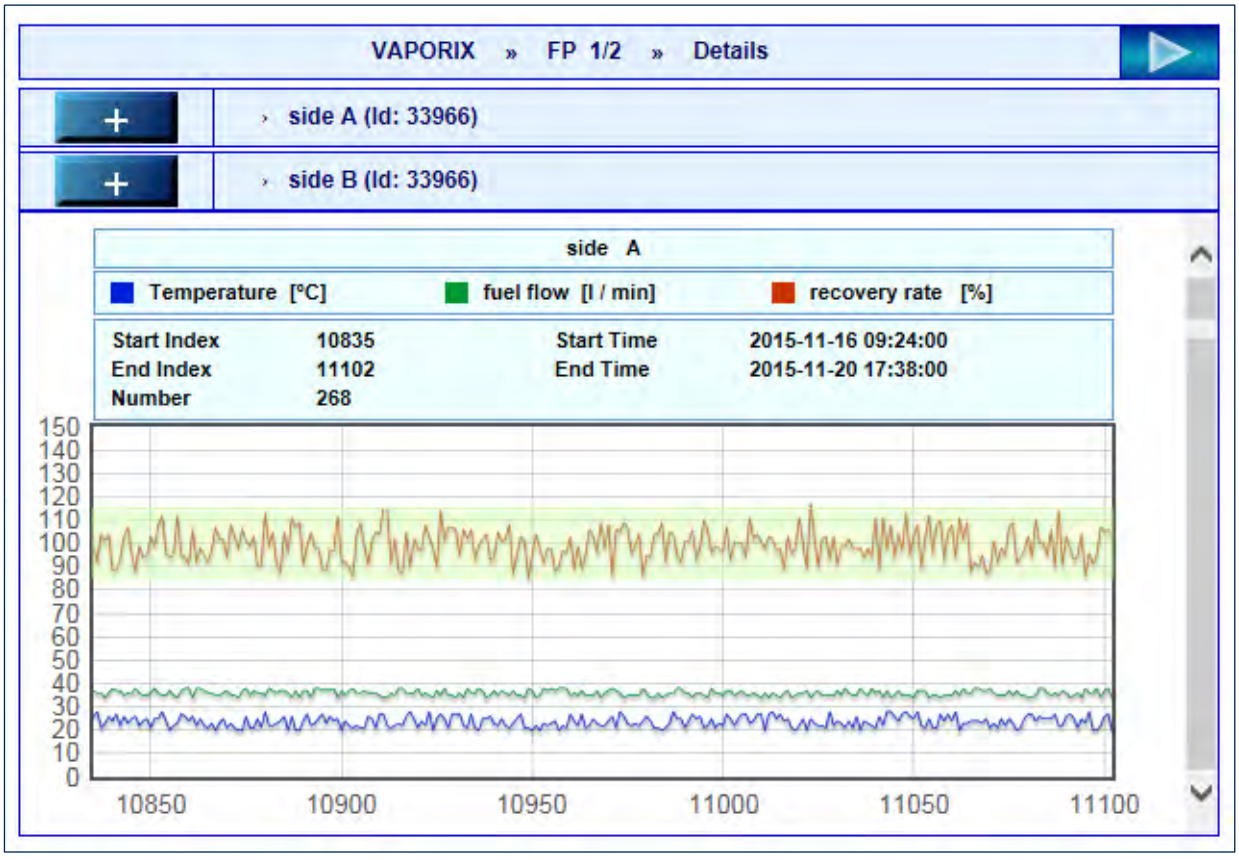
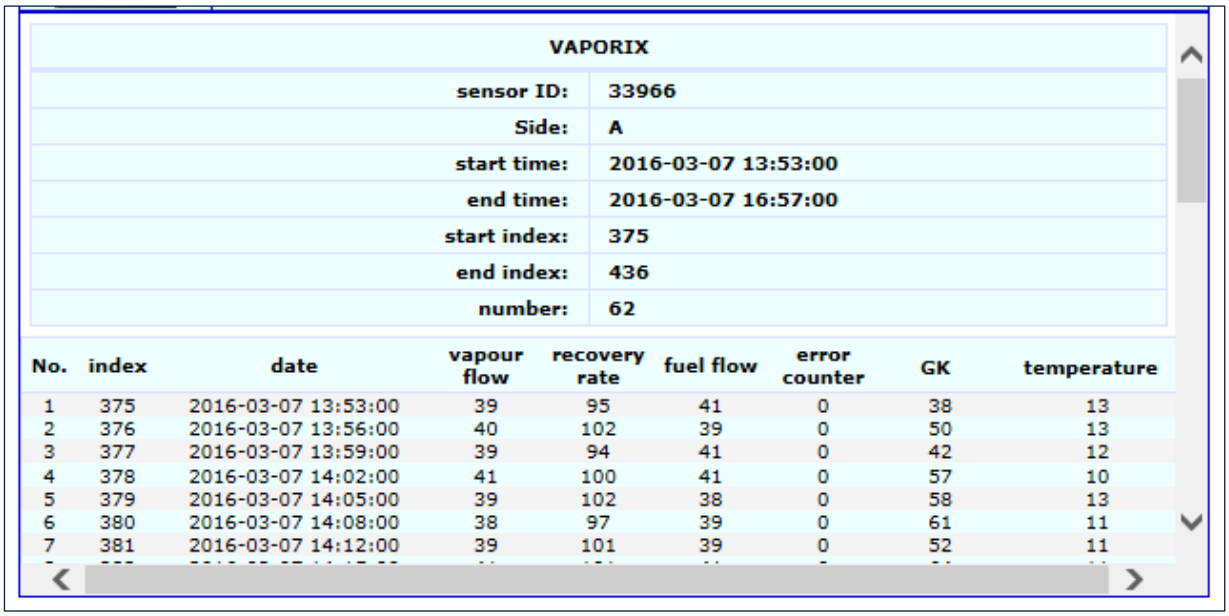


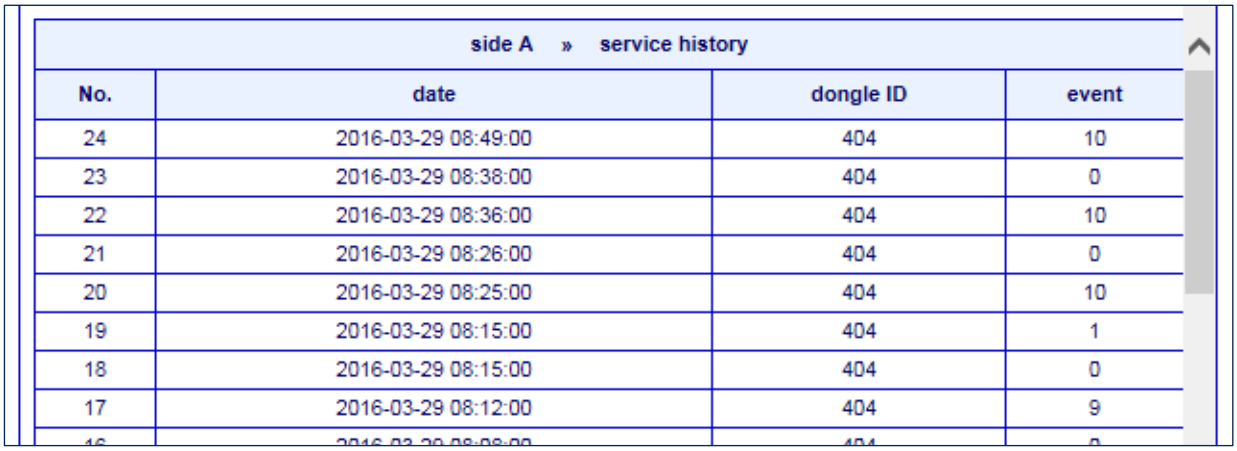
Figure 5: Fuelling point 1/2 – Details – Graph



VAPORIX	
sensor ID:	33966
Side:	A
start time:	2016-03-07 13:53:00
end time:	2016-03-07 16:57:00
start index:	375
end index:	436
number:	62

No.	index	date	vapour flow	recovery rate	fuel flow	error counter	GK	temperature
1	375	2016-03-07 13:53:00	39	95	41	0	38	13
2	376	2016-03-07 13:56:00	40	102	39	0	50	13
3	377	2016-03-07 13:59:00	39	94	41	0	42	12
4	378	2016-03-07 14:02:00	41	100	41	0	57	10
5	379	2016-03-07 14:05:00	39	102	38	0	58	13
6	380	2016-03-07 14:08:00	38	97	39	0	61	11
7	381	2016-03-07 14:12:00	39	101	39	0	52	11

Figure 6: Fuelling point 1/2 – Details – Table



side A » service history			
No.	date	dongle ID	event
24	2016-03-29 08:49:00	404	10
23	2016-03-29 08:38:00	404	0
22	2016-03-29 08:36:00	404	10
21	2016-03-29 08:26:00	404	0
20	2016-03-29 08:25:00	404	10
19	2016-03-29 08:15:00	404	1
18	2016-03-29 08:15:00	404	0
17	2016-03-29 08:12:00	404	9

Figure 7: Fuelling point 1/2 – Details – Service

2.1.2 Pressure sensors

Pressure sensors VPS-V are listed in the menu VAPORIX and can be displayed in detail.

Figure 8: VAPORIX – Pressure sensor

The view of a selected pressure sensor contains the following details:

1. Status: Sensor status
2. Select date: Selection of the date
3. Measured values: Display as graphic, as table, as warning/error table

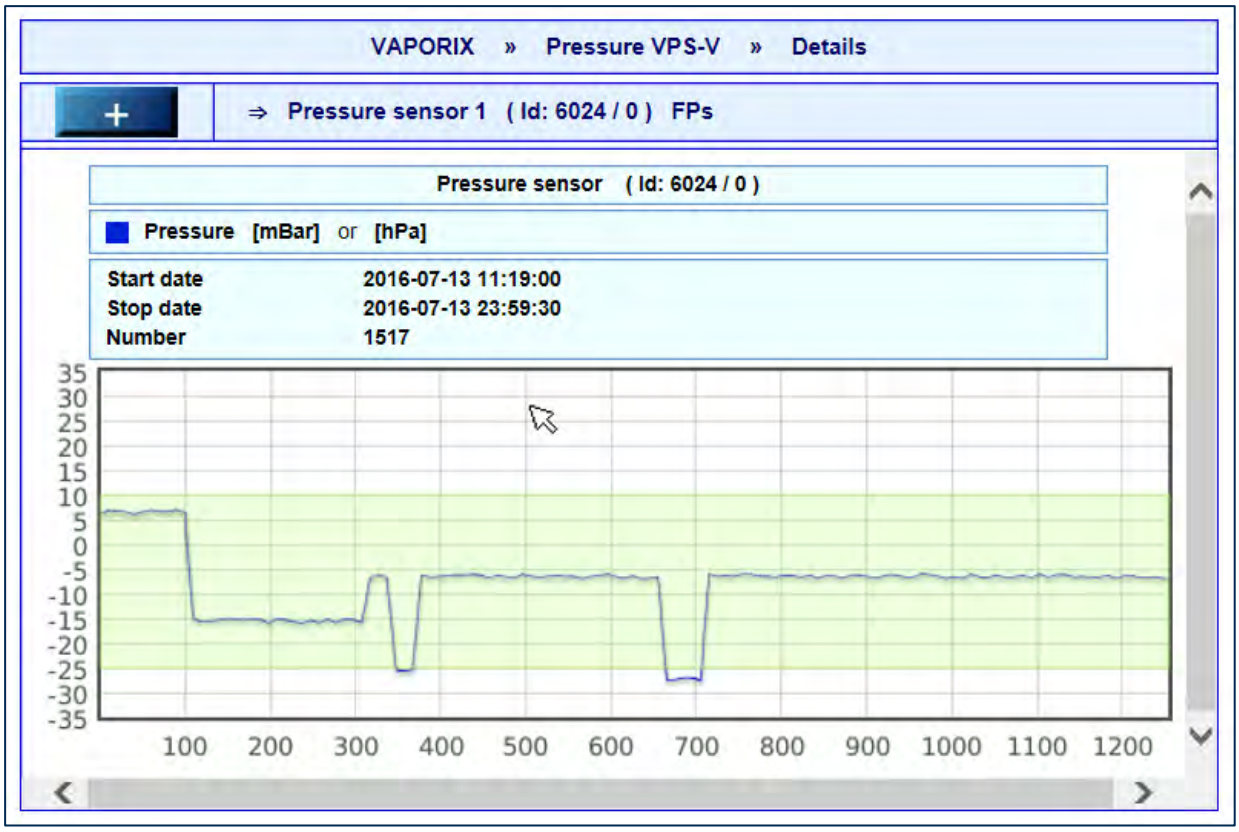


Figure 9: Graphic display of measured values of pressure sensor

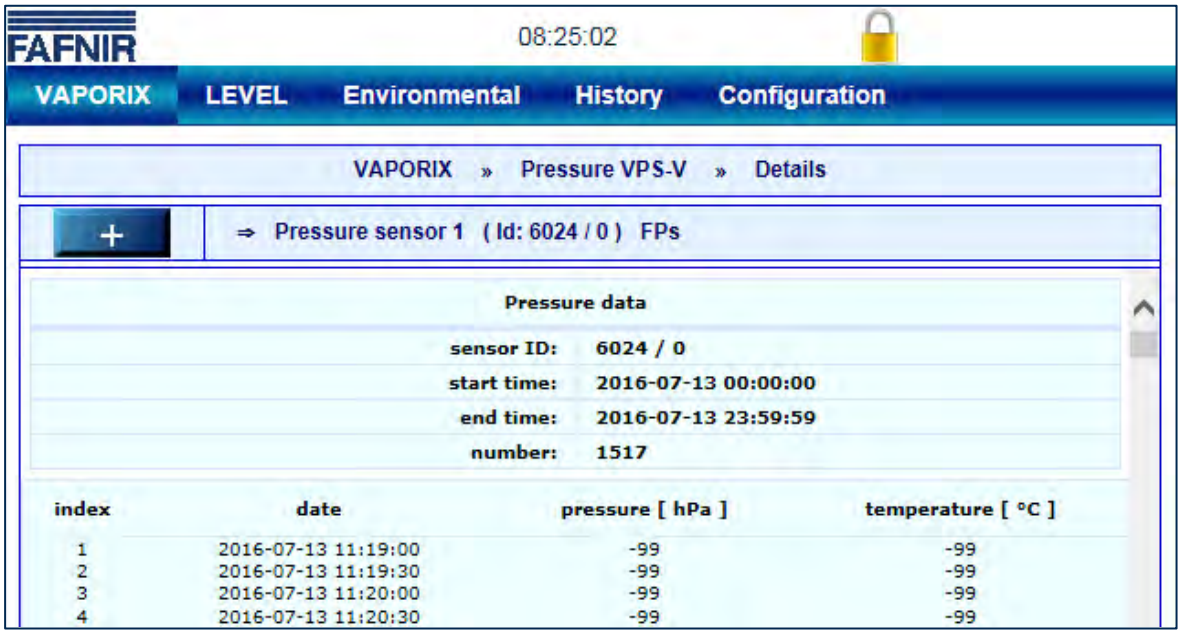


Figure 10: Tabular display of measured values of pressure sensor

A touch of the *alerts* button displays the last WARNING and FAIL statuses with start and end date, current status and average value. During FAIL statuses the affected fuelling point IDs and the confirmation time are displayed in addition, see the following figure:

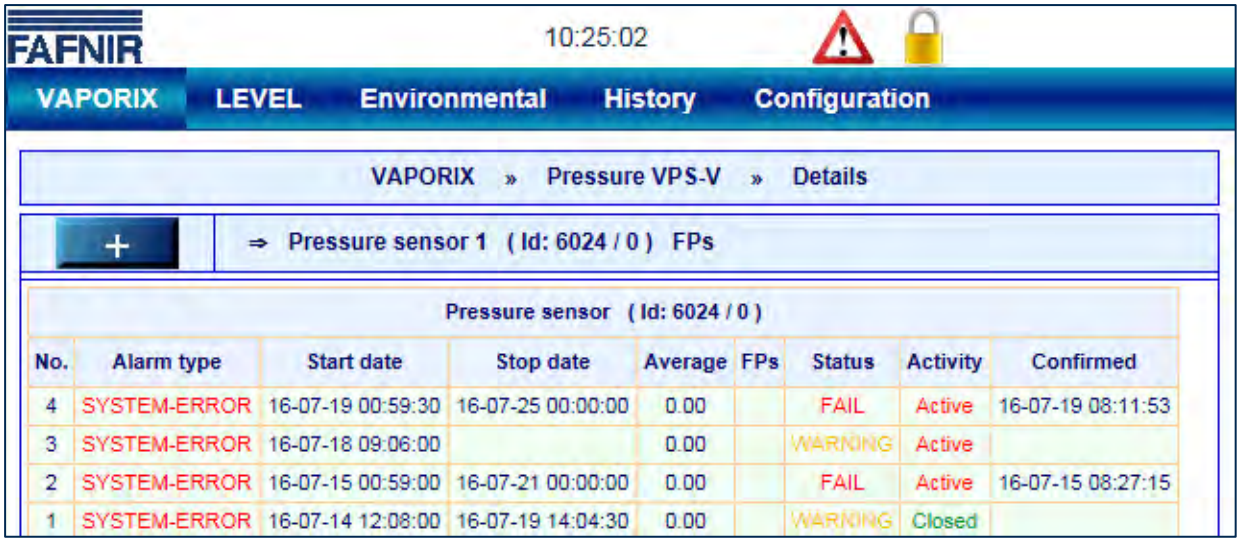
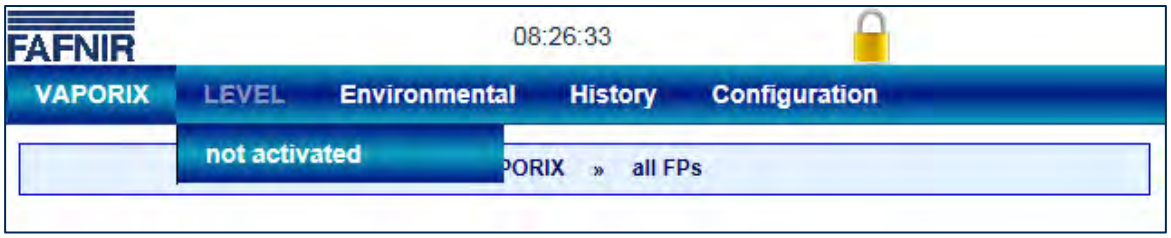


Figure 11: Display of pressure sensor warnings and errors

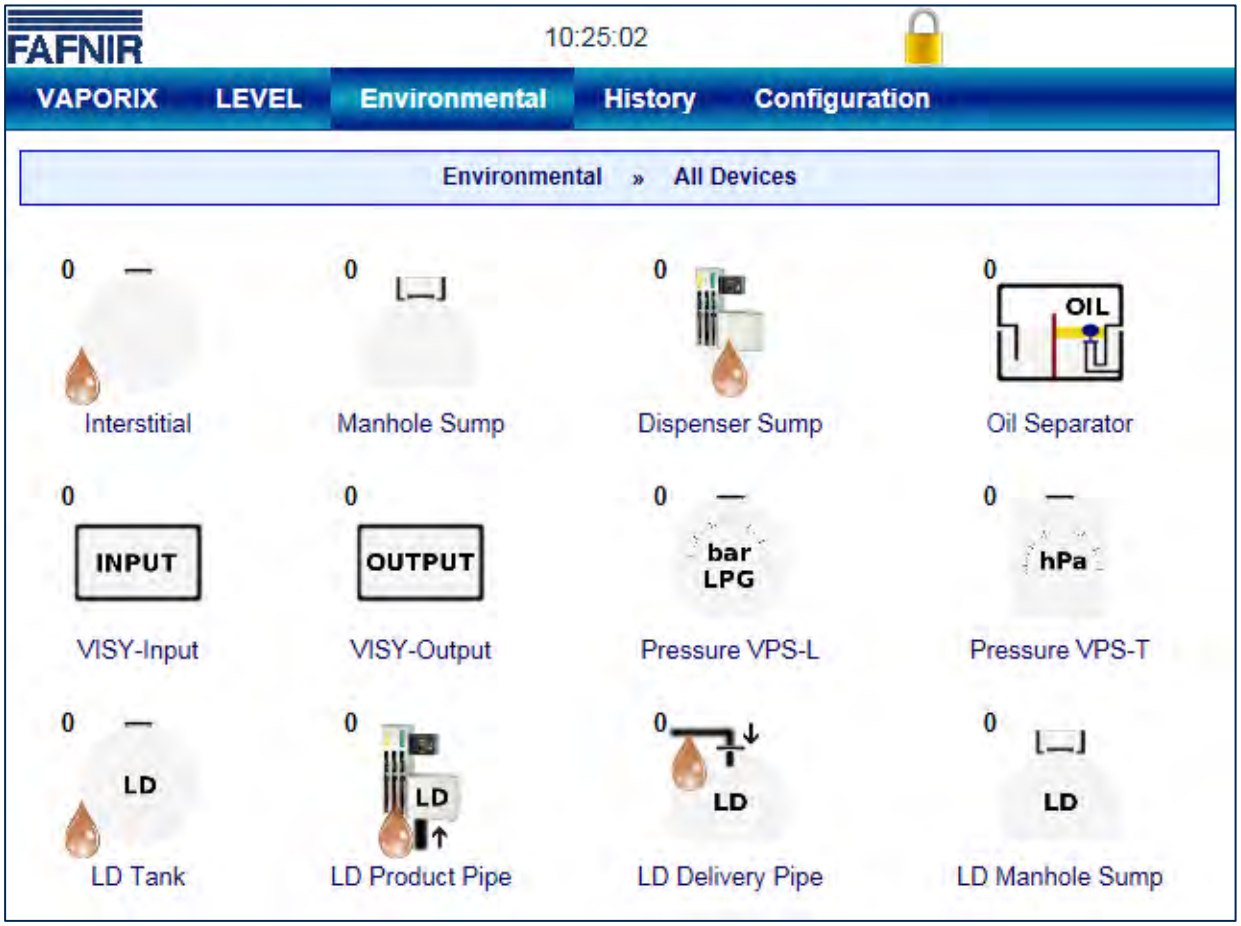
2.2 LEVEL

The main menu “LEVEL” is another function of the SECON Software and will be displayed in case of the SECON-Lev application.



2.3 Environmental

The main menu “Environmental” is another function of the SECON Software and will be displayed for environmental sensors used with the SECON-Lev application.



2.4 History

Depending on the installed application, under menu item "History" the VAPORIX alarms or also the pressure report are displayed.

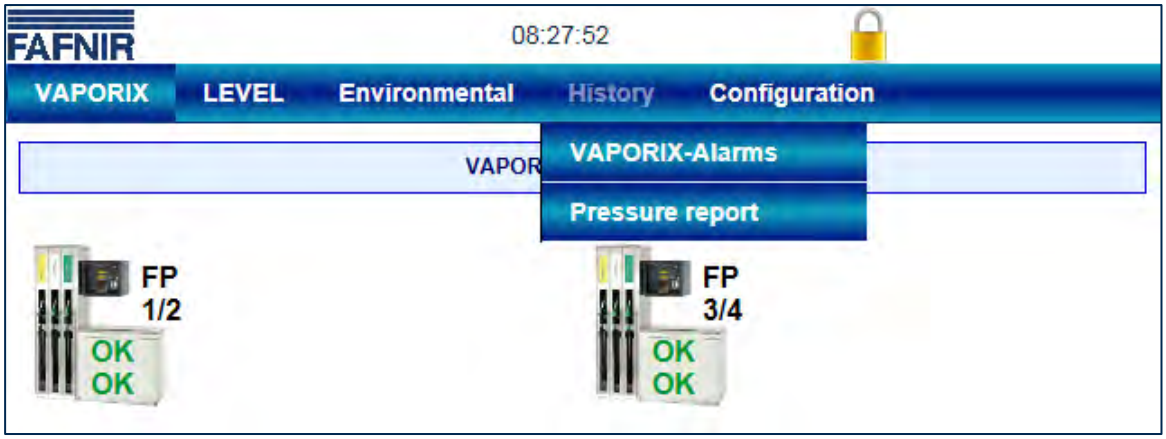


Figure 12: Histories

2.4.1 VAPORIX alarms

Alarms are displayed as follows:

The yellow alarm symbol indicates a warning.

The red alarm symbol indicates an error.

The grey alarm symbol indicates that the status cannot be requested.

For the meaning of the VAPORIX warnings and alarms, see technical documentation:

VAPORIX Flow and Control, art. no. 207083

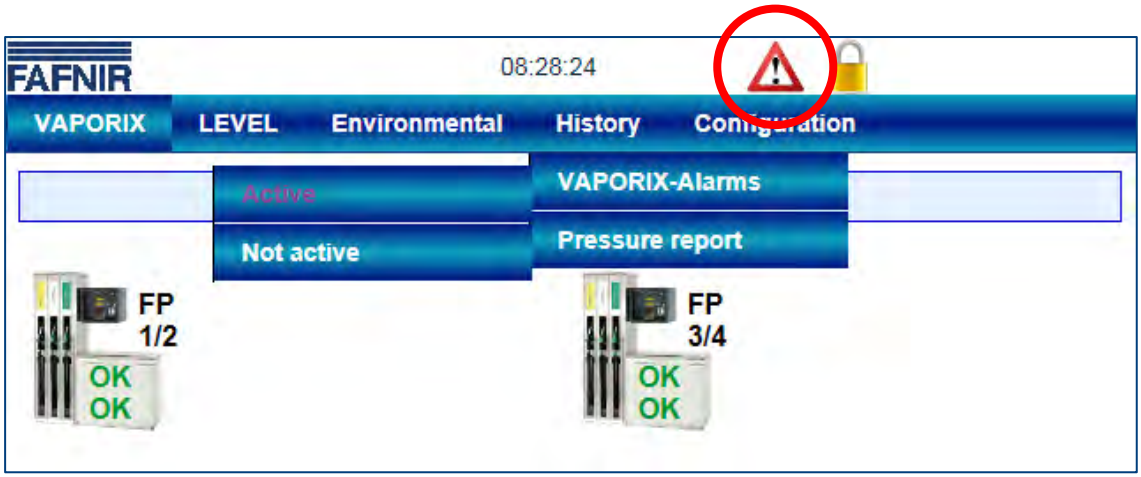
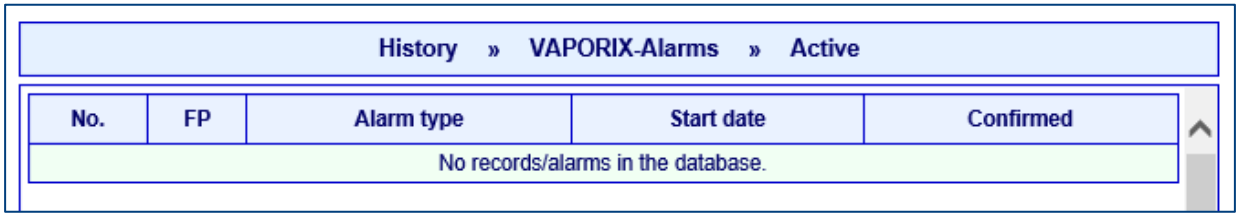


Figure 13: VAPORIX error indication

In the menu a selection can be made between the active and inactive VAPORIX alarms or the error report of the pressure sensors:

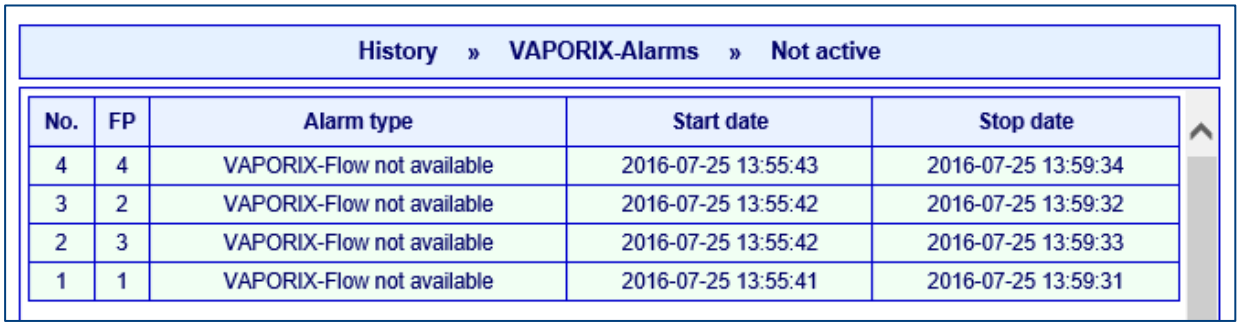
- Active alarms are confirmed or unconfirmed alarms that are currently available.
- Inactive alarms are expired alarms that have been cancelled by the system.



History » VAPORIX-Alarms » Active

No.	FP	Alarm type	Start date	Confirmed
No records/alarms in the database.				

Figure 14: Active alarms



History » VAPORIX-Alarms » Not active

No.	FP	Alarm type	Start date	Stop date
4	4	VAPORIX-Flow not available	2016-07-25 13:55:43	2016-07-25 13:59:34
3	2	VAPORIX-Flow not available	2016-07-25 13:55:42	2016-07-25 13:59:32
2	3	VAPORIX-Flow not available	2016-07-25 13:55:42	2016-07-25 13:59:33
1	1	VAPORIX-Flow not available	2016-07-25 13:55:41	2016-07-25 13:59:31

Figure 15: Inactive alarms

2.4.2 Pressure report

Here the respective pressure sensor is to be selected.

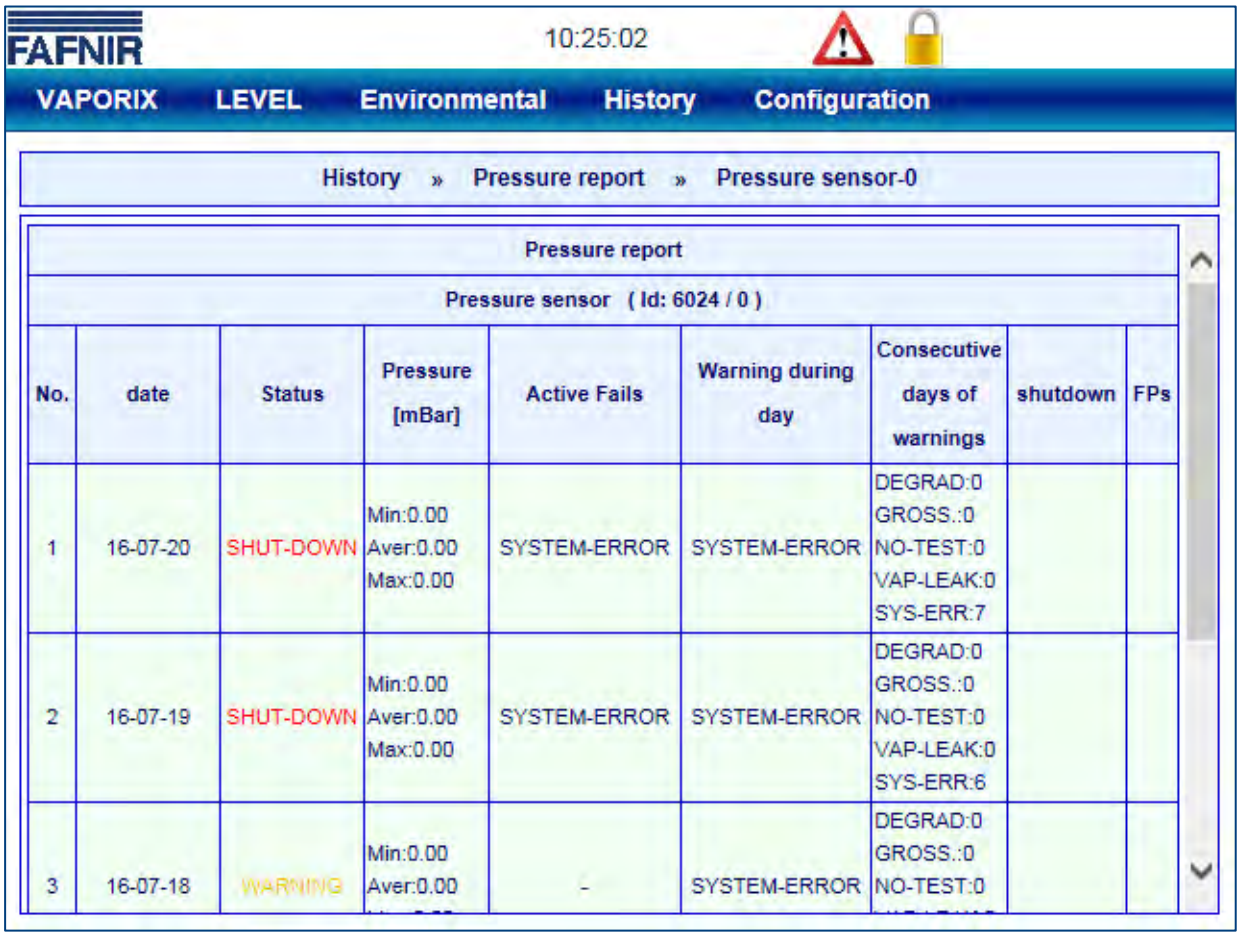


Figure 16: Pressure report

The list of the last daily reports includes date, daily status, maximum pressure, minimum and average value, WARNINGS with average value and the number on subsequent days during which a certain WARNING has occurred repeatedly. In case of a FAIL status, also the switch-off time and the affected fuelling point IDs are listed.

2.4.3 Evaluation of pressure sensor data specific to countries (AU/IL)

Data

The data of connected pressure sensors are requested and stored at an interval of 30 seconds.

WARNINGS

The pressure sensor data are requested at an interval of 30 seconds. The data are continuously examined for an error condition. If such occurs, first a WARNING is generated which remains active until the values no longer correspond to the error condition.

Error type	Condition
DEGRADATION	Half of the measured pressure values of the last hour (60/120) must lie under -20 mbar or above 7.5 mbar.
GROSS	3 minutes of the measured pressure values of the last hour (6/120) must lie under -25 mbar or above 12.5 mbar.
NO-TEST	All measured pressure values of the last hours (except incorrect measurements) must lie within a range of +/- 0.5 mbar and the petrol station must not be operating (no refuelling).
VAPOUR LEAK	For 23 hours of the day the measured pressure values must lie within a range of +/- 0.5 mbar and the petrol station is in operation.
SYSTEM ERROR	The pressure sensor is not available for at least 1 hour of the day or supplies incorrect data.

Table 1: Error types WARNINGS (pressure evaluation AU/IL)

WARNINGS are stored in the database with the following information:

Information	Value format
Error type	DEGRADATION, GROSS, NO-TEST, VAPOUR LEAK, SYSTEM ERROR
Start of error state	YYYY-MM-DD hh:mm:ss
End of error state	YYYY-MM-DD hh:mm:ss
Average value	mbar

Table 2: Data structure WARNINGS (pressure evaluation AU/IL)

FAILS

While WARNINGS can occur individually they do not result in a switch-off. Only when a specific number of WARNINGS is exceeded within a specified time is a FAIL recognized and a switch-off of the monitored fuelling points initiated. Attention to a FAIL state is drawn with a visual and an acoustic alarm. This must be acknowledged manually.

The occurrence of a FAIL state requires maintenance of the system by a service technician, who can deactivate the FAIL state after rectifying the problem and reset the switch-off.

Error type	Condition
DEGRADATION	One DEGRADATION WARNING must have occurred during the last 7 consecutive days at least once a day. The switch-off occurs after 30 days.
GROSS	One GROSS WARNING must have occurred during the last 3 consecutive days at least once a day. The switch-off occurs on the 7th day after its first occurrence.
NO-TEST	No switch-off required.
VAPOUR LEAK	One VAPOUR LEAK WARNING must have occurred during the last 2 consecutive days at least once a day. The switch-off occurs on the 7th day after its first occurrence.
SYSTEM ERROR	One SYSTEM ERROR WARNING must have occurred during the last 2 consecutive days at least once a day. The switch-off occurs on the 7th day after its first occurrence.

Table 3: Error types FAILS (pressure evaluation AU/IL)

FAILS are stored in the database with the following information:

Information	Value format
Error type	DEGRADATION, GROSS, VAPOUR LEAK, SYSTEM ERROR
Start of FAILS	YYYY-MM-DD hh:mm:ss
Time of switch-off	YYYY-MM-DD hh:mm:ss
Date of confirmation	YYYY-MM-DD hh:mm:ss
Average value	mbar
Fuelling points to be shut down	Logical numbers of the fuelling points, separated by semicolons

Table 4: Data structure FAILS (pressure evaluation AU/IL)

Daily reports

At each change of day a summary of the events which occurred during the day and the measured values is created. This summary contains the following details:

Information	Value format
Start of day	YYYY-MM-DD hh:mm:ss
End of day	YYYY-MM-DD hh:mm:ss
Status of the day	PASS: No errors have occurred. WARNING: At least one WARNING has occurred. FAIL: A FAIL is active, there is the danger of a switch-off. SHUTDOWN: At least one of the monitored fuelling points has been shut down and must be serviced and unblocked by a service technician. NO-TEST: The petrol station is not operating (no fuelling is being registered, pressure difference is balanced.
Average value	mbar
Maximum pressure	mbar
Minimum pressure	mbar
The types of WARNINGS which have occurred	DEGRADATION, GROSS, NO-TEST, VAPOUR LEAK, SYSTEM ERROR
The types of FAILS which have occurred	DEGRADATION, GROSS, VAPOUR LEAK, SYSTEM ERROR
Time of switch-off	YYYY-MM-DD hh:mm:ss (only when set)
Fuelling points to be shut down	Logical number (only if FAIL is active)
Average value of DEGRADATION errors of the day	mbar
Average value of the GROSS errors of the day	mbar
Consecutive days on which a WARNING type has occurred.	n days each for DEGRADATION, GROSS, NO-TEST, VAPOUR LEAK, SYSTEM ERROR

Table 5: Data structure day reports (pressure evaluation AU/IL)

2.4.4 Alarms and switch-off by pressure monitoring

Display of alarms

The pressure evaluation is different in countries with legally prescribed monitoring between WARNINGS and FAILS. WARNINGS are temporary error states whose occurrences are registered and stored.

It is only when a certain defined limit is exceeded that a FAIL state occurs and an acoustic and visual alarm is being output. This contains information on the type of error and must be acknowledged. The date of the acknowledgement is stored.

Since a FAIL sets the state of the petrol station into an alarm condition due to the switch-off process of the fuelling points, this is also displayed in the web interface on the petrol station overview page of the SECON server, as well as the web interface of the individual SECON-Vap+ system.

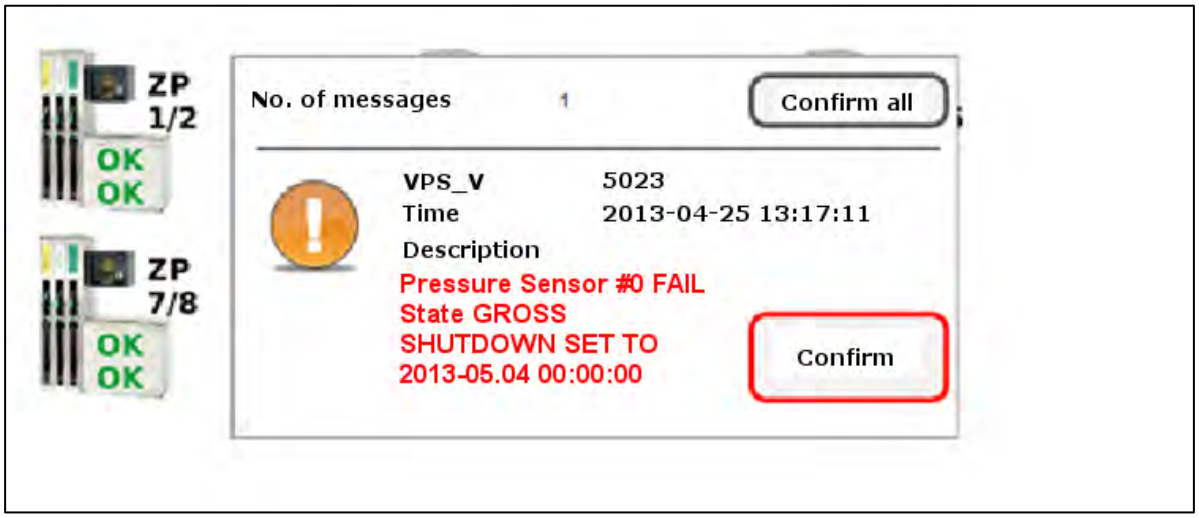
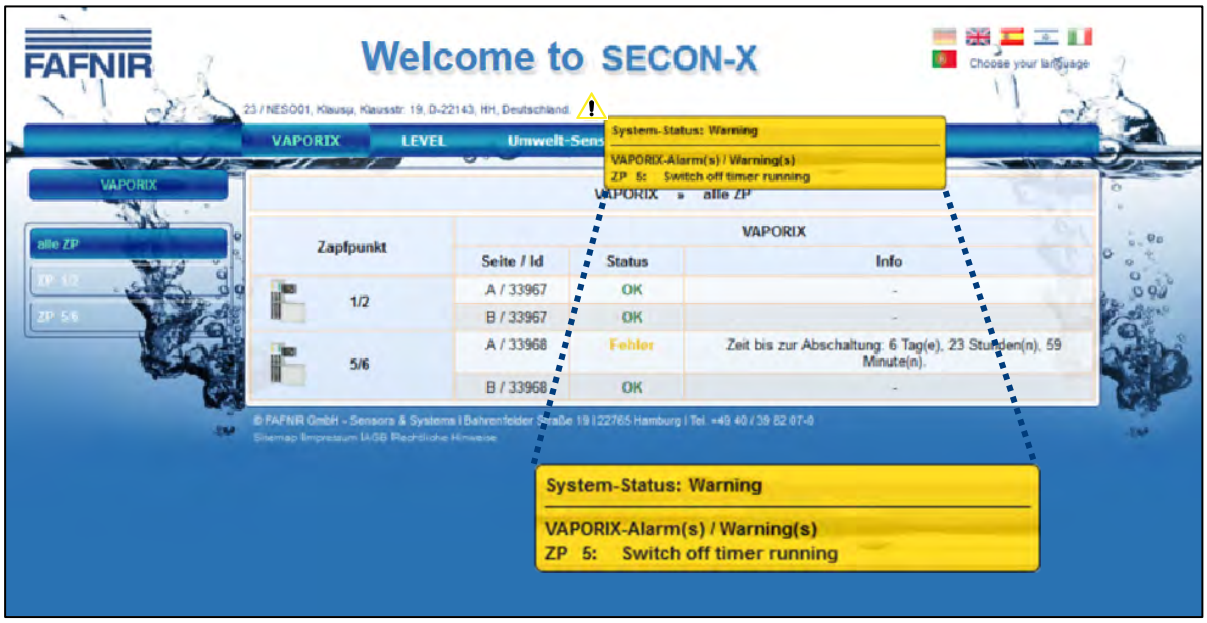


Figure 17: Alarms and switch-off of SECON-Vap+ (series of pictures)

Local display on the touch screen

An alarm window is displayed on the SECON-Vap+ and an acoustic alarm sounds. By touching Confirm all or Confirm, the alarm is closed.



Web interface

A warning symbol ⚠ is displayed in the web interface. This remains as long as the error has not been rectified by a service technician. More detailed information is displayed if the mouse cursor is moved across the symbol.

Switch-off

A FAIL state always sets a switch-off time that is dependent on the type of the error. This process follows analogous to the switch-off of the individual fuelling points by the VAPORIX-Control, yet it affects all monitored fuelling points.

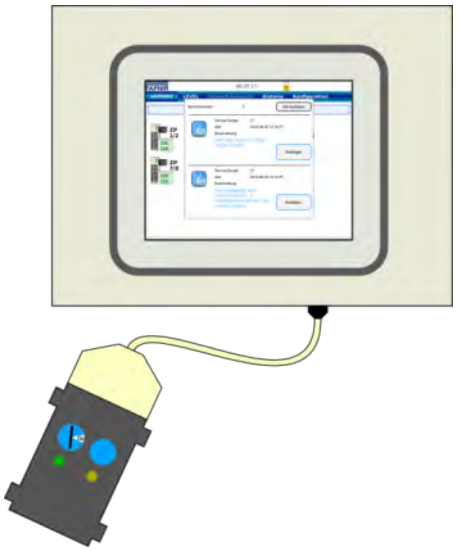
The switch-off times are displayed on site and in the web interface under item VAPORIX on the overview page of the fuelling points.

The switch-off counter continues to run after the start independent of the SECON-Vap+ system. Exiting the error state or a switch-off of the SECON-Vap+ does not stop this process. A reset can only be performed by a service technician with a VAPORIX service dongle.

Resetting the switch-off counter with the VAPORIX service dongle

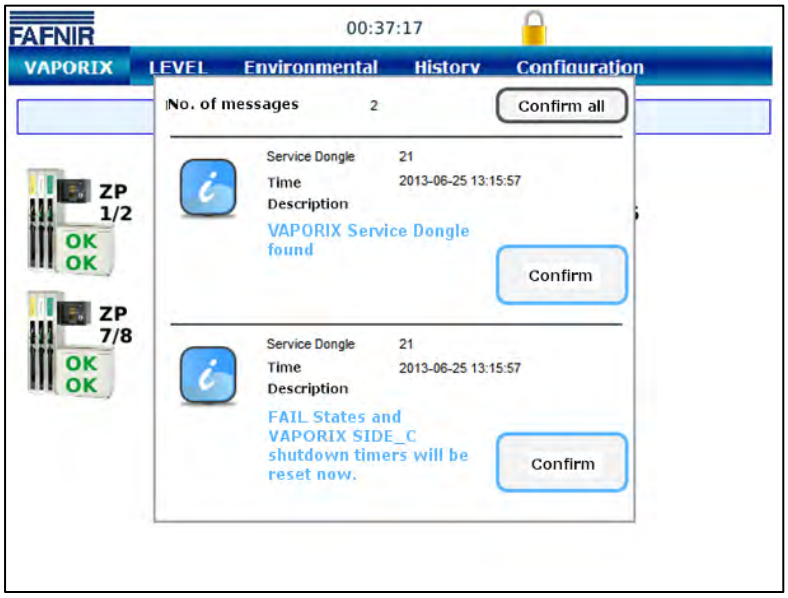
The reset of the switch-off counter in the event of been triggered by pressure monitoring is not carried out individually on the VAPORIX controls in the fuel dispensers but on the SECON-Vap+ for all devices. There is no reset of an individually triggered switch-off on the fuel dispenser.

A reset can only be carried out by service technicians who must use a VAPORIX service dongle licensed by FAFNIR.



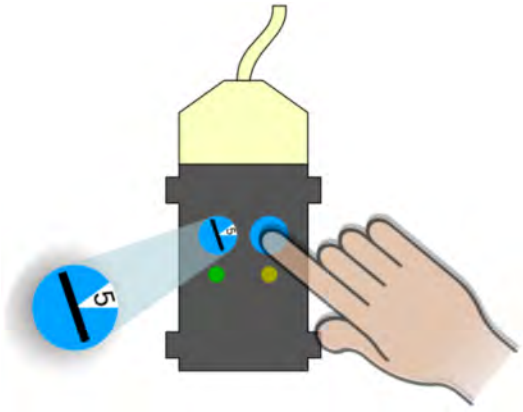
For resetting, the VAPORIX service dongle must be connected to the SECON Vap+ via the adapter cable.

Figure 18: Resetting of FAIL conditions SECON-VAP+ (picture series)



The reset with the service dongle is performed only for a switch-off that was triggered as a result of exceeding the pressure limit values.

The dongle is recognized by the system and a message (1) is displayed.



Now the FAIL state can be cancelled and the switch-off terminated by turning the switch to position 5 and with a press of the button on the dongle.
The reset is confirmed with a further message (2).

In the overview of the fuelling points on the screen of the SECON-Vap+ all fuel dispensers with status OK are displayed during the next status update (1 min. interval), unless further switch-offs have been directly initiated by the VAPORIX systems. These must be deactivated directly on the fuel dispensers.

2.5 Configuration

2.5.1 Info

The following sub-menus are displayed in the *Configuration ≫ Info* menu option:

- Station data
- Software version
- Software licence
- Network IP address
- Route table
- VPN

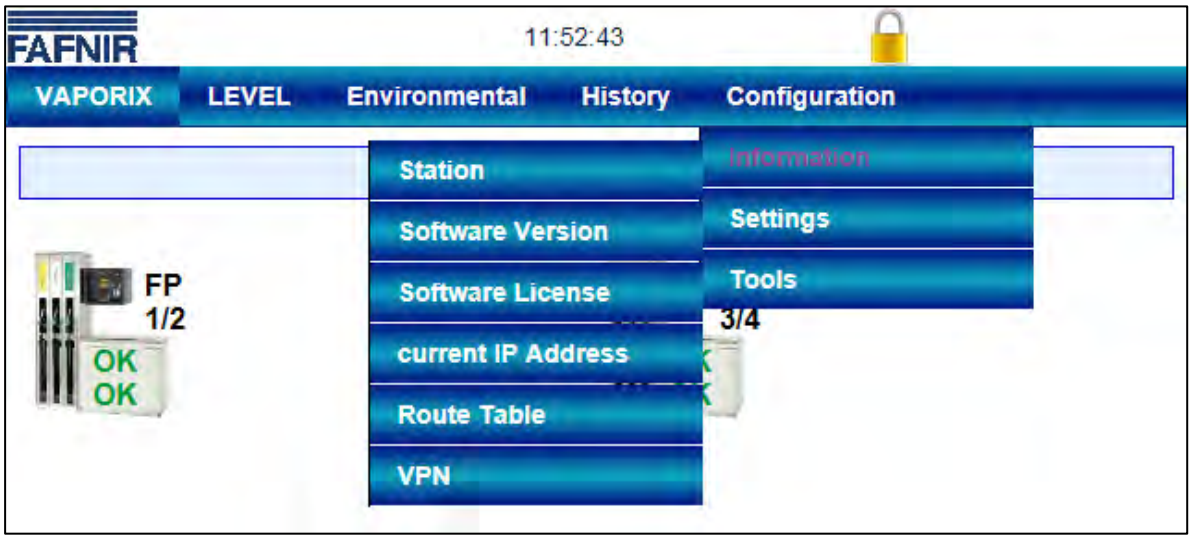


Figure 19: System info

Station data

The configured address, the geographical coordinates and the global status of the station are displayed in this table.

Device	
Designation	ECON-003-0034
Station	
Internal No.	0
Designation	Klaus Station
Street	Street No. 1
Postal Code	D-12345
City	Hamburg
Country	Germany
Status	Alarm (2016-07-14 11:08:38)
Latitude	53.5686
Longitude	10.0386

Figure 20: Info – Station data

The "State" status is equivalent to the alarm messages and is displayed here in the colours green (OK), yellow (warning) and red (error).

Software version

Designation	Software Version
SECON	2.2.2.0
GUI	2.0.7.255
Translation	1.0.5.0
Fafnir	1.2.0.0
Intern-Atg	1.0.5.7
Extern-Atg	1.0.5.6
Dispatcher	1.3.0.3
Alarm-Manager	1.0.5.0
Vaporix	1.4.2.255

Figure 21: Info – Software version

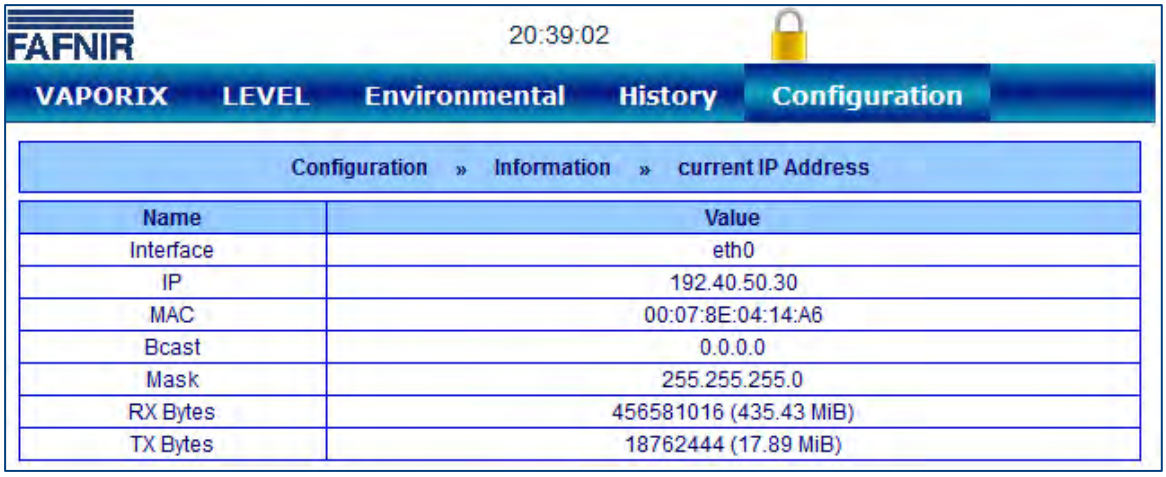
Software licence

The menu option *Configuration ≫Info ≫ Software licence* is not supported as yet.

Figure 22: Info – Software licence

Network IP address

The current data and configurations for the local network connection are displayed here. The local connection and the VPN interface must be active in order to ensure that the system can be accessed externally.

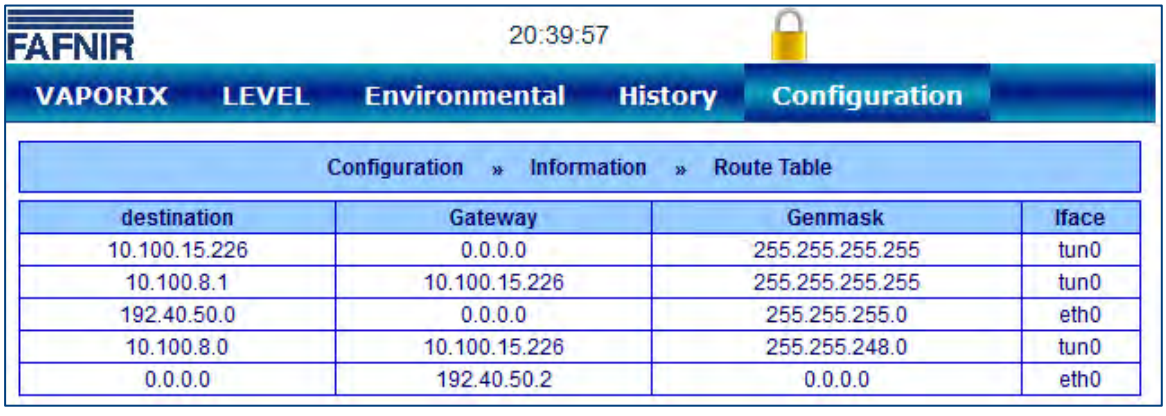


Name	Value
Interface	eth0
IP	192.40.50.30
MAC	00:07:8E:04:14:A6
Bcast	0.0.0.0
Mask	255.255.255.0
RX Bytes	456581016 (435.43 MiB)
TX Bytes	18762444 (17.89 MiB)

Figure 23: Info – Network IP address

Route table

The routing IP addresses are listed here.



destination	Gateway	Genmask	Iface
10.100.15.226	0.0.0.0	255.255.255.255	tun0
10.100.8.1	10.100.15.226	255.255.255.255	tun0
192.40.50.0	0.0.0.0	255.255.255.0	eth0
10.100.8.0	10.100.15.226	255.255.248.0	tun0
0.0.0.0	192.40.50.2	0.0.0.0	eth0

Figure 24: Info – Route table

VPN

The current data and configurations for the virtual private network (VPN) are displayed here. The interface must be active in order to ensure that the system can be accessed externally.

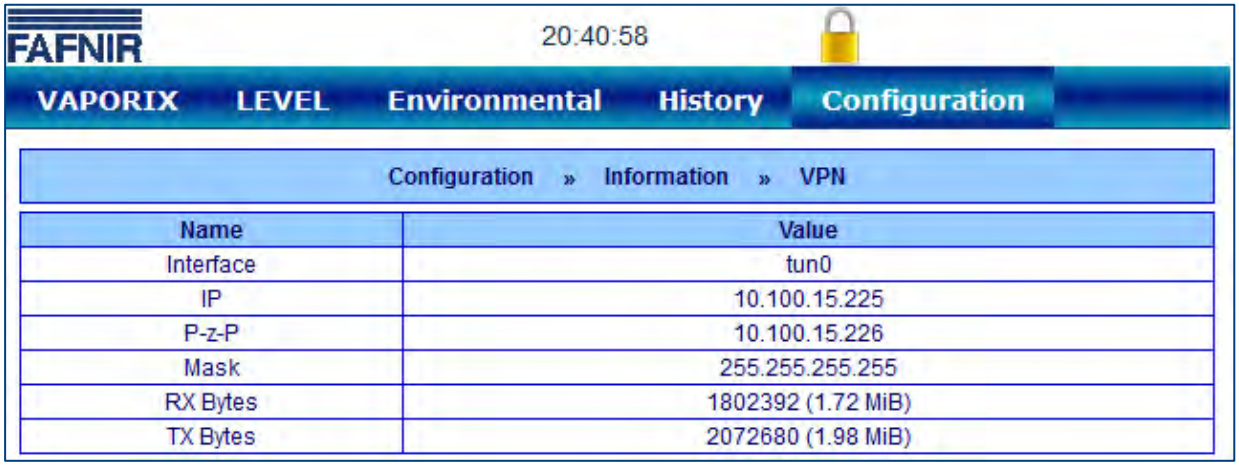


Figure 25: Info – VPN

3 Remote access

3.1 Connection to the SECON Server

3.1.1 Requirements

Remote access from the user clients (PC/laptops) to the SECON server takes place via a secure VPN network connection. This requires the installation of the Open-VPN software on the PC used.

For remote access, "Mozilla Firefox" or "Opera" are the preferred browsers. Full functionality may be restricted with other browsers.

To install the OpenVPN software, see the technical documentation:

SECON-X OpenVPN installation, art. no. 350199

3.1.2 VPN connection

A secure VPN connection (TLS) is used for remote access, i.e. all the data is encrypted.

(1) Start the program "OpenVPN GUI".

(2) The VPN connection is created by right clicking on the "OpenVPN GUI" symbol on the Windows taskbar and selecting "Connect".

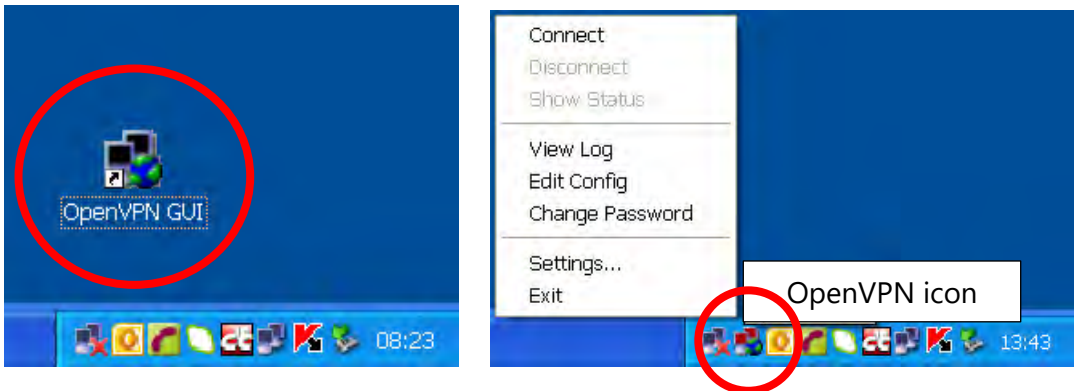


Figure 26: OpenVPN GUI

When a connection is successfully created, the colour of the OpenVPN icon in the Windows taskbar changes from red to green.

3.1.3 Browser

The home page for the SECON server can now be called using the web browser. To do this, enter the allocated IP address in the address line of the browser.

3.1.4 SECON Server home page

Figure 27: SECON server home page

A table showing the configured petrol stations is displayed on the home page of the SECON server. Using Google Maps, the petrol station locations can also be displayed on a map.

Table view

In table view, all the petrol stations are displayed with their number, name, address, status and network connection:

No.:	Sequential number
Internal ID:	Internal petrol station number (see SECON-Vap configuration)
Address:	Petrol station address
Status:	Status of the SECON-Vap (if the user hovers over this with the mouse, a data table is displayed)
Online:	Then network connection is displayed with "–" (not connected) or "*connect*" (connected).

The connection to the individual petrol stations is created by clicking on "*connect*". To obtain access to the petrol stations, a password must be entered (see section “Verification”).

Google Maps / Full screen view

In order to display the petrol station locations on a map, select the menu option “View – Google Maps” or “View – Full screen”.

Each individual pin represents a petrol station. A jumping pin indicates that the petrol station is online and that it can be accessed by clicking on it.

The colour indicates the status:

- Green: OK
- Yellow: Warning
- Red: Error

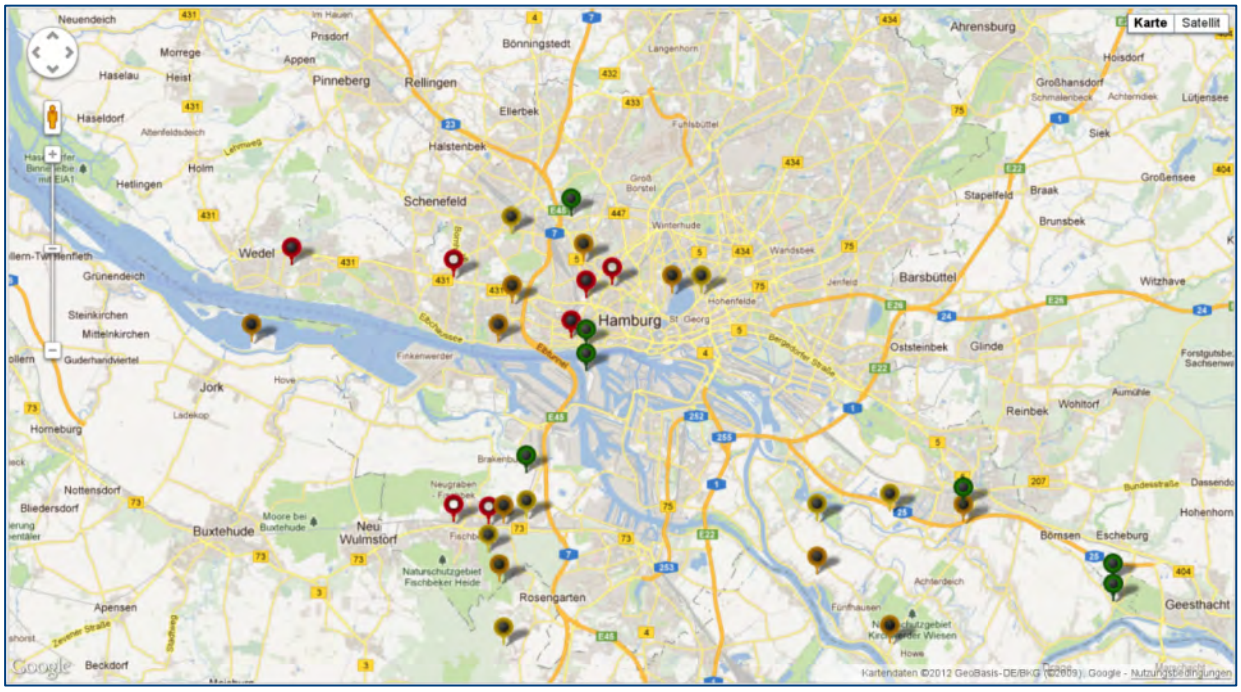


Figure 28: Station locations

In order to obtain detailed information regarding the petrol stations, all the user needs to do is to point at the relevant pin with the mouse. This opens a pop-up window showing further details.

Double clicking (left mouse button) on a pin creates a direct connection to the selected petrol station. To do this, a password must be entered (see next section).

In full screen view, the Google map is displayed without any further SECON menu bars.

The normal view is restored by clicking the Back button in the address line of the browser.

3.2 Connection to the SECON device (SECON client)

The connection to a SECON device is established via the home page of the SECON server. To do this, select the SECON device of a petrol station with a click on the corresponding button "***connect***":

Figure 29: SECON server home page

This is followed by a request for a password for the verification of the user:

Figure 30: Verification

User name: *fafnir*
Password: *fafnir22766*

If the verification is successful, you will go to the SECON device of the selected petrol station by remote access.

The data shown by remote access is identical to the data in the display of the SECON devices (see chapter2).

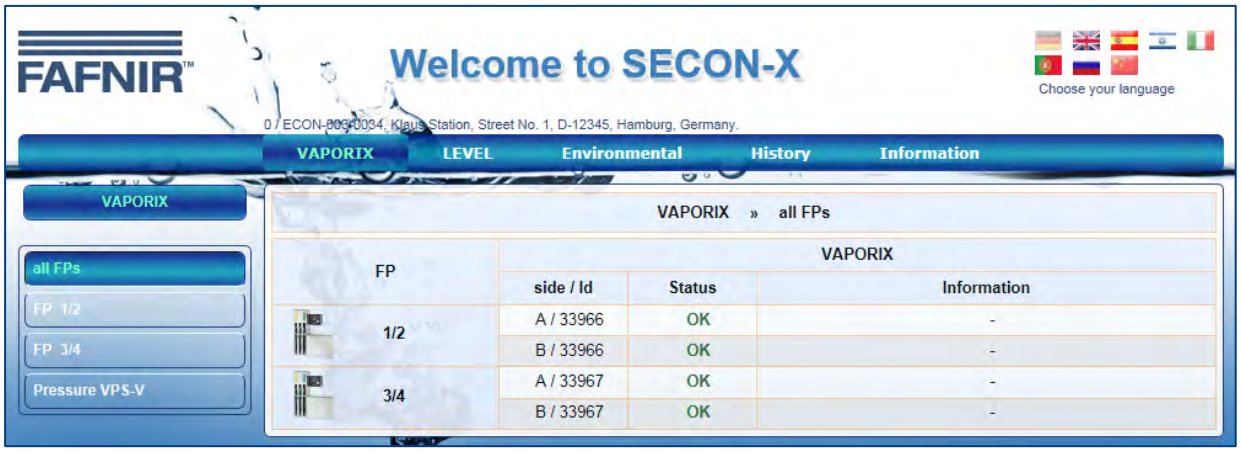


Figure 31: Remote access to the SECON device - VAPORIX Menu

3.2.1 VAPORIX menu

Fuelling points

In main view, the status of the individual VAPORIX-Control / fuelling points is displayed.

When a fuelling point is selected, the relevant window, showing further details, is displayed (e.g. Figure 3: Fuelling point 1/2).

Figure 32: VAPORIX – Fuelling point (FP) 1/2

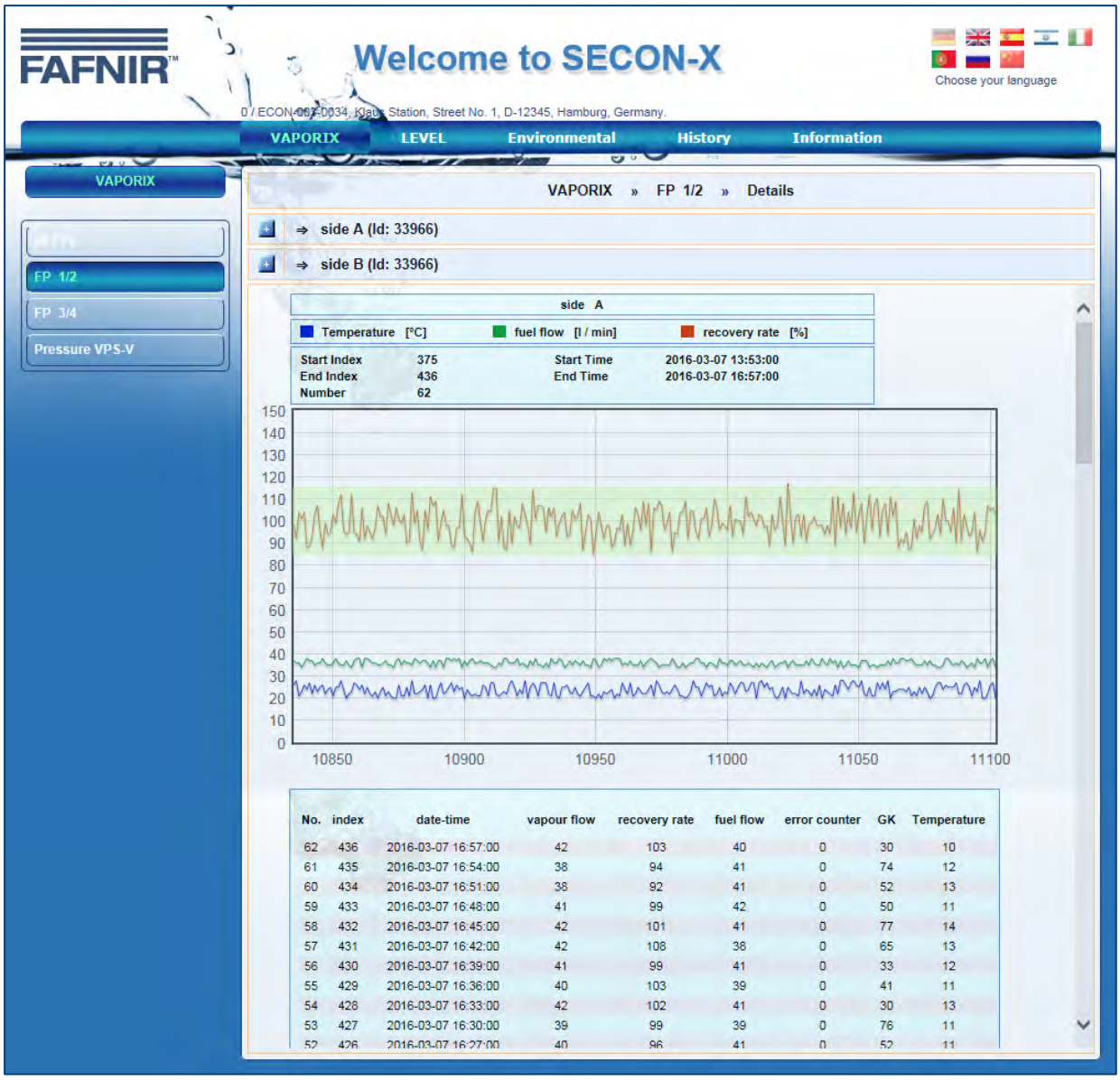
If you click on the PLUS sign, the status and measured values for the fuelling point are displayed for the selected date:

Status: OK, Warning or Fail

Year-Month: Period for which measured values are displayed

Measured values: Show: Graphic and tabular display of the recorded data (see figure below)

Measuring values “show”: The measured values are displayed in graphic and tabular form:



No.	index	date-time	vapour flow	recovery rate	fuel flow	error counter	GK	Temperature
62	436	2016-03-07 16:57:00	42	103	40	0	30	10
61	435	2016-03-07 16:54:00	38	94	41	0	74	12
60	434	2016-03-07 16:51:00	38	92	41	0	52	13
59	433	2016-03-07 16:48:00	41	99	42	0	50	11
58	432	2016-03-07 16:45:00	42	101	41	0	77	14
57	431	2016-03-07 16:42:00	42	108	38	0	65	13
56	430	2016-03-07 16:39:00	41	99	41	0	33	12
55	429	2016-03-07 16:36:00	40	103	39	0	41	11
54	428	2016-03-07 16:33:00	42	102	41	0	30	13
53	427	2016-03-07 16:30:00	39	99	39	0	76	11
52	426	2016-03-07 16:27:00	40	96	41	0	52	11

Figure 33: Fuelling point 1/2 – Details – Show

Measuring values “download”:
If the user clicks on the required xml file, the data is displayed in tabular form (see figure below). If the user right clicks on the required xml file, a drop-down list is displayed and the file can be downloaded.

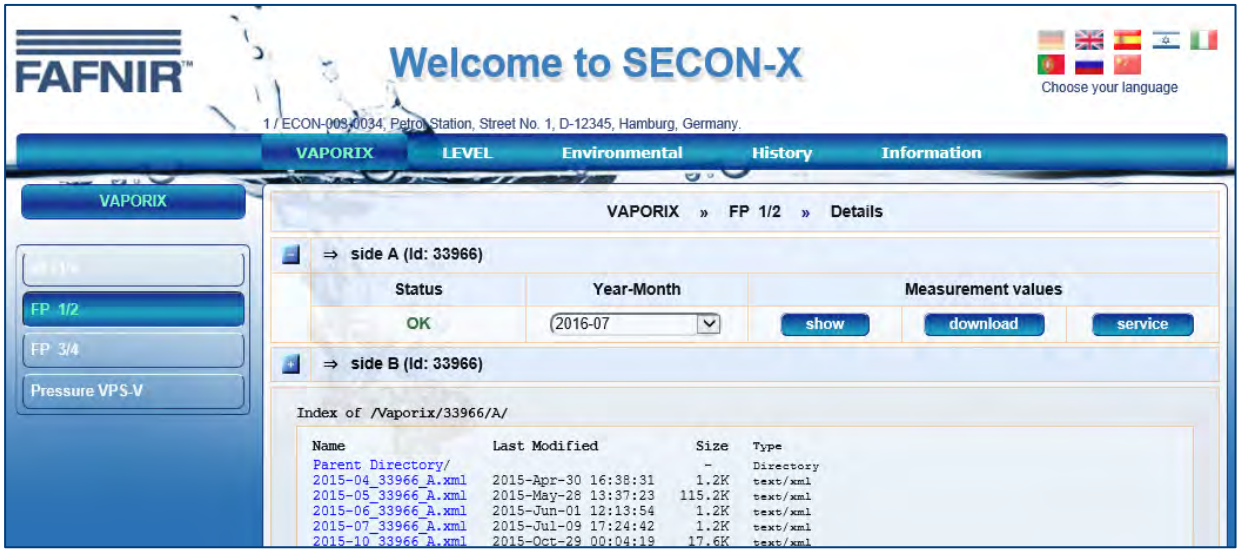


Figure 34: Fuelling point 1/2 – Details – Download

Measuring values “service”:
Tabular display of service deployment (see figure below)

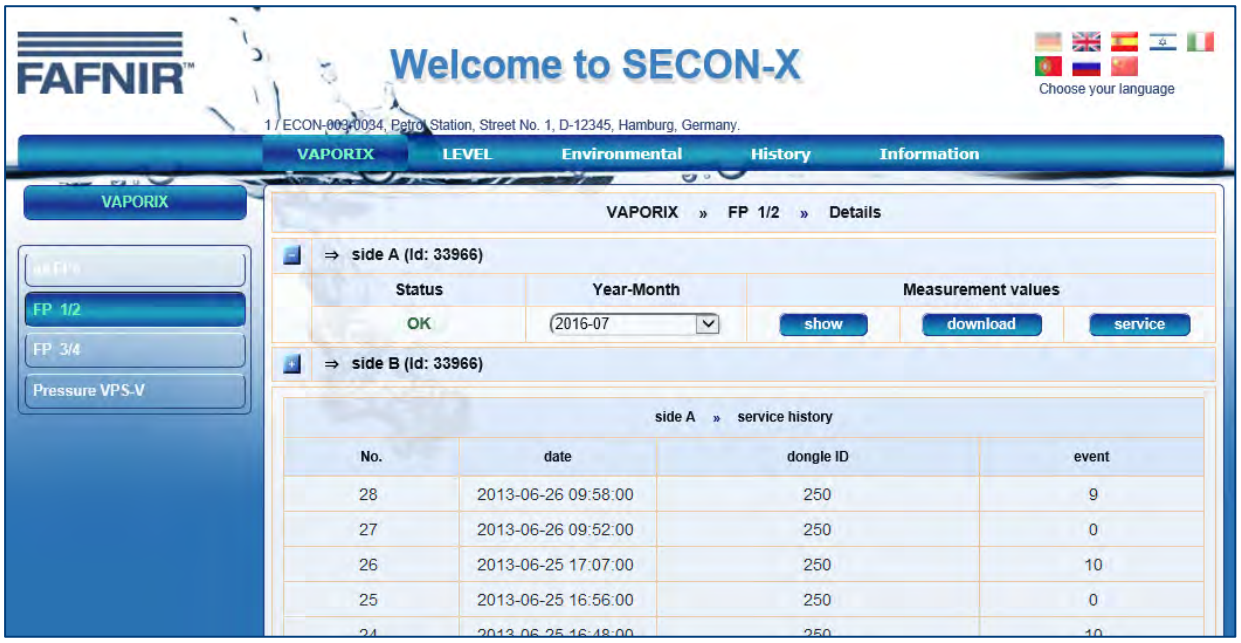


Figure 35: Fuelling point 1/2 – Details – Service

Pressure sensors

In the Pressure VPS-V menu all sensors are listed and can be viewed by clicking on the plus sign in detail.

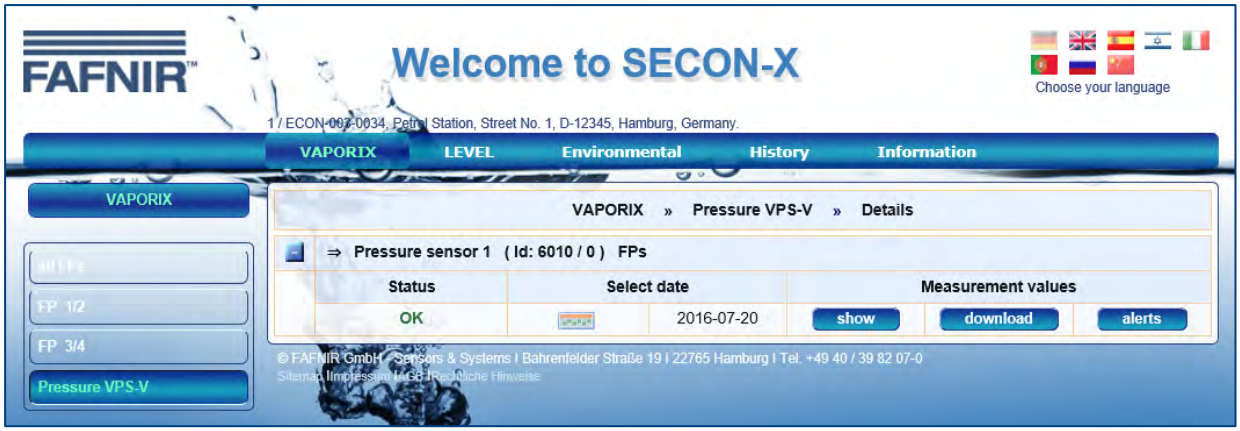


Figure 36: Environmental sensors - Pressure

The view of a selected pressure sensor contains the following details:

1. Status: Display of the sensor status
2. Select date: Selection of the date for the display of the measured values
3. Measured values: Display of the measured values in graphic or tabular form for the download, or as error table (alerts)

Graphics and table

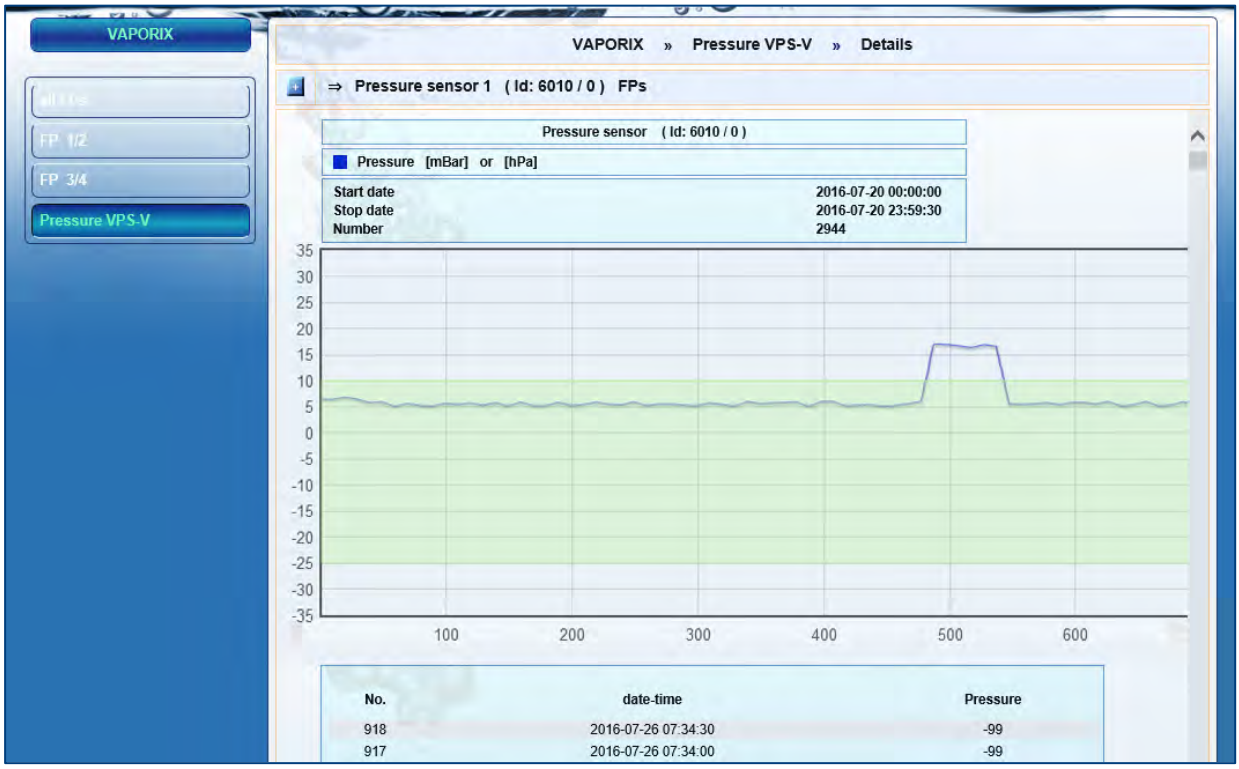


Figure 37: Measured pressure values, graphics and table

Download

A list with the stored measured values of the individual days is displayed via Download. The format for saving is XML. The measured values are available for downloading.

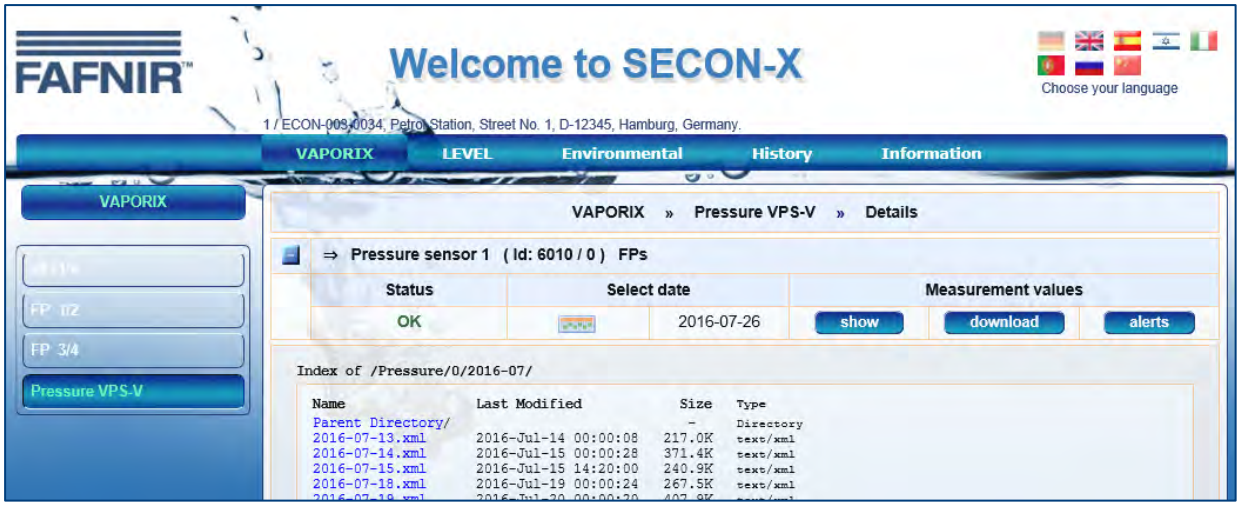


Figure 38: Measured pressure values, download

With a right click on a link and the selection of Save under... the selected data set can be saved locally

Alerts

After a click on the ALERTS button, a selection box of the pressure sensors is displayed. Select a pressure sensor and click on Display.

A list of the last daily reports appears. The list includes date, daily status, maximum pressure, minimum and average value, WARNINGS with average value and the number on subsequent days during which a certain WARNING has occurred repeatedly. In case of a FAIL status, also the switch-off time and the affected fuelling point IDs are listed. To display the values the mouse pointer must be set on values in the respective fields.

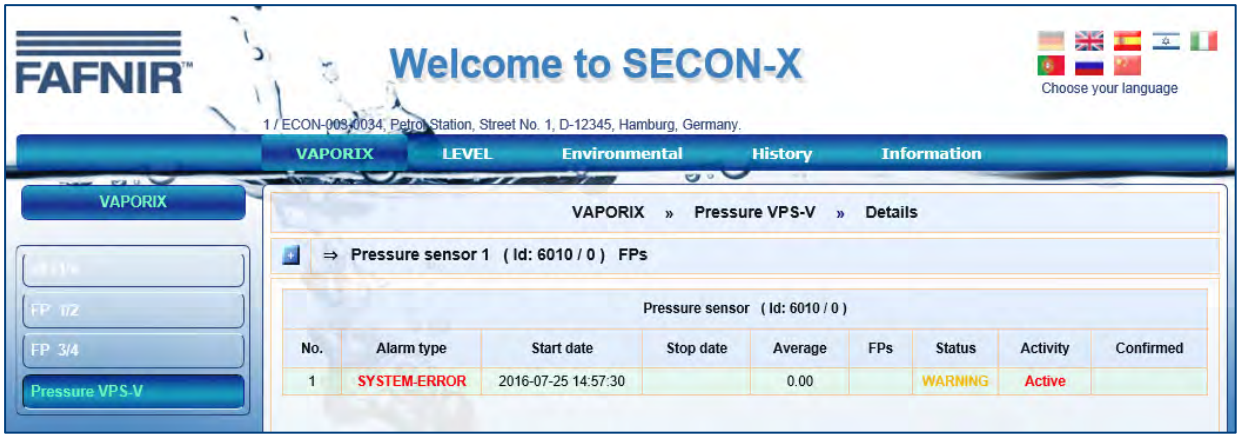


Figure 39: Measured pressure values, alerts

3.2.2 LEVEL

The main menu "Level" is another feature of the SECON software and will be shown for the SECON-Lev application.

3.2.3 Environmental

The main menu „Environmental“ " is another feature of the SECON software and will be shown for environmental sensors with the SECON-Lev application.

3.2.4 History

Downloads

This menu provides central access to history data for the activated services which can be downloaded in xml format for further processing. To do this, select your application (e.g. VA-PORIX) in order to obtain access to the history data of the SECON device. The data is identical to the history data of the SECON device.

Figure 40: History – Downloads

VAPORIX alarms

With this menu option, the history of alarms is listed, sorted by date.

The type of display can be selected broken down by active, inactive or all alarms.

Figure 41: History – VAPORIX alarms (all)

Pressure report

With this menu item, the history of the measured pressure sensor values is listed, sorted by date. The measured values and warnings/alarms are displayed in a pop-up window when the mouse is set on the corresponding field.

Figure 42: History - Pressure report

3.2.5 Info

The “Info” menu option in remote access is equivalent to the “Info” menu option of the SECON device (see section Info Info).

3.3 Data download via WebDAV

The data of the SECON-Vap+ can be integrated as drive into the operating system via the WebDAV protocol. Here you are using the option of the operating system which normally offers support for WebDAV. If this is not the case, or problems with connection occur, also external WebDAV clients can be used.

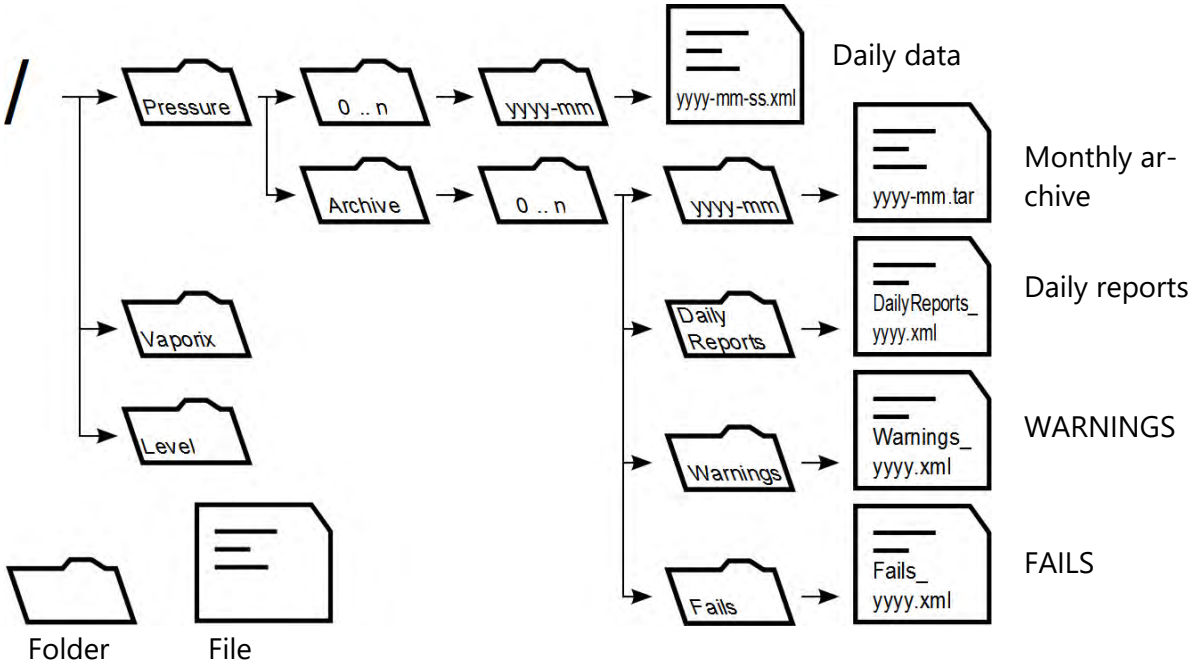
Address: http: //IP.ADDRESS.OF.SECON/webdav
where IP.ADDRESS.OF.SECON must be replaced by the real IP address of the SECON.

Port: 80

User: webdav

Password: webdav22765

After the connection, a directory structure can be opened in the file manager of the operating system. Based on the basic directory the topology of the directory is displayed as follows.



0 … n	Folder for data arranged according to pressure sensor positions.
yyyy, mm, dd	Placeholder for the number of the year, month and day of the month.
xml	File is available in XML format.
tar	File is available as tar archive and must be unpacked.

Figure 43: Directory structure of WebDAV

4 List of figures

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