COMS

COMS with SECON, Installation Quick Guide for 2-float probes
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1 Installation of VISY-Stick Oil Separator and VISY-Sludge

⚠️ The oil separator is Ex zone. Observe safety regulations!

⚠️ The COMS system fulfils the functions of an automatic warning system for separators of light liquids. The alarms can be forwarded on request with potential-free change-over contacts.

a) To connect the sensors, a 4-core cable from the oil separator to the petrol station building must be available.

b) Clean the oil separator (light liquid separator and sludge trap) and fill it to overflowing with water.

c) Install VISY-Command Web or alternatively VISY-Command with a SECON client.

d) Install VISY-Stick Oil Separator (mechanically). For installation of the measuring sensor, the oil reservoir of the oil separator must be within the measuring range of the VISY-Stick Oil Separator.

Note: The dimensions $a_3 = 240$ mm and $a_4 = 100$ mm must not be undercut! See also

📖 User guide for determining the length and positioning of the probes for an oil separator. (See figure below)

e) Install VISY-Sludge (mechanically).

The measuring sensor must be installed that it
- is positioned below the maximum oil layer thickness and
- at least 200 mm above the maximum sludge thickness, and
- has a maximum distance of 1400 mm to the bottom of the sludge trap.

f) Electrically connect VISY-Stick Oil separator and VISY-Sludge with the FAFNIR connection cable and, if necessary, an extension to VISY-Command (Web).
The oil separator is Ex zone. Observe safety regulations!

\[ O_{\text{max}} = \text{maximum oil layer thickness} \]
\[ a_1 = \text{separator depth} \]
\[ a_3 = \text{safety distance} = 240 \text{ mm} \]
\[ 1 = \text{VISY-Stick Oil Separator} \]
\[ 3 = \text{VISY-Sludge} \]
\[ 5 = \text{coalescence filter} \]
\[ 7 = \text{mud layer} \]

\[ S_{\text{max}} = \text{maximum sludge layer thickness} \]
\[ a_2 = \text{distance (road - overflow)} \]
\[ a_4 = \text{safety distance to the ground} = 100 \text{ mm} \]
\[ 2 = \text{interface float} \]
\[ 2.1 = \text{product float} \]
\[ 4 = \text{cable connector (2-1)} \]
\[ 6 = \text{oil layer} \]
\[ 8 = \text{mounting bracket} \]
2 Basic settings in VISY-Setup

To configure the VI-4 board in VISY-Command (Web), you must use VISY-Setup software version 4.7.1.255 or higher.

The VI-4 board must be equipped with firmware version 4.2.3.255 or higher.

a) Adjust the "Data protocol for communication with VISY-Stick" to "Multi Probe 4800 bps":
Menu:
Central unit [F2] ➔ Advanced settings ➔ Data Protocol for VISY-Stick communication ➔ Select and accept "Multi Probe 4800 bps"

b) Enter the device numbers of VISY-Stick Oil separator / VISY-Sludge:
Menu:
Select Probes [F4] ➔ select the “Probe Terminal No.” of the sensor ➔ select the measuring sensor (VISY-Stick or VISY-Sludge) ➔ enter the "Serial number of the probe".

c) Select Type of product for the oil separator:
Menu:
Probes [F4] ➔ Type of Product:
- Select "light fluid"

d) Enter the Product Name:
Menu:
Probes [F4] ➔ Product name: Enter Oil separator # (# = number of the oil separator)

f) Read and note the Product Level (float position) of VISY-Stick Oil Separator and the Distance of the VISY-Sludge probe to the bottom:
Menu:
Select Current Values [F1] ➔ Select Probe Terminal No." ➔ Select the measuring sensor (VISY-Stick / VISY-Sludge)
- Product Level (for VISY-Stick) and
- Distance (for VISY-Sludge)
are to be noted down
3 Configuration

⚠️ For configuration the internet browser "Mozilla Firefox" is required.

⚠️ The router must be set to Dynamic Host Configuration Protocol (DHCP)!

⚠️ The SECON software version 2.3.19.05 or higher must be installed

3.1 Network connection between SECON client and laptop

a) Connect your notebook via network cable to the router to which the SECON Client/ VISY-Command Web is connected.

b) To access the configuration menu of the SECON client, enter:
   **User:** admin
   **Password:** vap22765

c) Change **language** to xxx:
   Configuration - Settings - Language ➔ Select language (English)
d) Determine the IP address of the laptop
   • In the Run dialog box (Windows key + R), type “cmd” and press ENTER
   • In the command line window that opens, enter the command “ipconfig” and press ENTER – the IP address of the laptop is displayed:

   ![IP address display]

   e) Enter the IP address of the laptop in SECON client:
      Menu: Configuration – Settings – Via browser
      Enter the last digits after the point of the Laptop IPv4 address in the field "Laptops / PCs IP address" of the SECON client (in this example 52, see picture above):

   ![SECON client input]

   f) Press the "Start" button

g) Following is a confirmation with the IP addresses that an https connection to the laptop has been established (see the following figure).

   ![Confirmation with IP addresses]
3.2 Configuration of the SECON client with the laptop

a) Start the internet browser "Mozilla Firefox" on your laptop.

b) In the address bar of the browser, enter the IP address of SECON client.
   (in this example it is the address https://192.40.50.146).

c) In the browser the following window opens.
   Enter your user name and password:
   **User name**: admin  
   **Password**: Fafnir22765Altona
   and confirm with OK

d) The configuration wizard starts. Press the "Next" button
e) Select options "Station data" and "Oil Separator"

Press the "NEXT" button

f) Enter the station data:

```
g) Determination of geographic coordinates (latitude and longitude, optional):
1. Open the internet browser
2. Start Google Maps
3. Right click on the location of the station with the mouse
4. In the opened context menu select "What is here?"
5. The coordinates are displayed (latitude / longitude)
6. Enter the geographical coordinates in the according fields
7. Press the "NEXT" button
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h) Configuration of the oil separators and the evaluation

The following window is divided into three sections:
1. INFORMATION: Detected probes (sludge probe / tank probe)
2. Common settings for all oil separators
3. Settings for individual oil separators

1. INFORMATION: Detected probes

The measured values of the Sludge Probe »VISY-Sludge« and the Tank Probe »VISY-Stick« are displayed here.

![Image of detected probes]

2. Common settings for all oil separators

"Logging" area:
The settings in this area should remain unchanged.
The checkbox "Activation" is already activated by default.
"Options" area:
- Time-out maintenance after: 8 hours (recommendation)
- Day of monthly inspection: 0 (recommendation)
- Alarm repeat »Light fluid too long constant« after: 1 or 2 day (s)
  (recommendation)
3. **Settings for individual oil separators**

"Oil separator“ area:

- **Number**: freely selectable; e.g. 1 for the first oil separator ...
- **Name**: choose a significant name, e.g.: City (HH); Station Number: 54; Number of the oil separator: 12345678
  
  The name would then be, for example: **HH-54-12345678**

<table>
<thead>
<tr>
<th>Idx.</th>
<th>Oil Sepatator</th>
<th>Settings for individual Oil Separators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>HH-54-12345678</td>
</tr>
</tbody>
</table>

Section “**Sludge probe »VISY-Sludge«“：“:

- **Probe assigned to this oil separator**: Activate the checkbox by a check mark
- **Probe No.**: Probe terminal to which VISY-Sludge is connected.
- **Distance to oil separator bottom**: See point 2f [measured value VISY-Sludge]
- **Alarm threshold of the mud layer**: 50% of the maximum permitted mud layer

- Sludge Probe » VISY-Sludge «
  - Assign probe to this Oil Sep. [ ]
  - Probe No. 2
  - Distance to Oil sep. bottom 980 mm
  - Alarm threshold sludge layer 216 mm
“Tank probe »VISY-Stick«” area:
- **Assign probe to this oil separator**: Activate the checkbox by a check mark
- **Probe No.**: Probe terminal to which VISY-Stick Oil Separator is connected.
- **Reference filling height**: Corresponds to the reference height: See point 2f [measured value VISY-Stick]
- **Max. light liquid volume**: enter here the maximum oil storage volume of the oil separator in **litres** - see also nameplate
- **Max. light liquid level**: enter here the maximum oil layer thickness that can be absorbed by the oil separator - see also nameplate
- **»Light liquid layer too thick« Alarm threshold**: Enter 80% of the maximum permitted oil layer thickness (see nameplate). It is necessary to check if the average volume can be taken up by the remaining 20%. Otherwise, the alarm threshold must be set to e.g. 70%.
The average volume is calculated from the pump capacity of the dispenser with the highest flow rate per min. x 3.
Example 1: The highest pump capacity of the dispenser are 40 litres/minute => (40 L/min) x 3 min. = 120 litres
Example 2: The highest pump capacity of the dispenser are 80 litres/minute => (80 L/min) x 3 min. = 240 litres
- **»High level, retention« Alarm threshold**: enter here a value between 120 and 200 mm (measured from the reference height)
“Alarm »light liquid too long constant«” area:
- Recognition time span: 25 days (recommendation)
- Minimum level change: 5 mm (recommendation)

If another oil separator is to be added, then press the "Add new Oil Separator" button:

If no further oil separator is to be added, then press the "NEXT" button:

END of configuration