Technical Documentation



COMS

COMS with SECON, Installation Quick Guide for 2-float probes

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1 Installation of VISY-Stick Oil and VISY-Sludge

The oil separator is Ex zone. Observe safety regulations!

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During the six-monthly inspection of the oil separator, the VISY-Stick Oil probes with two floats and the VISY-Sludge must be cleaned of dirt and adhesions with a damp cloth.

(P

The COMS system fulfils the functions of an automatic warning system for separators of light liquids. **Some** 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 (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. <u>Note:</u> The dimensions $a_3 = 240$ mm and $a_4 = 100$ mm must not be undercut!

See also

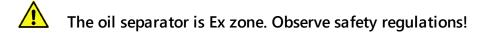
User guide for determining the length and positioning of the probes for an oil separator. (See next figure)

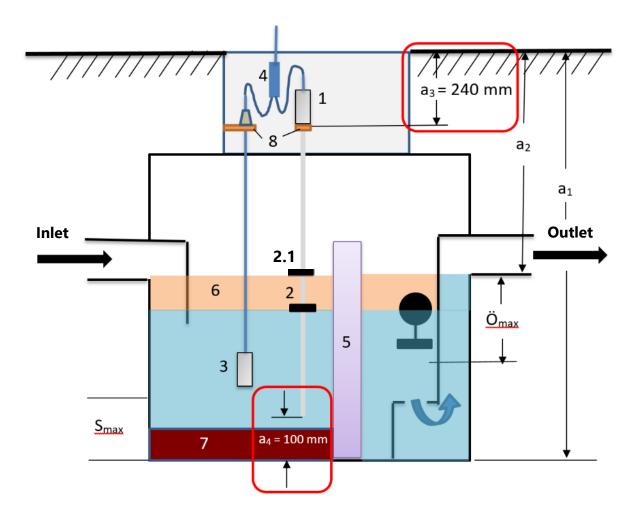
e) Install VISY-Sludge (mechanically).

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 and VISY-Sludge with the FAFNIR connection cable and, if necessary, an extension to VISY-Command (Web).







- 1 = VISY-Stick Oil
- 2 = Interface float
- 2.1 = Product float
- 3 = VISY-Sludge
- 4 = Cable connector (2-1)
- 5 = Coalescence filter
- 6 = Oil layer
- 7 = Mud layer
- 8 = Mounting bracket

- O_{max} = Maximum oil layer thickness
- S_{max} = Maximum sludge layer thickness
- a_1 = Separator depth
- a₂ = Distance (road overflow)
- a_3 = Safety distance = 240 mm
- a_4 = Safety distance to the ground = 100 mm



2 Basic settings in VISY-Setup

To configure the VI-4 board in VISY-Command (Web), you must use **VISY-Setup** software in the **version 4.9.3.255** or higher. The recent version you will find on our homepage <u>https://www.fafnir.com</u>

The VI-4 board must be equipped with firmware of the version 4.2.9.255 or higher.

To update the firmware please contact our Technical Support department with the telephone number +49 40 398207-0.

Adjust the "*Data protocol* for communication with VISY-Stick" to "Multi Probe 4800 bps":
 <u>Menu</u>:

Central unit [F2] \rightarrow Advanced settings \rightarrow Data Protocol for VISY-Stick communication \rightarrow Select and accept "Multi Probe 4800 bps"

b) Enter the *device numbers* of VISY-Stick Oil / VISY-Sludge:

Menu:

Select Probes [F4] \rightarrow select the "Probe Terminal No." of the sensor \rightarrow select the measuring sensor (VISY-Stick or VISY-Sludge) \rightarrow enter the "**Serial number of the probe**".

- c) Select *Type of product* for the oil separator: <u>Menu:</u> Probes [F4] → Type of Product: - Select "light fluid"
- d) Enter the *Product Name*:
 Menu:
 Probes [F4] → Product name: Enter Oil separator TF¹⁾
 - Oil separator TF (=tank field) or
 Oil separator WS (=washing street)



3 Configuration



For configuration we recommend the internet browser "Mozilla Firefox".



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



The SECON software must be in version 2.4.21.03 or higher.

3.1 Network connection between SECON-Client and notebook

- a) Connect your notebook via network cable to the router which is connected with SECON-Client / VISY-Command Web.
- b) To access the configuration menu of the SECON-Client, please enter: User: admin Password: vap22765
- c) Change the *language*:
 Configuration → Settings → Language and select your language (e. g. <u>English</u>)

VAPORIX LEVEL Envi	ronmental History	Configuration	
	Truck Drv Dsp	Information	
Tank 2	Language	Settings	T <u>ank 4</u>
S 05 (E10)	Services	Tools	S 05
Super 95 (E10) 5182.7 L	Alarm Volume	L .	Super 95 17336.7 L
3883.2 kg	Network	kg	12960.7 kg
	VDM		





3.2 Further configuration with the notebook

• Open the WEB GUI:

Configuration \rightarrow Info \rightarrow WEB GUI

VAPORIX LEVEL Umw	velt-Sensorik Historie	Konfiguration	
	Tankstelle	Info	
Tank_1	WEB GUI	Einstellungen	T <u>ank</u> 3
	WebDAV	Tools	
Normal 0.0 L	Software-Version		Diesel 0.0 L
0.0 kg	Netz IP-Adresse		0.0 L
	Route-Tabelle		
Tank 4	VPN		Tank 6

Following window opens:

VAPORIX LEVEL Un	welt-Sensorik Historie Konfiguration			
Konfiguration 🎽 Info 🎽 WEB GUI				
User GUI				
Adresse https://10.28.199.213				
Benutzer	fafnir			
Passwort	fafnir22766			
Manuals	MENU: Info >> Manuals			
Documents	MENU: Info > Documents			
	Admin GUI			
Adresse https://10.28.199.213/admin				
Benutzer	admin			
Passwort	*****			

• For configuration with the Internet browser (FireFox), copy the Admin GUI address from the Admin GUI field and enter it in the browser's address bar, in this example: https://10.28.199.213/admin



• After confirming the Admin GUI address in the internet browser, a new window opens for logging in with username and password:

User: admin

Password: Fafnir22765Altona

⊕ 10.28.199.217				
Diese Website fordert Sie auf, sich anzumelden.				
Benutzername				
admin				
Passwort				
•••••				
Anmelden Abbrechen				

- With the button "Anmelden" you will be logged in.
- The configuration wizard starts. Press the "Next" button





• Select options "Station data" and "Oil Separator"

Konfiguration	Ansicht		
		Konfiguration » Wizard	
		Step 1 of 3 » Select Steps «	
	Please select option(s)	Configuration Step(s) ✓ Station data WEB-Access to the SECON-GUI Time Zone VAPORIX Drucksensor VPS-V ✓ Ólabscheider Massemmenten Zuordnung (Tank → Produkt Qualität / Form) Reconciliation, Zuordnung (Zapfpunkt → Sorte / Tank) Tanktabelle, Autocalibration	
B	ACK	Reset NEXT	

Press the "NEXT" button

• Enter the station data:

Configuration » Wizard			
S	tep 2 of 3 » Station data «		
	Station / Object		
Internal No.	12345		
Name Street	Petrol Station		
Postal Code	Street No. 1 D-12345		
City	Hamburg		
Country	Germany		
	Geographic Coordinates		
Latitude Longitude	53,5686 ÷ 10,0386 ÷		
BACK	Reset	NEXT	

- 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



• 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.

	INFORMATION: Detekt	tierte Sonden [2019-05-2	13:33:15]		
Schlammsonde » VIS	Y-Sludge «	Tanksonde » \	/ISY-Stick «		
	Managements A surfaces 1		Benderick Manual Consider Ma		Lev.[mm]
Sonde Nr.	Messwerte Lev.[mm]	Brodukt Name	/ Conde Mr	Messwerte	read unit
Sonde Nr. 6	Messwerte Lev.[mm] 900	.0 Produkt-Name	/ Sonde Nr.	Produkt	Water

2. Common settings for all oil separators

"Logging" area:

The settings in this area <u>should remain unchanged</u>. 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)

Gemeinsame Einstellungen für alle Ölabscheider			
Optionen Aktivierung Intervall Autom. Beenden der Wartung nach 8 Std. Start Zeit 00:00 Alarmwiederholung »Leichtflüss. zu lange konstant« nach 2 Tag(e)			



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

ldx.		Settings for individual Oil Separators
	Oil Sep Number 1	Identifier HH-54-12345678

"Sludge probe »VISY-Sludge«" area:

- 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: measured value VISY-Sludge
- Alarm threshold of the mud layer: 50% of the maximum permitted mud layer





"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 is connected.
- Reference filling height: Corresponds to the reference height: 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)

<u> </u>	Alarm » Light fluid too long constant «		
	Recognition time span	25	Day(s)
	Min. Level change	5	mm

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

Add new Oil Separator

ldx.	Settings for in	ndividual Oil Separators
	Oil Sepatator Number 1 Identifier HH-54-123	345678
1	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 « Assign probe to this Oil Sep. Probe No. Max. filling level 494 mm Max. filling level 494 mm Max. Light fluid Volume 300 L Level at max. Light fluid whigh level, retention« Alarm threshold Maxmm Alarm » Light fluid too long constant «
		Recognition time span 25 Day(s) Min. Level change 5 mm

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



END of configuration



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FAFNIR GmbH Schnackenburgallee 149 c 22525 Hamburg, Germany T: +49 / 40 / 39 82 07-0 F: +49 / 40 / 390 63 39 E-mail: info@fafnir.com Web: www.fafnir.com