



VISY-X System for Shell Petrol Stations

HSSE

Installation guide

**Art. No.: 350016
Release: 11/2015**

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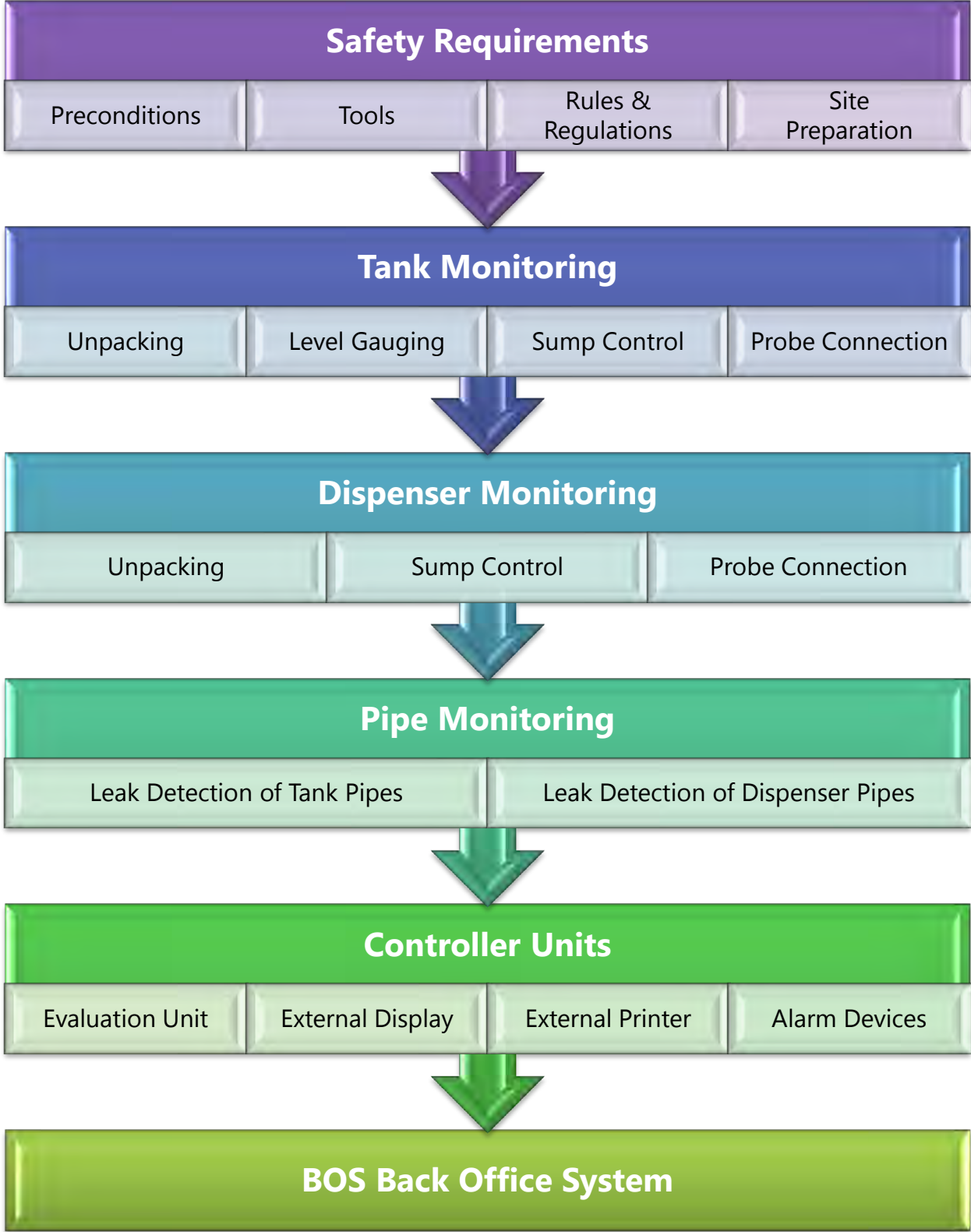


1.1 General Description

The VISY-X System is designed for petrol station monitoring.

It consists of probes for level gauging and environmental pollution control.





Preconditions



Product training
Regularly



Safety helmet



Safety vest



Safety shoes (S3)
Anti-static, oil/petrol-resistant



Gloves
Cut-resistant





EX-approved tools



Check tools for malfunctions

Rules and Regulations



Register with the operator



Observe installation instructions



Observe local safety and accident prevention regulations

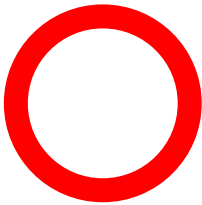


Entry in the Safety Book



Fire, ignition sources, smoking prohibited





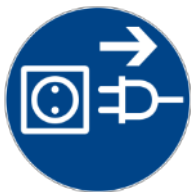
Security zones (red, green, emergency)



Check delivery



Protect installation site



Disconnect power supply and secure against reactivation



2 persons at manhole of depth > 1.25m



Drain and degas manhole



Establish potential equalization



Check wiring and cable connections





Product training Regularly





Safety helmet



Safety vest/clothes



Safety shoes (S3)

Anti-static,
oil/petrol-resistant



Gloves

Cut-resistant



Register with the operator





Observe installation instructions

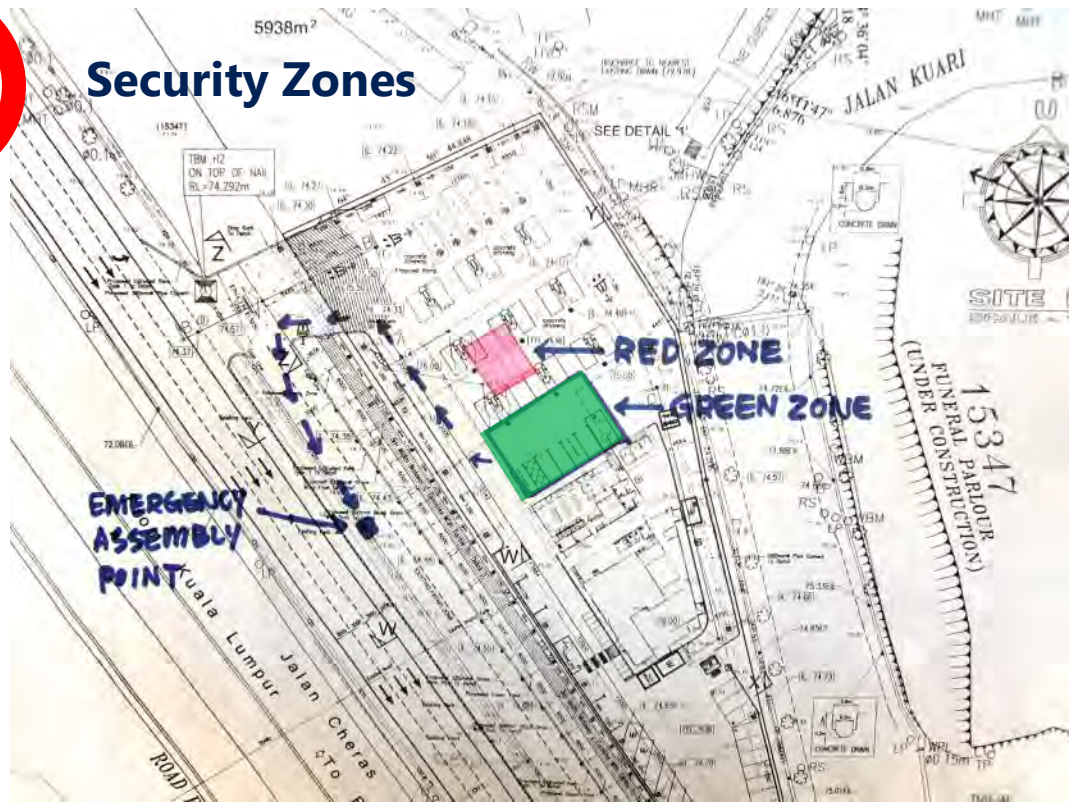
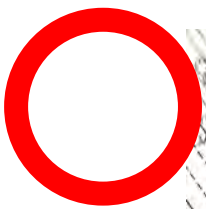


Observe local safety and accident prevention regulations



Entry in the Safety Book







EX-approved tools





Check delivery



Controller



Probes



Environmental sensors



Fire, ignition sources, smoking prohibited



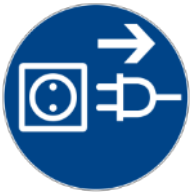
Protect installation site





Protect installation site





Disconnect power supply and secure against reactivation



2 persons at manhole of depth > 1.25m





Drain and degas manhole



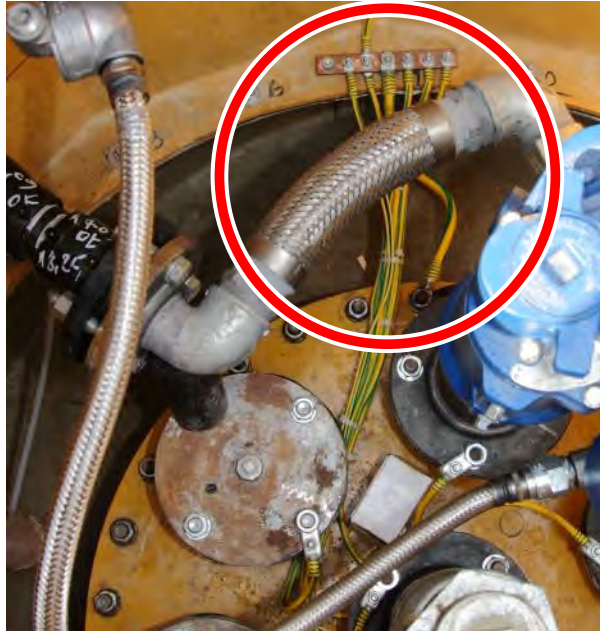


Drain and degas manhole





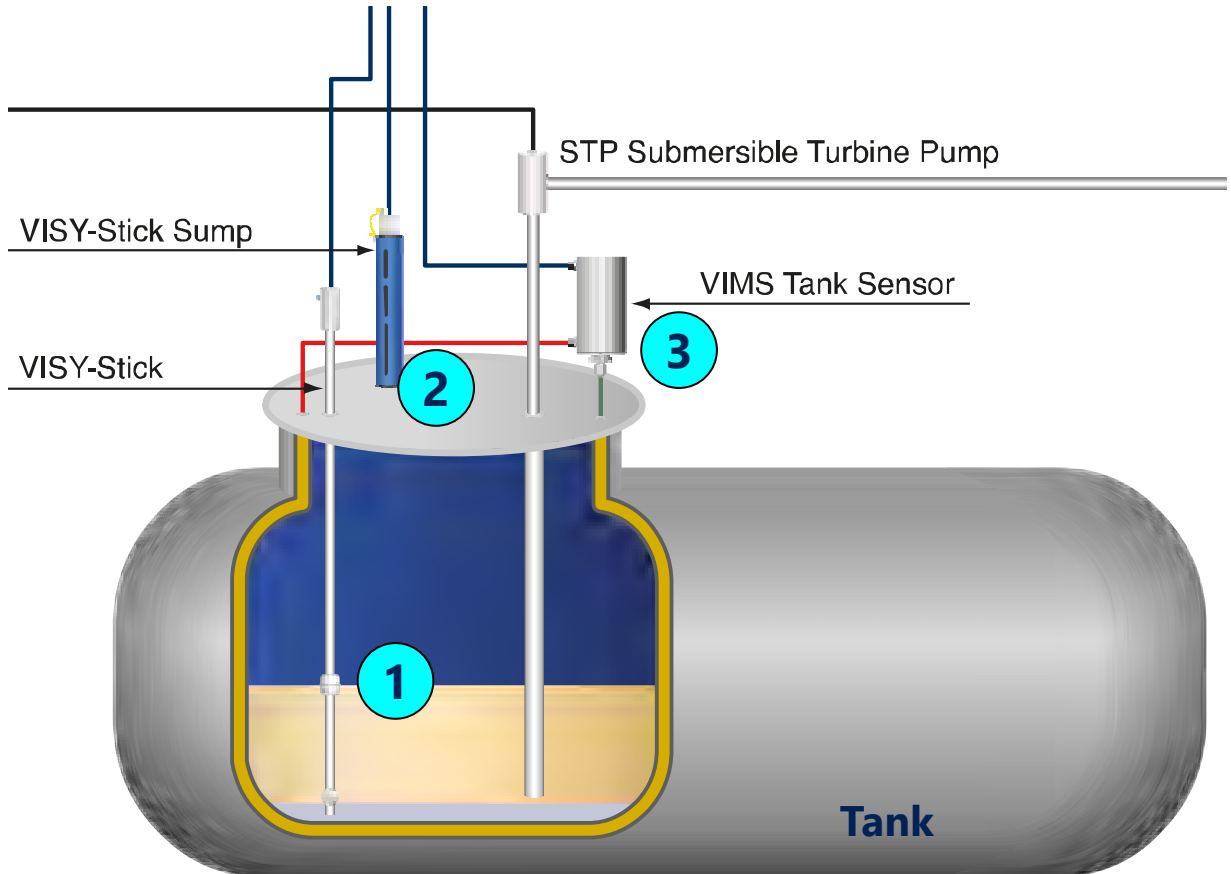
Establish potential equalization (PE)



Check wiring and cable connections

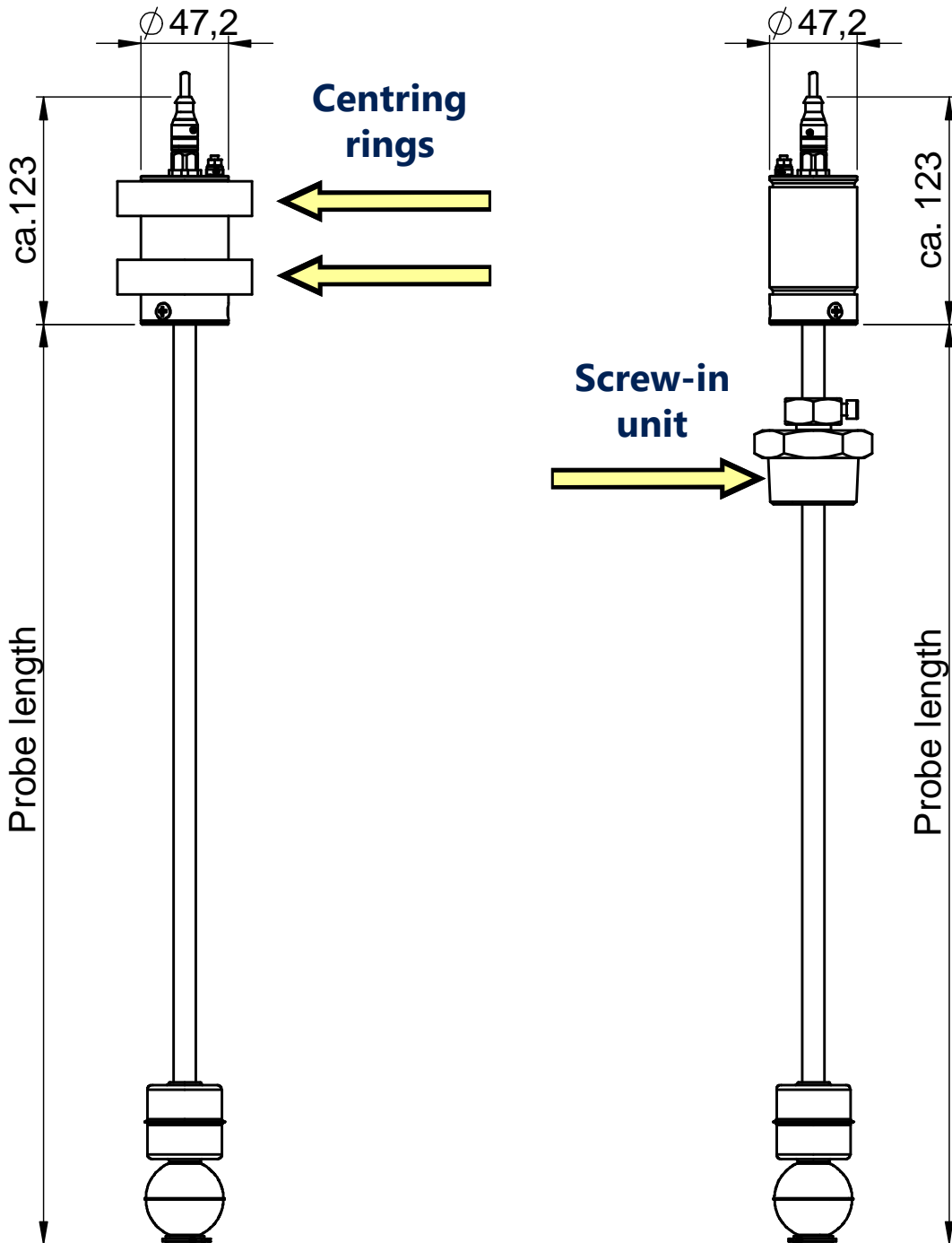


Connections to VISY-Command



- 1 Level gauging with "VISY-Stick"
- 2 Manhole monitoring with "VISY-Stick Sump Manhole"
- 3 Leak detection with "VIMS Tank"

Sample installation with VISY-Stick "screw-in" version !

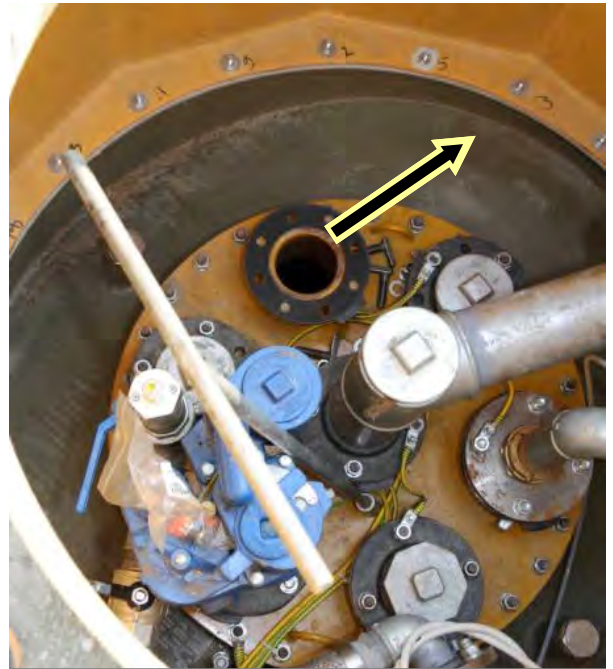


**VISY-Stick
(Riser version)**

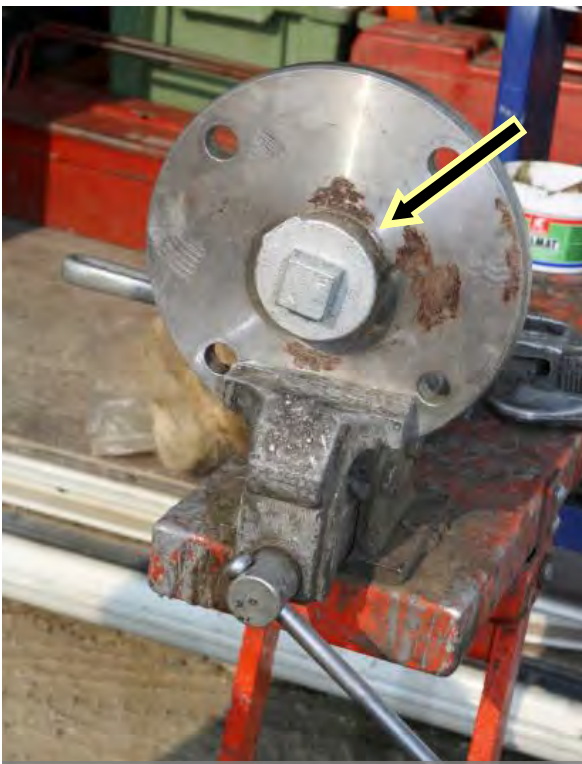
**VISY-Stick
(Screw-in version)**



Unscrew ...



and remove flange.



Unscrew ...



and remove blind plug.

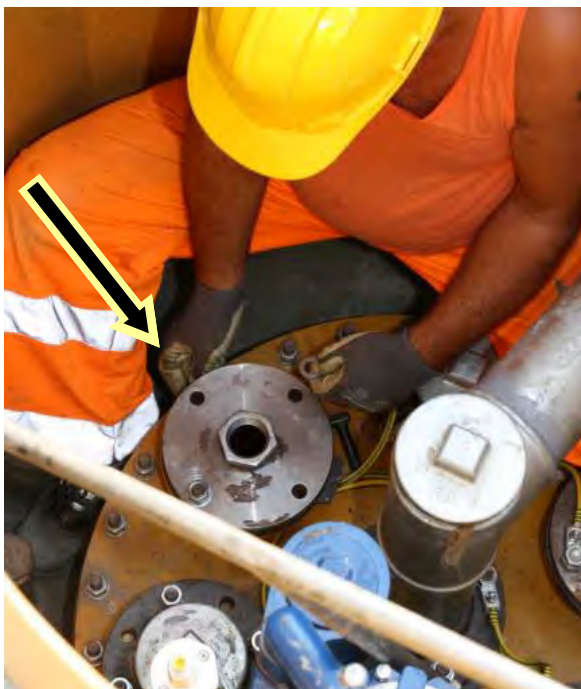
Seal the reducer thread



**Reducer 2" x 1½"
(optional)**



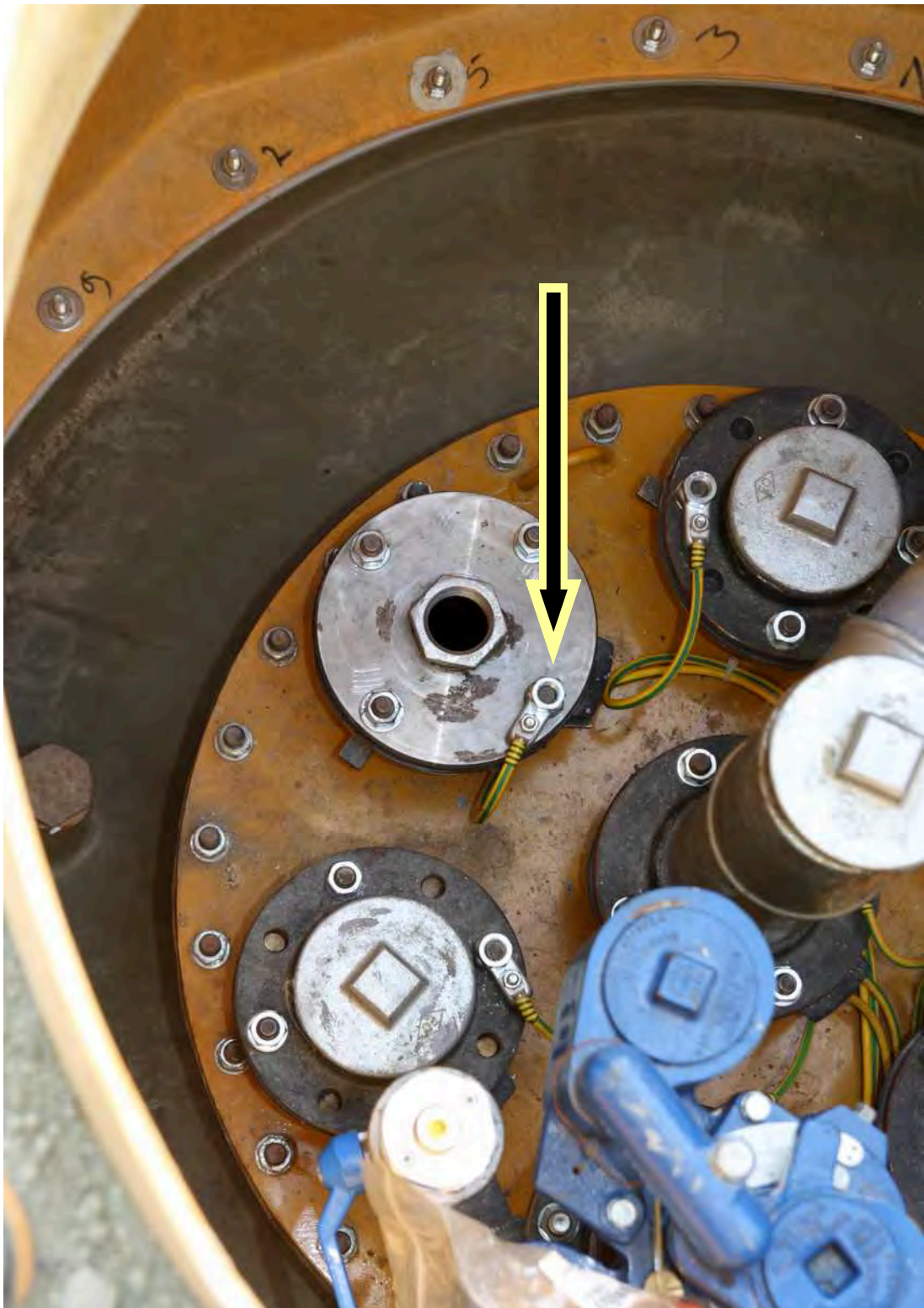
**Screw the reducer into
the flange**



Relocate the flange ...



and lock it.



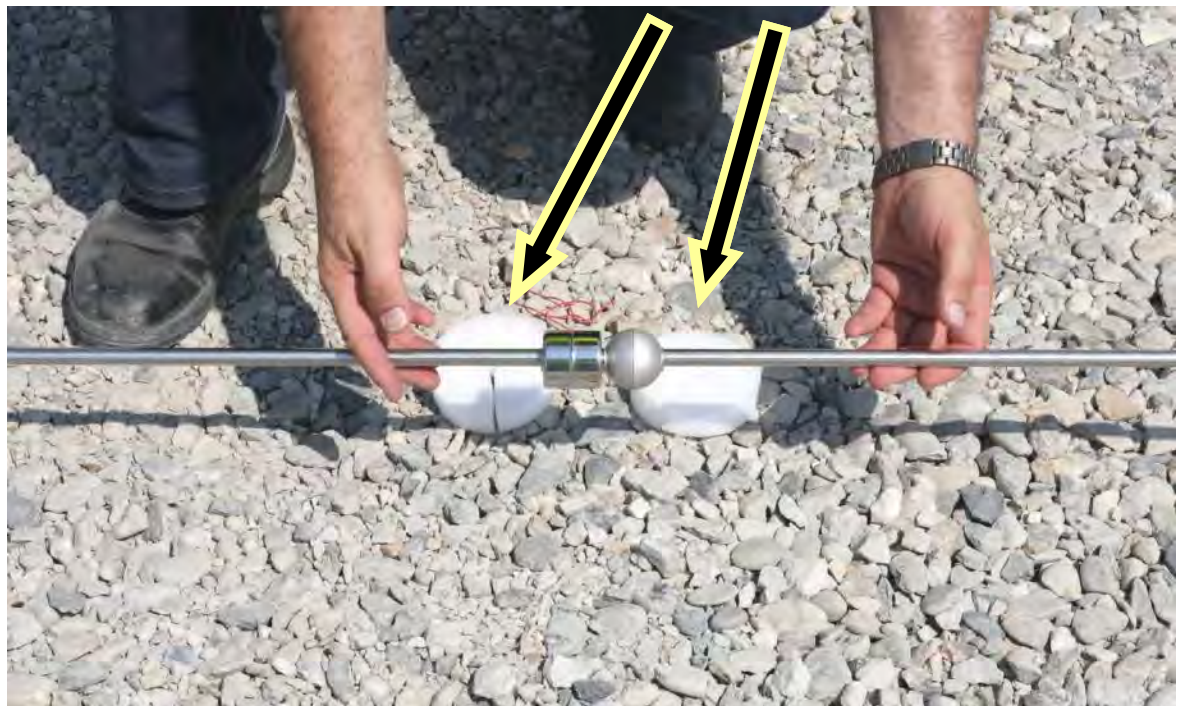
Connect PE cable (green/yellow)

Probe Unpacking



Pull out the probe





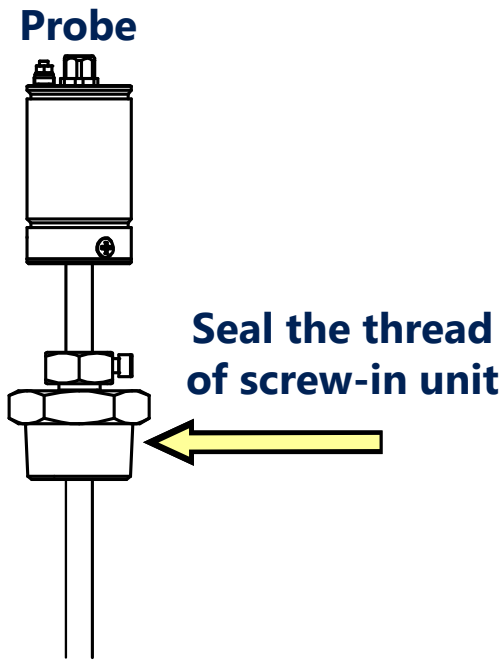




Attention: The probes must not be bended!



Attention: The probes must not be bended!



Roughen



Sealing strip



Sealing compound



Transport ...



... to the manhole.



**Fill in the FAFNIR ATG Details
(see annex)**

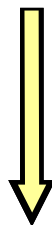
Tank details

Probe details

FAFNIR ATG Details

Terminal No. (VP-Board)	Tank No. / Dispenser No.	Tank Volume [l]	Tank Diameter [mm]	Type of Product	Offset (see Diagram)	VISY-Stick Ser. No.	VISY-Stick Sump Manhole Ser. No.	VISY-Stick Sump Dispenser Ser. No.	...
1	1	50000	2500	Diesel	10	28813	/	/	
2	2	25000	1600	V-Power Diesel	10	28814	/	/	
3	3	40000	2000	V-Power	10	28815	/	/	
4	4	50000	2500	Super	10	28812	/	/	
5	5	50000	2500	Diesel	10	28816	/	/	
6	6	50000	2500	Super	10	28811	/	/	
7	1/2	/	/	/	/	/	/	28472	
8	3/4	/	/	/	/	/	/	28471	
...									

Form attached to Annex

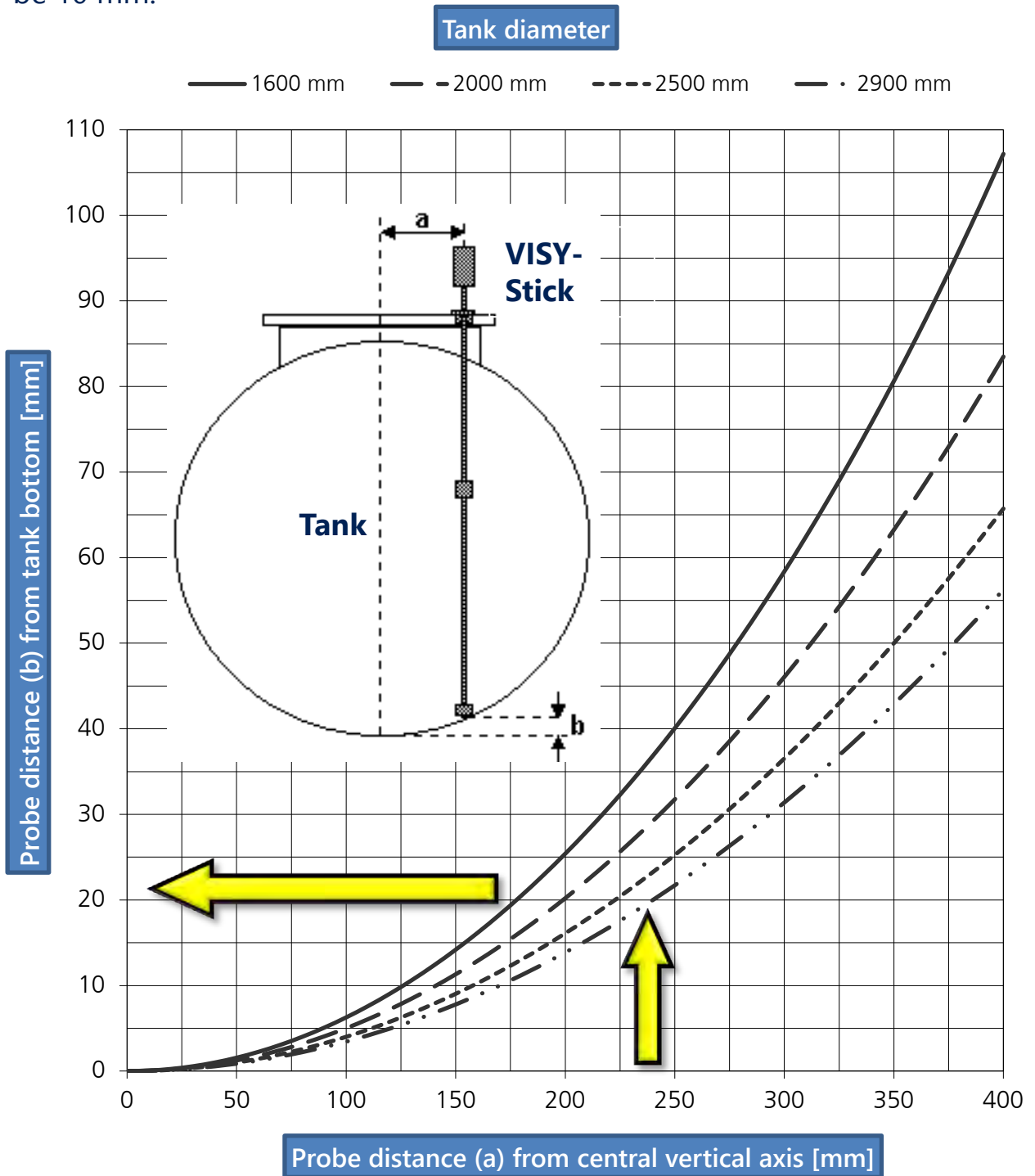


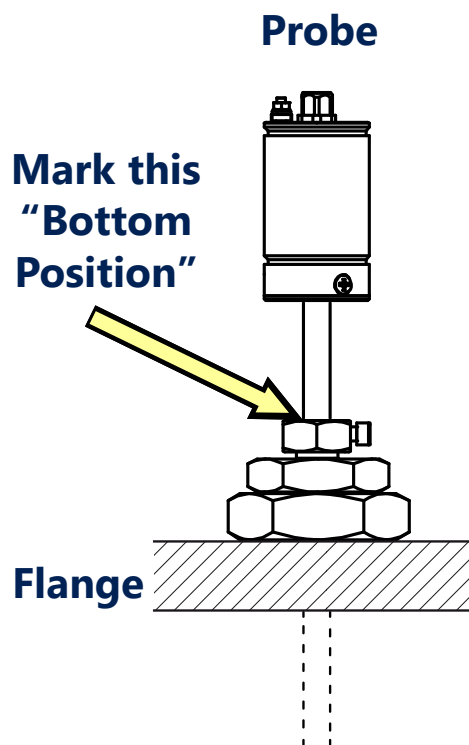
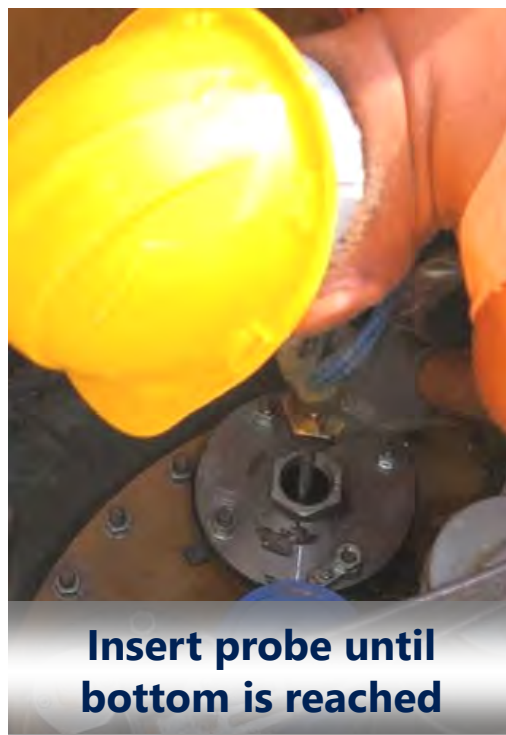
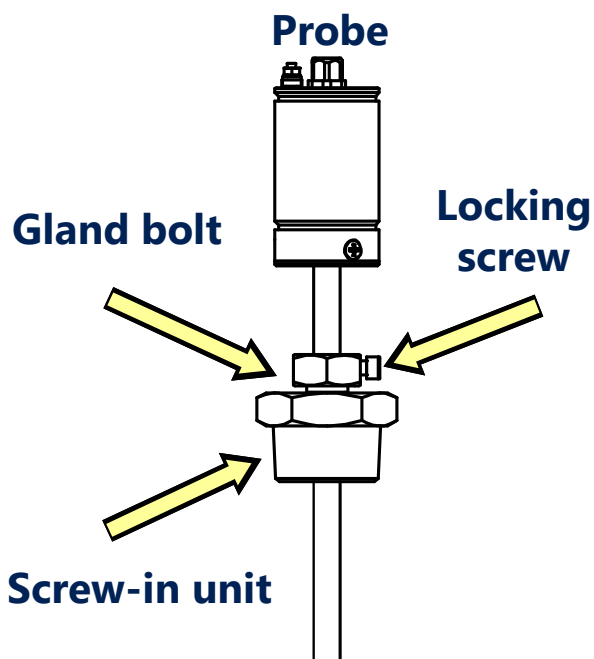
**Installation Offset
see next page!**



Offset = Vertical Distance (b) + Safety Distance

The "Vertical Distance (b)" can be read out from the drawing below. The "Safety Distance" is the mounting distance to the tank bottom and should be 10 mm.



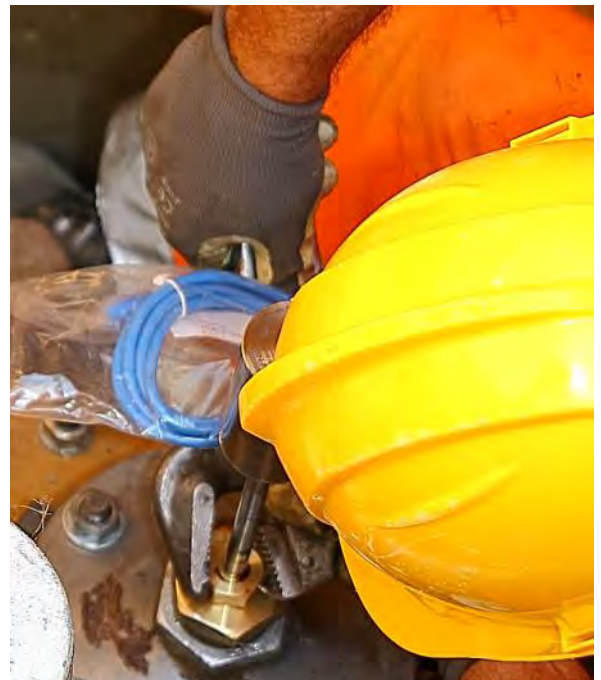
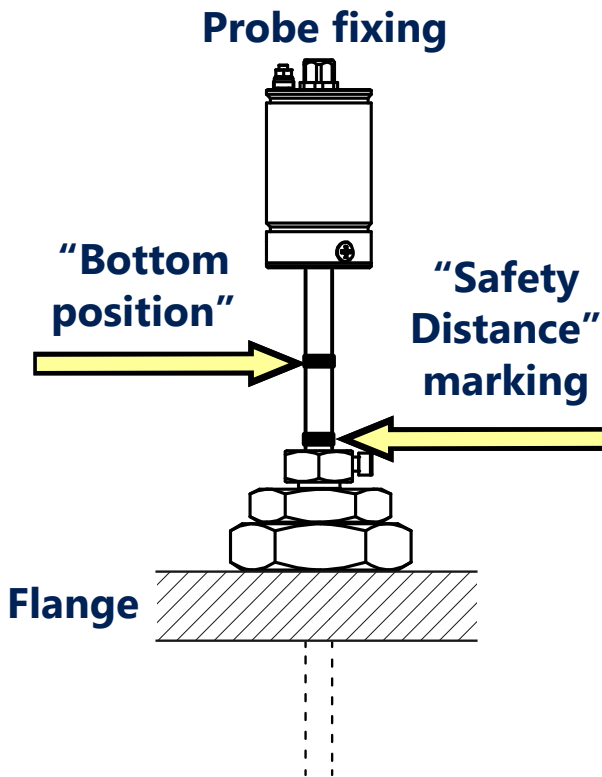




Mark the "Bottom Position" and pull out the probe



Mark the "Safety Distance" 10 mm below, press the probe down to this point



Tighten the gland bolt at this "Safety Distance"

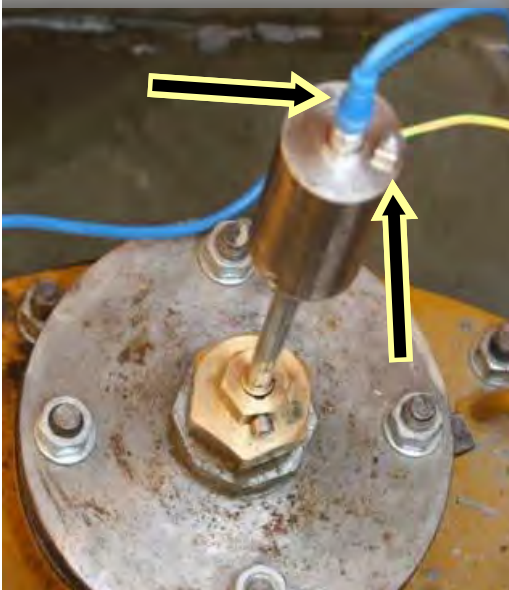


Fix the locking screw with hexagon socket key



Unscrew yellow cap

Connect the probe cable

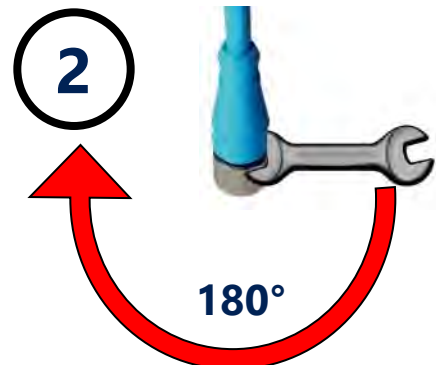


and the PE cable

Fix the plug



handtight

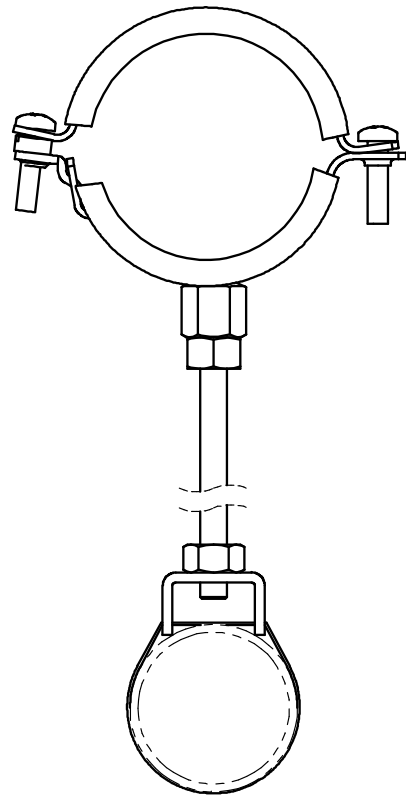
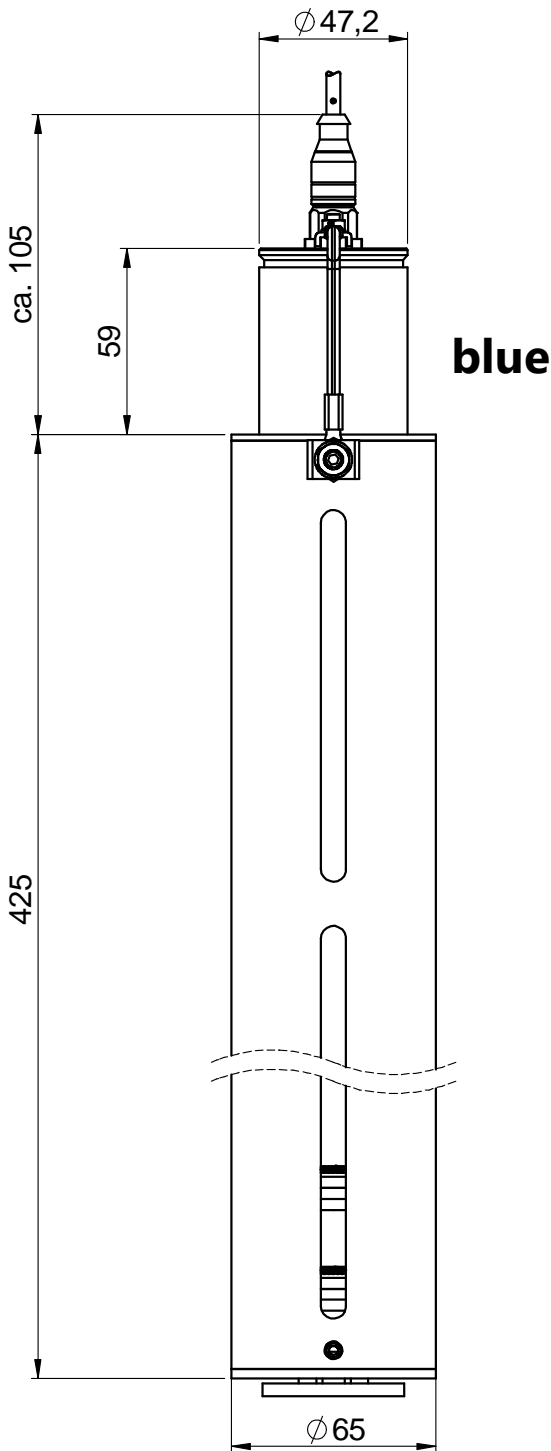


180°

Probe installation complete !







**Sump Installation-Kit
(optional)**

VISY-Stick Sump Manhole

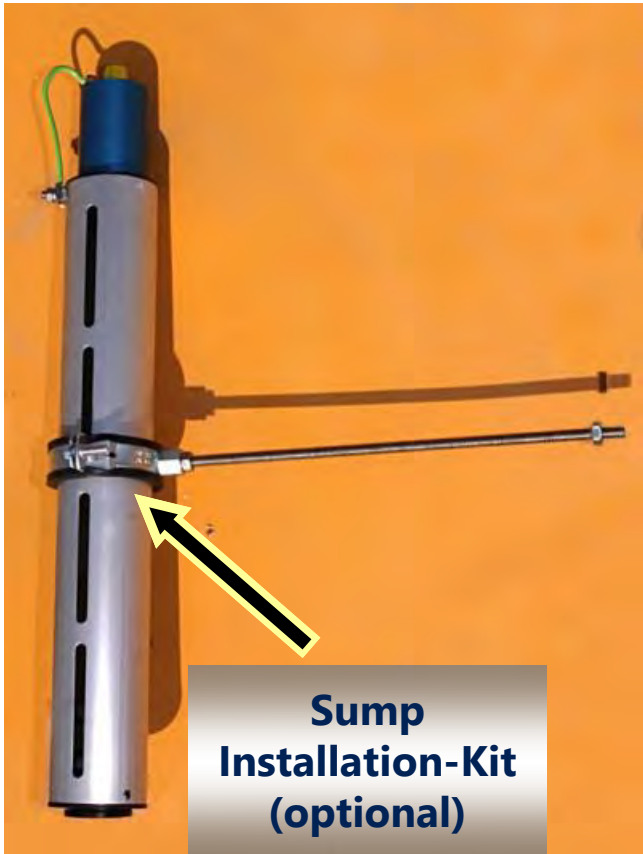




Remove shipping protection



PE cable connector



Sump Installation-Kit (optional)



Mounting example



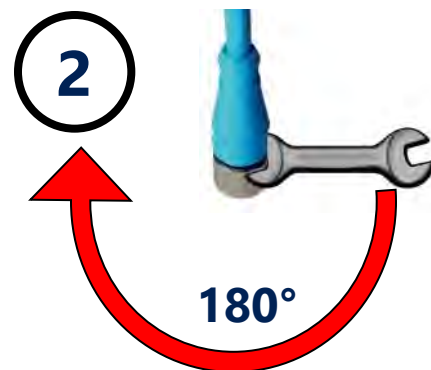
Mounting example with washer welding by installer



Fix bracket

Unscrew yellow cap and connect the plug

Fix the plug

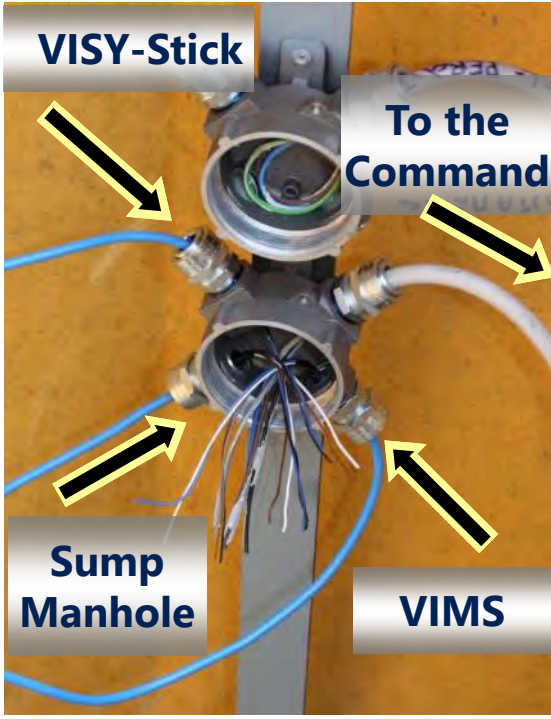
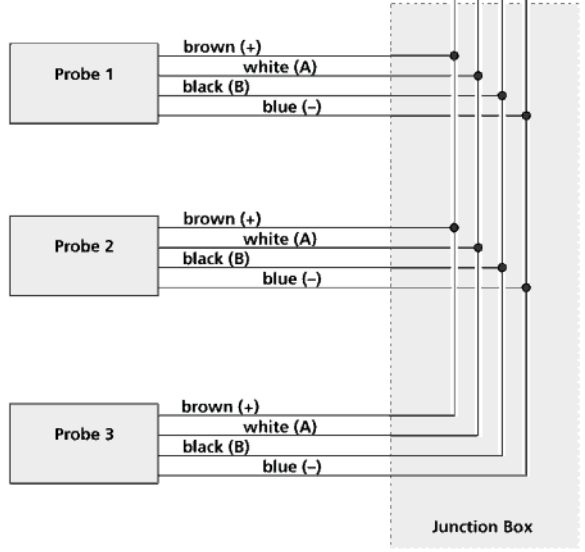
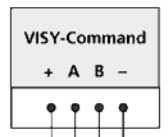


Probe installation complete !

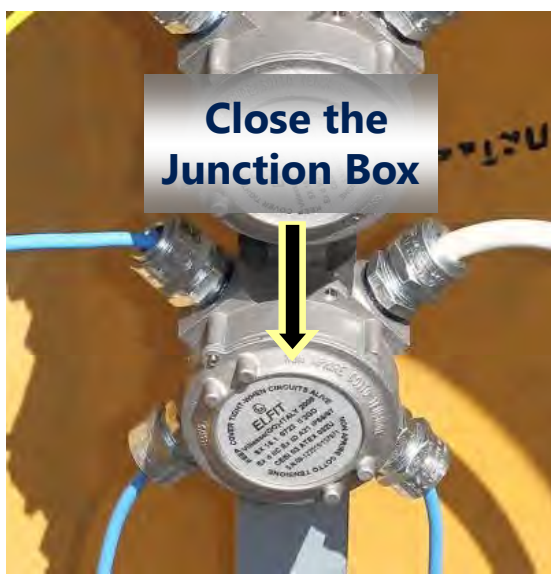
2.3 Probe Wiring (Junction Box)

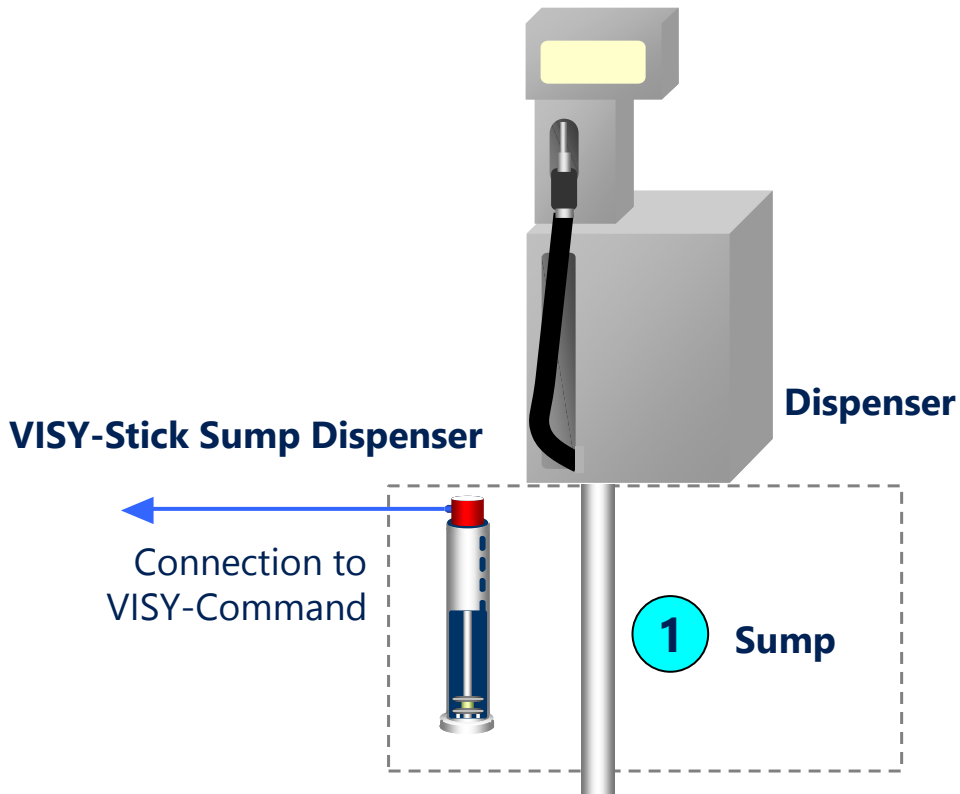


Up to three different types of VISY-X probes (e.g. VISY-Stick, VISY-Stick Sump, VIMS) can be connected to VISY-Command via one intrinsically safe cable.



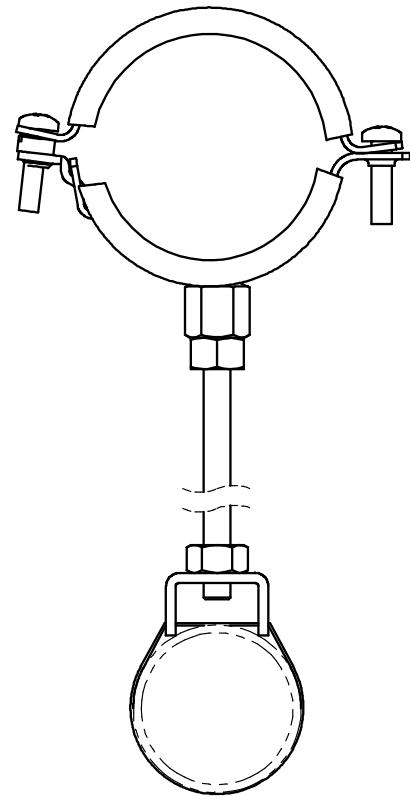
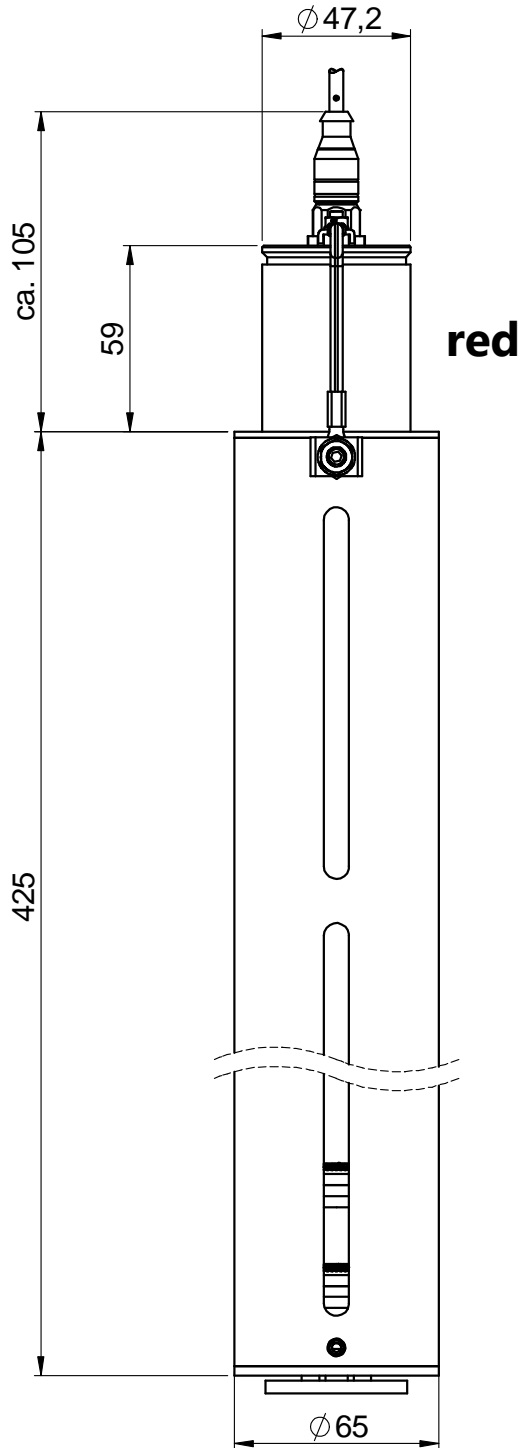
Probe wiring complete !





1 Sump monitoring under the dispenser with "VISY-Stick Sump Dispenser"

3.1 Sump Control (Sump Dispenser)



**Sump Installation-Kit
(optional)**

VISY-Stick Sump Dispenser





Pull out the probe

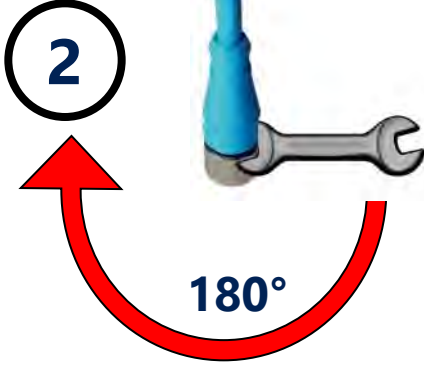


Remove shipping protection



Unscrew yellow cap and connect the plug

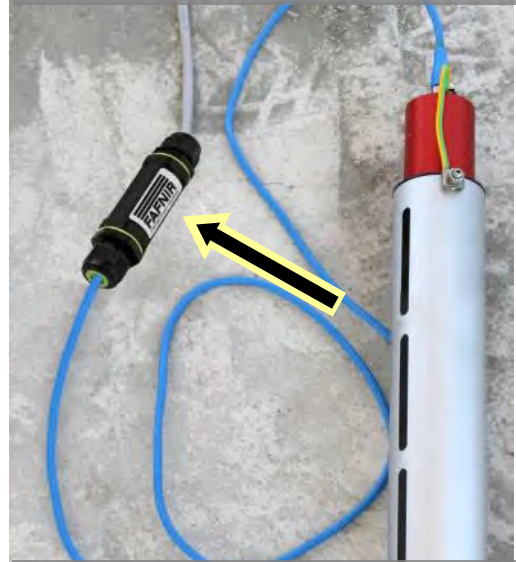
Fix the plug



Connect the wires using



FAFNIR Junction Tube



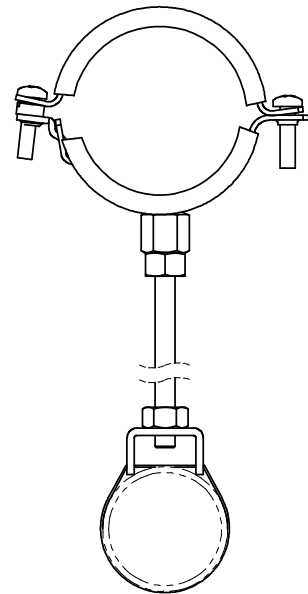
(optional)

Mounting example



Insert the probe into an existing open tube

Mounting example



Sump Installation-Kit (optional)

Probe installation complete !



4.1 Leak Detection of Tank Pipes (VIMS Tank)

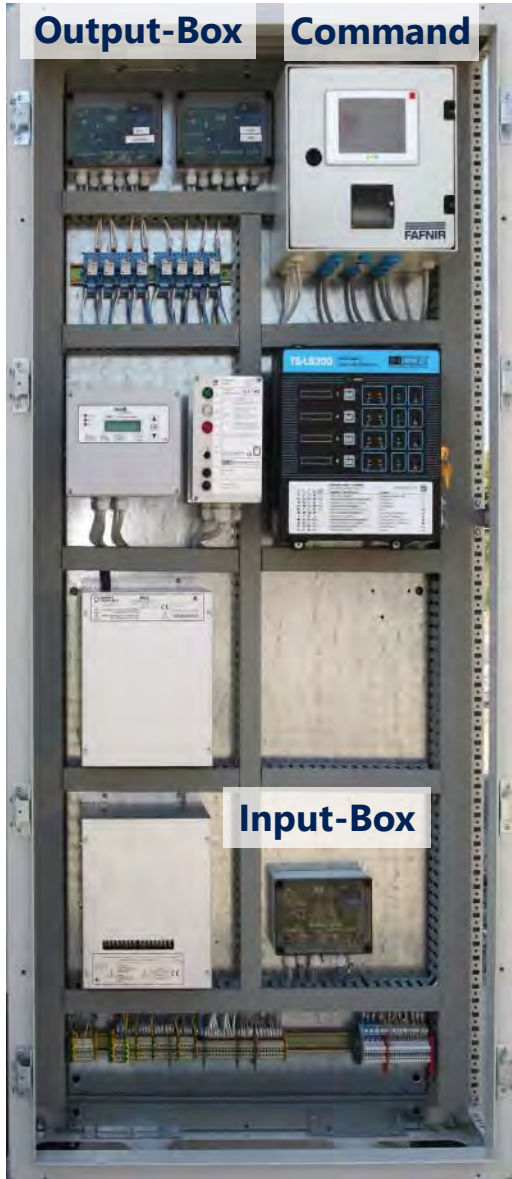
4.2 Leak Detection of Dispenser Pipes (VIMS Dispenser)

For installation instructions of the Leak Detection system "VIMS" please see the separate user guide.

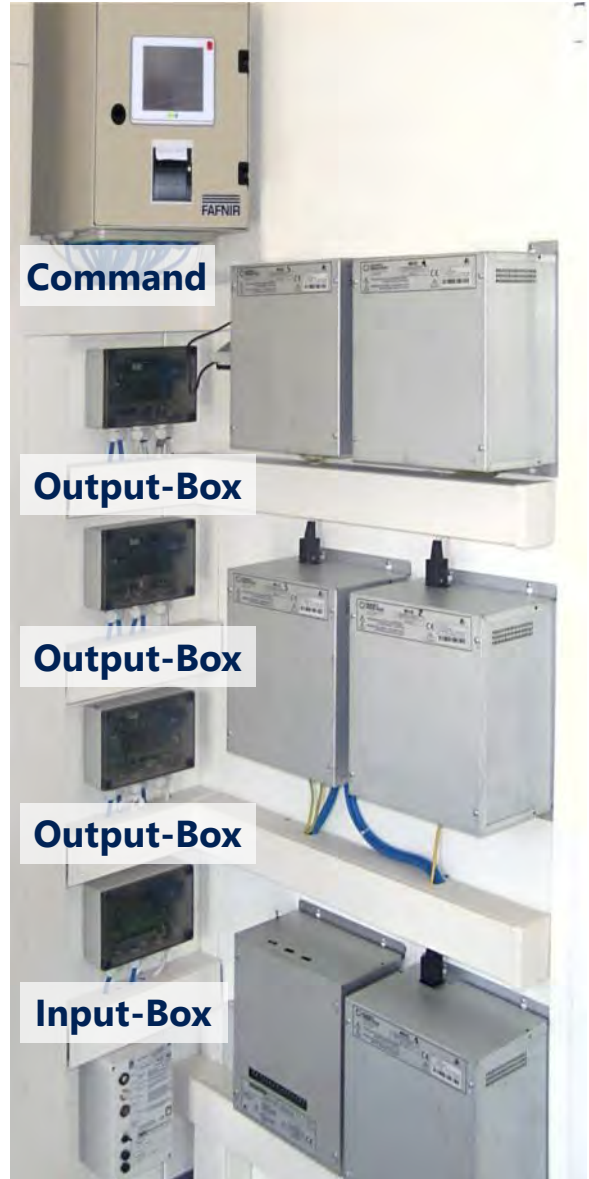


5 Controller Units

5.1 Mounting



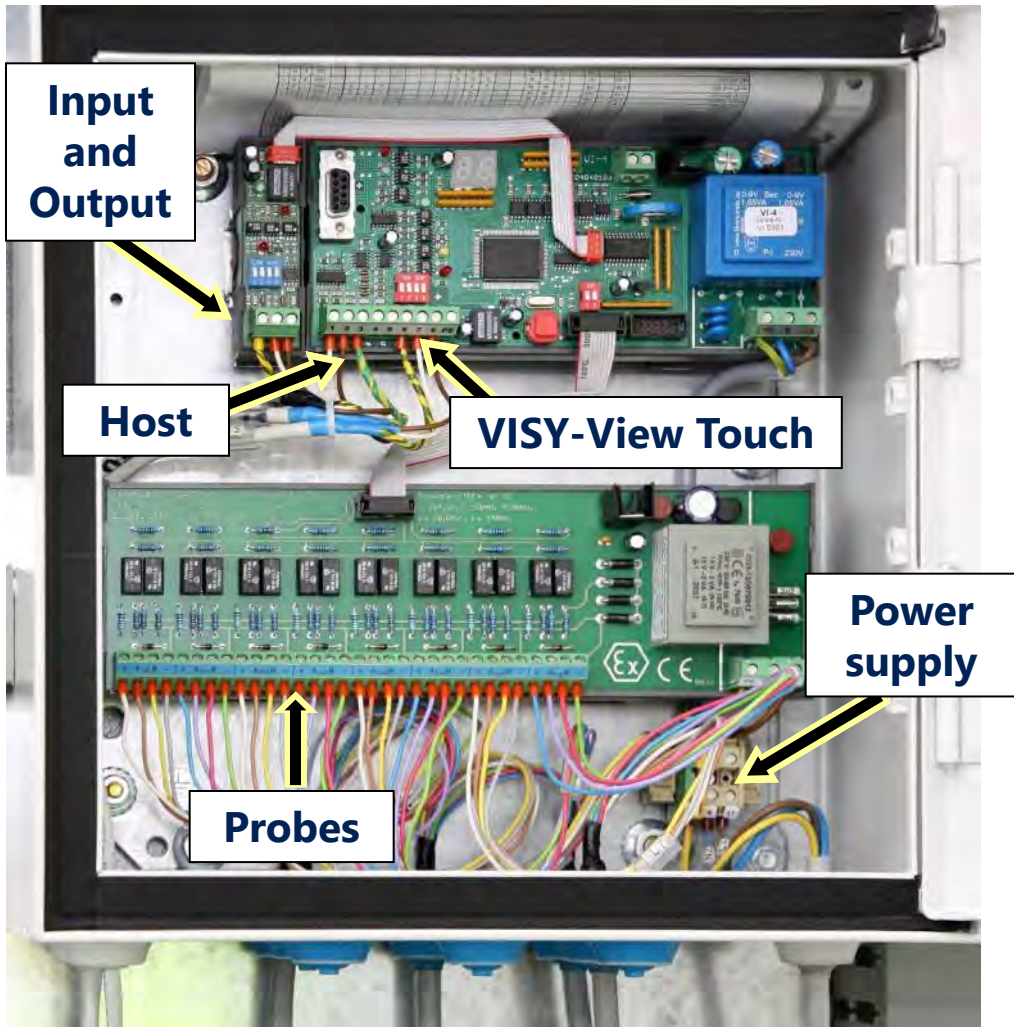
**Electrical
Switchboard
(example)**



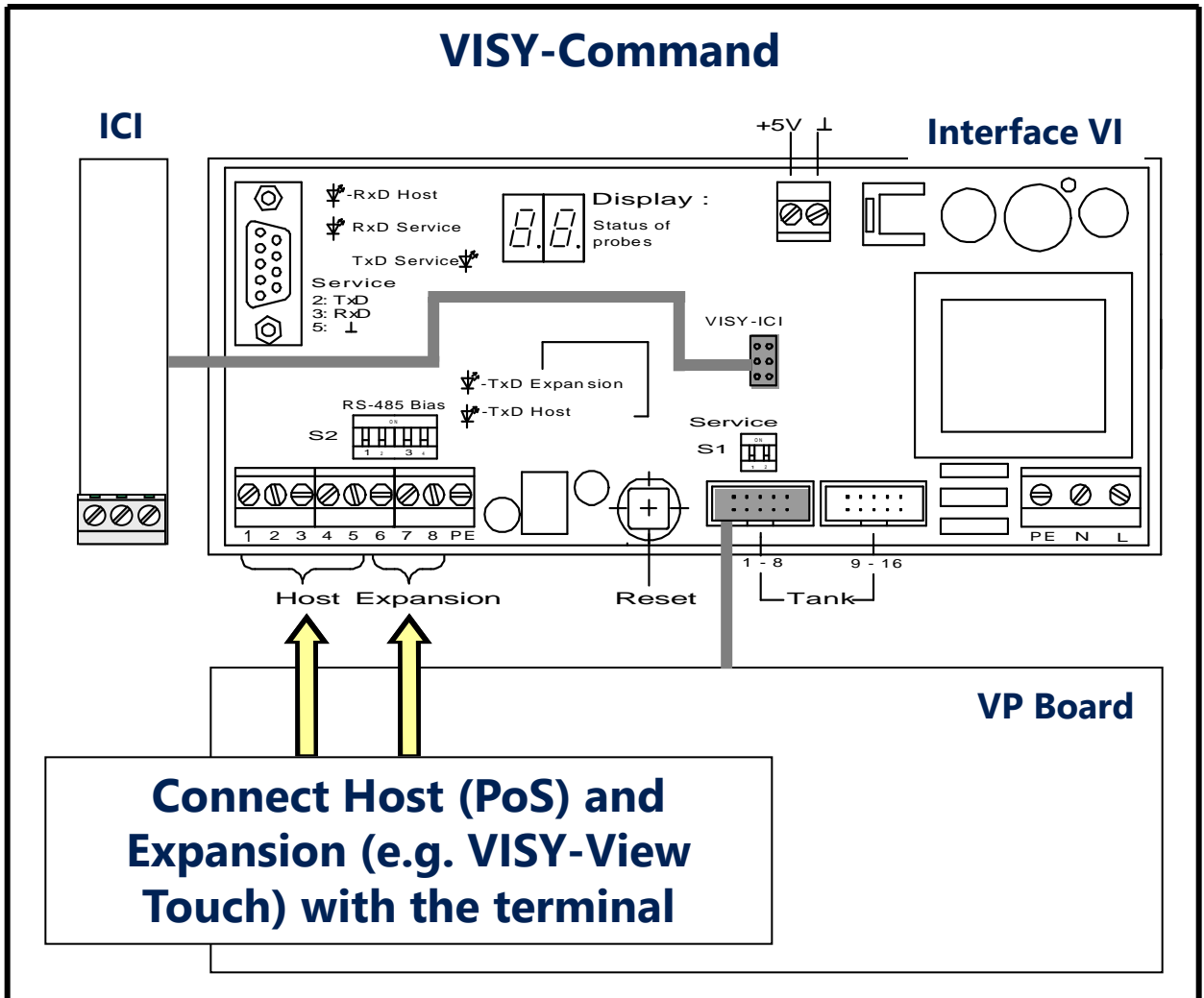
**Wall mounted
(example)**



Wiring Overview

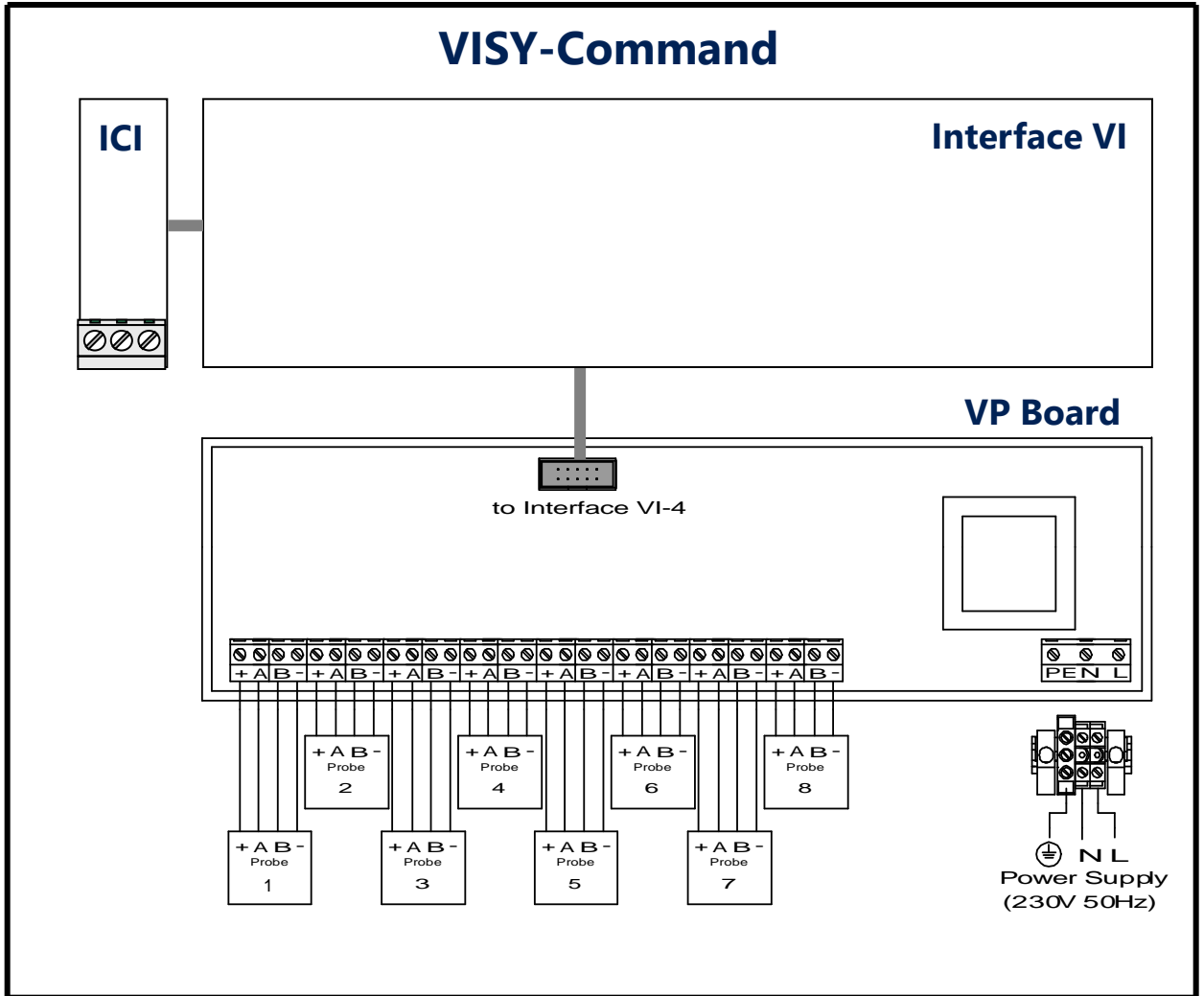


VISY-Command with opened cabinet door



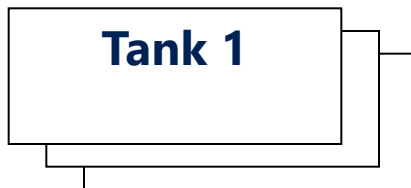
1	2	3	4	5	6	7	8	9
RxD	TxD	⊥	A+	B-	⊥	A+	B-	PE
RS-232			RS-485		RS-485			⏚
Host					Expansion			

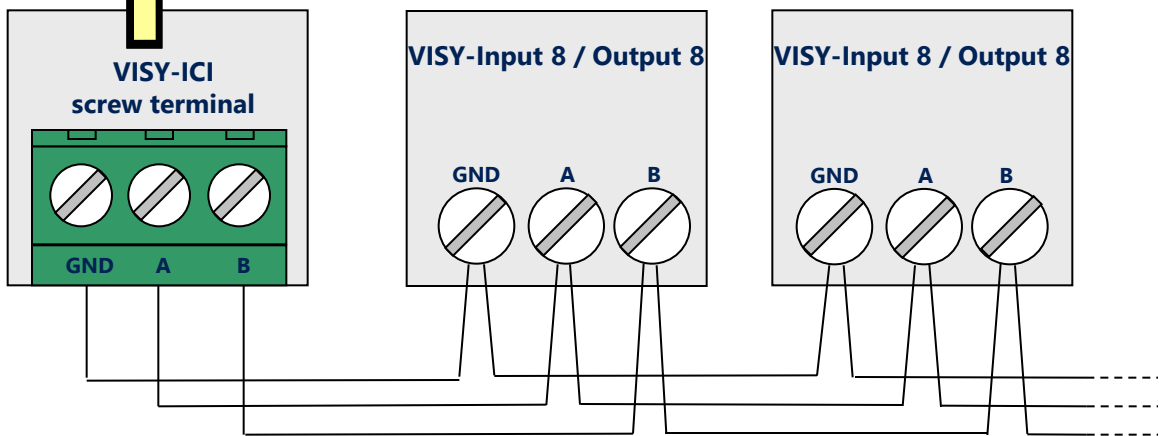
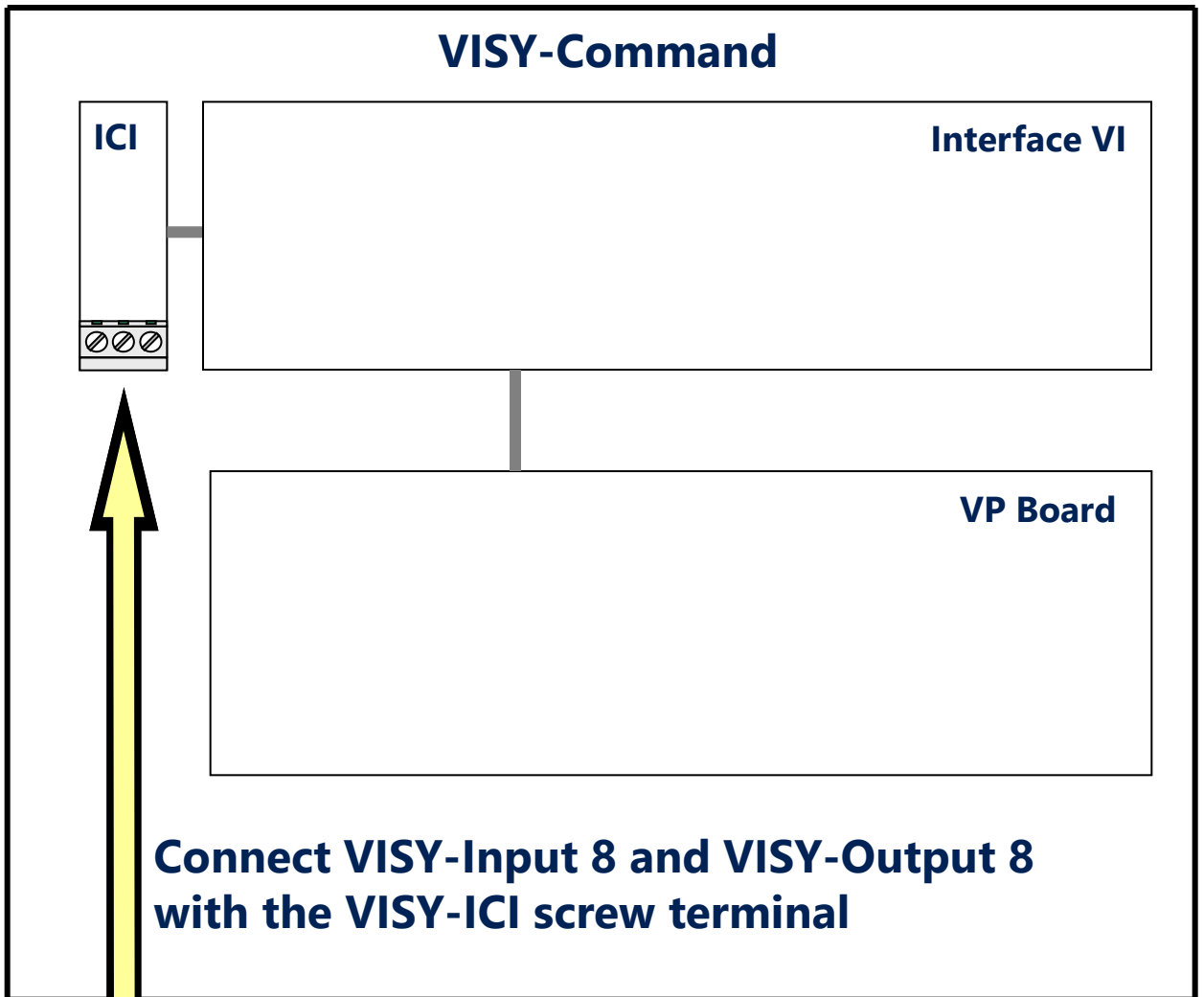
Terminal assignment



Connect the probes to the VP Board according to the FAFNIR ATG form

Connect power supply

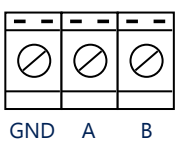
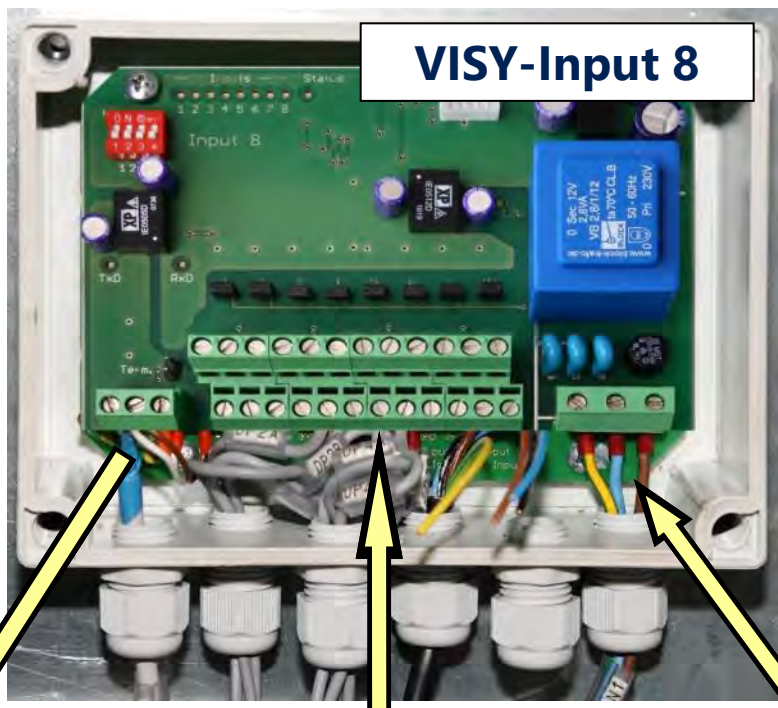




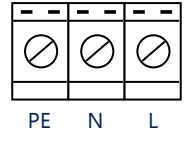
Connection diagram



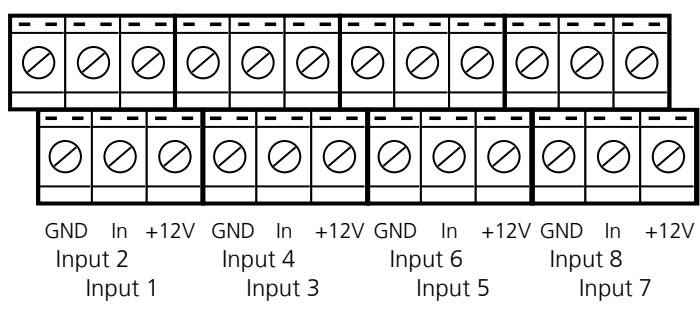
5.3 VISY-Input Connections



to ICI

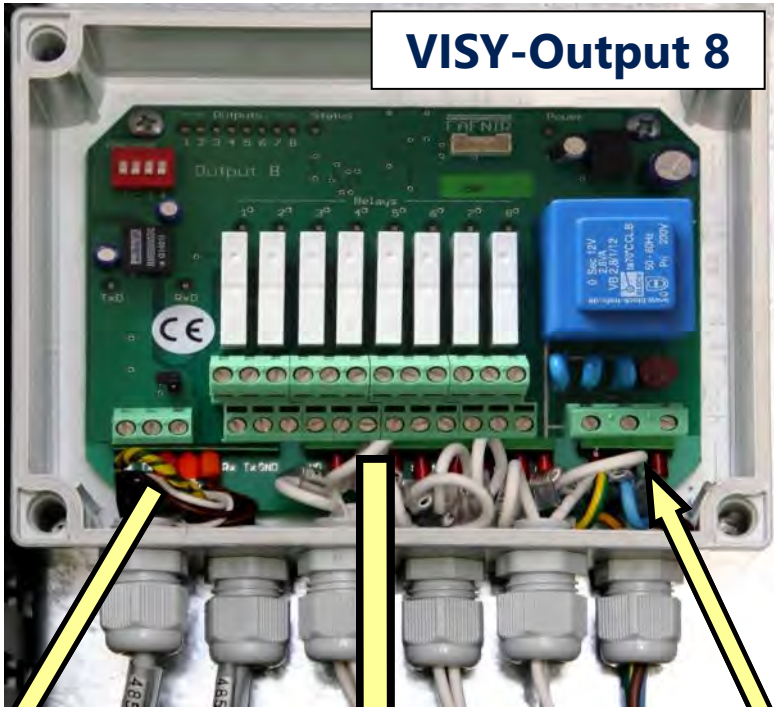


Power supply

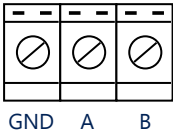


from alarm detectors

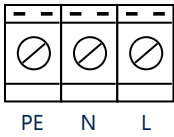
5.4 VISY-Output Connections



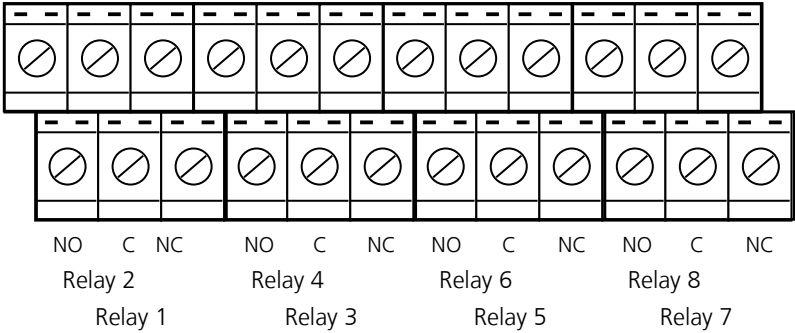
VISY-Output 8



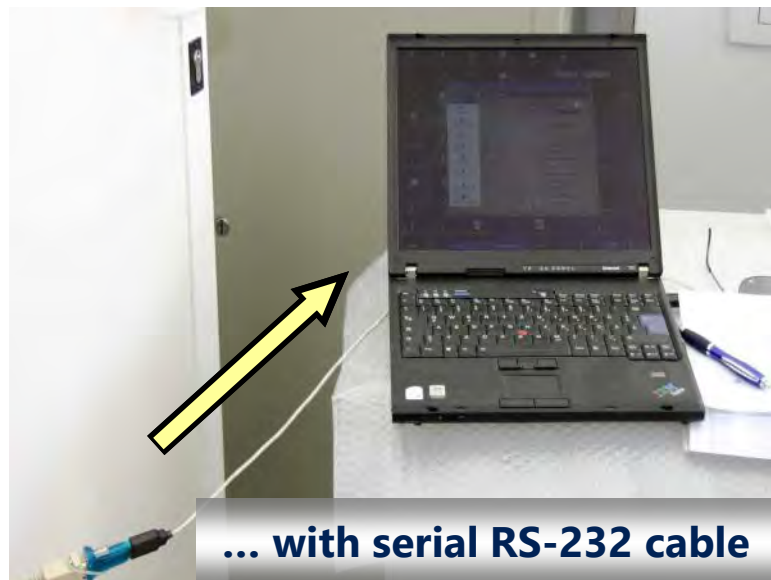
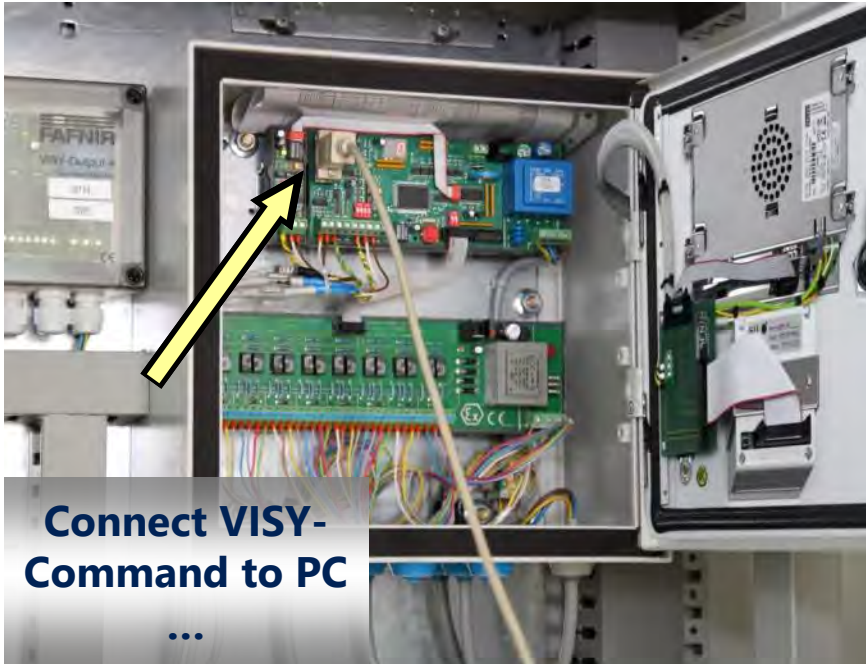
to ICI



Power supply



to alarm indicators or safety equipment



The software VISY-Setup is required for the configuration of VISY-Command. It can be downloaded from the site www.fafnir.com



END



Station Name

System Type

- wired wireless

Tank Components

- VISY-Stick Standard (also for Biodiesel / E10 / Ethanol)
- VISY-Stick Advanced (also for Biodiesel / Ethanol)
- VISY-Stick N for urea solution (AdBlue®)
- VISY-Stick Flex (also for Biodiesel / E10)
- VISY-Stick LPG
- VISY-Density
- VISY-Stick Interstitial Dry / Wet
- VISY-Reed Interstitial Dry / Wet
- VISY-Stick Sump Manhole
- VISY-Reed Sump Manhole

Dispenser Components

- VISY-Stick Sump Dispenser
- VISY-Reed Sump Dispenser

Date of Installation

Date of Commissioning

Warranty Start

Warranty End

Date

Signature (Installer)

Date

Signature (Station Manager / Project Manager)

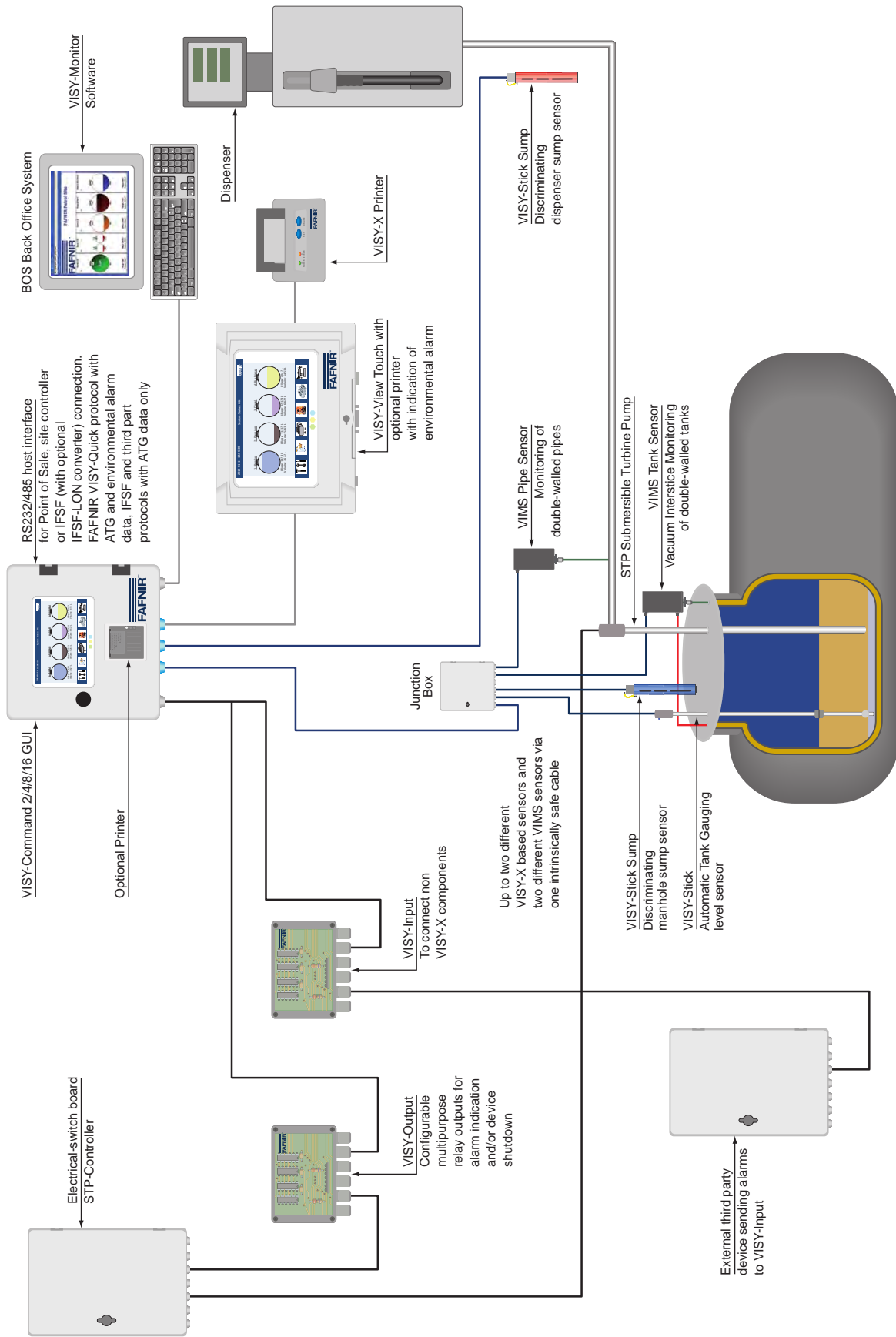


FAFNIR ATG Details

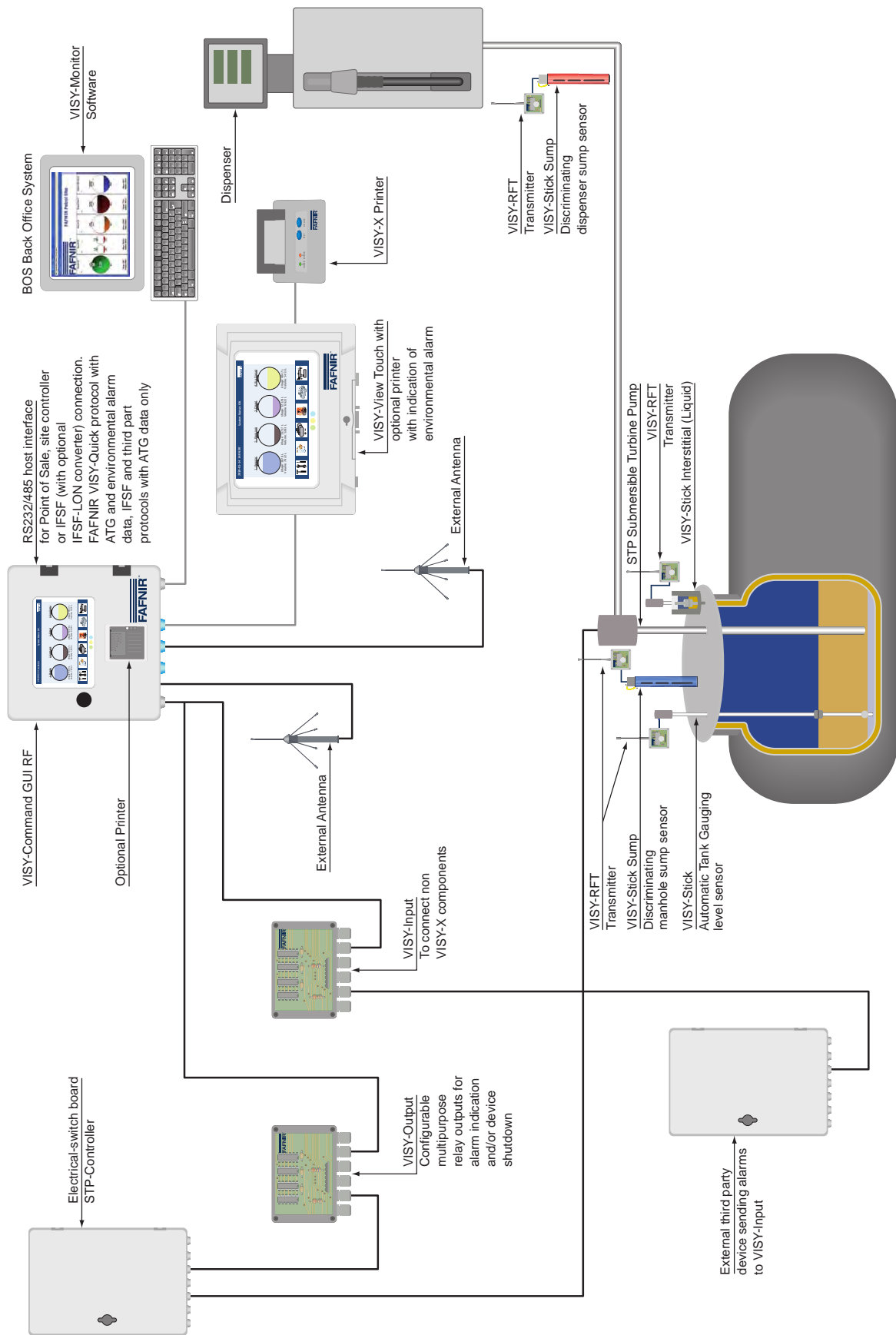
Terminal No. (VP-Board)	Tank No. / Dispenser No.	Tank Volume [l]	Tank Diameter [mm]	Type of Product	Offset (see Diagram)	VISY-Stick Ser. No.	VISY-Stick Sump Manhole Ser. No.	VISY-Stick Sump Dispenser Ser. No.	VISY-Stick Density Ser. No.	VISY-Stick Interstitial Ser. No.	VISY-Reed Interstitial Ser. No.	VISY-Reed Sump Manhole Ser. No.	VISY-Reed Sump Dispenser Ser. No.
1													
2													
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12													
13													
14													
15													
16													



FAFNIR VISY-X system architecture including environmental sensors



FAFNIR VISY-X system architecture including environmental sensors



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