

Product Information VOF Absorption sensor

Manufacturer: Satron Inst



Applications examples:

- Phase separation of products
- Waste water concentrates
- Quality control
- Leakage control of filter and gaskets
- Fluid consistency
- Reverse osmosis, COW, UF, NF, Final waste water

Measurement principle:

-Absorption turbidity

Turbidity range:

Turbidity mini: 0 NTU

Turbidity ranges: 0-20-50-100...1500NTU

The range is customizable. The sensor is very accurate in low ranges.

Features

- 180° light angle
- NIR 880nm, RED 640nm, Blue 460nm, UV 360nm.....
- Four measurement ranges, 4 externally switchable
- High reproducibility: ≤ 0,1 % of full scale
- HI/LO alarm adjustable
- Analog output 4...20 mA Turbidity
- Analog output 4...20mA Temperature (available with display unit)
- HART protocol
- Range customizable by push buttons or PC (free software)
- USB port
- Few weeks history
- Stainless steel 316L, Titanium, Hastelloy, Duplex,

VOF NRT with PUR cable



VOFNRT with stainless cable



VOF with Tri-clamp



VOF NRT with retractable option



Measurement principle

Temperature gauge

Emitter LED

Light

Photo detector

Sapphire lenses

4mA= pure water
20mA= cloaked lens

Specifications

Wetted parts:	Aisi316L, Duplex, Hastelloy C276/C22, Titanium Gr2	
Optics:	sapphire glass	
LED wavelength:	265nm to 950nm	
Seals:	EPDM class 2, FPM class 1, FPM (Kalrez) class 1	
Process temperature:	0...100 °C (212°F)	option : 0...150°C (302°F)
Ambient temperature:	-30...+80 °C	
Protection class :	IP 67 and IP 68	
Process connection :	all type available	
Damping :	0,0160s factory setting: 1 s	
Power :	21,6...27,6 V DC, 150 mA mini	
Analog Output 1 :	turbidity 4-20mA	
Analog Output2 :	temperature 4-20mA	
Digital output :	2 relays/ HI-Low alarms	
User interface :	Unit with display and pushbutton HART communication with PC	
Weight :	Integrated and no display	approx. 2 pounds
	Remote display	approx. 5 pounds

Adjustability	Span, min	Span, max	Selection chart							
VOM	1000 FTU	5000 FTU								
VOF ^(*)	50 FTU	1500 FTU								
VOD	50 FTU	1500 FTU								
Process temperature limits			N	Normal version -30...+100 °C						
			H^(**)	High temperature -30...+200 °C						
Output			S	4-20mA DC/HART®						
Material of wetted parts	Body	Lens	Seal	3A 18-03						
	2 AISI316L	1 Quartz glass	1 ^(**) EPDM	Class II						
	3 Hast. C 276	2 Sapphire glass	2 FPM (Viton®)	Class I						
	6 Titanium Gr2	3 ^(*) PC plastic	3 FPM (Kalrez®)	Class I						
	8 Duplex (En 1.4462)	4 Spinel								
Housing type			N	Housing with display and pushbuttons						
			H	Housing with, no display, (only one mA output)						
			L	Remote electronics housing with display						
Probe type			0	No remote probe						
			R	Remote measuring probe (not available with L housing), IP68						
Connection type			S	DIN43650 with PG9, IP66						
			T	M12, IP67						
			U	M12 & USB (only with N housing), IP67						
			V	PG9 (always with L housing), IP66						
Cable Material			0	No VOD, L or R selected						
			1	PUR cable.						
			2^(*)	AISI316L braided PTFE hose.						
			3	Steel reinforced PUR hose.						
			4	PVC cable						
Cable length			0	No L or R option selected						
			1	5 meter						
			2	10 meter						
Light source			2	365nm	4	540nm	6	640nm	8	950nm
			3	460nm	5	580nm	7	880nm		
Process connections										
G1			Standard G1A thread + Oring							
TA			Tri-Clamp 25/38 (ISO 2852)							
TB			Tri-Clamp 40/51 (ISO 2852)							
B1^(*)			G1A ball valve insertion. Extension diameter ø24mm							

Process mounting recommendations:

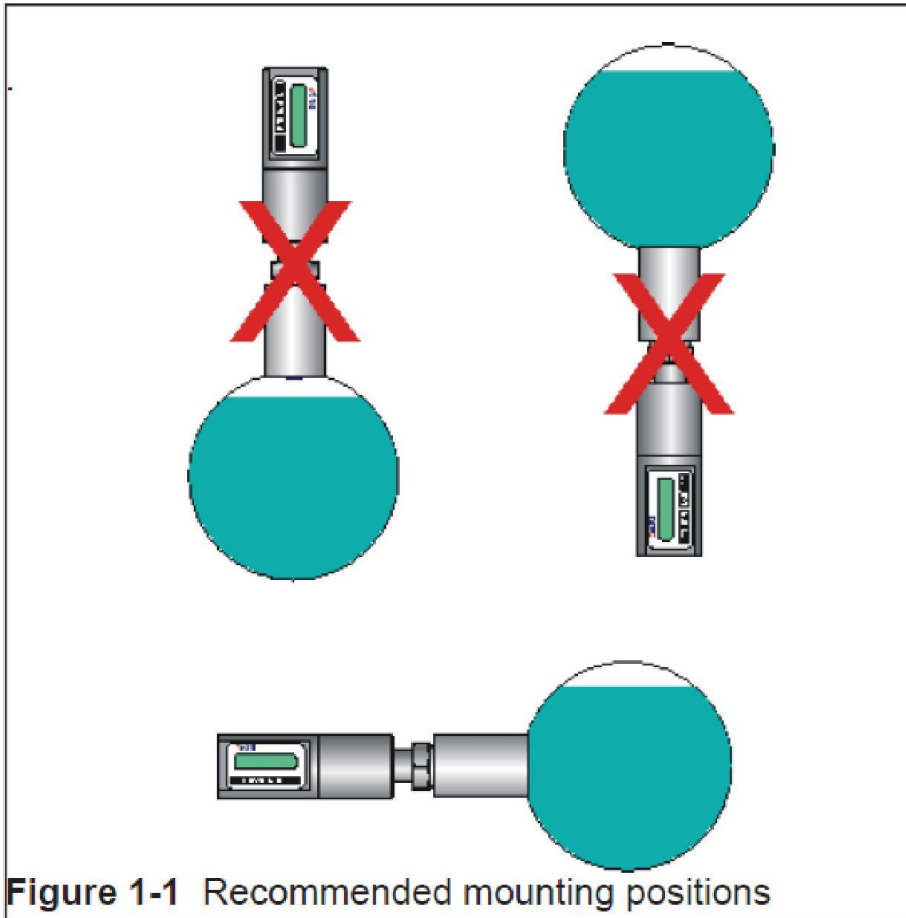
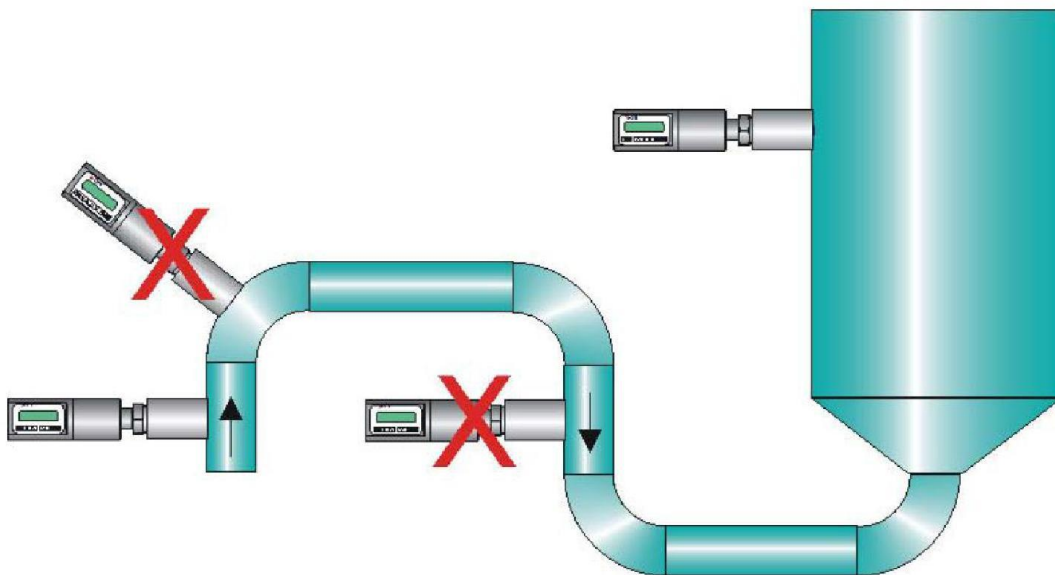


Figure 1-1 Recommended mounting positions



Installation in tanks, pit, sewer or lift station:

Installation methods

