

LISA UV Photometer

SAC₂₅₄ measurement



Applications

- Organic load monitoring in WWTP, inlet or outlet
- Monitoring of UV disinfection systems
- Online measurement of COD_{eq}, BOD_{eq}, TOC_{eq}

Advantages

- Optical measurement and self-cleaning for reliable measurements 24/24h
- Automatic turbidity compensation
- No intervention, no reagents
- Modular design to adapt to many applications
- Analog output

Control of the organic load of the water

LISA UV is a robust and easy-to-use sensor for SAC₂₅₄ measurement with automatic turbidity correction. This photometric sensor uses emission LEDs for stable optical measurements over time and its measurement lenses are coated with a nano-treatment to fight against fouling. LISA UV requires low maintenance thanks to the automatic cleaning systems, for reliable measurements 24/24h.

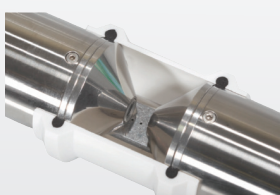
With integrated calculation formulas, the LISA UV probe determines the organic load of inlet and outlet water. The output signal can be configured directly for COD_{eq}, BOD_{eq}, TOC_{eq}, UVT₂₅₄ values.

Integration possibilities

The probe can be suspended in a manhole or mounted on a float, LISA UV can also be integrated into a loaded pipe or mounted on a measurement panel with its appropriate flowcell.

The TriOS G2 interface allows quick and easy integration of the sensor into existing process control systems or external data loggers. In addition to the integrated network interface, LISA UV is available with a digital or analog output. The sensor can easily be configured via a web browser on a PC, tablet or smartphone.

The modular design makes it easy to modify the optical path length and to adapt to many applications, river, wastewater, process... by changing the optical lenses.



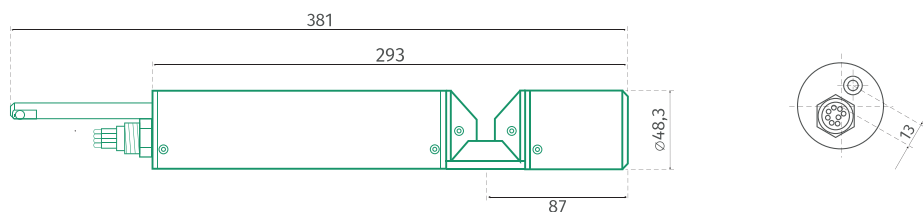
Parameters	Unit.	Optical path lengths and measurement ranges					
		0,3 mm	1 mm	2 mm	5 mm	10 mm	50 mm
SAC ₂₅₄	1/m	17...4900	5...1500	2,5...750	1...300	0,5...150	0,1...30
COD _{eq}	mg/L	26...7300	8...2200	4...1100	1,5...440	0,8...220	0,15...45
BOD _{eq}	mg/L	8,5...2300	2,5...700	1,25...350	0,5...140	0,25...70	0,05...15
TOC _{eq}	mg/L	10...2900	3...880	1,5...440	0,6...175	0,3...90	0,06...20
Turb ₅₃₀	FAU	70...13300	20...4000	10...1400	4...420	2...200	0,4...40

LISA UV

Photometer

Technical specifications

Measuring technology	Light source	2 LED (254 nm, 530 nm)	
	Detectors	Photodiode	
Principle of measurement		Attenuation, transmission	
Optical path		1 mm, 2 mm, 5 mm, 10 mm, 50 mm	
Parameters		SAC _{254r} , COD _{eqr} , BOD _{eqr} , TOC _{eqr} , UVT _{254r} , Turbidity 530	
Measuring accuracy		0,2 %	
Turbidity compensation		at 530 nm	
Internal memory		~ 2 MB	
T100 response time		4 s	
Measurement interval		≥ 2 s	
Materials		Stainless steel (1.4571/1.4404) or titanium (3.7035)	
Dimensions (L x d)		300 mm x 48 mm (with 10 mm optical path) ~ 11.8" x 1.9" (with 10 mm optical path)	
Weight	Stainless steel	~ 2.3 kg (with 10 mm optical path)	~ 5.1 lbs (with 10 mm optical path)
	Titanium	~ 2.1 kg (with 10 mm optical path)	~ 4.6 lbs (with 10 mm optical path)
Interface	Digital	Ethernet (TCP / IP) RS-232 or RS-485 (Modbus RTU)	
	Analog	Ethernet (TCP / IP) 4...20 mA	
Power supply		≤ 1 W	
Consumption		12...24 VDC (± 10 %)	
Maintenance		< 0,5 h/month (standard use)	
Calibration interval		24 months	
Compatibility		Modbus RTU or analogue output (4...20 mA)	
Warranty		24 months in the European Union	
Maximum pressure	SubConn connector	30 bar	~ 435 psig
	Fixed connector	3 bar	~ 43,5 psig
	FlowCell	1 bar, 2...4 L / min	~ 14,5 psig 0,5 à 1,0 gpm
Protection type		IP 68	NEMA 6P
Medium temperature / sample		+ 2 ... + 40 °C	~ +36 °F à +104 °F
Ambient temperature		+ 2 ... + 40 °C	~ +36 °F à +104 °F
Storage temperature		- 20 ... + 80 °C	~ -4 °F à +176 °F
Inflow velocity		0,1 ... 10 m/s	~ 0,33 fps à 33 fps



LISA UV 10
Optical path 10mm