

LISA UV

14SXXXXX0



LISA – The innovative SAC₂₅₄ sensor by TriOS

Long-lasting and energy-efficient UV-LED technology and a robust design are the outstanding features of LISA UV. Like all TriOS sensors LISA uses the unique nanocoated windows combined with compressed air flushing to achieve long operating times without cleaning.

The innovative TriOS G2 interface allows quick and easy integration of the sensor into existing process control systems or external data logger. In addition to the integrated network interface, LISA UV is available with digital or analog output. The sensor

can easily be configured through any standard web browser on a PC, tablet or Smartphone.

The optical path length can be adapted to the application at any time by various adapters. An automatic turbidity compensation is carried out via a second measuring channel.

Through application-specific correlation LISA UV can be configured for direct output of BOD_{eq}, COD_{eq}, TOC_{eq} and UVT.

LISA – Cutting-edge measurement technology at low investment and operating costs.

Benefits

- Without sampling and preparation of test samples
- Real-time sensor
- Without reagents
- Optical window with nano coating
- LED technology

Applications

- Sewage treatment plants
- Environmental monitoring
- Drinking water
- Monitoring of UV-disinfection systems

Parameter	Unit	Measuring range*					
		1 mm	2 mm	5 mm	10 mm	20 mm	50 mm
SAK ₂₅₄	1/m	5...1500	2,5...750	1...300	0,5...150	0,25...75	0,1...30
CSB _{eq} **	mg/L	8...2200	4...1100	1,5...440	0,8...220	0,4...110	0,15...45
BSB _{eq} **	mg/L	2,5...700	1,25...350	0,5...140	0,25...70	0,125...35	0,05...15
DOC _{eq} **	mg/L	3...880	1,5...440	0,6...175	0,3...90	0,15...45	0,06...20
TOC _{eq} **	mg/L	3...880	1,5...440	0,6...175	0,3...90	0,15...45	0,06...20
Turb ₅₃₀	FAU***	20...4000	10...1400	4...420	2...200	8,8...85	0,4...40
TSS _{eq} ****	mg/L	20...2000	10...1000	4...400	2...200	1...100	0,4...40
absau ₂₅₄	au*****	0,005...1,5	0,005...1,5	0,005...1,5	0,005...1,5	0,005...1,5	0,005...1,5
absau ₅₃₀	au*****	0,005...0,5	0,005...0,5	0,005...0,5	0,005...0,5	0,005...0,5	0,005...0,5
abs ₂₅₄	1/m	5...1500	2,5...750	1...300	0,5...150	0,25...75	0,1...30
abs ₅₃₀	1/m	5...500	2,5...250	1...100	0,5...50	0,25...25	0,1...10
Trans ₂₅₄	%	3...98,8	3...98,8	3...98,8	3...98,8	3...98,8	3...98,8
Trans ₅₃₀	%	3...98,8	3...98,8	3...98,8	3...98,8	3...98,8	3...98,8

* under laboratory conditions **referring to KHP (Note: 100 mg COD standard solution corresponds to 85 mg/l KHP)
 Formazin attenuation unit ****related to SiO₂ ***** Unit of absorption measure

Technical Specifications

Measurement technology	Light source	2 LED (254 nm, 530 nm)	
	Detector	Photodiode	
Measurement principle		Attenuation, transmission	
Optical path		0,3 mm, 1 mm, 2 mm, 5 mm, 10 mm, 50 mm	
Parameters		SAC ₂₅₄ , CODEq, BODEq, TOCeq, UVT, Turb 530	
Measurement range		see parameter list	
Repeatability		0.2%	
Turbidity compensation		at 530 nm	
Data logger		~ 2 MB	
Reaction time T100		4 s	
Measurement interval		≥ 2s	
Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)	
Dimensions (L x Ø)		300 mm x 48 mm (with 10 mm path)	~ 11.8" x 1.9" (with 10 mm path)
Weight	stainless steel	~ 2.3 kg (with 10 mm path)	~ 5.1 lbs (with 10 mm path)
	titanium	~ 2.1 kg (with 10 mm path)	~ 4.6 lbs (with 10 mm path)
Interface	digital	Ethernet (TCP/IP) RS-232 or RS-485 (Modbus RTU)	
	analogue	4...20 mA, max. load: 500 Ohm	
Power consumption		≤ 1 W	
Power supply		12...24 VDC (± 10 %)	
Required supervision		≤ 0.5 h/month (typical)	
Calibration/maintenance interval		24 months	
System compatibility		Modbus RTU or: Analogue Out (4...20 mA)	
Warranty		1 year (EU & USA: 2 years)	
INSTALLATION			
pressure	with Subconn	30 bars	~ 435 psig
	with fixed cable	3 bar	~ 43.5 psig
	in flow cell	1 bar, 2...4 L/min	~ 14.5 psig at 0.5 to 1.0 gpm
Protection type		IP68	NEMA 6P
Sample temperature		+2...+40 °C	~ +36 °F to +104 °F
Ambient temperature		+2...+40 °C	~ +36 °F to +104 °F
Storage temperature		-20...+80 °C	~ -4 °F to +176 °F
Inflow velocity		0,1...10 m/s	~ 0.33 fps to 33 fps