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LISA UV

14SXXXXXX0



LISA – The state of the art SAC₂₅₄ sensor by TriOS

Long-lasting and energy-efficient UV-LED technology and a robust design are the core 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 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 digital or analog output. The sensor

Benefits

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

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 lens sockets. An automatic turbidity compensation is carried out by a second measuring channel.

Through application-specific correlation LISA UV can be configured for direct output of BODeq, CODeq, TOCeq. A direct output of UVT₂₅₄ is also possible.

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

Applications

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

Path (mm)	Parameter	Unit	Measurng Range*	Detection Limit	Determination limit*	Precision*
1	SAC ₂₅₄	1/m	51500	5	15	2.5
	CODeq**	mg/L	82200	8	22	4.0
	BODeq**	mg/L	2.5700	2.5	7	1.3
	TOCeq**	mg/L	3880	3	9	1.5
	UVT	%	398.8	98.8	96.6	0.6
	SAC ₂₅₄	1/m	0.5150	0.5	1.5	0.25
	CODeq**	mg/L	0.8220	0.8	2.2	0.4
10	BODeq**	mg/L	0.2570	0.25	0.7	0.13
	TOCeq**	mg/L	0.390	0.3	0.9	0.15
	UVT	%	398.8	98.8	96.6	0.6

^{*} under laboratory conditions

^{**} based on KHP (Note: 100 mg COD-standard-solution corresponds to 85 mg/l KHP)

Technical Specifications

Measurement Infinit source 2LEU (254 nm, 530 nm)						
Measurement principle Attenuation, transmission Optical path 1 mm, 2 mm, 5 mm, 10 mm, 50 mm Parameter 5AC _{250°} CODeq, BODeq, TOCeq, UVT, Turb530 Measuring range See parameter list p. 14 Measurement accuracy 0.2 % Turbidity compensation at 530 nm Data logger - 2 MB T100 response time 4 s Measurement interval ≥ 2 s 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) ~ 1.8° x 1.9° (with 10 mm path) ~ 6 lbs (with 10 mm path) ~ 6 lbs (with 10 mm path) ~ 1.9¢ (with 10 mm path) ~ 6 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 1.9¢ (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 1.9¢ (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 1.8° 2.32 or RS -485 (Modbus RTU) Ethernet (TCP/IP) Accompany 4.20 mA 4.20 mA Power consumption 5 1 W 5 0.5 h/month (typical) Calibration/mairtenance i		light source	2 LED (254 nm, 530 nm)			
Optical path 1 mm, 2 mm, 50 mm Parameter SAC ₂₅₀₇ CODeq, BODeq, TOCeq, UVT, Turb530 Measuring range See parameter list p. 14 Measurement accuracy 0.2 % Turbidity compensation at 530 nm Data logger - 2 MB Title representation 4 Stainless steel (1.4571/1.4404) or titanium (3.7035) Measurement interval 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) - 2.7 kg (with 10 mm path) - 1.8" x 1.9" (with 10 mm path) - 2.7 kg (with 10 mm path) - 2.8 los (with 10 mm path) - 4.2 los (with 10 mm path) - 2.8 los (with 10 mm path) - 4.2 los (with 10 mm path) - 4.8 los (with 10 mm path) - 4.2 los (with 10 mm path) - 4.8 los			· · · · · · · · · · · · · · · · · · ·			
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Measurement accuracy 0.2 %	Parameter		SAC _{254′} CODeq, BODeq, TOCeq, UVT, Turb530			
Turbidity compensation at 530 nm	Measuring range		See parameter list p. 14			
Data logger ~ 2 MB T100 response time 4 s Measurement interval ≥ 2 s Housing material Stainless steel (1.4571/1.4404) or titanium (3.7035) Dimensions (L × Ø) 300 mm x 48 mm (with 10 mm path) ~ 11.8" x 1.9" (with 10 mm path) Weight stainless steel (1.4571/1.4404) or titanium (3.7035) The color of titanium (1.4 min path) ~ 6 lbs (with 10 mm path) ~ 1.8" x 1.9" (with 10 mm path) ~ 6 lbs (with 10 mm path) ~ 6 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 6 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) * 4.2 lbs (with 10 mm path) ~ 4.2 lbs (with 10 mm path) * 4.2 lbs (with 10 mm path) * 4.2 lbs (with 10 mm path) * 4.2 lbs (with 10 mm path) * 4.2 lbs (with 10 mm path)	Measurement accuracy		0.2 %			
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Weight titanium ~ 1.9 kg (with 10 mm path) ~ 4.2 lbs (with 10 mm path) Lethernet (TCP/IP) RS-232 or RS-485 (Modbus RTU) Ethernet (TCP/IP) A20 mA Power consumption ≤ 1 W Power supply 1224 VDC (± 10 %) Maintenance effort ≤ 0.5 h/month (typical) Calibration/maintenance interval Modbus RTU or: Analog Out (420 mA) Warranty 1 year (EU: 2 years) US: 2 years INSTALLATION Max. pressure with SubConn with SubConn in FlowCell 30 bar	Dilliensions (L)			-		
digital version RS-232 or RS-485 (Modbus RTU) Ethernet (TCP/IP)	Weight			·		
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RS-232 or RS-485 (Modbus RTU)		15. 26. 1	Ethernet (TCP/IP)			
Ethernet (TCP/IP) 420 mA Power consumption ≤ 1 W Power supply 1224 VDC (± 10 %) Maintenance effort ≤ 0.5 h/month (typical) Calibration/maintenance interval 24 months Modbus RTU or: Analog Out (420 mA) Warranty 1 year (EU: 2 years) US: 2 years INSTALLATION With SubConn 30 bar ~ 435 psig with fixed cable in FlowCell 1 bar, 24 L/min ~ 14.5 psig, 0.5 to 1 gpm Protection type IP68 NEMA 6P Sample temperature +2+40 °C ~+36 °F to +104 °F		digital version	RS-232 or RS-485 (Modbus RTU)			
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Protection type IP68 NEMA 6P **Sample temperature* +2+40 °C ~ +36 °F to +104 °F	Max. pressure	with fixed cable	3 bar	~ 43.5 psig		
Sample temperature +2+40 °C ~+36 °F to +104 °F		in FlowCell	1 bar, 24 L/min	~ 14.5 psig, 0.5 to 1 gpm		
	Protection type		IP68	NEMA 6P		
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Ambient temperature +2+40 °C ~+36 °F to +104 °F						
20 0000	·					
Storage temperature -20+80 °C						
Inflow velocity 0.110 m/s ~ 0.33 fps to 33 fps	Inflow velocity		0.110 m/s	~ U.33 fps to 33 fps		