

LISA UV

14SXXXXX0



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

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.

Benefits

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

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 | 5...1500 | 5 | 15 | 2.5 |
| | CODeq** | mg/L | 8...2200 | 8 | 22 | 4.0 |
| | BODeq** | mg/L | 2.5...700 | 2.5 | 7 | 1.3 |
| | TOCeq** | mg/L | 3...880 | 3 | 9 | 1.5 |
| | UVT | % | 3...98.8 | 98.8 | 96.6 | 0.6 |
| 10 | SAC ₂₅₄ | 1/m | 0.5...150 | 0.5 | 1.5 | 0.25 |
| | CODeq** | mg/L | 0.8...220 | 0.8 | 2.2 | 0.4 |
| | BODeq** | mg/L | 0.25...70 | 0.25 | 0.7 | 0.13 |
| | TOCeq** | mg/L | 0.3...90 | 0.3 | 0.9 | 0.15 |
| | UVT | % | 3...98.8 | 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 technology | light source | 2 LED (254 nm, 530 nm) | |
| | detector | Photo diode | |
| Measurement principle | | Attenuation, transmission | |
| Optical path | | 1 mm, 2 mm, 5 mm, 10 mm, 50 mm | |
| Parameter | | SAC _{254'} , CODEq, BODEq, TOCe _q , 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) |
| Weight | stainless steel | ~ 2.7 kg (with 10 mm path) | ~ 6 lbs (with 10 mm path) |
| | titanium | ~ 1.9 kg (with 10 mm path) | ~ 4.2 lbs (with 10 mm path) |
| Interface | digital version | Ethernet (TCP/IP) | |
| | | RS-232 or RS-485 (Modbus RTU) | |
| | analog version | Ethernet (TCP/IP) | |
| | | 4...20 mA | |
| Power consumption | | ≤ 1 W | |
| Power supply | | 12...24 VDC (± 10 %) | |
| Maintenance effort | | ≤ 0.5 h/month (typical) | |
| Calibration/maintenance interval | | 24 months | |
| System compatibility | | Modbus RTU or: Analog Out (4...20 mA) | |
| Warranty | | 1 year (EU: 2 years) | US: 2 years |
| INSTALLATION | | | |
| Max. pressure | with SubConn | 30 bar | ~ 435 psig |
| | with fixed cable | 3 bar | ~ 43.5 psig |
| | in FlowCell | 1 bar, 2...4 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 |
| 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 |