NICO

15SXXXXXX

TriOS's new low-cost nitrate meter

Based on the device platform concept of TriOS sensors like OPUS, LISA and VIPER, TriOS introduces NICO: a UV photometer for the determination of nitrate. The four detection channels enable a precise optical determination of nitrate by absorption, taking into account turbidity and organic substances that pose a problem for many products currently on the market.

An internal temperature correction additionally increases stability of the measured values.

Equipped with our G2 interface with web browser configuration and internal data logger NICO includes features that are much more advanced than those of comparable devices available on the market.

The unified platform of all TriOS photometers also facilitates a standardized spare parts and consumables system. The cutting-edge G2 interface not only enables quick integration into third-party systems, but also the use of a wide range of accessories for our devices.

Benefits

- Proven UV-absorption method
- Without sampling and preparation of test samples
- Real-time sensor
- Without reagents
- Optical window with nano coating

Applications

- Sewage treatment plants
- Environmental monitoring
- Drinking water monitoring

NICO

Technical Specifications

Measurement technology	light source	Xenon flash lamp
	detector	4 photo diodes + filter
Measurement principle		Attenuation
Optical path		0.3 mm, 1 mm, 2 mm, 5 mm, 10 mm, 50 mm

Parameter	NO_3-N, NO_3
Measuring range	0...100 mg/L
Measurement accuracy	± (5 % + 0.1)
Turbidity compensation	Yes
Data logger	~ 2 GB
T100 response time	20 s
Measurement interval	≥ 10 s

Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)
Dimensions (L x Ø)		~ 470 mm x 48 mm (10 mm path)
Weight	stainless steel	~ 3 kg
	titanium	~ 2 kg

Interface	digital	Ethernet (TCP/IP)
		RS-485 (Modbus RTU)
Power consumption		≤ 7 W
Power supply		12...24 VDC (± 10 %)

Maintenance effort	≤ 0.5 h/month (typical)
Calibration/maintenance interval	24 months
System compatibility	Modbus RTU
Guarantee	1 year (EU: 2 years)

INSTALLATION

Max. pressure	with SubConn	30 bar
	with fixed cable	3 bar
	in FlowCell	1 bar, 2...4 L/min
Protection type		IP68

Sample temperature	+2...+40 °C
Ambient temperature	+2...+40 °C
Storage temperature	-20...+80 °C
Inflow velocity	0.1...10 m/s