NICO

TriOS's new low-cost nitrate meter

Based on the innovative device platform concept of TriOS that encompasses the OPUS, LISA and VIPER sensors, TriOS has now developed 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 innovative G2 interface with web browser configuration, internal data logger, flexible protocols and data outputs, NICO boasts features that are much more advanced than comparable devices higher available on the market at a very advantageous price.

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 use of the 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 // **PHOTOMETERS**

Photometers

Fluorometers

Radiometers

Nephelometry

eCHEM

Controller

Accessories

Systems

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
Measuring range	0-100 mg/L
Measurement accuracy	± (5 % + 0.1)
Turbidity compensation	Yes
Data logger	~ 2 GB
T100 response time	2 min
Measurement interval	≥ 1 min

Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)
Dimensions (L x Ø)		370 mm x 48 mm (10 mm path)
Weight	stainless steel	~ 3 kg
	titanium	~ 2 kg

Interface	digital	Ethernet (TCP/IP)
		RS-232 or RS-485 (Modbus RTU, TriOS, ASCII)
	analog	Ethernet (TCP/IP)
		4...20 mA
Power consumption		≤ 8 W
Power supply		12-24 VDC (± 10 %)

Maintenance effort	Typically ≤ 0.5 h/month
Calibration/maintenance interval	24 months
System compatibility	Modbus RTU
	Analog Out 4...20 mA
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