

## 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, internal data logger, flexible protocols and data outputs, 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



## Technical Specifications

<b>Measurement technology</b>	light source	Xenon flash lamp
	detector	4 photo diodes + filter
<b>Measurement principle</b>		Attenuation
<b>Optical path</b>		0.3 mm, 1 mm, 2 mm, 5 mm, 10 mm, 50 mm
<b>Parameter</b>		NO <sub>3</sub> -N
<b>Measuring range</b>		0...100 mg/L
<b>Measurement accuracy</b>		± (5 % + 0.1)
<b>Turbidity compensation</b>		Yes
<b>Data logger</b>		~ 2 GB
<b>T100 response time</b>		2 min
<b>Measurement interval</b>		≥ 1 min
<b>Housing material</b>		Stainless steel (1.4571/1.4404) or titanium (3.7035)
<b>Dimensions (L x Ø)</b>		~ 470 mm x 48 mm (10 mm path)
<b>Weight</b>	stainless steel	~ 3 kg
	titanium	~ 2 kg
<b>Interface</b>	digital	Ethernet (TCP/IP)
		RS-232 or RS-485 (Modbus RTU)
	analog	Ethernet (TCP/IP)
		4...20 mA
<b>Power consumption</b>		≤ 8 W
<b>Power supply</b>		12...24 VDC (± 10 %)
<b>Maintenance effort</b>		≤ 0.5 h/month (typical)
<b>Calibration/maintenance interval</b>		24 months
<b>System compatibility</b>		Modbus RTU Analog Out (4...20 mA)
<b>Guarantee</b>		1 year (EU: 2 years)
<b>INSTALLATION</b>		
<b>Max. pressure</b>	with SubConn	30 bar
	with fixed cable	3 bar
	in FlowCell	1 bar, 2...4 L/min
<b>Protection type</b>		IP68
<b>Sample temperature</b>		+2...+40 °C
<b>Ambient temperature</b>		+2...+40 °C
<b>Storage temperature</b>		-20...+80 °C
<b>Inflow velocity</b>		0.1...10 m/s