

SENSOnitrate-IoT-compact

Nitrate measurement system incl. LoRaWAN™ telemetry



Application areas/ device characteristics

- Automatic measurement of nitrate content in water
- Applicable from 2 inch diameter ground water monitoring wells
- Data transfer via LoRaWAN™ telemetry
- Alarm functionality

Optical nitrate probe – Photometer – NICO

Light source:	Xenon flash lamp
Detector:	4 photo diodes + filter
Measurement principle:	Attenuation / spectral photometer
Parameter:	NO ₃ ⁻
Optical path:	0,3 mm; 1 mm; 2 mm; 5 mm; 10 mm; 50 mm
Range NO3 depending of path length:	path 0,3 mm – 7,26...886 mg/l path 1 mm – 2,2...266 mg/l path 2 mm – 1,1...133 mg/l path 5 mm – 0,44...53 mg/l path 10 mm – 0,22...26 mg/l path 20 mm- 0,11...13 mg/l path 50 mm – 0,04...5 mg/l
Conversion:	1 mg/l N-NO ₃ corresponds to 4,43 mg/l NO ₃
Accuracy:	+/- 5 % under standard conditions plus basis error see separate data sheet
Operating temperature:	0-40°C – no frozen water
Dimensions:	Ca. 370x48 mm at 10 mm path length
Material:	Stainless steel 1.4571/ 1.4404/ optical glass/ EPDM/ PUR/ PE

Technical data – data logger LogTrans IoT-compact – application nitrate measurement

Dimensions:	Diameter 48 mm, length 700 mm
Material:	Stainless steel/ plastic
Protection degree:	IP 65
Operating temperature:	-25°C ... 70°C – no frozen water
Storage:	512 MB – suitable 1.000.000 data sets
Power supply:	3 Li-accumulators 5,2 Ah
Wireless data transfer:	LoRaWAN™ modem
Standard antenna:	1 dB
External Antenna:	Option: mountable with the same protection degree
Interface:	USB – for parameterization of system or read out of data

Data transmission – receiver stations

Gateway LoRaWAN™	Integration in existing LoRaWAN gateways with downstream external infrastructure from third-party providers
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Modifications contributing to technical progress are subject to change without notice!



UMWELTLEISTUNGEN

Umwelt- und Ingenieurtechnik GmbH Dresden
Zum Windkanal 21, 01109 Dresden
Germany

Telefon: +49 351 8864600
Fax: +49 351 8865774
E-Mail: info@uit-gmbh.de
Internet: www.uit-gmbh.de