

ColorPlus

The PLUS in Nitrate Measurement



Applications

- Nitrate measurement

Industries

- Treatment of drinking water

Properties

- On-line measurement of nitrate concentration
- Dual path length measurement for a wide measuring range
- Detection of window fouling with cleaning request
- Compensation of window fouling, DOC and turbidity
- Flow cell easy to clean without tools
- Elimination of turbidity influence by filters in the sample line
- Automatic instrument verification

Innovations with tangible benefits



Device configuration

The instrument is equipped with different optical filters:

- 2 filters for automatic instrument verification
- 1 filter for nitrate measurement
- 1 filter for window fouling/DOC/ turbidity compensation



The measuring cell

- The PVC cover can be opened without any tools.
- Cover removal allows free access for cleaning.



Measuring with two path lengths

The measuring with two path lengths allows to:

- Increase the accuracy of the instrument over a wide measuring range.
- Determine the window fouling and inform the user when a cleaning is needed.



Wall mounting-set

Device to fit all components of the system (Instrument, SICON, filtration unit, measuring cell drainage, flow meter and pressure valve):

- Compact measuring station.
- Simple and fast installation and commissioning.



Intelligent control system

The SICON control unit with state-of-the-art touch screen technology and colour display:

- Values, graphs, alarm and status messages can be presented.
- An internal data logger allows recalling and displaying measured data of the last 32 days.

Technical Data

Device

Measuring principle:	Absorption
Nitrate:	0 .. 100 mg/l Nitrate
Reproducibility:	+/- 0.1 mg/l resp. +/- 1% value
Resolution:	0.01 mg/l
Measuring ranges:	8, freely configurable
Units:	mg/l
Ambient temperature:	-20 °C .. +50 °C
Enclosure material:	Stainless steel 1.4301
Protection degree:	IP 67
Weight:	3.4 kg

Measuring cell

Material:	PVC
Path lengths Nitrate:	5/1.5 mm
Window material:	Quarz
Seals:	EPDM
Sample temperature:	0 .. 50 °C
Sample pressure:	600 kPa (6 bar)
Sample flow:	0.5 .. 1 l/min
Connections:	Push fit 8 mm / G ¼" thread

Control unit SICON

Power supply:	24 VDC +/- 10%
Power consumption:	8 W, including sensor
Display:	¼ VGA, 3.5"
Operation:	Touchscreen
Ambient temperature:	-20 °C .. +50 °C
Ambient humidity:	0 .. 100% RH
Protection degree:	IP 66

Outputs:	4 x 0/4 .. 20 mA galv. separated 7 x digital, freely configurable
Inputs:	5 x digital, freely configurable
Digital interfaces:	Ethernet, micro-SD card, Modbus TCP
Optional modules (max. 2):	Profibus DP, Modbus RTU, HART, Profinet IO, 4 x 0/4 .. 20mA outputs, galv. separated 4 x 0/4 .. 20 mA inputs

