



# ColorPlus

## The PLUS in Nitrate and UV Absorption Measurement with Colour Option



### Applications

- Nitrate measurement
- DOC (UV absorption) measurement
- Colour (Hazen) measurement

### Industries

- Treatment of drinking water
- Treatment of process water in various industries

### Properties

- On-line measurement of nitrate concentration
- On-line measurement of DOC (UV absorption) with colour (Hazen) option
- Compensation of window fouling
- Flow cell easy to clean without tools
- Elimination of turbidity influence by filters in the sample line
- Automatic instrument verification

### Innovations with tangible benefits



#### Multiple device configurations

The instrument is equipped with different optical filters, depending on the application:

- Filter for nitrate measurement
- Filter for DOC (UV absorption) measurement & optional filter for color (Hazen) measurement
- 2 filters for automatic instrument verification
- Optional filter for turbidity compensation



#### The measuring cell

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



#### Window fouling

The window fouling is determined with the use of two different optical path lengths. The influence is calculated:

- The measured values are automatically corrected.
- The instrument informs the user when the fouling compensation is out of range and the cell needs to be cleaned.



#### Wall mounting-set

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

- Compact measuring station
- Simple & 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.



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#### Technical Data

##### Device

Measuring principle: Absorption  
Wavelengths: 1..3 in the range 200-800 nm  
Measuring span: 0 .. 3 E

Nitrate: 2 mm 0 .. 50 mg/l Nitrate  
1 mm 0 .. 100 mg/l Nitrate

UV absorption: 100 mm 0 .. 30 E/m  
50 mm 0 .. 60 E/m

Hazen: 100 mm 0 .. 300 Hazen @ 390 nm  
50 mm 0 .. 150 Hazen @ 390 nm

Resolution: 0.001 E

Measuring ranges: 8, freely configurable

Units: E, E/m, Hazen, GOST, 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: 1/10 mm, 2/10 mm

Path lengths UV absorption: 50/10 mm, 100/10 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 1/4" thread

##### Control unit SICON

Power supply: 24 VDC +/- 10%

Power consumption: 8 W, including sensor

Display: 1/4 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,

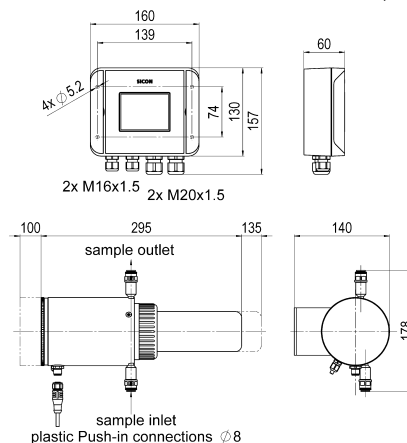
Modbus TCP

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



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