

ColorPlus 2

Easy detection of ozone in water



Applications

- Ozone concentration in bottling industry

Properties

- Accurate detection in dissolved ozone
- Turbidity compensation by using an additional wavelength (optional)
- Condensation-free operation without purge air connection
- Hygienic design
- Standard process connection Varivent®, fully CIP/SIP compatible

- Fast and simple verification with control unit
- Comfortable operation via colour touch screen display
- Display of values and/or graphs
- Simple system integration

Industries

- Beverage industry

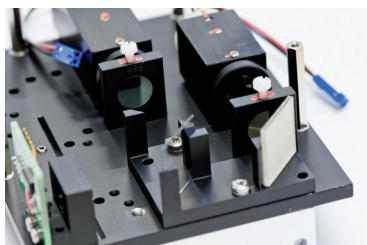
Innovations with tangible benefits



Compact design/large measuring range

Hygienic design. Double-sided mounting in standard Varivent® housing:

- Various different optical elements (OPL-Bits) allow a very large measuring range
- Low power consumption as a result of LED technology
- Easy implementation of turbidity compensation



Compensation of turbidity

Optional second wavelength at 700 nm for the compensation of turbidity.



Control unit

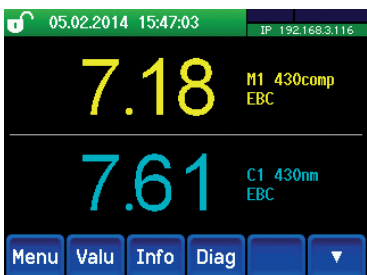
For checking the instrument, control units based on optical reference filters can simply be used:

- One control unit is included in the basic configuration and allows the verification of high absorption
- Further control units are available for verifying various measuring points



Easy to maintain

- No purge air necessary
- Simple zero adjustment
- Hygienic cleaning (CIP-/SIP compatible)
- Change of sealing by customer
- No replacement of light source as a result of LED technology



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 from the last 32 days

Main technical details for brewing industry

Measuring principle:	Absorption
Wave length LED:	254 nm, turbidity optional
Nominal range:	0 ... 1 ppm
Units:	mg/L, ppm
Sample temperature:	0 ... +110 °C / +32 ... +230 °F
Cleaning:	CIP / SIP compatible up to +120 °C / +248 °F @ 2 h
Protection degree:	IP65

Full details and technical data:



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Technical data: Ozone in water

Sensor

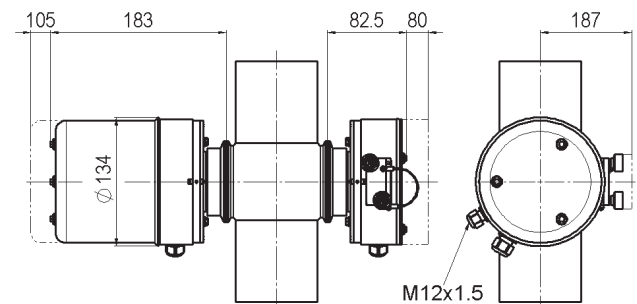
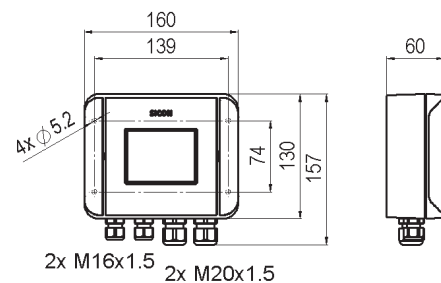
Measuring principle:	Absorption
Wave length LED:	254 nm, turbidity optional
Nominal range:	0 ... 1 ppm
Limit of detection:	0.03 ppm*
Measuring ranges:	8, freely configurable
Units:	mg/L, ppm
Ambient temperature:	-20 ... +50 °C / -4 ... +122 °F
Sample temperature:	0 ... +110 °C / +32 ... +230 °F
Cleaning:	CIP / SIP compatible up to +120 °C / +248 °F @ 2 h
Windows:	Sapphire glass (recommended)
Sealing:	EPDM
Installation:	In-line housing Varivent® or compatible
Sample pressure:	max. 2.5 MPa (25 bar) can be reduced due to specification of measuring cell
Material:	Stainless steel 1.4301
Protection degree:	IP65

Control unit SICON

Power supply:	9 ... 30 VDC
Power consumption max.:	4 W (with instrument)
Display:	1/4 VGA, 3.5"
Operation:	Touchscreen
Ambient temperature:	-10 ... +50 °C / +14 ... +122 °F
Ambient humidity:	0 ... 100 % RH
Protection degree:	IP66
Outputs:	4 × 0/4 ... 20 mA, galv. separated 7 × digital

* in absence of DOC

Inputs:	5 × digital, freely configurable
Digital interfaces:	Ethernet, microSD-card, Modbus TCP
Optional modules (max. 2):	Profibus DP, Modbus RTU, Profitnet
	4 × 0/4 ... 20 mA outputs, galv. separated
	4 × 0/4 ... 20 mA inputs



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Annex to technical data

Measurement according to DIN 19627

- Absorption at 254 nm

- Extinction coefficient 3024 $\frac{\text{L}}{\text{mol} \cdot \text{cm}}$

ppm O ₃	Extinction @ 50 mm path length	Extinction @ 100 mm path length
0.000	0.000	0.000
0.010	0.003	0.006
0.050	0.016	0.032
0.100	0.032	0.064
0.500	0.158	0.315
1.000	0.315	0.630