

TurBiScat

In-line Process Turbidity Monitor



Applications

- Filtration monitoring in beverages such as beer, fruit juices, spirits
- Supervision of centrifuges, separators, whirlpools in the beverage industry
- Turbidity measurement in oils, sugar solutions, food
- Purity control in chemical and pharmaceutical processes

Industries

- Beverage
- Food
- Chemical
- Pharmaceutical

Advantages

- Sealless design, maintenance-free
- Extended sensor check function with fouling control
- Colour-compensated, 90°/25° dual-angle measurement
- Optional colour measurement at 430 nm
- Quick adjustment with secondary standard
- Control unit with colour touch screen display
- Variable display of measuring data graphs, process performance
- Smooth system integration using various communication interfaces

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Innovations with tangible benefits



Convincing Design

Combination of Hastelloy® and sapphire in a compact, sealless design with LED technology:

- Simple installation.
- Allows operation in practically all process applications.
- No need for regular maintenance.



Highest Precision, Large Measuring Span

Highest quality components and precise workmanship result in a high measuring span. An optional integrated colour measurement is available:

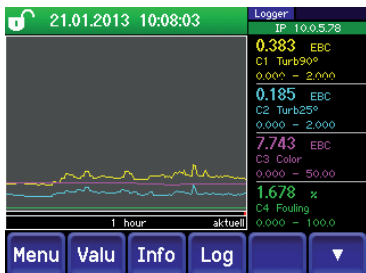
- One sensor type for numerous applications.
- Precise measurement of lowest up to very high turbidity values.
- Colour measurement in the same sensor for an attractive price.



Monitored Safety

Formazin is used in the factory to calibrate the TurBiScat after assembly. For QC purpose and possible recalibration, a secondary solid reference standard is available. The sensor has a built-in optical fouling control:

- Precise verification and recalibration without the use of Formazin.
- Information about the condition after CIP cleaning.



Intelligent Control System

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

- Allows simple operation using intuitive menu.
- Values, graphs, alarm and status messages can be presented.
- An internal data logger allows recalling and displaying measured data from the last 32 days.

Technical data

Sensor:

Measuring principle:	90°/25° Scattered light
Wavelength turbidity:	LED 650 nm
Wavelength colour (optional):	LED 430 nm
Measuring span turbidity:	0 .. 1'000 EBC 0 .. 4'000 NTU 0 .. 69,000 ASBC
Measuring ranges:	8, freely programmable
Resolution:	0.001 EBC/0.07 ASBC
Measuring span colour:	0 .. 50 EBC/0 .. 25.4 SRM
Installation:	In-line housing Varivent® or compatible
Material sensor head:	Hastelloy® C-22®
Material housing:	Stainless Steel 304/1.4301
Windows:	Sapphire
Sample temperature:	-10 .. +100 °C/+14 .. +212 °F +180 °C/+356 °F with cooling option

Cleaning:

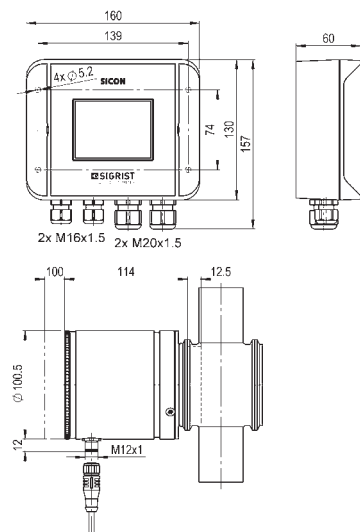
CIP/SIP compatible up to +120 °C/+248 °F @ 2 h
1 MPa (10 bar)/145 psi in standard Varivent® housing
Up to 4 MPa (40 bar)/580 psi on request

Pressure:

Ambient temperature: -10 .. +50 °C/+14 .. +122 °F
Ambient humidity: 0 .. 100 % RH
Protection degree: IP66

Control unit SICON:

Power supply:	9 .. 30 VDC
Power consumption max.:	8 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 x 0/4 .. 20 mA, galv. separated 7 x digital
Inputs:	5 x digital, freely configurable
Digital interfaces:	Ethernet, microSD-card, Modbus TCP
Optional modules (max. 2):	Profibus DP, Modbus RTU, HART 4 x 0/4 .. 20 mA outputs, galv. separated 4 x 0/4 .. 20 mA inputs



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