



# **TurBiScat PM 40**

**In-Line Turbidimeter** 



## **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

# **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
- Measurement according to MEBAK / EBC / ASBC
- Quick adjustment with secondary standard
- Sensor monitoring regarding humidity and temperature

- Integrated display with colour touch screen display
- optional detached display unit
- Variable display of measuring data graphs, process performance direct on point of measurement
- Smooth system integration

### **Industries**

- Beverage
- Food

# Subject to change without notice. Doc. No 16492E/1

# Innovations with tangible benefits



### 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
- Proven measurement system
- MEBAK/EBC/ASBC-conform



## **Convincing Design**

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

- Simple installation in VARINLINE® housings
- Allows operation in practically all process applications
- No need for regular maintenance
- Operates without additional control unit
- Precise verification and recalibration without the use of Formazin
- Permanent humidity and temperature monitoring
- Low TCO



# Value display direct at the place of measurement

Das TurBiScat PM 40 can be easily detected in the plant.

Integrated display with state-of-the-art coloured display technology:

- Provides clear data display with easy touch screen navigation direct at the place of measurement
- Display of up to 4 measured data simultaneously or graphic representation of the measurement readings for up to 7 days (1 day, 1 hour)
- Clear status information with link to support in case of warnings or alarm
- state-of-the-art configuration and value display on the Smartphone



## System integration and integrated security

The TurBiScat provides several data interfaces from analogue outputs to process buses for continuous process monitoring

Permanent accessibility to data and status information

- Integrated threshold monitoring
- Enforced data security
- Secured WLAN-connection
- Secured access to smartphone over web browser

### Main technical details

Measuring principle: 90° / 25° Scattered light

Wavelength turbidity: LED 650 nm Wavelength colour (optional): LED 430 nm 0 ... 1'000 EBC Measuring span turbidity: 0 ... 4'000 NTU

Resolution: 0.001 EBC Measuring span colour: 0 ... 50 EBC −10 ... +100 °C Sample temperature: IP66

Protection degree:



# **TurBiScat PM 40**

**Technical data** 

Sensor

Measuring principle: Wavelength turbidity:

Wavelength colour (optional): LED 430 nm Measuring span turbidity:

Measuring ranges:

Resolution: Measuring span colour:

Installation:

Material sensor head: Material housing:

Windows: Sample temperature:

Cleaning:

Pressure:

Resolution:

Ambient temperature: Ambient humidity:

Protection degree:

90° / 25° Scattered light

LED 650 nm 0 ... 1'000 EBC

0 ... 4'000 NTU

8, freely programmable 0.001 FBC

0 ... 50 EBC

In-line housing Varivent®

or compatible

Hastelloy C-22 (2.4602) Stainless Steel 304 / 1.4301

Sapphire -10 ... +100 °C

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

-10 ... +50 °C / +14 ... +122 °F

0...100 % RH

TurBiScat PM 40 - S1XX and SiDis AD 40

24 VDC ± 10 % Supply voltage:

(Interface PoE according

to standard)

Power consumption: Max. 4 W -> depending

on communication interface

Display: 1/4 VGA with Display: Touchscreen

320 x 240 pixel with 2.4"

diagonal

WLAN-Modul: WLAN according to IEEE 802.11

Standard Interface (EG\_IO): 6 configurable inputs and outputs

• Max. 2 digital inputs: 5 ... 28 VDC

· Max. 4 digital outputs: High-Side

Switch max. 20 mA · Max. 4 current outputs:  $0/4 \dots 20 \text{ mA, max. } 700 \Omega$ 

Modbus RTU

EG\_PoE: Ethernet LAN connection with

> Power over Ethernet • Ethernet accoridng to

10/100BaseT

POE according to 802.3af,

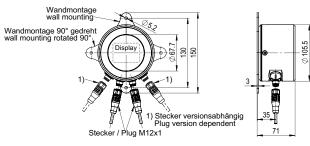
Profibus DP-V1 Slave EG\_Profibus: EG\_Profinet:

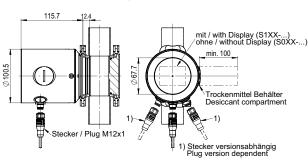
In preparation

SiDis AD 40

IP 66 Protection degree: Weight: Ca. 0.4 kg Dimension: Ø 105.5 x 71 mm PC/ABS UL94 VO Material housing:

Touchscreen: Soda-Lime tempering glas







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