

SOMQUALITY-NTU, NTU-M, NTU-MAF

Turbidity probe

TEAWORK



The measurement principle of the SOMQUALITY-NTU turbidity sensor is based on infrared light scatter at an angle of 90°. Thanks to the measurement at a wavelength of 880 nm and the wide detection range of 0 to 4'000 NTU, the sensor can be used in various water and wastewater treatment applications. Apart from turbidity, the SOMQUALITY-NTU also measures the medium temperature and the suspended solids content.

Application

- Municipal waste water treatment
- Industrial effluent treatment
- Water quality monitoring
- Sea water monitoring, fish farming, aquarium
- Process monitoring

Versions

Art	Version
21120	Turbidity probe with SDI-12, 15m cable, measurement range 0-4500mg/l
21099	High-end turbidity probe with multiple NTU ranges, auto-ranging capability, SDI-12, 20m cable
21100	High-end turbidity probe with multiple NTU ranges, auto-ranging capability, SDI-12, 20m cable and anti-fouling housing

Scope of delivery

Item
SOMQUALITY-NTU Turbidity probe
Sensor support software

Accessories

Art	Accessory
21150	USB to RS485 isolated converter cable
21121	Mechanical wiper for turbidity sensor (max. depth 30m)
21123	Mechanical wiper to integrate with turbidity sensor (max. depth 30m)

Datasheet

sommer
MESSTECHNIK

SOMQUALITY-NTU

Specifications

Turbidity	
Principle	IR-scatter at 90°
Measurement range	5 to 4000 NTU in 5 ranges: 5 - 50 NTU 5 - 200 NTU 5 - 1000 NTU 5 - 4000 NTU AUTOMATIC 0 - 4500 mg/L Calibration : Range 0 - 500 mg/L according to NF EN 872 Range >500 mg/L according to NF T 90 105 2
Resolution	0.01 - 1 NTU - mg/L
Accuracy	< 5% of the reading
Maximum refresh time	< 1 s
Temperature compensation	via CTN
Accuracy temperature	± 0.5 °C
Physical and environmental	
Power supply	5 to 12 VDC
Power consumption	Standby: 40 µA Average RS485 (1 measurement/s): 820 µA Average SDI-12 (1 measurement/s): 4.2 mA Current pulse: 500 mA
Output	Modbus RS-485 (standard) SDI-12 (optional)
Dimension	Ø27 mm x 170 mm
Weight	300 g (sensor + 3 m cable)
Material	PVC, DELRIN, Quartz, PMMA, Polyamide
Max. pressure	5 bar
IP classification	IP 68
Operation temperature	0-50 °C
Storage temperature	-10 °C to +60 °C

Wiring

Wire color	Function	Comment
Red	Power supply V+	For cable length 15 ... 100 m connect the red, purple, yellow, orange and pink to V+
Blue	SDI-12	
Black	Power supply V-	
Green	RS-485 B	
White	RS-485 A	
Green/Yellow	Shield	

SDI-12 output

	EXAMPLE 3+23.167+6.3751+2.5933+2.5933+0.0000<CR><LF>
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Value	Description
3	SDI-12 address
23.167	Temperature in °C
6.3751	Turbidity in NTU
2.5933	Turbidity in FNU
2.5933	Turbidity in mg/L
0.0000	Not used
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