Turbidimeter TRM100

## Continuous measuring device for all areas of water, waste water & filtration technology

In-line turbidimeter for installation in pipelines

The TRM-100 turbidity meter is a compact device for measuring and monitoring the process quality of water and other liquids via the process parameter „turbidity".

The device works in the scattered light method (90° angle) at 0...1.000 FNU or in the transmitted light method (180° angle) from 500...4.000 FAU. The TRM-100 is calibrated with the internationally defined standard suspension formazin.

The turbidity is determined via two infrared transmitters and an infrared receiver. The measured value FNU / FAU indicates the concentration of the calibration suspension. The measuring device provides a 4...20 mA analogue value output as well as a limit value output.

The sensor incl. electronics and operating keys is installed in the main line or in the bypass (siphon/bypass) upstream of a rising line or in a rising line with a stilling section.

German Producer
Global supplier

DESIGN
ENGINEERING
MANUFACTURING
Made in Germany.
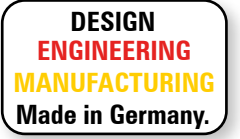
Make the most of the TRM100 in these applications:
- ✓ Turbidity measurement in water treatment
- ✓ Monitoring water quality in inlet water
- ✓ Monitoring of waste water quality in production
- ✓ Monitoring of desalination in seawater supply
- ✓ Locating sources of contamination in machines and plants with extensive, distributed pipe systems
- ✓ Measuring sludge concentration in wastewater treatment plants

Continuous in-line turbidity measurement: Your advantages as a plant operator

- ✓ Better knowledge of process conditions & increase of process quality
- ✓ Early detection of contamination & avoidance of downtime
- ✓ Sensor-based control of systems and processes in water management
- ✓ Support of efficient plant operation

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Subject to technical changes

Fluid.iO
SENSING FLUID EXCELLENCE

Turbidimeter TRM100

Turbidity sensor TRM100

- ✓ Measuring device with high sensitivity
- ✓ durable, technically mature quality product
- ✓ excellent price-performance ratio
- ✓ precise measuring results even with low turbidity
- ✓ flexible installation position
- ✓ Measuring tube with nano-coating prevents dirt adhesion
- ✓ Adjustable limit value monitoring
- ✓ 4...20mA signal output for process visualisation

Low maintenance:

To clean the TRM-100, simply loosen a few screws and then clean or replace the measuring tube, seals and other wearing parts.

Technical properties

process connection	Union nut DN20/DN40
Flange connection	from DN 20
Materials	
Seal *On request*	EPDM FPM (Viton ®)
process connection	PVC PPH
measuring tuber	Borosilicate glass with nano-coating
Operating pressure	max. 10 bar at 20 °C max. 2,5 bar at 60 °C
measurement range	500...4.000 FNU / FAU
measurement accuracy	+/-5 %
installation positions	vertical, horizontal
Measurement principle	Optical infrared system 2 transmitters, 1 receiver
Inputs	
Power supply	18...30 V DC
Power consumption	< 2 W
Outputs	
signal output	4...20 mA
switching delay	1 potential-free changeover contact; 1...10 s adjustable
protection class	IP 65
switching voltage	max. 250 V AC max. 115 V DC
switching current	max. 3 A
switching capacity	max. 500 VA, 60 Watt

Technical drawings
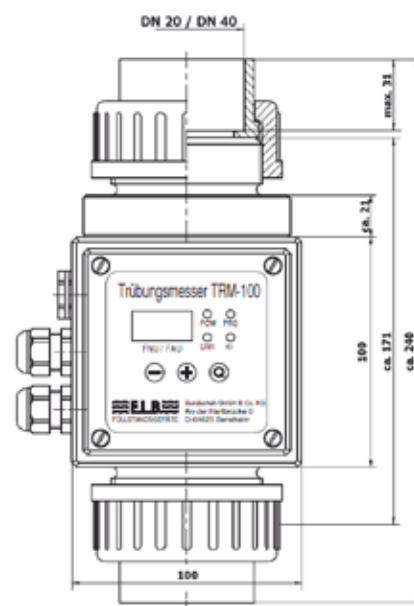
Configuration and programming functions of the TRM-100

Configure switching point relay

Press the „Q" and „+" keys simultaneously until the „PRG" LED lights up to initiate the programming sequence. The switch-on point (K1 = continuous light) can be changed with the „+" or „-" keys & saved with the „Q" key. The display now shows the switch-off point (K1 = flashing light) of the relay. The switch-off point is changed with the „+" or „-" keys. Pressing the „Q" key saves the switch-off point and exits the programming mode.

Set current output 4...20 mA

Start the programming mode by pressing the „+" and „-" keys simultaneously until the „PRG" LED lights up. The display shows „4n" for setting the 4 mA value. Use „+" and „-" to change the output current. The value is saved with the „Q" key. 20n" appears in the display for setting the 20 mA value. The value can be changed with the „+" and „-" keys. Press the „Q" key to save the value and exit programming mode.

Change measuring range

Turbidity measurement is carried out up to 1000 FNU with scattered light, from 1000 FAU with transmitted light. The calibrated measuring range covers the range from 500 ... 4000 FNU / FAU. For the analogue output, the range up to 2000 FNU / FAU is assigned switch position 8 or up to 4000 FNU / FAU switch position 9.

A flashing display in switch position 8 indicates that the measured turbidity value is > 2000 FNU / FAU and the output current of the analogue output is   > 20 mA. The analogue output must now be assigned with switch position 9.

Sales and Consulting

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