

TU 8325 & TU 8525

Turbidity Sensors

These unique sensors have been designed to measure Turbidity based on nephelometric method (ISO 7027 - EN 27027). The sensors are available for submersible and in-pipe installations.

The measuring system consists of:

- ◆ Infrared light source
- ◆ 90 degree scattered light detector
- ◆ Detector of the clean lens status
- ◆ 2-wire 4/20 mA analog output
- ◆ Modbus Output
- ◆ Nozzle for the autoclean by external pressured air (TU 8325)

Principle of operation

The Turbidity follows the nephelometric method (ISO 7027 - EN 27027). A light beam is sent to the sample through an optical lens. The 90 degree scattered light by suspended particle is collected by the sensor through a second lens and it is converted in an electric signal proportional to the Turbidity of the sample. The probe uses an infrared light and the measuring is not affected by the color of the sample.

Accessories for TU 8555 / TU 8525

- ◆ **TU 910** Overflow cell



Technical Specifications

Turbidity ranges	0/4.000 – 0/40.00 – 0/400.0 NTU
Scalability factor 4/20 mA	10/100 %
Sensitivity	70/130 %
Zero	± 0.400 NTU
Resolution	0.001 FTU
Power supply	9/36 VDC
Accuracy	0.2 % of the full-scale selected
Repeatability	0.1%
Non-linearity	0.1 %
Check signal	0/200.0 %
Load	600 Ohm max. a 24 Vdc
Digital output	RS 485 isolated
Temperature limit	0/50 °C
Dual filter software	2/220 seconds
Current loop	4/20 mA isolated
Protocols	B&C ASCII e Modbus RTU (03, 06, 16 functions)
Baud rate	2400 / 4800 / 9600 / 19200 baud
Probes ID	01/99 (B&C protocol) 01/243 (Modbus protocol)
Probes network	32 max.
Operating temperature	60 °C max.
Operating pressure	6 bar at 25 °C (TU 8525) 1 bar at 25 °C (TU 8325)
Dimensions TU 8525	L= 143 mm, D=40 mm
Dimensions TU 8325	L= 165 mm, D=60 mm
Weight TU 8525	Body 160 g, cable 640 g
Weight TU 8325	Body 420 g, cable 640 g
Body	PVC-C (TU 8525.5 model in PVDF is available)
Cable	10 m (100 m max.), PVC sheath
Protection	IP 68