

DIGISENS RANGE

NTU: Nephelometric Turbidity & Temperature

Digitally optimised measurement technology

- IR optical sensor with optical fibre
- Range: 0-4000 NTU or 0-4500 mg/L
- Digital sensor: Modbus RS-485
- ISO 7027 compliant
- Robust and waterproof



Applications

- Industrial effluent treatment
- Urban waste water treatment
- Surface water monitoring
- Drinking water
- Sanitation network

Optical technology :

The measure principle is based on IR nephelometry / 880 nm (ISO 7027). The sensor can be calibrated with a formazine standard solution.

The NTU sensor integrates a low-cost optical technology, with a very few maintenance and no consumables.

Digital Technology :

The smart digital C4E sensor stores calibration history data within the sensor. This allows a 'plug and play' system without re-calibration.



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Measurement

Measurement principle	Diffusion IR at 90°
Measured ranges	0 to 4000 NTU in 5 ranges: 0 – 50 NTU, 0 – 200 NTU, 0 – 1000 NTU, 0 – 4000 NTU 0 to 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 AUTOMATIC
Resolution	0,01 to 1 NTU - mg/L
Accuracy	< 5% of the reading
Temperature compensation	via CTN
Operating temperature	-10°C to + 60°C
Signal interface	Modbus RS-485 (standard) and SDI-12 (option)
Maximum refreshing time	< 1 second
Sensor power-supply	5 to 12 volts
Electric consumption	Standby : 40 µA, Average RS485 (1 measure/second) : 820 µA, Average SDI12 (1 measure/second) : 4.2 mA

Sensor

Dimensions	Diameter : 27 mm; length : 170 mm
Weight	300 g (sensor + cable 3 metres)
Material	PVC, Quartz, PMMA, Nickel-plated brass
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher
Degree of protection	IP68 up to gland

