

DIGISENS RANGE

PHEHT: pH, Redox & Temperature

Digitally optimised measurement technology

- Combination pH, redox & temperature sensor
- Smart sensor stores configuration settings and calibration history
- Digital sensor: Modbus RS-485
- Field replaceable pH/ORP sensor cartridge
- Robust and watertight

Range

- pH: 0 to 14
- Redox: -1000mV to +1000mV
- Temperature: -10°C to +50°C

Applications

The PHEHT sensor has been designed to perform under hard conditions, from pure mountains water with conductivity as low as 20 $\mu\text{S}/\text{cm}$, lakes and rivers (100 – 2000 $\mu\text{S}/\text{cm}$), seawater with conductivities of 50 mS/cm, to waste water with conductivity higher than 200 mS/cm.

Cartridge

The pH/ORP cartridge is designed to last for an extended time with Plastogel technology meaning recalibration and replacement is infrequent. The sensor has been designed for the most difficult situations for a pH/ORP sensor in terms of sensor resistance, quick response time, minimal flow dependence and low power consumption.

Digital Technology

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



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pH

Measurement principle	Combined electrode (pH/ref) : special glass, Ag/AgCl ref. Gelled
Range	0 - 14 pH
Resolution	0,01 pH
Accuracy	+/- 0.1 pH

Redox

Measurement principle	Combined electrode (Redox/reference) : Platinum tip, Ag/AgCl AgAgCl. Gelled
Range	- 1000 to + 1000 mV
Resolution	0.1 mV
Accuracy	± 2 mV

Temperature

Technology	CTN
Range	0,00 °C to + 50,00°C
Resolution	0,01 °C
Accuracy	± 0,5 °C
Response time	< 5 s
Operating temperature	0°C to + 60°C
Protection	IP 68
Interface	Modbus RS-485 / SDI-12 (option)
Power supply	5 to 12 volts
Power consumption	Standby : 25µA, Average RS485 (1 measure/second) : 3,9 mA, Average SDI12

Sensor

Dimensions	Diameter : 27 / 21 mm ; Length : 207 mm
Weight	350 g (sensor + 3 m cable)
Material	PVC, special pH glass, platinum
Pressure	5 bars
Cable	Coaxial armoured, Polyurethane, bare wire or Fisher connector
Protection	IP68 up to gland

