

# KAPTA™ 3000 - AC4

## Monitoring the quality of drinking water

### WOULD YOU LIKE...

#### Improve

your knowledge and control of drinking water networks ?

#### Optimize

asset management on your networks thanks to a decision-making tool ?

#### Analyze

four key parameters of the water quality: chlorine, conductivity, pressure and temperature ?

#### Be informed

about any changes in the quality parameters for the water that you supply ?

#### Monitor

the network continuously and online ?

#### Benefit

from a reliable and simple system that does not require maintenance, energy or chemical reagents and has an unrivalled lifespan ?



### Neroxis proposes a smart solution service designed around KAPTA™ 3000-AC4 probe

The KAPTA™ 3000-AC4 probe is a true asset for water instrumentation and has been specially developed as a tool for improved management and monitoring of the drinking water supply. Fully autonomous in energy and connected (2G, 3G, HR.net, LoRa), it is directly installed inside piping systems under load and continuously measures the four key parameters recommended by the WHO as indicators of water quality.



#### Conductivity

For the visualization of the different sources of water (origin-impact) and the rapid detection of contaminations



#### Pressure

For the energy optimization and network performance, for the detection and analysis of the anomalies



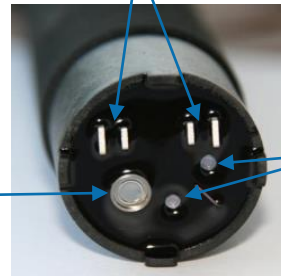
#### Temperature

For the control of bacterial growth conditions leading to potential degradation of water quality



#### Active chlorine

For the safety of the functioning of the drinking water network: detection of localizations of potential contamination and increased control of the health risk



Calibrated in factory, the KAPTA™ 3000-AC4 probe doesn't need any power supply, or connection to waste water, or chemical reactive, or recurrent preventive maintenance or any other calibration and doesn't generate lost water.

Its design, use, and mode of communication are all intended to facilitate its installation and application on site. Further, this innovative, modern and reliable solution offers expert real-time monitoring of water supply quality.

**The Kapta™ 3000-AC4 system monitors the quality of the drinking water throughout its journey**

## General specifications

- Monitoring and control of drinking water
- **Measurement of active chlorine, conductivity, absolute pressure and temperature**
- Reagent free multi-parameter probe
- Miniaturized low power consumption sensor probe
- Long term stability > 1 year

## Measured parameters

	Active chlorine	Conductivity	Absolute pressure	Temperature
Measurement range	0.00 – 2.55 mg/l	30 – 1305 $\mu\text{Scm}^{-1}$	0 – 12.7 bar	0 – 76.5 °C
Measurement accuracy	$\pm 0.03$ ppm ; $\pm 5$ %	$\pm 5$ $\mu\text{Scm}^{-1}$ ; $\pm 5\%$	at 25 °C : $\pm 50$ mbar	$\pm 1.2$ °C
Resolution at communication output	0.01 ppm	5 $\mu\text{Scm}^{-1}$	50 mbar	0.3 °C
Response time	< 30 s			

## Operating condition

### Operating pH range

- 7 – 8.2, a pH under 5 can damage the sensor's head irreversibly

### Operating absolute pressure range

- 0 – 12.7 bar
- Overpressure: 30 bar (435 psi)

### Operating temperature range

- 0 – 40 °C

### Flow rate

- Minimum 0.03 m/s
- Maximum 1.5 m/s (tested for 1 year)

## Communication modules specifications (GSM or Radio)

### 1. GSM data transmission

- Dimensions: L = 110 x H = 240 x D = 54 mm
- Alimentation by replaceable battery pack
- Measure every 5 minutes
- Measure transmission every 2 hours (customizable)

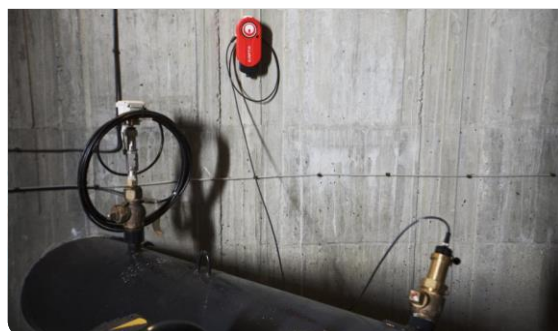
### 2. Radio 868 MHz data transmission

- Dimensions: L = 80 x H = 160 x D = 70 mm
- Alimentation by integrated battery
- Measure every 10 minutes
- Measure transmission every hour (customizable)

**Data reception:** Raw data on FTP server / Data treated on web platform (secured access)

## Probe specifications

- **The Kapta™ 3000-AC4 probe has been designed to fit directly in a pipe** of nominal diameter ND > 60 mm for steel pipe and ND > 75 mm for plastic pipe (PVC/HDPE)
- Maximal diameter of pipe: ND 300 for steel pipe, ND 250 for plastic pipe (other diameters on demand)
- Dimensions of the probe: Length = 300 mm ; Diameter = 35 mm ; Weight = 410 g
- Thread 1"1/8 Gas, BSP Cylindrical
- Cable length: 3 m (standard), 5 m (on demand)



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