

# KAPTA™ 3000 - OT3

## Monitoring the quality of drinking water

**You have some or no chlorine on the drinking water network and you would like...**

### Improve

your knowledge and control of drinking water networks ?

### Optimize

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

### Analyze

three key parameters of the water quality: organic matter, turbidity and temperature ?

### Be informed

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

### Monitor

in continuous and in-line the networks entrusted to you ?

### Reduce

the potential risks in case of event on the network ?

### Control

the consequences of hydraulic shocks ?

### Increase

in the face of risk, monitoring of the network without increasing the residual chlorine ?

### Benefit

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

## Neroxis proposes a smart solution service designed around KAPTA™ 3000-OT3 probe

The **KAPTA™ 3000-OT3** 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 (3G, HR.net, LoRa), it is directly installed inside piping systems under load and continuously measures several key parameters recommended by the WHO as indicators of water quality: turbidity, UV absorbance at 254 nm and temperature.



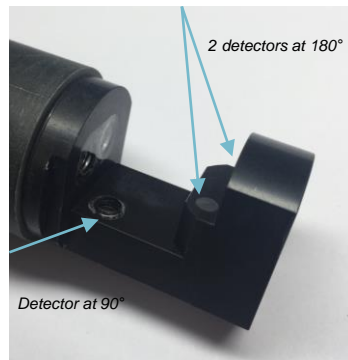
### UV Absorbance at 254 nm

*To monitor the evolution of organic matter, to deduce the changes of origin or nature and to highlight a possible pollution*



### Turbidity

*To ensure a constant water quality in accordance with applicable regulations throughout the network*



### Temperature

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

Calibrated in factory, the **KAPTA™ 3000-OT3** probe doesn't need any power supply, or connection to waste water, or chemical reactive 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-OT3 system monitors the quality of the drinking water throughout its journey**

## General specifications

- Monitoring and control of drinking water
- **Measurement of turbidity, organic matter and temperature**
- Reagent free multi-parameter probe
- Miniaturized low power consumption sensor probe
- Quarterly predictive maintenance

## Measured parameters

### Turbidity

- Nephelometry measurement at 525 nm
- Correction of fouling by ratiometry (dual-beam)
- Lighting by LED
- Range: 0 to 10 NTU
- Measurement accuracy: 0.3 NTU
- Resolution: 0.1 NTU
- Response time: < 30 secondes

### Organic matter

- UV absorbance at 254 nm
- Lighting by LED UV
- Possible conversion in mg of carbon per liter
- Range: 0 – 0.3 cm<sup>-1</sup>
- Measurement accuracy: 0.01 cm<sup>-1</sup>
- Resolution at the output of communication: 0.01 cm<sup>-1</sup>

### Temperature

- Range: 0 – 40 °C
- Measurement accuracy: ± 0.5 °C
- Resolution: 0.2 °C

## Operating condition

### Operating absolute pressure range

- 0 – 16 bar
- Overpressure: 30 bar (435 psi)

### Operating temperature range

- 0 – 40 °C

## Communication modules specifications (3G or Radio)

### 1. 3G 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 data transmission (LoRa)

- Dimensions: L = 110 x H = 240 x D = 54 mm
- Alimentation by replaceable battery pack
- Measure every 5 minutes
- Measure transmission every 30 minutes (customizable)

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

## Probe specifications

- **The Kapta™ 3000-OT3 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 = 320 mm ; Diameter = 35 mm ; Weight = 450 g
- Thread 1"1/8 Gas, BSP Cylindrical
- Cable length: 5 m (standard), 15 m maximum (on demand)



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