NEROXIS by VEOLIA

KAPTA™ 3000 - PTC

Monitoring the quality of drinking water

WOULD YOU LIKE…

Know

and control the hydraulics of your network ?

Optimize

the asset management of your networks by minimizing water hammers ?

Analyze

the course of the water from the production to the consumer thanks to the measurement of the conductivity ?

Alert

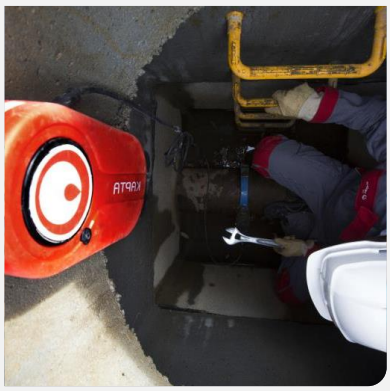
of the impact of any modification in the hydraulic parameters of your network ?

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-PTC probe

The **KAPTA™ 3000-PTC** 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 several key parameters recommended by the WHO as indicators of water quality: conductivity, pressure, temperature and pressure transients.

Conductivity

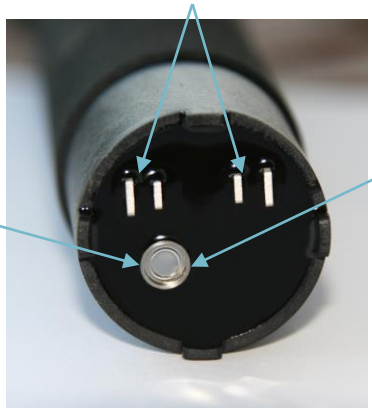
For the visualization of the different sources of water (origin-impact) and the rapid detection of contaminations

Pressure

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

Pressure transients

For the management of water hammer and premature aging of pipes



Temperature

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

Calibrated in factory, the **KAPTA™ 3000-PTC** 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-PTC system monitors the network infrastructure (breakage, water hammer…)

General specifications

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

Measured parameters

	Conductivity	Absolute Pressure	Temperature
Measurement range	30 – 1305 µScm^{-1}	0 – 30 bar	0 – 76.5 °C
Measurement accuracy	± 5 µScm^{-1} ; ± 5%	at 25 °C : ±150 mbar	± 1.2 °C
Resolution at communication output	5 µScm^{-1}	120 mbar	0.3 °C

Pressure transients

Sampling period 10ms	**Maximum transient pressure in bars**
Duration of the transient in seconds	**Minimum transient pressure in bars**

Operating condition

Operating temperature range
- 0 – 40 °C

Communication modules specifications (GSM or Radio)

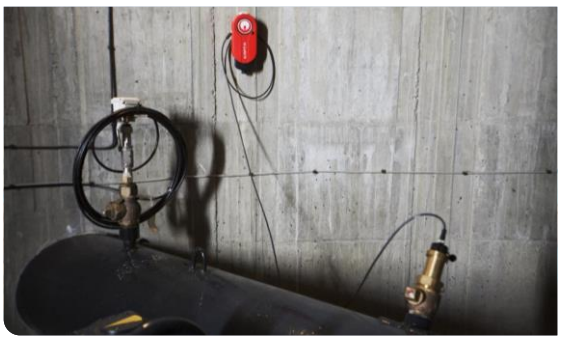
1. 3G data transmission
- Dimensions: L = 110 x H = 240 x D = 54 mm
- Alimentation by replaceable battery pack
- Measure every 5 minutes
- Measure transmission every 2 hours (customizable)

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-PTC 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: 5 m (standard), 15 m maximum (on demand)



NEROXIS

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