AQUALOG T-CNT

LOW POWER
PRESSURE CONTROLLER

FAST
A Pietro Fiorentini Company

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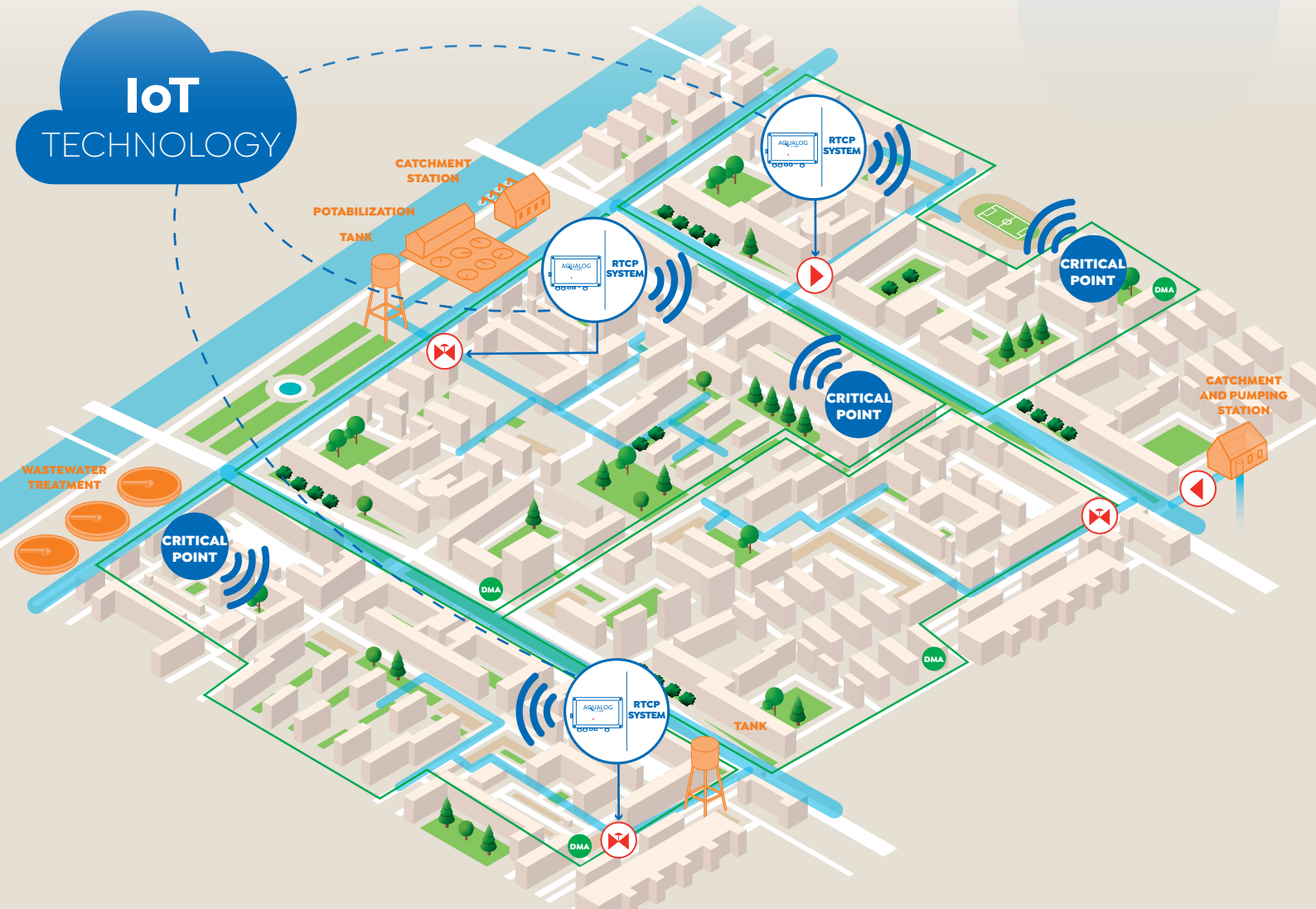
AQUALOG T-CNT is a pressure controller designed to operate in the context of a water network organized in districts.
AQUALOG T-CNT also monitors pressures, flows, levels and temperatures.

AQUALOG T-CNT, given its rugged design, can operate in locations characterized by strong environmental difficulties and where there is not availability of electricity.
AQUALOG T-CNT, battery powered, is designed to operate in a very low power consumption.

- Low power, at least 5 years autonomy
- IP68 case
- Hydro-valve control according to different modes:
  - Flow Modulation
  - Day/Night
  - RTCP System - Real time pressure regulation based on the values at the critical point
  - RTCP by Machine Learning
  - Closed Loop
  - Fixed Down-Stream Pressure
- "Discovery" Mode for detection and description of "Water Hammer" events thanks to high frequency virtual logger
- IoT via LoRaWAN Modem
- Connection to the control center via GSM/GPRS/3G



TECHNICAL FEATURES

PRESSURE	2 inputs from pressure / level / ultrasonic level 0-10 mt
SENSOR ACCURACY	accuracy of 0.50% full scale and temperature compensated -10 to 60 °C.
COUNTERS/IMPULSE METERS	2 counter inputs up to 200 Hz (DMA water meter)
INSTRUMENTS	2 inputs 1-5 V / 4-20 mA
DIGITAL INPUTS	4 DI VFC (expandable up to 8)
SIGNALS	2 DO O.C.
COMMUNICATION	1 LoRaWAN IoT modem 1 modem GSM / GPRS / 3G embedded with external antenna 1 radio modem 169 - 868 MHz (optional) 1 USB Port
POWER SUPPLY	Battery lifetime > 5 years in standard mode Optional external supply 12 / 24 VDC from grid or photovoltaic panels.
ENVIRONMENTAL CONDITIONS	-25°C +60°C
MEMORY EXPANSION	SD Card
CASE	IP68 with continuous immersion 3 meters of water depth.
SIZE	260x160x90 mm
CERTIFICATION	CE

FUNCTIONS

DATA ACQUISITION	Base Time Acquisition: 1" Base Time Storage: 1' - 24 h Max. Acquisition Variables Num.: 16 Samples Max Num.: 250000 (up to 45 days of field data)
REAL TIME SUPERVISION	IoT - Cloud technology via LoRaWAN "Always on" applications with external power supply Step by step investigation
"DISCOVERY" MODE HIGH FREQUENCY DATA ACQUISITION (FOR "WATER HAMMER" INVESTIGATIONS)	High frequency acquisition software module for sampling up 125 times per second. The storage is activated to the detection of the "Water Hammer" that is sampled for 25 seconds deepness. You can be stored on the device up to 100 "Water Hammers". The data can be saved in CSV format. (The use of this feature reduces the battery lifetime)
COUNTERS	Max Nr. 2 - Range: 32 bit Conversion to engineering units
HYDRO-VALVE CONTROL	Adjustment modes: • Flow Modulation • Day/Night • Real Time Critical Point • Real Time Critical Point virtual - Machine Learning • Closed Loop • Fixed Down-Stream Pressure
PROTOCOLS AND STANDARDS FOR REMOTE COMMUNICATION	Modbus RTU / IEC 60870 / LoRaWAN / FTP
MESSAGES	SMS / Emails
ALARMS	Signalling and managing of alarms and events generated by threshold overcoming / low battery / system errors. Messages service for the alarms notification.
SAFETY	In case of Aqualog T-CNT malfunction, the controlling software guarantees: • Minimum pressure to maintain water supply • That the downward pressure doesn't exceed the set threshold • That water hammering events take place during system failure
OPC	Compliant by OPC SERVER
CONFIGURATION	Local / remote configuration using Fast software "Rainbow Configurator" web-based platform "Overland"
INSTALLATION	Quick and easy installation, doesn't require PRV pilot modification and/or flow interruption. Aqualog T-CNT can be connected to standard PRVs (different manufacturers)
INTEGRATION WITH AQUAWORKS, OVERLAND AND SCADA Siemens WINCC-OA	Direct by wizard

* Products may be changed without notice.

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