





Let's protect water to safeguard the planet



Water is a **primary resource**. Managing the water sector correctly is an institutional, economic responsibility, and for the planet.

That is why our objective is to contribute efficiently to the grid, **optimising management and avoiding waste**. We do so through hardware and software solutions

efficiently to the grid, optimising management and avoiding waste. We do so through hardware and software solutions that can control the water network process in any stage and by studying customised solutions. That way, products and services are integrated synergistically and can maximise performance and efficiency to the customer's benefit.

Accordingly, automation, digitalisation and data management provide **important** business results for companies. And, above all, a social benefit for the community.





Founded in Bologna in 1940, Pietro Fiorentini is one of the largest industrial companies in North East Italy. With over 80 years of experience along the entire natural gas chain, the Group has now extended its horizons towards developing technologies and solutions for a digital, sustainable world, with special attention for projects linked to water and renewable energies.

FAST

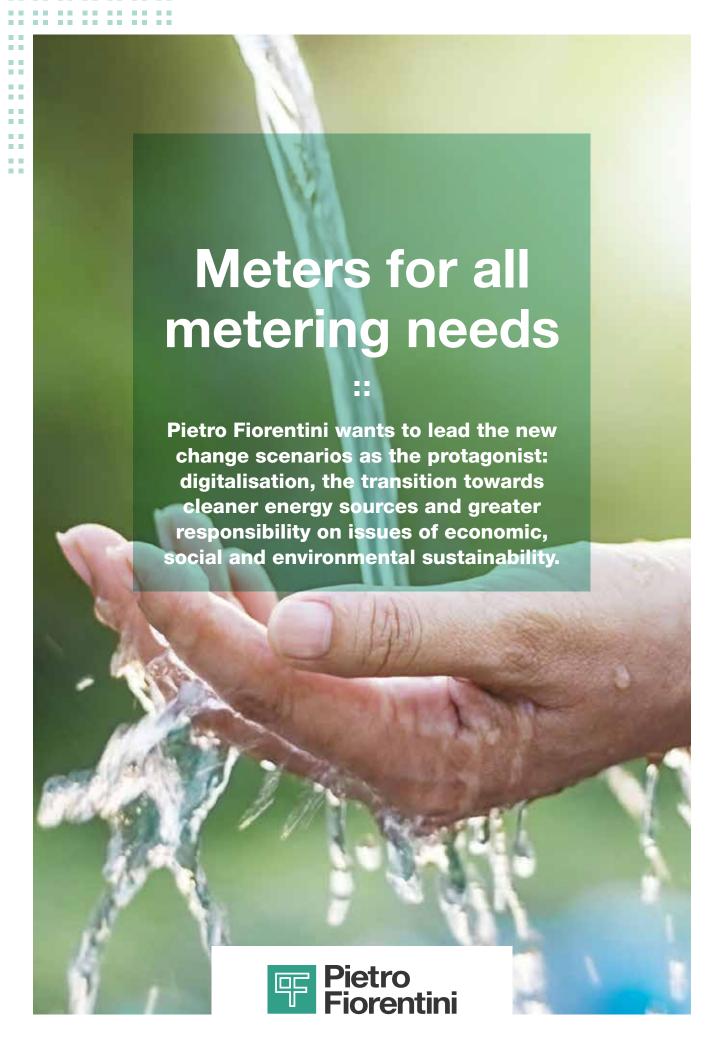
Fast offers know-how and intelligent technologies for full control of water networks and each stage of the process: hardware to regulate network flow and pressure and software developed for remote management thanks to IoT technology and to data analysis systems.

:TERRANDVA

Terranova is leader in the development of software for the water, gas & electricity sectors. With considerable know-how for smart metering, operations and smart grid management, the company offers a wide range of software studied ad hoc to respond to the complex, utility sector needs.

arcoda

Arcoda is part of Terranova Group and develops cutting-edge solutions for workforce management in the territory, with an offer going from satellite traceability to the most modern augmented reality applications.



Static **ultrasonic** meters

The new **SSM-AQUO** are ultrasonic water meters designed for the residential sector. They use a static measurement technology, that does not feature moving parts subject to wear, and guarantee high precision even managing to measure very low flow rates and any plant leakage, together with other anomalies such as a broken pipe, no consumption or an inverted flow.



Main features

- ☐ DN from **15** to **40**
- □ R=800
- ☐ Protection rating **IP 68**
- Wireless M-Bus (walk-by, drive-by reading mode),
 Lorawan (fixed network
 Lpwan) and NB-IoT integrated radio transmission
- Alarm detection: leakages, explosion, empty pipe, inverted flow, residual battery capacity below alarm level
- ☐ Approved to measure drinking water
- ☐ Battery lifetime over 13 years

The mechanical meter family

Precision, sturdiness and high quality standards are the main features of the **AQUO** line of Pietro Fiorentini: an entire range of products for the most varied needs in the water measurement field. Single jet, multi-jet and volumetric meters available in diameters from DN 15 to DN 50 to adapt to any installation and utility need.

Single jet

- □ Dry type
- Available for hot water up to 160°
- ☐ Protected against magnetic interference
- ☐ Corrosion-resistant brass body
- Ready for the addition of optional modules



Available optionals



Pulse module
M-Bus module



WM-Bus/LoraWAN module



NB-IoT module

Discover Pietro Fiorentini solutions for water metering

Scan the QR code and visit fiorentini.com



Multi jet

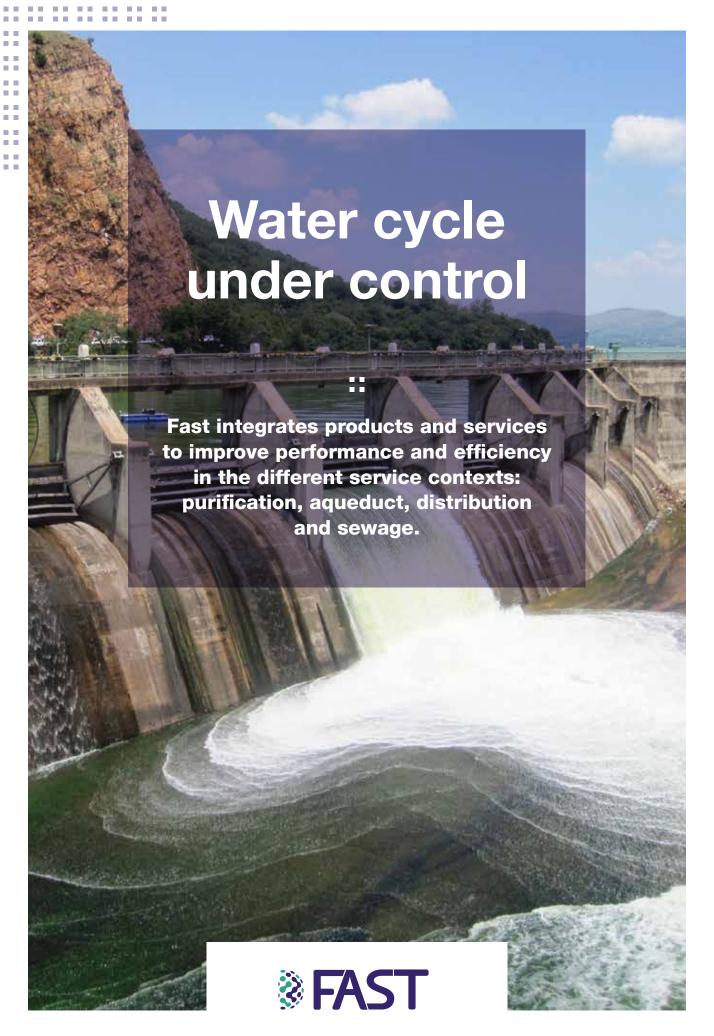
- ☐ Available in the dry/semi dry versions
- R up to 160 (dry version) and 250 /semi dry version)
- ☐ Protected against magnetic interferences
- Ready for the addition of optional modules



Volumetric

- ☐ High accuracy thanks to volumetric design
- ☐ R up to 400
- ☐ Protected against magnetic interferences
- ☐ Vacuum mechanism (anticondensation)
- ☐ Corrosion resistant brass body





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Aqualog AW

The new RTU integrable in Cloud architectures. This device represents the innovative answer for the monitoring and controlling plants dedicated to water distribution.

AQUALOG AW is a controller of PRV and pumps for the district pressure adjustment. It also has extensive monitoring capabilities of connected sensors (pressure, temperature, level and quality).



PQ Evo

A RTU that handles every aspect of control and management of the water network, with monitoring and control of the pressure, flow rate and levels.

The device is battery powered, designed to work with a low energy consumption, suitable for areas that are difficult to access and where electricity is not available.



Diana

Battery-powered RTU that permanently monitors water hammers, pressure and flow. This device allows pressure transients permanently acquired to be Equipped and recorded. with geolocation and synchronisation with integrated GPS.

Discovery mode: Water Hammers recorded as frames and high frequency audits up to 48 hours.





Advanced RTU for the water network control and management of water systems with crucial importance such as pumping stations, water treatment, pressures regulation, levels and flows adjustment. Its advanced features make it essential to manage the water network smartly, by implementing solutions that help to save water and to reduce operating costs.



De Visu

Device that helps to manage the process in a simple and intuitive mode. Thanks to the graphical interface and touchscreen display provided, you can monitor the evolving situation on the plant changing the operating parameters and sending commands to the process.





Pressure controller for PRV valves applied to hydrovalves that control the pressure downstream to ensure smooth and uniform action. The working set point is automatically calculated on the operating flow rate, and is reached quickly and precisely thanks to Al algorithms.



Level X

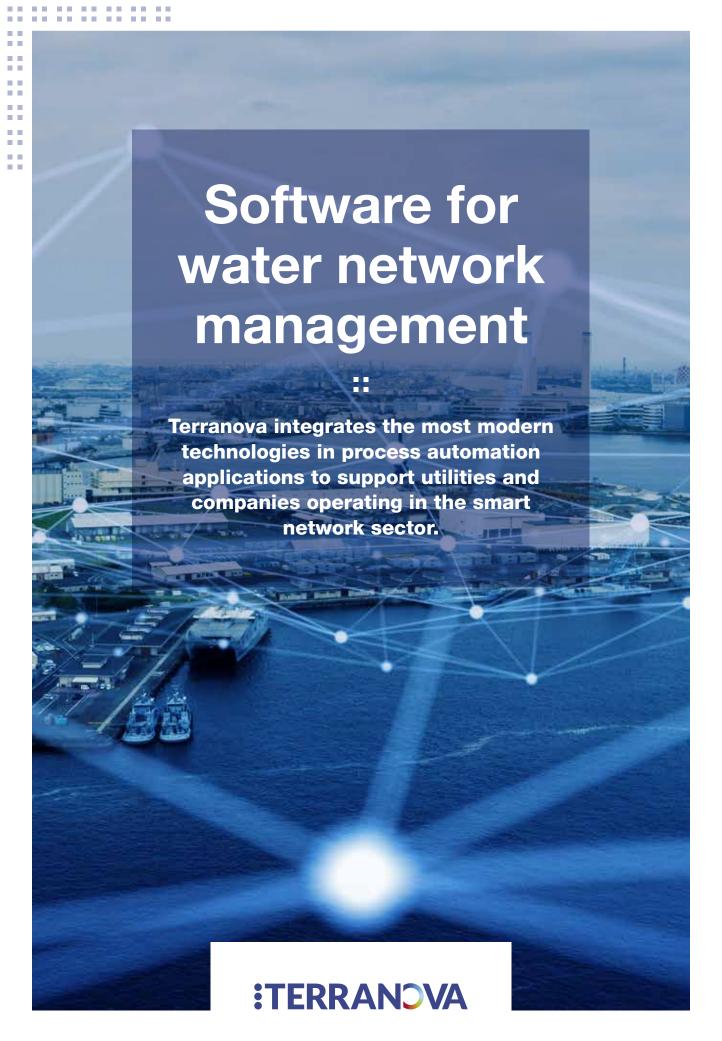
Ultrasonic IOT sensor for measuring open channels and rain drains. **Level-X** pairs with all Aqualog line data loggers and integrates seamlessly with Overland and Aquaworks web platforms.

Level-X represents an innovative answer for permanent field diagnostics, being able to communicate in real time with corporate scada systems and IoT technologies.

Discover the complete range of Fast devices for water networks

Scan the QR code and visit fastonline.it











Terranova offers the groundbreaking software platform **RETIACQUA** to the companies working in the water industry; **RETIACQUA** is dedicated to the automation of the core business processes of the water industry, looking towards digital transformation and in compliance with the service quality standards expected by ARERA.

RETIACQUA suite consists of integrated functional areas, supporting the core business processes of the companies managing the integrated water service, such as:

- Customer care & contact center
- ☐ Billing, customer accounting, collections and arrears
- Advanced credit recovery management
- ☐ Compliance with ARERA regulations
- Reporting
- Collection and validation of measurement data







TAMM (Terranova Advanced Metering Management) is the digital enablement platform for smart metering dedicated to gas, electricity and water utilities. **TAMM** is process-oriented and manufacturer-independent, allowing to manage on the same platform more than 100 models of meters and concentrators. **TAMM** supports utilities in their path towards digitalization by introducing innovation, reducing costs and generating new business value.

Key components:

TAMM AMR (Automatic Meter Reading)
TAMM MDM (Meter Data Management)
TAMM CNM (Communication Network Manager
TAMM Mobile









TSG (Terranova Smart Grid) is the digital enablement platform for the smart grid designed specifically for gas, water and electricity applications. TSG enables interactive, synoptic and process-oriented management of the distribution network, supporting various types of smart devices without limits on usable models (dataloggers, odorization systems, sensors, cathodic protection devices, public lighting and more). TSG helps utilities with network management digitalization, achieving operational excellence, containing losses, preserving investments and protecting the environment.

Software solutions in collaboration with Fast





Aquaworks is an application software that assists the operator to immediately capture the most important events in water network: from the DMAs creation to the in-depth leakage investigation.

Functions:

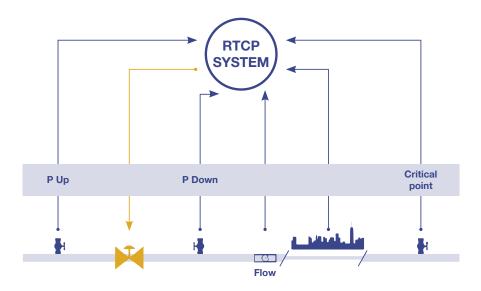
Multitrack charts show the trend of flows and pressures with
special reference to nocturnal behaviors
Leakage pre-localization
Dynamic alarms calculated on drifts and tolerances of the chart
traces
Alarm in case of exceeding thresholds
Signaling and graphical representation of pressure transients
("Water Hammer")
Economic evaluation of the convenience of repair interventions
Identification of the "Golden Week"
Possibility of making comparisons between different periods in
the same district or on different districts
Interaction with intervention teams

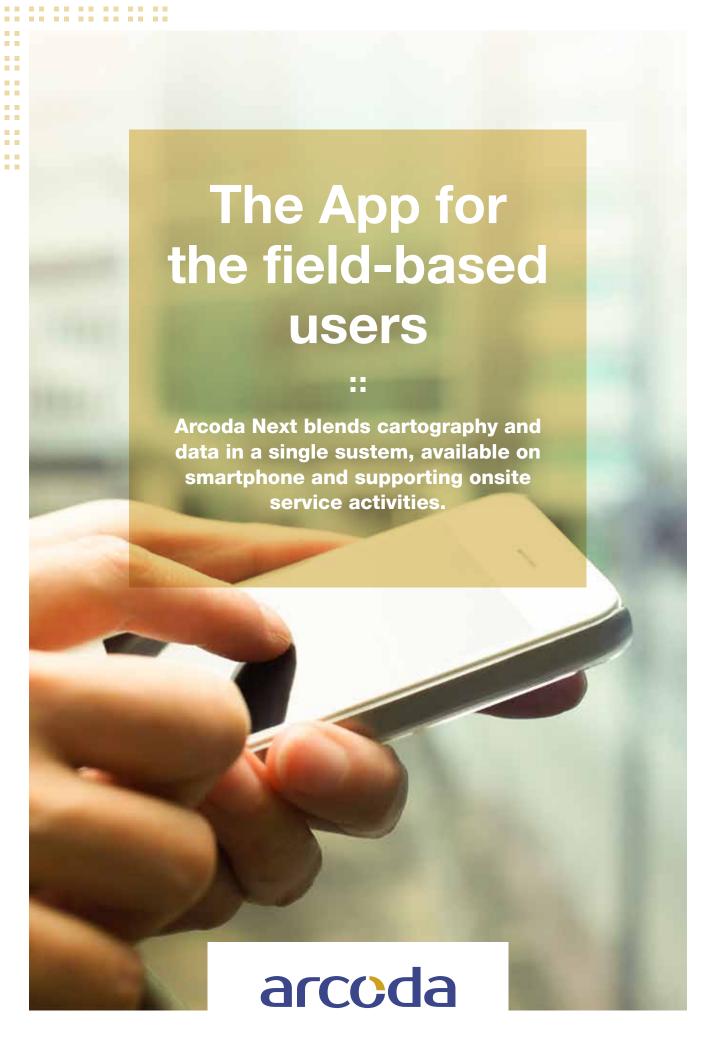




RTCP ML is an Al-based critical point adjustment software.

Thanks to a machine learning model, the algorithm processes the collected data and performs learning. The prediction model is then transferred to the regulating device, which applies the model creating the virtual critical point. The regulating action minimizes leakage and burst frequency, increasing water savings and extending the life of the infrastructure by reducing energy costs.

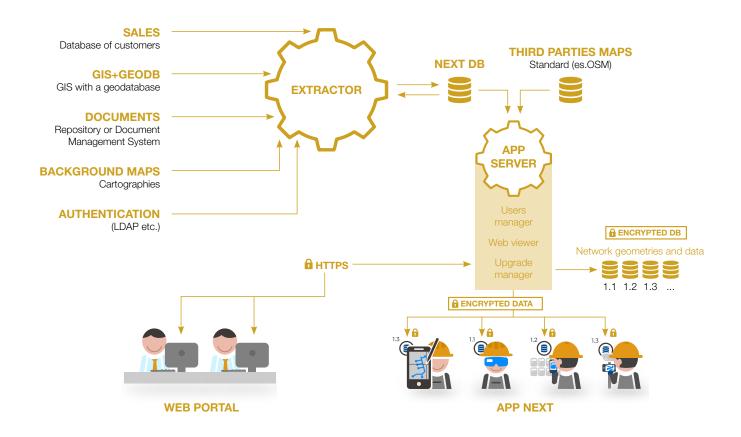




Augmented reality on smartphone

With its modules using augmented reality directly on phones, the **Arcoda Next** app overlaps the virtualised network assets on real environments in order to create a more realistic, faster, easy-to-interpret environment.

- GIS, company data and documents taken completely offline on smartphones, integrated in a single, easy-to-use instrument.
- Data search and map operations with astonishing performance
- Smart reporting from the field
- Network editing from the field
- Modules based on augmented reality technologies for new immersive work modes



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