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AquaMaster4... Innovative, Evolutionary, Inspirational





Invest smartly through 'Single box' DMA (District Metered Areas) solution

Measurement of flow and pressure parameters are critical to optimize your water distribution network. The inbuilt logger functionality provides total flexibility – enabling data to be interrogated, in precise detail, during a period of interest, at even higher time resolution.

...Achieve even more (flow, pressure and logger) with less capital expenditure



Increase confidence in your revenue billing

Accuracy of flow measurement is key for revenue billing. AquaMaster4 offers the widest flow range [up to R1000], highest accuracy [up to ±0.2% of reading ±0.5 mm/s] and long term stability.

...Deliver accurate bills for true consumption, not estimates



Have confidence in our flow meters from the wet calibration

ABB's flow calibration facilities are certified by national independent accredited bodies/ laboratories. Which are linked by the 'International Laboratory Accreditation Cooperation' (ILAC).

...Have complete confidence in the accuracy of our flow meters



Receive early warnings for leaks or bursts – minimizing Non-Revenue Water (NRW)

Accurate flow and pressure measurement are essential for understanding non-revenue water in your network. AquaMaster4 with its unique reduced bore sensor enables water utilities to accurately measure flow and pressure at very low flow rates during night. This capability will allow water utilities to separate leaks from consumption.

...Manage leaks and pressure in your distribution network – reduce waste and prioritise OPEX strategically



Class leading 'Fit and flow' set-up with unique ABB Velox mobile app

AquaMaster4 is the first transmitter to feature a contactless interface using industry standard Near Field Communication (NFC). The dedicated ABB Velox App, available for use with Android & Windows mobile devices, enables configuration changes to be easily made. Simply configure offline and utilize NFC to update the AquaMaster4 configuration. The data logger contents can also be downloaded in CSV format for offline interrogation.

...Delivers increased productivity and simplifies sensor/transmitter configuration



Achieve lowest total cost of ownership (TOTEX) over complete product lifecycle

A combination of up to 10 years of battery life, readily available off-the-shelf batteries, no need for special cables and dedicated mobile phone applications to increase staff productivity make the AquaMaster4 deliver the lowest TOTEX over complete product lifecycle.

...Achieve a higher return from the investments you make with us



ABB MEASUREMENT & ANALYTICS

AquaMaster4 electromagnetic flowmeter

For water distribution network and revenue metering applications Measuring every drop accurately



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SG/FLOW/001-EN Rev. A (

Easy and intuitive interface to AquaMaster4

What used to take minutes will take seconds

In practise, many water utilities like many organisations overlook the potential cost savings through increase in productivity of their work force. The level of technologies can make a massive difference in creating a productive and effective workforce.



NFC communications are protected by NIST approved strong encryption to avoid eavesdropping or tampering, 'Use Pin' function allow users to lock/unlock the Velox app with their personalised pin. 'Master password' allows users to set an unique password for all their flowmeters.



The Velox app allow users to view the log file on their smart phone/ tablet and download it as CSV file.



or change configuration of the product using the Velox app. This can be done whilst they are away from the site and can save it as a template.



The Velox app allow users to view and share the process values, configuration file and the diagnostics in an easy and intuitive way.

Easy and intuitive The Velox app is easy and intuitive to use, allowing water utilities to deal with deskilling issues and engage younger

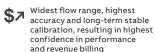
generations with

instruments.

Designed to perform, Built to last

Harness the Power of electromagnetic flowmeters

Advantages for Water Utilities:



\$7 Interactive app allows easy download of logger file and sharing via email resulting in Increase in staff's productivity \$7 Offline configuration and save as template stops repetition resulting in increase in staff's productivity

No need for special cables resulting in lower cost of ownership



Increased battery life resulting in lower cost of ownership

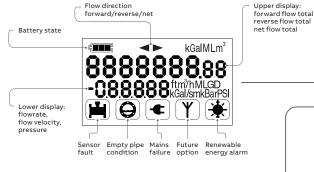


Wall-mount contactless coupler

Allows users to communicate easily using a mobile phone/tablet when the transmitter is located in inaccessible places (for example, a pit).

Clear and comprehensive display 8 mm (0.31 in.) high displays for totals

(exceeds ISO 4064 requirements).



Fit and Flow

No need to match sensor and transmitter. sensor stores all calibration factors, site settings and serial numbers.

In Built Data Logger (Option)

Optional multi-speed, flowrate and pressure internal logger runs at high speed allowing user to request logged data at any interval (typically set to one minute, but can be as fast as 15 sec). This gives the user total flexibility to download logged data, and investigate, in precise detail, flow and pressure activity during a period of interest at even higher time resolution.

Contactless communication

Protective cover with wire to the contactless coupler

The removable cover protects the transmitter display from

AquaMaster4 is the first instrument to feature a contactless interface using industry standard Near Field Communication (NFC). A free App (Velox) is available for use with Android and Windows smartphones and tablets. This supports simple configuration changes to made on your touch screen color phone/tablet. Just touch to upload, then configure offline and touch again to update the AquaMaster4 configuration.

Renewable power options

accidental impact damage.

Solar and wind power utilizes a simple DC (6 to 22 V) connection from sources as small as a 5 W solar panel/wind generator.

Anti-tamper seal

Security is paramount. To prevent unauthorized access all passwords can be changed. An optional read only/tamper seal switch is located inside the transmitter, so when set and the tamper seals are in place, either none or restricted changes can be made to the transmitter's configuration meeting MID MI-001 regulations. Volume totalizer and tariff values backed-up in sensor for total security.

Battery enclosure

Readily-available, locally sourced, industry standard D-cell lithium batteries (2 off) will give up to 10 years battery life. Each battery can be replaced without loss of logger contents enabling smooth switchover.

Multiple power options



Internal batteries 10 years life)









IP68 connectors

IP68 rated as standard, the transmitter

can be fully-submerged for up to 2 meters.





ABB

Display





Interactive phone/tablet app - simple and easy



ABB

ABB

AquaMaster4





Communications options

Measurement performance











Environmental conditions









Velox (Latin word meaning swift) smart phone/tablet app, enables water utilities to increase the productivity (do more in less time) of their work force whilst reducing human



Secure

Contactless A contactless interface using industry standard Near Field Communication (NFC), will allow users to interact with the transmitter without having to connect any cable to laptop.

View and Share





Configurable features



Chart and retrieve



Easy firmware update

Pulse output

Modbus Sensus

IP68 to 2 m