Leading the way in water metering technology

Elster Kent Metering (Pty) Limited ("Elster Kent Metering") was in attendance at the recent Water Institute of Southern Africa (WISA) conference, held in Nelspruit, Mpumalanga. With the theme of Water Innovations, the company promoted their latest water metering technology to a contingent of more than 1800 industry delegates.

The company designs and manufactures world class systems and technologies that distribute, measure, monitor and manage water accurately and efficiently.

Elster Kent Metering offers products, services, advice and expertise which contribute to the more efficient use of the southern African region's water resources.

Hybrid water meter range

One of Elster Kent Metering's newest product offerings to the southern African market is the hybrid water meter. This meter is a combination of the mechanical, volumetric measuring sensor, together with the digital, smart register.

At the WISA 2014 conference, Ian Love, Product Manager – Metering Solutions, at Elster Kent Metering, provided an insight into the benefits of the hybrid water meter in comparison to other types of water meters. "Volumetric measurement sensors are one of the most accurate means of measuring water volume flow and are able to capture the lowest leakage flows. Combining this with an electronic communicating register and additional smart functionality, can give the best of both worlds - accurate measurement, with the latest in smart functionality and communications".

In terms of the operational functionality of the hybrid water meter, Love says that the electronic register senses rotations of the volumetric measuring element, converts these rotations to a volume of water passed, and then displays the cumulated volume on an LCD display. Software within the register also enables the meter to log historic values, monitor for flow events such as bursts and leaks and display alarms for the consumer. All this information can also be transmitted via an integrated low power radio.

The hybrid meter is available with three output options: encoded, pulse or integrated radio. The Elster Kent Metering, V200H hybrid domestic volumetric smart water meter is suitable for both internal and below ground installations, with durable battery life.

Advanced data features of the hybrid meter include: meter operation monitor, water usage profiling, status alarms and tariffing capabilities. The meter display and output data will always be consistent.

In addition, the meter has the following functions:

- increased accuracy, maximising meter performance and revenues
- absolute reading communication (display and communication data always match)
- smallest footprint for easy installation in confined spaces
- tariff enabled (rising block and time-of-use)
- data logging features flow profile stored
- alerts battery low, leakage, burst, tamper, reverse flow, zero flow.

Commenting on the pricing of the product, Love says although more expensive than a standard mechanical meter, hybrid meters are well priced when the technology and benefits offered by this top of the range meter are considered.

Prepaid domestic metering system

Mark Shamley, Managing Director of Elster Kent Metering provided an insight into the company's prepaid domestic metering system which is one of its top selling items in the southern Africa market. "Elster Kent Metering's prepaid domestic water dispenser is designed for individual households to control the dispensing of prepaid quantities of water. The system comprises three main components, which include the electronic module, latching valve and water meter with the pulse output. The prepayment system conforms to the latest specifications and has replaceable batteries with a lifespan of up to 5 years".

The innovative prepayment system works with the consumer initially purchasing water credit. Then by use of a secure encrypted token, water can be dispensed from the prepayment system in various quantities as controlled by the customer.

"The prepaid domestic metering system is a multi-tier tariff system, which monitors the monthly consumption of the consumer, and charges them according to the appropriate tariff. The system comes with tamper switches which prevent tampering from unauthorised persons. Any tampering with the system results in the switch being activated and water is then shut-off," says Shamley.

An LCD display on the meter box also provides the consumer with additional useful information such as the remaining credit available, amount of water dispensed, tariff level and rate, plus alarm functionality such as a low battery indicator.

With installations across the country the Elster Kent Metering prepaid domestic metering system has proven itself to be a reliable and effective income generating system for water sales. The technology is one of the most robust and proven systems available, with Elster Kent Metering being the only/main large scale manufacturer of domestic meters in South Africa. In closing Shamley comments "Residential and commercial revenue metering, network management and leak detection capabilities will improve through the use of our innovative metering solutions".

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