

PRE-PAID WATER METERING SYSTEM

Intelligent metering devices providing smart metering solutions

Utility Systems, an affiliate of Sebata, has developed the world's first commercially viable pre-paid water metering system, approved by the Standard Transfer Specification (STS) Association.



Sebata now brings you a water management solution with pre-payment functionality, leak detection, automated meter reading, and real-time control

Water Management Device (WMD)

The WMD is an intelligent metering device that can be electronically modified in the field to implement a number of different metering system options, such as flat-rate billing, automated meter reading (AMR), and pre-payment metering. It contains an electronically controlled valve and microprocessor with embedded firmware. Water consumption is monitored directly from the pulse output of a conventional water meter via a fully electronic pick-up. It utilises an open architecture STS (Standard Transfer Specification) numeric token based system used by pre-paid electricity systems.

WMD key features and benefits

- ❖ Allocation of a finite or pre-negotiated daily or monthly allowance
- ❖ Records hourly consumption for a one-year period
- ❖ Stores cumulative month-end consumption data to be used for billing purposes
- ❖ Detects leaks, tamper and by-pass, and warns of possible consumer-side leaks
- ❖ Allows real-time control
- ❖ Reduces unaccounted for water loss and non-revenue water
- ❖ Designed and manufactured in South Africa in an ISO9001:2008 approved facility
- ❖ SANS certified and IEC 62055/STS Association approved
- ❖ Low cost of acquisition
- ❖ Prevents wastage and loss of treated potable water
- ❖ Encourages responsible water usage through daily or monthly allowance carry over

Capable of **delivering** and controlling **water flow** to domestic consumers at full pressure

WMD Technical Specifications

- ❖ 22mm and 25mm NSP and BSP thread
- ❖ Compatible with any approved pulse meter
- ❖ Glass-reinforced nylon body
- ❖ Infrared and radio communications
- ❖ Above- or below-ground installation
- ❖ Mounting can be vertical or horizontal
- ❖ Pressure range 0.2 bar to 16 bar
- ❖ Switching range of 10 litres per hour to 5,000 litres per hour
- ❖ Data logger – 365 days of hourly consumption data
- ❖ IP68 waterproof rating
- ❖ Battery life of seven to nine years
- ❖ Radio frequency (433MHz)
- ❖ Operating temperature -10°C to 50°C
- ❖ In excess of 10,000 valve operations

User Interface Unit (UIU)

- ❖ This is the remote display unit installed within the consumer's home that provides the gateway to the WMD installed outside the premises.
- ❖ Key benefits:
 - It is user friendly, wireless and easy to mount
 - It has a touch keypad and allows for audible touch feedback
 - Lightweight (270g)
 - It is battery operated and has an easy to read digital display
 - Typical operating distance: 100m to 150m line of sight above-ground, 30m below-ground

Bulk WMD

- ❖ Able to provide large bore water management and pre-paid metering solution up to DM 50
- ❖ Allows for Bulk Water Meter AMR/AMI
- ❖ Ideal for zonal meters in sub-urban areas, housing estates, schools, offices, factories and state departments
- ❖ Sebata's WMD STS-approved pre-payment system allows:
 - Improved financial control through the SebataFMS billing system
 - Enables the monitoring of token purchases and consumption
 - Greater control by the consumer over their own water needs and expenditure
 - Internet-based vending and the use of third-party vending platforms



Water Meter Device (WMD)



Bulk WMD



User Interface Unit (UIU)