

OB8000 - Standard transfer specification (STS) Zonke Lite above ground STS prepaid meter box Smart Water Management device

Smart Water Management device for the conversion of conventional water metering systems to Pre- Paid Water Meter Systems to individual/private households

Meter Box: A plastic rectangular meter box with concave side walls for additional stability that is 800 mm high x 280mm long x 100mm wide with a LCD display positioned inside the lid of the meter box. The meter box contains a class “C” 15mm polymer bodied volumetric water meter complete with pulse output approved by S.A Trade Metrology to SANS 1529-1:2003.

Working pressure for meter box assembly to be 1 600 Kpa.

The prepaid meter box has 25mm HDPE internal piping and 20mm BSP re-enforced polypropylene female inlet and outlet fittings. All internal joints are fusion welded.

All internal plumbing pipe will be SANS 15874 approved 25mm Ø (OD). The fittings to be plastic and to be fusion welded. The unit to be pressure tested in the Factory to ensure there are no leaks.

The meter box to have an internal SANS 16135 approved high quality plastic 3 way trickle flow shut-off valve fitted upstream of the meter for Municipal use and which is operated by means of a 10 mm Alan key. The Meter box is fitted with a municipal (sealable) ball valve, only accessible when the lid is removed. All components; meter, electronics and latching valve as well as battery pack are easy accessible and interchangeable on site by maintenance personnel. When lid is removed all pipe work, meter and electronics are exposed for easy access. Mechanical meter reading is visible (reading slot in meter box lid).

Approval: Complete prepaid meter comply with IEC 62055-5 ICASA. SA842, SA1453 AND SA1490.

(Prepaid Water Controller) PWC

The PWC is fitted with a Pulse Sensor connected to the water meter. The Pulse Sensor pulses according to the volume of water consumed. The Infra-red port (IR) located left from the display is used by the Meter Maintenance Unit (MMU) to perform various diagnostics and configuration functions on the System. This action can also be done via a Data Collector that utilize RF. A latching water valve is used to open or close the water supply through the meter.

The build in AMR module has a build in antenna with no loose hanging wires and can achieve line of site range of 600 meters.

The PWC is approved by the STS Association to conform to the IEC62055-41 & 52 standards for the secure encryption of prepaid water credit tokens. Encryption and decryption keys are managed by an international Key Management Centre (KMC).

These keys are unique to each installation, stored in Security Modules to generate encrypted Credit Tokens.

GPS coordinates are stored on meter

Consumer Interface Unit (CIU)

The Consumer Interface Unit is mounted inside the consumer house with a replaceable AA batteries and links up with the PWC via RF communications. The CIU indicates low credit and FBW and flow detection. The unit indicates the specific credit types being dispensed e.g. FBW, Lifeline or credit, and the history of the last 10 tokens with a date stamp. The CIU refreshes itself automatically every hour or on demand. A series of user commands are available, viewing of credit history and 3 month consumption history, consumer lock when away from home as well as daily, monthly and average consumption. The unit also offers a resettable User Totalizer as well as tactile pushbutton feedback. The keypad can also be locked by client. The CIU to PEC pairing password is protected and the Supply Group Code is shown.

METER MAINTENANCE UNIT (MMU)

The MMU (Meter Maintenance Unit) is a mobile device used to perform certain diagnostic tests on the PWC, as well as changing configuration parameters.

Attachments connects to the bottom of the MMU to a Snap-on USB Port.

One Attachment are available the Data Collector for AMR,

The Data Collector is an Automatic Meter Reading (AMR) device for the remote collection of consumption information from the meters with user defined AMR fields. The MMU does record GPS Route mapping and can store unlimited AMR records. It comes complete with a Bar code scanner

Access to the MMU is controlled by Username and Password, with optional expiry dates.

The MMU comes with a Desktop Charging Cradle or a Vehicle Charger.