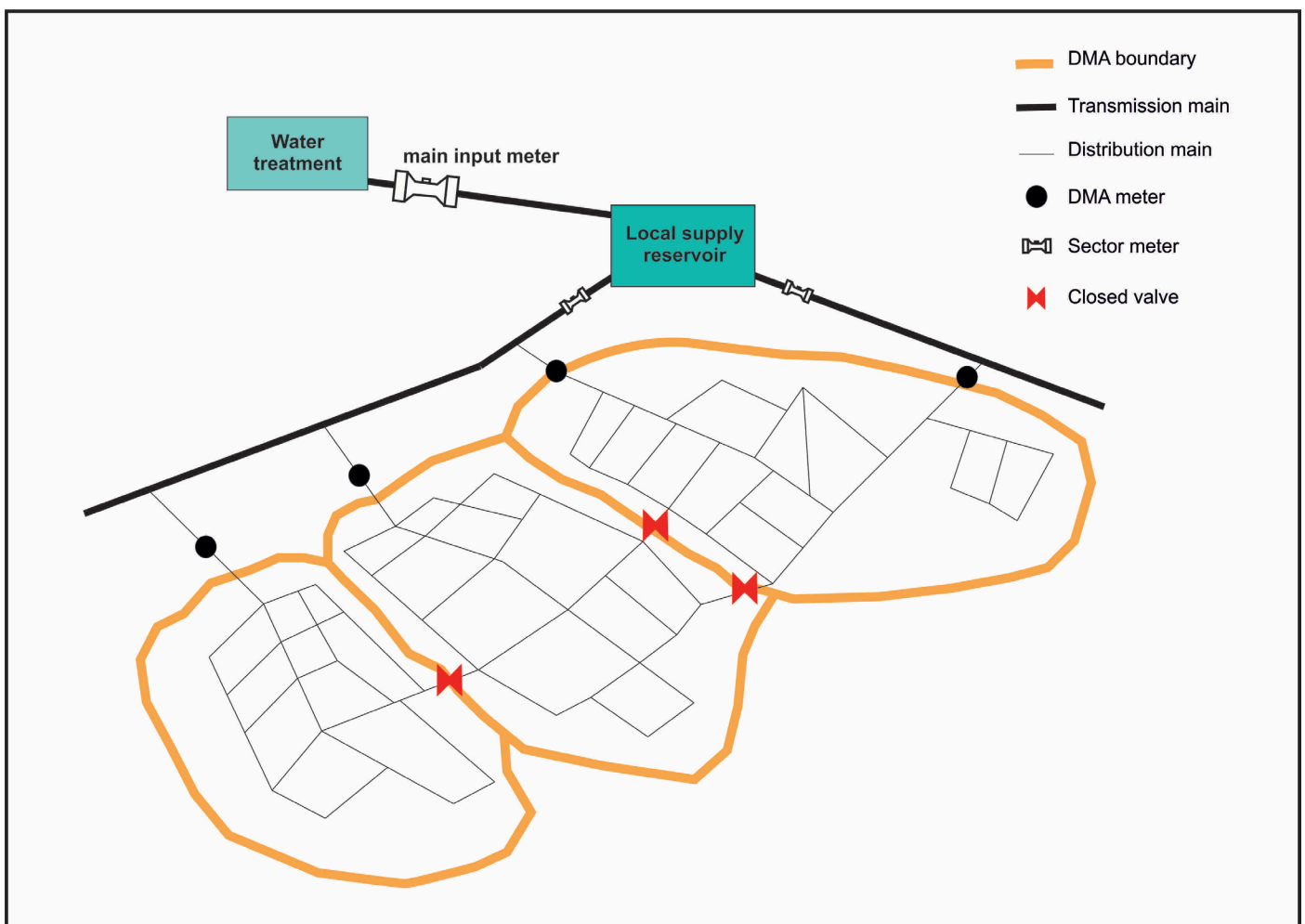


Distribution Flow Monitoring

Introduction

A District Metered Area (DMA) is defined as a discrete area of water in a distribution network. It is usually created by closing boundary valves so that it remains flexible to changes in demand.

The role of a DMA is to divide the network into manageable sections that make it easier to identify where bursts occur and to repair them. Water flowing into and out of a DMA is metered. Distribution flow monitoring is used help determine the level of leakage within the network.



Distribution Flow Monitoring

Technology

Water meters used for flow metering require sensors providing pulse or serial outputs which use very little power. Meters fall into two categories, electromechanical / mechanical and solid-state.

Electromechanical / Mechanical flow meters

An electrical switch operated by an applied magnetic field. The switch may consist of two or three thin metal pieces called reeds, with plated contacts at their tips that are spaced a small distance apart.

- Relay
- Switch

Solid state flow meters

A solid switch is purely electronic – it has no moving parts

- Transistor
- Field Effect Transistor (FET)
- Encoder

Distribution Flow Monitoring

Product Technical Matrix

	Cello 4s	Baby Newlog	Metrolog
Service	Water	Water	Water
Mode of Communication	Local / 2G / 3G	Local / PSTN	Local / PSTN
User Accessible SIM	Yes	N/A	N/A
User Replaceable Battery	Yes	No	No
Available Channels	8	3	3
Optional Pressure Inputs	2	N/A	1
Supported Pressure Recording Strategies	I / A / S / T	N/A	I
Optional Temperature (PT-100) Inputs	0	0	0
Available Digital Inputs	8	3	2
Available Analogue Inputs	8	0	0
Internal / External Supply	Internal & External	Internal	Internal
Powering of Third Party Sensors	Yes	No	No
WITS Compliance	Yes	No	No
Intrinsically Safe	No	No	No
Protection Class	IP 68	IP 68	IP 68
Level Monitoring Capability	Level transmitter, Float Switch, Shaft Encoder	Float Switch	No

Key: Pressure Recording Strategy (I - Instantaneous / A - Average / S - Statistical / T - Transient)