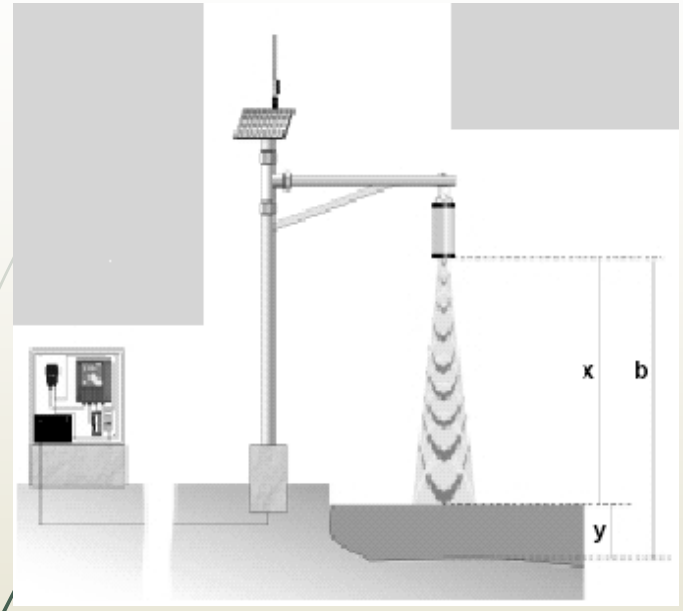
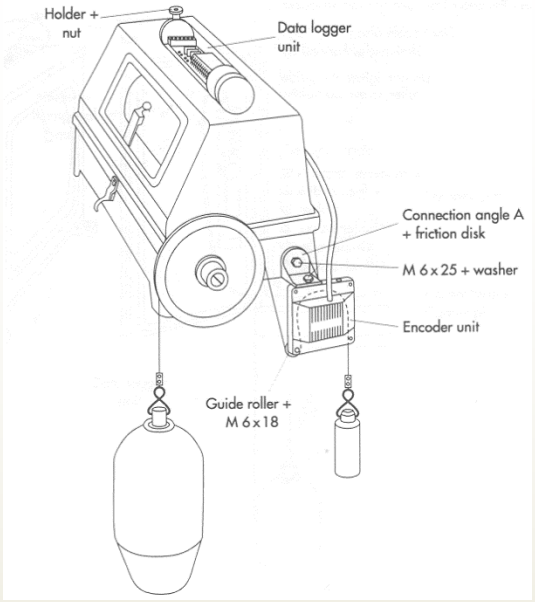
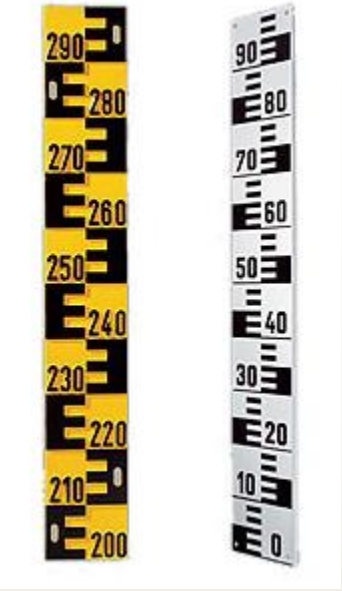
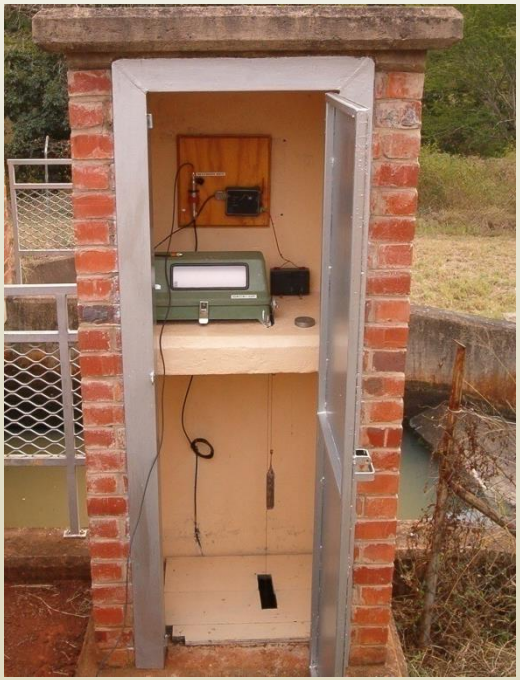
Data output

Water levels









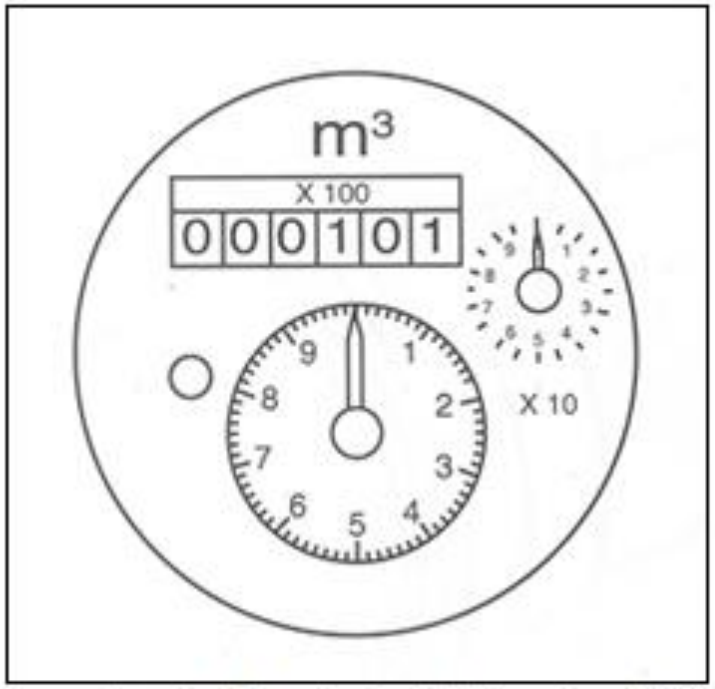
Water levels

Water levels

Meter displays

Mechanical
Electronic

(101 x 100) + (0 x 10) + 0 = 10100 m³



Example of a mechanical register (Meinecke, 2001)

Pulse output

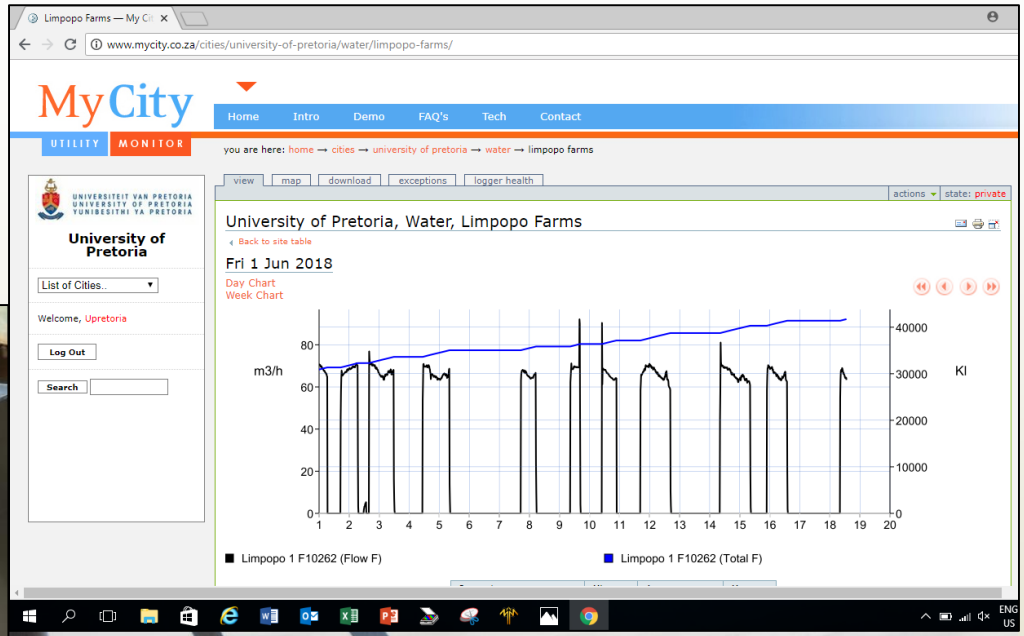
Flow Meter – Reed Switches

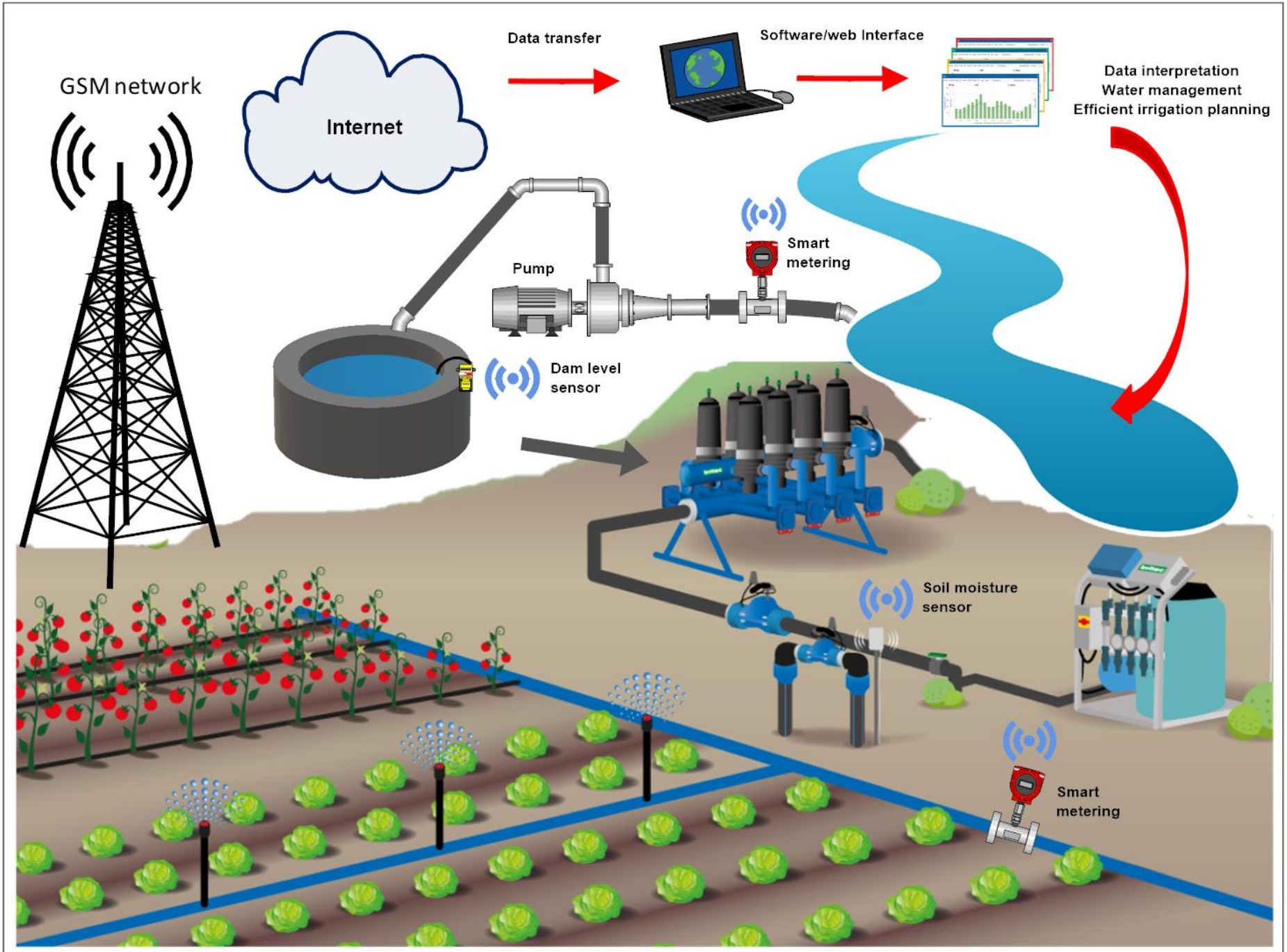
A reed switch is a dry contact (activated by a magnet) that does not consume electric power, that consists of two metal plates that is normally open and the ends of one side are connected to wires (1.5 m) that can be connected to the control unit. The magnet installed in one of the pointer positions rotate as the gear ratio will determine and when it passes the reed switch (360° rotation of the pointer) the two metal plates will give a close contact and a pulse will be received by the control unit.

Specifications:

Maximum Volts	V_{max}	= 48 Volt
Maximum Ampere	I_{max}	= 50 mA
Maximum pulses		2 Hz (2 pulses per second)

Remote monitoring




GSM network
Internet
Data transfer
Software/web Interface
Data interpretation
Water management
Efficient irrigation planning
Pump
Smart metering
Dam level sensor
Soil moisture sensor
Smart metering