Leakfrog

Qonnectis

Leakfrog Operation

HWM

HYDREKA

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Likely Industry requirements

- Mass deployment
- Simplicity
- Affordability
- Effectiveness

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- Background
  - Collaborative development with Thames Water
  - Key objectives
    - Low cost
    - Simple to use
    - Incorporating pulse head
  - Key stages
    - POC model
    - Pre production units
    - Trial production unit
    - Field deployment

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Theory of Operation

- Primary objective is accurate leak detection and sizing
- LeakFrog achieves this: Detect, store and display the maximum time interval between successive pulses from pulsed output meters.
- The maximum time between pulses is the reciprocal of minimum observable flow and is a completely accurate measure of leakage and wastage
- **Minimum flow and non-zero nightline**

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Method of Operation

Press reset button to commence monitoring, frog icon flashes to show operating

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Method of Operation

Press reset button to commence monitoring, Arrow signifies “new high”, meaning awaiting another pulse to show new higher reading

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Method of Operation

Pulse icon shows when pulse picked up.

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Method of Operation

"0006" means 6 seconds between pulses (ie. 1 litre passed in 6 seconds; the reciprocal is 1/6th of a litre per second; meaning 10 litres per minute (assuming meter connected to is 1 pulse per litre)

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Method of Operation

Another pulse picked up. Minimum flow is now 1 litre every 21 seconds, or 1/21 of a litre per second.

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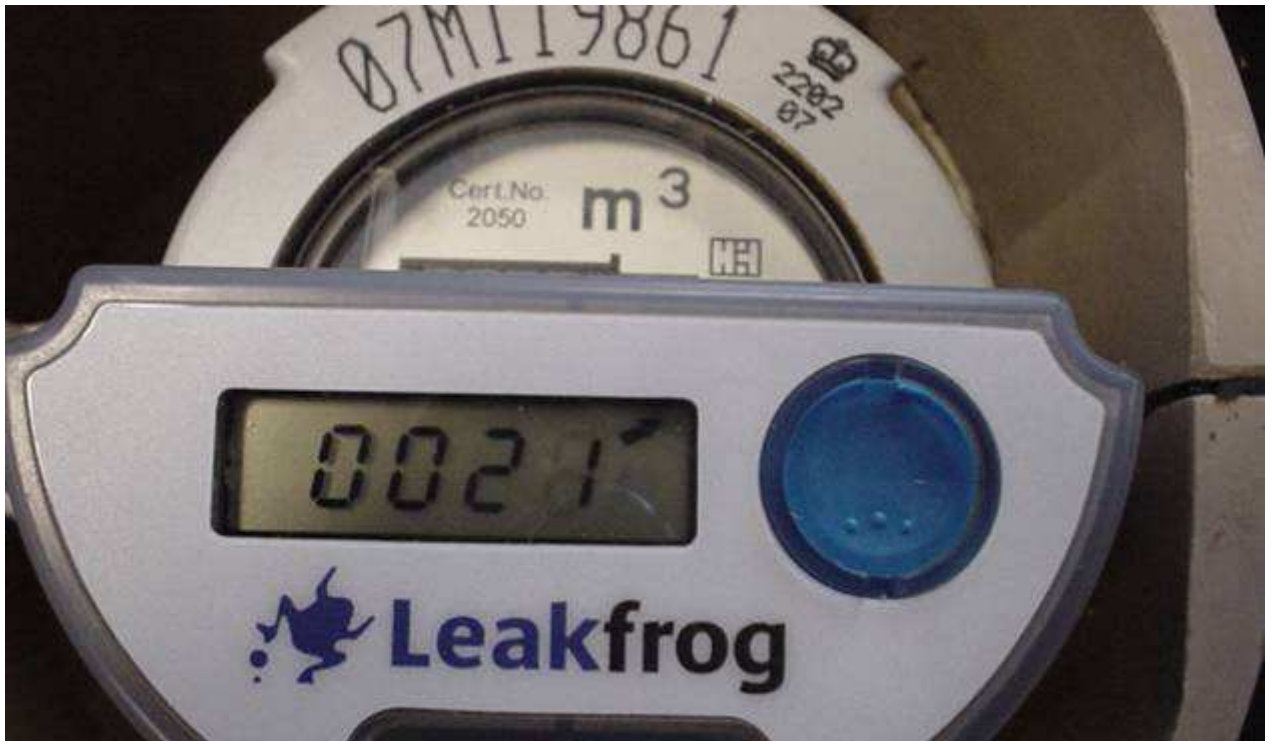
Method of Operation



New high again detected. Leakfrog has now counted mor than 21 seconds since the last pulse and is awaiting the next pulse to show the new, higher reading.

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Method of Operation

Current version is in survey mode and times out at 9999 seconds to save battery. Next version to have rolling 7 day monitoring.

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Leakfrog Summary

- Low cost
- Integral measurement device
- Fits directly onto Elster V210 meters and has integrated pulse pickup
- Version with external cable for connecting to pulse heads of other meters
- Single user control – no set up required
- Fits into existing meter reading cycle/systems
- Permanent or survey install modes
- IP67 – submersible
- CE certified
- Custom LCD display with operator feedback
- Battery powered
- Long battery life (minimum 4 years always-on; 8 years in survey mode)
- Rugged
- Lightweight
- Easy to deploy temporary and permanent
- Easy to collect
- Easy to interpret
- Indicates leakage, wastage and flow

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