TECHNOLOG

Consent Level Recording

Introduction

Consent levels refer to the amount of time that a volume of waste water is allowed to spill, typically under an agreement with environment authorities. The spills are classed as water flowing into the CSO during a non-rainfall related event; there can be fines attached to sites that spill above and beyond their allowed threshold. Over a large network of CSOs these fines can become quite substantial if left unchecked, thus creating a need for water companies to monitor the most frequent offenders.

Monitoring CSO spill points and consent levels:

- Provides users with a better understanding of the network
- Allows problems to be identified before an event leads to an illegal spill
- Prevents fines
- Supports environmental submissions with comprehensive data

Technolog products can be used to monitor CSO spill points, providing vital data and an early warning system.
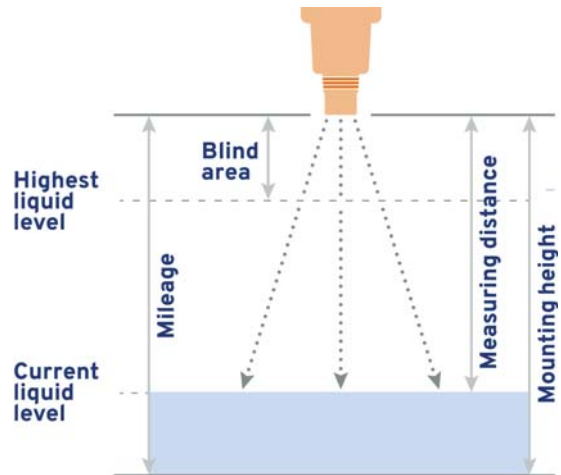
Consent Level Recording

Technology

Non-Intrusive
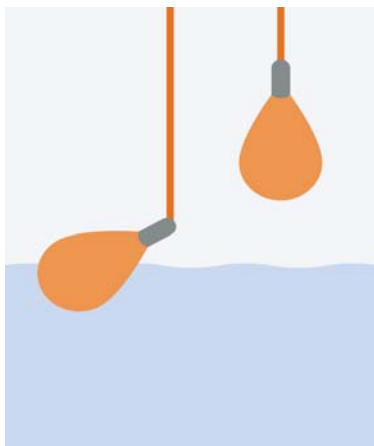
Ultrasonic

Ultrasonic pulses are fired at the surface of the water. Return time calculations are used to determine the depth of the water.
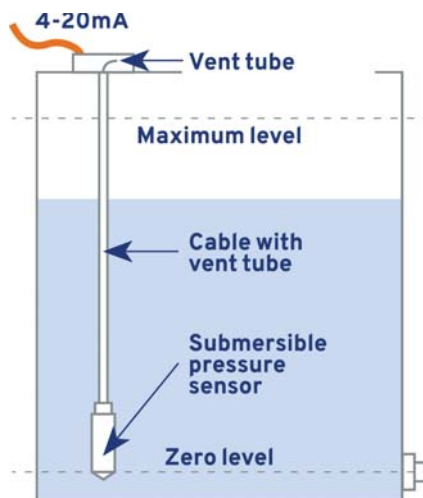

Intrusive

Float Switches

A float on a line contains an internal switch which is triggered when the float is tilted due to rising water level.

Submersible Level Transmitter

A level transmitter submersed within the body of water. The pressure from the surrounding water is measured using an internal strain gauge or similar and level calculated.

Consent Level Recording

Technology

Application	Ultrasonic	Float Switch	Level Transmitter
Fast moving water			✓
Slow moving water	✓		✓
Still water	✓	✓	✓
Debris on surface			✓
Risk of freezing	✓	✓	
Risk of ragging / sediment build up	✓		
Low maintenance	✓	✓	
Low budget	✓	✓	
Intrinsically Safe	✓	✓	

Consent Level Recording

Product Technical Matrix

	Cello IS Encoder	Newlog 4DR Mk2	Cello GS4
Service	Water, Waste Water	Gas	Gas
Available Communication Options	Local / 2G	Local / 2G	Local / 2G / 3G NB-IOT / Cat M1
User Accessible SIM	No	Yes	Yes
User Replaceable Battery	Yes	Yes	Yes
Available Channels	2	3	8
Optional Pressure Inputs	N/A	1	3
Supported Pressure Recording Strategies	I	I / A / S	I / A / S
Optional Temperature (PT-100) Inputs	0	0	1
Available Digital Inputs	0	2	5
Available Analogue Inputs	0	0	5
Internal / External Supply	Internal	Internal	Internal
Powering of Third Party Sensors	No	No	No
WITS Compliance	Yes	No	No
Intrinsically Safe	Yes	Yes	Yes
Protection Class	IP 68	IP 68	IP 67
Level Monitoring Capability	Ultrasonic Probe, PTI Transmitter	Float Switch	Ultrasonic Probe, Level Transmitter, Float Switch

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