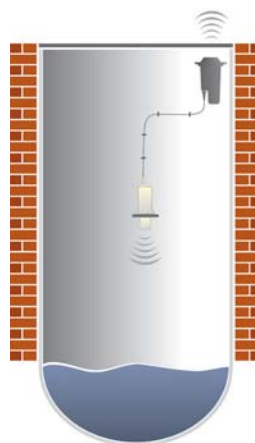


A simple solution providing remote monitoring in hazardous environments, used as an essential aid for temporary & permanent sewer level monitoring, capturing overflow events & early flood warning.

Cello CSO expands on Technolog's family of remote monitoring products, incorporating an ultrasonic level sensor with a battery powered GSM data logger, featuring sophisticated alarm regimes for detecting and immediately alerting of abnormal conditions.

Key Features

- Simple and easy to install
- Fully certified for explosive atmospheres (ATEX, zone 0)
- Remote data retrieval and configuration through PMAC software or web based, WaterCore platform
- Advanced profile and threshold alarms
- "Data on the web" option
- Internally powered > 5 years
- System housed in a fully waterproof enclosures (IP68 to 1 meter)
- Supports SMS and GPRS modes of communication
- Optional Water Industry Telemetry Standard (WITS) protocol compatible and verified





Technical Specifications

CSO Probe specification

Input	Ultrasonic level measurement
Range	0.2 to 3m
Accuracy	+/-10mm
Temperature Sensor	Integrated, for temperature compensation of speed of sound
Beam Angle	12° at -3 dB boundary
Intrinsic Safety	Certified Intrinsically Safe: SIRA 12ATEX 2007X – EEx ia IIC T4 (Ta= -20 to +60°C) IECEX SIR 12.0001X – Ex ia IIC T4 (Ta= -20 to +60°C)
Environmental	Operating temperature: -20°C to +60°C Ingress protection classification: IP68 (1m / 24 hours)
Mechanical	Dimensions (mm): 217(h) x 82(w) x 88(d)

Cello I.S. Mk. 2 specification

GSM Modem	Quad band: 900MHz, 1800 MHz / 850MHz, 1900MHz. Integral antenna
Data Transmission	– SMS or GPRS. 15mins, 30mins, 1 hour, 1 day, 1 week or monthly at programmable date and time
Serial Port	Type: Full duplex, asynchronous Data rate: 1200, 2400, 4800, 9600 bps
Memory	Size: 128K, allocatable between channels as required (max 64K per channel)
Clock	Type: Crystal controlled calendar clock with leap year adjustment Accuracy: 100 seconds per month maximum error over operating temperature range Synchronisation: Option to synchronise clock to GSM network
Supply	Life: Typical battery life > 5 years depending on mode of use (15 minute logging rate / daily transmission) – Internally powered by a single internal lithium battery pack
Recording	Interval: Programmable between 1 minute and 1 hour Data storage: Rotating store, or store until full
Alarm Dial-Out	– High/low threshold and profile alarms – Option to update data on alarm and more frequently thereafter
Environmental	Operating temperature: -20°C to +60°C Ingress protection classification: IP68 (1m / 24 hours)
Intrinsic Safety	Certified Intrinsically Safe: SIRA 06ATEX2010X – EEx ia IIC T4 (Ta= -20 to +60°C) or EEx ia IIC T3 (Ta= -20 to +60°C) IECEX SIR 06.0003X – Ex ia IIC T4 (Ta= -20 to +60°C) or Ex ia IIC T3 (Ta= -20 to +60°C)
Mechanical	Dimensions (mm): 205(h) x 140(w) x 150(d)