

# Cello IS

A Universal Solution for Remote Monitoring of Networks



Cello is a new family of fully-integrated wireless data loggers.

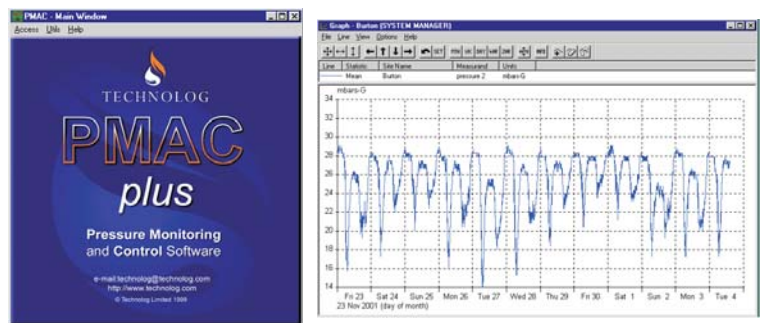
The nationwide GSM network is used to transfer recorded data and alarm messages to a host computer.

Housed in a rugged, waterproof enclosure, Cello IS is suitable for installation in underground chambers, above-ground kiosks and regulator stations.

- Flow, pressure and pressure & flow versions
- Self-powered for five years
- Nationwide wireless coverage
- Includes all GSM service charges for typical applications (Only applicable in certain countries)
- Compatible with Technolog's PMAC software
- Sophisticated profile alarm dial-out regimes
- Signal strength survey mode
- Totally portable: no mains power or telephone line connections



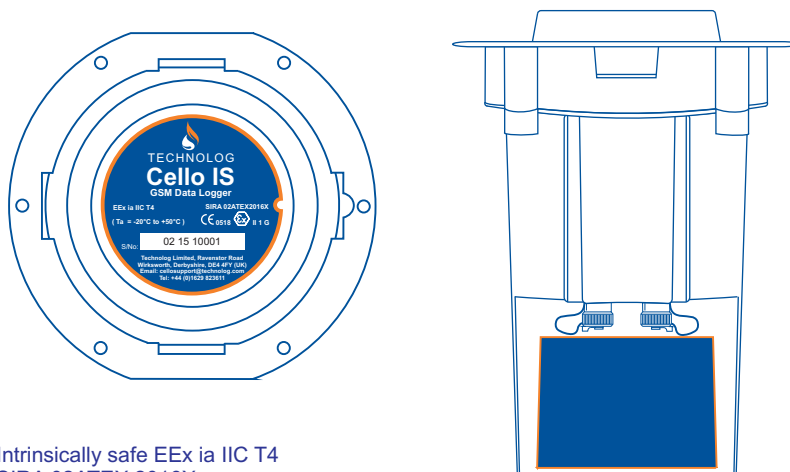
Comprehensive data analysis is provided by Technolog's Windows™-based PMAC software



*Engineering Solutions* for the Utilities

Technolog can also provide a complete installation and maintenance service

# Technical Specifications



<b>Certification</b>	Intrinsically safe EEx ia IIC T4 SIRA 02ATEX 2016X
<b>Inputs</b>	Channel 1 - Pressure Channel 2 - Flow Channel 3 - Flow
<b>Pressure Input</b>	Input Range (gauge): 0 - 75 mbar, 0 - 100 mbar, 0 - 350 mbar, 0 - 1 bar, 0 - 2 bar, 0 - 7 bar Input Range (absolute): 0 - 10 bar, 0 - 20 bar, 0 - 50 bar, 0 - 70 bar Recording Strategy: Pressure sampled at 1-minute rate, mean value stored at the recording interval Accuracy/Resolution: $\pm 0.5\%$ of range Pressure Port: Female $\frac{1}{4}$ BSP taper thread
<b>Flow Inputs</b>	Pulses counted over and recorded at preset intervals
<b>Serial Port/Fast Barrier</b>	Type: Full duplex, asynchronous Data Rate: 1200, 2400, 4800, 9600 bps
<b>GSM Modem</b>	Frequency: 900 MHz (Vodafone, MMO <sub>2</sub> ), 1800 MHz (Orange, T-Mobile), 1900 Mhz Integral antenna
<b>Data Storage</b>	Type: Solid-state Size: 128K, allocated between channels as required (max. 64K/channel) Data Retention: 5 years (life of battery)
<b>Clock</b>	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
<b>Supply</b>	Type: Internally powered by an intrinsically safe, replaceable lithium battery pack Life: Typical battery life 5 years depending on mode of use Internal backup cell maintains logging and local communications during main battery change
<b>Recording</b>	Recording Interval: Programmable between 1 second and 1 hour Data Storage: Rotating store or store until full
<b>Alarm Dial-Out</b>	High/low alarms independently programmable on each channel. Continuous, time window and profile modes of operation. Option to send data more frequently after an alarm
<b>Environmental</b>	Operating Temperature: -20°C to +50°C Protection Classification: Flow versions and absolute pressure versions: IP68 Gauge pressure versions: IP66 (IP68 when used with expansion bellows)
<b>Connectors</b>	Flow Input: M12, 3-pole, dual keyway, stainless steel Communications: M12, 4-pole, single keyway, stainless steel
<b>Mechanical</b>	Dimensions: 191 mm x 140 mm x 150 mm    Weight: 1 kg

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