Cello GS3

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A cost effective, easily deployable, remote telemetry outstation providing a scalable universal solution for monitoring critical parameters in gas distribution networks.

Site data is recorded and transmitted over 2G networks. The GS3 provides a comprehensive and intrinsically safe, battery powered multi-application solution.

Key Features

- Build options available accommodating up to three integral pressure transducers, five digital or analogue inputs and temperature

- Applications include recording of regulator station parameters, gas temperature, flow, valve operation, filter blockage and level monitoring within potentially explosive environments

- Optional LCD display

- Bi-directional communication and remote configuration

- Advanced channel profile and threshold alarms

- Facilitates pressure control when interfaced with Technologs VAM module

- Low power design providing typically > 5 years battery life.

- Automatic detection and switch-over from internal to an external antenna upon connection

- Intrinsically safe for Zone 0 deployment

- IP68 Protection against water ingress

Technical Specifications

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Pressure Input	**Channel types:** Pressure, temperature, pulse (flow), analogue (voltage) and switch closure. 1 encoded meter input channel **Pressure:** up to 3 channels, gauge pressure 3 bar and below, absolute pressure over 3 bar **Pressure input:** 0 - 75, 0 - 100 & 0 - 350 mbar; 0 - 1, 0 - 2, 0 - 3, 0 - 7, 0 - 10, 0 - 20, 0 - 50, 0 - 70 bar (other pressure ranges available upon request) Standard (8 bit) or high resolution (14 bit) pressure data logging configurable by user **Accuracy:** +/- 0.3% of Full-Scale Span (Hi Res) **Pressure ports:** Female ¼" BSP taper thread
Electrical Input / outputs	**Temperature:** 1 channel (optional). Input from external Pt-100 3-wire sensor **Digital input:** 5 channels (optional). Monitors ON/OFF status of volt free contacts or records flow input **Flow input:** Pulses counted over and recorded at pre-set intervals. Maximum rate 25 pulses per second (Maximum count 16,000 pulses per logging interval) **Analogue (voltage) input:** 2.55v reference, 8 bit resolution. 5 channels (optional) 1 x encoded meter input (optional). Compatible with Technolog's CSO Monitor **Control Outputs:** 2. Optional support for connecting up to two Valve Actuation Modules (VAM)
Serial Port	**Type:** Full duplex, asynchronous serial port. Data rate: 1200, 2400, 4800, 9600 bps
GSM Modem	**Integral antenna:** Optional external antenna **Communications:** SMS and data transmission over 2G frequencies **SIM:** User replaceable SIM card
Memory	**Size:** 128k, allocated between channels as required (max 64k/channel) **Data retention:** 5 years (life of battery)
Clock	**Type:** Crystal controlled calendar clock with leap year adjustment **Synchronisation:** Option to synchronise clock to GSM network
Supply	**Battery Life:** Typical battery life 5 years dependent on mode of use – Internally powered by an approved, replaceable lithium battery pack – Internal back up cell maintains logging function and local communications
Recording	**Recording interval:** Programmable between 1 second and 1 hour **Logging method:** Time based or event driven (digital inputs) **Data storage:** Rotating store or store until full
Sampling	– Point sampling or 1 second sampling over recurring interval and mean data storage (averaging) – Statistical recording (mean, max, min & standard deviation) on standard resolution pressure/analogue channels
Alarm Dial-Out	– High / low alarms independently programmable on each channel – Continuous, time window and profile modes of operation – Option to transmit data more frequently after an alarm
Display	– Optional LCD display with backlight. Magnetically-triggered. Cycles through channel input readings
Battery Monitoring	– Optional logging of internal battery voltage
Certification	Intrinsically safe to Ex ia IIC T4 Ga (Ta -20 to +60C, certificate numbers Sira 11ATEX2368X / IECEx SIR 11.0162X
Environmental	**Operating ambient temperature:** -20°C to +50°C **Protection classification:** IP68
Connectors	**Communications:** M12, 4 pole, single keyway, stainless steel – Digital, flow, temperature and analogue input: 19-way to MIL-C-26482
Mechanical	**Dimensions (including carry handle):** 280 x 155 x 100 mm (excluding external antenna) **Weight:** 1.500 kg