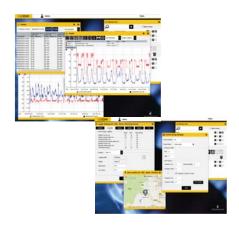# Cello GS3

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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 cellular 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 and five digital inputs and temperature

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

- Bi-directional communication and remote configuration

- Advanced channel profile and threshold alarms

- Facilitates pressure control when interfaced with Technolog's 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) and switch closure **Pressure:** up to 3 channels, gauge pressure 3 bar and below, absolute pressure over 3 bar **Pressure input:** 0 - 75, 0 - 100 mbar; 0 - 3, 0 - 7, 0 - 10 bar (please contact Technolog regarding availability of alternative pressure ranges) 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 Options	**Temperature:** 1 channel. Input from external Pt-100 3-wire sensor **Digital input:** 5 channels. 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) **Control Outputs:** 2. 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
Modem	**Integral antenna:** Optional external antenna **Communications:** Support for SMS and data communication over 2G and 3G cellular networks **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 cellular 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
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