Cello GS4

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

Multiple site parameters are monitored, recorded and transmitted over 2G (SMS/GPRS), NB-IoT and LTE Cat M1 networks, providing a comprehensive multi-application solution for the Gas Industry.

Key Features

- Suitable for Regulator Stations, recording pressure, temperature, flow, valve operation and filter differential pressure

- Flexible communication build options supporting either 2G / NB-IoT / LTE Cat M1

- Build options for accommodating up to three integral pressure transducers, five digital (digital or analogue) and optional temperature

- Bi-directional communication and remote configuration

- Operable as a Low Pressure Point (LPP) for profiling control in conjunction with Gascore

- Supports clocked pressure control when interfaced with Technolog's VAM modules

- Internal temperature sensor for measuring and recording ambient temperature

- Advanced channel profile and threshold alarms

- Low power design providing typically > 5 year battery life

- External Antenna with automatic detection and switchover

- Tilt sensor to aid detection of movement

- Intrinsically safe for Zone 0 deployment

Technical Specifications

Pressure Input	**Channels:** Up to 3 **Ranges:** 0 - 75, 0 - 100 mbar; 0 - 10, 0 - 300 KPa; 0 - 3, 0 - 7, 0 - 10 bar , 0 - 20 bar, 0 - 50 bar (contact Technolog regarding availability of alternative pressure ranges) **Resolution/Accuracy:** 8 bit, +/- 0.5% of Full-Scale Span **Pressure ports:** Female ¼" or 1/8" BSP taper thread
Electrical Input / Output Build Options	**Temperature channel:** 1 – Requires input from external Pt-100 3-wire sensor **Input channels:** 5 – Monitors ON/OFF status of volt free contacts – Monitors Pulse (Flow) inputs: Pulses counted over and recorded at pre-set intervals. Maximum rate 25 pulses per second (Maximum count 16,000 pulses per logging interval) – Analogue, subject to port parameters **Control Outputs:** 2 – Support for connecting up to two Valve Actuation Modules (VAM)
Modem	**Integral antenna:** Optional external antenna – Support for 2G, NB-IoT and LTE Cat M1 frequencies (subject to build option) **SIM:** User replaceable SIM card
Data Transmission	**Type:** 2G, NB-IoT and LTE Cat M1 networks (subject to build option) **Interval:** 1 min to 1 month at programmable date and time
Memory	**Size:** 512K, allocable between channels as required (max 64K per channel)
Clock	**Type:** Crystal controlled calendar clock with leap year adjustment – Option to synchronise to cellular network or server
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	**Interval:** Programmable between 1 second and 1 hour **Digital inputs:** Time based or event driven **Data storage:** Rotating store or store until full
Pressure Sampling	– Point sampling mode: Data recorded at each recording interval – Average sampling mode: 1 second sampling over recurring interval with mean data storage – 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) / Zone 0 – Certificate numbers Sira 19ATEX2140X / IECEx SIR 19.0044X
Environmental	**Operating ambient temperature:** -20°C to +50°C **Protection classification:** IP66 (installed in accordance with manufacturers guidelines)
Connectors	**Communications:** M12, 4 pole, single keyway, stainless steel **Signal inputs:** Digital and temperature input via 19-way - Mil Spec compatible
Mechanical	**Dimensions (including handle/mounting bracket):** 285 x 159 x 106 mm (excluding external antenna) **Weight:** 1.500 kg