Cello 4S

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A remote telemetry outstation delivering a scalable machine to machine (M2M) solution reducing user operating and capital costs.

Multiple site parameters are monitored, recorded and transmitted over 2G (SMS/GPRS) or 3G networks, providing a comprehensive multi-application solution for the Utilities and Industry.

Key Features

- Build options for up to two pressure and eight user programmable digital or analogue input
- Easily set-up using Technolog's innovative optional WiFi communication interface
- Proven bidirectional Cello communication with automatic gap filling ensuring high level data reliability and supporting remote product configuration
- Remote set-up, monitoring and control through locally deployed PMAC software or web based WaterCore platform
- Advanced channel profile and threshold alarms
- Facilitates closed loop control of pressure reducing valves, pressure sustaining valves and variable speed pumps
- High accuracy battery monitoring optimising maintenance and asset management programmes
- Integral movement detection aiding preventative maintenance routines, asset tracking and enhanced data integrity critical for reporting
- Low power design provides typically > 5 years battery life. Optional external powered unit with "always-on" capability
- Water temperature measurement
- High frequency pressure transient detection critical to extending asset life and network modelling
- Rugged, portable and waterproof to IP68
- WITS compatible and verified

Technical Specifications

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Pressure Input	**Input range:** 0 - 100m (0 - 10 bar) or 0 - 200m (0 - 20 bar) **Programmable:** +/- 0.5% or +/- 0.1% resolution
Electrical Inputs	**Configurable channel strategies (subject to model):** Voltage, event, tamper / status, count, frequency and encoder **Digital:** Pulses counted over, and recorded at, pre-set intervals. Tamper/status and event time supported **Frequency input:** Switch closures or logic pulses, maximum frequency 16 kHz, programmable sampling period of 1 to 250 seconds, independent of recording rate **Analogue:** 0 - 2.5V, 0.01V resolution as standard, <1mV with 8 channel option
GSM Modem	**Integral antenna:** Optional external antenna – Support for 2G / 3G frequencies **SIM:** User replaceble SIM card
Data Transmission	**Type:** 2G / 3G frequencies **Interval:** 1 min to 1 month at programmable date and time – WITS option (factory configured) – External power recommended for intervals less than 15 minutes
Serial Port	**Type:** Full duplex, asynchronous **Data rate:** 1200 to 38400 bps
Memory	**Size:** 512K, allocable between channels as required (max 64K per channel) **Type:** Solid state, non-volatile
Clock	**Type:** Crystal controlled calendar clock with leap year adjustment – Option to synchronise clock to local network at regular intervals
Supply	**Life:** Typical battery life > 5 years depending on mode of use – User replaceable Internal lithium battery pack – Optional high capacity external lithium battery pack, user replaceable
Recording	**Interval:** Programmable between 1 second and 1 hour **Data storage:** Rotating store or store until full – Supports average and statistical recording of pressure (min, max, mean, standard deviation) over logging interval
Alarm Dial-Out	– 4 threshold and profile alarms, with hysteresis and persistence, independently configurable on each channel – Option to update data on alarm and more frequently thereafter
Environmental	**Operating ambient temperature:** -20°C to +50°C **Ingress protection classification:** IP68 (submersion at 1m depth for > 24 hours)
Mechanical	**Dimensions (mm):** 149 x 146.5 (h) **Weight:** 0.750kg

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2099DS9000 Issue D & DMR n/a