

A multi-application battery powered telemetry outstation for remote monitoring of critical parameters in hazardous environments, providing an essential aid for gas distribution, sewer and waste water networks.

Site parameters and events are monitored, recorded and transmitted over 2G (SMS/GPRS), NB-IoT and LTE Cat M1 networks, providing a comprehensive solution for the Utilities and Industry.

## Key Features

- Support for LTE Cat M1 and NB-IoT leverages low power network capability for greater energy efficiency
- Build options for single pressure or encoder inputs
- Compatible with a wide range of accessories and instrumentation
- User replaceable SIM card and battery
- Bi directional Cello communication supporting automatic gap filling ensuring high level data reliability
- Remote product configuration
- Advanced channel profile and threshold alarms
- Fully certified for explosive atmospheres (ATEX, zone 0)



# Technical Specifications

## Cello 4 IS specification

<b>Inputs</b>	Single Pressure (Internal) Single Pressure (External) Encoded Inputs (two)
<b>Sensors</b>	<p><b>Single Pressure Internal</b> – (E.g.) for gas pressure measurement in the mains distribution network  <b>Resolution/Accuracy:</b> 8 bit, +/- 0.5% of Full-Scale Span  – Supports average &amp; statistical recording of pressure (min, max, mean, standard deviation) over logging interval  <b>Port:</b> female 1/4" BSPT</p> <p><b>Single Pressure External</b> – for measurement of high pressure gas or liquids (E.g. pumped sewage)  <b>Resolution/Accuracy:</b> 8 bit, +/- 0.5% of Full-Scale Span  2m cable to external pressure sensor - Port: G1/2 female</p> <p><b>Input ranges:</b> 75mBar, 100mBar, 200mBar, 1Bar, 3Bar, 5Bar, 7Bar, 10Bar &amp; 20Bar  (please contact Technolog regarding availability of non-standard pressure ranges)</p> <p><b>Encoded Inputs</b> - for interface to Gas meters with encoded output and to dedicated Technolog waste water monitoring sensors (ultrasonic level, velocity/surface flow rate, angle (of flow), radar level, depth/level from submersible pressure transmitter)</p>
<b>Modem</b>	<p><b>Integral antenna:</b> Connection for optional external antenna - IP68 SMA Jack  – Support for 2G, NB-IoT and LTE Cat M1 frequencies  <b>SIM:</b> User replaceable SIM card</p>
<b>Memory</b>	<b>Size:</b> 512K, allocatable between channels as required (max 64K per channel)
<b>Clock</b>	<p><b>Type:</b> Crystal controlled calendar clock with leap year adjustment  – Option to synchronise clock to local network at regular intervals</p>
<b>Supply</b>	– User replaceable Internal lithium battery pack, typical battery life > 5 years depending on mode of use
<b>Recording</b>	<b>Interval:</b> Programmable between 1 second and 1 hour <b>Data storage:</b> Rotating store, or store until full
<b>Alarm Dial-Out</b>	– High/low threshold and profile alarms – Option to update data on alarm and more frequently thereafter
<b>Environmental</b>	<p><b>Operating temperature:</b> -20°C to +60°C  <b>Ingress protection classification:</b> IP68 (submersion at 1m depth for 48 hours)</p>
<b>Intrinsic Safety</b>	<p><b>Certified Intrinsically Safe:</b>  CML 21UKEX2521X / CML 21ATEX2522X / IECEx CML 21.0064X. Protection concept, apparatus group, temperature class : Ex ia IIC T4 Ga  <b>Ambient temperature:</b> Ta = -20°C + 60°C. Equipment group and category: II 1G</p>
<b>Mechanical</b>	<b>Dimensions (mm):</b> 149 x 146.5 (h) <b>Weight:</b> 0.750kg

