

Innovative battery-powered Smart Controller integrates the latest two-way GSM & MQTT communications technology. Respond to demand changes in your Smart Network instantly, optimising performance and efficiency. Next-gen intelligent control utilises GasCore and our ML-driven Smart prediction module for accurate Gas demand forecasting.

Intrinsically safe, compact GSM Pressure Controller can be powered via IS battery pack or Technolog's Green Energy module (GEM) allowing the user to attach renewable energy sources such as solar or wind. Fully approved for Hydrogen and combined with pilot operated regulators it delivers optimum system pressures to satisfy not only demand but also ensure leakage and emissions are controlled in line with regulatory requirements. Choose between fixed pressure, clock control and ML Smart profile prediction module.

## Key Features

- Provides advanced control to the outlet pressure of one or more gas regulators via time or through innovative self-learning of the network to reduce leakage, 'lost' revenue and public reported escapes
- Multiple channels transmitted (pressure, temperature, flow, status inputs and operation of differential pressure switches or slam open/close)
- Design allows for rapid deployment
- Supports dual temperature channels
- Compatible with 3 wire PT100 RTD
- Programmable alarm dial-outs
- User changeable Zone 0 ATEX rated battery packs
- 5 years plus battery life
- Replaceable valve control modules
- MQTT IP comms Protocol over 4G NB/LTE-M with 2G support
- Certified for use in Zone 0 hazardous locations
- Compatible with Technolog's solar energy and battery technology (GEM)
- Local or remote data retrieval of stored data





# Technical Specifications

<b>Analogue Inputs</b>	<p><b>Channels:</b> Various configurations available, 4 channels can be split between up to 3 pressures and 2 temperatures. All channels sampled instantaneously at logging interval. Channel 1 ("outlet" pressure) may be sampled alternatively at 10Hz and summary of min, max, mean and standard deviation stored at the logging interval. Standard pressure ranges (gauge pressure below 10 bar, absolute 10 bar and above): 0 - 75 mbar; 0 - 100 mbar; 0 - 3 bar, 0 - 7 bar, 0 - 10 bar (please contact Technolog regarding availability of alternative pressure ranges)</p> <p><b>Accuracy / resolution:</b> +/- 0.5%</p> <p><b>Temperature input:</b> PT100 (3 wire) x 2</p>
<b>Digital Inputs</b>	<p><b>Channels:</b> 8 channels available for 0-3V digital signal or volt-free contacts</p> <p><b>State input (8 channels max):</b> record date and time of events and generate alarms</p> <p><b>Pulse input (2 channels max):</b> count pulses (e.g. flowmeter) and record total for each logging interval. Maximum rate 10Hz</p>
<b>Communication Protocol</b>	<p><b>Cellular:</b> TCP/MQTT over 2G or 4G Cat-M/NB-IoT</p> <p><b>Local:</b> E5565 at 1200-4800 bps</p>
<b>Memory</b>	<p><b>Type:</b> Solid state</p> <p><b>Size:</b> 128k. Rotating store or store until full, time-based recording</p>
<b>Clock</b>	<p><b>Type:</b> Crystal controlled calendar clock, with leap year adjustment</p> <p><b>Accuracy:</b> 5 minutes per year over operating temperature range</p>
<b>Supply</b>	<p><b>External (6/12cell):</b> 3.9v Typical battery life 5 years +</p> <p><b>External Solar:</b> Via Technolog GEM</p> <p><b>Supply to VCM:</b> 6.8v</p> <p><b>Back up cell:</b> Supports data logging functions only</p>
<b>Environmental</b>	<p><b>Operating ambient temperature:</b> -20°C to +60°C</p>
<b>Intrinsic Safety</b>	<p><b>Certified Intrinsically safe:</b> Ex ia IIC T4 Ta = -20 to + 60°C</p> <p><b>Certificate numbers:</b></p> <ul style="list-style-type: none"><li>- CML 23UKEX2540X</li><li>- CML 23ATEX2539X</li><li>- IECEx CML 23.0193X</li></ul>
<b>Connections</b>	<ul style="list-style-type: none"><li>- Glanded variant</li><li>- 19 way connector for IS terminal box</li></ul>
<b>Mechanical</b>	<p><b>Dimensions (mm):</b> 260x 170 x 94 (Enclosure only)</p> <p><b>Weight:</b> 1.800 kg (weight may vary depending on build)</p>