Pegasus 2

LTE-M & NBIoT-enabled Pressure Control System

Pegasus 2 is an advanced pressure control system that utilises our innovative modem (capable of connecting via LTE-M, NBIoT, 4G, 3G and 2G) for reliable and low-powered two-way communication.

With the capability to set target pressure by time, flow or a combination of both (with different table settings per day), Pegasus 2 delivers a sophisticated level of targeted control, even on a time basis.

Pegasus 2 features a secondary channel for fast logging down to 25Hz. This is invaluable for investigating system transient events.
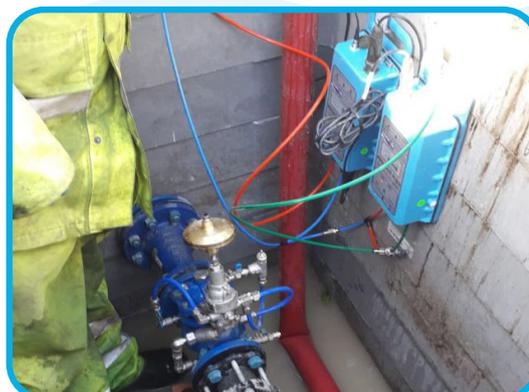
Applications

Pegasus 2 empowers utilities to take full control of their pressure management strategy by setting up customisable target pressure values each day, seven days a week, based on time, flow, or both. This allows for greater responsiveness to daily demand cycles, while reducing water loss and burst frequency.

The optional addition of latching enables the controller to automatically open the valve fully when upstream pressure drops too low, preventing excessive head loss and ensuring customers have supply even during peak demand.

Key Features

- **Telemetry:** NBIoT/LTE-M based cellular communication as standard with fallback 2G capability.

- **Modulated control:** provides great flexibility to modulate pressure according to demand throughout the day with changes being made remotely.

- **Multi-point time based PRV:** control without flowmeter 96 values per day, 7 days per week.

- **Pressure failsafe:** set by user on installation, including manual safe override on site.

- **Intelligent pressure control:** proven to minimise leakage and reduce the frequency of pipe bursts.

- **Latching solenoids:** optional feature to fully open or close the PRV top chamber in tight headloss, or network fault conditions.

- **Integrated low-cost telemetry:** enables rapid monitoring and remote control as required.

- **Closed loop control:** optional closed loop control automatically modulating pressure from remote critical point data.

- **System configuration:** easy to set up locally via tablet or PC app and remotely via PressView Cloud Server.

- **Transient logging:** high speed logging to 25Hz to identify network transient events.

- **Value Performance Monitoring:** top chamber pressure and solenoid activations to continually monitor value performance.

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Input Options

2 x Digital:	2x Uni- or bi-directional pulse. Count or Event logging modes.
2 x Analogue: (additional third channel on request)	Internal Pressure Transducer. External pressure. 4-20mA (optional). 0-20 bar / 0-200 meters head / 0-300psig, 0.1% repeatability / please note that the logger is calibrated to 10 bar as standard. (20 bar calibration must be specified at time of order if required). Leak noise, 0-10V, 0-1V, temperature or 4-20 mA variants.

Hydraulic

3 x Solenoid Outputs:	1x Latching Solenoid, to vent or close the top PRV chamber. 2x Pulsed Solenoid outputs, up/down control. Safe levels and alerts set to protect battery depletion.

Controlling Features

Clock:	Clock is programmable for seasonal time changes.
Time Based Control:	Up to 96 table entries for 7 individual days per week or setting based on Week Days or Weekends. Calendar special event table also available.
Flow Based Control:	Flow based control, or Flow override option.
Fail Safe:	Default Fail Safe can be configured to 'Set' or 'Release' the latching solenoid upon error (e.g faulty sensor/no flow) or revert to time profiles if flow fails or revert to fixed pressure (operator selected).

Communication

Internal Cellular Modem:	Cellular modem supporting 2G/3G/4G/NBIoT/LTE-M (Cat-1) - contact HWM Global for available options.
Accelerated Dial-in:	RS232 or USB interface for programming and integration with PC/Laptop or Windows Tablet using IDT software. Programmable up to 19,200 b.p.s.

Specifications

Frequency:	Variable logger sample rate from 1s to 24hrs (this may affect battery life and communication costs).
Logger/ Site ID:	7 alphanumeric characters. Readable factory set serial number in firmware.
Ingress Protection:	IP68 submersible.
Dimensions:	315H x 153W x 87D (mm) - 12.4" x 6.0" x 3.4"
Construction:	Aluminium alloy casing.
Weight:	Approx 3.5kg.
Operating Temp:	–20 to +60°C (-5 to +140°F).
Power:	Lithium-thionyl chloride cell operational for 5 years under typical operating conditions.
Alarms:	Multiple alarm options including Rate of Change, Profile, Minimum Night Flow and Threshold. 16 alarms per logger. Can be programmed to auto dial up to 8 telephone numbers on alarm. Over 16 alarms per logger depending on channel configuration.
Memory:	Primary recording 179,760 readings (Cyclic or Block).

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