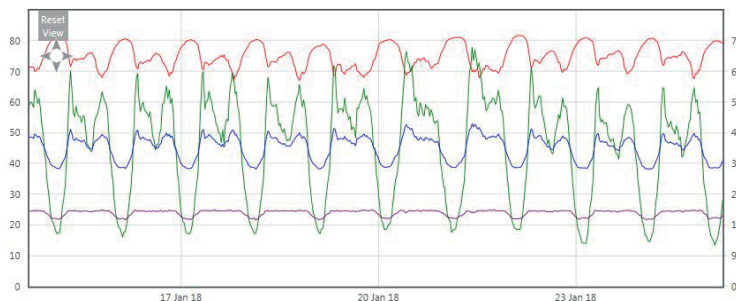# Pegasus+
Pressure Control System

Pegasus+ is a sophisticated and highly versatile solution for pressure control with integral two-way mobile communications.

Pegasus+ has the capability to set target pressure by time, flow or by a combination with different table settings per day of the week. With the addition of a critical point data logger, PressView can automatically analyse and calculate network conditions to maintain a stable pressure at the critical point to fully optimise a PRV zone. Resulting benefits help reduce demand and leakage levels, whilst at the same time calming the network, reducing burst frequency.

Key Features and Benefits

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

- **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

- **Flexible:** 2G, 3G, NBIoT, Cat-M1 versions available, while additional external battery packs enable high frequency data calling

- **Latching solenoids:** optional feature to fully vent the PRV top chamber in tight headloss conditions

- **Integrated low cost telemetry:** enables rapid (almost real-time) monitoring and remote control as required

- **Secondary logging channel:** enables one second fast logging for analysis of events along with Pseudo logging and transient captures

- **Additional logging channel:** optional 4th logging channel to record top chamber PRV pressure

- **Windows Tablet or PC based app:** allows easy set up and programming functionality

Applications

Pegasus+ uses a Windows Tablet or PC based IDT app for easy set up and programming and is compatible with the HWM Online web viewer for easy and convenient access to data via the internet.

Pegasus+ transmits data through an integral modem with GPRS/2G, 4G, LTE-M (Cat-1) and other NBIoT options available.

In addition, PressView web based software provides location fleet mapping, installation photos, graphing, remote table control, alarm setting and maintenance alerting.

Individual user login fingerprints any changes made on the operation of Pegasus+, making any actions fully accountable and historically registered.

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Sensor Input Options

2x Digital	2x Uni- or bi-directional pulse. Count or Event logging modes
2x Analogue Inputs (additional third channel available on request)	Internal Pressure Transducer 0-20 bar/0-200 meters head/0-300 psig, accuracy ±0.1% External Pressure Transducer (volt) or Transmitter (mA). 0-20 bar/0-200 meters head/0-300 psig, accuracy ±0.1% Option 4-20mA from isolated sensor, or 0-1v, 1-5v, or 0-100m Volt
3x Solenoid Outputs	1x Latching Solenoid, to vent or close the top PRV chamber. 2x Pulsed Soleniod outputs, up/down control. Safe levels and alerts set to protect battery depletion.

Communication

Mobile	Cellular modem supporting 2G/3G/ NBIoT/LTE-M (Cat-1) with SMS backup where available - contact HWM for available options
Serial	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
PSTN	Optional integral PSTN modem

Controlling Features

Summer/Winter	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)

Logger Features

Frequency	1 second - 24 hours. Settings independent for primary and secondary channels
Logger ID	Up to 8 alphanumeric characters
Site ID	Up to 127 alphanumeric characters
Clock	On board 24 hour real time clock with date facility
Ingress Protection	IP68 fully 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°C)
Power	Lithium-thionyl chloride cell operational for 5 years under typical operating conditions
Alarms	16 alarms per logger. Each with 16 character comment field. Can auto dial up to 16 telephone numbers, 1 per alarm. Threshold and profile alarms
Memory	Primary recording 179,760 readings (Cyclic or Block)

MONITORING ASSETS, DELIVERING DATA, BRINGING CONTROL