

# Intelligens PRS

*Intrinsically Safe Gas Network Pressure Data Logger with Integral SMS/GPRS Telemetry*



## Key Features

- ✓ Single, internal pressure transducer.
- ✓ Intrinsically safe, ATEX approved (Zone 0)
- ✓ GPRS communication with SMS backup
- ✓ External high gain antenna
- ✓ IP68 environmental protection
- ✓ Accelerated dial in and alarm sampling
- ✓ 5-year standard battery life, user replaceable
- ✓ Advanced data logging regimes
- ✓ Large Memory Capacity
- ✓ Advanced alarm dial-out regime
- ✓ User replaceable SIM
- ✓ External power supply option
- ✓ Remotely configurable / firmware Upgradable
- ✓ Multiple alarm options

## Overview

The Intelligens PRS logger has been developed by HWM to measure gas network pressures. A competitively priced logger that meets all of the data generation and management needs of your network.

Monitoring district pressures throughout the day is pivotal in maintaining the statutory minimum supply whilst ensuring the network pressure keeps loss to a minimum.

The dual input functionality of the system means it can be used in combination with digital sensors including pressure/temperature sensors and simple contact switches. Intelligens PRS has been designed to work safely and efficiently in hazardous areas and is certified ATEX/IEC to Zone 0. It is perfect for monitoring regulating stations and extremity points.

Together with its versatile telemetry options, robust construction and long battery life this makes Intelligens PRS is well suited to “fit and forget” operations in remote or hard to access locations. The digital pressure transducer provides stable measurements with negligible drift.

## Easy Installation

Intelligens PRS is supplied with user friendly PC based installation software, as well as user replaceable SIMs

## Improved Visibility

The Intelligens PRS is an ATEX Level 0 telemetry data logger which transmits data from the sensor via GPRS. Two-way connectivity enables the unit to be reprogrammed remotely without the need for expensive site visits. New alarm conditions can trigger an alert to up to 16 specified telephone numbers, and the device can provide accelerated dial-in and sampling functionality during such events to make data rapidly available. This enables operators to respond promptly to changing levels.

## Highly Versatile

Intelligens PRS is equipped with additional channel capability for logging temperature, additional pressure or flow if required.

## Extended Battery Life

Low power electronics enable the typical five year battery life to be maintained even with increased transmission rates on alarm. The Intelligens PRS has been designed so that the batteries can be replaced. The unit accepts appropriately rated external sources such as battery packs or solar power, extending the longevity of the system and potentially increasing the data transmission frequency.

## Dual input Functionality

|                      |                              |  |
|----------------------|------------------------------|--|
| Sensor Input Options | Pressure Internal (standard) | 100mBar to 100Bar 0.15% FSD available on request   |
|                      | Digital (optional)           | Up to 4 user configurable pulse/status inputs  |
|                      |                              | Contact closure type or other pulse input  |
|                      |                              | Up to 128 pulses per second  |
|                      | Temperature (optional)       | PT100 -40°C to 140°C (2/3/4 wire compatible)   |
| Control output ports | Digital (optional)           | 2 independent configurable outputs.  |
| Logger Features      | Rating                       | ATEX/IEC certified to Zone 0   |
|                      | Memory                       | Primary recording 256,000 readings (larger sizes available on request)<br>Future proof in field local and remote upgradable software   |
|                      | Analogue                     | Variable sample rate 1s to 24hrs   |
|                      | Alarms Logger ID             | Multiple Lower/Upper Limit, Min Flow, Rate Of Change, Channel Difference, In/Out of Band alarm types.  |
|                      | Clock                        | On board 24 hour synchronized real time clock with date facility   |
|                      | Secondary channel            | Can be programmed to record either fast data, average minimum, average maximum or time interval between pulses (for data smoothing)  |
|                      | Internal Cellular modem      | GPRS can send data down to every 5 mins (*please note this may affect battery life)  |
|                      | Dimensions (mm)              | Tough ABS plastic enclosure<br>200H x 97W x 88D  |
|                      | Weight                       | 1kg  |
|                      | Operating Temp               | -20°C to +60°C (-5°F to +140°F)  |
|                      | Ingress protection           | IP68   |
|                      | Power                        | User Replaceable Lithium Thionyl-Chloride battery pack operational for 5 years + under standard operating conditions, complete with low battery alarm<br>External power available with a suitable ATEX certified power source (option) |
| Communication        | Internal Cellular modem      | GPRS to HWM DataGate or customer specific server. SMS Back Up<br>SMS to HWM DataGate or customer modem. Multiple messages per day.<br>Quad band modem suitable for 850/900/1800/1900MHz bands.   |
|                      | Accelerated Dial In          | Dial-in rate is increased if alarm situation is triggered. Logger can accelerate dial-in at alarm level for multiple applications  |

*\* Typical battery life expectancy is based upon achieving network registration regularly and with ease. If the GPRS-enabled network registration is unachievable, the GPRS logger will convert to SMS-only operation after 24 hours and will attempt to re-establish GPRS communication when possible. A signal strength test should be performed during installation.*