



Pressure Transient

Transient Data Logger



MONITORING ASSETS, DELIVERING DATA, BRINGING CONTROL



Pressure Transient Transient Data Logger

Pressure Transient is a highly-versatile data logger designed for effective network transient logging.

Featuring advanced cellular telemetry and an innovative 'event window selection' the operator can now send transient alarm information and a selectable window of fast logged data before and after the event, or for set time-based windows.

Transient logging is no longer a purely survey operation, but can now be part of permanent network monitoring for standard flow and pressure logging. Transients are immediately identified so remedial action can be taken, avoiding bursts and infrastructure damage.

Key Features and Benefits

- **Fast logging capability:** up to 100 time per second, ideal for transient monitoring changes
- **Event window selection:** select data around transient for transmission
- **Telemetry:** NBloT LTE-based cellular communication standard with fallback 2G capability
- **Large memory:** 4 GB internal flash memory enables up to 2 billion readings
- **Fully waterproof:** the IP68 rating has be tested at 10m depth over a 24 hour period
- **Long-term monitoring:** up to 5 years battery life
- **External battery packs:** supports accelerated logging and dial-in regimes
- **Detailed analysis:** specialist software supplied to enable detailed analysis
- **Flexible:** internal and external sensor options

Applications

Pressure Transient transmits data through an integral modem with NBloT / LTE-M (Cat-1) with 2G fallback or 2G as primary technology, as well as other available cellular options.

In addition to pressure transient logging, flow and pressure channels can be added to log other network parameters (Enhanced Network Logging) for comprehensive transient and general network monitoring. Sampling can be operator selected through a wide range of options to 100 samples per second.

The full range of HWM external battery packs can be connected to power accelerated dial-in regimes and extended periods of maximum sample rate. These can simply be exchanged on site as required.



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Sensor Input Options

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| Pressure | Single or Dual internal or external pressure transducer connectd via 4pin IP68 Mil-Spec connector. |
| | Supplied with quick fit connector |
| | 0-30 bar, accuracy $\pm 0.1\%$ |
| Digital | Optional Tamper Input |

Communication

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|-------------------------|---|
| Local | High-speed USB 2.0 for connection to hand held devices, Windows tablets, laptop or desktop PC |
| Internal Cellular Modem | Cellular modem supporting 2G(GPRS or SMS)/3G/4G/NBloT/LTE-M (Cat-1) with SMS backup where available - contact HWM for available options. GPRS/NBloT/LTE-M (Cat-M1) can send data down to every 15 minutes with appropriate battery pack. |
| SIM Card | HWM Roaming or customers supplied |
| Accelerated dial-in | Dial-in rate is increased if alarm situation is triggered. Logger can accelerate dial-in at alarm level for multiple applications - including SonicSens, Flow, Pressure and other alarmed sensors. |
| Remote Communication | Remote configuration of sample and log rates, calibration factors, alarm settings. No limit on remote configuration. |
| Time Synchronisation | On-board 24 hour real time clock with date facility with time synchronisation with every connection to server. |

Features

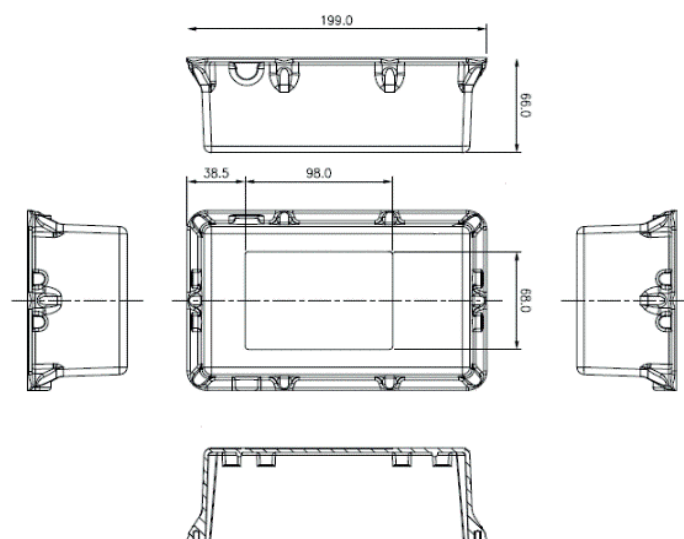
| | |
|---------------------------------------|---|
| Frequency | Standard Logging: 15 min (variable logger sample rate from 1s to 24hrs - this may affect battery life and communication costs. |
| Transient Logging (secondary channel) | Secondary, fast channel supports sampling up to 100 Hz for transient recording. |
| Logger ID | 7 alphanumeric characters. Readable factory set serial number in firmware |
| Dimensions | H = 199mm, W = 125mm, D = 66mm (7.7" x 4.7" x 2.8") |
| Construction | Die-cast aluminium enclosure, powder-coat spray painted |
| Weight | 1.6kg (3.5lb) |
| Operating Temp. | -20 to +60°C (-5 to +140°F) |
| Ingress Protection | IP68 submersible |
| Power | Lithium Thionyl-Chloride cell batteries. Typical 5 years (depending on settings and signal condition), otherwise maintenance free design. |
| | External power connection for battery box and other supplies like 12V/235V power (via PSU) supported for more frequent dial-in and long-term accelerated logging. |
| Memory | 4Gb memory enables up to 2 billion readings, records multiple months of data and alarms/events of transients. |
| | Configuration and data/alarms stored in non-volatile memory. Alarms shared with data memory. |



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Alarms

| | |
|--------------------------|--|
| Alarms Features | <p>16 alarms types per logger (can be increased above 16 alarms in certain configurations)</p> <p>Alarms can be forwarded to multiple (8+) mobile numbers or via SMS.</p> <p>Alarm comment field 16 characters.</p> <p>No limits on alarms sent from logger.</p> <p>All alarms Time-Stamped within logger before upload to server.</p> |
| Configurable Data Alarms | <p>Threshold High/Low.</p> <p>Rate of Change.</p> <p>Profile (Time).</p> <p>Minimum Night Flow</p> <p>Sensor out of range High/Low alarms.</p> |
| System Alarms | <p>Local Configuration Alarms.</p> <p>2-stage battery alarm (configurable).</p> <p>Configuration Corruption Alarm.</p> <p>External Power Disconnect Alarm.</p> |



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