

Phocus®.sms

Leak detection logger with remote alarm via SMS

Phocus.sms is a variant of the successful range of *Phocus* acoustic loggers with an added remote alarm facility to host PC or to a mobile phone. It is designed for use in detecting and localising leakage on water distribution systems.

Phocus.sms is a 'smart' logger which automatically determines the presence of a leak. The logger also gives visual indication of the leak noise strength and a leakage confidence factor.

Features include:

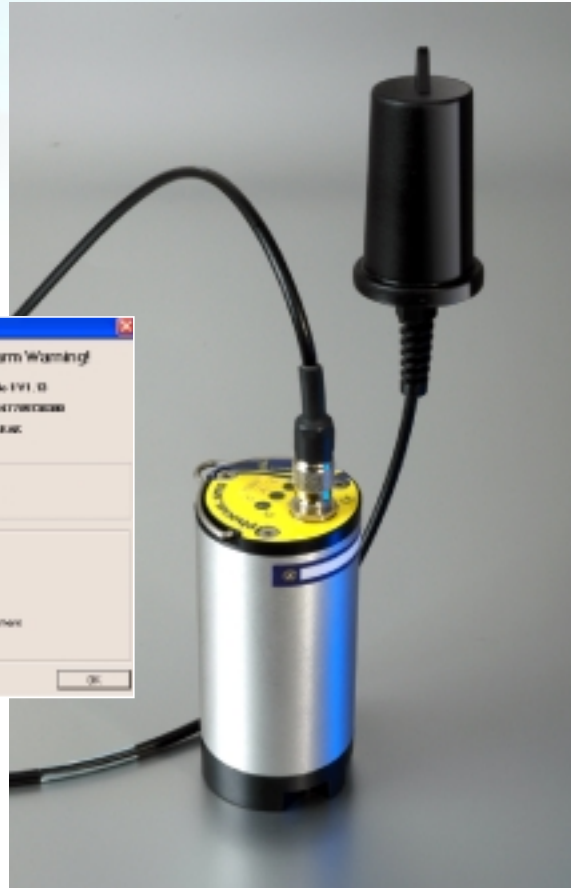
- Instant alarms - reduces time the leak 'runs'
- Three separate sound sample periods overnight to separate genuine use from leakage so reducing the incidence of false leak alarms
- Uses Phocus noise algorithm to reduce incidence of undetected leaks
- Monthly 'health check' report from water network
- No 'drive-by' required to reduce operational costs
- On-site indication of leakage

Operation

Phocus.sms is an intelligent acoustic logger which detects the noise generated by a water leak. The logger samples pipeline noise at one second intervals during each of three sample periods (termed epochs) during the night when background acoustic noise is lowest. It carries out statistical analysis on each of the three epochs to determine the Leakage Confidence Factor.



If this is high then an alarm message is transmitted via a SMS message. The alarm message also includes the lowest leak noise amplitude measured, termed the Critical Noise Value. This value is important as a measure of how close to the leak the Phocus.sms logger is situated.

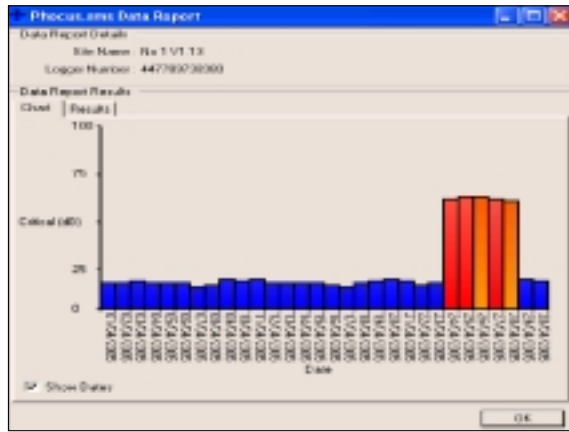


Monthly 'health-check'

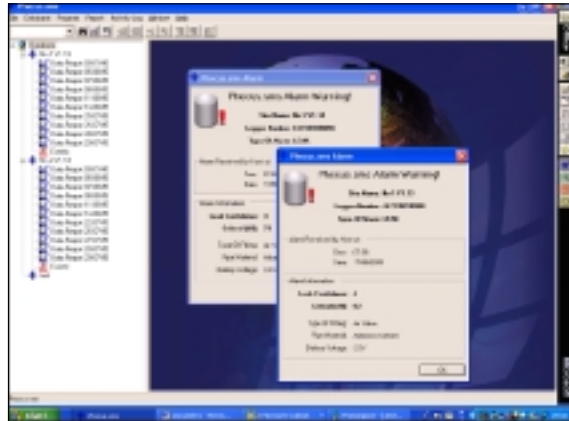
In addition to the alarm information via sms *Phocus.sms* also transmits a monthly 'health-check' report. The health-check message comprises the last one month of nightly Critical Noise Values and Leakage Confidence Factor values. This provides confirmation that the logger is operational and gives a record of the water network acoustic situation. It also prevents de-registration from the GSM network in the event that an alarm sms message is not generated for long periods of time.

Logger characteristics

- Intelligence built into logger to determine presence and strength of leak noise
- Integral accelerometer with high sensitivity to leak noise
- Operation underground in most locations (with special remote antenna for optimised performance)
- Leak alarm plus low battery and low SMS credit alarms
- Powered for 5 years (dependant upon operational use)
- Submersible to IP68



Monthly 'health check' message consists of nightly Critical Noise Values



Alarms to PC and optionally to mobile telephone

Visual indication

The logger gives an on-site, visual indication of the Critical Noise Value and Leakage Confidence Factor for the most recent night. Indication is initiated by use of a special stroboscopic torch. This is also used to commission the logger and initiate the GSM network signal strength at time of installation - to ensure satisfactory operation.



Part Numbers

Phocus.sms Noise Logger (includes underground antenna)	AXG 900
Phocus.sms Kit of 8 Loggers	AXG 910

Primayer Limited