CLEAN WATER

PermaNET+

Fixed Network Leak Detection

PermaNET+ is the award-winning leak detection system that combines a leak noise sensor with versatile telemetry technology, creating a fixed network to monitor leakage.

Representing the next stage in the development of noise logging and leak detection, PermaNET+ is a cost-effective solution that is practical for large-scale deployment.

Compatibility with Google Maps means that users are provided with real-time visual representations of precise PermaNET+ deployment sites, allowing leakage teams to respond quickly.

Key Features and Benefits

- **Quick response:** enables leakage teams to respond quickly to specific locations when a leak is detected

- **Determine leak size:** by matching daily alarms with flow data to enable prioritisation of leak alerts

- **Telemetry:** NBIoT LTE-based cellular communication standard with fallback 2G capability

- **Precise logging:** ability to log noise more frequently to establish the noise profile and profile alarms for precise immediate leakage alarm

- **Secondary validation:**
  - Aqualog - detailed noise histogram to reduce 'false positives'
  - Audio - remotely listen to the noise
  - Remote correlation to localise leak position

- **Fully waterproof:** the IP68 rating has been tested at 10m depth over a 24 hour period

- **Easy to use:** compatible with the HWM Deployment app and can also be programmed through PermaNET Web

- **PermaNET Web:** software supports
  - Correlation
  - Map view
  - Aqualog
  - GIS Interface
  - Remote reconfiguration
  - Filtering

- **External antennas:** support improved signal strength (contact HWM for more information)

Applications

Once installed, leak data is calculated using the proven Permalog algorithm, and data is transmitted via low cost cellular telemetry. This removes the requirement for expensive site visits and "drive by" data retrieval.

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

PermaNET+ allows leakage teams to monitor the status of each deployed logger from Google Maps compatible software using any internet enabled device.
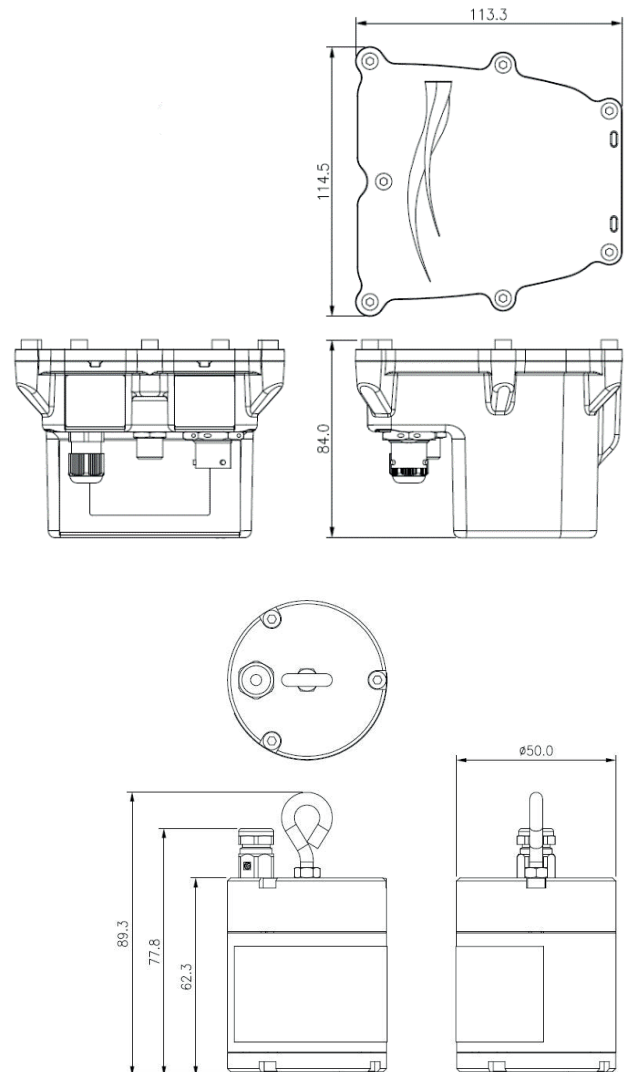
Leaks are identified immediately and once the presence of a leak has been identified, secondary measures can be used to check and remove 'false positives' and also to localise the leak position.

MONITORING ASSETS, DELIVERING DATA, BRINGING CONTROL

PermaNET+

Fixed Network Leak Detection

Operating Temperature	-20 to 60°C (-5 to 140°F)
Memory	Primary recording: 1 million readings
Dimensions	Logger without antenna: H = 84mm, W = 114.5mm, D = 113.3mm Leak Noise Sensor: H = 89.3mm, W = 50mm, D = 50mm
Weight	Logger: 338g, Leak Noise Sensor: 476g
Construction	PC/ABS plastic enclosure Stainless steel LNS
Ingress Protection	IP68 submersible
Antenna	Multiple external options - contact HWM for more information
Battery Life	Typical 5 years (depending on settings and signal condition)
Internal Cellular Modem	Cellular modem supporting 2G/3G/ NBIoT/LTE-M (Cat-1) with SMS backup where available - contact HWM for available options
Alarms	Leak/no leak Signal received/not received
Logger ID	7 alphanumeric characters. Readable factory set serial number in firmware
Serial	Laptop or desktop PC via USB

PermaNET Web

Online Data Portal

PermaNET Web is a secure, web-based portal designed to support the PermaNET product range in the remote identification of network leakage.

Supporting acoustic correlation, leak detection and logger programming, PermaNET Web delivers connectivity with multiple loggers and provides the user with numerous ways to view collected data.

HWM Water Limited

Ty Coch House
Llantarnam Park Way
Cwmbran
NP44 3AW
United Kingdom

Tel: +44 (0) 1633 489 479
Fax: +44 (0) 1633 877 857
Email: sales@hwm-water.com
Web: www.hwmglobal.com

THE QUEEN'S AWARDS FOR ENTERPRISE 2017

ACM
ISO 9001:2015
ISO 14001:2015
ISO 27001:2013
OHSAS 18001:2007

UKAS MANAGEMENT SYSTEMS
245

CYBER ESSENTIALS

MONITORING ASSETS, DELIVERING DATA, BRINGING CONTROL