

## ENIGMAHYQ

# Multi-point correlation system for trunk main leak location

Enigma-hyQ is a variant of the standard Enigma multi-point correlation logger that has been further optimized for leak location in plastic and large diameter pipes over longer distances. A high sensitivity hydrophone is used (directly detects the pressure wave in the water) coupled with the application of narrow band filtering.



### FEATURES & BENEFITS AT A GLANCE:



- High sensitivity hydrophone



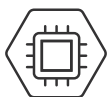
- Records acoustic data at night



- Narrow band filtering technique



- Multiple recording 'epochs'



- Very low electronic 'noise floor'

### MULTI-POINT CORRELATION

Enigma-hyQ loggers are deployed during normal working hours at multiple insertion points along a main. Enigma-hyQ gives optimum performance by recording the leak sound at night - when background acoustic noise is lowest and water pressure is usually highest.

When retrieved the leak sound is transferred to the host software where it is processed to display leak positions.

Programming and data readback utilises optical and USB communications to ensure rapid operation





## ENIGMAHYQ

### OPTIMUM DESIGN

For detecting quiet leaks Enigma is designed with the lowest possible 'electronic noise floor' - the lowest random noise generated within the logger's semiconductors. This is coupled to the ability to process very low frequency signals.

### NARROW BAND FILTERING

The Narrow Band Filter tool automatically 'sweeps' the frequency range and produces multiple correlations in different frequency band. The technique can enable results when operating over longer distances and large diameter mains.

### SYSTEM FEATURES

- **Logger programming/readback via PC or one button press in the Communications Case**
- **Loggers powered for 5 years**
- **Advanced filtering and coherence functions**
- **Unwanted noise suppression**
- **Auto-velocity determination**
- **Pipe schematic with correlation 'thumbnails' display**
- **Interface to Google Maps\***

### PRODUCTS

Enigma-hyQ Compact Kit (3 loggers + hydrophones)	JXG 602
Enigma-hyQ Kit (8 loggers + hydrophones)	JXG 002



\*GOOGLE is a registered trade mark of Google Inc. Google Maps is also their trade mark.

### SUITABLE APPLICATIONS:



### CONTACT US:

E-mail [sales@ovarro.com](mailto:sales@ovarro.com)  
 Web [www.ovarro.com](http://www.ovarro.com)  
 Twitter [www.twitter.com/ovarro\\_ltd](https://www.twitter.com/ovarro_ltd)  
 LinkedIn [www.linkedin.com/company/ovarro](https://www.linkedin.com/company/ovarro)