

# Flexible technology for acoustic leak location

*Mikron3* is designed for optimum leak pinpointing and confirmation. The combination of advanced sensors with low-noise processing electronics gives excellent acoustic performance. With its choice of sensors and processors, *Mikron3* is a flexible operational tool.

#### **Benefits**

- High quality piezo sensors for optimum sound quality
- Wireless sensor communications for reduced airborne noise pick-up
- Dynamic listen control
- Choice of sensors;
  - Listening rod
  - Accelerometer
  - Ground microphone
- Choice of three processors;
- Mini
- Pro
- PrimeTouch App
- In-case battery charging

## Acoustic leak location principle

Water escaping from pressurised pipes generates a noise which is propagated through the water and pipe material. This noise can be detected at available fittings such as valves and hydrants. The noise also travels directly from the leak through the ground to the surface where it is detected by the ground microphone.

## Leak pre-location

The Listening Rod is placed upon available pipe fittings such as valves or hydrants. Comparison of the noise levels indicates which section of pipe includes the leak. The Listening Rod has an ergonomic design that is balanced and comfortable to hold. It also has LED lights to help find fittings in deep chambers.

## Pinpointing/confirming the leak position

The high sensitivity ground microphone is for use on flat surfaces above the suspected leak position. The rubber cushioned housing is decoupled from the advanced piezo sensing element providing excellent isolation from airborne noises A tripod adaptor can be fitted for use on rough surfaces and softer ground.







# *Mikron3* Processor options for maximum flexibility

*Mini.* This is a small and simple-to-use device suitable for clipping onto the operator's belt.

**Pro.** This unit displays the Minimum Noise Level which is the background noise level without transient noises such as road traffic. A bar graph allows the operator to see the position of maximum leak noise. Filters allow for background noise suppression. A sound logging mode displays the noise level whilst valves are closed to isolate potential leaking pipes.

**PrimeTouch App.** The Mikron3 is available as an App on PrimeTouch which optionally also hosts the Eureka3 leak noise correlator. This option provides many technology features including Minimum Noise Level and frequency level display to aid accurate leak location together with an audio recording feature for later analysis. It also has a pipe tracing mode. Further information on this App is available.

## **Dynamic Listen Control**

The *Dynamic Listen Control* continuously monitors the detected noise level. If the noise level changes rapidly, for example due to traffic noise, then the sound to the operator headphones is switched off. When the source of louder noise disappears, the *Dynamic Listen Control* automatically reconnects sound to the headphones. This control both protects the operators hearing and is an automatic 'press-tolisten' feature.



#### System components



Model	Alpha	Gamma	Alpha+ Gamma	Options
Systems – add Processor from options				Processor
Listening Rod + extensions	•		•	Mini
Ground Microphone + tripod		٠	•	Pro
Headphones	٠	٠	•	PrimeTouch
Mains charger + vehicle charge cable	•	٠	•	Sensor
Transport case	•	٠	•	Accelerometer



PrimeTouch display of minimum noise levels + frequency levels



PrimeTouch display of frequency spectrum

#### Part Numbers

Mikron3 Alpha	GXG-792
Mikron3 Gamma	GXG-793
Mikron3 Alpha+Gamma	GXG-794
Mini	GXG-783
Pro	GXG-784
PrimeTouch	CXG 950
Accelerometer	CXG 352





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## technology for network management and leakage control