

Xmic

Leak Detection System

FLOW MEASUREMENT DATA LOGGING LEAK DETECTION PRESSURE CONTROL ENVIRONMENTAL MONITORING



KEY BENEFITS

- Automatic or manual filtering to suppress background noise and target leak noise.
- Multi-function display showing noise level (graphically and digitally) and dynamical sensitivity (signal strength).
- High quality sound.
- Levels of leak noise can be recorded for comparison in a histogram profile (MLP).
- IP65 enclosure with mil-spec connectors.
- High quality headphones.



Available as an optional extra, the Hand Probe now features a magnetic contact to provide better coupling to fittings, ensuring clearer, louder audible leak noise.

Xmic is an advanced, yet easy to use electronic ground microphone. It is designed to amplify the noise generated by water escaping from buried supply pipes under pressure. The latest acoustic and amplification technology provides excellent sound quality, whilst a range of features help effective and accurate pinpointing on site. The system comprises a lightweight portable amplifier module with battery charger, a pair of high quality headphones and an acoustically shielded ground microphone foot.

Multi-function display

Xmic features a large backlit multi-function display:

- 'Analogue' style moving meter giving quick representation of noise level trends
- Digital noise level for precise indication
- Filters selected (see below)
- Battery level

MLP – Minimum Level Profiling

Having identified an area of potential leakage, Xmic assists the operator to pinpoint the leak position. MLP checks the readings over the previous 3 seconds and memorises the lowest noise level. This is the constant background (leak) noise. As the sensor is moved, a series of readings are taken. These are displayed digitally and graphically to clearly pinpoint the Leak Position.

Auto and Manual Filtering

At switch on, to begin surveying, the operator can select metal or plastic filters; Xmic automatically sets filters for the pipe material. To further suppress background noise and target the leak, manual filtering allows the filter pass band to be positioned anywhere within the filter range. The selected pass band is displayed graphically.



For more information call (513) 831-9335
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Control Unit

Processor	4MHz 16 bit
Input impedance	1MOhm
Output impedance	6 to 16 Ohms
Amplification	46dB
Frequency range	30 to 3000Hz
Distortion	Better than 1%
Battery	2 x Lithium ion 1.8Ah rechargeable batteries
Battery life	Minimum 25 hours (without backlight)
Battery charge	Maximum 8 hours
Charger	Universal 110-240V AC mains charger with 12V DC output
Weight	Weight: 1kg
Dimensions	206mm x 167mm x 86mm
Environmental	IP65
Operating temp	0 - 50°C
Operating humidity	0 – 95% non-condensing
Connection	Military specification Amphenol
Keypad	Membrane with push button
Display	128 x 128 transfective LCD
Signal level display	0 – 99



Filter Options

Variable High Pass and Low Pass filters across frequency range. Three automatic filter settings based on pipe material:
 Metallic – High Pass 350Hz, Low Pass 3kHz Plastic – High Pass 75Hz, Low Pass 3kHz Broadband – High Pass 30Hz, Low Pass 3kHz

Microphone

High sensitivity piezo-electric sensor mounted in windproof, nitrile rubber housing. Low noise 1.5m cable (detachable). Weight: 2.9kg

Headphones

High Quality headphones are supplied as standard with the Xmic. Aviation Quality Headphones are available as an optional extra.

Hand Probe Attachment (Optional Upgrade)

The optional hand held listening probe comes with a tripod foot and two stainless steel probe rods (each 400mm in length) for sounding in soft ground. The combined weight of the rods is 162g. The hand probe is now supplied with a new magnetic contact, providing better coupling to fittings, which in turn provides clearer, louder audible leak noise.

FCS reserve the right to change the specification of any product without prior notice.

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