

Network-compatible noise level loggers for acoustic zone monitoring



Sebalog N-3

- Audible and visual leak detection
- Stores noise level and frequency
- Audio data recorded directly in the logger
- History function and comparison of measured data
- Real-time measurements
- TNC version with external antenna available
- N-3-Hydro for use with hydrophones

Leak detection – seeing and hearing.

How it works

Water escaping a leak under pressure causes the pipe wall to vibrate. These vibrations can be sensed acoustically on valves using the latest noise level logger technology. Sebalog N-3 noise level loggers not only detect the noise level of a leak, but also the frequency. Using both these factors, the leak probability can be determined, as well as the relative leak position in relation to adjacent loggers. User-friendly computer software as well as the established SebaKMT "easyGO" principle help the user to locate leaks efficiently.



See leaks – thanks to frequency analysis

Sebalog N-3 loggers measure the noise level (db) and the frequency of a leak simultaneously. High noise levels are an indication for a leak, but only the combined analysis of noise level and frequency can help identify the approximate distance of the leak in relation to the deployed noise loggers. The user receives visual assistance from a colour scale of blue (low frequency) to yellow (high frequency).

Hear leaks – this is what they sound like

Audio data recorded by the loggers can be played using the Commander-3 evaluating unit or the PC software. This helps the user to analyse the data and differentiate interfering noise from real leak noise.

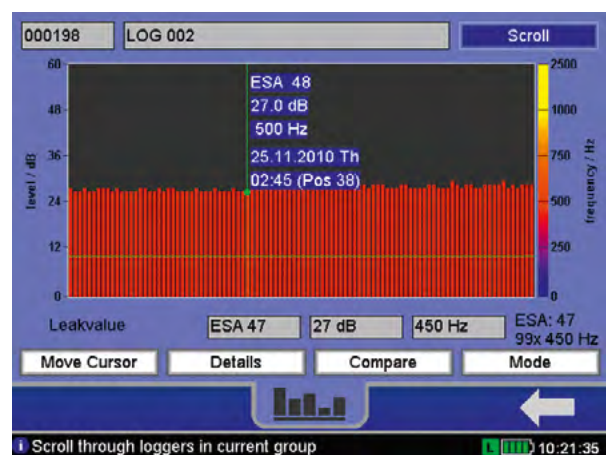
Real-time measurement – completely up to date

Sebalog N-3 loggers can transmit noise level, frequency and audio data in real-time to a reading unit, such as Commander-3. In this way the readings can be confirmed directly on the spot without any additional measuring equipment.

ID	Comment	Time / Date	ESA	Level	f/Hz
000177	LOG 001	13:52 03.02.2011	4	3	100
000140	LOG 002	13:45 03.02.2011	1	1	100
000179	LOG 003	15:13 03.02.2011	3	3	50
000105	LOG 004	15:05 03.02.2011	2	2	50
000115	LOG 005	14:22 03.02.2011	31	17	600
000176	LOG 006	15:13 03.02.2011	1	1	100
000106	LOG 007	15:05 03.02.2011	1	1	50

Displays the logger data of the selected logger

In the logger lists, any unusual measurement results are highlighted by colour



The display of measurement data provides detailed information about noise level and frequency, as well as the date and time

Pipe network monitoring – efficient and economical.

Professional evaluation – the ESA value

ESA stands for “Enhanced Spectrum Analysis” and means that noise level and frequency are combined in one reading. This results in a completely new view of the measured data, which makes the leak probability and position visible in relation to other loggers.

Histry function – What was yesterday?

Thanks to the history administration in Commander-3 and PC software, data already recorded can be retrieved anytime. Have a look in the history for a direct comparison of two loggers or two measurement readings from one logger.

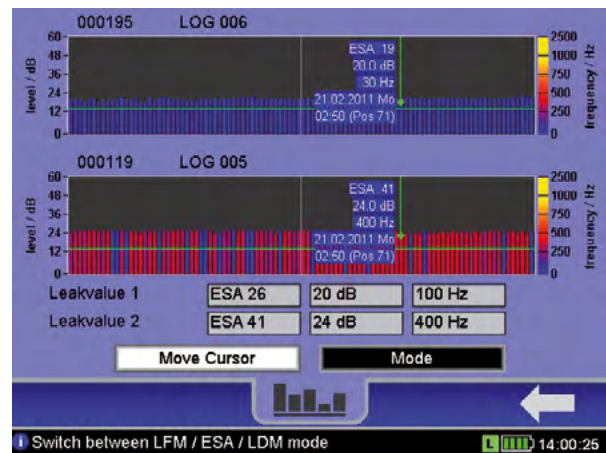
Efficient work – easy to operate

SebaKMT has pursued the philosophy of “easyGO” for years, which enables the user to easily operate all the equipment, make all the settings and evaluate all the data.

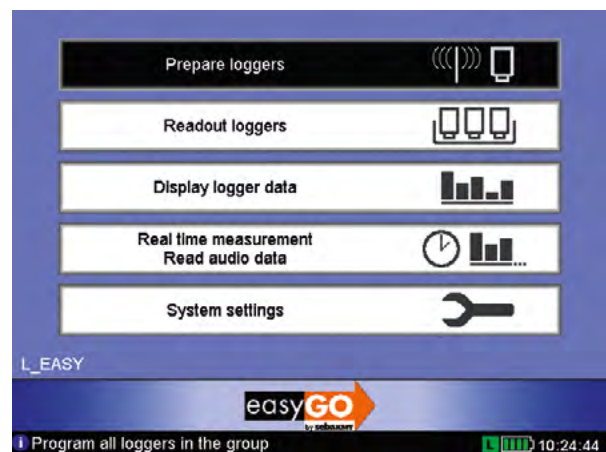
The network mode – all measurement data available anytime!

Permanent pipe network monitoring is becoming an integral part of drinking water supply. In addition to proven technology such as Lift&Shift or patrol, the Sebalog N-3 system is able to transmit measurement data by GSM directly to the control centre using a newly developed network mode.

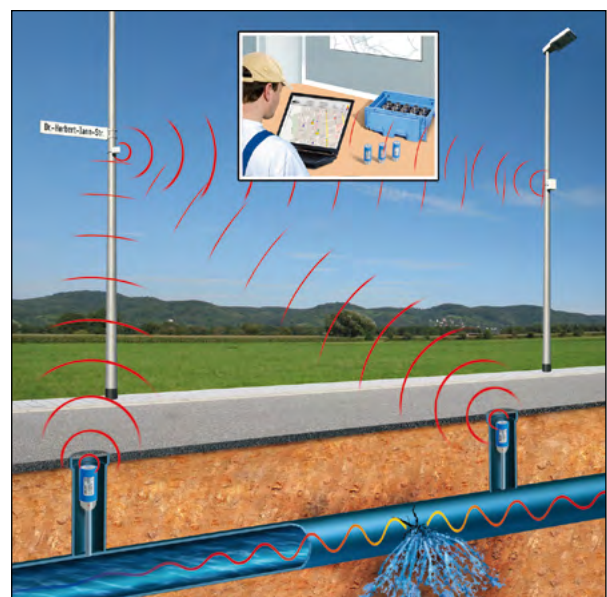
The combination of remote data transmission and professional user software enables the user to search for the leak exactly in the places where there is a high probability of a leak. This effective pre-location method saves valuable time and money.



In no time at all measurement results from different loggers or different measurements can be compared



For maximum user-friendliness, the “Easy Mode” menu is reduced to a few basic points





Sealog N-3

Technical data

Sealog N-3	
Dimensions	115 x 45 mm Ø
Weight	400 g
Power supply	Internal Li-ion battery
Operating time	>5 years in standard conditions
IP rating	IP 68
Operating temperature	-20 °C ... +60 °C
Storage temperature	-25 °C ... +70 °C
Measured data memory	100 days
Transmission power	10 mW
Transmission range	80 m, depending on local conditions
Interface	Bi-directional wireless transmission
Repeater-3	
Dimensions (W x H x D)	80 x 80 x 55 mm
Weight	250 g
Power supply	Internal Li-ion battery
Operating time	>5 years in standard conditions
IP rating	IP 67
Operating temperature	-20 °C ... +70 °C
Storage temperature	-25 °C ... +70 °C
Transmission power	10 mW
Transmission range	400 m, depending on local conditions
Interface	Bi-directional wireless transmission
Commander-3	
Dimensions (W x H x D)	250 x 190 x 100 mm
Weight	2,100 g
Display	VGA colour display (640 x 480 Pixel)
Power supply	Internal Li-ion battery
Operating time	>16 h
IP rating	IP 65
Operating temperature	-20 °C ... +60 °C
Storage temperature	-25 °C ... +70 °C
Measured data memory	1,000 groups with 1,000 loggers each
Transmission power	10 mW
Interface	USB, Bi-directional wireless transmission

All advantages at a glance

Sealog N-3 Logger

- Bi-directional radio
- Audio data storage
- Real-time measurements
- Low in height and diameter
- Measurements saved for up to 100 days
- Extra strong magnet for secure hold
- Switches on/off by simply turning it over
- Extended radio range by repeater 3
- TNC version with external antenna available
- Flat-fitting angle for especially small shafts
- Highly-sensitive measurements due to wide dynamic response range
- Combination with hydrophones for monitoring of trunk mains

The network

- Remote programming of loggers
- Automatic time synchronisation
- User-friendly operating software
- Up to 50 loggers connected to one GSM box
- Increased wireless range by repeater
- Automatic data transmission to control centre
- Simple installation with device coupling
- Repeaters can be cascaded

Commander 3

- USB connection
- VGA colour display
- History function
- easyGO operation
- Audio data replay
- Optional GPS module
- Network installation mode
- Reading the logger via radio
- Enhanced spectrum analysis (ESA)
- Huge memory for 1000 logger groups
- Comprehensive group/logger management