SeCorr® 300
Professional PC water leak correlator
Perfect results thanks to fully digital technology

The principle

SEWERIN has a long tradition of producing systems for locating damages in pipe networks by way of correlation. The SeCorr® 300 is a system of unprecedented quality to complement the existing product range. The fully digital signal processing and

The result is improved leak coverage in non-metallic pipes, which is increasingly used nowadays in water pipe networks. Notebooks and desktop PCs can be used to analyse the measurements, as can Tablet PCs or field notebooks, for example, which have been specially designed for use in adverse conditions.
transmission by and large eliminates the interference which so often causes problems in conventional correlators. The digital radio eradicates the notorious hissing in transmission paths. Even the narrow bandwidth of analogue modules no longer poses a restriction. The noises recorded from the leak are already digitised in the microphone thus eliminating feedback via the cables. This produces significant advantages, particularly in plastic pipes, where the noise emitted from the leak is, as a rule, very poorly transmitted and thus very quiet.

The transmitter unit

Radio transmitter RT 300 is mounted on a tripod for correlating and can thus achieve a transmission range of up to 1000 metres. If the radio transmitter's range is not enough for successful correlation, the noise is stored in the transmitter memory for 40 minutes. It is then transmitted to the receiver later, as soon as the radio connection is re-established. Thanks to a microphone holder on the tripod, the transmitter unit can easily be carried in one piece to the site.

The user can listen to the current noise through headphones, allowing him not only to assess the volume of the noise, but

Thanks to the USB standard, the system can be easily connected to the computers. Provided the computer is state-of-the-art, the SeCorr\textsuperscript{\textregistered} 300 system offers the user every possibility to produce optimal results, even under difficult conditions where conventional correlators would reach their limits.

The rechargeable batteries provided have such a large capacity that systematic correlation well over a normal working day is no problem.
also filter it. Using the filter it is easy to estimate in which frequency range the noise is loudest. The devices are marked with a luminous strip making them easy to distinguish and highly visible.

Once the measurement process is complete, the whole transmitter unit can be transported in the vehicle. Alternatively, the transmitter unit can be dismantled, the tripod folded down and all parts put back in the case.

LEDs right around the housing ensure safety when performing correlation measurements at night.
The radio receiver

The RX 300 digital water leak correlator receiver receives signals from the transmitter and relays them to the PC via a USB cable. The cable can be connected to any computer with a USB port.

The receiver is attached to a mounting clip on the notebook's carrying strap for mobile use. The RX 300 also features a rubberised magnet for use with a measuring vehicle. This holds the receiver on the roof of the vehicle without amaging the paintwork - no need therefore for the time-consuming installation of a roof antenna. An LED control lamp continually indicates the status of the RX 300.

The software

Overview of basic functions
- Database-based software, no more cumbersome searching through folders for file names, all measurements at a glance
- Can also be run on 64-bit operating systems thanks to .net 2.0, future-proof
- Mode of curve of correlatable, synchronous data on a time axis with free selection of correlation section; loud
Correlation result after filtering

Sample fault sketch

**Technical data**

**Transmitter RT 300**

- **Weight:** 2.6 kg (incl. batteries)
- **Dimensions (Ø x H):** 110 x 215 (315) mm (excl./incl. antenna)
- **Power supply:** Rechargeable or disposable batteries (4 x D-cell mono 1.5 V)
- **Operating time:** Disposable: > 25 h; rechargeable up to 20 h (depending on type of battery)
- **Operating temperature:** -10 °C ... +40 °C
- **Storage temperature:** -20 °C ... +60 °C
- **Charging time:** 3 h ... 7 h (depending on type of battery)
Type of protection: IP64
Housing material: Aluminium

Connections: 3 sturdy, non-twist sockets for
- charging/external power source
- Microphone
- Headphones (6.3 mm phone jack stereo)

Processor: DSP with 24-bit signal processing, microcontroller-controlled data processing

Data memory: 32 MB signal memory (40 minutes)

Radio: 1,88 GHz bis 1,9 GHz
(bidirektional/DECT/250 mW)

Carrying system: 3-point Tenax connection for attaching carrying handle in 2 positions

Mounting: Quick-connect for tripod

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**Receiver RX 300**

Weight: 500 g

Dimensions (W x H x D): 108 x 50 x 51 mm

Power supply: External via USB

Operating temperature: -10 °C ... +40 °C

Storage temperature: -20 °C ... +60 °C

Type of protection: IP68

Housing material: Aluminium diecast

Connection: USB 1.1 and higher, sturdy, non-twist socket
(power consumption: 500 mA)

Cable length: 2.9 m

Radio: 1.88 GHz ... 1.9 GHz (bidirectional/DECT/250 mW)

Mounting: Rubberised magnetic attachment
Mounting clip

**Microphone EM 300**

- Weight: 1.1 kg (incl. set of cables)
- Dimensions (W x H): 45 x 150 mm
- Operating temperature: -20 °C ... +80 °C
- Storage temperature: -30 °C ... +90 °C
- Type of protection: IP68
- Housing material: Stainless steel
- Cable length: 2.8 m
- Signal processing: ADC with 2 x 24 bit (digital microphone)
- Frequency bandwidth: 0 Hz ... 5000 Hz
- Light: Integrated high performance halogen diodes enable easy installation in valve boxes
- Contacting: Horseshoe magnet, round magnet, various accessories

**System case**

1. Carrying case
2. Tripod
3. Chargers
4. Microphone EM 300
5. Radio transmitter RT 300
6. Receiver RX 300 with mounting clip

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