

SeCorr® 300

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Professional PC correlation

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® 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.



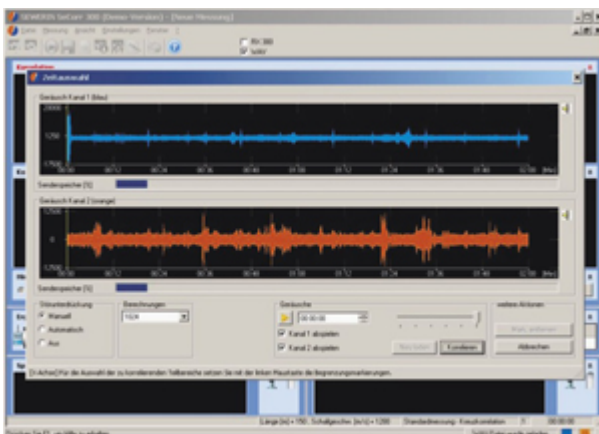
The radio receiver

The **RX 300** 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 damaging 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

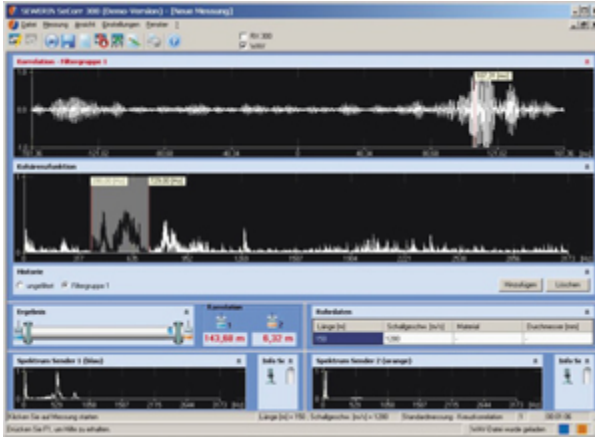


Noise as the basis for correlation (over

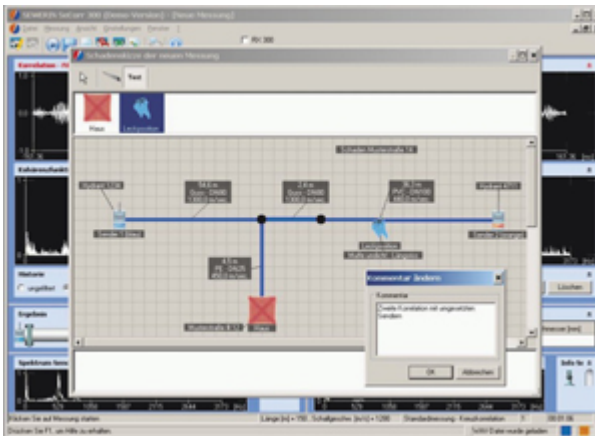
Overview of basic functions

- 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

time)



Correlation result after filtering



Sample fault sketch

areas and areas with interference can thus be reliably identified and hidden (e.g. times with noises of consumption)

- Original noises can be recorded; there is the option of creating a noise archive for comparison purposes
- Filters of up to 10 tapes in up to 5 filter groups; the results of various, arbitrary filter settings can be compared
- Input up to 5 different pipe sections and up to 3 freely definable extra materials; optimal flexibility as opposed to fixed standards for correlation professionals
- Easy drawing of damage sketches to supplement measurement reports; optimal documentation for service companies

System requirements

- Pentium 4 processor with 1.2 GHz minimum (1.8 GHz recommended)
- Minimum 512 MB DDR (recommended 1024 MB)
- Windows 2000 SP4, XP32/64 SP2, Vista 32/64
- Sound card
- Graphics card
- Minimum screen resolution 1024 x 768 pixels

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

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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