SEWERIN
Technologies for leak detection.

Product Catalogue | Water Leak Detection

Content

Noise Logging

Correlation and Water Leak Detection

Tracer Gas Method:

Line Locating:

About Us

The Sewerin group of companies is an internationally successful, technically innovative, family owned group with headquarters in Gütersloh, Germany.

With top-level products and services, we are the market technology leader and a partner to the gas and water supply industry. Together with our over 90 years of experience in the development of measuring devices, the knowledge accumulated by our own measuring teams contributes significantly to our success.

At the Gütersloh location, our innovative devices move through design, development, testing and production before they are finally ready for the market. Throughout, there is a particular emphasis on high quality and functionality. An important factor of success is the production in Germany.

For the water supply industry, we are offering electro-acoustic water leak detectors, noise loggers, correlators, tracer gas leak detectors and mobile measuring systems for flow analysis.

In addition to the sale of those measuring devices and services, we are offering stationary and mobile device maintenance service.

An extensive distribution network consisting of sales engineers, subsidiaries and distribution partners in over 80 countries makes success on a global level possible. In the US we cooperate with almost 20 official sales partners.

While others are still searching ...

... WE ARE FINDING LEAKS!

SePem® 155 – Radio Noise Loggers

The principle of noise logging

The duration of time that water leaks from the distribution network has a significant influence on “real water loss” and “non-revenue water” calculations. The goal is to quickly identify water leaks to reduce the dollars lost, reduce the impact on non-revenue water calculations, be efficient, be good stewards of the environment, and reduce potential property damage. This goal can be achieved with ***SePem® 155*** loggers.

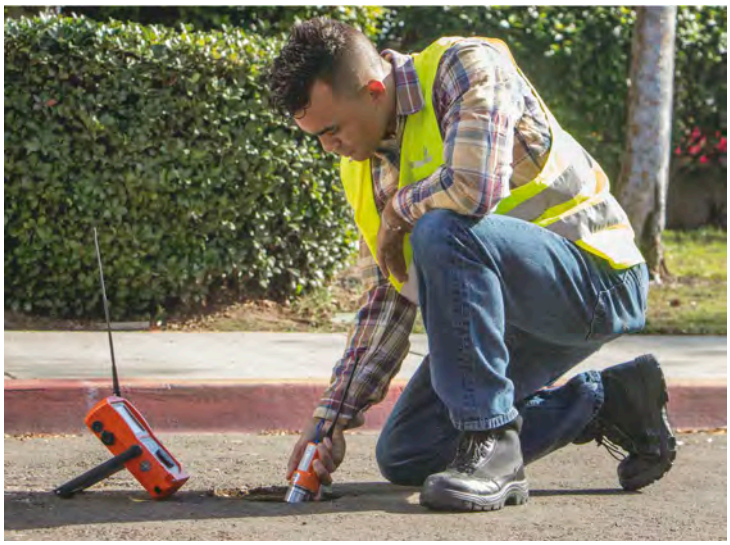
In addition to conventional leak detection survey methods, ***SePem® 155*** loggers are an effective, permanent monitoring tool to quickly identify leaks that may never reach the surface. With its ease of reprogramming and versatility, the ***SePem® 155*** loggers can also be redeployed to other locations for shorter-term leak detection surveys. This process is often referred to as “lift and shift”.

With the aid of the ***SePem® 01 Master***, the user establishes listening times, frequency and duration, alarm levels and “Patrol Times” for the collection of data. The “listening times” are typically programmed for periods during which flow and traffic noise are at their minimum level. “Patrol Times” are typically set for “regular working hours” eliminating the need for overtime.

The compact design of the ***SePem® 155*** enables the logger to be placed in valve boxes, meter pits, and on unusual contact points. The highly sensitive microphone enables programmed monitoring of distances up to 1,600 linear feet of pipe between loggers. Spacing of the logger is dependent on the pipe size, pipe material, service density, and contact points available.

The ***SePem® 01 Master*** is portable and can be carried, or placed in the vehicle mounting bracket while patrolling for data collection.

During patrol, the result is both an audible and visual “leak/no leak” indicator, substantiated by two pieces of critical leak detection data- “minimum noise level” and “noise consistency”. Data results are cataloged by physical location, logger, patrol, date, and can be easily archived for comparison with future data. One ***SePem® 01 Master*** can accommodate up to 500 ***SePem® 155*** loggers.

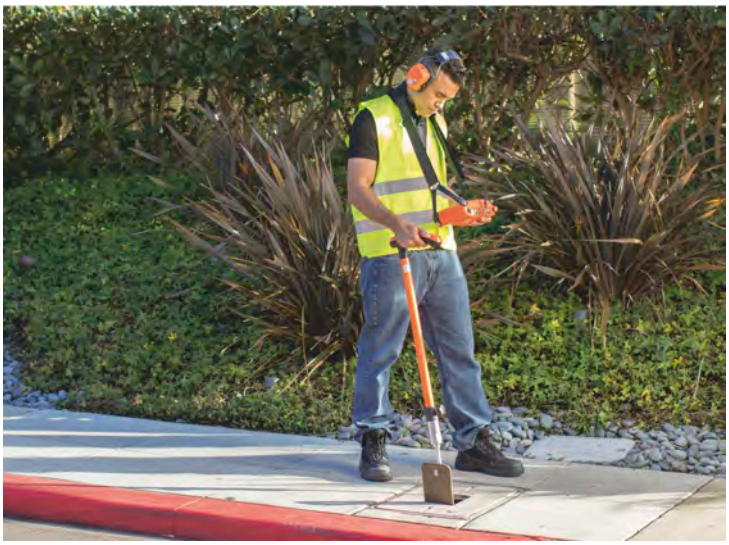


SePem® Master Communicator for data backup and visualization

The ***SePem® Master Communicator*** software is freeware, which allows you to display the data managed on the ***SePem® 01 Master*** directly on a PC. The patrol lists are transmitted directly after connection and saved in a database. In logger lists you can directly access and easily manage measurements from the individual ***SePem®*** noise loggers.

SeCorrPhon AC 200 – Professional – Flexible – Intelligent

The system ***SeCorrPhon*** is a multifunctional leak detector offering three functions in one: prelocation, pinpointing and correlation. The clever combination of these processes in one system allows you to confidently locate the leak regardless of the ambient conditions. With just a few finger strokes, you can quickly and easily switch between the various applications.



Prelocating leaks

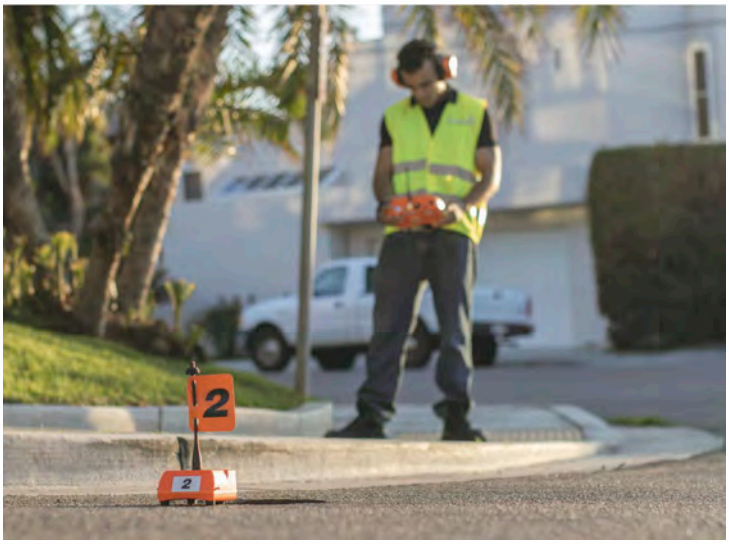
Place carrying rod ***TS 200*** and the connected touch microphone ***TM 200*** on fittings along the pipeline and evaluate the volume. By evaluating the noise intensity, you will be able to identify the section of pipeline where the leak is likely to be.

Pinpointing

Evaluate the volumes in the identified section of pipe using ground microphone ***BM 200*** (for paved surfaces) or ***BM 230*** (for unpaved surfaces). Connect carrying rod ***TS 200*** to a ground microphone and move over the pipeline in short intervals. The acoustic signal and the visual display of the noise intensity make it easy to find the maximum leak noise. The leak is then located with sufficient accuracy to allow confident excavation.

Comparison of correlative and acoustic location techniques

The correlation method is essentially different to the conventional method of acoustic water leak detection. Instead of systematically checking the fittings (prelocating) and then pinpointing with ground microphones at one position, correlation involves taking two simultaneous measurements at two fittings. With acoustic location the user compares and evaluates the leak noises. This technique can be used in many network structures, however successful location is dependent upon human hearing and, to a large extent, the experience of the user. Leak detection by correlation, on the other hand, provides accurate measurement values – regardless of the hearing of the user and largely irrespective of external disturbances.



SeCorrPhon AC 200 – Professional – Flexible – Intelligent

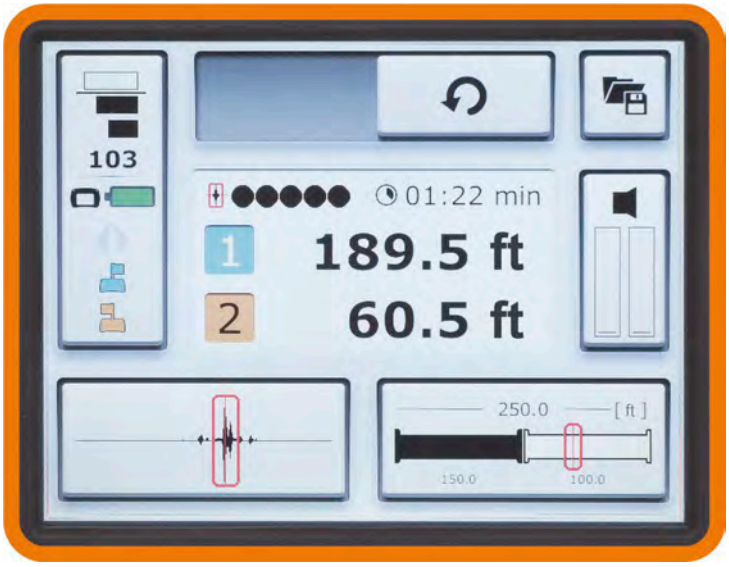
Professional

The user interface of the ***SeCorrPhon AC 200*** is clearly and logically laid out. There are also many extra functions available for complex location scenarios.

The high-quality piezo microphones with frequency response optimized especially for leak detection and the digital signal processing offer outstanding acoustic properties. Thanks to the excellent sound quality and minimization of sound interference, you can reliably identify and locate leaks even if the sound intensity of the leak is weak or there is significant ambient noise.

At the touch of a button the ***SeCorrPhon AC 200*** will apply tailored filters to the current noises and will automatically select the appropriate frequency ranges. Alternatively, you can set manual filter limits according to your individual hearing and select frequency ranges which accentuate the leak noise. This allows you to concentrate fully on the leak without any sound interference.

In addition, you have the option of recording leak noises with the integrated audio player and comparing them with each other. You can use these recordings for training or demonstration purposes or to create a noise database, allowing you to better evaluate leak noises on site.

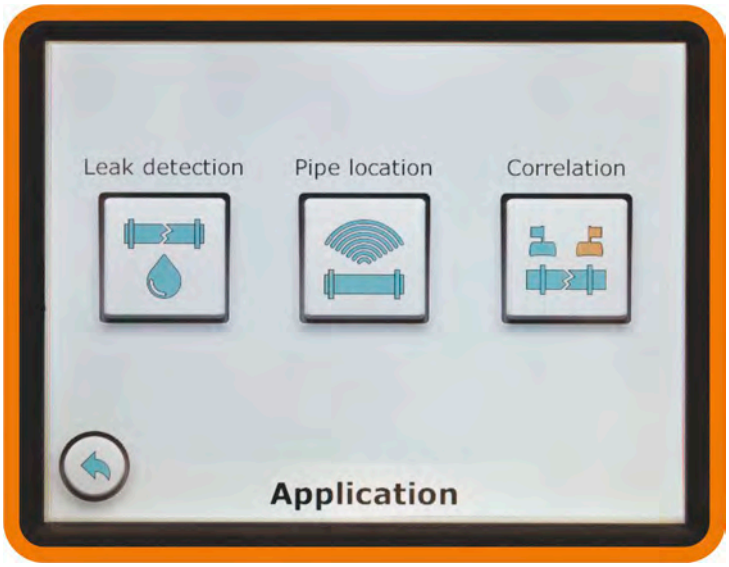


Flexible

All-in-one device: prelocation, pinpointing and correlation. The innovative combination of these methods in one system allows you to confidently locate the exact source of the leak regardless of the ambient conditions.

The ***SeCorrPhon AC 200*** is recommended for all users undertaking professional leak detection because it can handle any scenario. It can easily measure the leak noise from different pipe sections, pipe materials, diameters and pipe lengths.

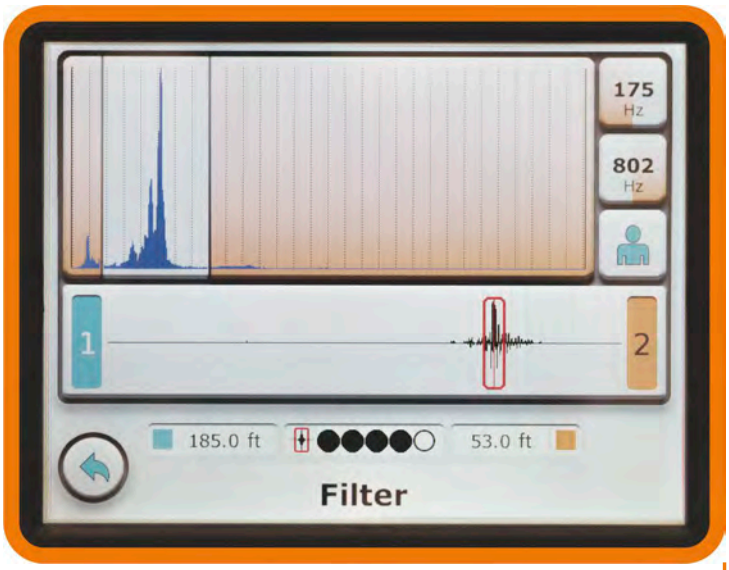
With acoustic leak detection, the current sound intensity is displayed as a graph and as a numeric value on the large and clear 5.7 inch receiver display. You can also see the previous values simultaneously for better comparison as well as the current frequency analysis of the noise.



Intelligent

The sophisticated firmware of the ***SeCorrPhon AC 200*** means that the measurement sequence is almost fully automatic. Once the pipeline data has been entered and the measurement started, all other steps are performed without the intervention of the operator.

The measured noises are constantly analysed in the background and the optimal filter settings selected. The ***SeCorrPhon AC 200*** instructions guide the user through the various applications. This means that even users with less experience and occasional users can use the device with confidence.



SeCorrPhon system – Components for Correlation

The radio transmitters

The ***RT 200*** radio transmitters feature 500 mW high performance transmission paths. These allow noiseless data transmission, even on measuring sections covering hundreds of feet. The ***RT 200*** radio transmitter comes on as soon as you plug in the microphone cable. Three different bandpasses mean that the noises can be fully processed before radio transmission, making the ***RT 200*** radio transmitter adjustable to a wide range of pipe materials and lengths. The microphone's LED light function can also be activated via the membrane keypad.

The microphones

The ***UM 200*** microphone used for picking up structure-borne noise features a very wide frequency response and is extremely sensitive in the low frequency range. This makes the ***UM 200*** perfect for recording even the quietest of noises, particularly on plastic pipes. The cable is extremely robust and can withstand heavy mechanical loads. This guarantees a long service life in daily use, even under the harshest of conditions. A high-quality plug and an extremely strong contact adapter make the ***UM 200*** microphone a professional all-rounder.

The hydrophones

The ***HY 200*** hydrophones make the ***SeCorrPhon*** an excellent measuring system for use along large transmission pipelines and long distances between the individual attachment points. Because they are installed directly in the water column, hydrophones do not use the structure-borne noise that travels along the pipe, but rather the noise transmitted by the water in the pipe. The ***HY 200*** hydrophones are extremely sensitive in the very low frequency range, far below audible sounds. This also makes them the perfect complement to the ***SeCorrPhon*** system when used in plastic pipe networks. The set comes in a dedicated plastic case, keeping all the components such as hydrophones, adapters for installing on fire hydrants and connecting cables close to hand.

The system case

A separate sturdy system case has space to safely hold all the system components. The ***SeCorrPhon AC 200***, two ***RT 200*** radio transmitters, two ***UM 200*** microphones, two ***BM 200*** / ***BM 230*** ground microphones, a ***TM 200*** touch microphone, ***TS 200*** carrying rod and the ***F8*** wireless headphones as well as optional accessories can all be stored in the case with optimal protection for transit. The system components can be charged in the closed case in the workshop or in the vehicle.

SeCorrPhon system – Components for Leak Detection

The carrying rod

The ***TS 200*** carrying rod can be connected to three different microphones. In the past, a special test rod and a carrying rod would have been required for ground microphones, but now the ***TS 200*** performs both functions. It transmits the applicable microphone data to the receiver. The ***TS 200*** is powered by a high-performance rechargeable battery, which guarantees reliable operation for a full working day. It can be recharged in less than four hours directly in the system case.

The touch microphone

The ***TM 200*** touch microphone has been specially developed for prelocation along fittings in the pipe network. Its frequency response allows the reliable detection of both muted and low-pitched noises, which tend to occur on plastic pipes, as well as loud and high-pitched leak noises on metal pipelines. The probe tip and available extensions in varying lengths allow optimal adjustment to structural conditions in all pipe networks. The ***TM 200*** features an LED light function, which is activated on the ***TS 200*** carrying rod to allow secure positioning on the valve nut in dark valve boxes.

The wind protected microphone

The ground microphone ***BM 200*** is ideal for paved surfaces. The extremely robust housing is optimally detached from the actual microphone capsule. A lifting mechanism ensures consistently perfect contact with the ground. Small surface bumps, therefore, no longer affect results.

The soft soil microphone

The ground microphone ***BM 230*** is better suited to unpaved surfaces. The solid tripod ensures a consistently secure position. If the ground is particularly soft, an extra spike can be screwed in to allow even better noise transmission.

SeCorr® C 200 – The Correlation Standard

The principle of correlation

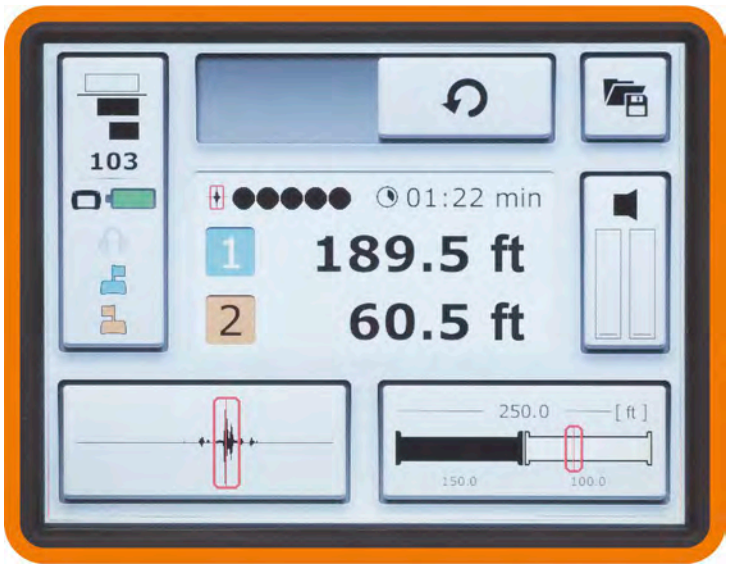
Location with a correlator involves simultaneously measuring the noises caused by a leak on the pipeline at two fittings (e.g. on isolation valves, curb stops, or hydrants). Highly-sensitive microphones record the noises on the fittings, radio transmitters transmit the signals to a receiver – the correlator – which determines the run time difference, i.e. the time lag between the noises reaching the two measuring points. The correlator then calculates the exact leak position based on the entered pipe material, size, and length.

Reliably and accurately pinpoint leaks

Professional: The ***SeCorr® C 200*** is a state-of-the-art, portable high-performance correlator, which enables leaks in underground pipelines to be located reliably, quickly and accurately. Its user interface is clearly and logically laid out. There are many extra functions available for complex location scenarios.

Flexible: The ***SeCorr® C 200*** is recommended for all users undertaking professional leak detection as it can handle any leak detection scenario. It can easily measure the leak noise location between mics in different pipe materials, diameters and lengths.

Intelligent: The sophisticated firmware of the ***SeCorr® C 200*** means that the measurement sequence is almost fully automatic. Once the pipeline data has been entered and the measurement started, all other steps are performed without the intervention of the operator. The measured noises are constantly analyzed in the background and the optimal filter settings selected automatically.

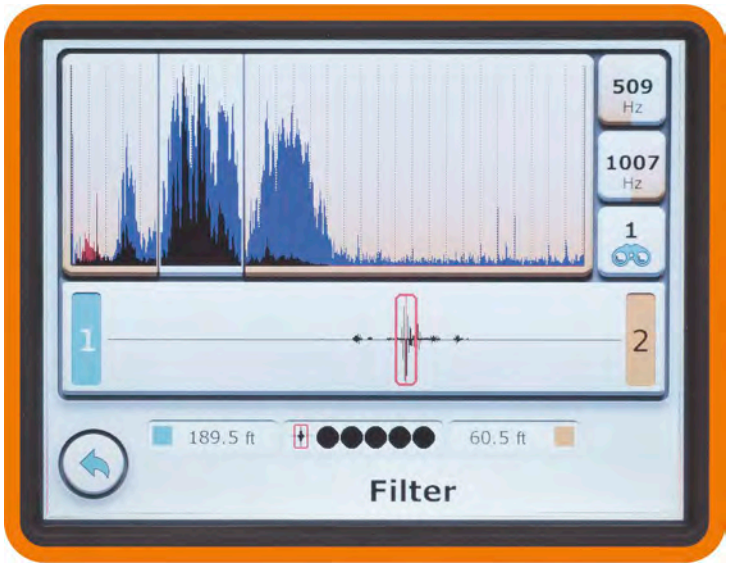


Automatic filters, results-oriented measurement display

The ***SeCorr® C 200*** independently optimizes the measuring results by automatically selecting appropriate filters – without the user having to intervene. However, filters can also be set manually.

One special feature of the correlator is its results-oriented, userfriendly on-screen display of the measuring results. Concrete information about the position of the leak is highlighted, instead of having to interpret complex curves. The quality of the calculations shown in the display provides the user with constant information about how reliable the measurement is.

Thanks to the results-oriented view, the user can immediately implement further steps, e.g. confirm the location by acoustic means ***RT 200***.



SeCorr® C 200 – The Correlation Standard

The radio transmitters

The ***RT 200*** radio transmitters feature 500 mW high-performance transmission paths. They allow noiseless data transmission, even on measuring sections covering hundreds of feet. The ***RT 200*** radio transmitters come on as soon as you plug in the microphone cable. Three different bandpasses mean that the noises can be fully processed before radio transmission. This means that the ***RT 200*** radio transmitters can be adjusted to a wide range of pipe materials and lengths. The microphone's LED light function can also be activated via the membrane keypad.

The microphones

The ***UM 200*** microphone used for picking up structure-borne noise features a very wide frequency response and is extremely sensitive in the low frequency range. This makes the ***UM 200*** perfect for recording even the quietest of noises, particularly on plastic pipes. The cable is extremely sturdy and can withstand heavy mechanical loads. This guarantees a long service life in daily use, even under the harshest of conditions. A high-quality plug and an extremely strong contact adapter make the ***UM 200*** microphone a professional all-rounder.

The hydrophones

The ***HY 200*** hydrophones make the ***SeCorr®*** an excellent measuring system for use along large transmission pipelines and long distances between individual attachment points. Because they are installed directly in the water column, hydrophones do not use the structure-borne noise that travels along the pipe, but rather the noise transmitted by the water in the pipe. The ***HY 200*** are extremely sensitive in the very low frequency range, far below audible sounds. In this way they perfectly complement the ***SeCorr®*** system when used in plastic pipe networks. The set comes in a dedicated plastic case, keeping all the components such as hydrophones, adapters for installing on fire hydrants and connecting cables close to hand.

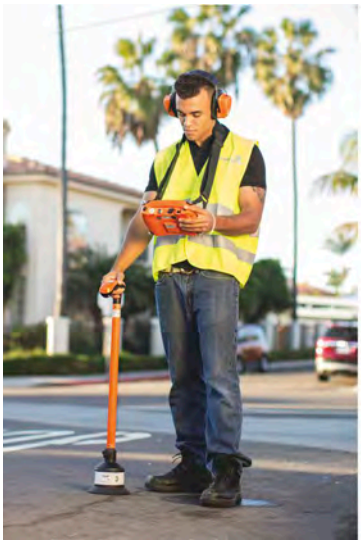
The system case

A separate sturdy system case has space to safely hold all the system components. The ***C 200*** receiver, two ***RT 200*** radio transmitters and two ***UM 200*** microphones as well as optional accessories can all be stored in the case with optimal protection for transit. The system components can be charged in the closed case in the workshop or in the vehicle.

AQUAPHON® A 200 – Professional – Flexible – Intelligent

Professional leak detection

When it comes to detecting leaks in water pipes by electro-acoustic means, the hearing and experience of the user are paramount. Thanks to the outstanding quality of its microphone and measuring technology, intelligent analysis functions, and the practical, visual representation of results on the display, the ***AQUAPHON®*** system supports and simplifies this detection process.



The measurement principle

The water flowing out of the leak in the pipeline causes the pipeline material to vibrate. These vibrations are transmitted throughout the line and can be picked up as structure-borne noise, even at distant contact points such as fittings. The vibrations are also transmitted up through the ground to the surface as ground-borne noise, although this is very muted. The ***AQUAPHON®*** system is your perfect companion for leak detection as it makes the vibrations of the leak noise audible to the human ear, and records and visually displays the volume and frequency spectrum for visual as well as audible identification.

Most reliable leak detection ever

This cutting-edge system offers comfortable, wireless handling, ease of use, versatility and a sturdy, ergonomic design. The ***AQUAPHON®*** system is ideal for both the prelocation and pinpointing of leaks for confident excavation. It is suitable for all your leak detection challenges and will help you locate leaks safely and reliably.

Intelligent system in practice

The ***AQUAPHON®*** system is completely wireless as the ***TS 200*** carrying rod, ***AQUAPHON® A 200*** receiver and ***F8*** wireless headphones communicate by ***S***ewerin ***D***igital ***R***adio (***SDR***). Not only does this allow you incredible freedom of movement, it also offers a much greater sound quality without interference from swinging cables.

The system is operated without buttons or switches using the sturdy 5.7 inch VGA display with touch screen. It offers excellent readability, even in strong sunshine, and can also be operated with gloves. The display is clear and features large, distinct symbols.

The ***AQUAPHON® A 200*** receiver guides you through the various applications with instructions, which means that even less experienced and occasional users can operate the device reliably.

Safety is ensured thanks to customisable hearing protection. The signal in the headphones can either be muted or completely switched off if there is any sudden loud interference noise, e.g. passing vehicles, or the microphone slips off the valve rod extension. Once the source of interference goes quiet, the hearing protection automatically switches back off again.

The system case provides ample space to safely hold all the components of the ***AQUAPHON®*** system. The ***TS 200*** carrying rod, the ***AQUAPHON® A 200*** receiver and the ***F8*** wireless headphones can be charged while in the carrying case. Chargers are available for the vehicle as well as for the workshop and office.

AQUAPHON® A 150 – Compact – Universal – Reliable

AQUAPHON® is a first-class water leak detection system. Professional prelocation and the precise pinpointing of leaks is ensured by the ***A 150*** receiver together with the well-established microphone technology from the ***AQUAPHON® A 200*** system. Connected via high-end microphones and wireless headphones, this device impresses with its brilliant reproduction quality. The display offers support by visualising the noise for reliable and differentiated evaluation. Small, light and handy – the receiver wins over customers with its innovative, compact design and maximum comfort when carrying. Thanks to adjustable filters and automatic frequency scanning, frequency ranges can be individually adapted to the user's hearing, influences from sound interference minimized and sound quality optimized for reliable evaluation of the leakage situation.

Reliable results and availability

The high-quality piezo microphones with frequency response optimized especially for leak detection and the digital signal processing offer outstanding acoustic properties. Thanks to the excellent sound quality and minimisation of sound interference, you can reliably identify and locate leaks even if the sound intensity of the leak is weak or there is significant ambient noise. The ***AQUAPHON® A 150*** receiver automatically calculates the filters and selects suitable frequency ranges. Alternatively, you can set manual filter limits according to your individual hearing and select frequency ranges which accentuate the leak noise. This allows you to concentrate fully on the leak without any sound interference.

In addition, the high-performance rechargeable battery guarantees optimum availability without needing to be recharged – for at least two days of work.

Universal sensor interface

The microphone is securely connected to the carrying rod thanks to a star knob screw and a sturdy, form-fit mounting. The sensor interface on the carrying rod ensures that the microphones are reliably detected. In the past a special test rod and a carrying rod were required for ground microphones but the ***TS 150*** now performs both functions. It records the relevant microphones depending on the application. The microphones do not need to be charged. They are supplied with power by a high-performance rechargeable battery in the staff, which guarantees reliable operation for at least 16 hours.

AQUAPHON® A 50 – Compact – On-Hand – Efficient

The reasonable entry-level model

The ***AQUAPHON® A 50*** system provides professional, electro-acoustic water leak detection. The ***A 50*** receiver and various microphones make the prelocation and pinpointing of leaks successful. When both microphone and headphones are attached, the device boasts impressively high reproduction quality. The display helps by visualizing the noises to provide reliable, differentiated evaluations. When the ***A 50*** with ***SDR*** radio module (**S**ewerin **D**igital **R**adio) is used and the ***F8*** wireless headphones are connected, there are no cables to affect the sound quality or restrict your movement.

Efficient prelocating and pinpointing of leaks

Superior microphone technology ensures excellent sound quality with the ***UM 50*** universal microphone and the ***TS 50*** test rod. The ***A 50*** receiver is ideal for prelocating at fittings and pinpointing on a variety of surfaces – indoors and outdoors. An activation key conveniently starts and stops measurements. The supporting display indicates current and previous minimal levels, both numerically and graphically. It boasts a particularly practical feature: the display is always easy to read thanks to an optimized tilt angle that automatically rotates its view by 180° depending on the carrying position. Volume, filter limits and hearing protection can all be customized for optimal performance.

Compatibility with the existing ***AQUAPHON® A100*** microphones (***BO-4***, ***3P-4***, ...), is another advantage.

Maximum carrying convenience, long battery life

Practical dimensions and low weight make the compact ***A 50*** receiver perfect for everyday use. As an alternative to the carrying strap, the lightweight receiver can be easily fastened to your belt with a clip: freedom of movement, effortless carrying, no annoying elements! The powerful battery guarantees optimal availability without recharging for up to one work week.

AquaTest T10 – Robust Test Rod and Ground Mic

Prelocating

The ***AquaTest T10*** is a test rod with innovative technology and ergonomic design. It acts as a surveying tool for leaks in water pipe networks and allows the user to identify where additional efforts should be concentrated. It also allows curb boxes and curb stops to be quickly surveyed with extension rods of varying lengths The ***AquaTest T10*** is the first test rod made by SEWERIN for which no additional receiver is required. The headphones are activated by merely touching the special sensor area on the keypad. The noises that are picked up are visualized on a display incorporated into the handle. In the ***SDR*** radio module configuration (***S***ewerin ***D***igital ***R***adio), the test rod can be used with radio headphones. This means no more cables to get in the way.

Principal application

The high-quality microphone technology of the ***AquaTest T10*** permits first-class sensitivity in picking up noises. Even the smallest leaks are reliably detected by the test rod. When using the test rod on objects that lie deeper under the surface, extensions can easily be screwed on between the probe tip and microphone. Individual optimization of acoustic results is assisted by the option of selecting one of eight different filter settings. When operating the unit, noise levels can be sampled by simply placing your thumb on the sensor area or by using the toggle on/off mode option. The unit listens only as needed, thereby reducing the annoyance and distraction of unwanted sounds. The ***AquaTest T10*** display shows the current and previous minimum noise levels, as well as the current noise intensity. The minimum noise levels are shown as numeric values; the actual noise intensity is displayed as a bar graph. This gives even less experienced operators visual support if and when they are approaching a leak.

Additional applications – pinpointing leaks and acoustic pipe location

Previously surveyed leaks can also be pinpointed with the ***AquaTest T10***. For this, the probe tip is replaced with wind protected ground mic adapter. This picks up the noise of the leak at the surface as well as blocking other ambient noises. In addition, triped can be attached to the test rod or wind protection device to work over rough surfaces. If a pipe is set into vibration, e.g. using the knocker or stopper of the ***COMBIPHON®*** system, the position of the pipe can be located using the ***AquaTest T10***. This involves systematically testing the surface in short intervals. The volume increases in approach to the vibrating pipeline. The noise is loudest directly above the pipe.

Stethophon® 04 – Compact Listening Device

Characteristics

The ***Stethophon® 04*** is a sound detector for recording and amplifying structure-borne oscillations of all kinds. The oscillation sensor provides undistorted sound reproduction even when the noise is barely audible.

Besides the cable headphones, a wireless version is available with ***SDR*** digital radio. The ***S***ewerin ***D***igital ***R***adio (***SDR***) offers a sound transmission quality equal to or better than cable. By going without the cable, the comfort of work is improved considerably. Headphones and detector connect automatically via bi-directional antennae link when switched on.

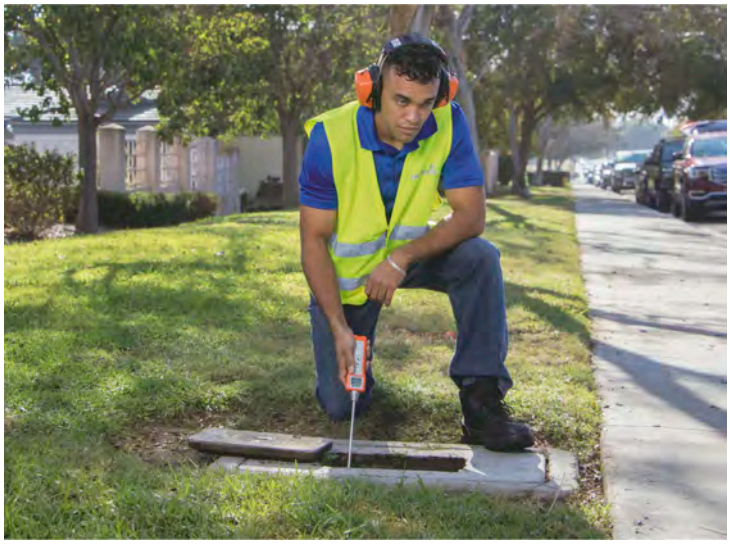
Sewerin Digital Radio works over short distances without any loss. Unlike simple analogue radio transmissions, the completely digital signal processing does not allow acoustic interferences, caused by hissing, re-amplifying, etc., to occur.

The filter function enables the users to listen to the sound at the frequency that best suits their hearing and the particular noise being listened to. The filters make it easier to hear certain noises such as the deep-pitched sounds typical from leaks in plastic pipes and higher frequencies from metallic pipes.

The hearing protection feature automatically ensures that the headphones are muted when loud noises suddenly arise to protect the operator.

To help with the leak detection, the ***Stethophon® 04*** not only indicates the noise levels acoustically, but also displays them digitally.

The lowest measured noises of the previous and current locations are numerically displayed and can be compared objectively.



Applications

- Slab leak detection
- Contact microphone leak detector survey tool in water networks
- Examination of house service lines when the water meter is replaced
- Examination and localization of damages in compressed air systems
- Check on machine bearings

VARIOTEC® 460 Tracergas – Hydrogen Leak Detection

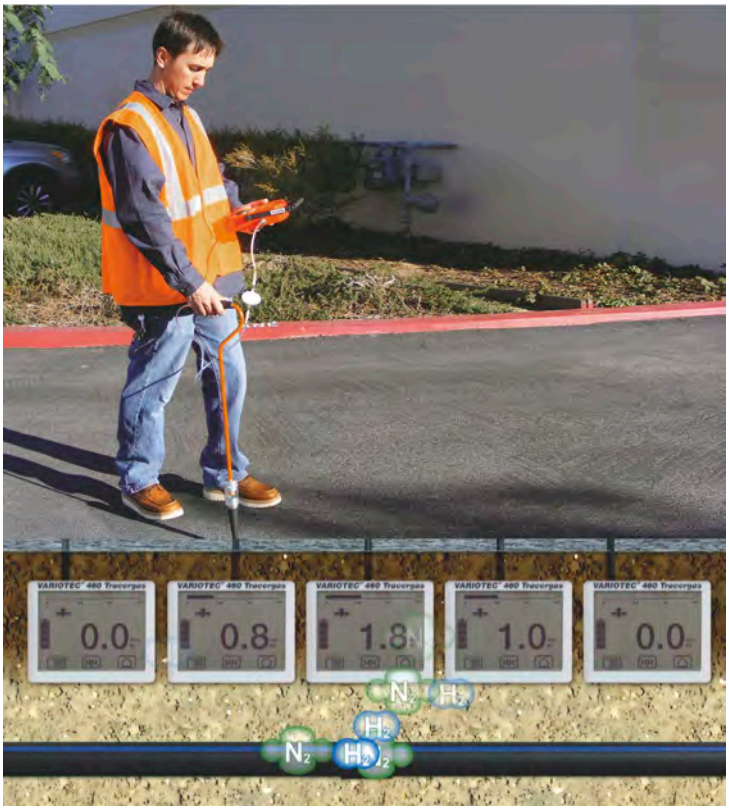
A tried and tested method

Using tracer gas is a tried and tested method for pinpointing leaks. It can be used in gas and water distribution networks, pipelines in buildings, heating systems, pressurized communication cables, gas-filled high voltage power lines and landfill sites sealed with double membrane layers. It can also be used to test for leaks in industrial products such as pipes, pumps, engine blocks and airfoils.

Detecting water leaks by tracer gas involves feeding a mixture of 95% nitrogen (carrier gas) and 5% hydrogen into the pipelines. The hydrogen escapes through the leak and is detected by the highly sensitive, specialized sensor.

The low amount of hydrogen (just 5%) means that this method is safe: the gas is incombustible as per ISO 10156 thanks to the use of nitrogen as the carrier gas. It is non-toxic as well as non-corrosive, and is therefore also permitted for use in drinking water networks.

Tracer gas is cheap and easy to obtain from technical gas or welding gas dealers. It is also environmentally-neutral and permeates all cover layers such as asphalt, concrete and other seal coats. Tracer gas always looks for the shortest route from the leak to the surface.



Rely on precision and safety

The ***VARIOTEC® 460 Tracergas*** was developed especially for leak detection on underground pipes by using tracer gas. It is characterised by an outstanding price to performance ratio.

Precise

The extraordinarily low cross sensitivity of the gas-sensitive semiconductor (SC) ensures an absolutely sure result and a resolution down to 0.1 ppm hydrogen.

Functional

Thanks to an innovative operating concept, a large display and simple menu structure, device operators can quickly get reliable results.

Efficient

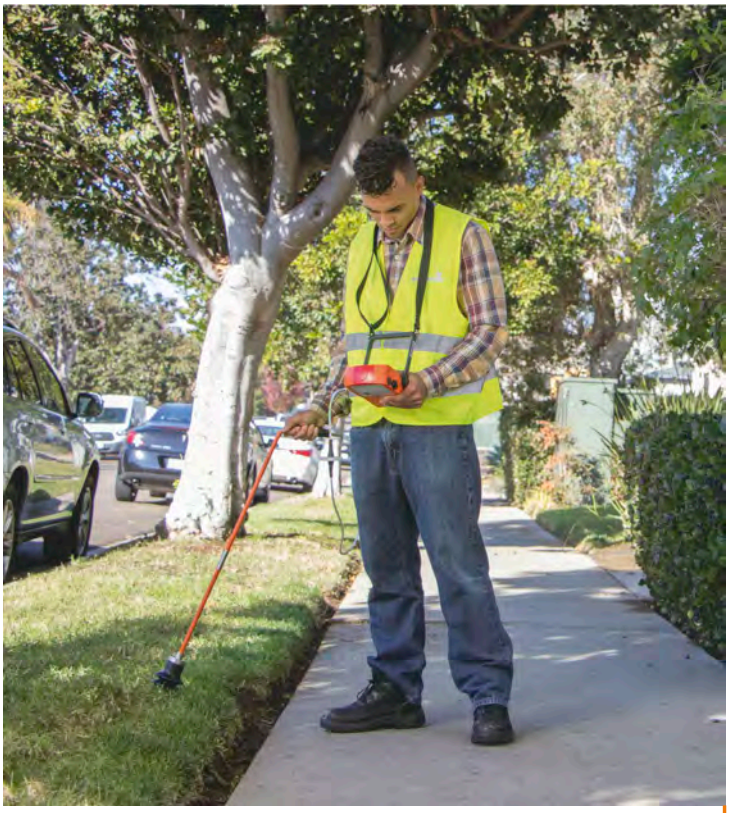
In combination with the bell probe D80 you can achieve outstanding reaction times.

Flexible

The expanded measuring range of the thermal-conductivity sensor, up to 100 % vol. hydrogen easily allows for further measuring tasks.

Mobile

The 4 AA-size rechargeable batteries can be charged in just 3 hours and the operating time is at least 8 hours. As an alternative, you can use disposable batteries.



COMBIPHON® – The Non-Metallic Pipe Locator

Locating plastic pipes acoustically

As non-metallic pipes are not electrically conductive, they cannot be located with the classic electro-magnetic method. Another principle in pipe location is used with the acoustic method: the pipes transmit mechanical vibrations better than the surrounding soil.

The vibrations are transmitted along the pipe and over the soil to the surface where they can be detected by ground microphones (***AquaTest T10, AQUAPHON® A 50, A 150, A 200***).

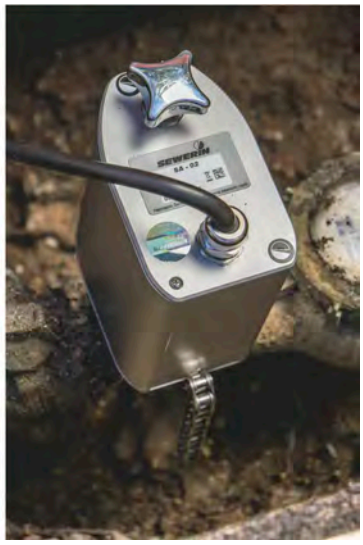
Just as with the acoustic location of water leaks, the highest intensity indicates the position of the pipe. Basically fiber cement or metallic pipes can also be located with this method.

The volume increases as you get closer to the vibrating pipeline. The signal is loudest directly above the pipe, thereafter the intensity starts to decrease again. The visual display is particular helpful for novices or those who do not use the system often.

COMBIPHON® - Striker

Water service lines are caused to vibrate using the Striker. This steadily taps the pipe from the outside like an electric hammer.

The Striker can be easily attached to pipes with a diameter of up to 4 inches using the supplied chain attachment.



COMBIPHON® - Stopper

Water mains require more energy to vibrate. The water culumn is set in motion by controlling the volume using the Stopper at a fire hydrant. The Stopper is a battery powered intensity controlled piston. The sound can be detected over long disctances, depending on the soil conditions (clay, compact soil – over 1 mile).

An advantage in using a power controlled piston, as opposed to a spring one, is that pressure variations have no effect on the settings.

FERROPHON® FG 155 C Generator – All Material Pipe and Cable Locator

The powerful generator for pipe and cable location

In day-to-day leak detection, often the exact location of pipes or cables is unknown. However, to locate leaks precisely or to prevent damage to the valuable pipe and cable infrastructure, the location of all pipes must be known. Whenever pipes or cables must be located, the ***FERROPHON® FG 155 C*** generator is an irreplaceable tool.

Electro-magnetic location of metallic pipes and cables

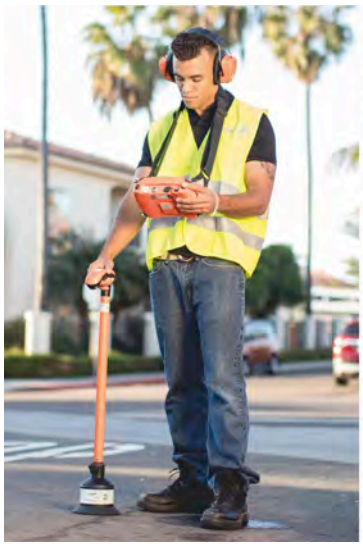
The powerful ***FG 155 C*** generator of the ***FERROPHON®*** system can energize electro-conductive pipes directly or indirectly through connecting leads to each end of the pipe or induction. The ***FG 155 C*** offers up to 10 W output, making it ideal for long distances. Frequencies include ten factory-set frequencies between 512 Hz and 116 kHz plus up to five extra individual frequencies that can be programmed by the user. Thanks to its strong performance parameters, the ***FG 155 C*** is the perfect addition to all receivers in the ***UT 9200***, ***UT 9100*** and ***UT 930*** systems.

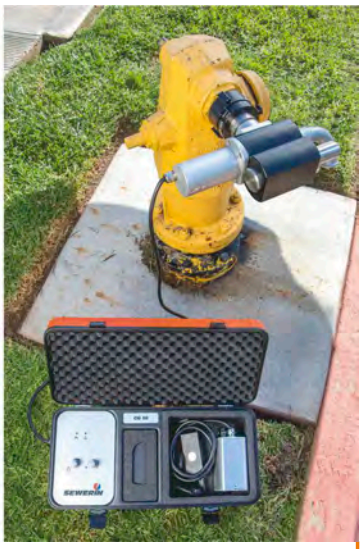
Acoustic location of non-metallic pipes

For the acoustic locating of non-metallic pipes, the ***FG 155 C*** controls the impulse generator of the ***COMBIPHON®*** system – the STRIKER or STOPPER. Pipes vibrated with the STRIKER or STOPPER can then be located using a receiver and ground microphone (***AquaTest T10*** and ***AQUAPHON® A 200***, ***A 150***, ***A 50*** systems).

When locating house service lines with the STRIKER, adjustment of the intensity is required. For example, a louder noise is required for longer distances and a softer noise when closer to the STRIKER.

The included remote control makes it easy to adjust the intensity from afar.





UT 9200 • 9100 • 930 – Pipe and Cable Locator

A new dimension in pipe location

Locating underground pipelines and cables is a matter of precision. The more accurate the measurement, the lower the risk of digging up the wrong spot. Performance, practical handling and simple operation are just as important for fast and efficient work. Likewise, reliability, versatility and a sturdy design are also essential for obtaining measuring safely in difficult conditions and inaccessible environments. The ***UT 9200***, ***UT 9100*** and ***UT 930*** systems are up to any locating task.

Cutting-edge technology for outstanding performance

The systems feature a multitude of frequencies, extremely long battery life, surprisingly simple operation and, above all, versatile functionality – allowing you to master any work challenge.

The ***UT 9200 R*** and ***UT 9100 R*** receivers are best combined with the ***UT 9012 TX*** generator, the most powerful transmitter in its class at 12 Watt.

The ***UT 930 R*** receiver offers seven different frequencies and is combined with the ***UT 935 TX*** 5 Watt transmitter.

The possibilities of the systems are phenomenal: find the optimal frequency immediately, connect two pipes at the same time or locate very long sections of pipe. Accurately locate pipes in difficult environments and all weathers, or reliably determine the depth of the pipe. Thanks to the inbuilt GNSS module, the ***UT 9200 R*** receiver can link location data to position data and read it out via the ***UT 9200 Com*** app – helping you to work quickly, accurately and economically!

UT 9200 • 9100 • 930 – Pipe and Cable Locator

The right system for every detection task

You'll be ready for every challenge with SEWERIN's receivers and generators.

Receiver

Receiver	***UT 930 R***	***UT 9100 R***	***UT 9200 R***
Suitable generators	***UT 935 TX***	***UT 9012 TX*** ***UT 9005 TX***	***UT 9012 TX*** ***UT 9005 TX***
Number of frequencies	7	30	100
Individual frequencies possible	X	X	X
Passive location (current/radio)	X	X	X
Automatic mode (auto gain)	X	X	X
Current direction detection		X	X
Location mode for locating probe		X	X
Receiver – generator bidirectional communication		X	X
Ambient noise detection		X	X
Double output		X	X
Offset depth measurement		X	X
Special receiver accessories: step voltage probe, marker ball antenna, receiver clamp etc.			X
Internal GNSS module			X
Measuring data memory			X
App for data transmission			X
Bluetooth for external GPS			X

Generators

Generator	***UT 935 TX***	***UT 9005 TX***	***UT 9012 TX***
Suitable receivers	***UT 930 R***	***UT 9100 R*** ***UT 9200 R***	***UT 9100 R*** ***UT 9200 R***
Output power	max. 5 Watt	max. 5 Watt	max. 12 Watt
Frequencies	7	70	70
Receiver – generator bidirectional communication		X	X
Double output		X	X

SEWERIN in the US

SEWERIN
Technologies for leak detection.

Find your local dealer – scan QR code or visit our website

Please contact us for a comprehensive quotation, including additional technical specifications and information on accessories.

Hermann Sewerin GmbH | Phone +1 888 592 9916 | Cell +1 888 592 9916 ext. 102
sewerin-usa@sewerin.net | ingo.matlachowski@sewerin.com | www.sewerin.com

While others are still searching ...

... YOU ARE FINDING LEAKS!

106721 – 03/23
Subject to technical changes.

Hermann Sewerin GmbH | Robert-Bosch-Straße 3 | D-33334 Gütersloh
Phone +49 5241 934-0 | Fax +49 5241 934-444 | www.sewerin.com | info@sewerin.com

RLWA-BI 06006202 3 US