Norsonic

Product Range Catalogue

2025-2026

Innovative sound instrumentation

Norsonic is a leading manufacturer of precision measurement instruments for sound and vibration applications. Since our founding in 1967, we have developed our products in close cooperation with our customers.

Since 2022, we have been part of the Rion Group, a long-established Japanese company specializing in acoustic and vibration instrumentation. This partnership builds on decades of shared values, technical excellence, and a commitment to long-term innovation.

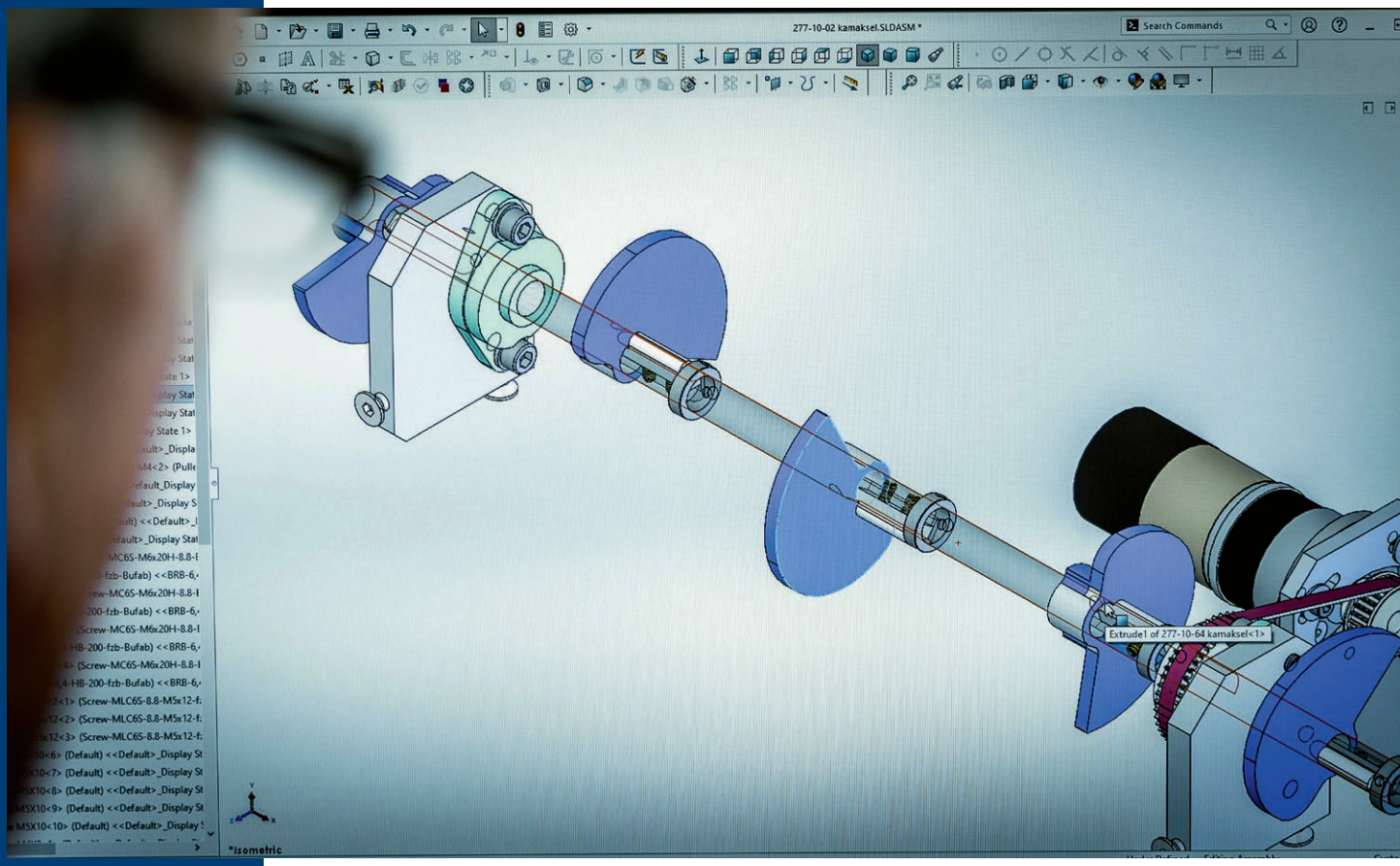
By carefully attending to user requirements, we have been able to increase the complexity of our instruments while maintaining a user interface that is convenient and easy to understand.

It is by listening to our customers' needs that Norsonic remains at the forefront of the global market for sound and vibration instrumentation. Our vision is to provide our customers with the most innovative and highest-quality sound instrumentation.

Norsonic offers a 3-year warranty. Our quality philosophy permeates the entire product lifecycle. It begins with design, continues with internal design tests, and concludes with pattern evaluation for legal metrology at international laboratories, such as the PTB in Germany.

For decades, our products have been type-approved to ensure that measurement results are accurate and meet the specified standards.

Nor283 dodecahedron loudspeakers and Nor282 power amplifiers ready for shipment.



We use 20% of our turnover for research and development.

All our subcontractors are carefully selected, and regular quality audits ensure they maintain high-quality standards.

Full testing and calibration in accordance with relevant international standards, such as IEC 61672, are conducted before products leave the factory.

The Norsonic Calibration Laboratory (NCL) is an internationally accredited laboratory. Products that produce absolute levels, such as acoustic calibrators, tapping machines, and reference sound sources, are supplied with accredited calibration certificates as part of the delivery.

Norsonic invests a minimum of 20% of its turnover in research and development. A significant portion of this is used to design new features for existing products, ensuring that you, as a Norsonic customer, can keep your products up to date for many years after your initial purchase. We are also an active member of international standardisation efforts.

Our R&D department works closely with external partners to leverage specialised technologies that are not available through our internal resources

At Norsonic, we take pride in serving our customers and listening to their needs.

For more information, visit us at www.norsonic.com.

Sound Level Meters

Sound Calibrators

Environmental

Software - generating reports

Nor850 Software and System

Noise Sources

Systems

Vibration

Sound Level Meter

Sound Analyser Nor145 (1-channel) Nor150 (2-channels)

The Nor145 and Nor150 sound analysers set new standards in user-friendliness and sophistication not yet found in any other sound level meter on the market today. They feature a large 4.3” true colour touchscreen and share the same user philosophy as a smartphone..

The Nor145 and Nor150 are based on the same hardware and software platform, and in their basic configuration, they are identical. However, different emphasis has been placed on optimising the use of the two models.

The Nor145 is a single-channel unit optimised for easy wireless connectivity, featuring a built-in 3G/4G/LTE and WLAN modem. It is smaller and lighter than the Nor150.

The Nor150 is a dual-channel instrument suitable for all dual-channel applications such as sound intensity measurements and building acoustics. The Nor150 cannot be fitted with a built-in 4G/LTE and WLAN modem, but it can easily be interfaced with external devices for this purpose.Additional features include a built-in web server, camera, GPS, and advanced voice and text note functionality—bringing the sophistication normally found in laboratory instruments into the field.

Connect your smartphone, tablet, or PC to take full control of the instrument. Add photos and voice notes captured on your mobile device—seamlessly integrated with markers in your noise data.

Nor145

Applications

- Environmental noise assessments
- Building acoustics
- Room acoustics - STIPA
- Sound intensity (Nor 150 only)
- Noise monitoring
- Product noise testing
- Vibration measurements
- Noise in the workplace
- Infrasound
- Ultrasound
- Noise nuisance recorder
- Front end for Nor850
- API for system integrators

Features

- **Class 1 sound level meter and frequency analyser**
- **Easy wireless connectivity.** Built-in WLAN and 3G/4G LTE modem (Nor145 only).
- **Dual-channel capability.** Available on the Nor150.
- **Large colour touchscreen.** High-resolution 4.3” display for intuitive interaction and easy visibility in all conditions.
- **Real push keys.** Physical buttons for reliable operation in demanding environments.
- **User-friendly interface.** Graphical icons and customisable setups ensure quick access to measurement modes and user-defined configurations.
- **Comprehensive measurement documentation.** Add voice and text notes, and log GPS location directly on the instrument.
- **Wide frequency range.** Covers 0.4 Hz to 40 kHz in both 1/3-octave band and FFT analysis
- **Parallel analysis.** Simultaneous 1/3-octave and FFT analysis for detailed signal insights.
- 120 dB measurement range.
- **Advanced triggering system.** Enables automated actions such as report generation, audio recording, and camera capture.
- **Seamless integration with Nor850. Multi-language support**
- **Built-in help system**

Nor150

Sound Level Meter

Environmental Analyser Nor145 / Nor150

Both units are perfectly suited for all types of environmental noise monitoring — whether attended or unattended, single or dual channel. The Nor145, equipped with a built-in 4G/LTE modem, offers effortless connectivity to NorCloud, making it the preferred choice for a wide range of environmental applications.

Designed for permanent, semi-permanent, attended or unattended use, these meters make noise monitoring simple and efficient. Easily capture measurements with markers, audio recordings, and event-triggered images. The large, intuitive 4.3” display provides clear, real-time data at your fingertips. Plus, with the ability to log up to 60 parameters simultaneously, you’ll never miss critical information.

For attended monitoring, our advanced marker management system allows you to set up to 10 custom markers — simplifying post-processing and reporting. Event-triggered audio and images enhance the value of unattended monitoring, ensuring you capture every important moment

Benefit from an intelligent trigger system with adjustable levels for Day, Evening and Night, tailored to your specific needs. The Nor150’s dual channel capability broadens your monitoring possibilities even further. Meanwhile, built-in GPS tagging ensures precise location tracking and clock synchronisation, ideal for applications such as blast monitoring or multi-unit deployments

Stay connected with NorVirtual – the smart app for remote instrument access. Easily capture photos and voice notes that sync automatically with measurement data. The app also allows event-triggered control of smartphone and IP cameras, streamlining your documentation workflow.

Both instruments integrate effortlessly with NorCloud — our powerful, user-friendly noise monitoring and reporting platform. Whether you’re managing short-term projects or long-term environmental monitoring,

Features

- Twin time profiles with resolution from 5 ms and additional Moving report with trigger possibility.
- Extensive trigger system for reports, audio recording, camera and digital output lines.
- Voice, text, and picture note functionality.
- Five independent event triggers, including LDEN support.
- Automatic detection of impulsive noise (compliant with ISO/PAS 1996-3:2022).
- Advanced marker management.
- ull remote control via the NorVirtual smartphone app.
- Seamless connection to NorCloud for unattended monitoring and reporting.
- 0-20 sec graphical back erase / pause function.
- 0-120 sec Audio pre-trigger.
- Effortless integration with post-processing software and Excel.
- API interface available for system integrators.

Sound Level Meter

Sound Intensity Analyser Nor150

The Nor150, equipped with the sound intensity option and the Nor1290 probe kit, is the ideal solution for all sound intensity measurements. Designed for ease of use across diverse measurement environments, it delivers accurate and reliable results every time.

Featuring a remote-control handle that utilises a smartphone as both the controller and display, the system is lightweight and exceptionally user-friendly. This setup enables effortless single-handed operation, giving users full control and flexibility during measurements. The smartphone connects seamlessly to the Nor150 via WiFi, ensuring smooth communication. Alternatively, the sound intensity probe can be directly attached to the Nor150 for traditional use.

Applications

- Sound Power measurements: ISO 9614, ANSI S12.12 and ECMA 160.
- Sound insulation in building and building elements: ISO 15186.
- Noise Mapping.
- Noise Source localisation.

Features

- Compliant to IEC 61043 Class 1
- Full on-board support for ISO 9614.
- Unique phase correction enables measurements from 25 Hz to 10 kHz using only a 12 mm spacer.
- Intuitive warning indicators.
- Measurement-based suggestions help improve accuracy and efficiency.
- Automatic measurement sequence.
- Pause and back-erase with graphical display.
- Full measurement edits support - segment
- exclusion, resize, retake.
- Segment addition support
- Export data seamlessly to Nor850 mapping and reporting software.
- Photo, text and voice annotation.
- Full remote control via the NorVirtual smartphone app.

Sound Level Meter

Building Acoustics Analyser Nor145 / Nor150

Norsonic continues its proud tradition of developing state-of-the-art building acoustic analysers.

The Nor145 and Nor150 are no exception. They can be used as a manually operated single or dual channel analysers (Nor150) or as a remotely controlled advanced building acoustic frontend for the Nor850 multichannel system.

The Building Acoustics mode is designed to cover any in-situ sound insulation measurement tasks. You may choose to measure airborne, facade or impact sound insulation.

Features

- Reverberation time measurements with parallel calculation of T15, T20, T30, Tmax and EDT.
- Ensemble averaging of reverberation decays.
- Backward integration of reverberation decays based on impulse excitation.
- User adjustment of individual RT decay lines.
- Signal generator with white, pink or bandpass filtered noise.
- Supports multiple microphone and loudspeaker positions with corresponding on-board energetic or arithmetic averaging.
- Project overview with information about all individual measurement details and project progress.
- Seamless integration with Nor850 reporting software.
- Wireless single or dual channel measurements using one or two Nor145 controlled from Nor850.
- Wireless control of the battery-operated power amplifier Nor282.
- Rw calculation in accordance to national and international standards.

Both instruments offer a built-in signal generator for excitation of the source room level measurements or for excitation of the reverberation time measurements. The results are measured in accordance with the ISO 16283 Standard requirements. With additional background level measurement results, an on-board calculation of the final airborne sound insulation indices DnT and Rw in accordance with ISO 717 is performed. Of course, the similar possibility is available for impact sound insulation index Ln,w using a tapping machine such as the Nor277.

The reverberation time excitation may alternatively be based on an impulsive source. In any case, results for T15, T20 and T30 are calculated in parallel. The analysers are seamless integrated with the Nor850 software, either as a remote frontend to the Nor850 Measurement System, or as a manual measurement tool for exporting measurement files to the post processing Nor850 Reporting System. Complete calculation of airborne, facade and impact sound insulation indices in accordance with international and national Standards.

Supported Standards

- ISO 16283-1, ISO 16283-2, ISO 16283-3, ISO 717-1, ISO 717-2, ISO 10052, ISO 140-4, ISO 140-7, ISO 140-5, ISO 3382-2
- ASTM E336-23, ASTM E413-22, ASTM E1007-21, ASTM E989-21
- DIN 4109-4, DIN 4109-11
- BS EN ISO 16283-1+A1, BS EN ISO 16283-2, BS EN ISO 16283-3
- SS 25267
- SIA 181
- I.S. EN ISO 16283-1 & A1, I.S. EN ISO 16283-2, I.S. EN ISO 16283-3
- JIS A 1417, JIS A 1418-1


ISO 16283-1: RT
0.48
T20+ #4 (100)
ISO 16283-1: RT
74.3
Leq (100)
Norsonic
VIEW
TBL
FUNC
INFO
START
STOP
CAL
MEM
SET-UP

Sound Level Meter

Noise at Work Analyser Nor145 / Nor150

The Nor145 and Nor150 are the perfect tool for professionals working with workplace noise assessments.Everything you need is integrated into a single instrument. You can measure traditional noise at work noise in parallel with ultrasound.

The wide frequency range covers additional applications such as infrasound and single axis vibration measurements. Custom measurement setups can be easily created and configured to appear right on the start-up screen, streamlining your workflow from the moment you power on. In the field, features like pause and graphical back-erase let you remove unwanted events directly during measurement. Use markers to separate and label different work sequences – quick, clear, and intuitive.

Efficient documentation is made easy with built-in support for photo capture, text notes, and voice annotations – ensuring every measurement location is properly recorded.

Generate professional reports quickly and easily using NorReport, with templates tailored to meet various national regulations.

Features

- Measure both ultrasound and infrasound with precision.
- Simultaneous measurement of A, C, Z, AU weighting.
- Simultaneous measurement of SPL, LAeq, LAeqI, Peak, max, min.
- Simultaneous measurement of Fast, Slow, Impulse.
- Customise your workflow easily with user-defined setups and app-style shortcuts.
- Parallel detection of noise and vibration (dual channel support on Nor150 only).

Sound Level Meter

Sound Level Meter Rion NL-43 / NL-53

These precision sound level meters deliver industry-leading accuracy for professional acoustic measurement. Each model combines sophisticated technology with intuitive operation, making them essential tools for environmental consultants, industrial hygienists, and acoustic engineers. From environmental impact assessments to workplace noise monitoring, these meters ensure compliance with international standards while providing reliable, reproducible measurements.

NL-43 is a class 2 sound level meter and Nor NL-53 a class 1 sound level meter.

Applications

- Environmental noise monitoring
- Occupational safety assessments
- Industrial acoustics evaluation
- Construction site noise measurement
- Community noise studies
- General purpose sound level meter

Features

- IEC 61672 Class 1 Integrating Sound Level Meter - NL-53.
- IEC 61672 Class 2 Integrating Sound Level meter - NL-43.
- Octave/third octave.
- WAV file recording.
- FFT.
- Full-fledged LAN interface.
- Data stored as CSV file to a memory card for easy import into Excel.
- Outdoor protection kit options.
- Color and touch screen.
- Very slim case.
- Compatible with Norsonic software for evaluation of data.

Note! NL-43/53 is sold via Norsonic distributors in selected countries .

Sound Level Meter

Sound Level Meter Nor103

Lightweight and ultra-compact, this instrument is designed for maximum portability – small enough to fit in your pocket, yet powerful enough to deliver the same reliability and precision as any Class 1 sound level meter on the market.

With just three function keys and a clean, intuitive interface, it's easy to operate. The high-contrast graphical display features large, easy-to-read fonts and a bold dB "speedometer" for quick visual feedback.

Powered by just two AAA alkaline batteries, it offers up to 9 hours of continuous operation. Supplied with a durable silicone protective cover and a standard tripod mounting thread, it's ready for any measurement task – anywhere.

Applications

- Noise hazards in workplace
- Environmental noise survey testing
- Product noise testing
- General purpose noise level meter

Features

- Class 1 Sound Level Meter IEC 61672, JIS C 1509-1.
- 30 to 137 dB RMS, 60-140 dB Peak C without range switching.
- Measure Lp, Leq, Lmax, LE and LCpeak.
- Frequency range: from 10 Hz to 20 kHz.
- Frequency weighting: A and C.
- Time weighting: Fast / slow.
- Measurement durations: 1, 5, 10, 60 min.
- Quick startup.
- Easy to use!

Sound Level Meter selection chart	Nor103	NL-43/-53	Nor145	Nor150
General Sound Level Meter	√	√	√	√
Number of measurement channels	1	1	1	2
1/1 & 1/3 octave band	10 Hz - 20 k	20 Hz - 8 k / 10 Hz - 20 k	0.4 Hz – 40 k	0.4 Hz – 40 k
+10 dB extended measurement range				√
Reference spectrum				
Statistical calculations		√	√	√
Parallel Time constants (F/S/I)		√	√	√
Weighting networks	A/C	A/C/Z	A/C/Z/AU	A/C/Z/AU
Calculated networks			B/G/ User defined	B/G/ User defined
One measurement range - no gain setting	√	√	√	√
Dynamic range (RMS) (dBA)	30 - 137 dB	25 - 138 dB	17 - 137 dB	17 - 137 dB
Dynamic range Peak C	55 - 140 dB	55 - 140 dB	45 - 140 dB	45 - 140 dB
Occupational & Industrial hygiene	√	√	√	√
LAEq in parallell with PeakC	√	√	√	√
LCEq - LAEq			√	√
Compatible with NorProtector		√		
Reverberation table based on impulse excitation			√	√
Ultrasound (AU and 1/3 octave to 40kHz)			√	√
Environmental Noise Assessments		√	√	√
Level vs time resolution incl. multispectra		≥ 10 ms	≥ 5 ms	≥ 5 ms
Graphical L/t curve		√	√	√
1/1 & 1/3 octave band multispectrum		√	√	√
Audio recording		√	√	√
Support for SYSCHECK of microphones			√	√
Support for Noise compass and weather station			√	√
Impulsive and pure tone detection			√	√
Compatible with NorReview		√	√	√
Compatible with NorCloud			√	√
Noise Nuisance Recorder with remote trigger			√	√
Building Acoustics			√	√
Noise and impulse based RT with graphical curve			√	√
Noise generator			√	√
Swept sine			√	√
Dual channel				√
Calcualtion of rating curves			√	√
Sound Intensity				√
Audiometer calibration				
FFT		√	√	√
Line resolution		2.5 Hz	1.46/2.92 Hz	1.46/2.92 Hz
Upper frequency normal mode/ultrasound mode		20 kHz	24/42 kHz	24/42 kHz
1/3 octave in parallel with FFT			√	√
STIPA			√	√
Survey Sound Power measurements acc.to ISO 3746				
Compatible with Nor850 software			√	√
GPS and internal or external camera			√	√
WLAN			√	
LAN interface		√	√	√
Built-in LTE/4G modem			√	
USB	via adapter	√	√	√
Bluetooth (Via external adapter Nor520)				
High speed RS 232 interface		√	√	√
SD-card for storage - measurement and audio recordings		√	√	√
Internal memory storing measurements	√	√		

Note. Features and specifications given may require additional options installed.

Class 1 Sound Calibrators

Sound Calibrator Nor1255

- Conforms to EN/IEC 60942 : 2017 Class 1 and ANSI S1.40–2006 class .
- Ultra-stabile silicone reference microphone.
- All-digital quartz-controlled signal generator.
- Fully compensated for static pressure, humidity and temperature.
- Sound pressure independent of microphone equivalent volume.
- Robust, compact and battery operated.
- 114dB @ 1000 Hz.
- Supplied with accredited calibration certificate.

Sound Calibrator Nor1256

- Conforms to EN/IEC 60942 : 2017 Class 1 and ANSI S1.40–2006.
- Ultra-stabile silicone reference microphone.
- All-digital quartz-controlled signal generator.
- Fully compensated for static pressure, humidity and temperature.
- Sound pressure independent of microphone equivalent volume.
- Robust, compact and battery operated.
- 114 and 94 dB @ 1000 and 250 Hz.
- Built in display.
- Measurement of humidity, temperature and static pressure.
- Supplied with accredited calibration certificate.

Environmental

NorCloud Noise Monitoring System

Inexpensive but tailored and optimised for every application!

- Construction site noise
- Transport noise
- City noise
- Industrial estate noise
- Airport noise
- Harbor noise
- Racetrack noise
- Shooting range
- Outdoor concerts and venues
- Research

Noise monitoring, permanent or short term, has never been easier.

Just connect your noise monitoring terminal 1545 or your stand-alone Nor145/150 to your NorCloud project, and the system will start to measure. Data is automatically uploaded to NorCloud. Create your report using the report designer or get help from your local Norsonic distributor. Automatically remove unwanted noise from your project using the noise compass – spend less time on listening to audio events.

Scalable and easy

When creating an account in NorCloud you can create and manage as many projects as you want. Projects can be created as templates which can easily be copied to other projects requiring the same setup. You can connect as many noise-monitors you like, there is no limitation. You pay per unit in use per day - no hidden costs.

System Alarms

System Alarms helps you to monitor the health status of your projects. Alarms are generated in case of lost connection, mains failure, low battery, data transfer failure, microphone calibration failure and more.

Noise event handling

You can configure noise event alarms based on different measurement parameters, dose calculations etc. You may trigger actions like sending emails, SMS, audio recording, pictures or just set a digital output.

Measurement parameters

NorCloud supports all measurement parameters measured by the Nor145/150. From just LAeq every minute or less, to high resolution 1/3 octave multispectrum. You may just send some parameters to NorCloud and decide to store the rest on the local SD card for later data processing and cost saving.

Why NorCloud?

- Fast, easy to connect your sensor to NorCloud.
- Low cost, no software installation required.
- All data automatically uploaded to NorCloud.
- Access all your data with any web browser on any device. The site is smart phone compatible.
- Project management with measurement, trigger, and alert setups, in addition to user access control.
- Powerful report designer and generator integrated.
- View live data or download time specific measurements on the go.
- Seamlessly integrated with NorReview.
- Real time e-mail alerts sent directly from instrument.
- Protect your data. Redundant storage of data locally on the unit and in NorCloud.
- Push data to your own server.
- Norsonic reliability and support.

Continuous audio recording

The system can do continuous audio recording 24/7 with data stored locally on the noise monitor. Listen to the recordings and select what recording to upload. A data management system automatically erases the oldest data.

LDEN

The system automatically calculates and report LDEN. Penalty for impulsive noise is automatically detected in accordance with ISO1996-3.

Dose calculation

This is a tool for seeing if an equivalent sound level is in danger of reaching or reaches a certain sound level limit within a certain time span. It supports an alarm message on email when reaching the first limit (yellow alarm) and the second limit (red alarm). The dose calculation is based on an A-weighted Sound Exposure Level, LAE.

Live data

Live data can be switched on to generate real time noise data to govern noise from live events, such as racetracks or shooting ranges.

Noise compass - automatic removal of unwanted noise events

The noise compass (optional) calculates the noise emission from your predefined 3D sectors. This helps you to automatically remove unwanted noise events from other sectors than the project you manage. You may also use the noise compass data on triggers to reduce the number of alarms or events having noise coming from somewhere else.

Reporting

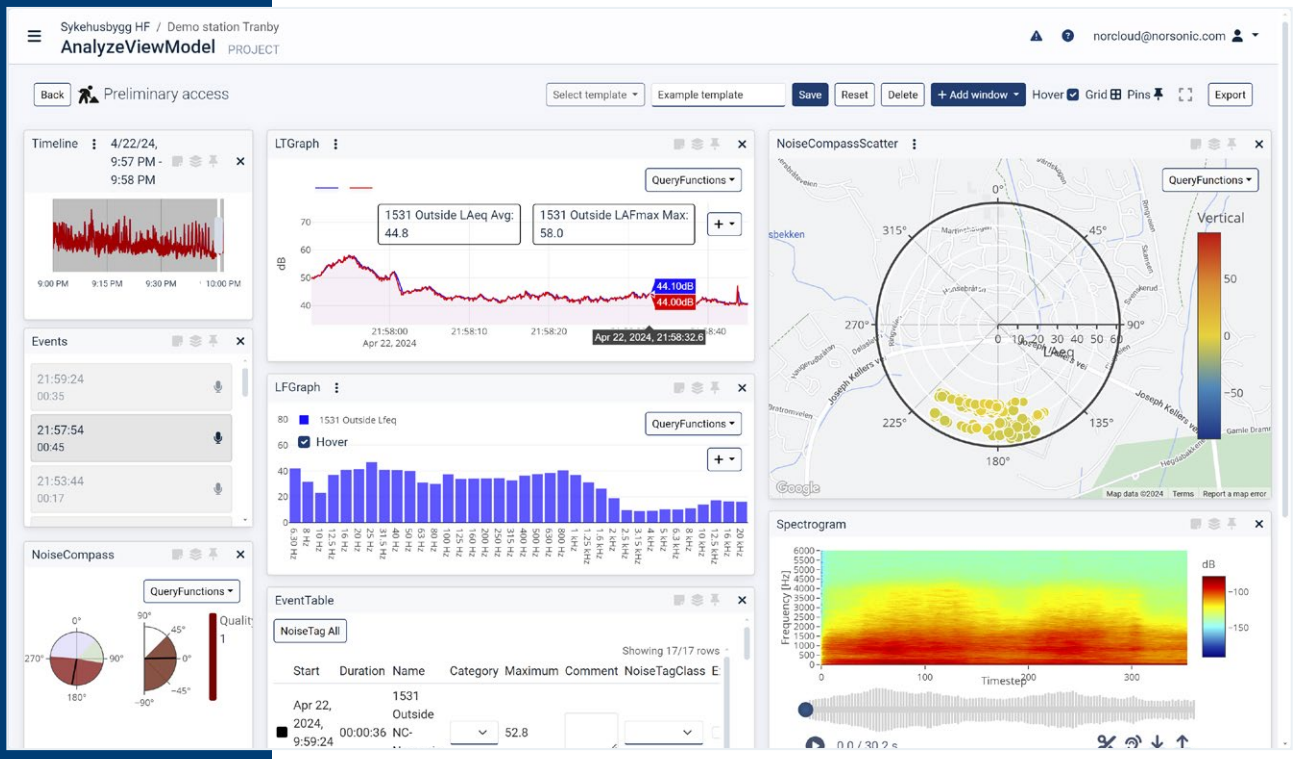
Use the NorCloud report generator or Excel to make your own customized reports. Reports can be generated at fixed intervals (hour, day, workdays, week, month, year) or on demand.

Push data to a local server

NorCloud offer automatically data transfer to your server (HTTPS or FTPS). Most data formats (e.g. TXT, CSV or JSON files) are supported.

Analyse mode

Download data and work with them analytically within the browser. Use custom window setups saved as templates. Includes time graphs, pictures, frequency spectrum, spectrogram of recordings and noise compass scatter models to name a few.




Norsonic

Environmental

Noise Monitoring Terminal Nor1545

The Nor1545 noise monitoring terminal is a robust, efficient solution for your outdoor noise monitoring. Equipped with the state-of-the-art sound level meter Nor145 hosting latest generation communication technology, noise data can be reliably and securely transferred to your office.

The system can be a stand-alone Noise Monitoring terminal or managed and supervised by NorCloud.

With NorReview you may perform further in-depth analyses of your noise data combined with the Noise Compass and weather data.

Features

- See and manage your noise data online using NorCloud.
- Listen to recorded events.
- Automatic reporting.
- Noise source location using the Norsonic Noise Compass.
- Support for weather data.
- Support for IP camera.
- Data stored local on SD card and in NorCloud for full redundancy.
- Wired (LAN) or wireless (WIFI/UMTS/ LTE/3G/4G).
- Built in GPS.
- Get notified by email or SMS when set thresholds are reached!
- Event trigger for picture, audio and weather data.
- System alarms are generated with mains failure, battery low etc. Notification sent via e-mail.
- Support for external antennas with full diversity in places with bad signal strength.
- Interrupt free switching between mains, external 12V, Solar panel and internal 12V battery.

Noise Compass Nor1297

The three-dimensional Nor1297 Noise compass significantly reduces time spent on judging if a noise source should be a part of the overall noise calculation or not, simply by defining which direction the noise is coming from. When used together with Norsonic' s sound level meter Nor145 and Nor150 and the noise monitoring terminal Nor1545.

The noise compass provides a three-dimensional vector pointing at the sound source enabling NorCloud to automatically customize your report to include/exclude noise events based on where the sound source is located.

The system may also operate off-line and collect the data on the instruments SD card for later analyse in NorReview.

The noise compass is an add-on to the Norsonic range of outdoor microphones.

Environmental

Outdoor Microphones

Norsonic offers a wide range of high-quality microphone solutions tailored for both permanent and semi-permanent installations. When used with a Norsonic sound level meter, all microphones maintain precise directional characteristics for both 0° and 90° sound incidence – ensuring accurate and reliable measurements in every setup.

Nor1216 for permanent installations

- Outdoor microphone for community and aircraft noise.
- Fulfils IEC 60651, IEC 61672 class 1 and ANSI S1.4 type 1 (frequency correction applied).
- Protection class IP 55 (dust and water).
- Easy to calibrate with a normal ½" sound calibrator.
- Microphone verification by SysCheck facility
- Low self noise – typically below 17 dB, A-weighted.
- Delivered with individually calibration certification.
- Built-in heating for enhanced weather protection.
- Directly powered and supported by Nor140, Nor145 or Nor150 (built-in selectable frequency correction networks, heater supply and SysCheck signal generator).
- Type approved by PTB, Germany.

Outdoor microphone selection chart	Nor1216	Nor1217	Nor1218
Permanent	√		
Semi-permanent		√	√
SysCheck verification	√	√	
Designed for Nor131/Nor139			√
Designed for Nor140/Nor145/Nor150	√	√	√
IEC 61672 class 1 horizontal incidence (Community)	√	√	√
IEC 61672 class 1 vertical incidence (Airport)	√	√	√

Nor1217
for temporary installations

- Outdoor microphone protection for community and aircraft noise.
- Directly powered and supported by Nor140, Nor145 or Nor150 (built-in selectable frequency correction networks, SysCheck signal generator).
- Fulfils IEC 60651, IEC 61672 class 1 and ANSI S1.4 type 1 (frequency correction applied).
- Protection class IP 55 (dust and water).
- Easy to calibrate with a normal ½" sound calibrator.
- Microphone verification by SysCheck facility.
- Low self noise – typically below 17 dB, A-weighted.
- Low cost - uses microphone and preamplifier supplied with Nor140.
- Type approved by PTB, Germany.

Nor1218
for temporary installations

- Outdoor microphone protection for community and aircraft noise.
- Directly powered and supported by Nor131/ Nor139 (built-in selectable frequency correction networks).
- Fulfils IEC 60651, IEC 61672 class 1 and ANSI S1.4 type 1 (frequency correction applied.
- Protection class IP 55 (dust and water).
- Easy to calibrate with a normal ½" sound calibrator.
- Low self noise – typically below 17 dB, A-weighted.
- Low cost - uses microphone and preamplifier supplied with Nor131/Nor139.

Software

Generating reports

Measuring sound is often about much more than just reading a dBA value. Most measurements follow standardised methods that require reporting in specific formats. However, there are times when you need a customised report or further analysis in Excel.

Whatever your requirements, Norsonic offers a wide range of powerful software solutions to help you evaluate your data and generate clear, compliant, and professional reports – whether standardised or tailor-made.

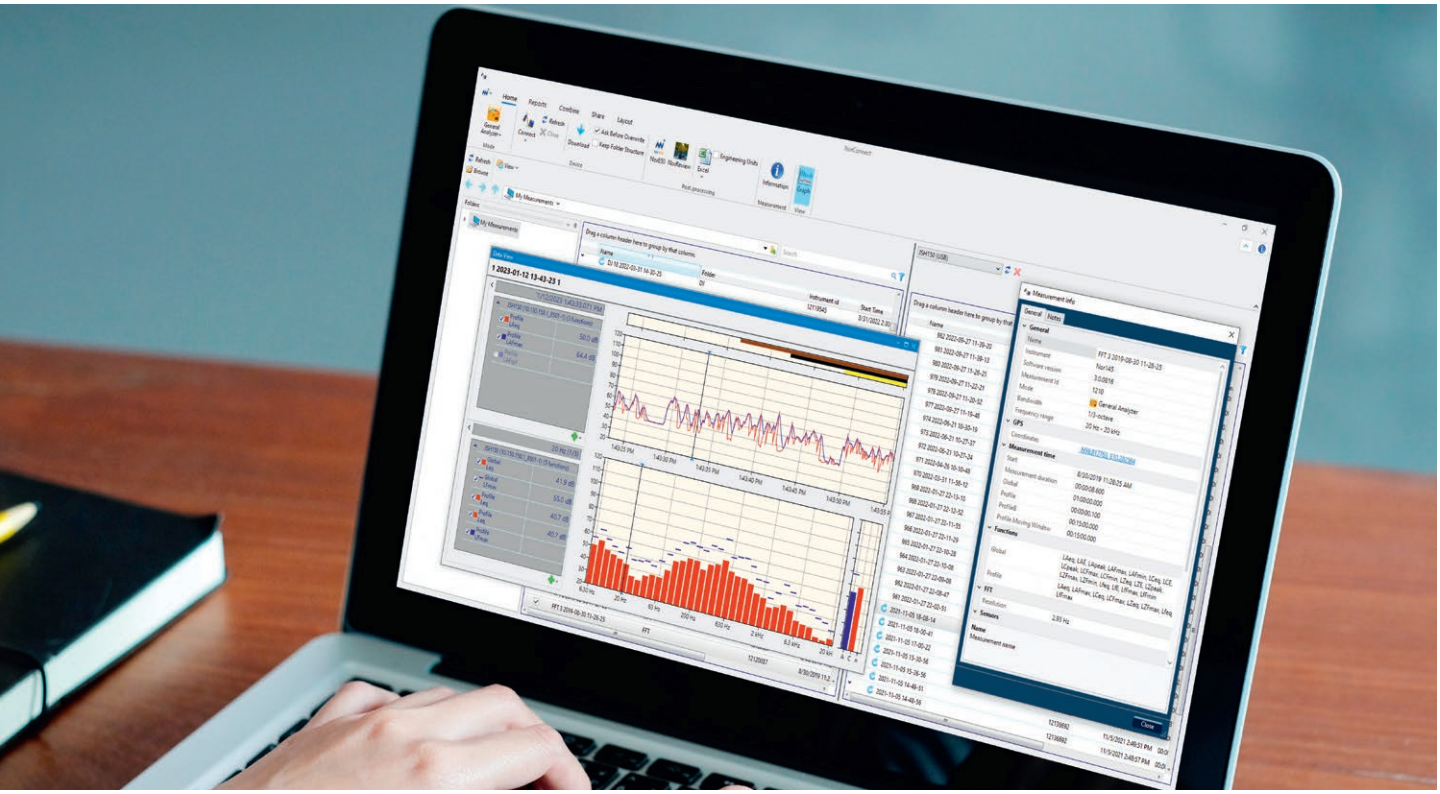
NorConnect

NorConnect is a powerful measurement suite and data management tool designed for use with measurement files from the Nor145 and Nor150. It provides both graphical and numerical views of your data, with tailored visual tools optimised for building acoustics, sound power, and environmental or general noise measurements.

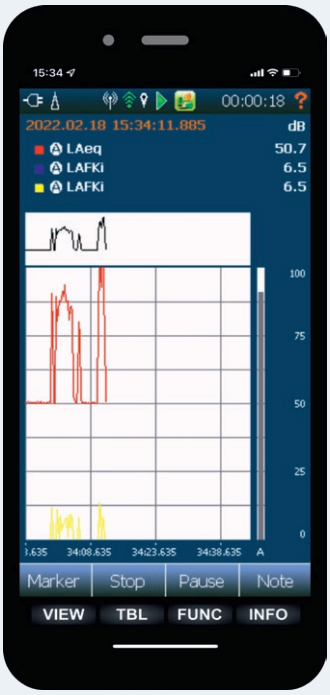
Easily browse through your measurement sessions, listen to audio recordings, and generate reports using either predefined templates or your own customised formats. For advanced analysis, NorConnect integrates seamlessly with Nor850 and NorReview, while also offering quick export to Excel for further data processing.

Supporting all communication methods available on the Nor145 and Nor150, NorConnect allows remote access to your instrument via modem, WLAN, or LAN.

Freeware and part of the Nor145/Nor150 delivery.



NorVirtual Nor150 - PC version



NorVirtual App

NorVirtual / NorVirtual App

NorVirtual for PC emulates the Nor13x, Nor140, Nor145, and Nor150 sound level meters, providing a virtual instrument interface directly on your computer. It's available as freeware and offers a practical solution for remote demonstration, training, or control.

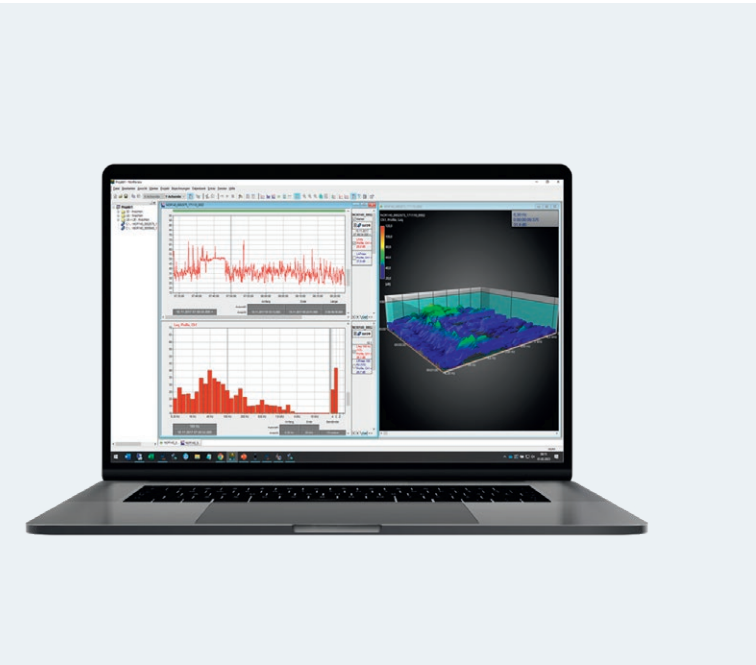
NorVirtual App for Smartphones is a 1:1 replica of the Nor145 and Nor150 display and keypad. Whatever is shown on the sound level meter—whether it's graphs, menus, or tables—is mirrored on your device screen in real time. Operate the instrument using your touchscreen or mouse, just as you would on the physical device.

Supporting all communication channels (modem, WLAN, LAN, etc.), NorVirtual gives you full remote access to your Nor145 or Nor150. When used in combination with NorConnect, it becomes a powerful and intuitive solution for remote control, live monitoring, and downloading measurement data.

The NorVirtual App is available for free on the Apple App Store and Google Play.

Software

NorReview Nor1026



NorReview is a versatile, project-oriented PC software package designed for presenting and post-processing environmental noise data collected from Norsonic instruments. Each project can include a wide range of raw and processed noise and weather data, audio recordings, voice notes, Microsoft® Word or Excel reports, as well as other files such as digital photos and PDF documents.

Whether you need to quickly generate a single report or conduct advanced evaluations and compile complex project documentation, NorReview provides a comprehensive and efficient solution.

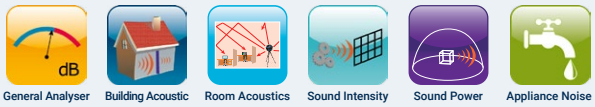
Features

- Flexible and versatile user-interface.
- Evaluation of industrial noise.
- Evaluation of rail and road traffic noise.
- Evaluation of residential noise.
- Evaluation of multiple measurement files simultaneously.
- Direct import or file read-in from Norsonic instruments.
- Displays frequency, time-profile, FFT and AC views of the measurement data.
- Insert and edit markers to recognize noise sources.
- Replay of audio recordings with dynamic cursor and marker insert features.
- Post processed event analysis with marker insert feature.
- Post processed calculations on selected pre-marked sections.
- Rating calculations according to national standards.
- Pre-defined project reports.
- L(t) view of calculated functions.
- L(f) view difference calculations.
- User-defined project reports.
- Supports weather data.
- New MS' Excel template based NorReport measurement report feature.
- Sophisticated 3D and Spectrogram views.
- Automated multi-views of long-term measurements in pre-selected detailed sub-periods (24 x 1 hour views of a 24h measurement).
- Overlay marker.
- Simultaneously transfer of all views to Word.
- Connected cursors Lt/Lf views.
- Calculation of difference between selectable functions.

Nor850

Nor850

From full system to standalone reporting



The Nor850 represents the pinnacle of Norsonic's decades of expertise in acoustic analysis, building upon the legacy of renowned instruments like the Nor811, Nor823, Nor830, and Nor840. This state-of-the-art, multi-channel system is engineered for both demanding field investigations and precise laboratory measurements, offering a combination of user-friendliness, operational efficiency, and reporting accuracy.

At its core lies the Nor850 suite software. A powerful and versatile platform for data collection, analysis and professional reporting. It integrates seamlessly with Norsonic instruments in a full system setup, but can just as easily be used **as a standalone reporting tool**, importing measurements from sound level meters and generating high-quality reports for many different standards, as well as custom excel reports.

Nor850-MF1

The Nor850-MF1 rack can house up to ten measurement channels, and multiple racks can be used together or alongside handheld sound level meters such as the Nor140, Nor145 or Nor150 as additional frontends. Selectable channels can even be equipped with signal generator outputs, further enhancing the system's versatility

The system is modular and scalable, starting with a single Nor150, or a pair of Nor140/Nor145 units, it can be expanded with additional meters or Nor850-MF1 racks to meet growing needs. Communication across the Nor850 ecosystem is robust and adaptable, supporting both wired (LAN, USB) and wireless (Bluetooth, WLAN) connections. This flexibility allows syncronized multi-channel setups.

The Nor850 Suite software is the intelligent core of your acoustic measurement system, providing dedicated applications for building acoustics, sound power, sound intensity and more. Whether collecting live data or processing existing measurements, users benefit from the same intuitive interface and efficient workflow.

A comprehensive sensor database stores information about all your sensors and calibration tools, ensuring accurate data and making it easier to manage your equipment.The system also supports logging of DC voltage levels and direct input from external sensors for environmental factors like temperature, humidity, and pressure.

Whether used as a **full system or purely as a reporting platform**, the Nor850 offers flexibility and precision, making it the ideal choice for acoustic professionals seeking a smart, scalable and complete solution.

Nor850

General Analyser Application

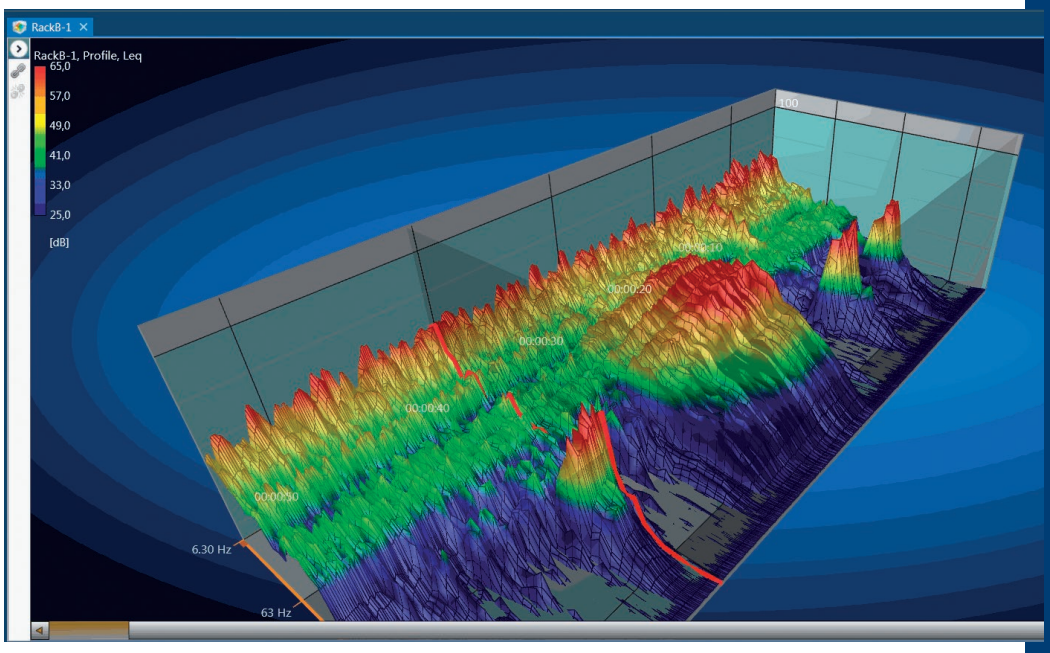
Analyser is a versatile application for a wide spectrum of acoustic investigations. It allows for simultaneous multi-spectrum measurements across all connected channels, with different frequency ranges and level profiles. These profiles can be customised with user-defined period lengths, ranging from milliseconds to minutes, providing excellent time resolution.

Measurement results are presented through user-configurable displays, offering both level versus frequency and level versus time views, as well as intuitive tables. For deeper analysis, specialized 3D and Spectrogram views provide rich visual representations of the acoustic data.

Maintaining quality control is seamless with the module's two reference spectra capabilities. Each reference spectrum can be defined as either a lower or upper boundary, providing a clear Go/NoGo indication to the operator during measurements.

To improve its use for environmental applications, the Nor850 Suite offer the possibility for audio recordings on selected channels. Users can add event markers directly on the measurement timeline, giving valuable context and helping with post-analysis. Functions and calculations can be added or removed with the use of markers, giving the user more control over the measurement and what should be included or not.

Users can easily import measurement data from the Nor850 system into custom Excel spreadsheets. This smooth integration allows the user to create personalised formulas, advanced processing functions, and custom reports.



Nor850

Building Acoustic Application

The Building Acoustic application provides a comprehensive toolkit for evaluating sound insulation and transmission in buildings. The basic application package includes all the necessary features for conducting field tests according to both traditional ISO 140 series standards and the latest ISO 16283 standards, as well as national variations and American ASTM standards such as E336, E90 and E413

The extended Building Acoustics package expands these capabilities to encompass advanced laboratory testing in accordance with ISO 10140 and ASTM standards like E1007, E492, and E989. It also includes functionalities for absorption coefficient testing as per ISO 354 and ASTM C423.

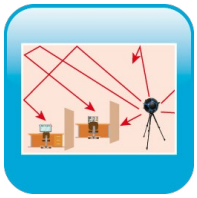
The integrated signal generator offers a variety of excitation signals, including white, pink, and bandpass filtered noise, with the option for user-defined pre-excitation of measurement chambers. The Nor850 further enhances testing efficiency with features for automatic control of rotating microphone booms, tapping machines, and moving loudspeaker systems.

Calculations of sound insulation indices are streamlined, with predefined printed reports that can be altered by the user, and flexible parameter input in both metric and US units. Enhanced features for multichannel calibration procedures, utilizing remote displays and acoustic loudspeaker feedback.

Existing measurement projects from previous Norsonic analysers can be easily imported and compared with new data in the project collection. Measurement results can be readily reused in new projects through intuitive drag-and-drop functionality, or with the reuse function when creating new projects.

Nor850

Room Acoustic Application



The Room Acoustic Module for the Nor850 delivers a comprehensive suite of tools for analyzing and understanding the acoustic characteristics of enclosed spaces.

The reverberation time *T* for the evaluation according to EN ISO 3382-2 can be measured via the impulse or noise excitation, either first in the sound level meter or directly via the Nor850 software with wireless control of the Nor145 sound level meter and power amplifier via WLAN.

In addition to evaluation according to EN ISO 3382-2, the module also enables measurement of the room impulse response using SweptSine excitation. This is followed by calculation of reverberation time and speech intelligibility. The module also supports the full measurement routine and evaluation for open-plan offices according to ISO 3382-3, including generation of a test report with all individual values ($D_{2,S}$; $L_{p,A,S,4m}$; rD, rC, $L_{p,A,B}$).

Completely wireless - no more hassle with cables!

Nor850

Sound Power Application

The basic Sound Power application package includes all features required for making sound power test in accordance with the ISO 374x series.

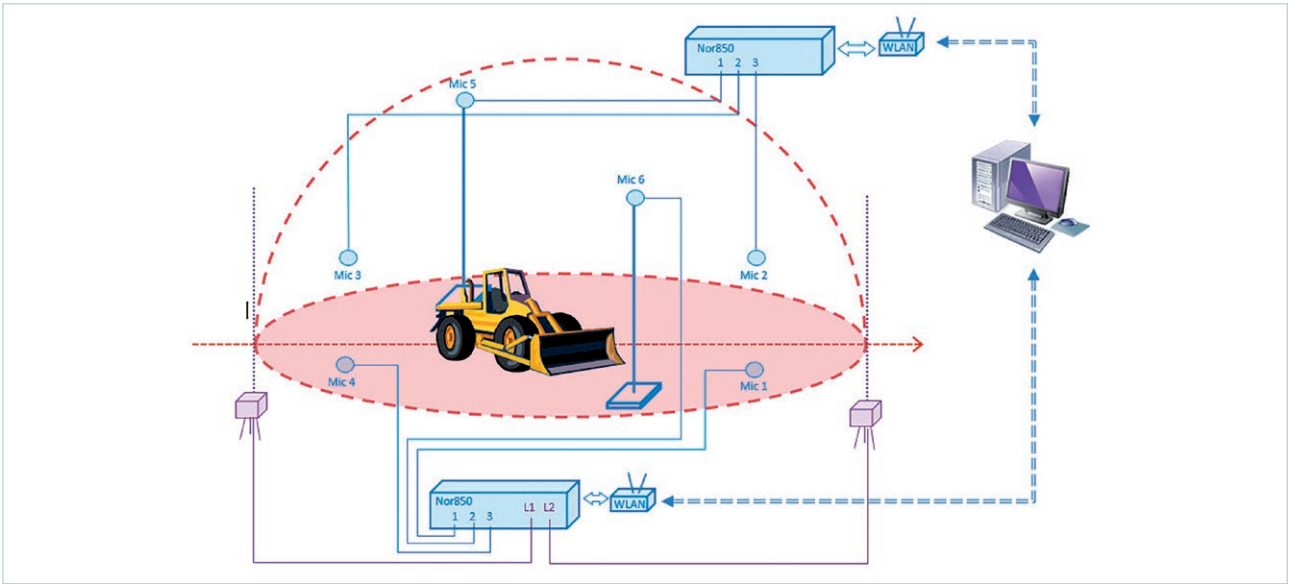
The extended Sound Power application package contains required features for making more special tests such as dual-chamber testing of heat-pumps, dynamic testing of earth-moving machinery in accordance to ISO6395 and similar standards.

The entire test procedure can be automated using a user-programmable Scheduler, minimizing the need for a constant operator. Norsonic offers turn key solutions and customized adaptions.

WLAN communication from the measurement points may be used in larger test setup in accordance with ISO 6395 to save cabling cost.

ISO 374X series measurement setup

ISO 6395 setup



Nor850

Sound Intensity Application

The Sound Intensity application equips the Nor850 system with the tools necessary for precise sound intensity measurements, adhering to ISO 9614-1 and -2 standards. This advanced technique allows for the localisation and quantification of sound sources, even in complex acoustic environments where traditional sound pressure measurements may fall short.

Furthermore, the module supports the determination of sound intensity transmission loss in accordance with ISO 15186-2, providing valuable insights into the sound insulation properties of materials and structures. By directly measuring the flow of sound energy, this module enables a deeper understanding of noise generation and propagation mechanisms, facilitating effective noise reduction strategies.

The application has an easy-to-use Graphical User Interface. Clear visuals of sound intensity vectors and mappings give quick and helpful feedback, .which allows for easy visualization and analysis of the direction and strength of sound energy. Setting up and analyzing sound intensity measurements is simple, making this powerful method accessible.

The software support custom background pictures for the different surfaces, allowing for even more accurate description of the different sources.

Nor850

Appliance Noise Application

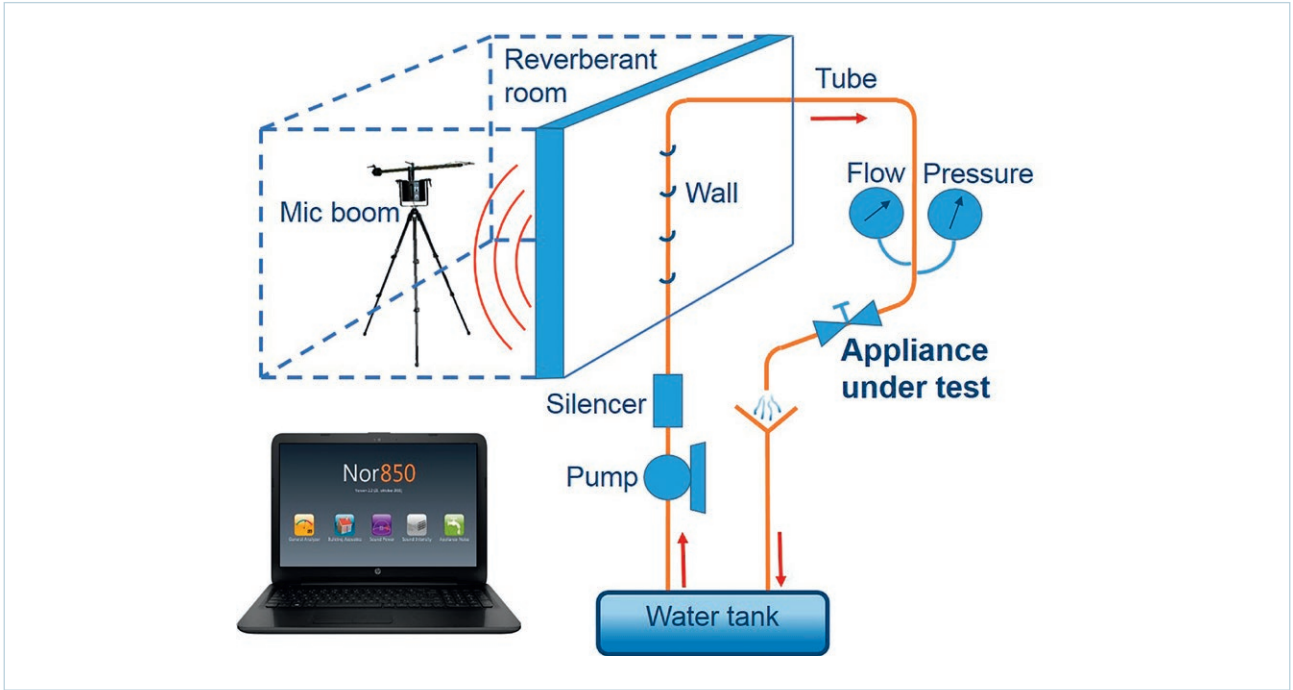
The Appliance Noise application provides a dedicated solution for evaluating the noise emitted by appliances and equipment used in water supply installations. Fully compliant with ISO 3822 and EN 12541 standards.

The Norsonic Nor850 multi-channel noise analyer is the perfect tool for both research and development and production line quality control in any industry or test lab dealing with water appliances. The optional Nor850/DC module can automatically measure parameters such as water flow, water pressure, and temperature, significantly speeding up the testing process.

The application has a flexible interface that is easy to set up and use for both experienced users and beginners. The built-in Test Scheduler automates test sequences, making the procedure more efficient. You can create clear and simple reports of test results. This application provides a standard and efficient way to measure appliance noise, helping manufacturers ensure their products run quietly

- Highly configurable.
- Easy setup.
- Intuitive and efficient interface.
- Test Scheduler for automated processes.
- Customized report generator.
- Automatically read in of waterflow, temperature, pressure etc.
- For both experts and freshmen.
- ISO 3822 and EN 12541 compatible.

ISO 3822 setup



Noise Sources

Dodecahedron Loudspeaker Nor283

- Dodecahedron loudspeaker.
- High power loudspeaker with omnidirectional characteristics.
- Conforms to ISO 10140-5 Annex D for laboratory airborne sound insulation
- Conforms to ISO 16283-1 Annex A for in-situ airborne sound insulation
- Conforms to ISO 3382-1 Annex A: 3 - 1 for room acoustic parameters (reverberation time)
- Using the Nor282 power amplifier with pink noise, and equalisation: 123 dB (Lin)
- Using the Nor280 power amplifier with pink noise, and equalisation: 120 dB (Lin)
- Supplied with individual omni directional calibration certificate.
- Dimensions: 270 mm (10.63”).
- Weight: 5.3 kg (11.7 lb)

Noise Sources

Power Amplifier Nor280

- A portable power amplifier with internal noise generator for use with the Nor275, Nor276 or other suitable loudspeakers.
- Specially designed for building acoustics measurements.
- Lightweight and rugged construction.
- Self-contained noise generator.
- Emits 120 dB sound power level in the 50 - 5000 Hz frequency range when used with Norsonic loudspeakers Nor275 or Nor276.
- Wireless remote control of noise generator (optional).
- Equalisation network to optimize acoustic output from speaker.
- Balanced signal input for low noise and limited cross talk problems.
- Dimension: 275x110x246 mm (10.8x 4.3x9.7”)
- Weight: 5 kg (7.9 lb).

Power Amplifier Nor282

- Specially designed for building acoustic and room acoustic measurements.
- Battery operated (90 minutes at full power)
- Graphical user defined equaliser to optimise acoustic output from speaker.
- WiFi for easy connect to Norsonic measuring equipment.
- Compact, lightweight, and rugged construction.
- Self-contained noise generator.
- Emits 120 dB sound power level in the 50 – 5000 Hz frequency range when used with Norsonic loudspeakers types Nor275 or Nor276.
- Wireless Noise on/off hand switch.
- Dimension: 240x 20x256 mm (9.4x4.7x10.1”)
- Weight: 5.1 kg (11.5 lb).

Noise Sources

Tapping Machine Nor277

- Tapping Machine for making footfall noise transmission measurements in buildings as set out in International and National Standards.
- Impact sound transmission testing according to ISO 16283-2, ISO 10140, ASTM E-492 and ASTM E-1007.
- Determination of single number quantity index Ln,w, in accordance with ISO 717-2 and ASTM E-989.
- Remote operation from hand switch or PC.
- Mains or battery operation.
- Powered from 85-264 volt AC main supply. Built in Lithium-Ion rechargeable batteries
- Low weight 10 kg (22 lb) incl. battery and wireless remote option.
- Five hammers each having a mass of 500 g falling from a height of 40 mm (adjustable).
- Tapping sequence of 10 impacts per second, rpm controlled via servo feedback loop.

- Built in self check of hammer fall speed, and tapping sequence.
- Retractable feet .
- Dimensions: 265x 230x495 mm (10.4x9.1x19.5”).

Impact Ball Nor279

- To be used as the “Rubber Ball“ alternative to the Tapping Machine excitation method in accordance with ISO 16283-2 Appendix A.2 and ISO 10140-5 Appendix F.2.
- Fulfil the requirements for a “standard heavy impact source” as given in the Japanese JIS A 1418-2:2000 Standard for impact sound insulation.
- Hollow sphere ball.
- Outside diameter 178 mm and thickness 32 mm.
- Silicone rubber material.
- Equivalent mass 2.5 kg (+/- 0.1kg).
- Coefficient of restitution at 0.8 (+/- 0.1).
- Rubber hardness 40o (+/- 5o).

Noise Sources

Microphone Boom Nor265A

- Oscillating microphone boom for spatial averaging in building acoustics or sound power measurements.
- Building acoustics measurements in accordance with ISO 10140 and ISO 16283.
- Reverberation time measurements in accordance with ISO 354.
- Sound Power measurements in accordance with ISO 3740 series.
- Directional response measurements of loudspeakers and microphones.
- Accurate positioning.
- Sweep of ±90° and ±180°.
- Direct control or remote control from a PC via LAN interface.
- User defined sweeps. Selectable sweep times.
- Supported by Nor850.
- LAN interface.
- Nor265 may be equipped with a turntable (optionally).

Reference Sound Source Nor278

- Substitution and juxtaposition methods for determination of sound power of noise sources according to ISO 3747.
- Comparison method for determination of sound power of noise sources according to ISO 3741, ISO 3743-1, ISO 3744 and 3747.
- A-weighted Sound power output: 93dB re 1 pW (50Hz line frequency).
- Sound power 50 Hz – 20 kHz: 94dB re 1 pW (50Hz line frequency).
- Fulfils ISO 6926 for reference sound sources in the extended frequency range 50 Hz – 10 kHz.
- Accredited calibrated.
- Long-term stability.
- Weight 18.6 kg - Rugged.

Systems

Acoustic Camera

Applications

- Sound Source Identifications
- Sound Leakage
- Automotive
- Industry
- Environmental Noise
- Building Acoustics

The Norsonic Hextile-shaped acoustic camera features a modular design that combines excellent portability with high resolution, making it ideal for a wide variety of measurement scenarios. Its unique hexagonal microphone array allows multiple tiles to be seamlessly combined into larger arrays, offering flexible scalability to suit your specific needs.

Hextile – Lightweight and portable

The single Hextile, is a small, lightweight and easy portable acoustic camera suitable for surveys within the frequency range 410Hz to 20K Hz.

A USB cable between the MacBook and the acoustic camera is all you need - no additional power supply is required.

The Hextile is a robust and lightweight aluminium construction, has 128 MEMS microphones, and is less than 3 kg in weight while having a maximum diameter of 46 cm.

Multitile – Great resolution

For users that require a better resolution, particularly at the lower frequencies, three single Hextiles can be combined to a larger Multitile system. With 384 microphones and a maximum diameter of 96 cm, this setup makes you measure frequencies down to 220 Hz from 20K Hz in one shoot.

Multitile (LF mode) – Low frequency measurements

For special low frequency applications, it is also possible to utilise the Multitile in the Low Frequency configuration called Multitile-LF. By placing the individual Hextiles further away from each other, the diameter of the array is increased to 1.46 m. This configuration is ideal for low frequency measurements below 1 kHz, with lowest frequency limit of 120 Hz.

This solution is supplied with a powered USB hub. Using an optical USB cable, the MacBook can be placed more than 10 meters away from the Multitile array.

Nor848 system is quick and easy to set up in the field with its rugged customised tripods.

The Hextile is ready as soon as the USB is plugged and the application is launched.

The Multitile, with its three Hextiles and a bigger tripod, is set-up and ready to measure in less than five minutes.

The sound signal from every microphone as well as the video from the integrated optical camera are recorded and stored in the computer. Both live intensity plots as well as post-processed analysis are available with the user-friendly software package that runs on MacBook Pro. The list of features is in continuous development.

Ask us for a demonstration, as you need to see it to believe it!

Systems

Airflow Resistance Measurement System Nor1517A

Applications

- Quality control in production process.
- Testing in research and development

Features

- The Nor1517A system measures the airflow resistance in porous materials.
- Standards: ISO 9053-2:2020.
- Fast and accurate measurement and readout of measurement results.
- Accepts test material of various form and size.
- Easy setup and use.
- Large dynamic range of measurement.
- Measures at 2 Hz.
- Measurement range: 10 Pa s m-1 to 30 000 Pa s m-1, up to 100 000 Pa s m-1 when correcting for non-linearities.
- Airflow speed: 1.6 mm/s and 5 mm/s (r.m.s.) selected by the stroke 4.46 mm (Cal) or 14 mm (Meas).
- Max. diameter of test pieces: 100 mm.

Accessories included

- Calibration disc.
- Sample holders 1517A/01 and 03.
- Sound level meter Nor140 with microphone, sealing device and 1/3 octave filters.

Accessories not included

- Norsonic may deliver other mounting devices for test materials on demand

Systems

Impedance Tube Nor1527

Material Sound Transmission Loss and Acoustic Impedance Tube Systems

Applications

- ASTM E2611 (4 Pole Transfer Matrix Method) measurement method
- ASTM E1050 and ISO 10534-2 (Transfer Function Method) measurement method

Features

- High-frequency range, 50 - 6400 Hz (100 mm and 30 mm tubes)
- State of art manufacturing
- Industry-leading sensors and analyzer
- Acoustic leakage-proof construction
- One day free online training included

Systems

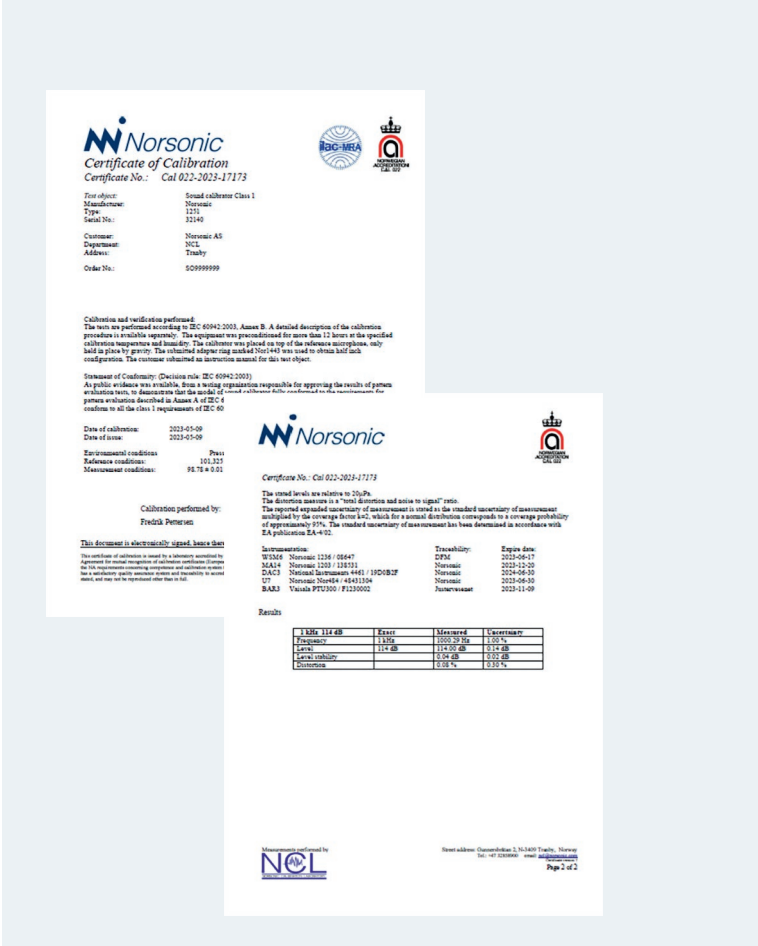
Calibration System Nor1525

for sound level meters, microphones and sound calibrators.

The calibration system Nor1525 is capable of calibrating virtually any type of sound measuring instruments, sound calibrators and microphones in accordance with applicable national and international standards.

Applications and features

- Frequency response calibration of microphones using the electrostatic actuator method.
- Sensitivity calibration of microphones using the insert voltage method ensures a high degree of accuracy.
- Fast and accurate calibration of sound calibrators, pistonphones and associated barometers in accordance with IEC 60942 (2003 and 2017).
- Sound level meter calibration in accordance with IEC 61672-3 (2006 and 2013), DIN 45657:2014, ANSI S1.4 (2014).
- Fast and accurate calibration of sound measuring instruments using three different interface modes; manual; semi-automated and fully automated.
- Test of fractional octave filters in accordance with IEC 61260-3:2016.
- Full test report generated.
- Built-in self test features (requires voltmeter).
- Easy to set up, includes all accessories needed.


Norsonic

Certificate of Calibration

Certificate No.: Cal 022-2023-17173

Norsonic

Certificate No.: Cal 022-2023-17173

Vibration

Vibration analyser Rion VA-14

The new VA-14 is a handheld vibration analyser that can perform 1-channel FFT analysis.

Measurement functions include a vibration meter function, a time waveform function, and a frequency analysis function. Equipped with a USB port and a LAN port, it can be used as a stationary measuring instrument without direct operation on-site by connecting to an external communication device, or can be incorporated into a system.

Further enhanced vibration measurements are possible using two types of optional programs.

Applications

- General vibration measurements for various industries, including product development and quality assurance, ideal for users requiring frequency analysis.
- Equipment diagnostics to detect faults or irregularities in machinery and systems.
- Condition monitoring for continuous assessment of machine health.
- Use as a front-end device: When connected to a PC and dedicated software, it can be used not only as a handheld unit but also as a general-purpose input A/D board.
- Sound measurements by connecting a microphone.

Features

- Advanced 1-channel FFT analysis with simultaneous multi-parameter measurement
- Remote operation capability through USB-C and LAN connectivity
- Ergonomic single-handed operation with reduced weight.
- Comprehensive measurement options including acceleration, velocity, displacement, and crest factor.
- Intelligent spectrum analysis with TOP10 and PEAK10 features.
- Flexible power options via USB-C.
- Enhanced filter customisation for precise measurements.
- Full support for imperial units (G, inch/s, mils).

Norsonic

+47 32 85 89 00
info@norsonic.com
Gunnersbråtan 2, N-3409 Tranby, Norway
norsonic.com

August 2025