

Measurement Systems

Products and Solutions

Data Acquisition



Measurement products of ROGA-Instruments offer you a broad range of systems for measurement and data analysis.

Among other items we develop hardware and software turn key solutions for challenging measurement, observation and analysis tasks for industrial and educational customers.

THE ROGA PRODUCT-RANGE OFFERS YOU:

- Data Acquisition
- USB NVH DAQ device
- PC based FFT analyzer
- IEPE microphones for noise measurements
- IEPE Accelerometer
- Accessories
- System solutions for noise measurements
- System solutions for vibration measurements
- Condition monitoring
- Modal Analysis Test System
- Sound level analysis using precision USB microphone
- Vibration analysis
- IEPE - XLR 48 Volt Phantompower adapter
- High speed data acquisition
- Intuitive sound localisation in vehicle
- 16 channel vibration monitoring using DASyLab
- Balancing
- Order tracking analysis
- Impedance Tube System Solution
- Non contact displacement and vibration measurement
- PC Sound Card FFT Analyzer Freeware

Data Acquisition

You will find anything starting with a 24bit data recorder to data acquisition system with USB 2.0 interface under the link »Datalogger«.

Electronic Stethoscope ES12 for locating sound sources for precise acoustic and vibration Measurements, Source Location, Machine Diagnosis . The system contains a directional microphone MI10, a monitor amplifier AV14, dynamic headphones, an accelerometer and a carrying case.

Non Contact Displacement & Vibration Sensors

Fiber-optic sensors for distance measurement and vibration measurement work without contact and are a favorable alternative for measurements in production engineering.

Plug.n.DAQ Lite

2 channel USB IEPE DAQ for noise and vibration measurements. It is an basic analysis system for noise measurements and machine diagnosis.

NVH Analyzer + Plug.n.DAQ Lite

This combination offers a good start in the noise, vibration and harshness measurement world.



RogaDAQ2 NVH USB Front End

High performance portable Data Acquisition Device. It features two high quality, high speed, 24 bit simultaneous sampling inputs, configurable DC, AC coupled inputs and switchable IEPE sensor supply.



Measurement Systems

Data Logger Applications



RogaDAQ4 (USB Front End)

RogaDAQ4 Front End is a high precision portable data acquisition system. Four simultaneously sampled 24bits resolution channels measure precisely any signals with frequencies up to 80kHz. RogaDAQ4 combined with PC or notebook is a perfect measurement solution. It offers high levels of precision and it is very easy to use.

RogaDAQ16 (USB Front End)

The RogaDAQ16 is an affordable multichannel (up to 16 analog input channels – 16bit/500kHz max.) IEPE solution. The USB 2.0 interface permits unrivalled portability. Hot-plugging the data acquisition unit during operation has now become a reality. The compact and rugged measurement unit with its BNC connectors breakout boxes obsolete. Downward compatibility to USB 1.1 also permits to run this high performance measuring system with older hardware. Simplicity of integration, whether mobile or stationary, has reached a new level.

Software Solutions

In the understanding of ROGA-Instruments software solutions are a perfect combination of measurement hardware and analysis software. Quality management in close cooperation with leading suppliers from the measurement market is the key to success.

DASyLab

is a nearly real time capable automation and mechatronics program which's use is recommended by Roga Instruments.

DASyLab Add-On for Sound Pressure Level Measurement

Noise measurements dB scaled according to the 20 μ Pa 0 dB reference.

NVH Analyzer Lite

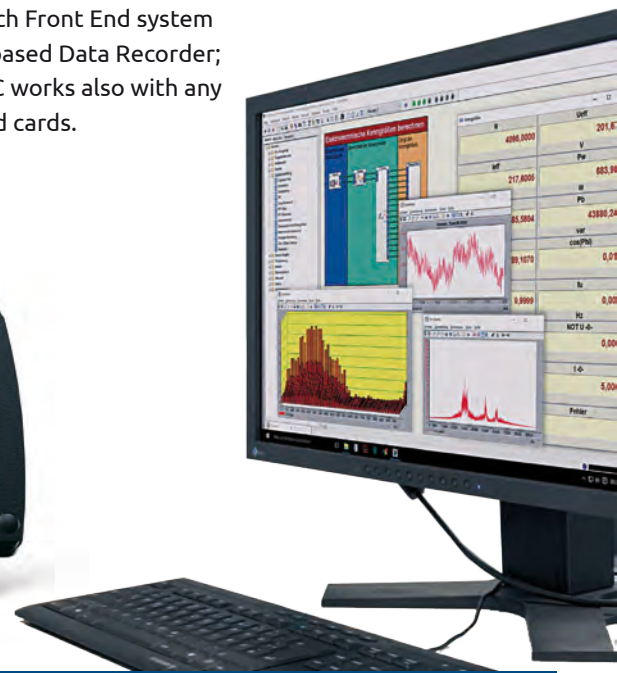
Entry level software for noise and vibration measurement.

NVH Analyzer

Experimental Modal Analysis, Operational Vibration Shape, Order tracking, FRF, Balancing.

RogaREC

RogaREC software is designed for many different test and measurement devices which allow using such Front End system as a PC based Data Recorder; RogaREC works also with any PC sound cards.



Measurement Systems

Sensors

Sensors

ROGA-Instruments offers piezoelectric accelerometers, load cells, triaxial sensor, IEPE preamplifier, TEDS sensors for structure noise measurement, measurement microphones, torque sensors, and load cells.

The rights for the ICP technology are protected by law.



Measurement microphones

Within our product range we like to present the MI17, an Electret microphone with 1/4" size, offering outstanding linear frequency range and extremely low noise bias.

The RG-50 is a very reliable, universally usable and affordable sensor.

Accelerometers

ROGA-Instruments offer a wider range of different oscillation sensors for research & development or industrial monitoring. These sensors are available in charge technology and in ICP technology as well. Accelerometers with integrated amplifiers are suited best for modal and vibration analysis while charge sensors are the preferred choice for high temperature applications.

IEPE Amplifier

The AVC 3000 is a portable 3-channel ICP® (IEPE) signal conditioner. It has 4mA/24V supplies for sensors with integrated amplifiers. For low level signal amplification it features three selectable gain ranges and individually selectable highpass- and lowpassfilters for all three channels. Indicators for sensor condition and signal overload further minimize the risk of handling errors.

The integrated rechargeable battery ensures a long operating time and the unit may be charged and operated at the same time.



The **IV115B** is a portable 1 channel IEPE signal conditioner. It features 4 mA/24 V supplies for sensors with integrated amplifiers like IEPE measurement microphones or accelerometers.

The **GIA-IEPE** is a IEPE signal conditioner providing 4 mA/24V supplies for sensors with integrated amplifiers like IEPE measurement micro-phones (MP40 or RG-50), accelerometers, force and pressure transducers.

The GIA-IEPE are mountable on standard DIN rail.



Measurement Systems

Integrated Solutions Accessories

Integrated Solutions by Roga Messtechnik

Our integrated solutions for multi channel real-time analysis, multi channel post process analysis, and sound and vibration analysis consist of a package containing optimal combined hardware and software. So we are able to offer you thoroughly tested turn key solutions for complex tasks.

Sound power measurements

Turn key solution includes RogaDAQ16, 10 MI-17 IEPE microphones and DASyLab as software-base for real-time analysis below 20.000 Euro.

Physiological measurements

The ISO 8041 DASyLab add on module allows to perform analyses based on existing measurement equipment.

FFT Analyser

RogaDAQ2 allows performing FFT analyses and raw data recording with an USB interface. IEPE (ICP ®) sensor supply for measurement microphones and vibration sensors are available from 1950 EURO.

ICP® is a registered trademark of PCB Group, inc., Depew, New York

Post Process Analysis

In cooperation with Weisang & Co. ROGA-Instruments has developed a FlexPro import filter for post process analysis applications. Any PCM data recorders of the RD series, RX-series, LX-10, LX-20, RogaDAQ16, es8, RogaDAQ1 and RogaDAQ2 are supported by FlexPro.

Modal analysis and operational vibrations

To perform modal and operational vibration analysis we offer a package consisting of RogaDAQ4, NVH Analyzer, and acceleration sensors of Metra Meß- und Frequenztechnik

Electronic Stethoscope ES12 for locating sound sources

The Electronic Stethoscope ES-12 system contains a directional microphone MI10, a monitor amplifier AV14, dynamic headphones, an accelerometer and a carrying case. Use for: Acoustic and Vibration Measurements, Source Location, Machine Diagnosis.

Accessories for measurement systems

Due to our philosophie we offer just proofed and reliable accessorie. We put a lot of effort in research and building up new contact - to serve our customers in the Roga-Way. And we are successfull - please compare our offer - and compare the complete solution!

ACCESSORIES
IEPE Amplifier
Special equipment, eg. switchboxes
Attachments, eg. for accellerometers – magnetic bases, glue, wax
Calibration devices, varous parameter
Cabel, industrial cables – various length
Varous adapters
IEPE supply
Jointer for thermal elements



Fair products

We have our products certified as „Free of Obsolescence“ to give a best practice example for technical development and highclass client services.

<http://www.fairtech.global>



Measurement Systems

Excellent Service

Rogá Gawlik
Founder & CEO

Excellent Service

This is a must for us: It begins with design and planning and it reaches up to the free of charge installation of turn key solutions. Any questions that may arise around acquisition, analysis, hardware, and software components are answered by our hotline. Our rugged measurement systems work under worse conditions and are even then very reliable. And – just in case – our customers get a replacement unit within 48 hours. If the warranty period of 24 months is not elapsed for any kind of repair or maintenance only transportations are charged.

Common Engineering Services

ROGA Instruments is able to offer not only our measurement equipment, we also can offer our long term excellent vibration technology engineering experience. We gathered our experience in many years of successful work in the areas of vibration measurement, analysis and cause detection, planning and designing of powerful solutions.

Vibration Technology

Problems in the vibration area are wide spread. A short overview on our website shall show common tasks and ways to solve them. Please feel free to contact us.

Vibration Measurement

We perform vibration measurement with self developed and long term proven equipment. So we are able to customize to special requirements whenever this is necessary. All our experience is contained in any systems we develop. Problems are analyzed in an all-embracing process. The customer can observe the sequence and is therefore able to understand the context.

Vibration Computing (FEM)

For developing new and redesign existing equipment the results of the experimental modal analysis are transferred in a model. The result is an enhanced FEM model. After the model is checked the computation leads to the same results as the modal analysis before. This model allows making proposals. If needed, we are able to perform any common FEM computations and model analyses.

Training

We offer system trainings for our measurement systems. These trainings can be held at the customer's facility or in our office. The advantage of a training at the customer's facility is that it can be performed with a real measurement task. The customers get first results during the training.

Seminars

Beside trainings, which offer system training and working on customer's tasks, there are special seminars which focus more to theoretical items of mathematical knowledge of vibration theory. The theme for seminars has to be discussed in advance.



Customized solutions

Customized solutions which are not part of the primary vibration area like streaming excited vibrations are needed if the tasks cannot be handled with our standard equipment. So we make the necessary adaptations and we solve the problem. A new wide area is the wireless transfer of measurement data. Beside a pure software adaptation it is possible to design special hardware solution together with partner companies.

Consultancy

We offer consultancy for any area of vibration technology. After embracing analyses are performed, we work out recommendations. Part of it can be sensors, planning of a facility, placing of machinery, Isolation of single areas, machinery and parts of machinery.