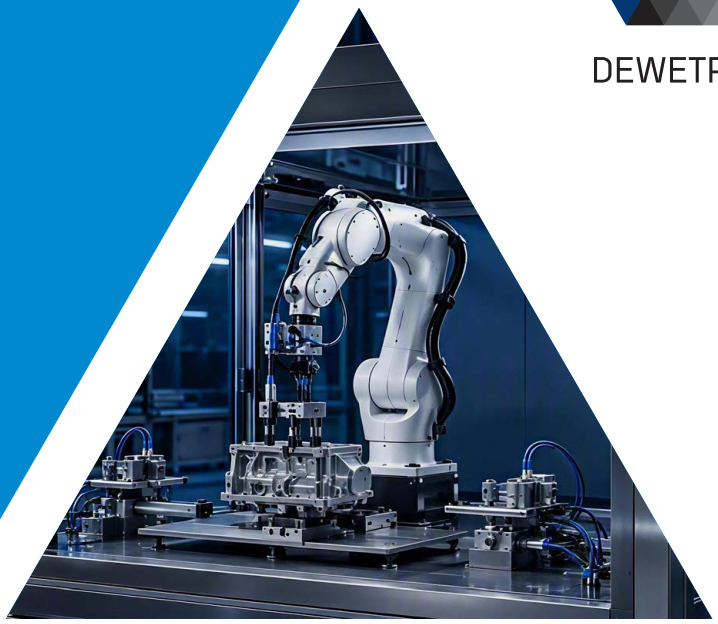
DEWETRON



POWER ANALYZER & MEASUREMENT SYSTEMS FOR **TEST BENCHES**



FLEXIBLE AND FUTURE-PROOF.
OPEN INTERFACES. SYNCHRONIZED DATA.







DESIGN YOUR TEST BENCHES.

WE TAKE CARE OF THE MEASUREMENT SYSTEMS.



TEST BENCHES ARE BECOMING MORE COMPLEX

Test bench manufacturers today face a multitude of technical challenges:

- > Different sensors
- > Various communication protocols
- > Increasing demands for automation
- > Ever-shorter development times

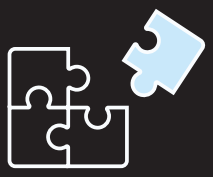
At the same time, customers expect highly accurate measurement results as well as seamless integration into their existing test processes.

DEWETRON PROVIDES THE RIGHT MEASUREMENT SOLUTION

DEWETRON measurement systems can be seamlessly integrated into new or existing test benches via open standards such as EtherCAT, OPC UA, CAN, SCPI, or Modbus, and deliver synchronized measurement data for development, validation, and production. The test bench can thus continue to operate with the familiar automation software, and the measurement system is integrated into the test bench.

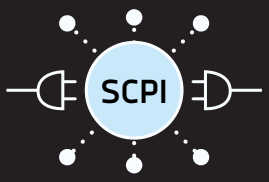
WHY DEWETRON?

Test bench manufacturers worldwide rely on DEWETRON for precise and easily integrable measurement solutions. Our measurement systems can be quickly integrated into new or existing test benches and provide precise measurement data for development, validation, and end-of-line testing.



SIMPLE INTEGRATION

Predefined drivers, flexible communication protocols, and intuitive configuration ensure quick integration of DEWETRON measurement systems into any test bench. Depending on the test bench, the measurement devices are equipped with appropriate measurement modules and user-friendly software.



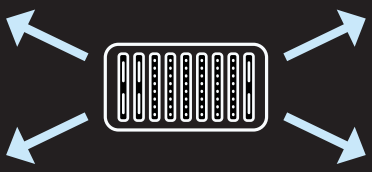
OPEN INTERFACES

Thanks to open standards and versatile interfaces such as CAN, EtherCAT, and PROFINET, DEWETRON measurement systems and power analyzers can be seamlessly integrated into existing test bench environments. Reliable data transmission, remote control, and remote configuration are ensured, for example, via TCP/IP-based protocols.



FROM EOL TO R&D TEST STANDS

To meet the unique requirements of every test scenario, our measurement systems are highly customizable, making them a versatile tool for research, development, and quality assurance, all the way through to production testing in a wide variety of industries.



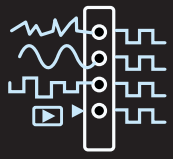
SCALABLE SYSTEMS

Within the DEWETRON portfolio, different performance classes can be implemented using the same software and a similar operating philosophy, ranging from systems with just a few channels, such as TRIONet3, to complex multi-channel systems like our DEWE3-RMx series.



SUPPORT WORLDWIDE

Thanks to our multiple branches and experienced partners, we operate globally and support you worldwide with the integration, commissioning, and ongoing operation of your measurement solution. Designed for long-term use: modular hardware, easily replaceable measurement modules, and a 5-year warranty.



SYNCHRONIZED MEASUREMENT DATA

Test benches often require more than just analog channels. With DEWETRON, all relevant signals such as voltage, current, thermocouples, IEPE©, bridge, RTD, and much more are recorded synchronously in a single file. Synchronization with the test bench is achieved via GPS, gPTP, PTP, or IRIG.

SIMPLE INTEGRATION

DEWETRON measurement systems integrate seamlessly into existing architectures via open standards and provide reliably synchronized measurement data for development, validation, and production. This allows the test bench to continue operating with its usual automation software, and the measurement system becomes a valuable part of the test bench.



DESIGNED TO FIT YOUR ARCHITECTURE

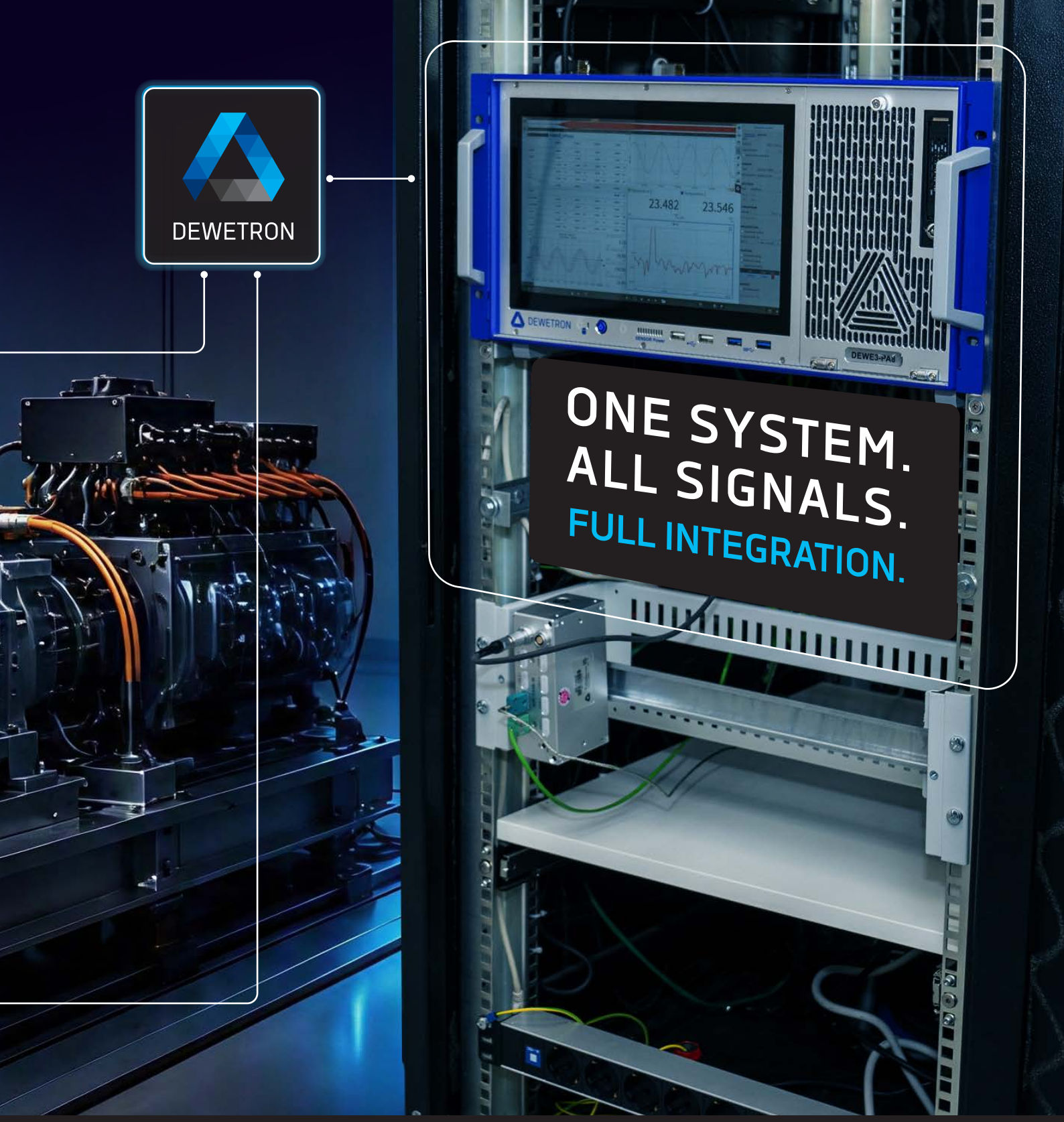
Open interfaces and flexible integration options enable the rapid integration of DEWETRON measurement systems into existing test bench environments. Whether it's an end-of-line, durability, or development test bench, your automation software remains in place while DEWETRON delivers precise measurement data. Additional benefits include time synchronization of all measurement data and the ability to adapt the signal inputs should your measurement requirements change at a later date.

Maximally scalable

Reliable & synchronous

Quick integration

Flexible connectivity



SUPPORTED INTERFACES

SCPI | EtherCAT | CAN-FD | Modbus | OPC UA | PROFINET

DEVELOPMENT ENVIRONMENTS

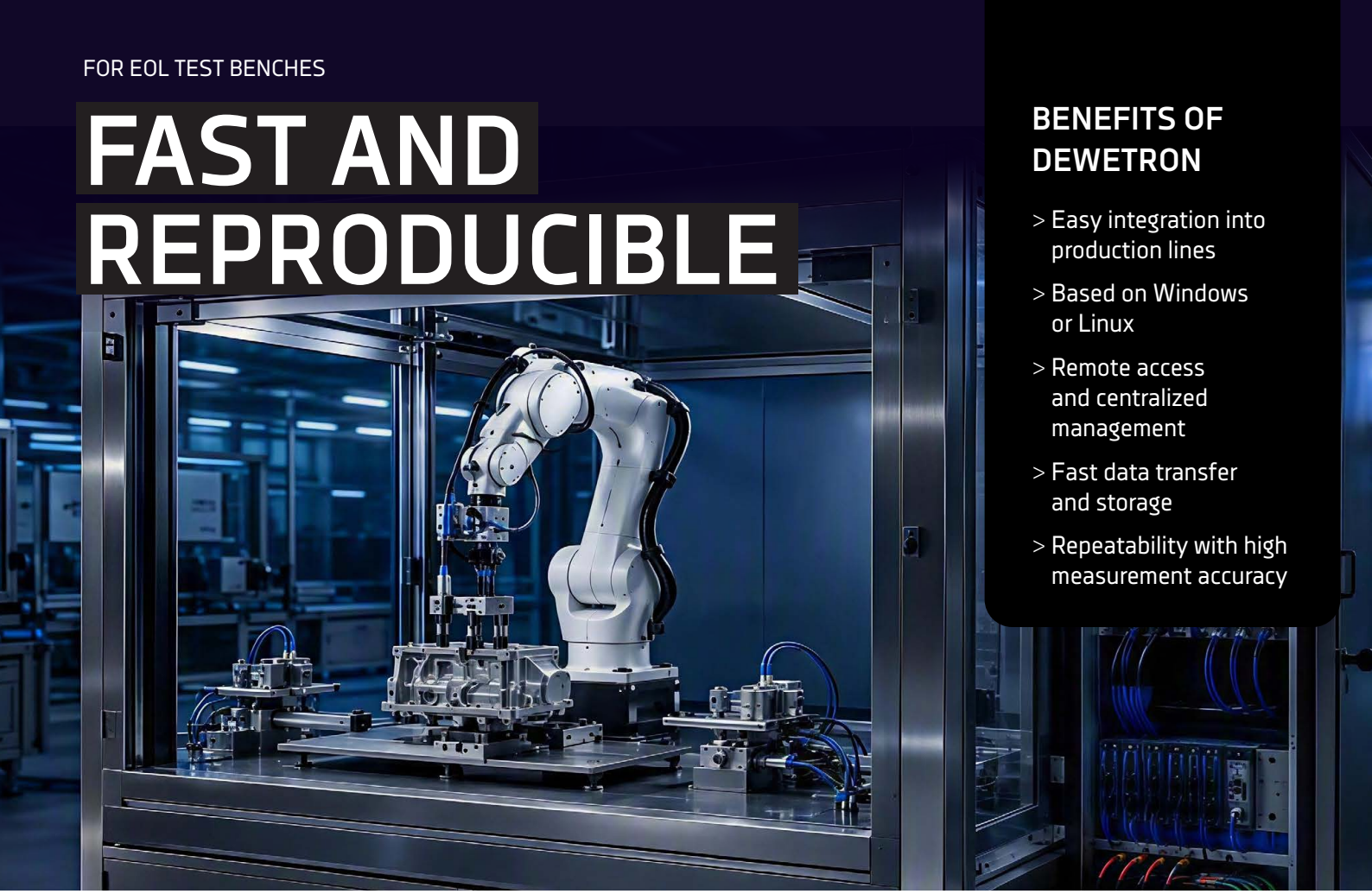
C++ | Python MATLAB | LabVIEW | SDK API

OPERATING SYSTEMS

Windows | Linux

FOR EOL TEST BENCHES

FAST AND REPRODUCIBLE



BENEFITS OF DEWETRON

> Easy integration into production lines

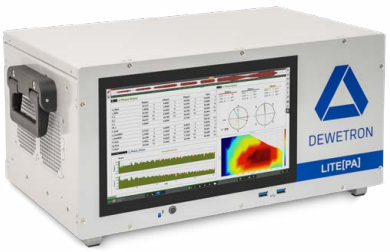
> Based on Windows or Linux

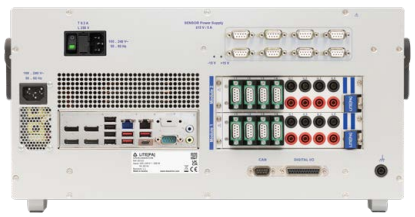
> Remote access and centralized management

> Fast data transfer and storage

> Repeatability with high measurement accuracy

IDEAL FOR YOUR END-OF-LINE TEST BENCHES





LITE[PA]
4 to 8 phases



TRIONet3
Up to 16 analog inputs

FAST INTEGRATION FOR CENTRALIZED MANAGEMENT

In production testing, every second counts. DEWETRON measurement systems are designed for continuous use in end-of-line environments and production test benches, delivering rapid measurement results for verifiable quality and maximum efficiency.





FOR DEVELOPMENT TEST BENCHES

MORE THAN DATA ACQUISITION

BENEFITS OF DEWETRON

> Synchronized and precise measurement data

> Powerful analysis tools

> Reliable long-term recording

> Postprocessing and raw data storage

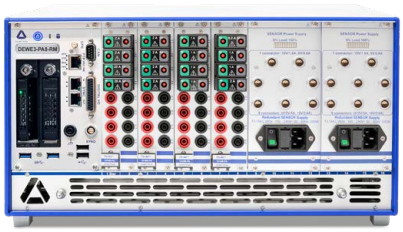
> Compatible with your development environment

In development, maximum flexibility and in-depth analysis are crucial. DEWETRON measurement systems provide high-precision, synchronized data for better results and shorter development times.

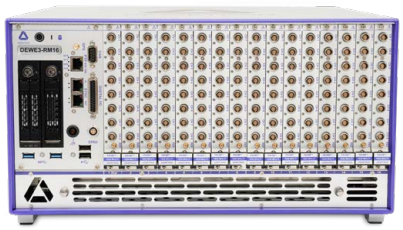
IDEAL FOR YOUR DEVELOPMENT TEST BENCHES



DEWE3-PA8
Up to 16 phases



DEWE3-PA8-RM
Up to 16 phases

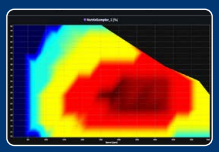


DEWE3-RM16
Up to 128 analog inputs

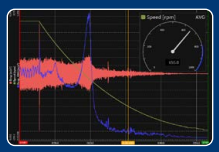
POWERFUL ANALYSES



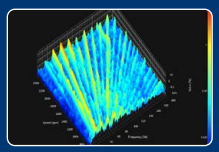
Power analysis
Active, reactive, and apparent power, PF, energy, harmonics



Efficiency
Calculation of efficiency and power losses



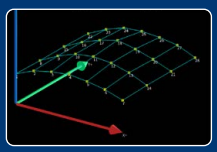
FFT analysis
Frequency analysis of electrical and mechanical signals



Order analysis
Torque-related vibration and noise analysis



DQ analysis
Vector analysis of drive systems and control variables



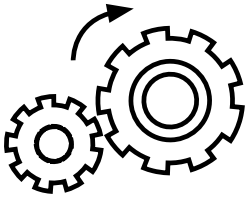
Modal analysis
Precise determination of natural frequencies and mode shapes

Save RAW DATA
All measurement data is saved without loss and can be analyzed later. This means you don't have to repeat tests, and you remain flexible in the future.

LONG-TERM recording
Reliable long-term recordings are possible even with high channel density. Take advantage of the scalability of our measurement systems.

ONE SYSTEM.
MANY APPLICATIONS.

From development to production testing: DEWETRON measurement systems are used in a wide range of demanding test bench applications. They synchronously capture electrical, mechanical, thermal, and bus-based measurement variables, providing the foundation for precise analyses and well-informed decisions.



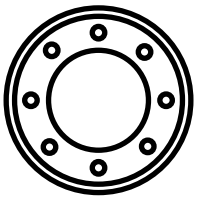
DRIVES

Inverter testing



DURABILITY

Liftime testing



STRUCTURES & BEARINGS

Orbit analysis, shaft vibration



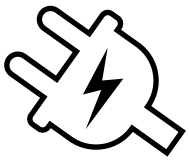
E-MOTORS

Power, efficiency, torque



INVERTERS

Efficiency and switching losses



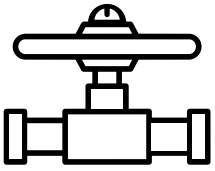
CHARGERS

AC/DC analysis, power testing



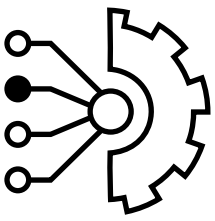
BATTERIES

Capacity, EOL testing, and validation



PUMPS & VALVES

Lifetime and quality testing

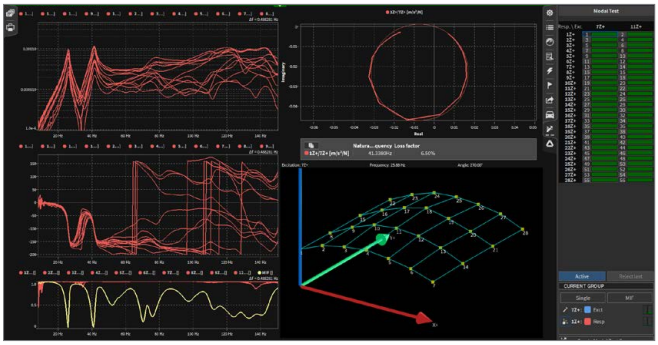


INDUSTRIAL COMPONENTS

Function, quality, and safety

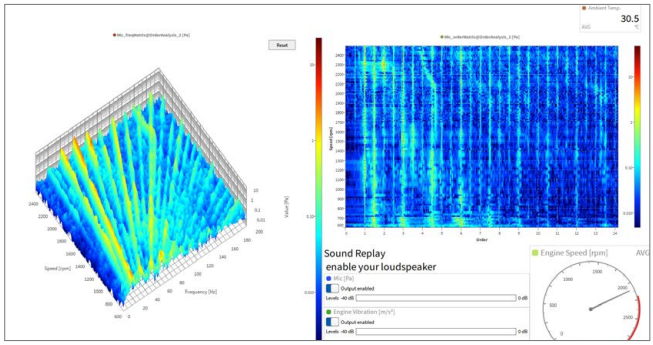
ANALYSES & FUNCTIONS

OXYGEN combines data acquisition, recording, calculation, visualization, analysis, and reporting into a single software package. This eliminates the need to switch between multiple programs and makes commissioning a test stand significantly easier. All acquired data is saved in a single file in a time-synchronized manner, which greatly simplifies error analysis. Thanks to the powerful online analysis capabilities, many evaluations can be performed even while the tests are in progress.



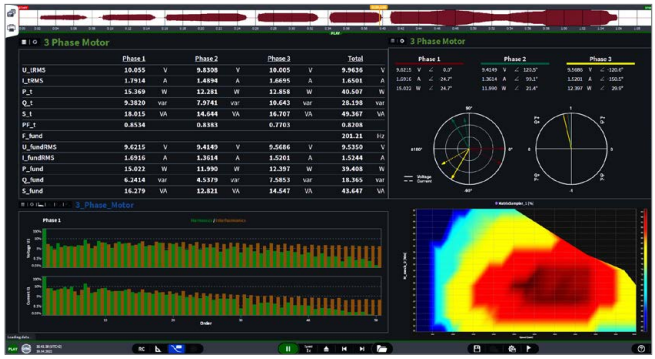
MODAL ANALYSIS

Analysis of resonances, damping, and the vibration behavior of mechanical structures using modal testing.



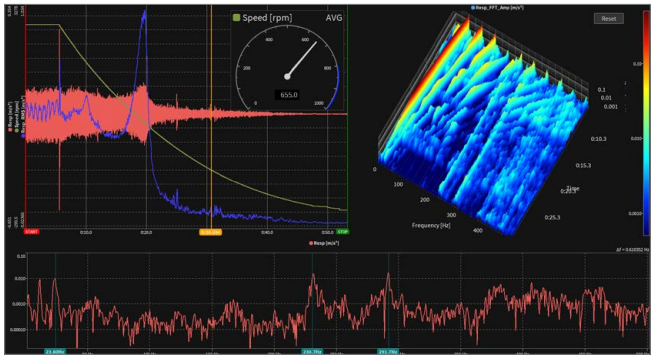
ORDER ANALYSIS

Precise frequency and order analysis for noise, vibration, and rotational analyses of machines and drives.



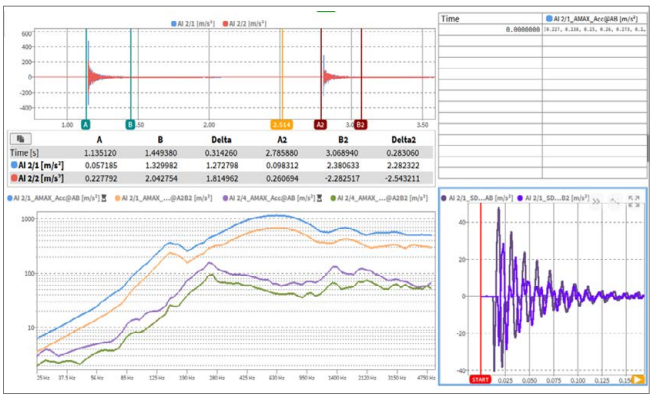
POWER & EFFICIENCY ANALYSIS

Multiphase power, energy, and power quality analysis for drives, inverters, and energy systems.



FFT ANALYSIS

Powerful FFT analysis for examining frequency spectra, harmonics, and time-dependent signal changes.



SRS ANALYSIS

Shock response spectrum (SRS) analysis for characterizing shock events and their effects on components.



DATA ACQUISITION WITH VIDEO

Synchronized acquisition of analog signals, bus data, and video data in a single measurement file.

PRECISION MEASUREMENT
SCALABLE. FUTURE-PROOF.

DEWETRON measurement systems adapt flexibly to your testing needs. Modular hardware, a variety of measurement modules, and a scalable system architecture allow you to configure channels and measurement parameters to suit your application. This ensures you're always ready to meet new requirements and provides a high level of investment security.

ONE PLATFORM
FOR A VARIETY OF TEST TASKS

Combine chassis and TRION3 modules to suit your application and configure OXYGEN according to your specific requirements. Interchangeable modules and dedicated A/D converters per channel enable maximum flexibility and precise measurements. All analog signals are acquired 100 % synchronously.

CHASSIS
The right DEWE3 base unit.



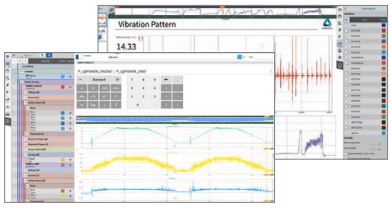
DIFFERENT DEWE3 CHASSIS: ALL-IN-ONES WITH DISPLAY, FRONT-ENDS, 19" RACK-MOUNTS...

MODULES
Flexibility with TRION3.



USER-EXCHANGEABLE TRION3 MODULES FOR ALL INPUT SIGNALS, UP TO 10 MS/S

SOFTWARE
Acqusition & analysis with OXYGEN.



OXYGEN MEASUREMENT SOFTWARE: POWER ANALYSIS, ORDER ANALYSIS, FFT...

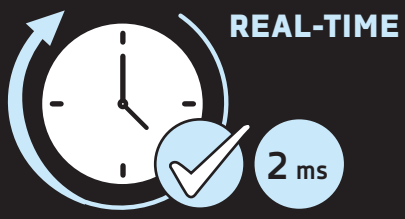
SCALABLE
From a few to many measurement channels.

MODULAR
The right measurement modules for all signals.

FLEXIBLE
Adapt configurations to new tasks.

FOR TIME-CRITICAL TEST STAND APPLICATIONS

DEDICATED REAL-TIME POWER ANALYSIS SOLUTION

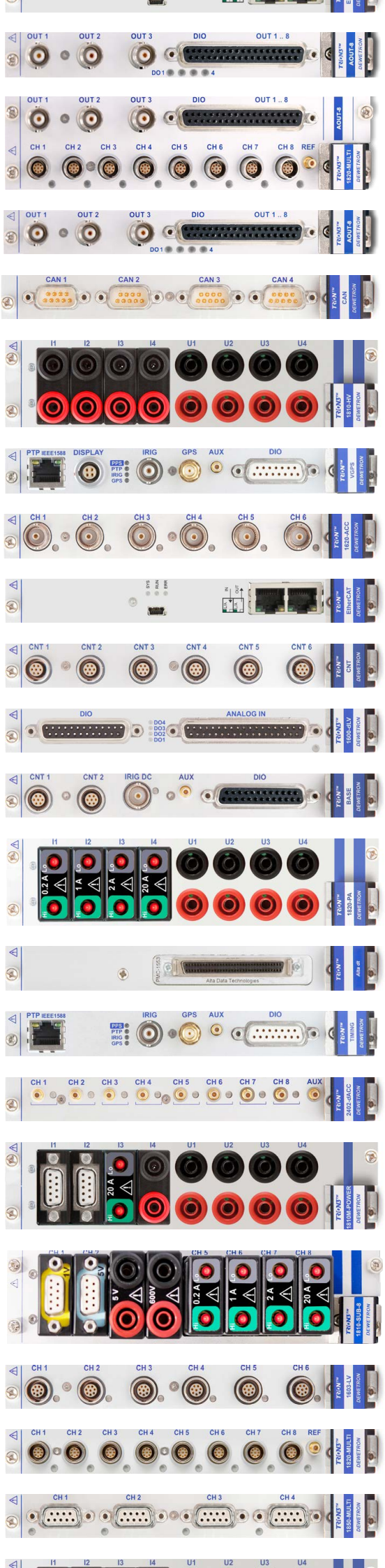


For time-critical tests, a DEWE3 measurement system can be used as a real-time power analyzer.

- > Calculation of cycle-by-cycle power values
- > Data output interface: Ethernet UDP or EtherCAT slave
- > Data output rate: 1 kHz
- > Typical I/O latency: 2 ms (max: 4 ms)



CHOOSE YOUR ANALOG SIGNAL INPUT MODULES

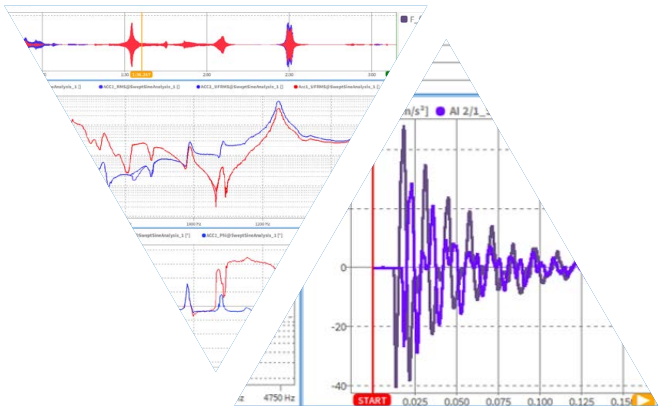


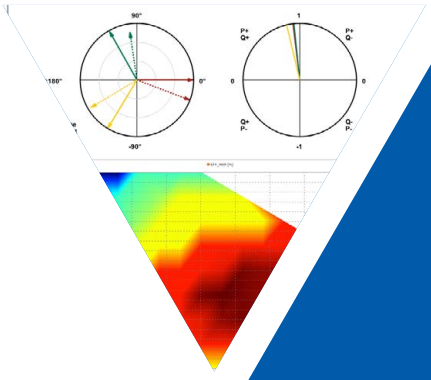
PROCESSED SIGNALS

100 % SYNCHED

All input signals are recorded by a measurement system with absolute time synchronization and saved to one file.

- VOLTAGE
- CURRENT
- POWER
- THERMO-COUPLES
- POTENTIO-METER
- RTD
- IEPE© (VIBRATION)
- BRIDGE
- CHARGE
- COUNTER
- VIDEO
- SOUND
- GPS SYNC
- IRIG SYNC
- PTP SYNC
- PPS SYNC
- IMU
- LVDT
- DIGITAL INPUT
- DIGITAL I/O
- ANALOG OUTPUT
- FLEXRAY
- CAN-BUS
- CAN-BUS
- SCPI
- XCP
- ETHERCAT







ABOUT DEWETRON

DEWETRON is a manufacturer of precision test and measurement systems and part of the globally operating Anritsu Group. Our reliable measurement data help customers worldwide make processes more predictable, efficient, and safer.

Our strength lies in customized measurement solutions: ready to use right away while remaining flexible to adapt to dynamic testing requirements in the energy, automotive, transportation, and aerospace industries.

More than 35 years of experience and innovation have made DEWETRON a trusted partner in the global test and measurement market.

More than 25,000 DEWETRON measurement systems and over 400,000 measurement channels are in continuous use at leading companies worldwide.

DEWETRON's quality is certified according to ISO 9001 and ISO 14001.
The high integrity of the measurement data is guaranteed by our own accredited calibration lab according to ISO 17025.

THE MEASURABLE DIFFERENCE.

Get to know our
GLOBAL OFFICES

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