



INTERNATIONAL

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VibRunner Measurement Hardware Platform

for Noise & Vibration Analysis,
Vibration Testing and Process Monitoring

VibRunner

The Solution-Oriented Measurement Hardware Platform.



VibRunner is the new measurement hardware platform from m+p international. We tailored VibRunner exactly to the specific needs of noise & vibration analysis, vibration testing and dynamic data measurement. This solution-oriented approach provides outstanding performance at an excellent price-performance ratio.

It is the same approach m+p international selected for their 4- and 8-channel VibPilot – with great success. Now VibPilot has a big brother: VibRunner.

Standalone or Rack Mounted

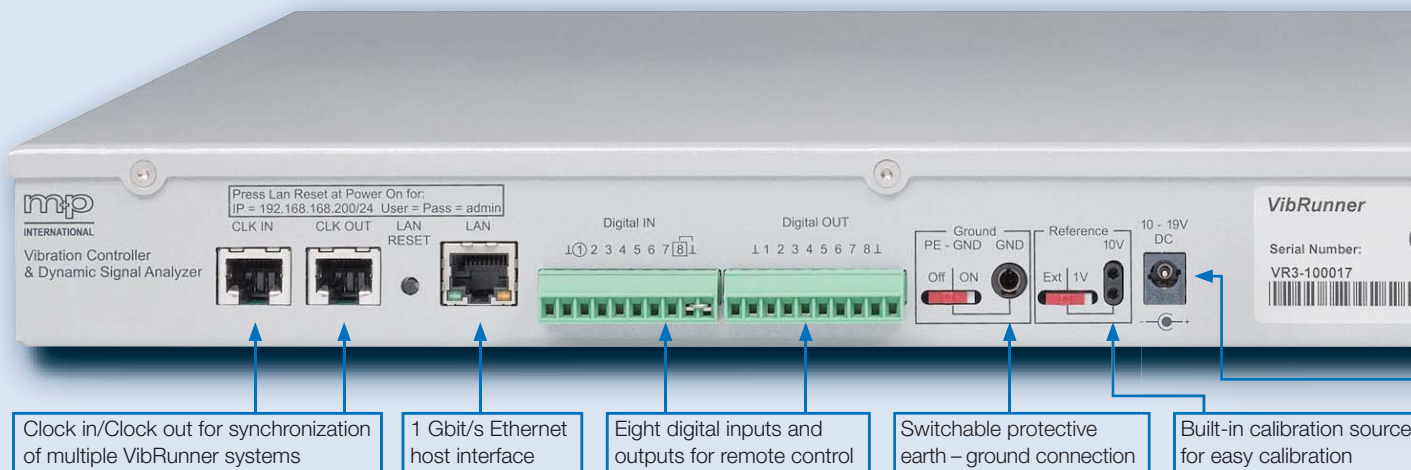
VibRunner provides maximum modularity. The basic unit is a 19" mainframe that houses up to three front-mounted functional modules. The 1U mainframe can be equipped with feet for use as a standalone desktop instrument or with mounting brackets for 19" rack mounting. VibRunner is completely equipped for standalone operation. It has its own power supply with both multi-range AC and DC inputs. Cooling is performed by a high-quality, silent fan whose speed is controlled based on current temperature. For sensitive noise measurements the fan can be turned off from the host PC.

Scalability and Synchronization

For applications requiring a high number of measurement channels, data acquisition over multiple VibRunner systems will be exactly synchronized. This is possible by use of a daisy chain connection which leads from the master frame, accommodating the clock, to all slave mainframes. The daisy-chained configuration means that the VibRunner systems can be placed close to the measuring points and be synchronized over longer distances. This minimizes costly transducer cabling for measurements of large objects.

Digital Inputs/Outputs

Each instrument has a digital interface with 8 inputs and 8 outputs (5 V TTL). These inputs/outputs enable engineers to directly execute the control functions for combined environmental tests or for parallel functional tests of the specimen. One input channel serves as safety shutdown triggered by an external event.



Benefit from the
Affordable Excellence.
Configure VibRunner
to Your Precise Needs.



Power of Ethernet

The 1 Gbit/s Ethernet interface serves for communication to the host PC. To ensure safe and fast communication even when a high number of input channels is utilized, the VibRunner hardware is integrated into its own subnet which is independent from other networks. High channel counts increase the required data rates considerably, but m+p international's choice of the Ethernet standard means that the host PC system can be configured using common off-the-shelf technology including very powerful server systems to cover virtually any requirement.

Input Channels

Based on the latest IC technology VibRunner provides high-precision measurement capability and outstanding real-time performance. With 24-bit sigma-delta A/D converters with up to 102.4 kHz sampling rate VibRunner allows for alias-protected measurements in a frequency range up to 40 kHz and more than 120 dB spurious-free dynamic range. The input channels can be switched between single-ended and full differential mode, thus allowing potential-free measurements such as required on bridge circuits. TEDS (Transducer Electronic Data Sheet) support is a time-saving tool to automatically enter information stored in the transducer, e. g. sensitivity, calibration and serial number. Operators can individually switch the ICP power supply for every input channel.

Output Channels

Additional VibRunner modules provide analog outputs for vibration testing or modal analysis applications requiring a drive signal for the shaker. And here again, VibRunner is optimally tuned to meet the specific requirements: The highly precise 24-bit D/A converters are sampled by the master clock in the same way as the A/D converters on each input to ensure the excellent phase stability of the measurements. In case of emergency, for example at power failure or when the connection to the host PC is lost, the source signal will be ramped down in a controlled manner to avoid

damage to the specimen

or the test equipment. This automatic, analog shutdown circuitry guarantees the highest safety possible during the test.



High-precision 24-bit D/A converter



Multi-range AC/DC
power supplies

Rugged
steel frame

The VibRunner modules available now cover a wide range of applications in noise & vibration analysis, vibration testing and process monitoring. Other modules, for example, to provide higher sample rates for dynamic measurements, strain gauge measurements or various signal conditioning types will follow.

VibRunner – Unmatched Performance Data for Your Requirements

- Standalone desktop instrument or 19" rack-mounted system, 1U high, 3 slots for modules, rugged steel frame
- Silent operation, temperature-controlled fan
- Multi-range AC power supply and DC power supply
- Multiple VibRunner synchronization by means of daisy chain connection and master clock
- Ethernet interface, 1 Gbit/s transfer rate
- DSP powered real-time processing
- 8 – 24 analog input channels per VibRunner, 24 bit, 102.4 kHz max. sampling rate, differential and single-ended measurements, ICP sensor conditioning, TEDS support
- 2 – 12 differential source output channels per VibRunner, 24 bit, safety shutdown
- 2 – 12 tacho inputs, 8 digital inputs and 8 digital outputs per VibRunner

Additional modules on demand. Please refer to the VibRunner Product Information for detailed specifications.

VibControl, SO Analyzer and Coda – Software Solutions for Your Measurement Tasks

We designed the VibRunner measurement hardware platform for your specific needs of noise and vibration engineering. It can be used with our proven VibControl, SO Analyzer and Coda software solutions and covers a wide range of applications:

- Vibration testing on electrodynamic and hydraulic shakers
- Multi-axis vibration testing
- Noise & vibration testing
- Structural testing, modal analysis, impact testing
- Test stand engineering
- Process data acquisition and monitoring
- Multi-channel vibration data acquisition including continuous time history recording and data reduction

VibRunner – Delivering Highest Product Quality and Top Service

VibRunner achieves the highest reliability and system longevity. All functions will be thoroughly checked and documented in automatic test procedures before they leave production. The measurement hardware is calibrated and documented in a full calibration certificate.

VibRunner is delivered with a 12-months or optionally 24- or 36-months warranty. We offer return to m+p repair service including an optional guaranteed 24-hours back-to-operate as well as factory re-calibration at m+p international and on-site re-calibration. Combined with a maintenance contract for our VibControl, SO Analyzer or Coda software products ownership will be even more rewarding.

VibRunner, VibPilot, VibControl, SO Analyzer and Coda are products of m+p international. All trademarks and registered trademarks are the property of their respective holders.

Specifications subject to change without notice.

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