



SPM solves maintenance problems, across the world and in all branches of industry. We provide all the technical service, support and training you may need to become your own condition monitoring expert.

We have the organization and the know-how to increase the availability and profitability of your production equipment. Qualified sales and service representatives in more than 50 countries look forward to helping out.





# Leonova<sup>®</sup> IS

INTRINSICALLY SAFE



# SAFE AND SOUND IN THE TOWN

## CONDITION MONITORING FOR ALL ZONES

Leonova Diamond®IS and Leonova Emerald®IS are built to withstand harsh environmental conditions. Heavy industries with intrinsic safety requirements such as the refinery, mining or oil and gas industries are challenging environments. Assets typically are substantial investments placed in remote or dangerous locations, making maintenance difficult and production downtime extremely costly. The wear-and-tear resistance of Leonova makes them perfect for these and other demanding industrial settings.

The most advanced ATEX/IECEX certified instruments on the market, Leonova provides a unique combination of sophisticated technologies and usability in a single measuring device with exceptional analytical power and versatility. Leonova Diamond and Leonova Emerald both comply with the strictest ATEX/IECEX standards and thus can be used in zones 0 to 2.

## PORTABLE PRODUCTIVITY AND EFFICIENCY

The Leonova instruments are uniquely effective tools for condition measurement on hazardous area equipment and components. Gas compressors, pumps and various underground mining equipment for example are prime candidates for the application of industrial condition monitoring with Leonova.

Leonova Diamond is an excellent choice where a full range of measuring techniques and high analytical power is required to monitor plant equipment. A heavy-duty yet sophisticated analyzer, Leonova Diamond brings powerful analysis and troubleshooting capabilities to your condition monitoring program.

Where extensive measuring rounds with large amounts of routine measurements are to be handled in a rational manner, Leonova Emerald is the perfect alternative. This powerful data collector is a dependable and highly potent analysis tool, addressing all of your condition monitoring needs.

## MAXIMUM FLEXIBILITY

To better forecast and schedule maintenance activities and reduce operating and maintenance costs, condition based maintenance is a winning concept. The strongest combination of measuring techniques available provides maximum flexibility. Leonova Diamond and Leonova Emerald are the first portable measuring devices to come with the SPM HD® shock pulse measuring technique for



## LIGHTWEIGHT AND ERGONOMIC WITH TFT-LCD COLOR SCREEN

- Three channel simultaneous vibration monitoring [DIAMOND]
- Frequency range DC to 40 kHz [DIAMOND]
- Dynamic range up to 120 dB, 24 bit AD
- Up to 25600 line FFT spectrum [DIAMOND]
- Pre-fault symptoms for spectrum analysis
- Waterfall, phase and real time spectrum
- Simultaneous recording for up to 50 hours
- Enveloping, true zoom, synchronous measurement
- Download thousands of measuring points
- Balancing single plane. [DIAMOND single and dual plane]
- Speed measurements 1–120 000 rpm
- Stethoscope function, earphones
- Voice recording of comments
- Language selection
- 3.5" TFT colour display with auto. back light. [DIAMOND 4.3" TFT]
- Split screen, optimal utilization of screen space to allow simultaneous presentation of multiple views [DIAMOND]
- Programmable function keys
- One hand operation, right or left
- Carbon-fiber-reinforced enclosure, IP65
- Exchangeable Li-Ion battery pack for min. 14 hours normal use [DIAMOND 12 hours]
- Drop test 1 meter according to IEC 60079-0
- Weight approx. 1000 g



# HARSH ENVIRONMENTS

condition monitoring of rolling element bearings. Outperforming traditional vibration measurement techniques on many applications, the SPM HD method is unrivalled in its ability to measure in the entire 1-20.000 rpm range. The perfect companion to vibration analysis, SPM HD can be used successfully on all types of machinery with rolling element bearings.

Leonova Diamond®IS is also the first ATEX/IECEx certified instrument to offer sophisticated, three-channel vibration measurement and analysis. Both instruments use supreme HD Order Tracking for shock pulse and vibration measurement to provide crystal clear measuring results also on variable speed equipment. Modules for corrective maintenance are also available.

## HIGH-PERFORMANCE AND EASE OF USE

Leonova provides reliable, comprehensible and actionable information – right at the point of measurement. State-of-the-art digital instrument technology and optimal performance utilization enables very rapid data acquisition and processing while maintaining excellent measurement accuracy. Upon completed measurement, the instruments instantly display condition evaluation on an intuitive green-yellow-red scale.

Leonova efficiently and reliably handles different machine characteristics and variable running conditions. The possibility to combine multiple measuring techniques in a single measuring assignment is a strong cost and time efficient feature. Measuring routes are easily organized and the very large memory stores thousands of readings for evaluation, trending and analysis.

For optimal user comfort, the instruments are compact, lightweight and ergonomic. The large, high-resolution TFT-LCD color screen provides excellent visibility in darkness as well as under daylight and outdoor conditions. To complement the instruments, a full range of intrinsically safe accessories are available. Based on a scalable system, Leonova enables customized solutions where additional functionality can be added as required.



## THREE CHANNEL VIBRATION ANALYSIS

**Gas** II 1G Ex ia IIC T4 Ga  
 $T_a$  -20°C to +50°C

**Mining** I M1 Ex ia I Ma  
 $T_a$  -10°C to +50°C

