

NEW

using Internet
technology

db® PRÜFTECHNIK

VIBRONET® Signalmaster 'Plug & Go' Online Monitoring



For standard
applications



Affordable Online Monitoring with VIBRONET

Why online?



Online systems pay off:

- Less unplanned downtime
- Optimal planning of manpower
- Reduced spare part warehousing
- Avoidance of secondary damage
- Improved plant safety

Online systems enable:

- Reliable alarm notification
- Monitoring of inaccessible measurement locations
- Machine condition analysis by external experts (Tele-diagnosis)
- Integration of the measurement data in control systems.

First steps ...



VIBRONET® Signalmaster is the ideal introductory solution for the on-line monitoring of standard aggregates such as motors, pumps, fans and simple gear transmissions. Pre-mounted in a robust switching cabinet, the system is designed for quick and easy commissioning, while being easily expandable.

... or expansion



Whether you are already using our offline systems or VIBRONET Signalmaster is your first step into Condition Monitoring, you can expand either way by using OMNI-TREND, the software platform which assures compatibility between all PRÜFTECHNIK Condition Monitoring tools. Think about the time, effort and cost you will save in training and implementation.

All functions at a glance



Vibration



Bearing condition



Temperature



Variable speed



Process parameters



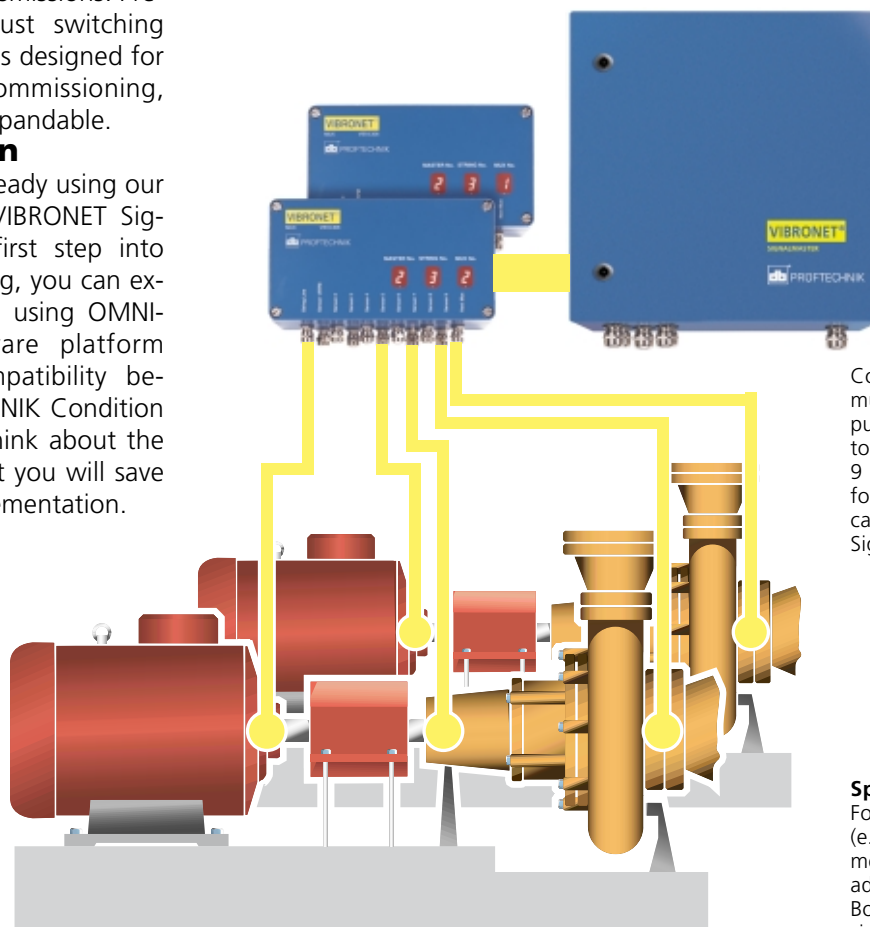
FFT spectrum



Envelope



Time signal



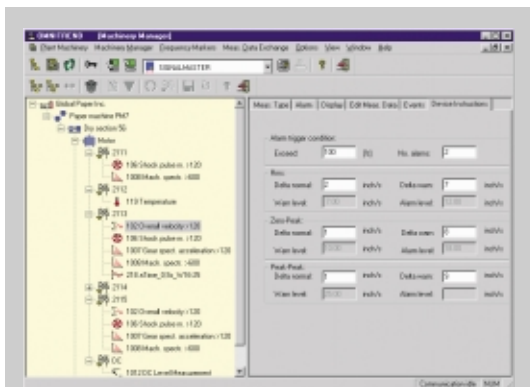
Ethernet, RS 232
(LAN/ WAN, Intranet, Internet)

Connect up to 3 strings of 6 multiplexers to the signal inputs. Multiplexers do not need to be powered! Connect up to 9 sensors to each multiplexer for a network of maximum 162 channels for each VIBRONET Signalmaster.

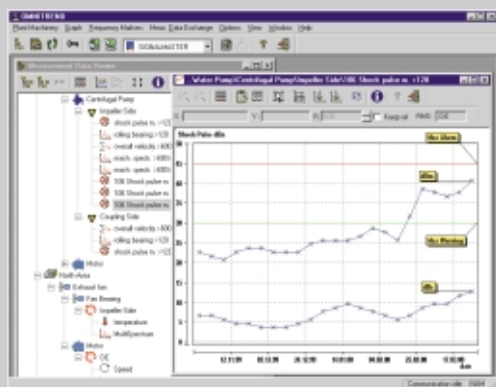
Special solutions

For special monitoring tasks (e.g. extruders, wind turbines), measurement functions can be added and individually tailored. Both special and standard versions can be integrated into any company network and accessed by several users at the same time.

Programming, evaluation and archiving in OMNITREND® PC software



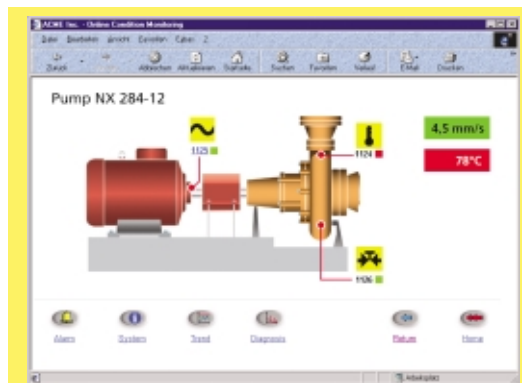
Setting of the measurement parameters and programming of the measurement cycles.



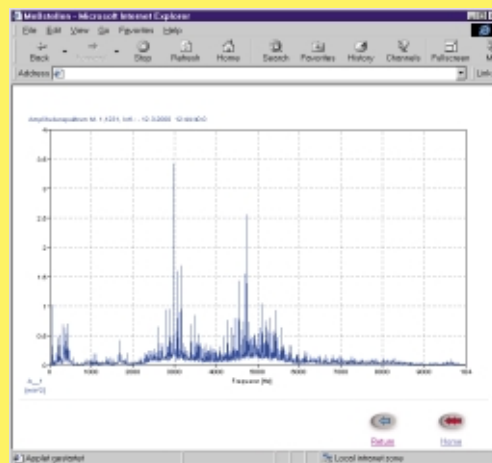
Evaluation of the data and archiving in the OMNITREND® database.

The OMNITREND® PC software implements the measurement locations together with their measurement parameters and measurement cycles. This software also evaluates, documents and archives the measurement data (trend, spectrum, time signal).

Alarm notification and tele-diagnosis in any Internet browser



User interface with machine overview and alarm displays (option).



Damage diagnosis in the Internet browser with the aid of an FFT spectrum.

The condition of the system can be queried online from any PC via an Internet connection. If the condition of the machines has led to an alarm, the cause of any faults can be localized immediately by diagnostic measurements (spectrum, time signal).



PLC / PCS
RS 232 (Profibus, ModBus,...)

Technical Data

VIBRONET® Signalmaster

Basic unit - VIB 5.902

Analog inputs

6 differential inputs (1 of them synchronous)
or 12 single-ended inputs

Measurement ranges, analog input

±10 V, ±1 V, ±100 mV, ±10 mV

Dynamic range / Resolution

96 dB / 16 bit

Sampling rate, analog input

153.6 / 76.8 / 38.4 / 19.2 / 9.6 kHz
SW downsampling: 4.8/ 2.4/ 1.2/ 0.6/ 0.3/ 0.15 kHz

Frequency range

48 kHz to 48 Hz divided into 11 ranges

Frequency resolution

400, 800, 1600, 3200, 6400, 12800 lines

Envelope analysis

Selectable digital input filter

Tacho inputs

2, TTL (active low), ext. multiplexer
Max. counter frequency: 1000 Hz

Key phaser input

TTL (active low)

Digital inputs/outputs

4, input: TTL, output: 5 V, 5 mA

Digital outputs

4 outputs, 5 V, 5 mA

FET switching output

12 V DC, 1 A, switchable

Measurement functions

Time signal, spectrum, easy spectrum integration, envelope,
shock pulse, acceleration (RMS), vibration velocity (peak, RMS)

RAM memory capacity

8 MB (optional 20 MB)

Flash memory storage capacity

16 MB (optional expandable up to 196 MB)

Ethernet interface

Quantity: 1, data rate: 10 Mbit

RS 232 interface

Quantity: 2, data rate: 38.4 kbit



System Components

VIBRONET® Signalmaster

Standard package - VIB 5.890-1

for 1 string line (connection for max. 6 multiplexers)

VIB 5.902 VIBRONET® Signalmaster basic unit
VIB 5.960-B Power supply, 12V
VIB 5.956-2 System bus with 2 connectors
VIB 5.815-1 Shock pulse module for 1 string line
VIB 5.917 Output module with 2 center relays
VIB 9.662-3 VIBRONET® Signalmaster product catalog
VIB 9.663-3 VIBRONET® Signalmaster accessory catalog

Standard package - VIB 5.890-3

for 3 string lines
(same as VIB 5.890-1 package except for
VIB 5.815-3 shock pulse module for 3 string lines)

PC software

VIB 8.957 OMNITREND® for VIBRONET® Signalmaster

Hardware for field installation

- Multiplexer
- Transducers
- Cabling

PC requirements

Processor

min. Pentium II @ 400 MHz

RAM / Hard disk storage

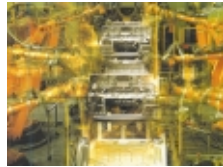
64 MB / 200 MB free

Interfaces

RS232 or Ethernet TCP/IP

Software environment

WIN 98/NT/2000/XP, NN 4.73-4.79 / IE 5.5 SP2



Free CD



There is a free CD with more information about VIBRONET Signalmaster waiting for you.

Simply fill out the coupon and send it by fax to:

+49 (0)89 99 61 63 00

or via the Internet under
www.signalmaster.de

Company _____

Name _____

Department _____

Street _____

Zip code/Town _____

Visit us at www.pruftechnik.com

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Productive maintenance technology