VIBXPERT II Balancer - Field balancing in one plane or two planes

Analog (B)
Analog (A)
Temperature
Trigger/ RPM
Ethernet/ USB
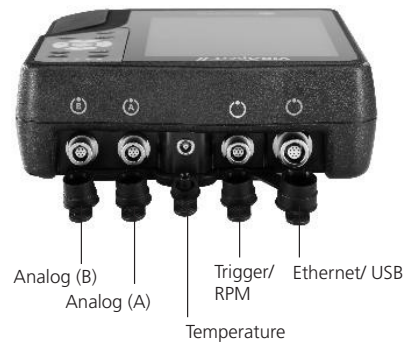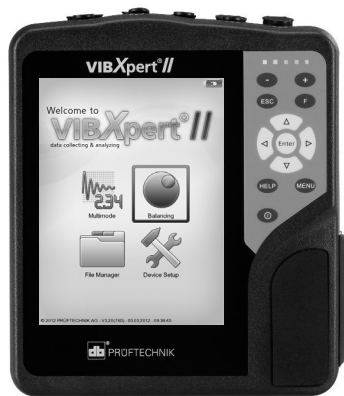
VIBXPERT II Balancer is a high performance, full-featured portable measurement device for field balancing of rotating machinery in one plane or two planes. In addition to the balancing procedure, the device provides vibration analyses, resonance tests and phase measurements to support the diagnosis of an imbalance and to determine the optimum operating conditions for the rotor.

VIBXPERT II balancer can be upgraded by password to VIBXPERT II FFT data collector and signal analyzer (see Chapter 1).

Key features
- **Intuitive** to operate on its graphical user interface and effective use of color.
- **Fast** thanks to optimized measuring workflow and advanced processor technology.
- **Ergonomic** with a handy design and brilliant color display.
- **Powerful** due to many practical analysis functions and measuring templates.
- **Long-lived** with a long battery life and a large data memory.

Application
- One- or two-plane field balancing
- Vibration analysis
- Resonance analysis

Analysis functions
- Overall values and process parameters
- Time waveform
- Amplitude spectrum
- Envelope acceleration spectrum
- Phase incl. recording
- Bump test, 1-channel
- Coast-down/run-up test
- Characteristic frequency markers
- Signal post-processing for time waveform (overalls)
- ISO standards for evaluation

Valuable additional features
- Balancing reports can be stored on a USB memory stick and printed out
- Rugged hard case
- Extensive accessories
- Upgrade firmware modules available

Hardware
- Two true synchronous channel capabilities for balancing in two planes
- Replaceable compact flash card
- Dust and splash proof (IP65) - ideal for use in demanding environments
- Connector for type K thermocouples
- Signal output for strobe light

Ergonomics
- Large backlit VGA color display for easy reading, comprehensive data presentation and interpretation
- LED traffic light display: results evaluation according to ISO standards or user-defined alarm thresholds
- Daylight sensor controls keyboard illumination
- Easy-to-use navigation key pad
- Icon based user interface
- Color-coded cable connectors
- Online context-sensitive HELP.

Power supply
- Powered by the latest Lithium-Ion battery technology for at least 8 hours operation
- Smart internal battery charging
- Power management (display illumination)

Communication
- Fully networkable
- PC connection via USB, Ethernet, RS232.

VIBXPERT II Balancer firmware

The VIBXPERT II Balancer firmware (VIB 5.317 B) provides all measurement function required to diagnose and correct an imbalance on rotating machinery.

The ‚Balancer' firmware can be upgraded to ‚Standard' firmware at any time by registering the required VIBXPERT II firmware module (see Chapter 1).

Balancer firmware feature

| PARAMETER		VIB 5.317-B
Operating modes	Multimode, Analysis	• Overall value for acceleration, velocity, displacement • Amplitude spectrum w/ fixed parameters for accel., velocity, displacement • Run-up/ Coast-down analysis as phase / overall value over RPM (displayed as Bode or Nyquist diagram (phase - RPM)) • Rotational speed
	Multimode, Signals	• Time waveform for acceleration, velocity, displacement
	Multimode, Advanced	• Envelope spectrum for acceleration ($f_{max.}$: 800 Hz / HP: 10kHz) • Phase measurement w/ recording, 1 channel / 2 channels • Temperature • Impact test w/o recording of the exciting force, 1 channel • Overall value for user-defined quantity (AC) • Amplitude spectrum w/ fixed parameters for user-defined quantity (AC) • Time waveform for user-defined quantity (AC)
	Balancing	• One-plane balancing with vibration minimization in the second plane • Balancing in two planes under operating conditions • Correction type: Fixed location, Fixed mass, Tape measure, Free correction
Analysis functions	Cursor	• Single, delta, harmonics, sub harmonics, sideband cursor
	Frequency markers	• Fixed and RPM-variable characteristic frequencies for machines, roller bearings and gearboxes can be displayed in 'Multimode' mode
	Max 10 values	• List of the 10 highest amplitudes in the spectrum
	Result display	• Linear scaling, Logarithmic scaling (Y axis) • Trend, Cascade diagram (waterfall), Polar plot • Order scaling for amplitude / envelope spectrum
Measurement functions	Averaging	• none (not for temperature), • linear (not for time waveform), • peak hold (not for time waveform and temperature), • exponential (not for time waveform & temperature), • time-synchronous (time waveform, balancing) • Unlimited averaging if the imbalance pointer is unstable (balancing)
	Trigger modes	• Free running, external (time-synchronous), internal • Amplitude, Edge, Pre and post triggered.
	FFT	• F_{min}: 1 / 2 / 10 Hz, selectable acc. to meas. quantity • F_{max}: 0,2 / 0,4 / 0,8 / 1,6 / 12,8 kHz, selectable acc. to meas. quantity • Lines: 800 / 1600 / 3200 / 6400, selectable acc. to meas. quantity • Window: Hanning

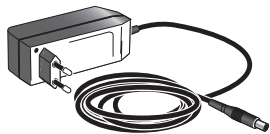## VIB 5.310 B: VIBXPERT II Balancer package

1

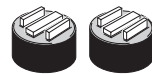2

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VIB 5.328
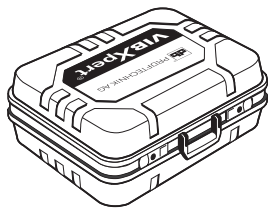
VIB 8.970

LIT 01.800
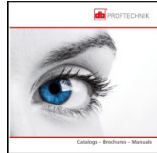
VIB 5.320-INT

VIB 6.147

VIB 3.420

VIB 5.310

VIB 5.356

VIB 5.330 SUSB

VIB 5.436

VIB 5.437-2,9
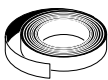
VIB 5.339

VIB 5.432-2,9

VIB 3.306

VIB 6.631

VIB 6.632

LIT 53.201
LIT 53.202
LIT 53.102

VIB 5.317-B

VIB 5.330 MEM

VIB 4.750 - 5

Description
The Balancer package includes the basic equipment for single / dual plane balancing and machine diagnostics with VIBXPERT II. The instrument features the 'Balancer' firmware.

Scope of supply

VIB 5.310   VIBXPERT II instrument, incl. rechargeable battery VIB 5.325
VIB 5.317-B   Balancer firmware certificate
VIB 5.320-INT   VIBXPERT II charger
VIB 5.328   VIBXPERT II case
VIB 5.330MEM Adapter for USB memory stick
VIB 5.330SUSB USB cable, PC communication
VIB 5.356   VIBXPERT II carrying bag

VIB 3.306   Reflective tape
VIB 3.420   Magnetic holder for curved mounting surfaces, 2x

VIB 4.750-5   Cable extension for trigger cable, 5 m
VIB 5.339   Cable extension for CLD-type accelerometers, 8 m
VIB 5.432-2,9 Trigger cable
VIB 5.436   Spiral cable, CLD-type accelerometers
VIB 5.437-2,9 Straight cable, CLD-type accelerometers
VIB 6.147   CLD-type accelerometer for low-speed machinery, 2x
VIB 6.631   Laser trigger / Laser RPM sensor
VIB 6.632   Trigger stand

LIT 53.203.EN VIBXPERT II Balancer manual
LIT 53.103.EN VIBXPERT II Balancer short instructions
LIT 01.800   CD ROM, Condition Monitoring catalogs, brochures, magazines

VIB 8.970   CD ROM, Condition Monitoring software & firmware (incl. OMNITREND demo ver.)