


VIBXPERT® EX – Technical data

Parameter	VIBXPERT® EX instrument (VIB 5.300 EX)
Input	
Analog, Vibration, 2x	Voltage (AC/DC, ±30 V max.) Current (AC/DC, ±30 mA max.) IEPE-type accelerometer (2 mA, 24 V max.) Current Linedrive (CLD) accelerometer (10 V, 10 mA max.)
Frequency range	DC ... 51.2 kHz (Acceleration from 0.5 Hz)
Dynamic range	96 dB (measurement) / 136 dB (total)
Sampling frequency	up to 131 kHz per channel
Analog, Temperature, 1x	Thermocouple (type K)
Digital, Pulse/ Tacho, 1x	RPM, Trigger, Keyphaser with pulse and AC signals: 0 V ... +26 V or -26 V ... 0 V
Max. input voltage	± 26 V
Switching threshold for 0 V ...+26 V signal	max. 2.5 V rising, min. 0.6 V falling
Switching threshold for -26 V ...0 V signal	min. -8 V rising, max. -10 V falling
Pulse width	< 0.1 ms
Output	
Stroboscope control	TTL output level
Frequency range	0 - 500 Hz
Resolution	0.05 Hz
Signal-Out	Connection for headphones to listen to the analog input signal; signal processing (oscilloscope)
Frequency range	0.5 Hz - 40 kHz
Output impedance	100 Ohm
Measurement range / Accuracy	
Vibration acceleration	depends on the sensor connected
Shock pulse	-10 ...80 dBsv / ± 3dBsv
RPM	10 ... 200 000 min-1 / ±0.1‰ or ± 1 min-1 (the lower accuracy is applicable)
Temperature, type K	-50 ... +1000°C / 1% or ±1°C (the lower accuracy is applicable)
Standards fulfilled	Frequency response acc to ISO 2954
Display	
Type	LCD, backlit
Pixel area	115 x 78 mm [4 1/2" x 3 1/16"]
Resolution	1/2 VGA (480 x 320 pixel)
Color depth	16 grey scales
Power supply	
Battery type	Li Ion rechargeable battery pack (7.2V / 4.8Ah - 34 Wh)
Charging time	< 5 hours in the instrument
Charger, input	110-240 V / 50-60 Hz
Charging temperature	0°C ... +50°C [32 °F ... 122 °F]
Computer	
Processor	Intel Strong ARM 206 MHz
Keyboard	2 joysticks and 12 keys for right-hand or left-hand operation. Keyboard illumination controlled by ambient light.
Memory	Internal: 64 MB RAM; Compact Flash: 1 GB or 4 GB
Serial interface	RS 232, <115 kBaud
USB interface	USB host for printing; USB slave for data exchange with OMNITREND
Ethernet interface	10 Mbit (10Base T), 10 Mbit (10Base T)
Environment / General	
Connectors	Analog / Digital channels: MiniSnap socket Thermocouple (type K): QLA socket; all compatible to VIBSCANNER
Housing	Aluminium
Dimensions	250 x 220 x 37 mm [9 13/16" x 8 11/16" x 1 7/16"] (LxWxH)
Weight	approx. 2.3 kg [81 oz]
Environmental protection	IP65, dust and splash-proofed
Temperature range	-10°C ... +60°C (Operation), [14 °F ... 140°F] -20°C ... +60°C (Storage), [-4 °F ... 140°F]
Intrinsic safety details	
Marking 	II 2G Ex ib IIC T4
Temperature range	-10 °C ...+60 °C