

Vibration Meter	
Channels	<ul style="list-style-type: none"> <li>• 1 (Single-channel)</li> </ul>
Parameters	<ul style="list-style-type: none"> <li>• Real time measurement in                             <ul style="list-style-type: none"> <li>» Acceleration: m/s<sup>2</sup>, g, in/s<sup>2</sup>, dB</li> <li>» Velocity: m/s, in/s, dB</li> <li>» Displacement: m, in, dB</li> <li>» Peak particle velocity PPV: mm/s, in/s</li> <li>» Levels: RMS, Peak, Peak-Peak</li> </ul> </li> </ul>
VibMeter	<ul style="list-style-type: none"> <li>• Broadband level                             <ul style="list-style-type: none"> <li>» Frequency range: 0.8 Hz - 2.5 kHz</li> </ul> </li> <li>• Spectral                             <ul style="list-style-type: none"> <li>» 1/1 octave band display: 1 Hz - 2.0 kHz sub ranges 1 Hz - 500 Hz or 4 Hz - 2 kHz</li> <li>» 1/3 octave band display: 0.8 Hz - 2.5 kHz sub ranges 0.8 Hz - 1.0 kHz, 2.5 Hz - 2.5 kHz</li> <li>» Broadband level measured with bandwidth (- 3dB): 0.7 Hz – 23.6 kHz</li> </ul> </li> <li>• Display according to DIN 45669-1:2010                             <ul style="list-style-type: none"> <li>» Unweighted velocity v(t)</li> <li>» Maximum absolute velocity  v <sub>max</sub></li> <li>» Averaging duration T<sub>m</sub></li> <li>» Measurement duration T<sub>M</sub></li> </ul> </li> </ul>
Filter	<ul style="list-style-type: none"> <li>• Flat (no filter) Bandwidth (- 3dB): 0.7 Hz – 23.6 kHz</li> <li>• 10 - 1000 Hz according to ISO 2954 with decay rate = 18 dB / octave</li> <li>• 1 - 80 Hz, 1 - 315 Hz acc. to DIN 45669-1:2010 with decay rate = 12 dB / octave</li> </ul>

Audio Recording in VibMeter	<ul style="list-style-type: none"> <li>• Default                             <ul style="list-style-type: none"> <li>» Recording of compressed wav-files (ADPCM - 4 bit, 24 kHz)</li> <li>» a new wav-file starts every 12 hours (max. wav-file size 512 MB)</li> <li>» Bandwidth: 2.0 Hz - 10.2 kHz</li> </ul> </li> <li>• Optional: Extended Acoustic Pack                             <ul style="list-style-type: none"> <li>» Recording of linear wav-files (24 bit, 48 kHz)</li> <li>» a new wav-file starts every 1 hours (max. wav-file size 512 MB)</li> <li>» Bandwidth: 2.0 Hz - 23.6 kHz</li> </ul> </li> </ul>
FFT	<ul style="list-style-type: none"> <li>• Frequency range: 1 Hz - 1.69 kHz</li> <li>• Optional: High-resolution Zoom-FFT with selectable frequency ranges and resolution up to 0.4 Hz in the range of 1 Hz to 20 kHz</li> </ul>
1/12 Oct	<ul style="list-style-type: none"> <li>• Actual level, L<sub>min</sub>, L<sub>max</sub>, Leq, Leq1", Leq4"</li> <li>• Selectable 1/1, 1/3, 1/6 and 1/12 octave spectral resolution</li> <li>• Measurement Units                             <ul style="list-style-type: none"> <li>» Acceleration: m/s<sup>2</sup>, g, in/s<sup>2</sup>, dB</li> <li>» Velocity: m/s, in/s, dB</li> <li>» Displacement: m, in, dB</li> </ul> </li> <li>• Band pass filters (base 10)</li> <li>• Optional: Frequency range: 0.73 Hz - 1.36 kHz</li> </ul>
Maximum Input Level	<ul style="list-style-type: none"> <li>• 353 m/s<sup>2</sup>, 36 g @ 20 mV/(m/s<sup>2</sup>) with ICP Adapter ASD</li> </ul>
Residual Noise (typical) with ICP Adapter ASD	<ul style="list-style-type: none"> <li>• 17 µV @ 0.7 Hz ... 23.0 kHz</li> <li>• 14 µV @ 1 Hz ... 315 Hz</li> <li>• 14 µV @ 1 Hz ... 80 Hz</li> </ul>

Reference-measurement range	<ul style="list-style-type: none"> <li>• Mid</li> </ul>
<b>Input / Output Interfaces</b>	
Audio Inputs	<ul style="list-style-type: none"> <li>• XLR balanced             <ul style="list-style-type: none"> <li>» Input impedance = 200 kOhm</li> <li>» Phantom power: +48 VDC switchable with maximum 10 mA supply current in accordance with IEC 61938</li> <li>» Automated sensor detection for NTi Audio's ASD measurement microphones and pre-amplifier MA220</li> </ul> </li> <li>• RCA unbalanced with input impedance &gt;30 kOhm</li> <li>• Built-in condenser microphone for polarity testing, delay measurements and voice note recording</li> </ul>
Audio Outputs	<ul style="list-style-type: none"> <li>• Built-in speaker</li> <li>• Headphone connector             <ul style="list-style-type: none"> <li>» 3.5 mm Minijack</li> <li>» mono monitor wired to both channels of stereo jack</li> <li>» Linear output signal over a measurement range of 57 dB in SLMeter measurement function</li> </ul> </li> </ul>
USB Interface	USB mini connector for data transfer to PC, XL2 Projector PRO and/or charging of Li-Po battery
Digital I/O	Connection interface to accessories <ul style="list-style-type: none"> <li>• XL2 Input Keypad</li> <li>• Limit Light</li> <li>• Stack Light</li> <li>• Digital I/O Adapter PCB</li> </ul>

TOSLink	24 bit linear PCM audio signal output (prepared for later firmware extension)
Memory	SD Card included (8 GByte), removable, storing measurement data in ASCII format, screen shots, voice notes and wav-files  Data logging every second offers following noise monitoring periods: <ul style="list-style-type: none"> <li>• Logging default noise levels: &gt; 2 years</li> <li>• Additional logging of 1/3 octave data: &gt; 6 month</li> <li>• Additional             <ul style="list-style-type: none"> <li>» compressed audio recording: &gt; 1 week</li> <li>» linear audio recording: &gt; 15 hours</li> </ul> </li> </ul> Optional 32 GB SD Cards are available for longer monitoring requirements; requires XL2 Firmware V4.10 or higher.
Power Supply	<ul style="list-style-type: none"> <li>• Rechargeable Li-Po battery included             <ul style="list-style-type: none"> <li>» Type 3.7 V / 2260 mAh</li> <li>» Typical battery lifetime &gt; 4 hours</li> <li>» Range: 3.3 - 4.5 VDC</li> <li>» Volume energy density = 339 Wh/l</li> </ul> </li> <li>• Dry cell batteries type AA, 4 x 1.5 V             <ul style="list-style-type: none"> <li>» Typical battery lifetime &gt; 4 hours</li> <li>» Range: 3.7 - 6.0 VDC</li> </ul> </li> <li>• Linear external power supply 9 VDC             <ul style="list-style-type: none"> <li>» Range: 7.5 - 20.0 VDC @ minimum 6 Watt</li> <li>» Charges Li-Po battery during operation</li> </ul> </li> <li>• USB-Power Supply             <ul style="list-style-type: none"> <li>» for short-term operation &lt; 1 day</li> <li>» charging power is equal or less than power consumption</li> </ul> </li> </ul>

Power Supply	<ul style="list-style-type: none"> <li>• External battery pack                     <ul style="list-style-type: none"> <li>» 22 Ah battery pack: 4 days</li> <li>» 44 Ah battery pack: 8 days</li> </ul> </li> </ul>
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## General

Clock	<ul style="list-style-type: none"> <li>• Default                     <ul style="list-style-type: none"> <li>» Real-time clock with lithium backup battery</li> <li>» Typical life backup battery: 8 years</li> <li>» Return instrument for battery replacement</li> <li>» Drift &lt; 1.7 seconds per 24 hours</li> </ul> </li> <li>• Special XL2 edition, NTi Audio # 600 000 356                     <ul style="list-style-type: none"> <li>» VCXTO clock</li> <li>» Drift &lt; 0.04 seconds per 24 hours</li> </ul> </li> </ul>
Mechanics	<ul style="list-style-type: none"> <li>• Tripod or microphone stand mount 1/4"</li> <li>• Wire stand mounted on rear side</li> <li>• Display: 160 x 160 pixels grey scale with LED back light</li> <li>• Dimensions (L x W x H)                     <ul style="list-style-type: none"> <li>» 180 mm x 90 mm x 45 mm</li> <li>» 7.1" x 3.5" x 1.8"</li> </ul> </li> <li>• Weight: 480 g (1 lb) including built-in Li-Po battery</li> </ul>
Temperature	-10 °C to +50 °C (14° to 122°F)
Humidity	5% to 90% RH, non-condensing
Static air pressure	65 kPa to 108 kPa
Susceptibility to radio frequencies	Classification Group X

Electromagnetic Compatibility	CE compliant: EN 61326-1 Class B, EN 55011 class B EN 61000-4-2 to -6 & -11
Protection Rating	IP51
ATEX	<ul style="list-style-type: none"> <li>• For applications in explosive atmospheres within zone 2 in accordance with IEC 60079</li> <li>• Conforms to 2014/34/EU</li> </ul>