CARRY-ON VIBRATION MONITORING SYSTEMS

Enhances safety, increases availability and reduces cost
Carry-on Vibration Monitoring Systems

Selected by various OEMs, customers and military operators, all of our carry-on systems are focused on the collection, processing and interpretation of data generated by the various components within an aircraft’s drive train, including engines, gearboxes, shafts, fans, rotor systems, and other dynamic components. Collected data can be viewed at the aircraft, within the test cell or any other platform location by the maintainer. Hardware and software is available for more detailed analysis off-wing.

Honeywell portable testers can reduce measuring and verification flights, thereby increasing aircraft operational availability and readiness and enhancing safety.

Vibrex™ 2000 Plus (V2K+)
Available for fixed-wing aircraft and helicopters with either turbine or reciprocating engines, the Vibrex 2000 Plus (V2K+) can meet your needs.

The V2K+ is a vibration analysis and balancing tool that rapidly and accurately acquires and analyzes aircraft and engine vibration data. It uses that data to calculate balance solutions and to analyze aircraft vibration levels across a broad frequency range.

This balancer/analyzer acquires accurate vibration readings and allows you to balance propellers (without the use of polar charts) or balance rotors using any of the 150 available Honeywell or OEM polar charts.

Beyond that, the unit is also capable of balancing shafts and blowers, making the V2K+ a complete balancing tool system.

The Enhanced Vibrex™ 2000 Plus (EV2K+) is an advanced version offering additional features:

• Integrating simple aircraft balance charts with memory for 30 applications
• Incorporating a propeller balance save and recall
• Four channel vibration sensor selection
• Integration of the FasTrak™ Optical Blade Tracker
• Uses same smart balance algorithms as VXP
Zing Test Elite (ZTE)
The ZTE is an easy-to-operate tool for performing helicopter rotor smoothing, engine performance checks, component balancing, vibration surveys, and complex vibration component analysis.

ZTE’s signal processing and diagnostic algorithms set it apart from other smoothing solutions. Operators can now achieve maintenance manual specifications in as few as three flights – one or two measurement flights and one to verify.

ZTE’s easy-to-understand maintenance actions can be displayed on any PC, including the optional Panasonic Toughbook®, using the Personal Computer – Ground-Based System (PC-GBS) software. The ZTE can be configured to each specific helicopter type, making it especially flexible and cost-effective for multi-platform and mixed helicopter operators.

Operators of RADS-AT™ can use their existing cables, brackets and sensors.

- Easy to use Windows-based software loaded on rugged Panasonic Toughbook with sunlight readable touchscreen
- Fast simultaneous data acquisition
- Clear on-screen help with graphics and troubleshooting procedures.

Carry-on VXP
The Honeywell VXP System consists of the VXP Acquisition Unit, VXP Display Unit, software, and associated carry-on kit and sensors.

The VXP System interfaces to vibration and tachometer sensors located throughout the aircraft and additionally to the optional FasTrak Optical Tracker for Main Rotor blade tracking.

- Compatible with Honeywell 8500 series balancer’s existing cables, brackets and sensors
- Expanded Smart Chart™ capabilities for balancing and analysis procedures
- Programmable spectrum analysis feature allows user-defined maximum frequency
- Easy to use Windows-based software loaded on rugged Panasonic Toughbook with sunlight readable touchscreen
- Fast simultaneous data acquisition
- Clear on-screen help with graphics and troubleshooting procedures.

A faster, better, proven next-generation embedded diagnostic solution for helicopters, fixed wing aircraft, unmanned air vehicles, and ground vehicles.
<table>
<thead>
<tr>
<th></th>
<th>V2K+ / EV2K+</th>
<th>ZTE</th>
<th>VXP</th>
<th>TOUGHBOOK DISPLAY UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. OF VIBRATION SENSORS</td>
<td>2 / 4</td>
<td>20</td>
<td>26</td>
<td>–</td>
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<tr>
<td>NO. OF TACHOMETER / PHOTOCELL SENSORS</td>
<td>2</td>
<td>5</td>
<td>4 / 4</td>
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<tr>
<td>NO. OF SIMULTANEOUS VIBRATION MEASUREMENTS</td>
<td>1</td>
<td>6</td>
<td>4</td>
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<tr>
<td>SENSOR AMPLITUDE (VOLTS)</td>
<td>0–380 mV</td>
<td>0 – 20 V</td>
<td>0 – 12 V</td>
<td>–</td>
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<tr>
<td>AMPLITUDE ACCURACY</td>
<td>±5%</td>
<td>±2%</td>
<td>±2%</td>
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<tr>
<td>FREQUENCY RESPONSE</td>
<td>120 Hz to 30 kHz</td>
<td>1.5 Hz to 24 kHz</td>
<td>180 Hz to 60 kHz</td>
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<tr>
<td>DYNAMIC RANGE</td>
<td>&gt;50 dB</td>
<td>&gt;100 dB</td>
<td>&gt;90 dB</td>
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</tr>
<tr>
<td>MEMORY</td>
<td>1 MB</td>
<td>256 MB</td>
<td>8 MB</td>
<td>512 MB</td>
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<tr>
<td>DIMENSIONS: L X W X H INCHES</td>
<td>1.81 x 7.25 x 7.38</td>
<td>8.12 x 6.33 x 4.24</td>
<td>12.2 x 7.1 x 3.0</td>
<td>8.5 x 10.7 x 1.9</td>
</tr>
<tr>
<td></td>
<td>46 x 184 x 188</td>
<td>206 x 161 x 108</td>
<td>304 x 180 x 76</td>
<td>216 x 272 x 48</td>
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<tr>
<td>WEIGHT</td>
<td>3.5 lbs* / 1.58 kg</td>
<td>3.25 lb / 1.47 kg</td>
<td>6.2 lbs / 2.82 kg</td>
<td>5.1 lbs* / 2.31 kg</td>
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<tr>
<td>OPERATING TEMPERATURE (°C)</td>
<td>0 to +50</td>
<td>-40 to +71</td>
<td>-30 to +60</td>
<td>–</td>
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<tr>
<td>POWER</td>
<td>3.0–6.4 Vdc</td>
<td>10–40 Vdc</td>
<td>18–32 Vdc</td>
<td>110-240 Vac</td>
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</table>

* With batteries

**Customer Support**

Honeywell is dedicated to supporting our customers’ needs. Our worldwide customer service is available via phone, fax or e-mail. We can help your organization improve skills in component balancing, engine testing, rotor smoothing, troubleshooting, and data management.

Training courses are provided for all products at the user level and advanced fleet administration/analyst level. Of course, service includes equipment repairs and calibration, for which we have expert in-house teams. Honeywell International representatives support over 180 countries.

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**Find out more**

Visit us online at: aerospace.honeywell.com/HUMS or contact us at the following email address: hums@honeywell.com

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