

Human Vibration Meter

Model HVM100

Larson
Davis



Typical Applications

- Product compliance testing
- Whole body vibration
- Hand tool vibration
- Vibration severity measurement
- Hand-arm vibration



Features

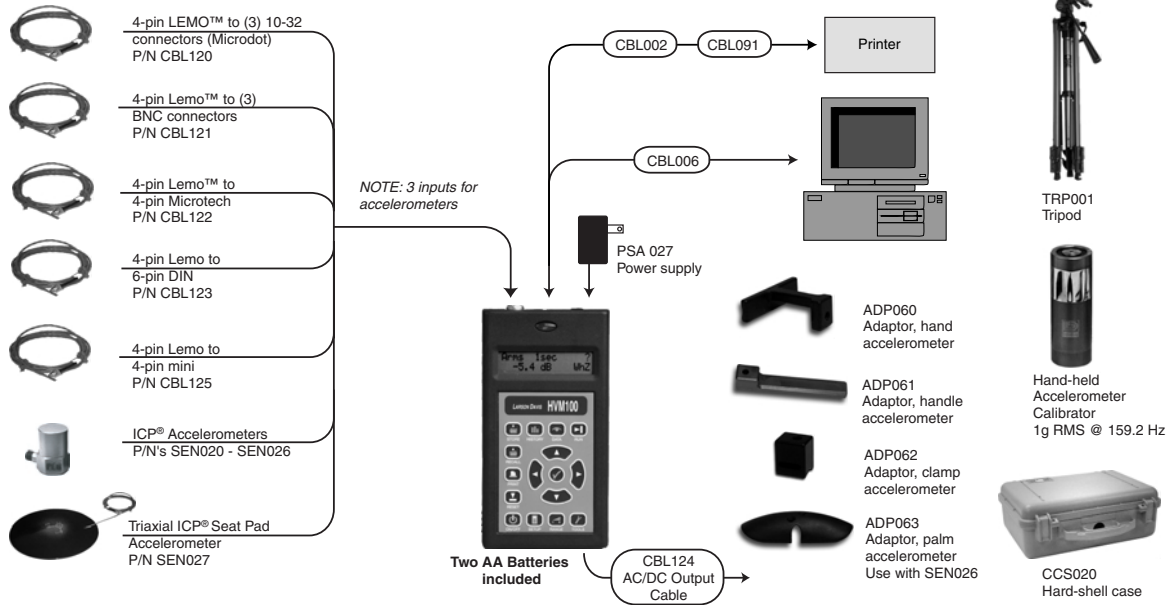
- Compact and portable
- Measures to ISO 2631, 5349, and 8041 requirements
- Supports ICP® and charge mode accelerometers
- Complete system with analysis software available
- Measures x, y, z and sum (S) simultaneously

The HVM100 provides a portable, convenient way to collect and analyze data in accordance with the most current ISO requirements for assessing Hand-arm and Whole-body vibration exposure. Measuring three input channels simultaneously, the HVM100 provides the signal filtering, integration, and data storage necessary to comply with ISO Standards 2631, 5349, and 8041. A fourth channel calculates and stores vector sum information. Single axis and triaxial accelerometers with specialized mechanical mounting adaptors and DNA software are available to complete the system.

For gathering comprehensive and accurate exposure data in the field, the HVM100 is hard to beat. It stores RMS, Minimum, Maximum and Peak Level data, as well as relevant metrics such as Crest Factor and Vibration Dose Value (VDV). A handy AC or DC output signal for each channel provides the ability to interface external recorders or analyzers for more detailed analysis.

Since the HVM100 employs digital filtering techniques, it may be electronically updated if standards dictate a filter curve modification. Additionally, the unit features a dot-matrix LCD display and a choice of multiple language interfaces.

NOTE: Your choice of any of the five cables below



Technical Specifications

Input Types: ICP [®] sensors, charge output sensors, direct voltage
Input Range: >100 dB (in multiple ranges)
Range Gain: ×1, ×10, ×100, ×1000
Calibration: By level or sensor sensitivity entry
Units: m/s ² , cm/s ² , ft/s ² , in/s ² , g, dB
Metrics for each mode:
Vibration: Arms, Amin, Amax, Aeq, Amp, PEAK
Hand-arm: Arms, Amin, Amax, Aeq, Amp, PEAK, A(1), A(2), A(4), A(8), A(8) Allowed Exposure Time
Whole body: Arms, Amin, Amax, Aeq, Amp, Peak, CFmp, CF, VDV
Frequency weightings:
Vibration: Ws (Severity), Fa (0.4 Hz to 100 Hz), Fb (0.4 Hz to 1250 Hz), Fc (6.3 Hz to 1250 Hz)
Hand-arm: Wh
Whole body: Wb, Wc, Wd, We, Wg, Wj, Wk, WB
Setups: Store up to 10 user setups
Memory: 100 measurements, 1 min to 99 hr
Time history: 120 samples of Arms and PEAK at a period of 1, 2, 5, 10, 20, 30, 60 seconds
Interface: RS-232 on 8 pin DIN, up to 115 kbps
Printout: Custom 3 line header, data and time history

Outputs for each channel:

AC: Weighted or band-limited
DC: rms, min, max, peak, sum rms, sum max, sum min, sum peak
Peak: ± 0.5 dB accuracy
Power: (2) AA batteries (IEC Type LR6)
Weight: 300 gm (10.6 oz)
Dimensions: 1.1 × 3.3 × 6.0 in (28 × 84 × 152 mm)
CE compliant
Standards Met: ISO 8041:1990/Amd 1:1999, 2631-1:1997, 2631-2:1989, 2631-4:2001, 5349-1:2001, and 5349-2:2001, plus it provides the Whole Body frequency weighting Wg specified in the British Standard BS 6841:1987

Accessories (included)

Your choice depending on required connector type

CBL120: Cable, (3) 10-32 male to 4-pin Lemo™ female
CBL121: Cable, (3) BNC male to 4-pin Lemo™ female
CBL122: Cable, 4-pin Microtech to 4-pin Lemo™ female
CBL123: Cable, 6-pin DIN male to 4-pin Lemo™ female
CBL125: Cable, Mini 4-pin to 4-pin Lemo™ male
Batteries: (2) AA, IEC Type LR6
User manual

Accessories (optional)

SEN020 to SEN022: Triaxial ICP [®] accelerometers
SEN023 to SEN025: Single axis ICP [®] accelerometers
SEN026: Triaxial ICP [®] palm accelerometer

SEN027: Triaxial ICP [®] seat pad accelerometer
SEN020-CBL to SEN022-CBL: Triaxial ICP [®] accelerometers including cables
SEN023-CBL to SEN025-CBL: Single axis ICP [®] accelerometers including cables
SEN026-CBL: Triaxial ICP [®] palm accelerometer including cable
SEN027-CBL: Triaxial ICP [®] seat pad accelerometer including cable
CBL002: Cable, serial printer (DB25S-mDIN08)
CBL006: Cable, serial computer (DB9S-mDIN08)
CBL091: Cable, serial printer (HPLJ4-mDIN08)
CBL120: Cable, (3) 10-32 male to 4-pin Lemo™ male
CBL121: Cable, (3) BNC male to 4-pin Lemo™ male
CBL122: Cable, 4-pin Microtech to 4-pin Lemo™ male
CBL123: Cable, 6-pin DIN male to 4-pin Lemo™ male
CBL124: Cable, AC/DC output
CBL125: Cable, Mini 4-pin to 4-pin LEMO™ male
ADP060: Adaptor, hand accelerometer
ADP061: Adaptor, handle accelerometer
ADP062: Adaptor, clamp accelerometer
ADP063: Adaptor, palm accelerometer
ADP064: HVM100 adaptor kit
PCB394M26: Hand-held accelerometer calibrator
PCB-080A09: Adaptor, probe tip with 10-32 connector
PCB-080A17: Adaptor, triaxial mounting
CCS020: HVM100 hard shell carrying case
PSA027: Power supply, 90-264 VAC to 12 VDC
TRP001: Tripod



Larson Davis

A PCB Group Co.

Larson Davis, Inc. – Acoustic Test Products Group

1681 West 820 North, Provo, UT 84601-1341 USA

Toll Free: 888-258-3222 Phone: 801-375-0177 Fax: 801-375-0182

Email: marketing@larsondavis.com www.LarsonDavis.com

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Larson Davis provides a complete line of acoustic measurement tools including dosimeters, sound level meters, real time analyzers, preamps, calibrators, and microphones.