

# HealthVib® WBV300

## Human vibration dosimeter

The HealthVib® WBV human vibration instrument measures whole body vibrations (WBV) in three directions. HealthVib® WBV measures and analyses vibrations i.e. on driver seat or standing as required by ISO 2631-1 and directive 2002/44/EG. Measurement using HealthVib® WBV is easy to learn and carry out.

The unit doesn't require cables, software or any special configurations.

The vibration data is collected and analysed in three directions simultaneously.

The analysis filters vibrations to exclude unnecessary data.

Through the use of the button controls, results can be displayed as r.m.s. or VDV, 1-second intervals, the eight-hour daily vibration dose. Also peak and crest factor can be read out. The vibration dose is displayed on a colour screen, 128x128 px and can also be sent on an external display (Vibindicator™). From sensor technology the measurement is started and stopped automatically excluding unwanted data. Through feedback from the Vibindicator™ users can understand the effects from i.e. different driving techniques and conditions (e.g. in a working vehicle where an operator can see the results of vibration measurements). From this information users can learn to lower vibration exposure by changing driving techniques and/or conditions. From HealthVib® and Vibindicator™ further analysis and reports can be printed.

**Daily vibration dose** – The time average of the vibration power, during an eight hour period. Expressed in  $m/s^2$  (r.m.s.)

**Harmful vibration dose** – Guidance for harmful levels are found in the directive 2002/44/EG, but the individual's sensitivity has to be considered. In the directive the action limit value are stated (where the vibration dose cause a risk for the health or accident) and exposure limit (where the vibration dose is obviously harmful or is a cause for accident) and has to be used in risk assessment.

## PRODUCT PROGRAM

### HealthVib® Models:

**WBV 300** - is used to measure whole-body vibrations in accordance with current work environment regulation. Intended for sitting or standing position.

**HAV 100** – a 6-channel system used to measure hand and arm vibrations.

Measurement unit with sensor can be mounted directly on vibrating surface or by using measurement gloves.

### WBV Vibindicator™

The vibrations dose from the dosimeter is presented to the employee in 10 seconds doses by different coloured light-emitting diode. The indicator stores data for processing in PC. It can be placed for visual feedback, i.e. at front window in vehicle.

### HealthVib®-inSide

The vibration measuring system for integration in e.g. driver seat. The enclosed indicator displays the current vibration level, dominating direction and accumulated dose, and notifies the driver with feedback and knowledge about current health risks. Vibration dose for just 30 days can be visualized in software.

## Technical Concept 2014 03

### CVK HealthVib® WBV 300

Through the use of HealthVib vibration dosimeters; users can identify harmful vibrations.

This knowledge makes vibration risk judgment easier and more precise.



## HealthVib® WBV 300

### Technical specification

**Sensor type:** 3-axis MEMS accelerometer

**Measurement unit:**  $m/s^2$  (r.m.s.),  $m/s^{1.75}$  (VDV)

**Sample rate:** 640 three-axis samples per second

**Frequency Range:** 0.5–80 Hz

**Vibration dose presentation:**

A (8), 1second r.m.s., VDV, peak, crest factor

**Battery time:** >10 hours

**Charge time:** 6 hours, battery charger is included

**Seatplate:** Ø215 mm, height: 11.9 mm

**Weight Seat plate:** 335 gram

*WBV= Whole body vibrations*



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