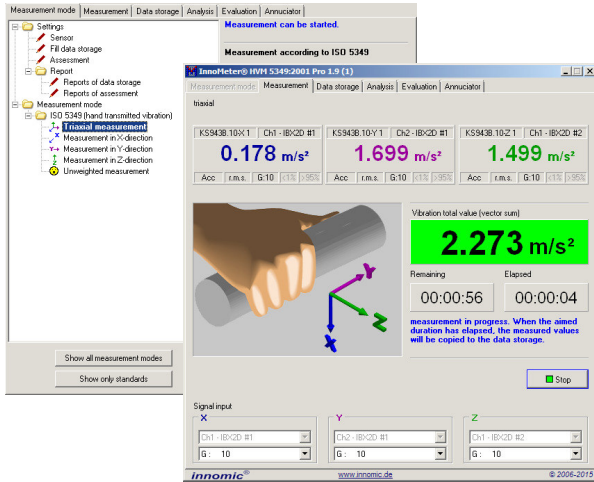
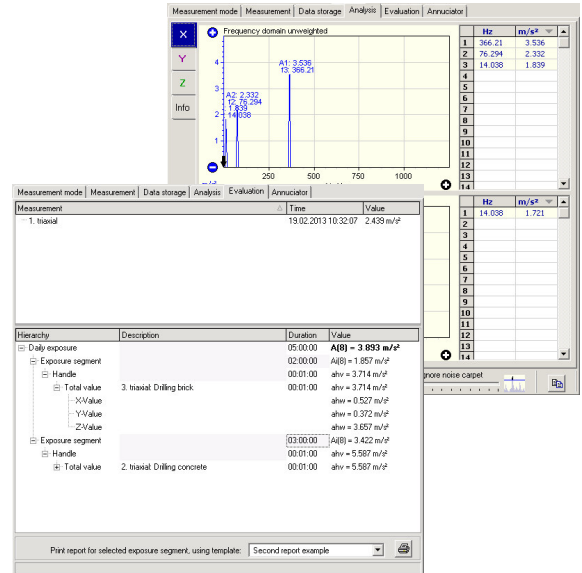


# InnoMeter® HVM 5349 1.9

## Human Hand-Arm Vibration Measurement



Clearly arranged selection and execution of the measurement



Integrated frequency analysis and calculator for daily vibration exposure

Measurement mode	X(m/s <sup>2</sup> )	Y(m/s <sup>2</sup> )	Z(m/s <sup>2</sup> )	Total	Assessment
1. trisax	0.093	0.310	2.417	2.439	good
2. trisax: Drilling concrete	0.713	0.527	5.517	5.987	bad
3. trisax: Drilling brick	0.527	0.372	3.667	3.714	acceptable

Overall assessment: 1. trisax

Measurement performed on: 19.02.2013 at 10:32:07

Duration: 1 min

Dose A(8): 2.439 m/s<sup>2</sup> / 8h

Assessment: **no workable position**

Allowed daily exposure: 08:24:19 / 1d

Your remarks: Low signal

Data folder: C:\Dokumente und Einstellungen\All Users\Dok

Current folder: C:\Dokumente und Einstellungen\All Users\Dok

Read data file | Copy to... | Save

Load recently used data folder: HAV-Measurement 19.02.2013 10:32:07 617

Print overall assessment: First report example

Warning! Low signal during whole measurement (gain too low?)

Automatic data storage

### Application

The InnoMeter HVM 5349 is designed for measurements of human exposure to hand-transmitted vibrations according to EN ISO 5349:2001 and directive 2002/44/EC.

If hand held machines or workpieces transmit strong vibrations to the operator, a decreased performance and even diseases might develop. For this reason, divers guidelines stipulate measurements acc. to EN ISO 5349, which determines the impact on the human hand-arm-system.

With the InnoMeter HVM 5349, these measurements are carried out conforming to standards. Piezoelectric sensors are mounted on the handholds of hand held power tools. Data acquisition devices (model InnoBeamer) accept the sensor data and transmit it to the InnoMeter HVM 5349 via the USB interface.

### Properties

Compared to usual hand-held instruments, the InnoMeter HVM 5349 possesses a user guide. The user is guided through measurement from the choice of measurement mode to the evaluation of measurement's results. A graphical drawing of the correct axes allocation for the gripping hand eases multiaxial measurement. Even users who do not deal with HVM measurements very often can be sure to fulfill all details of the standard.

The InnoMeter HVM 5349 is able to carry out all measurement modes described in the standard, e.g. the simultaneous measurement in all 3 axes or the measurement in the main axis and weighting of the other two axes. In addition to the indication and quick evaluation of single measurements while measuring, the complete calculation of the daily vibration exposure is integrated. Therefore, measured data can be allocated to exposure segments or a certain handle by drag&drop.

The powerful report-function enables you to generate reports at the push of a button.

The Pro-Version additionally includes frequency analysis for both, the unweighted vibration signal and the signal weighted acc. to considerations concerning occupational health. This way, responsible components are quickly detected and vibration causes are eliminated purposefully.

# Technical Data

	InnoMeter HVM 5349:2001 Pro	InnoMeter HVM 5349:2001
<b>Signal Processing</b>		
Filter	$W_h$ filter acc. to the standard or unweighted (for calibration)	
Measurand	Vibration acceleration	
Unit	m/s <sup>2</sup>	
Parameters	Interval rms value, measurement duration adjustable 1 s .. 1 day	
<b>Graphical Presentation</b>		
Numeric Display	5 digits: 0.001 .. 99999	
Refresh	1.. 4 times per second *	
Status Indicators	Sensor, measuring channel, measurand, parameter, gain, underload, overload	
Recommended Screen Resolution	From 800 x 600 pixels on	
<b>Data Acquisition, Storage and Presentation</b>		
Measurement Modes	<ul style="list-style-type: none"> <li>- Simultaneous triaxial measurement</li> <li>- Sequentially triaxial measurement with one sensor</li> <li>- Measurement in one axis, weighting of two axes</li> </ul>	
Calculations	<ul style="list-style-type: none"> <li>- Axis weighting in case of using a respective measurement mode</li> <li>- Vibration total value</li> <li>- Daily vibration exposure A(8)</li> </ul>	
Data Storage	<ul style="list-style-type: none"> <li>- Saving up to 100000 measurements</li> <li>- Indication of measurement mode, selected parameters as well as a verbally expressed assessment (good, acceptable, bad)</li> <li>- Integrated calculation and indication of the admissible exposure duration</li> <li>- Indication of detailed data for the marked measurement</li> <li>- For each measurement, remarks can be entered</li> <li>- Save and reload measured values in CSV format</li> <li>- Printing a report about the measurement, individual report examples can be configured</li> </ul>	
Calculation of Daily Vibration Exposure A(8)	<ul style="list-style-type: none"> <li>- Several A(8) calculations possible at the same time</li> <li>- Export of the calculation into text file possible or print as a configurable report</li> <li>- Arbitrarily many exposure segments possible per A(8) calculation</li> <li>- Arbitrary name and duration of the exposure segments</li> <li>- Evaluation acceleration of the exposure segment calculated and indicated automatically</li> <li>- Arbitrarily many measurements can be included for each exposure segment</li> <li>- Consideration of several handles/measuring points possible</li> <li>- Weighting of not measured axes adjustable</li> </ul>	
Vibration Analysis	<ul style="list-style-type: none"> <li>- Separate analysis for each measurement</li> <li>- Analysis already carried out while measuring</li> <li>- Analysis for each measurement is saved</li> <li>- Frequency resolution 1 Hz</li> <li>- Automatic amplitude recognition</li> <li>- Zooming and scaling</li> </ul>	-
<b>Event Annunciators</b>		
Display	Display of total vibration value as well as evaluation of single measurement in traffic light colors	
Radio Switch	Binary signaling of single measurement's evaluation (good/bad)	
Digital Output	Binary signaling of single measurement's evaluation (good/bad)	
E-Mail	Transfer of total vibration value as well as evaluation of single measurement	
<b>Miscellaneous</b>		
Available in a Kit	VMSet-11P, VMSet-12P, VMSet-14P	VMSet-11, VMSet-12, VMSet-14
General Functions	Instrument is cloneable	

\* Centrally managed in InnoMaster

Changes without prior notice

February 2016

D e u t s c h l a n d		
IDS Innomic Gesellschaft für Computer- und Messtechnik mbH Zum Buchhorst 35 29410 Salzwedel	☎ (03901) 305 99 50 ☎ (03901) 305 99 51 ✉ info@innomic.de 🌐 www.innomic.de	

I n t e r n a t i o n a l		
IDS Innomic GmbH Zum Buchhorst 35 D-29410 Salzwedel Germany	☎ +49 (3901) 305 99 50 ☎ +49 (3901) 305 99 51 ✉ info@innomic.de 🌐 www.innomic.com/en	