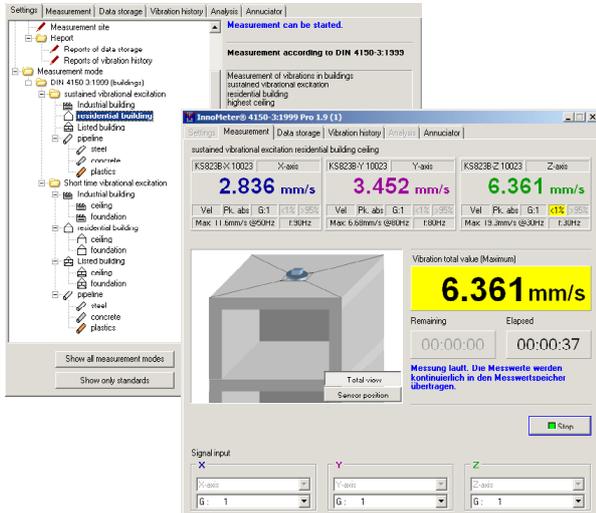
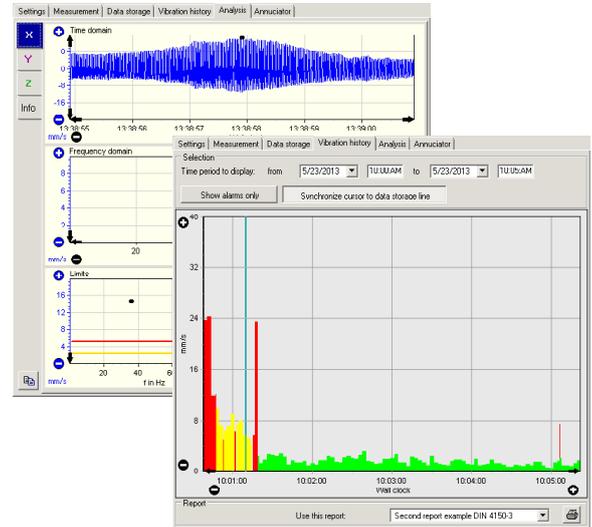


# InnoMeter® 4150-3 1.9

## Vibration Measurement on Buildings



Clearly arranged selection and execution of the measurement



Graphical event overview and event analysis

Measurement mode	Date	Time	Max (mm/s)	Assessment
short time vibrational excitation residential building foundation	21.02.2013	10:08:10	2.596	acceptable
1. warning threshold exceeded	21.02.2013	10:08:10	2.596	acceptable
2. no events	21.02.2013	10:21:01	2.490	good

Overall assessment: short time vibrational excitation residential building foundation

Measurement performed on: 21.02.2013 at: 10:08:10  
Duration: 00:12:50  
Time constant (s): 3.000  
Assessment: good

at frequency (Hz): X: 7.939 Y: 7.939 Z: 7.939  
Value (mm/s): X: 0.438 Y: 0.239 Z: **2.596**

Limit value (mm/s): X: 5.000 Y: 5.000 Z: 5.000  
Maximal value (mm/s): X: 0.438 Y: 0.239 Z: 2.596  
at frequency (Hz): X: 7.939 Y: 7.939 Z: 7.939

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

Automatic event storage

### Application

The InnoMeter 4150-3 is designed for the measurement of vibrations on buildings acc. to DIN 4150-3 and SBR.

Vibrations from heavy building activities, traffic, machine operation or also detonations affect existing building stock. The InnoMeter 4150-3 measures these vibrations, evaluates them acc. to the standard immediately and can inform about the occurred vibrations at any time.

Therefore, a triaxial vibration sensor is positioned at the building. By means of a signal converter type InnoBeamer, its signals are transmitted to the computer on which the InnoMeter 4150-3 is running.

### Properties

The InnoMeter 4150-3 combines vibration measurement, evaluation and presentation of results in one instrument. The most important characteristic: A report can be printed at any time since the evaluation is carried out simultaneously with the measurement. Circuitous data transfer is not required here. You are ready for giving a statement immediately and at any time.

In the German standard DIN 4150-3 the main frequency is an important parameter as it determines the maximum allowable vibration level. The main frequency recognition is a problem for many instruments but not for InnoMeter 4150-3: It features a permanently active, automatic frequency recognition and achieves exact results with 4 million analyses/day.

The measured data is available in differently detailed levels: You can see the overall status at once, but you are able to display more details concerning interesting events progressively. Detail depth reaches up to the recorded high-resolution vibration signal. This way, analysis with additional software can be carried out easily.

When it comes to printing a record, the detail depth can be selected as well. The most important data incl. the measurement graph fits on one A4 page. If required, the single events are printed as well. The period for the report to be printed can also be selected.

Automatic transmission of measurement results via e-mail or notification of outsiders about alarms for instance via signal lamps is possible as well.



# Technical Data

	InnoMeter 4150-3 Pro	InnoMeter 4150-3
<b>Signal Processing</b>		
Filter	Butterworth filter acc. to the standard with 40dB/decade, selectable 1..80 Hz and 1..315 Hz	
Measurand	Vibration velocity (vibration severity) in mm/s	
Parameter	Peak value of vibration velocity, instantaneous main frequency	
Measurement duration	Selectable 10 s .. infinitely	
<b>Graphical Presentation</b>		
Numeric Display	5 digits: 0.001 .. 99999	
Refresh	1 .. 4 times per second (centrally managed in InnoMaster)	
Status Indicators	Sensor, measuring channel, measurand, parameter, gain, underload, overload	
<b>Data Acquisition. Storage and Presentation</b>		
Measurement Modes	<ul style="list-style-type: none"> <li>- Sustained vibrational excitation / Short-time vibrational excitation:               <ul style="list-style-type: none"> <li>- Industrial / residential / listed buildings</li> <li>- Pipelines: Steel / concrete / plastics</li> </ul> </li> </ul>	
Measurement	<ul style="list-style-type: none"> <li>- User guide</li> <li>- Choice of the measurement mode</li> <li>- Indication of elapsed and remaining measurement duration</li> <li>- Indication of the peak value for all axes incl. main frequency for all axes</li> <li>- Indication of the maximum vibration value so far incl. respective main frequency</li> <li>- Indication of the vibration total value (maximum of the 3 axes)</li> </ul>	
Data Storage	<ul style="list-style-type: none"> <li>- Data storage of up to 100000 events with detailed data for each event</li> <li>- You can note own remarks for each event</li> <li>- Saving and reload measured values in CSV format</li> <li>- Printing a report about single event, individual report examples can be configured</li> </ul>	
<b>Integrated Graphical Evaluations</b>		
Vibration history	<ul style="list-style-type: none"> <li>- Expanding and compressing both Y- and time-axis</li> <li>- Y-axis optionally as absolute values in mm/s or relative to the limit value in %</li> <li>- Time period to be selected by input boxes</li> <li>- Warnings can be displayed/omitted</li> <li>- Cursor available, movable by mouse, runs synchronously with the event in the data storage</li> <li>- Printing a report about the selected time period, individual report examples can be configured</li> </ul>	
Analysis Single Event	<ul style="list-style-type: none"> <li>- Signal progression of vibration velocity</li> <li>- Automatic marking of the maximum in the signal progression</li> <li>- Frequency analysis of the event</li> <li>- Automatic marking of the maximum in the frequency analysis</li> <li>- Evaluation of the event in the InnoMeter 4150-3 limit-value-graphic</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	<ul style="list-style-type: none"> <li>- Transfer of total vibration value as well as evaluation of single measurement</li> <li>- Cyclic transfer of the data storage</li> </ul>	
<b>Miscellaneous</b>		
Available as a Kit	VMSet-23 VMSet-24	
General Functions	module is cloneable	

Changes without prior notice

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