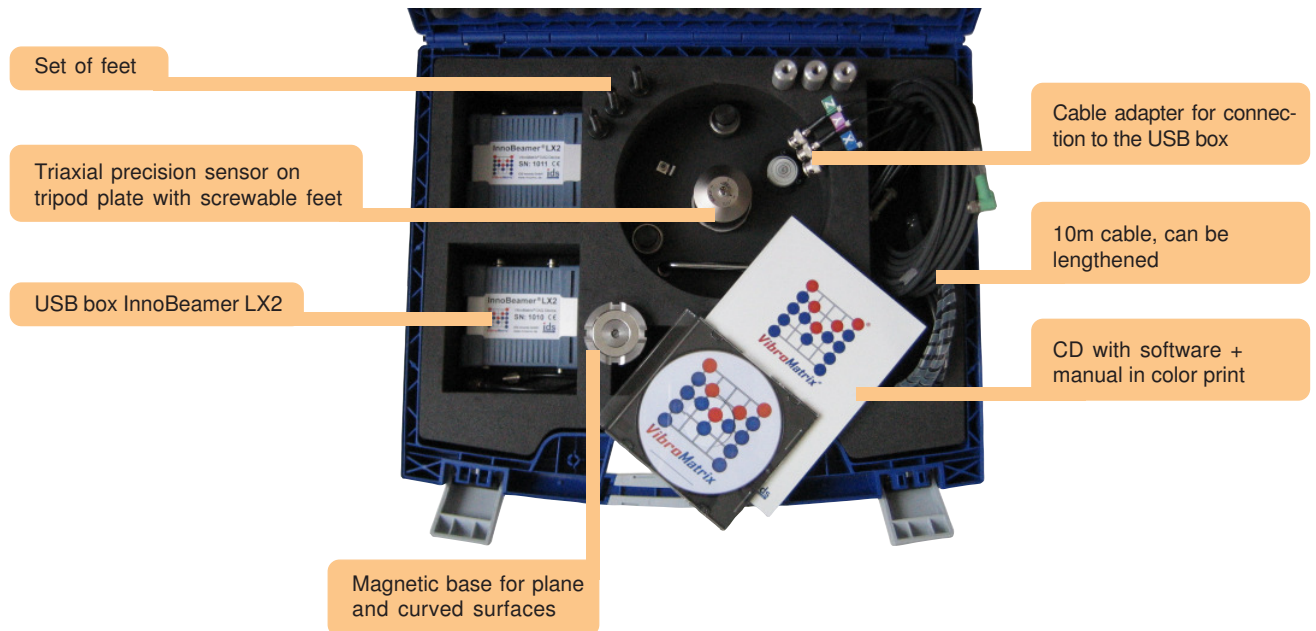




VibroMatrix® Kit

VibroMatrix®

Kit for human Vibration Measurement on Ships



The VMSet-16 comes in a handy case and provides you with everything you need for the measurement of human vibration on ships acc. to ISO 6954:2001.

Vibrations in all three axes can be measured simultaneously. The complete solution offers more than small hand-held units:

- The program guides you through the measurement reliably, with clear indications and graphics.
- Measured values as well as an assessment (red / yellow / green) are already indicated during the measurement.

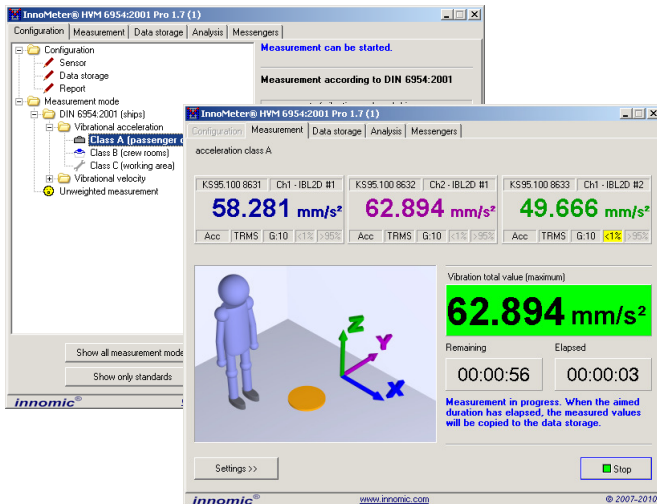
- Each measurement is automatically transferred to the data storage with time stamp and can be completed with your own remarks.
- A calculation sheet for combining different activities to one person-related daily vibration exposure is integrated.
- The Pro version additionally offers frequency analysis of both, weighted and unweighted vibration signal. Thus, components responsible for the exceedance are detected easily and time for development is reduced considerably.

	VMSet-16	VMSet-16P
Hardware		
Sensor for Vibration Measurement	- 1x Piezoelectric accelerometer, shear design - Sensitivity: 500 mV/g, linear frequency range: 0.07 .. 6000 Hz - Operating temperature: -30 .. 90 °C - Accessories: Clamping magnet, tripod plate with screwable feet, 10m cable, cable adapter to 3x BNC	
USB Box for Digitization	- 2x InnoBeamer LX2 - Inputs: 2x analog for vibration sensor(s), 1x digital for photoelectric reflex switch - Signal frequency: 0.1 .. 3200 Hz - Supply current: < 500 mA with supply of all sensors - no mains adapter required - Operating temperature: -20 .. 50 °C, weight: 350 gr. - Accessories: Synchronisation cable and 1.8m USB cable	
Software Licenses		
InnoMeter HVM 5349	3x	3x Pro

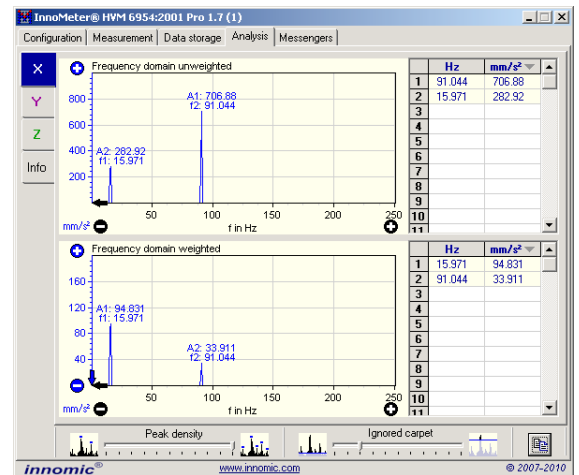


InnoMeter® HVM 6954 1.7

Vibration Measurement on Ships

VibroMatrix®


Clearly arranged selection and execution of the measurement



Integrated frequency analysis

Measurement mode	X-Value	Y-Value	Z-Value	Total	Assessment
1. acceleration class A: Cabin 2	919.08	919.08	919.08	919.08	bad
2. acceleration class A: Cabin 7	549.57	3331.4	144.45	3331.4	bad
3. acceleration class A: Deck 1a	91.959	34.989	63.776	91.959	acceptable
4. acceleration class A: Cabin 18	91.918	34.979	63.744	91.918	acceptable

Overall assessment
3. acceleration class A

Measurement performed on 9/1/2010 at 9:37:18 AM
Duration
Assessment possible discomfort

Your remarks
Deck 1a

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

Read data file
Copy to ...
Save

Load recently used data folder
Ship-Measure 01-09-2010 09:20:09 235915F

Overall assessment to print
Report example

Automatic data storage

Application

Aboard passenger and merchant vessels vibrations can occur, which may negatively interfere with the work of the crew or which may diminish the comfort of passengers and crew. In order to assess complaints or to prevent them, measurements acc. to DIN ISO 6954:2001 are suitable, since they allow the evaluation of the vibration severity with regard to habitability aboard ships.

By using the InnoMeter HVM 6954:2001, one can easily perform these measurements conforming to standards. Additionally, the instrument contains a storage for recent measurement results.

Properties

Compared to usual hand-held instruments, the InnoMeter HVM 6954 possesses a user guide. The user is guided through measurement from the choice of measurement mode to the evaluation of measurement's results. Graphical drawings for sensor positioning ease multiaxial measurement and ensure a correct application of the standard.

Acc. to the standard, the InnoMeter 6954 is designed for simultaneous measurement in all 3 axes. The required vibration parameters and weighting filters are integrated. The classification defined in the standard (passenger cabins, crew rooms, working areas) is available together with the respective standard values. With the simple choice of the measurement mode, the parameters and standard values are adjusted automatically acc. to the standard.

Remarks about the measurements can be noted, measurements can be saved and read into again.

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 6954:2001 Pro	InnoMeter HVM 6954:2001
Signal Processing		
Filter	W _m filter acc. to the standard	
Measurand	Vibration acceleration or vibration velocity	
Unit	mm/s ² , mm/s	
Parameters	Interval rms value	
Measurement duration	Adjustable 1 s .. 1 day	
Graphical Presentation		
Numeric Display	5 digits: 0.0001 .. 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	
Data Acquisition, Storage, Presentation		
Measurement Modes	<ul style="list-style-type: none"> - Vibration measurement acc. to DIN 6954:2001 - Evaluation acc. to class A,B or C 	
Measurement	<ul style="list-style-type: none"> - User guide - Choice of the measurement mode - Indication of elapsed and remaining measurement duration - Indication of the interval rms value for all axes - Indication of the vibration total value 	
Data Storage	<ul style="list-style-type: none"> - Saving up to 100000 measurements - Indication of measurement mode, selected parameters as well as a verbally expressed assessment (good, acceptable, bad) - Indication of detailed data for the marked measurement - For each measurement, remarks can be noted - Save and reload measured values in CSV format - Printing a report about the measurement, individual report examples can be configured 	
Frequency Analysis	<ul style="list-style-type: none"> - Separate analysis for each measurement - Analysis already carried out while measuring - Analysis for each measurement is saved - Frequency resolution 1 Hz - Automatic amplitude recognition - Zooming and scaling 	-
Event Notification		
Extra 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	
Miscellaneous		
Available in a Kit	VMSet-16P	VMSet-16
General Functions	Instrument is cloneable	

* Centrally managed in InnoMaster

Changes without prior notice

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— D e u t s c h l a n d —

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