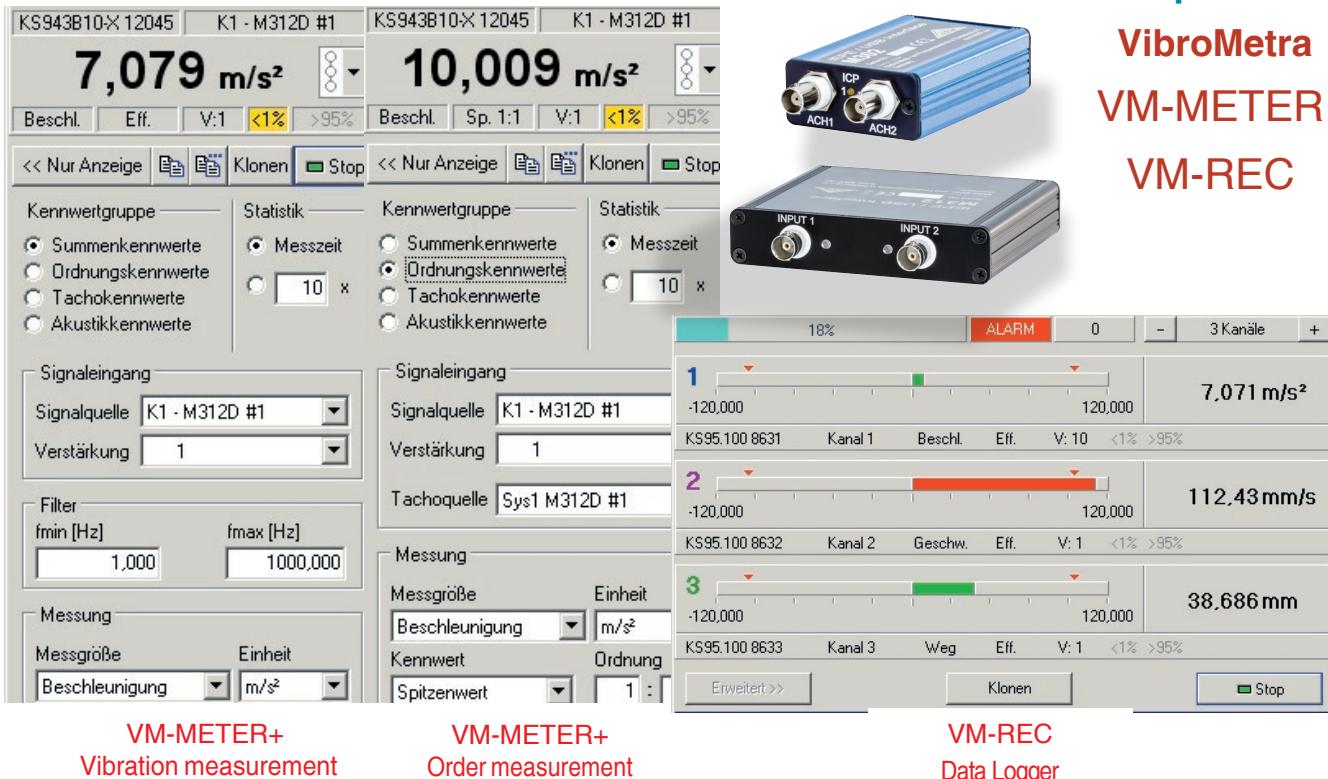


# PC Based Data Logger and Vibration Meter

7.1.4

PC Data  
Acquisition  
VibroMetra  
VM-METER  
VM-REC



- PC based measuring system using the IEPE / USB interfaces M302/M312 and IEPE compatible accelerometers

• **VM-METER:**

- Displays vibration acceleration velocity and displacement
- RMS, positive/negative peak, peak-to-peak, instantaneous value
- Main frequency and harmonic distortion additionally in VM-METER+
- Rotation speed measurement with photovoltaic reflex switch at digital input in VM-METER+
- High pass and low pass filters with high slope
- Clone function allows synchronous display in up to four windows, for instance with different filter or integrator settings
- Offline measurement of stored data

• **VM-REC:**

- Recording of vibration signals in binary or text format for later analysis
- Recording of raw signals or pre-processed signals like RMS and peak values
- High pass and low pass filters with high slope
- Recording of vibration acceleration and in version VM-REC+ also velocity and displacement
- Level triggered recording
- Pre and post trigger
- Trigger combination of all channels with and / or function
- Each triggering saves a log file with automatically generated file name which may include user defined variables
- Bar graph and numeric display of the vibration level
- Alarm levels indicated by changing bar graph colors
- Synchronous recording of up to four signals per window
- Clone function allows synchronous recording in up to four windows, for instance with different trigger settings

- Free update service from our website [www.MMF.de](http://www.MMF.de)

**Notice:** All software instruments are bilingual English / German



Absolute  
Gauge  
Technologies™

Presented by: Absolute Gauge Technologies  
sales@absolutegauge.com; [www.absolutegauge.com](http://www.absolutegauge.com),  
Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008

## Technical Data

Notice: For each channel a separate software license is required.

|                            | VM-METER+  | VM-METER  | VM-METER SE*  | VM-REC+   | VM-REC   |
|----------------------------|--|---|---|---|--|
| Function                   | Vibration meter  |   |   | Data logger   |  |
| Channels per window        | 1  | 1   | 1   | 1 - 4   | 1 - 4  |
| AC voltage                 | x  |   | x   | x   | x  |
| Vibration acceleration     | x  | x   | x   | x   | x  |
| Vibration velocity         | x  | x   | -   | x   | -  |
| Vibration displacement     | x  | x   | --  | x   | --   |
| Rotation speed             | x  | --  |   | --  |  |
| Harmonic Distortion        | x  | -   |   | -   |  |
| RMS value                  | x  | x   | x   | x   | x  |
| Peak-to-peak value         | x  | x   | x   | x   | x  |
| Absolute peak value        | x  | x   | x   | x   | x  |
| Positive peak value        | x  | x   | x   | x   | x  |
| Negative peak value        | x  | x   | x   | x   | x  |
| Instantaneous value        | x (slow)   | x (slow)  | x (slow)  | x   | x  |
| Rotation speed measurement | With photelectric reflex switch at digital input   | -   | -   | -   | -  |
| Display units              | mV, $\mu$ V, nV, pV, dB, $m/s^2$ , $mm/s^2$ , $\mu m/s^2$ , $nm/s^2$ , $pm/s^2$ , g, mg, $\mu$ g, $m/s$ , $mm/s$ , $nm/s$ , $pm/s$ , $in/s$ , $m$ , $mm$ , $\mu m$ , $nm$ , $pm$ , $in$ , $1/min$ , $1/s$ , Hz, kHz, % | mV, $\mu$ V, nV, pV, dB, $m/s^2$ , $mm/s^2$ , $\mu m/s^2$ , $nm/s^2$ , $pm/s^2$ , g, mg, $\mu$ g, $m/s$ , $mm/s$ , $nm/s$ , $pm/s$ , $in/s$ , $m$ , $mm$ , $\mu m$ , $nm$ , $pm$ , $in$ | mV, $\mu$ V, nV, pV, dB, $m/s^2$ , $mm/s^2$ , $\mu m/s^2$ , $nm/s^2$ , $pm/s^2$ , g, mg, $\mu$ g, $m/s$ , $mm/s$ , $nm/s$ , $pm/s$ , $in/s$ , $m$ , $mm$ , $\mu m$ , $nm$ , $pm$ , $in$ | mV, $\mu$ V, nV, pV, dB, $m/s^2$ , $mm/s^2$ , $\mu m/s^2$ , $nm/s^2$ , $pm/s^2$ , g, mg, $\mu$ g, $m/s$ , $mm/s$ , $nm/s$ , $pm/s$ , $in/s$ , $m$ , $mm$ , $\mu m$ , $nm$ , $pm$ , $in$ | mV, $\mu$ V, nV, pV, dB, $m/s^2$ , $mm/s^2$ , $\mu m/s^2$ , $nm/s^2$ , $pm/s^2$ , g, mg, $\mu$ g |
| Frequency range            | 0.3 - 2000 Hz (M302); 0.1 - 40 000 Hz (M312); free adjustable digital filter with 4 / 16 / 64 poles  | 0.1 - 40 000 Hz (only with M312)  | 0.1 - 40 000 Hz (only with M312)  | 0.3 - 2000 Hz (M302); 0.1 - 40 000 Hz (M312); free adjustable digital filter with 4 / 16 / 64 poles   |  |
| Numeric display            | 5-stellig; 0.001 .. 99999<br>5 digits; 0.001 .. 99999  |   |   | 5 digits; 0.001 .. 99999  |  |
| Bargraph display           | -  |   |   | Scale division with 10 ticks, marks for min./max. limit, color change into green/yellow/red depending on trigger condition  |  |
| Indicators                 | Sensor, measuring channel, measurand, parameter, gain, underload, overload   |   |   | Sensor, measuring channel, measurand, parameter, gain, underload, overload, log counter   |  |
| Refresh rate               | 1 to 4 times per second  |   |   | 1 to 4 times per second   |  |
| RMS and peak time window   | 0.1 - 10 s, free adjustable  |   |   | 0.1 - 10 s, free adjustable   |  |
| Trigger thresholds         | -  |   |   | 2 (maximum and minimum value)   |  |
| Trigger delay              | -  |   |   | 0 - 3600 s  |  |
| Pre trigger / Post trigger | -  |   |   | 0 - 30 s / 0 s - 24 h   |  |
| Recording speed            | -  |   |   | 1 - 10 000 samples per second   |  |
| Data format                | -  |   |   | Binary or text (ASCII)  |  |
| External messengers (opt.) | -  |   |   | email, large color display or FS20 radio switch system  |  |

\* VM-METER SE is a component of the combined licenses VM-SE FMP and VM-SE FMS

Specifications subject to change without prior notice.

**Notice:** A free trial version of VibroMetra can be downloaded from our website [www.MMF.de](http://www.MMF.de).