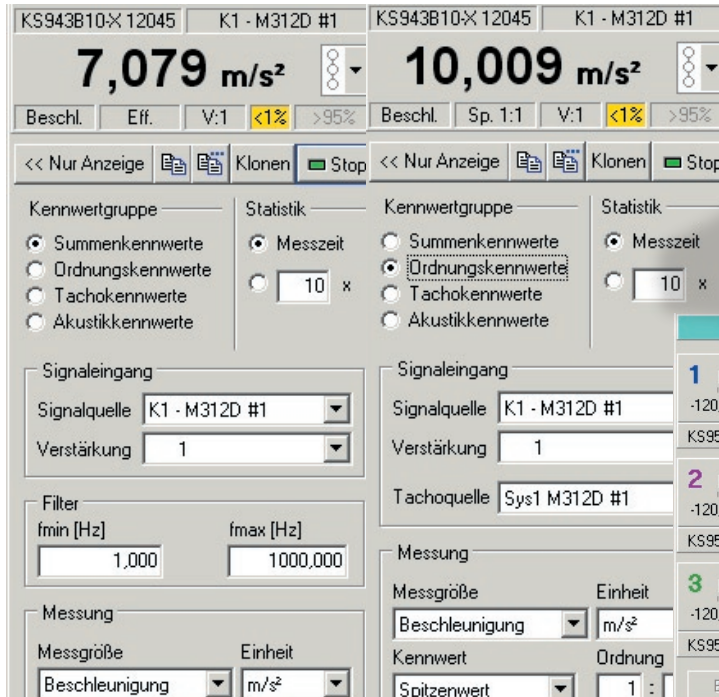


# PC Based Data Logger and Vibration Meter

7.1.4

PC Data  
Acquisition

VibroMetra  
VM-METER  
VM-REC



VM-METER+  
Vibration measurement

VM-METER+  
Order measurement

VM-REC  
Data Logger

- 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 photoelectric 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
  - Bargraph and numeric display of the vibration level
  - Alarm levels indicated by changing bargraph 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

## 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	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 photoelectric 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 <sup>2</sup> , 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 <sup>2</sup> , 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 <sup>2</sup> , g, mg, $\mu$ g	mV, $\mu$ V, nV, pV, dB, $m/s^2$ , $mm/s^2$ , $\mu m/s^2$ , $nm/s^2$ , pm/s <sup>2</sup> , 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 <sup>2</sup> , 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)	0.3 - 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 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).

**Metra Meß- und Frequenztechnik in Radebeul e.K.**

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