Price List 2009 Calibration Service – *Human Vibration* –

Calibration of vibrometers for human vibration

by DKD- Laboratory DKD-K-27801

Type	Scope of Calibration	EUR
1. Measurement Chain Human Vibration Vibrometer, Mechanical Sine-Calibration according to EN ISO 8041 Adjustment at reference frequency and determination of the deviation of displayed measurement values at 13 frequencies within the standard frequency ranges **0,5 Hz to 160 Hz** for whole-body-vibration human / building and **8 Hz to 2 kHz** for hand-arm-vibration. Frequency weighting according to article text below or according to customer specification. Tolerance limits of frequency weightings according to EN ISO 8041 will be checked. Additionally an amplitude linearity check of each measurement channel will be performed at reference frequency **15,85 Hz** for whole-body vibration and **79,43 Hz** for hand-arm-vibration.		
MK/HS-A-1-D	Calibration of a one-channel measurement chain with one frequency weighting, DKD-certificate	**265**
MK/HS-A-1-W	Calibration of a one-channel measurement chain with one frequency weighting, factory-certificate	**240**
MK/HS-A-H-3-D	Calibration of a three-channel measurement chain, **whole-body-vibration standard** with one frequency weighting per channel, **(x = Wd y = Wd z = Wk)**, DKD-certificate	**695**
MK/HS-A-B-3-D	Calibration of a three-channel measurement chain, **whole-body-vibration building** with one frequency weighting per channel, **(x = Wm y = Wm z = Wm)**, DKD-certificate	**695**
MK/HS-A-A-3-D	Calibration of a three-channel measurement chain, **hand-arm-vibration** with one frequency weighting per channel, **(x = Wh y = Wh z = Wh)**, DKD-certificate	**695**
MK/HS-A-C-3-D	Calibration of a three-channel measurement chain with one frequency weighting per channel **according to customer spec.**, DKD- certificate	**695**
MK/HS-A-H-3-W	Calibration of a three-channel measurement chain, **whole-body-vibration standard** with one frequency weighting per channel, **(x = Wd y = Wd z = Wk)**, factory-certificate	**635**
MK/HS-A-B-3-W	Calibration of a three-channel measurement chain, **whole-body-vibration building** with one frequency weighting per channel, **(x = Wm y = Wm z = Wm)**, factory-certificate	**635**
MK/HS-A-A-3-W	Calibration of a three-channel measurement chain, **hand-arm-vibration** with one frequency weighting per channel, **(x = Wh y = Wh z = Wh)**, factory-certificate	**635**
MK/HS-A-C-3-W	Calibration of a three-channel measurement chain with one frequency weighting per channel **according to customer spec.**, factory-certificate	**635**
	Options (extra charge)	
-M1	**Mechanical Sine-Calibration of an additional channel** with one frequency weighting according to EN ISO 8041	**220**
-E1	**Electrical Calibration of one measurement channel according to EN ISO 8041** Determination of the deviation of displayed measurement values at 15 frequencies within standard frequency ranges **0,25 Hz to 160 Hz** for whole-body-vibration or **4 Hz to 2 kHz** for hand-arm-vibration with one frequency weighting according to EN ISO 8041. Tolerance limits of frequency weightings according to EN ISO 8041 will be checked. Additionally an amplitude linearity check of each measurement channel will be performed at reference frequency **15,85 Hz** for whole-body vibration and **79,43 Hz** for hand-arm-vibration.	**190**
-E2	**Electrical Calibration of one additional frequency weighting** within standard frequency ranges **0,25 Hz to 160 Hz** for whole-body-vibration or **4 Hz to 2 kHz** for hand-arm-vibration. Tolerance limits of frequency weightings according to EN ISO 8041 will be checked.	**110**
2. Measurement Chain Human Vibration Vibrometer, further test according to EN ISO 8041		
HS-S	Calibration, adjustment, testing according to customer specification	**o.r.**

Lead time: About 7 working days after we receive order and devices for calibration. Shorter times possible on request.

Price terms: All price are net prices without taxes. For each shipment (up to 20 kg volume weight), a shipping and handling fee of 19 EUR (Germany) (incl. standard insurance of 2,500 EUR) will be added. For higher weights / insurance costs or shipping to other countries we add the real costs. For single orders of 5 or more sensors of the same type we will give a discount of 5 % on the net price. For annually 20 or more calibrations, special contracts can be agreed. For devices which turn out to be defect and can't be calibrated, we charge the real working costs, but at least 50 EUR plus shipping.

Note: Please send all sensors and/or measuring devices including parts like connecting cables, adaptors and documentation to SPEKTRA. For the manufacturing of necessary special adaptors or additional costs for repair of defect devices before calibration we keep the right to increase the price after consultation with the customer.

Further calibration services at SPEKTRA:

- Calibration of acoustic devices
- Recalibration of vibration calibration systems
- Calibration of vibration test systems in our laboratory or at customer site
- Calibration of laser vibrometers
- Calibration of inclinometers
- Calibration of pre-loaded force sensors

This price list supersedes any previous ones. Subject to change without any notice, errors excepted. April 2009

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