

## Acoustics, Ultrasound and Vibration, Poland, GUM (Główny Urząd Miar, Central Office of Measures)

Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty					Comments
Quantity	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of confidence	Is the expanded uncertainty a relative one?	
Sound pressure response level	Sound level meter	Polish regulation issued by the President of GUM consistent with OIML R58 and R88	73	125	dB (reference: 20 $\mu$ Pa)	Frequency	1 kHz	0.2	dB	2	95%	No	Approval on 29 September 2004
Sound pressure level	Pistonphone or sound calibrator single frequency 160 Hz to 1 kHz	Calibrated measurement microphone	70	130	dB (reference: 20 $\mu$ Pa)	Microphone type	LS1P	0.05	dB	2	95%	No	Approval on 29 September 2004
Sound pressure level	Pistonphone or sound calibrator single frequency 160 Hz to 1 kHz	Calibrated measurement microphone	70	130	dB (reference: 20 $\mu$ Pa)	Microphone type	WS1P	0.06	dB	2	95%	No	Approval on 29 September 2004
Sound pressure level	Pistonphone or sound calibrator single frequency 160 Hz to 1 kHz	Calibrated measurement microphone	70	130	dB (reference: 20 $\mu$ Pa)	Microphone type	LS2P	0.06	dB	2	95%	No	Approval on 29 September 2004
Sound pressure level	Pistonphone or sound calibrator single frequency 160 Hz to 1 kHz	Calibrated measurement microphone	70	130	dB (reference: 20 $\mu$ Pa)	Microphone type	WS2P	0.06	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Measurement microphone type LS1	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	63 Hz to 2.0 kHz	0.03	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Measurement microphone type LS1	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	2.5 kHz to 4 kHz	0.04	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Measurement microphone type LS1	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	5 kHz to 8 kHz	0.05	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Measurement microphone type LS1	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	10 kHz	0.09	dB	2	95%	No	Approval on 29 September 2004

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Quantity	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of confidence	Is the expanded uncertainty a relative one?	
Pressure sensitivity level	Laboratory standard microphone type LS2	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	63 Hz to 6.3 kHz	0.05	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Laboratory standard microphone type LS2	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	8 kHz	0.06	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Laboratory standard microphone type LS2	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	10 kHz	0.07	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Laboratory standard microphone type LS2	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	12.5 kHz	0.08	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Laboratory standard microphone type LS2	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	16 kHz	0.09	dB	2	95%	No	Approval on 29 September 2004
Pressure sensitivity level	Laboratory standard microphone type LS2	IEC 61094-2:1992			dB (reference: 1 V/Pa)	Frequency	20 kHz	0.17	dB	2	95%	No	Approval on 29 September 2004
Charge sensitivity (magnitude)	Standard accelerometer	Comparison, ISO 16063-21	1E-13	1E-12	C/(m/s <sup>2</sup> )	Frequency	20 Hz to 5 kHz	1	%	2	95%	Yes	Approval on 29 September 2004
Voltage sensitivity (magnitude)	Acceleration measuring chain	Comparison, ISO 16063-21			V/(m/s <sup>2</sup> )	Frequency	20 Hz to 5 kHz	0.8	%	2	95%	Yes	Approval on 29 September 2004
Charge sensitivity (magnitude)	Accelerometer	Comparison, ISO 16063-21	1E-13	1.2E-10	C/(m/s <sup>2</sup> )	Frequency	12.5 Hz to 20 Hz	1.6	%	2	95%	Yes	Approval on 29 September 2004
Charge sensitivity (magnitude)	Accelerometer	Comparison, ISO 16063-21	1E-13	1.2E-10	C/(m/s <sup>2</sup> )	Frequency	25 Hz to 2.5 kHz	1.3	%	2	95%	Yes	Approval on 29 September 2004

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Quantity	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of confidence	Is the expanded uncertainty a relative one?	
Charge sensitivity (magnitude)	Accelerometer	Comparison, ISO 16063-21	1E-13	1.2E-10	C/(m/s <sup>2</sup> )	Frequency	3.15 kHz to 5 kHz	1.6	%	2	95%	Yes	Approval on 29 September 2004
Voltage sensitivity (magnitude)	Acceleration measuring chain	Comparison, ISO 16063-21			V/(m/s <sup>2</sup> )	Frequency	12.5 Hz to 20 Hz	1.5	%	2	95%	Yes	Approval on 29 September 2004
Voltage sensitivity (magnitude)	Acceleration measuring chain	Comparison, ISO 16063-21			V/(m/s <sup>2</sup> )	Frequency	25 Hz to 2.5 kHz	1.2	%	2	95%	Yes	Approval on 29 September 2004
Voltage sensitivity (magnitude)	Acceleration measuring chain	Comparison, ISO 16063-21			V/(m/s <sup>2</sup> )	Frequency	3.15 kHz to 5 kHz	1.4	%	2	95%	Yes	Approval on 29 September 2004
Acceleration (magnitude)	Calibrator	Calibrated standard accelerometer	3.16	10	m/s <sup>2</sup>	Frequency	159.2 Hz and 79.6 Hz	0.8	%	2	95%	Yes	Approval on 29 September 2004