

# ACCREDITATION SCOPE OF CALIBRATION LABORATORY No AP 146

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**POLISH CENTRE FOR ACCREDITATION**  
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AP 146	Name and address  <b>SVANTEK Sp. z o.o.</b> <b>CALIBRATION LABORATORY</b> <b>ul. Strzygłowska 81</b> <b>04-872 Warsaw</b>
Category of laboratory: Acting in constant headquarters (S)	Areas of accreditation <sup>1)</sup> Acoustics and ultrasounds (2.01, 2.03)

Edition: A

<sup>1)</sup> The numbering of fields and sub-fields in accordance with the classification given in the Annex to document DAP-04, available online at [www.pca.gov.pl](http://www.pca.gov.pl)

**DIRECTOR**

**LUCYNA OLBORSKA**

Name of the physical quantity and the type of measuring instrument	Measurement range	Calibration and Measurement Capability (CMC)	Lab. Cat.	Identification of the method
<b>2. Acoustics and ultrasounds</b>				
<b>2.01 Acoustics</b>				
Acoustic calibrators: - sound pressure level	90 dB ÷ 120 dB (rel. to 20 µPa) nominal frequency: 1 kHz	0.08 dB	S	IN-01 (IEC 60942:2005)
Sound level meters: - response to a signal from the acoustic calibrator	90 dB ÷ 120 dB (rel. to 20 µPa)	0.2 dB		IN-02 (IEC 61672-3:2005 IEC 61672-3:2013)
- response to the electrical measurement signals - frequency response of the sound level meter in the free field	0 dB ÷ 140 dB (rel. to 20 µPa) frequency range: 20 Hz ÷ 20 kHz 20 Hz ÷ 20 kHz frequencies: 125 Hz, 1 kHz, 4 kHz 8 kHz	0.2 dB  0.3 dB 0.4 dB		
1/1 and 1/3 octave filters: - relative attenuation	0 dB ÷ 100 dB; ≤ 70 dB > 70 dB centre frequency of the filter 20 Hz ÷ 20 kHz	0.2 dB 0.3 dB		IN-04 (IEC 61260:1995 IEC 61260-1:2013)
Personal sound exposure metres - response to signal from acoustic calibrator - response to electrical measurement signals - frequency characteristics in the free field, expressed in dB, rel. to 20 µPa	Sound pressure level of the calibrator: 90 dB ÷ 120 dB, measurement time: 60 s ÷ 120 s 0.3 Pa <sup>2</sup> h ÷ 105 Pa <sup>2</sup> h  63 Hz ÷ 4 kHz 4 kHz ÷ 8 kHz	4.0 %  3.0 %  0.4 dB 0.6 dB		IN-03 (IEC 61252:2000)
<b>2.03 Mechanical vibrations</b>				
Vibration transducers - reference sensitivity - frequency response	(0.1 ÷ 1000) pC·m <sup>-1</sup> ·s <sup>2</sup> (0.1 ÷ 1000) mV·m <sup>-1</sup> ·s <sup>2</sup> frequencies: 16 Hz and 80 Hz  0.5 Hz ÷ 2 kHz frequencies: 0.5 Hz ÷ 0.8 Hz 1 Hz ÷ 16 Hz 20 Hz ÷ 500 Hz 630 Hz ÷ 2000 Hz	1.8 %  2.3 % 2.1 % 1.8 % 2.1 %	S	IN-07 (ISO 16063-21:2003)
Human response to vibration - Measuring instrumentation - response to reference signal to mechanical signal - response to reference signal to electrical signal - frequency characteristics of the meter for mechanical signals for Wk, Wd filters - frequency characteristics of the meter for mechanical signals for Wh filter - frequency response to electrical signal - response to electrical measurement signals	1 ms <sup>-2</sup> for 15.915 Hz 10 ms <sup>-2</sup> for 79.580 Hz  1 ms <sup>-2</sup> for 15.915 Hz 10 ms <sup>-2</sup> for 79.580 Hz  frequencies: 0.5 Hz ÷ 0.63 Hz 0.8 Hz ÷ 1 Hz 1.25 Hz ÷ 125 Hz 160 Hz  frequencies: 8 Hz ÷ 20 Hz 25 Hz ÷ 500 Hz 630 ÷ 1600 Hz 2000 Hz  0.25 Hz ÷ 2 kHz  - linearity - response to impulse signal	1.8%  1.8%  3.3 % 2.9 % 2.5 % 2.6 %  2.3 % 2.1 % 2.3 % 2.4 %  1.3 %  1.5 %  2.6 %		S

	Vibration calibrators	for frequency and acceleration nominal values: 16 Hz, 1 ms <sup>-2</sup> ; 80 Hz, 10 ms <sup>-2</sup> 160 Hz, 10 ms <sup>-2</sup> ; 630 Hz, 10 ms <sup>-2</sup>	1.5 %	S	IN-06
	Meters for vibration of machines  - response to reference signal for mechanical signal - frequency characteristics of the meter for mechanical signals	10 ms <sup>-2</sup> for 80 Hz frequencies: 8 Hz ÷ 20 Hz 25 Hz ÷ 500 Hz 630 Hz ÷ 1600 Hz 2000 Hz	1.8 % 2.3 % 2.1 % 2.3 % 2.4 %	S	IN-10

Edition: A

The Calibration and Measurement Capability (CMC) is the expanded uncertainty at a confidence level of app. 95%. Value expressed as a percentage refers to the percentage of the measured value. In other cases, the CMC is expressed in units of the measured value.

## **List of changes Accreditation Scope No AP 146**

**Status of changes: the original version – A**

**Approved status of changes**

**DIRECTOR**

**LUCYNA OLBORSKA**

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