PKF ZIFROVYE PRIBORY
Octava-ElectronDesign
Group Company

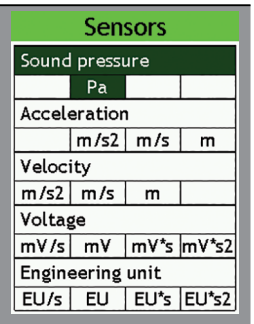
ECOPHYSIKA-110A

EKOPHISIKA-110A – new generation of sound and vibration analyzers

NEW FEATURES

Sensor Manager handles the sensor catalog, sensor and calibrator cards, calibration settings

List of available transducers can be accessed in a measurement program

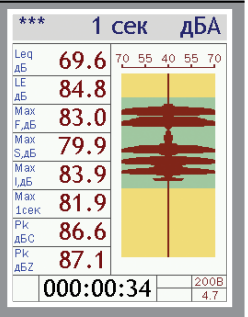


Graphic time-history provides visual presentation of the process development in real time

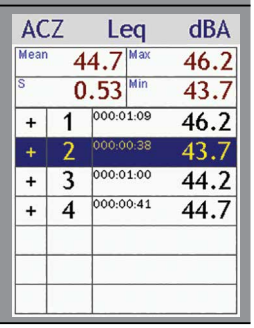
Multi-step Backerasing excludes damaged measurement data

Acoustic Calculator selects areas of interest in the time history and makes calculation for the selected areas only

Post-processing of auto-saved files may be done by the analyzer without an external PC



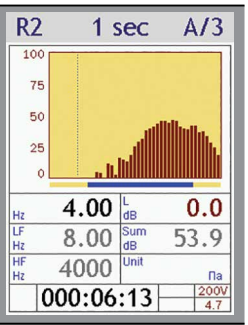
Repeated Measurement combines data of several manual measurements in a common file, and provides tools for statistics calculation



Notepad is a text logbook of measurements

1/3-octave band analysis with frequency weightings

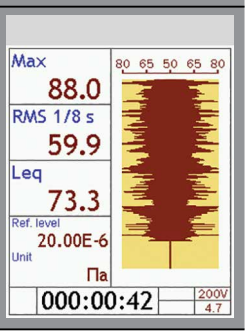
Derivative units (e.g., calculation of velocity or displacement spectra for acceleration transducers)



Multichannel signal registrator mode

USB Audio

Real-time data transfer through the USB port without extra interface adapters



ECOPHYSIKA-110A

APPLICATIONS

Occupational health and community hygiene
Building acoustics
Machine testing and certification
Speech transmission
Research & Development

FEATURES

Number of channels: 1
Direct connection of condenser microphones, IEPE transducers, EF and MF antennas (P6-71/P6-70)
Sound level measurements – class 1 sound level meter (GOST 17187-2010, IEC 61672-1)
Ultrasound measurement (up to 40 kHz, depending on the frequency range of the microphone)
Infrasound measurement
Whole-Body and Hand-arm vibration measurement (GOST ISO 8041)
1/1-, 1/3-, 1/12-octave band analysis (class 1 filters, GOST R 8.714, IEC 61260)
FFT analyzer, narrow band analyzer (selective voltmeter)
Autostorage of measured data and/or signal digital time waveforms to the instrument memory
Post-processing of the recorded digital signals
4 GB non-volatile memory
Real time data transfer to external devices, remote control of the instrument
Display of the measurement results from external digital transducers

SETS OF FIRMWARE MEASUREMENT PROGRAMS

Engineering Acoustics WE-110A
1/3-octave analyzer MIC
1/12-octave analyzer MIC
uV-meter MIC
FFT analyzer MIC
Ultrasound 40 kHz
P6-70
P6-71

Sanitary Acoustics WE-110A
Ecosound WE-110A
Whole Body Vibration WE-110A
Hand-Arm Vibration WE-110A
Ultrasound 40kHz
P6-70
P6-71

Digital Transducers DIN
Whole Body Vibration -DIN
Hand-Arm Vibration -DIN
P3-81-01
P3-81-02
EcoTerma-1-DIN
TTM-2-04-DIN
P3-80-E
P3-80-E300
P3-80-E400
P3-80-H300
P3-80-H400
EcoLight-01-DIN

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TECHNICAL SPECIFICATION

Standards	Sound level meter:	GOST 17187-2010, IEC 61672-1 (class 1)	
	Human vibration meter:	GOST ISO 8041	
	Spectrum analyzer:	GOST R 8.714-2010, IEC 61260 (class 1)	
Sound level meter specification	Measurement level range, dB (A)	от 22 до 140*	
	Frequency weightings	A, C, Z, AU, FI, G	
	Time metrics	S, F, I, Peak, Leq	
		** For sensitivity of 50 mV/Pa*	
Vibration meter short specification	Measurement level range (Wk), dB re $1 \cdot 10^{-6}$ m/s^2	60 to 192**	
	Frequency weightings	Wb, Wc Wd, We, Wj ,Wk, Wm, Wh, Fk, Fm, Fh	
	Time metrics	RMS, MTVV, Peak, Leq, VDV	
		*** For sensitivity of 1,1 mV/ms^{-2}*	
1/n-octave band analyzer	Octave band filters, Hz	1 - 16000	
	1/3-octave band filters, Hz	0,8 - 40000	
	1/12-octave band filters, Hz	102,9…9716	
Narrow band analyzer (FFT-1, uV-meter	Frequency Range, Hz	1 - 48000	
	Selective bandwidth,Hz	1; 1,5; 2,2; 3,3; 4,7; 6,8; 10; 15; 22; 33; 47; 68; 100	
	FFT lines	200	
	ZOOM	4 to 32	
Accuracy of voltage RMS value measurement , %		2 Hz to 10 Hz	3
		10 Hz to 10 kHz	1,5
		10 kHz to 45 kHz	2
Data storage		Autosave with Post-processing, Simple Autosave, Repeated Measurement, Signal, Notepad log	
Power		4 x LR6 type batteries (AA size) or external source through USB port	
Weight, kg		<0,55	
Size (L x D x H), mm		240 x 86 x 35	
Interfaces	display	TFT, color, 320 x 240	
	D-OUT	galvanic isolated UART	
	D-IN	Input for digital transducers	
	USB		

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