

VIBRATION METER ADL M10



Portable **vibration meter ADL M10** - is a new development of the company for monitoring, diagnosing, controlling and solving problems related to the vibration state of various industrial equipment by the root-mean-square value of vibration velocity, vibration acceleration peak, vibration displacement range, diagnostics of rolling bearings in relation to peak factor, determination of the spectral composition of the vibration velocity signal and binding measurements to generally accepted regulatory documents

Unique feature of vibration meter is ability to view real-time data on the device itself and on a tablet, smartphone or laptop by using special application by built-in Bluetooth 5.2 function in this device.

The vibration meter ADL M10 **uses the most modern components and technical solutions.** Measurement accuracy is ensured by a high-quality sensor and a powerful processor that supports advanced mathematical algorithms for filtering and processing the measurement signal.

The ADL M10 vibration meter will help ensure trouble-free operation and reduce the cost of repair and maintenance of industrial equipment by detecting wear and damage at an early stage.

The main advantages of this vibration meter:

- minimal design with magnetic mount and the possibility of mounting on the M5 stud, which completely eliminates the influence of the human factor on the measurement process;
- ability to use a removable tip (probe) for vibration measurements in hard-to-reach places;
- high accuracy of measurements on 3 parameters of vibration: vibration velocity, vibration acceleration, vibration displacement;
- diagnostics of rolling bearings by crest factor;
- determination of the spectral composition of the vibration signal using specialized software on a mobile device;
- high level of protection against hits and drops;
- built-in accumulator;
- Bluetooth 5.2 connection;
- own operating system based on the ADL Multitab system, developed specifically for the ADL series instruments;
- ability to work with Android, Windows, IOS;
- real-time data transmission;
- built-in real-time clock allows you to register events regardless of the connection to external devices;
- built-in flash memory for data log storage;
- built-in screen;
- possibility of color indication of exceeding the specified vibration parameters on the screen of the vibration meter;
- the ability to transfer data to the global system APCS (Automated process control system);
- saving emergency values;
- measurement resolution up to 0.01;
- bright **LED** display;
- simplicity and ease of use.



A distinctive feature and uniqueness of the ADL M10 vibration meter is the ability to work in 4 different modes:

The classic vibrometer involves the use of the device as an indicator of the overall level of vibration, measurement of peak values, movement or diagnostics of rolling bearings by peak factor.

This mode will be useful for daily monitoring of equipment: pumps, gearboxes, electric drives and turbine plants, including both individual components of rotary equipment, and the entire unit as a whole, which will provide a general understanding of the vibration state of industrial equipment at the enterprise.

The "acceleration-coast" mode is applicable for primary diagnostics of equipment after repairs, when switching work to standby units, including pumps and electric drives, blowers, turbines, compressors, mills, gearboxes and other equipment that is subject to frequent starts and stops.

The main purpose of this diagnostic is to avoid destruction of the equipment when changing the speed and passing the critical frequencies of the shafting.

The monitoring mode will be useful if it is necessary to track the change in vibration characteristics over a certain period of time and evaluate the quality of repairs, the operation of new equipment or changes under various loads.

In this mode, it is possible to carry out a full vibration examination and monitoring of any industrial equipment, including gearboxes, pumps, gas blowers, turbines, blowers and conveyors.

The crawler mode is designed to inspect equipment along a given route, with a large number of objects and control points.

The possibility of equipping the vibration meter with an NFC module using NFC tags installed along the route at each controlled point, followed by uploading measurement data to specialized software for building trends and creating an archive of the technical condition of the equipment for a long period of time.

This mode will greatly facilitate the monitoring of all equipment in the enterprise, will allow you to build an efficient and convenient route for a planned bypass and involve not specialized specialists, but line personnel, while eliminating confusion and errors during measurements.



Specifications

Parameter	Value
Limit of measurement of the maximum amplitude of vibration acceleration ,m/s ²	50
Limit of measurement of root-mean-square value of vibration velocity,mm/s, at 160 Hz at 10 Hz	35,2 563
Vibration displacement measurement limit up to, µm at 160 Hz at 10 Hz	100 2000
Possibility to evaluate outliers in the vibration signal	Available
Possibility of estimation of the spectral composition and temporal form of the vibration signal	Available by using a mobile device and software
Frequency range	10-1000 Hz
Measurment error	± 5%
Protection class IP sensor	IP 54
Power supply of the sensor	Rechargeable Li-Ion Battery: 3,7 V; 1,5Ah
Battery life depending on the mode	Up to 8 hours
Battery Charging Connector	USB, type C
Charging time, h	2,5
Operating temperature range	-10°C ... +40°C
Humidity, %	95
Overall dimensions (with magnetic fastening), mm	35x35x110
Screen type, size, mm	LED, 0,96''
Weight, g	170

STANDARD DELIVERY SET

- Vibrometer ADL M10 -1 pc.
- Charger - 1 pc.
- USB charger cable - type C - 1 pc.
- Bag for carrying and storage - 1 pc.
- Magnetic mount - 1 pc.
- User's manual combined with a passport - 1 pc.