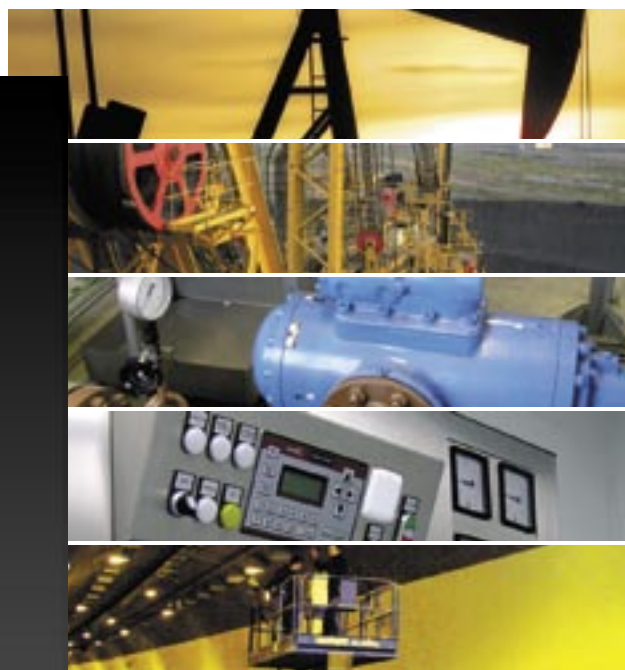
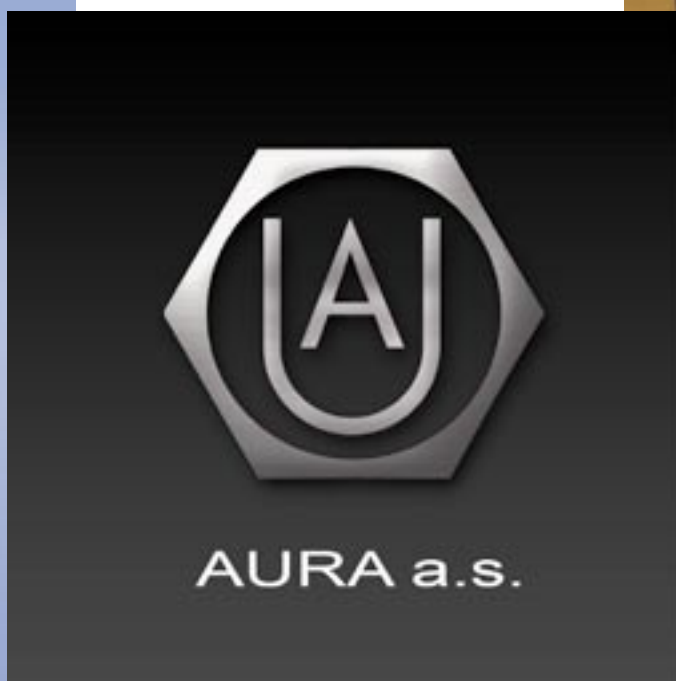


Best selling products overview of company AURA a.s.



The most frequent areas of application of AURA a. s. products



- Petrol industry
- Mines and mining industry
- Metallurgy and heavy industry
- Deliveries for chemical industry
- Road and railway tunnels
- Aviation technology
- Water and wind power plants
- Vibration transport
- Manual measuring instruments

Sensors of vibrations

Our company is one of the world-wide primary producers of sensors for measurement of vibrations. Due to long-term experience in this area and efforts for innovations, we managed to develop a self-contained series of products recommended for almost all areas of vibration diagnostics. In the product series we also have a variant with Certificate for Ex environment.

Key properties – passive sensors:

- High sensitivity
- Standardized connectors
- High thermal resistance (up to 240°)
- Industrial and laboratory variant

Key properties – active sensors:

- Full signal processing
- Without the necessity for a further converter
- Possibility to use further cable system
- Standardized output 4-20mA

Passive laboratory sensors	Measured value of vibrations	Input signal	Sensitivity/range	Temperature range	Purpose, use
SV100	Instantaneous acceleration	Charge	3pC/ms-2	- 40°C to + 240°C	Calibration of vibration sensors, radial connector
SV128	Instantaneous acceleration	Charge	3pC/ms-2	- 40°C to + 240°C	General use with requirements for common mechanical resistance, radial connector
SV129	Instantaneous acceleration	Charge	3pC/ms-2	- 40°C to + 240°C	General use with requirements for common mechanical resistance
SV162	Instantaneous acceleration	Charge	10pC/ms-2	- 40°C to + 240°C	Increased sensitivity, common mechanical resistance
Passive sensors of vibrations, industrial	Measured value of vibrations	Input signal	Sensitivity/range	Temperature range	Purpose, use
SV155	Instantaneous acceleration	Charge	3pC/ms-2	- 40°C to + 240°C	Galvanic-separated sensor for industrial use, radial connector
SV156	Instantaneous acceleration	Charge	3pC/ms-2	- 40°C to + 240°C	Industrial conditions – increased demands for mechanical resistance
SV156 Ex	Instantaneous acceleration	Charge	3pC/ms-2	- 40°C to + 240°C	Industrial conditions – increased mechanical resistance, EX variant
SV164	Instantaneous acceleration	Charge	10pC/ms-2	- 40°C to + 240°C	Industrial conditions – increased demands for mechanical resistance
Active sensors of vibrations, industrial	Measured value of vibrations	Input signal	Sensitivity/range	Temperature range	Purpose, use
ASV3 Ex	Eff./p-p speed	4-20mA	0-20/50/100mm/s	- 5°C to + 60 (80)°C	Full evaluation of signal, Certificate for Ex environment
ASV5 Ex	Eff./p-p speed	4-20mA	0 - 25 mm/s	- 40°C to + 100°C	Full evaluation of signal, Certificate for Ex environment
ASV6	Effective speed	4-20mA	0-20/50/100mm/s	- 40°C to + 85°C	Full evaluation of signal



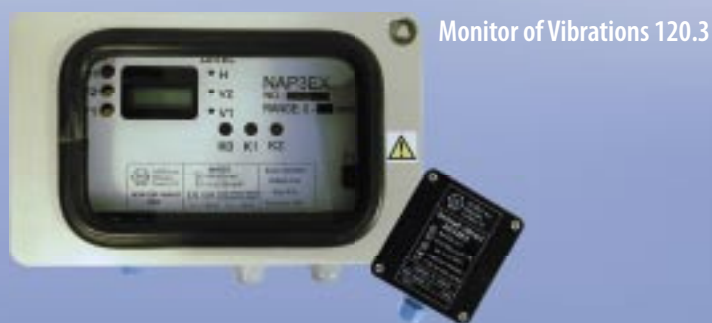
Operating monitors

For advanced diagnostics of rotating machines we deliver a series of operating monitors. For basic diagnostics the product series starts with a single-channel JPK monitor and continues with a MPS multi-channel monitor which enables the processing of key values, such as vibrations and temperatures within the required quantity. The series is closed by the MMPS modular system enabling full processing of not only vibration and temperature signals, but also all physical values – e.g. pressure, speed of rotation, direction, relative vibrations, torque moment ... Selected products are approved for use in environments with a risk of explosion – Ex or are certified for the use in civil and military aviation.

Name	Number of measured channels	Measured values	Outlets	Specification	Special properties
JPK	1	Vibrations	4-20mA/RS485/ relay/display	Industrial machines	Compact monitor, user-adjustable ranges
MPS	4-12	Vibrations, temperatures, bearings, physical values	4-20mA/RS485/ relay/display	Industrial machines	Multi-channel monitor for greater machines, user-adjustable
MMPS	1-200	Vibrations, temperatures, bearings, physical values	Analogue/ RS485/ Ethernet/ GSM/relay/display	Industrial machines	Modular system for small and large sources, optional number of channels
120.3	1	Vibrations	Relay/display	Industrial machines	Monitor Ex variant - centrifuge, diesel and mining mines, etc.
MLM	2	Vibrations, bearings condition	Analogue	Aircraft engines	Certificate for military and civil aviation



JPK 2.2



Monitor of Vibrations 120.3



MPS 40



System MMPS



MLM 1.2

Monitoring of rotation

During diagnosis of the rotating machine, the rotation monitoring is an important element. For these applications we offer modules for a wide spectrum of use. The basic variant is module ISN 521 monitoring the change of rotation speed. Typical applications for which this type are used slow down the speed of rotation. An example can be a belt, worm or spiral conveyers. Blocking with material will often cause irrevocable deformation of equipment which can be monitored by means of our equipment, and to disconnect the machine or inform the operator on the basis of the stated parameters. A significant advantage is the distance of rotating substance from the sensor which can be up to 80 mm according to the correctly selected parameters. Further representatives are ISN 1521 units enabling exact measurement of the number of revolutions or 1521.3 units which are equipped with checking the direction of rotation. This data is very important, for example, for the application of ventilators in car tunnels. A significant advantage is the possibility to monitor rotation of ferro-magnetic materials, as well as rotating parts made of light metals.



Name	Position	Output	Display	Probe	Special properties
ISN 521	Monitoring of revolutions	Relay	LED indicators	Induction	High sensitivity for distance up to 80 mm, reading through the wall
ISN 1521	Measurement of revolutions	4-20mA/RS485	Numeric	Induction/eddy currents	Exact evaluation of number of revolutions
ISN 1521.3	Measurement of direction and number of revolutions	4-20mA/RS485	Numeric	Induction/eddy currents	Evaluation of number of revolutions and direction of rotation

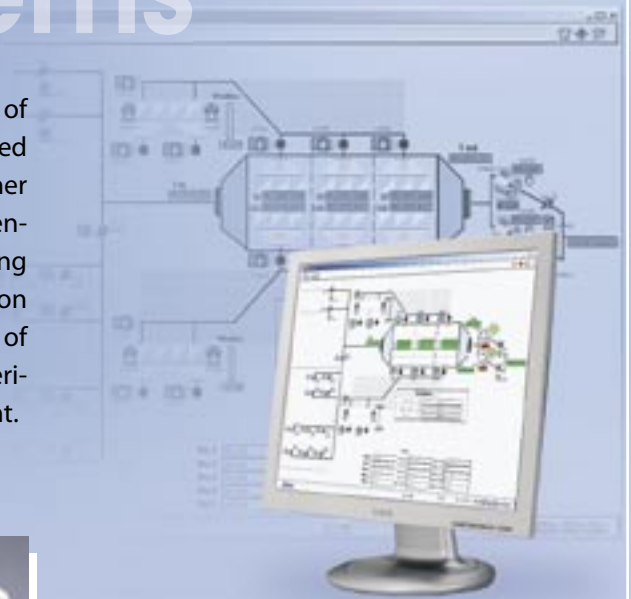
Manual measurement



Name	Construction	Measured values of vibrations	Evaluation	Data collector	SW support	Purpose, use
MV-4 (MV-4L)	Compact vibration meter	Acceleration, speed, deviation	Eff, p-p, f, diagnostics for bearing status	Yes, 200 measurements	MV4 - Data Manager	Round measurement, inspection of firm diagnostics
Name	Construction	Measured values of vibrations	Evaluation	Data collector	SW support	Purpose, use
C8-USB	USB converter of vibrations to PC	Acceleration, speed	Time sample, FFT	No, direct data storage in PC	Spec. application Lab View	Recording recorded for further evaluation (FFT etc.)

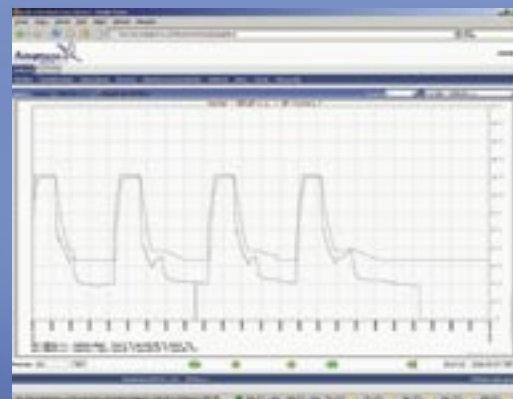
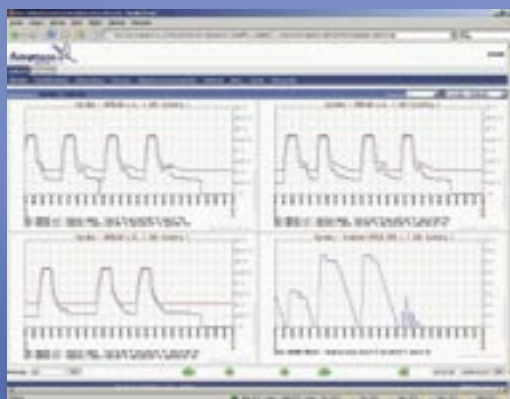
Control systems

To ensure comprehensive services, our company offers delivery of industrial control systems. We mainly specialize in deliveries based on the SIMATIC® platform and Alan-Bradley®, and also from other producers of PCL automated machines. We perform comprehensive deliveries of HW and complete preparation of SW, including visualization on operator computers and panels. For visualization we implement the Citec system®. Our domain is the control of electric separators, technological processes, transport of materials and other systems according to the requirement of the client.



Information systems

Most our equipment enables to provide standardized outputs, e.g. by means of a 4-20mA current loop or series communication according to the wish of the client (typically MODBUS RTU). Our work is not finished by this fact. We build for our clients fully tailor-made information systems which enable not only to collect data, visualization and evaluation of measured values, but also full integration into the existing information system or connection of signals and communication of third party equipment. For visualization, the most often delivered systems are based on Citec, LabView standards or our own interface using Html format.



Services

Selection of services provided in the area of technical diagnostics:

- Consultancy, solution design, consulting
- Preparation of projects
- Development of products and SW
- Installation and commissioning
- Calibration services
- Cooperation on important projects



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