OneProd
MVX

Online surveillance and condition monitoring system

Brand of ACOEM

Condition monitoring

Combine OneProd MVX with the OneProd XPR software and create a powerful condition monitoring network, well suited to all types and all sizes of machines.

OneProd MVX's built-in intelligence calculates indicators and sends them to the software platform, so that this single system can deliver both surveillance and diagnostic functions.

Real-time surveillance

OneProd MVX can now detect and catch transient phenomena, even those shorter than a millisecond, throughout 100% of the signal.

The time wave signals are recorded with a pre-trigger on all relevant channels, to analyze the event later.

This real-time processing brings effective results, you can for example:
• catch and record a transient event on a turbine to analyze it
• drive a steel mill based on its instantaneous vibration behavior

Stand-alone surveillance

OneProd MVX easily performs stand-alone monitoring of one or several machines, when the system is set up with the OneProd CSM configuration tool.

Indicators calculated locally by OneProd MVX can be displayed in a concise way via the OneProd VIO viewer software or transferred to the controller system.

Communication

OneProd MVX communicates and transfers results to the OneProd XPR software through a secured Ethernet network. The operator can use the local wired network, a Wi-Fi network or a connection through Internet such as GSM.
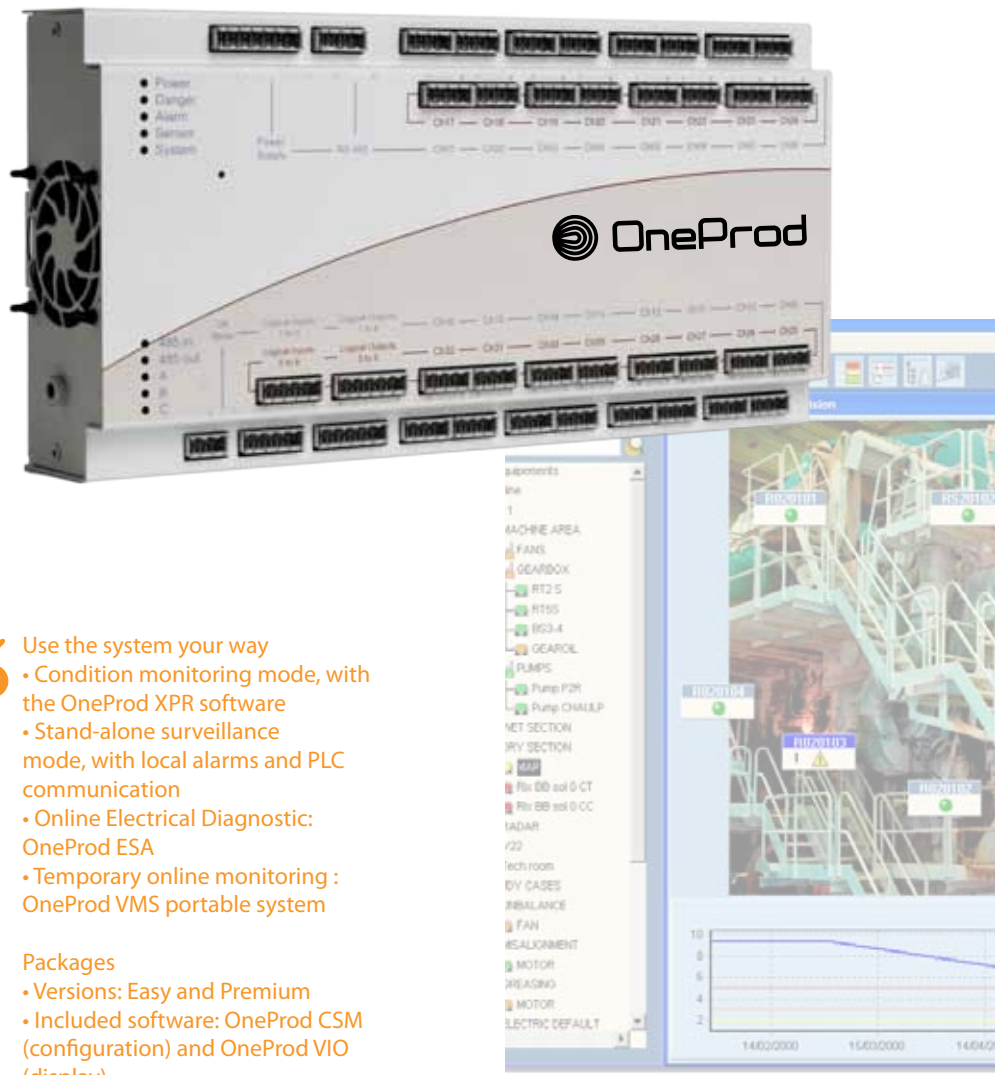
At the same time, OneProd MVX provides all its scalar results locally via MODBUS (either through RS485 or through Ethernet).

OneProd MVX, Online surveillance and condition monitoring system

OneProd MVX: local intelligence and smart design

OneProd MVX is a continuous monitoring system, built to increase the reliability of industrial machines from all sectors. Its optimized design insures that the monitoring is reliable, and performed at the best cost. Its modular configuration gets the system to adapt to your way of predictive maintenance.

OneProd MVX is part of the OneProd System platform, which insures the integration of data acquired online with the data acquired offline through the OneProd database.

" Use the system your way
• Condition monitoring mode, with the OneProd XPR software
• Stand-alone surveillance mode, with local alarms and PLC communication
• Online Electrical Diagnostic: OneProd ESA
• Temporary online monitoring : OneProd VMS portable system

Packages
• Versions: Easy and Premium
• Included software: OneProd CSM (configuration) and OneProd VIO (display)

OneProd MVX,
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A system built for your efficiency

Focus on the relevant data
The built-in intelligence allows the system to trigger acquisitions based on the operating conditions

Get all the necessary alerts for an efficient analysis
Indicators are calculated within the system to trigger alarms locally and send alerts

Monitor even the low speed rotating machines
ShockFinder® is a built-in algorithm, able to catch problems that are invisible to standard vibration analysis methods

Rely on a reliable system
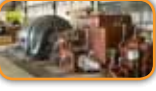The system's flash memory feature insures autonomy and continuity among measurements

Benefit from a robust product
Resistance to industrial environment and optional IP65 enclosure

Key performances of the system

Synchronous acquisition on all channels, and long timewave signal acquisition in recording mode

Operating conditions are taken into account to monitor complex machines: variable speed, variable load, ...

Built-in intelligence, with the dedicated ShockFinder® tool to monitor low rotation speed machines

Real-time monitoring and event recording using programmable pre-trigger

Online Electrical Diagnosis

Modular product with 8, 16, 24 or 32 channels

MAIN TECHNICAL SPECIFICATIONS

Specifications	MVX 160	MVX 320
Analog inputs	8 or 16	24 or 32
	- IEPE Accelerometer, Velocimeter, Proximity probe - Voltage: +/-24V AC or DC or 4/20 mA current	
Logical inputs	4	8
	0 / 24V DC opto-isolated	
Logical outputs	4 alarm outputs 1 integrity output	8 alarm outputs 1 integrity output
	Alarm: PNP (voltage from 5 to 24V) Integrity: 1 SPDT relay	
Flash buffer	750 MB	
Communication with XPR	Ethernet; Wi-Fi, GSM, and satellite compatible	
Export of scalar results	MODBUS-RTU on 2-wire RS485 (slave) Modbus-TCP on Ethernet	
Power supply	24V DC / 2A	
Mounting	TS 35 DIN Rail; Optional Baseplate	
Certifications	CE; CE Ex II 3 G for zone 2 CSA-CL1, Div2, Grp A,B,C,D	

Processing	
Time acquisition	Fsampl = from 128 Hz to 51,2 kHz
	From 1024 to 8192 points
	From 1 to 4096 averages on synchronized signal
DAT mode (Long timewave signals); optional	Up to 4 Mega-samples per channel for 30 channels at 51.2 kHz, i.e. 80 s of recorded timewaves
Spectrum acquisition	400, 800, 1600 or 3200 lines
	Fmax = from 50 Hz to 20 kHz
Acquisition modes	Continuous surveillance; data recording based on date, periodicity, alarm, or command, with or without condition(s)
Operating conditions	By machine: 3 Logical inputs + 1 rotation speed + 2 DC inputs
Local calculation of indicators	Spectrum, zoom, overall levels, ShockFinder, bearing defect factor, and alarm triggering
Added features of the Premium version	- Added detection modes and filters - Peak extraction, calculation of energy bands - Kurtosis, Smax - Envelope detection - Real-time monitoring

Real-time event detection	
Main indicators monitored	Overall level, filtered overall level, Pk-Pk or RMS Broad or narrow band extraction
Recording length	30 s. on 32 channels, and up to 480 s. on 2 channels
Pre-Trigger	From 0 to 100% of the recorded signal

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ACOEM
Smart monitoring, diagnosis & solutions

ACOEM offers comprehensive products and services comprising smart monitoring, diagnosis and solutions, drawing upon its unique expertise in the field of vibrations and acoustics.

ACOEM contributes to the improvement of:

- quality of life and risk prevention in urban and industrial environments
- productivity and the reliability of industrial processes
- the design of robust and high-performance products with low noise levels
- protection of sites, vehicles and people in hostile environments

With its **01dB**, **METRAVIB** and **ONEPROD** brands, **ACOEM** works with decision-makers in industry, defence and the environment throughout the world.

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