



# Vibox®

## On-Line Asset Monitoring Solution

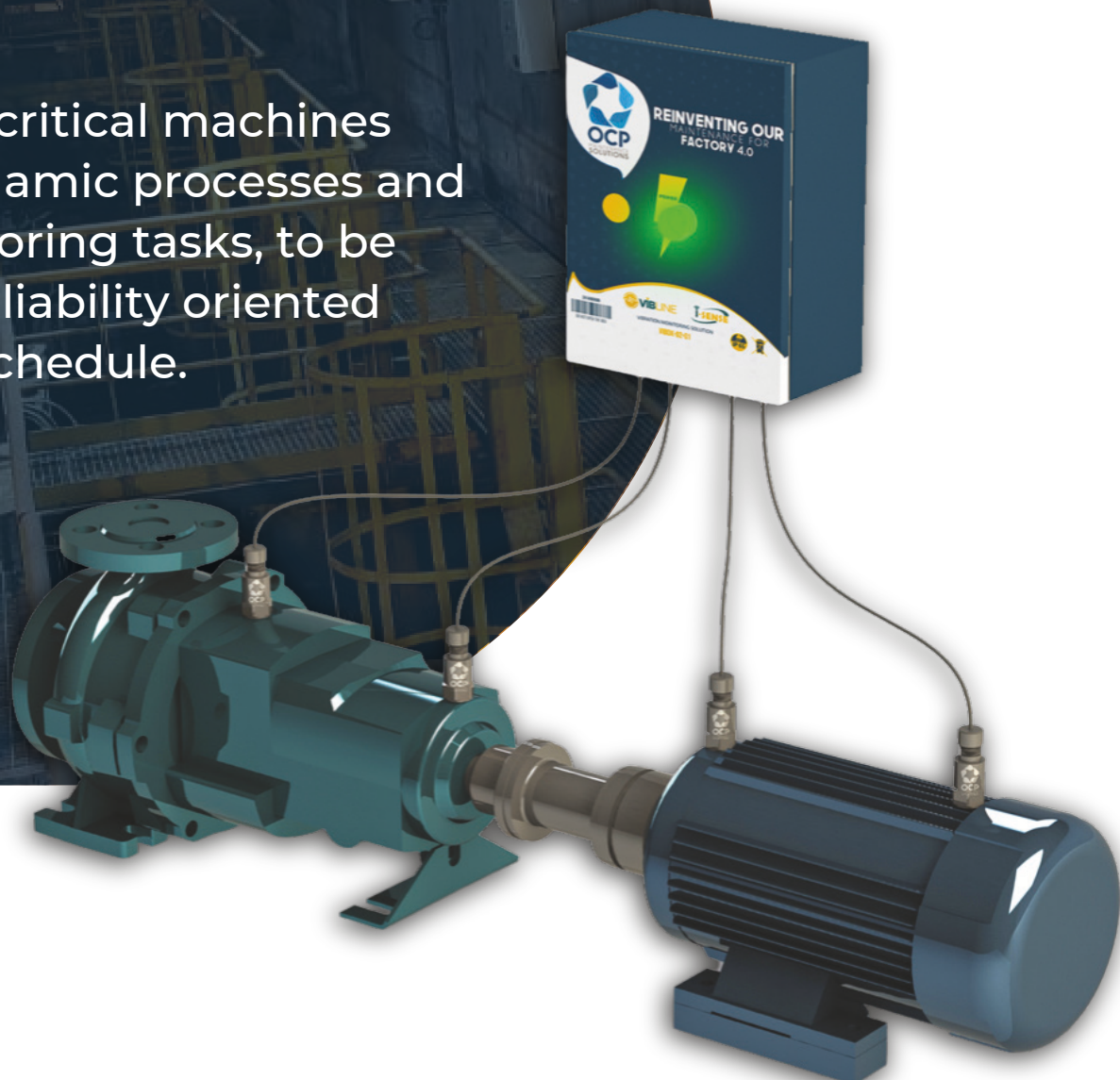


# ABOUT Vibox®

## On-Line Asset Monitoring Solution

**Vibox®** is a Condition Monitoring System that protects your machines from damage, provides production security, and improves the efficiency of your assets.

**Vibox®** allows critical machines with highly dynamic processes and complex monitoring tasks, to be included in a reliability oriented maintenance schedule.





# Detect Machine Failure at the Right Time

Early detection improves the reliability of rotating plant equipment

All machines are subject to vibrations. A rise in vibration levels can be detrimental to machines' health and can result in unexpected machine failure, unplanned production downtime, expensive repair costs, damage to machinery, and safety issues.

Vibox is used for condition-based maintenance of machines and infrastructures. It helps to detect machine damage in a timely manner and prevent costly consequential damage.

Vibration monitoring is the most commonly applied condition monitoring technique as it detects anomalies before most other techniques

Vibox informs the user about changes in the condition of the machine.

# Vibox®

## ENHANCED RELIABILITY

- ✓ UP to 32 Synchronous and real-time acquisition channels
- ✓ Continuous data recording on every channel
- ✓ Tachometer pulse channels for triggered measurements
- ✓ Digital inputs and outputs
- ✓ Networkable (Ethernet, Modbus TCP)
- ✓ Designed for variable speed machines monitoring
- ✓ Support vibration, displacement, speed, temperature and working process signal acquisition.
- ✓ Compact and robust
- ✓ PLUG & PLAY



## Common Failures Detected by Vibox

The Vibox solution makes it possible to detect the various faults that may occur on rotating machines

Gear Failure

Electrical Failure

Misalignment

Bad Lubrication

Bearing Failure

Unbalance

Resonance

Coupling Failure

Mechanical Looseness

Shaft Bending

Shaft/Bearing Wear

Belt Drives

# Vibox®

## ADVANTAGES

Specially Developed for Your Critical Machines

### SYNCHRONOUS

Vibox ® measures continuously and simultaneously on up to 32 channels. This allows it to monitor even the most complex machines with multiple variable operating parameters.

### HIGH COMPATIBILITY

Integration with self-designed applications with free API, OPC, Modbus ....

### LOW SPEED MACHINES

Vibox ® can provide excellent data resolution to analyze low speed machine faults.

### FLEXIBLE

The measurement channels can be configured to measure vibration and process values.

### VERSATILE

Vibox ® supports various kinds of sensors and transmitters to cover a wide variety of applications.

- ✓ **Simply install the sensor on the machine and connect the Vibox to Internet via network cable, wifi or 4G .**
- ✓ **Pre-configured for automatic alarm detection and notification.**

### VARIABLE SPEED MACHINES

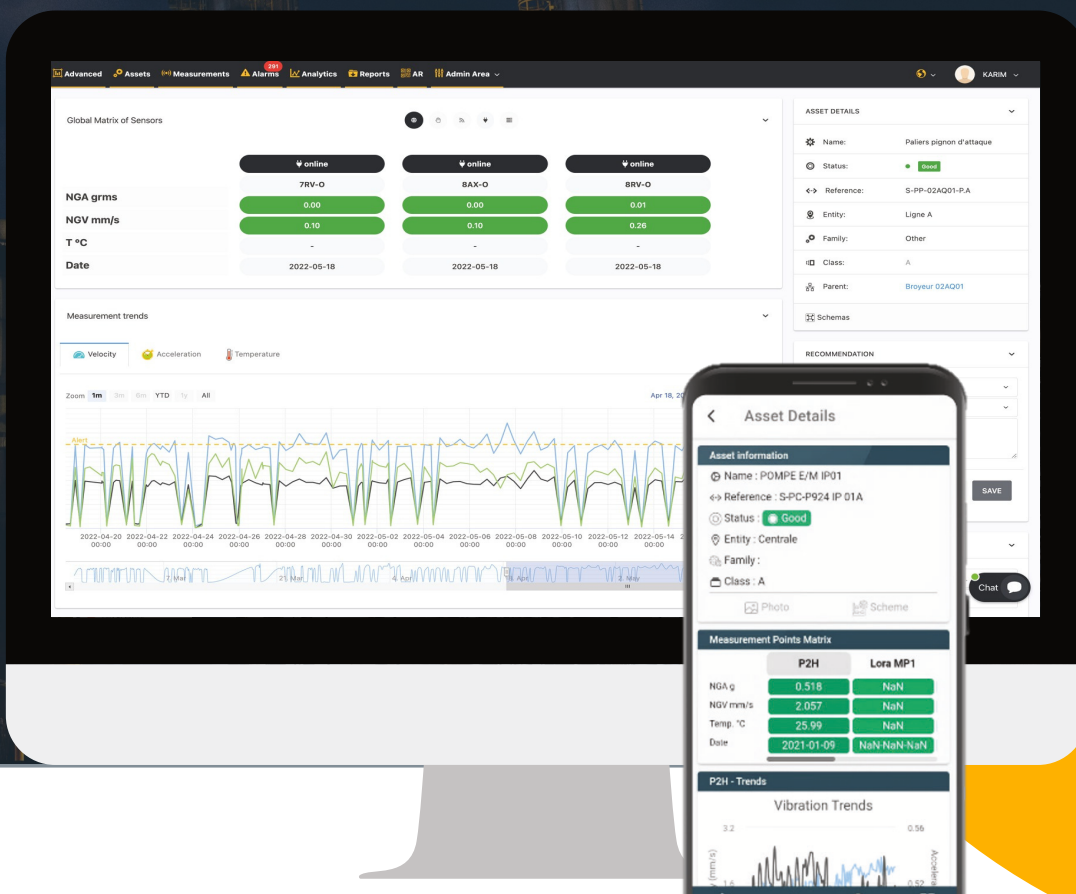
Vibox ® supports tachometers, enabling customers to use order tracking analysis with both speed and vibration data. The system also supports speed trigger collection, it can grasp machine operating status by obtaining vibration data under different working condition.



# Integration With I-SENSE®

## Get More Features and Capabilities by Connecting to the I-SENSE® Platform

- ✓ Easy access to the database of all assets, measurements and alarms history wherever you are, whatever device you use
- ✓ Automatically generate daily or weekly measurement reports
- ✓ Access to equipment data : Thresholds, Schemas, Photos, Characteristics, Components ...
- ✓ Access to an advanced spectral analysis toolbox to better diagnose the condition of your equipment



The image displays the OCP Maintenance Solutions dashboard on a monitor and a smartphone. The monitor shows a 'Global Matrix of Sensors' with columns for 7RV-O, SAX-O, and 8RV-O, and rows for NGA grms, NGV mm/s, T °C, and Date. Below this is a 'Measurement trends' section with a line graph for Velocity, Acceleration, and Temperature. The smartphone shows 'Asset Details' for 'POMPE E/M IP01', including status (Good), entity (Centrale), and a 'Measurement Points Matrix' table.

	P2H	Lora MP1
NGA g	0.518	NaN
NGV mm/s	2.057	NaN
Temp. °C	25.99	NaN
Date	2021-01-09	NaN NaN NaN

# Vibox® Variants

We offer several variants of the Vibox solution to meet the different needs of our industrial customers.

	LIGHT VIBOX-01	ESSENTIAL VIBOX-02	ADVANCED VIBOX-04	ADVANCED PLUS VIBOX-03
WAVEFORM, SPECTRUMS, ENVELOPE	✓	✓	✓	✓
VIBRATION CHANNELS UP TO :	8	12	16	32
GENERIC INPUTS (PROCESS) UP TO :	4	6	4	32
LOCAL STORAGE (GO)	20	20	1	200
SYNCHRONOUS CHANNELS	-	-	✓	✓
INTEGRATION PLC, DCS ...	-	✓	✓	✓
ON-SITE REAL TIME MONITORING	-	✓	✓	✓
VARIABLE SPEED MACHINES	-	-	✓	✓
ADVANCED ANALYSIS	-	-	✓	✓
INTEGRATION WITH I-SENSE	✓	✓	✓	✓
DESIGNED FOR COMPLEX MACHINES	-	-	✓	✓
CUSTOMIZATION	-	-	-	✓

All versions support : WIFI, 4G and LAN



# Vibox®

## SPECIFICATION

Piezoelectric Accelerometers :

low frequency



	OMS103	OMS113	OMS104	OMS102
FREQUENCY RANGE :	0.4~15KHz	0.1Hz~10KHz	0.4~10KHz	0.1Hz~15KHz
SENSITIVITY :	100mv/g	500mv/g	100mv/g	100mv/g
MEASURING RANGE :	±80g	±10g	±80g	±80g
TEMPERATURE RANGE:	-40~120°C	-40~120°C	-40~120°C	-40~120°C
IP GRADE :	IP68	IP68	IP68	IP68

### OPTIONS :



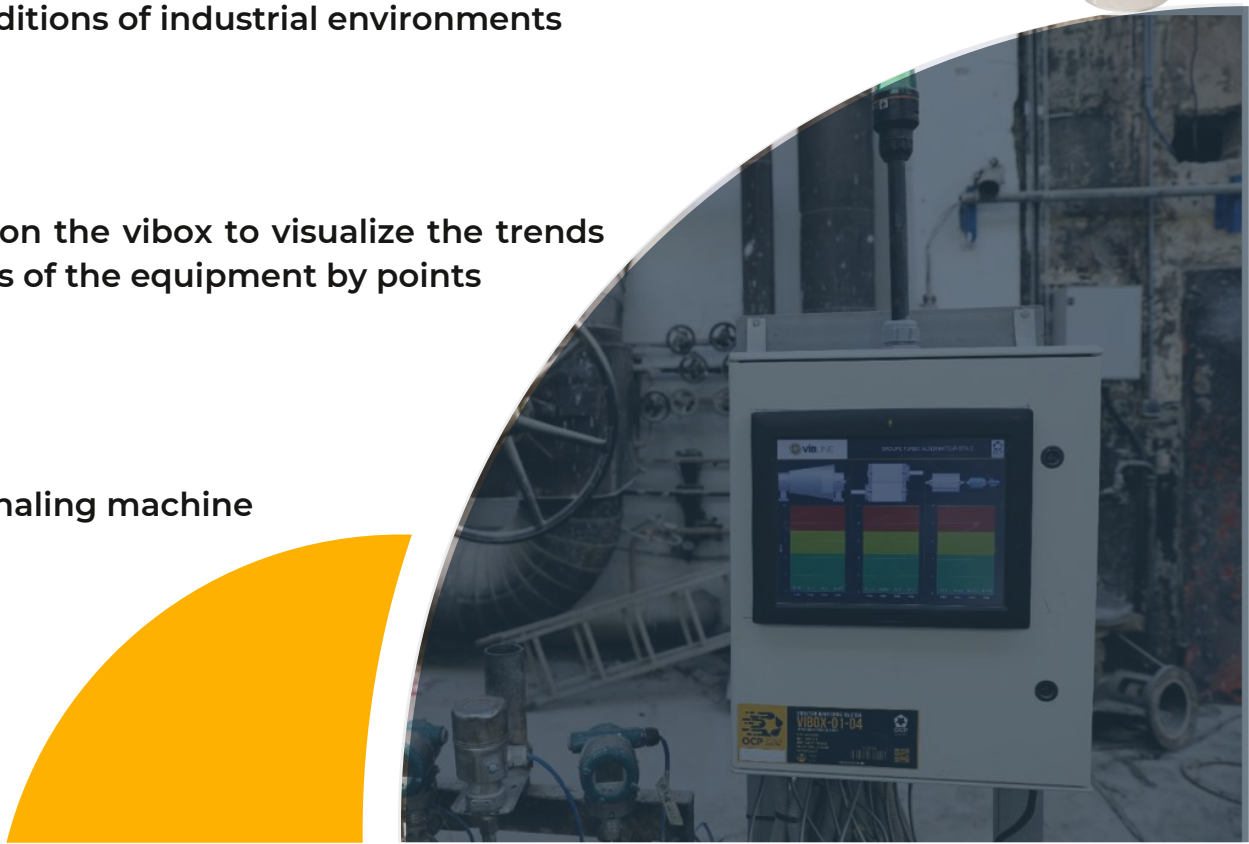
Armored cable to protect the signal cable from the harsh conditions of industrial environments



A screen on the vibox to visualize the trends and status of the equipment by points



A light signaling machine condition





# Vibox®

## SPECIFICATION



### SIGNAL PROCESSING

Lines of Resolution	400, 800, 1600, 3200, 6400, 12800
Time Waveform	Up to 24 seconds
Averaging Times	Up to 16
Frequency Response	0.2dB @ 10Hz – 5kHz; 0.5dB @ 3Hz – 20kHz
Frequency Range	0Hz – 20KHz

### SPEED SENSING (TACHOMETER CHANNEL)

Compatible Type	TTL, Eddy Current, Hall Effect
Trigger Level	4V DC - 30V DC (Pk-Pk)

### POWER SUPPLY

Input Voltage	100-240 VAC, 50-60 Hz, <20W
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### WORKING ENVIRONMENT

IP grade	IP65
Temperature	-40 / 70 °C
Humidity	95% RH without condensate
Atmospheric pressure	70 kPa - 110 kPa



## Get In Touch

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