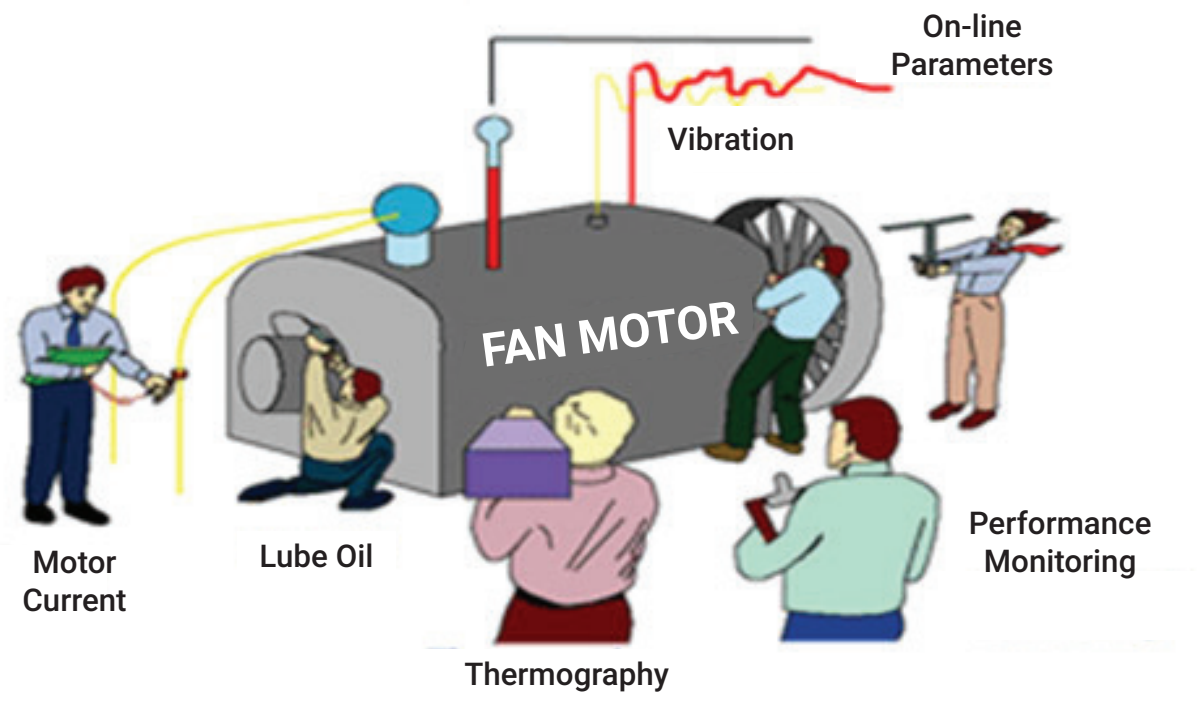
sonepar
Powered by Difference

masibus

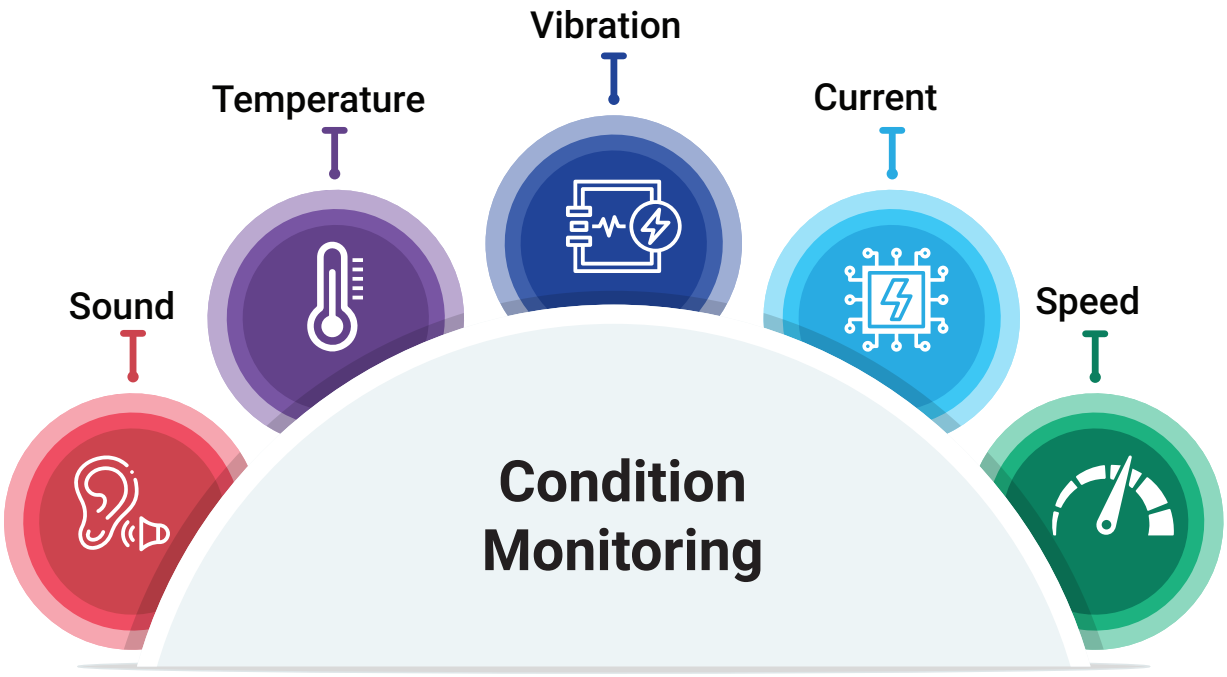
Condition & Vibration Monitoring

- Complete Range of Offerings - Sensors to Software
- Capable to Handle Different Types of Signals in One Product
- Most COST COMPETITIVE - Lowest per Channel Cost
- IIOT Ready - Supports Multiple Communication Protocols



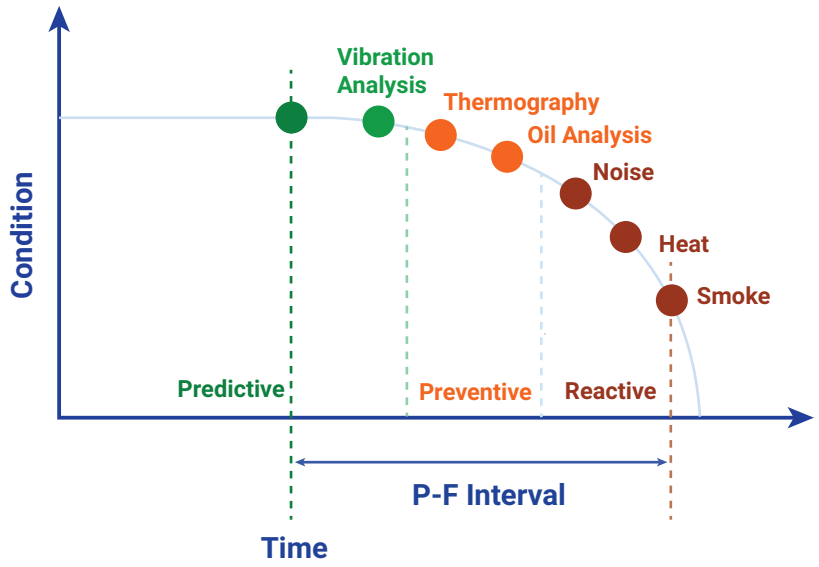
What is Condition Monitoring ?

Condition monitoring is a process of measuring below parameters of machine/equipment.



Maintenance Examples & Importance of CM

- Breakdown Maintenance - High Cost
- Preventive Maintenance (Periodic) - Moderate Cost
- Predictive Maintenance (Based on Condition of Machine) - Low Cost
- P - Point at which you can Recognize a Potential Failure
- F - Point at which the Failure Occurs



BENEFITS OF CONDITION MONITORING

- Increases Machine Uptime
- Decreases the Risk of Machine Failure
- Allows Predictive Maintenance
- Reduces Capital Costs by Extending Machine Service Life
- Decreases Machine Repair Costs

Vibration Sensors Contact Type

VibraSens
Your Vibration Sensor Partner

Accelerometer

Features

- Uniaxial Accelerometer output 10mV/g, 50mV/g, 100mV/g, 500mV/g
- Electrical connection: M12 Connector, MIL grade connector and integral cable
- Annular shear technology
- Temperature output also available
- ATEX certified
- Hermetic glass sealing

Features

- MEM's based Loop powered sensor
- Velocity output in form of 4-20mA
- Electrical connection: M12 connector, MIL grade connector and integral cable
- Suitable for frequency 10Hz- 1KHz
- DA/DV/Temperature output also available

Loop Powered Sensor

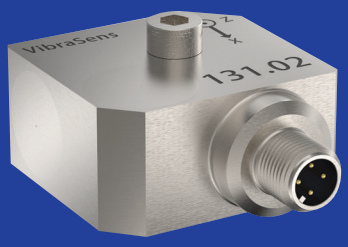
Loop Powered Sensor

Features

- Piezo electric loop powered sensor
- Accelerometer, velocity output in form of 4-20mA
- Electrical connection: M12 connector, MIL grade connector and integral cable
- Suitable for frequency 3Hz- 1KHz
- DA/DV/Temperature output also available

Features

- Triaxial accelerometer output 10mV/g, 50mV/g, 100mV/g, 250mV/g,500mV/g 1000mV/g
- Electrical connection: M12 connector and integral cable
- Annular shear technology

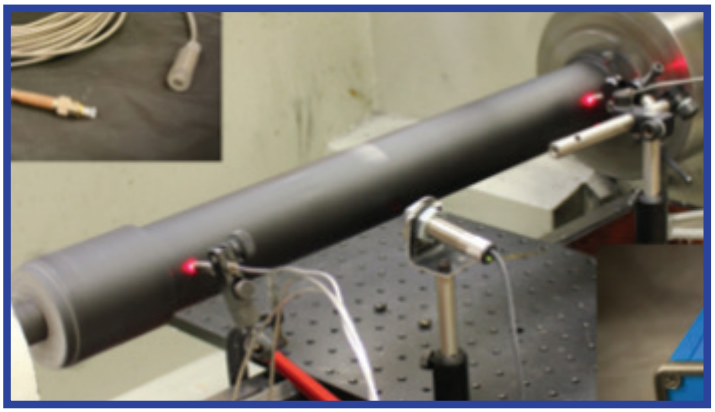


Triaxial Piezo

Vibration Basics

- **Type of Vibration Measurement**
  - **Relative Vibration Measurement**
    Shaft vibration measurement relative to machine body (Non-Contact type sensors will be used)
  - **Absolute Vibration Measurement**
    Casing vibration is the measurement of the case motion relative to free space or absolute motion (Contact type sensor will be used)
- **Vibration can be Measured in Three Parameters**
  - Displacement : When RPM is less than 600
  - Velocity : When RPM is > 600 and < 60000
  - Acceleration: When RPM is > 60000

Relative Vibration

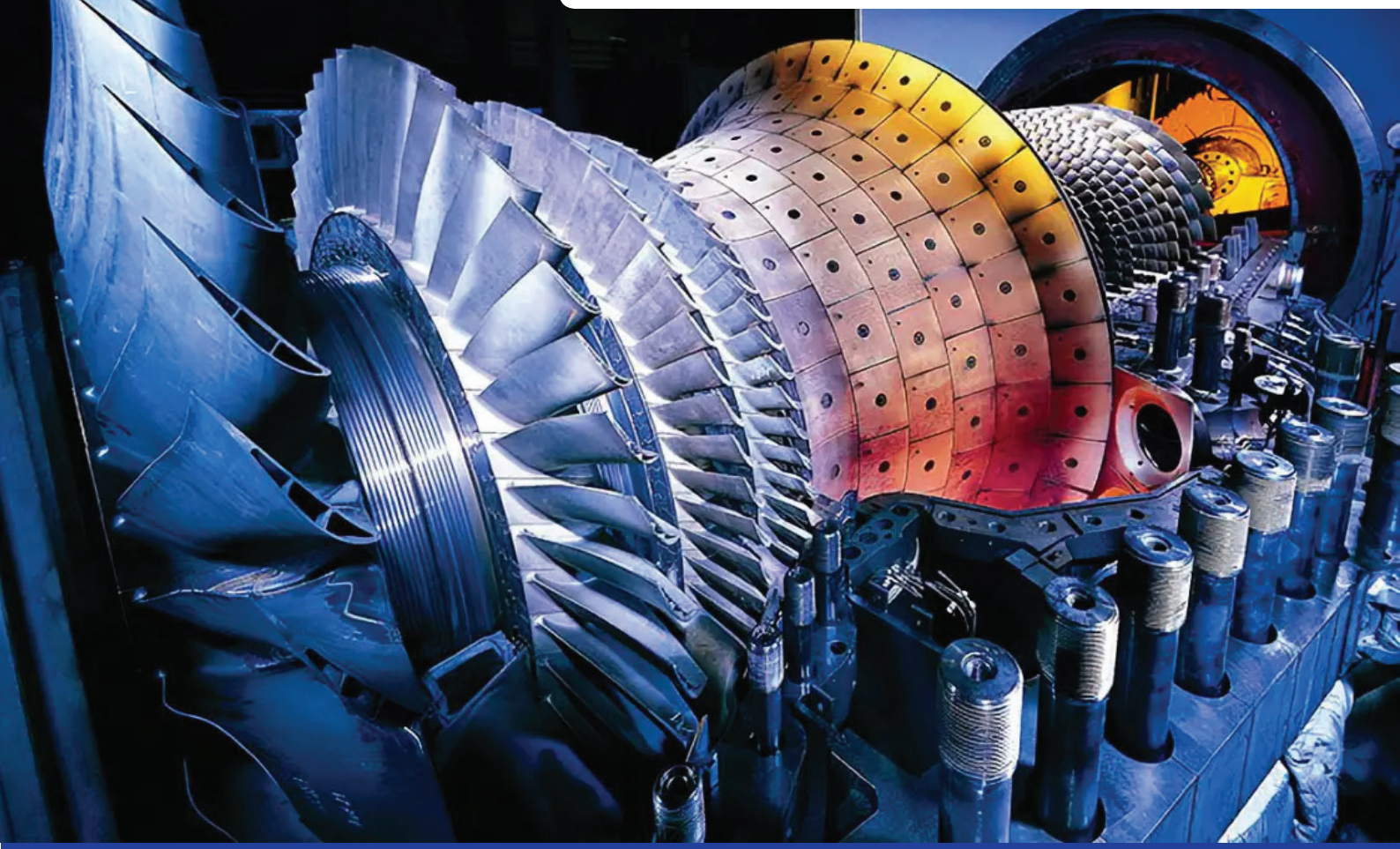


Absolute Vibration

Sensor Installation Photos

Rotating Machinery Protection and Monitoring System

TECHNICAD® Spółka z o.o.



Vibration Sensors Non-Contact Type

- Eddy-current principle based probes/transducers for displacement measurements
- Measuring range from 2mm to 16mm
- Recommended for axial displacement, relative vibration, differential expansion, rotating speed, phase marker measurements

Eddy Current Sensor

Features

- Meets API 670 specification
- Measures frequency response from O to 10 KHz
- Gives DC voltage O/P
- Also available with ATEX approval
- Driver comes with IP65

VT7S10E- 4-20 Loop Powered Vibration Transmitter

VT7S10E

Features

- MEMs Based Measurement Technology
- 4–20 mA output corresponding to vibration velocity
- Electrical connection: M12 connector
- Frequency Bandwidth 10Hz to 1000Hz
- ESD & Reverse Wiring Protection

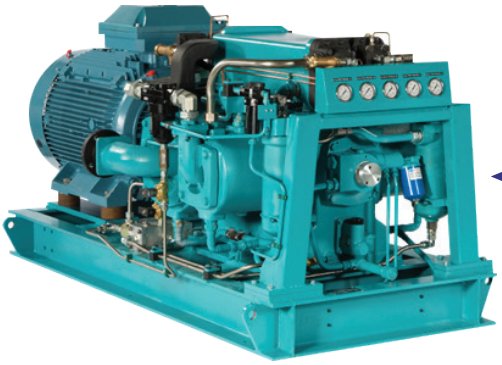
VSW-160 - Vibration Switch

VSW-160

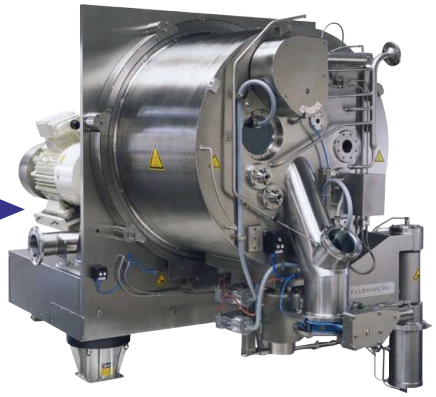
Features

- 3 in 1 - Switch/ indicator/ transmitter
- Capacitive touch screen operation - Ease of maintenance
- Built-in/ Remote sensor option
- Type of protections: Flameproof (Explosion proof) EX-d
- Area classification: Zone 1 & 2, Gas groups: IIA/ IIB & IIC
- Trim port for vibration set-point adjustment

Vibration Monitoring of Centrifuges/Compressor



CNG Compressor



Centrifuges

Electronic Vibration Switch

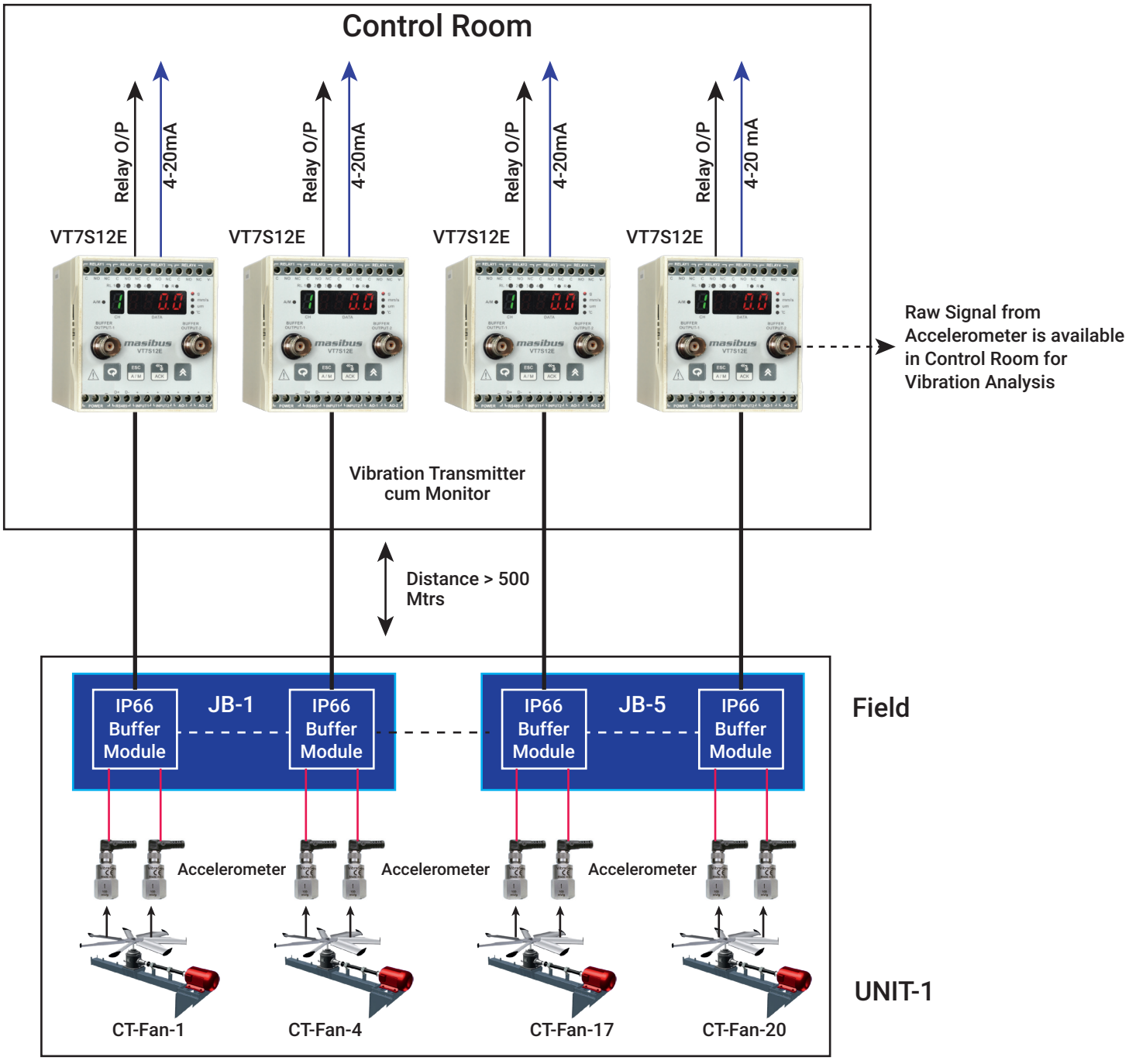
VT7S12E - Dual Channel Vibration Transmitter

Features

- Dual channel vibration transmitters, switch, indicator
- Field selectable parameter and range (Displacement, Velocity, Acceleration)
- Relay for Alarms/Trip
- Buffered O/P for vibration analysis
- RS485 Modbus serial interface

VT7S12E

Cooling Tower Fan Monitoring



VM908 - Vibration Meter

VM908

Features

- Essential for good maintenance
- Necessary instrument for tool box
- Cost effective basic vibration measurement
- 3½ LCD digital display
- Measurement of overall vibration level in rotating machines
- Parameter: Displacement, Velocity, Acceleration
- Frequency range: 10 Hz to 5 KHz

Masibus Value Proposition

Complete offerings to address various condition monitoring requirements (Contact / Non Contact / Product / Systems) Can handle multiple parameters

Strong expertise & experience on vibration parameters

Backed by vast application knowledge installation base in variety of applications

IIOT Compatible offerings

Automatic Balancing System for Process FAN - AB 9000

Hofmann.
Intelligent Balancing Solutions

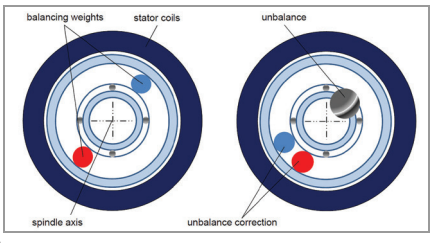
- The system balances a FAN in running condition without any stoppage or shutdown
- Can be used with a new FAN or in existing FAN with a retrofit

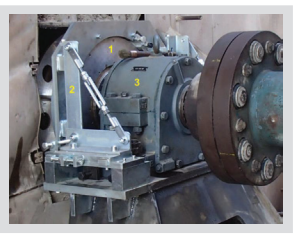
BENEFITS

- It eliminates any unwanted shutdown & decrease frequent shutdown of plant for coating removal
- The shutdown can be planned for maintenance purpose
- The return on investment in short time

WHERE IT CAN BE USED

- Kiln ID / Preheater / Raw Mill FAN in Cement Plant
- BOF / SMS ID FAN in Steel Plant
- Preheater & Exhaust Gas FAN in Steel Plant
- Incinerator ID FAN in Utilities
- In any Big FAN which requires uninterrupted operation





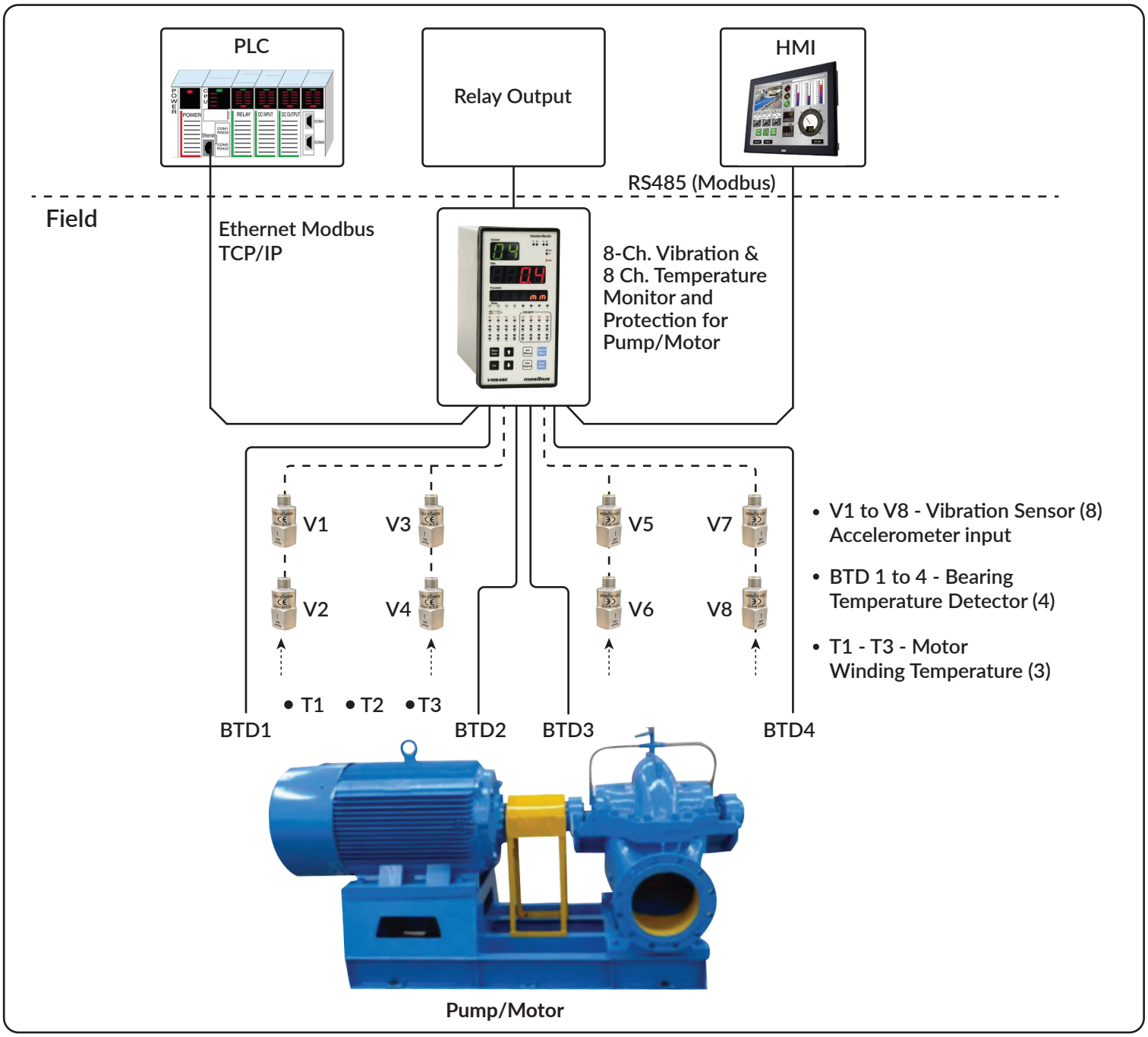
VMS4SE - Multi-Channel Vibration Monitor

VMS4SE

Features

- 4/8 Channel vibration monitor
- Capable to handle 8 nos. universal inputs
- Field selectable parameter (Displacement, Velocity, Acceleration)
- Serial/ Ethernet communication
- Field selectable range
- Buffered O/P for vibration analysis

Pump/Motor Vibration & Temperature Monitoring System



- V1 to V8 - Vibration Sensor (8) Accelerometer input
- BTD 1 to 4 - Bearing Temperature Detector (4)
- T1 - T3 - Motor Winding Temperature (3)

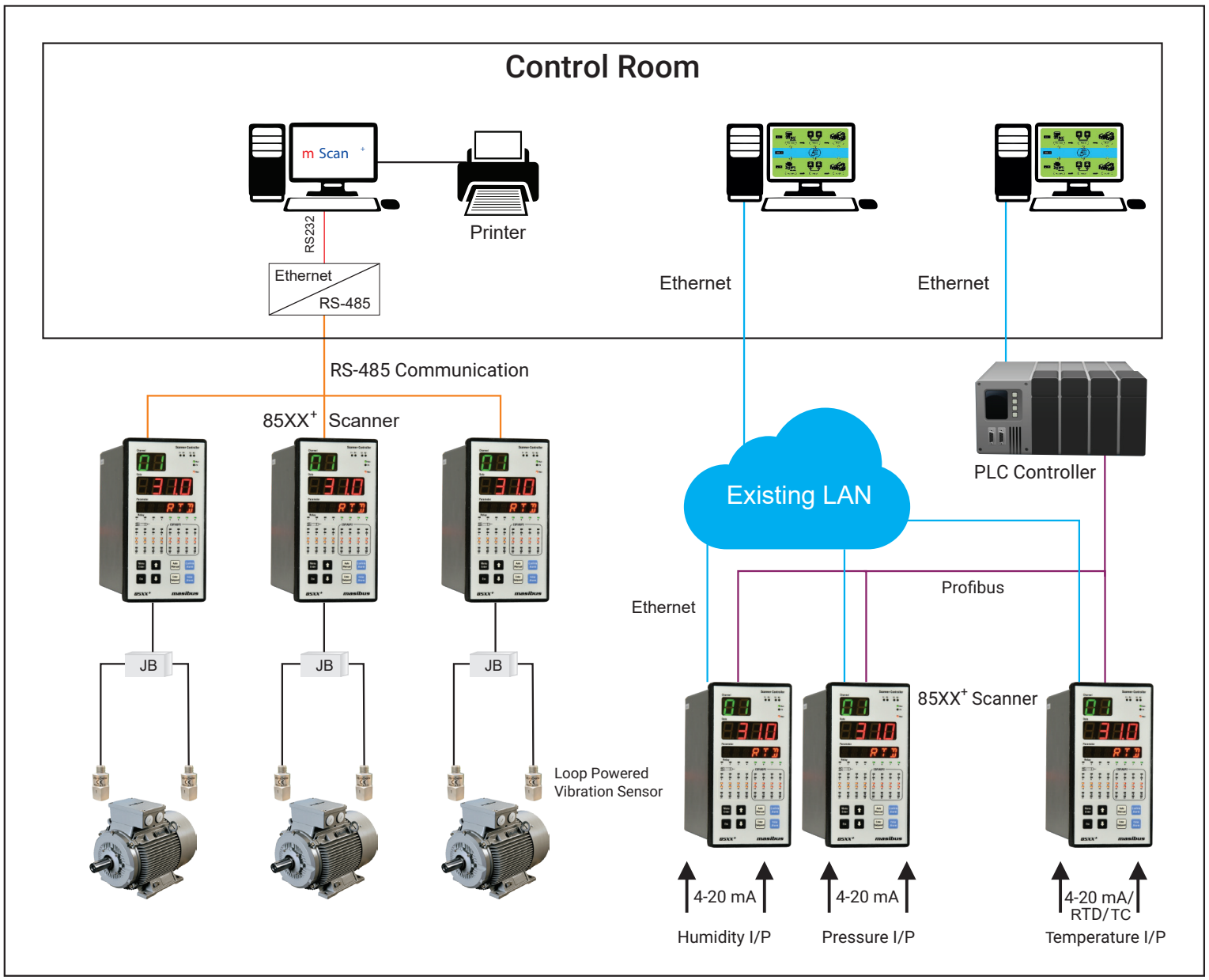
85XX+ - 24 - Channel Scanner/DAQ Module

85XX+

Features

- 24 Channel universal analog input module
- 16 Channel digital input module (Optional)
- 8/16 Relay output module (Optional)
- EMI/EMC type test qualified & CE marked
- 32 MB memory for event & periodic data logging

Condition Monitoring with Loop Powered Sensor



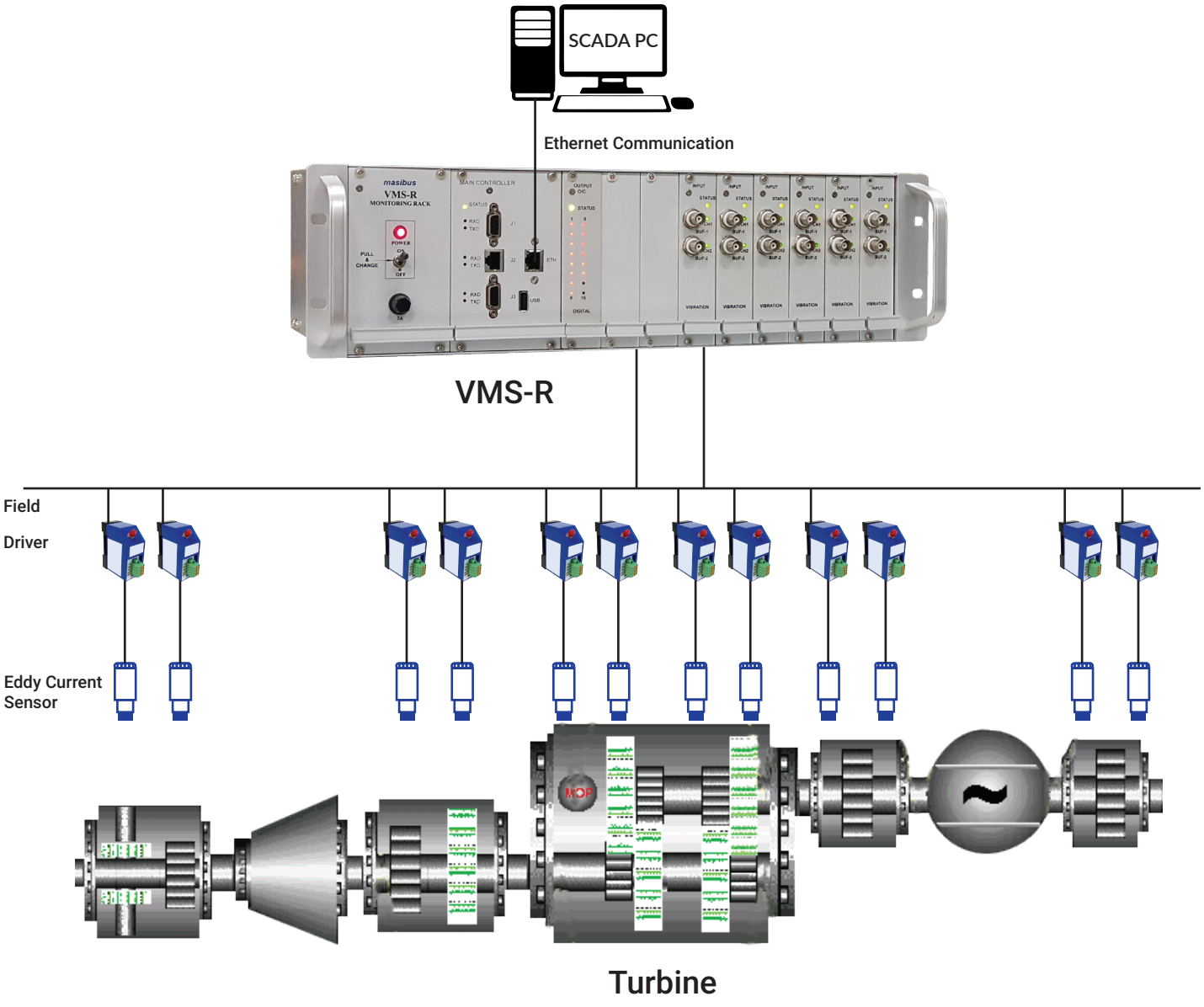
VMS-R - Rack Based Vibration Monitoring System

VMS-R

Features

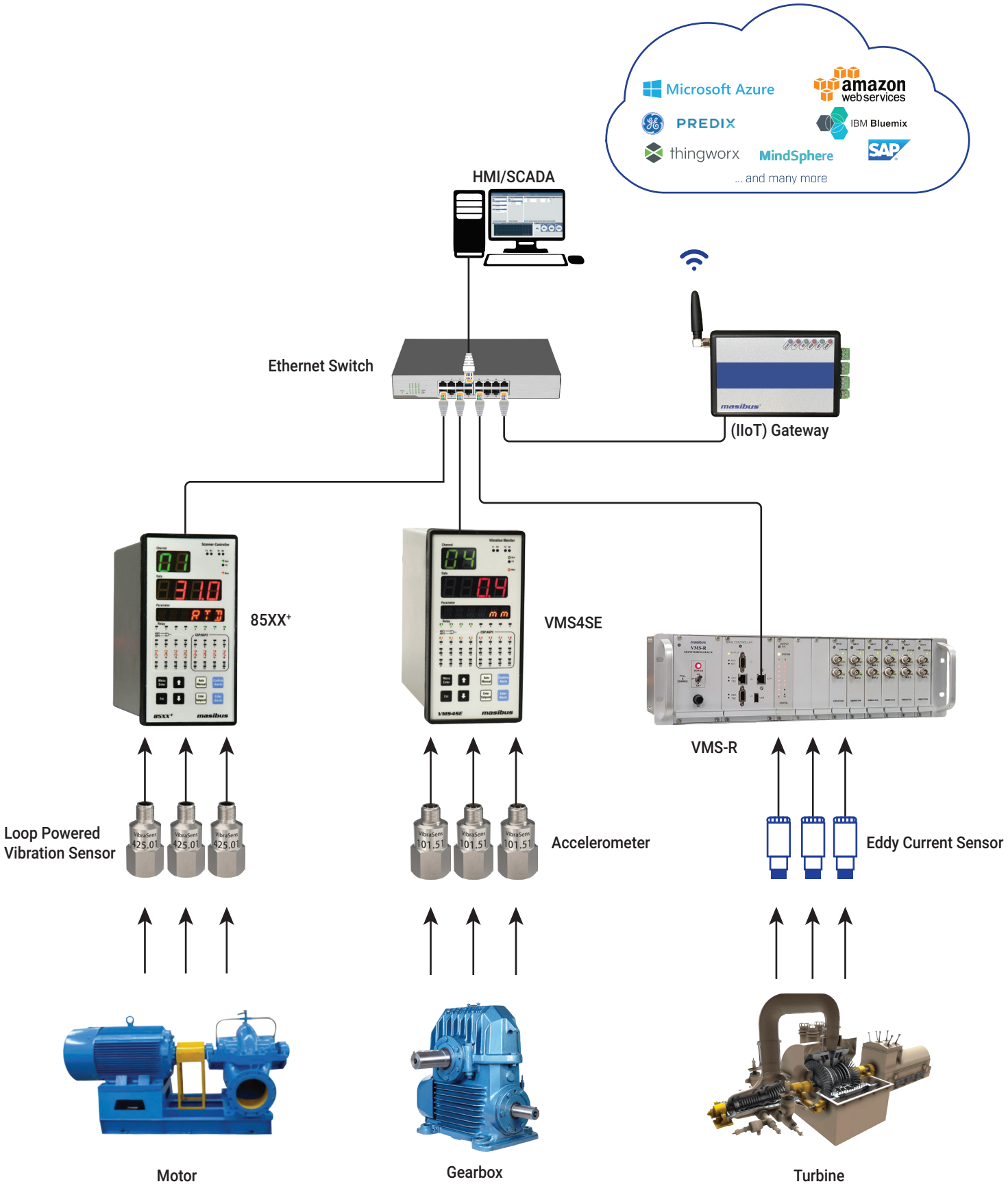
- Suitable for Non-contact type sensors
- Upto 16 vibration channel monitoring
- 4-20mA re-transmission
- Serial and Ethernet communication
- 25MB memory for data logging

Turbine Vibration Monitoring



Comprehensive Condition Monitoring Offering

- One stop shop for all condition monitoring requirements
- All types of equipment get covered (Low speed to high speed)
- System for monitoring, protection & analysis



masibus

A Sonepar Company

Thermography

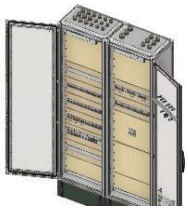
Fault Detection by Infrared Inspection

Our Services

Thermography study & health report of the equipment for preventive action.

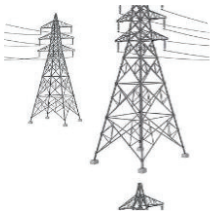
- IR Inspection of MCC / PCC / VFD Panels for hot & cold junction & leak detection
- IR Inspection of Furnace Insulation
  - ✓ Blast Furnace
  - ✓ Reheat Furnace
  - ✓ Tempering Furnace
  - ✓ ARC Furnace
  - ✓ Ladle Furnace
  - ✓ Carburizing Furnace
- IR Inspection of High Voltage Transmission & Distribution Line

MCC Panel



Furnace

Distribution



VFD Panel

Industries Served

- Power
- Oil & Gas
- Chemical
- Metal
- Paper
- Fertilizer
- Automobile
- Glass
- Cement

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