



Vibration **Monitoring** For Machine Protection



Accelerate your reliability team with our VTB Net Solution



Vibration Monitoring For Machine Protection

“Machine Saver believes in pushing the status quo, thinking differently outside the box to produce better results. We challenge the status quo by making our unique products with a simple, cost effective and comprehensive total design solution.



Prior to Machine Saver, most machines were not continuously monitored and protected due to prohibitively high cost, poor technology and limited result.

Machine Saver’s Vibration, Temperature and Bearing Network was designed with the purpose to provide rotating or reciprocating machinery with the most efficient and cost effective all in one solution to continuously protect and monitor the condition of your machines. Machine Saver’s VTBNet is the game changer!”

-Management Team, Machine Saver Inc.

VTBNet “one size fits all” sensors include:

- **7 sensors each**
- **3 (X, Y, Z) axis high frequency vibration sensors**
- **3 (X, Y, Z) axis low frequency vibration sensors**
- **1 RTD temperature sensor**
- **Acceleration, velocity, displacement or impact for mechanical looseness**
- **Universal mounting, any axis any orientation**
- **Multi-color machine and sensor status LED**
- **Smart addressable microprocessor for onboard signal conditioning, alarms, high pass, low pass or band pass capabilities**
- **Automatic calibration verification**

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Next-generation Vibration Monitoring



APPLICATIONS

PUMPS MOTORS FANS RECIPROCATING-COMPRESSORS
SUBMERSIBLE-PUMPS CRUSHERS CONVEYORS BLOWERS HVACS
CHILLERS ENGINES CENTIFUGES COOLING-TOWERS AIR-COOLED-
HEAT-EXCHANGERS FIN-FANS CONVEYORS GEARBOXES VERTICLE-
PUMPS HAMMER-MILLS WINDMILLS

LOW COST WIRING

VTB sensors may be “daisy chained” or connected to each other to greatly reduce wiring, interfaced to a wireless transmitter and receiver or may be used as a stand-alone sensor.

CONDITION MONITORING

The VTB sensor also captures user defined “snapshots” of the raw vibration signal periodically or at the time of an alarm and uploads that dynamic data to a virtual server for remote machine condition monitoring and vibration analysis. This eliminates the inefficient use of time to have analyst walking around the plant machines collecting data and analyzing data from good machines trying to find the bad machine. Also hard to reach locations or dangerous areas are now accessible with the VTBNet system.

COMMUNICATION

The VTB sensor may interface to a PLC, DCS or a SCADA system to provide machine protection, alarm and shutdown. The VTBNet systems serial digital output can greatly reduce the cost of the PLC, DCS or SCADA I/O cost compared to traditional costly analog inputs



DESIGNED FOR RELIABILITY AND

MAINTENANCE PROFESSIONALS:

Less wiring or wireless

3 axis of vibration, impact and temperature in each VTB sensor

24/7 machine protection with automatic machine vibration analysis / condition monitoring

Low cost of ownership, installation and maintenance = cost effective solution

One size VTB fits all machines. Low speed, high speed, rotating or reciprocating

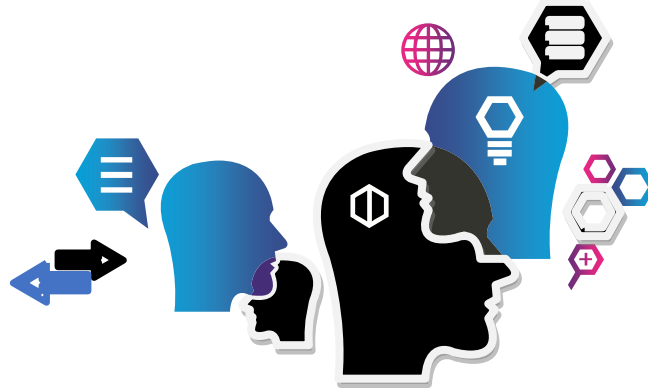
Why rely on a Mechanical Vibration Switch? Don't count on unreliable machine protection anymore. Use a true vibration monitoring system to protect your machines and boost reliability.

System specifications:

Frequency response:	0.5Hz – 5Khz or 0.5Hz – 800Hz.
Environment:	IP67, NEMA 4X IP68 (submersible)
Hazardous Area:	Class 1 Div 2 Grps A – D Hazardous Area Certification (pending)
Temperature Range:	-40°C to +105°C (-40°F to + 221°F)
Signal Cable	120 ohm impedance, (2) 24 ga. twisted pair, FEP or Polyurethane jacket
Mounting:	¼-28 UNF (standard) or M6
	Conduit Connection: ½”NPT (standard) or M20
Response time:	<50mSec / sensor (typical)
Indication:	LED (green, amber and red)
Power:	24VDC, 24VAC, 120VAC or 240VAC
Warranty:	3 years (standard) with 5 year extended warranty available



- VTBNet system outputs include:**
- **WIRELESS**
 - **INDUSTRIAL CANBUS**
 - **MODBUS TCP/IP**
 - **MODBUS RS485**
 - **USB**
 - **RELAYS**
 - **4-20mA**



“WE DO NOT SELL PARTS. WE PROVIDE COMPLETE MACHINE CONDITION MONITORING SOLUTIONS, SERVICE, AND ENGINEERING EXCELLENCE.”

Put our services to the test.

Contact us for a consultation on your machine applications today.

