



# MACHINE SENTRY®

MSF-2 A reliability assurance solution



The Machine Sentry® MSF-2 is a wireless intelligent tri-axial vibration sensor with integrated temperature sensor. Connecting via a Bluetooth® enabled handheld device the MSF-2 communicates with the Machine Sentry® software to record data.

Semi-continuous monitoring reduces the chances of undetected fault conditions being missed. The sensor incorporates a 3 channel multiplexed data acquisition system connected to a tri-axial sensor, to give full 3-axis support.

The Machine Sentry® MSF-2 sensor can be paired to any Android tablet or smartphone using Bluetooth® 5.2 LE communication, to provide safe and efficient data collection from up to 85ft away or, over 330ft with an X2000 Gateway.

The sensor can either be permanently mounted or temporarily installed using the optional magnetic attachment. Assets that would normally be difficult to monitor using a traditional wired accelerometer can now be measured with ease e.g. collection points behind guards and large or moving assets such as gearboxes or agitators.



# MACHINE SENTRY®

 **FREQUENCY RANGE 1Hz TO 8.5 kHz**

 **INTERNAL MEMORY >5000 READINGS**

 **HIGH SPEED DATA TRANSFER**

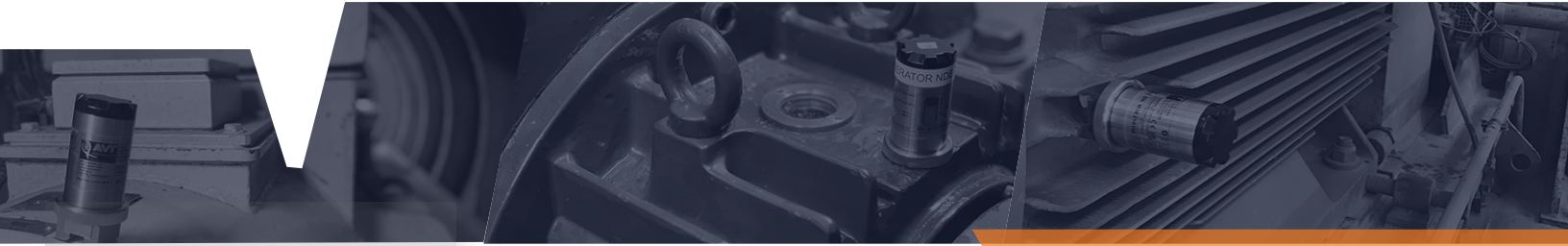
 **PROGRAMMABLE DATA AQUISION**

 **USER REPLACEABLE BATTERY**

 **UP TO 5 YEAR BATTERY LIFE**

 **GAS ZONE 0 | DUST ZONE 20 CERTIFIED**

 **SEALED TO IP 67**



Internal Sensors	Tri-axial (X, Y and Z axes) Accelerometer Temperature Contact
Internal Accelerometer Frequency Range	8,500 Hz (Y & Z axes) 5,500Hz (X axis)
Internal Accelerometer Amplitude Range	Switchable up to +/-64g
Internal Accelerometer Frequency Response	
Temperature Sensor Range	-40 to 239 °F
Sampling Frequency	250 – 25,600 samples per second
A2D Resolution	16 bit
Max Samples	32,768 samples
Max Lines	6,400 lines
Wireless Communication	Bluetooth LE 5
Wireless Frequency band	2.4Ghz
Wireless Range	~330 ft under ideal conditions
Battery Type	Lithium Thionyl Chloride 3.6v 8500mAh
Battery Life	Fixed use: Up to 3 years (5 minute sampling, Transferring 1 reading / hr / axis weekly via Android App) depending on configuration and ambient temperature
Dimensions	1.65" Diameter x 3.15" Height
Weight	3.5 oz
Operating Temperature Range	-4 to 140 °F
Storage Temperature Range	50 to 122 °F
Case Material	316 Stainless/Polycarbonate
Storage Capacity	5000 readings at full resolution
Bluetooth Transfer rate	Typical three readings/second
ATEX Certification	Certified To EN IEC 60079-0: 2018 and EN 60079-11: 2012 II 1G Ex ia IIC T4 Ga II 1D Ex ia IIIC T135°C Da (-20°C ≤ Ta ≤ +60°C) CML 22ATEX2395X
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