Condition monitoring with CANopen

Vibration sensor for mobile machines

- Sensor specifically designed for use in mobile applications

- Reliable 3-axis detection of unbalance, collisions, fatigue and bearing damage

- Seamless transfer of data to the cloud improves aftersales service and optimises maintenance planning

ifm – close to you!

Description	Order no.
3-axis vibration sensor with CANopen interface.	**VMB301**

Always keeping an eye on the mobile machine status

Whether there is an imbalance in the rotating blades of a mowing machine, cavitation or foreign objects in mobile drainage pumps, impacts on critical components: If such issues go unnoticed, they can cause costly damage and long downtimes.
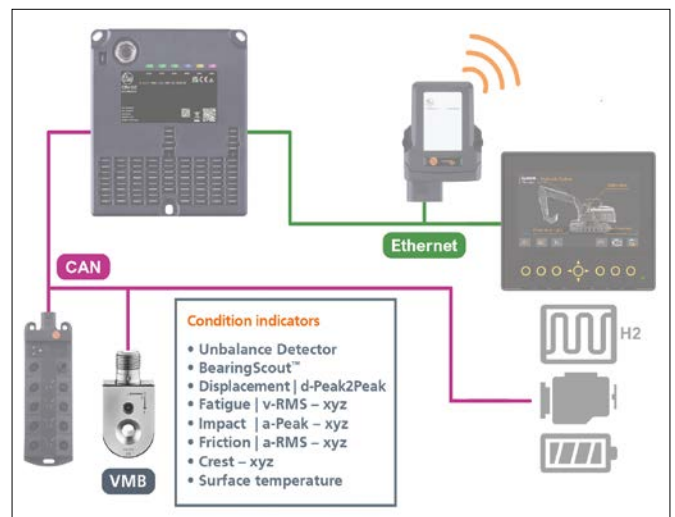
Convenient and informative

The 3-axis condition monitoring sensor VMB301 is designed for use in mobile applications and can be seamlessly integrated into the vehicle network and ifm's system portfolio thanks to its CANopen interface. The integrated 120 Ohm bus resistor can optionally be activated or deactivated via CANopen. This reduces costs and increases flexibility.

Comprehensive condition monitoring

Once integrated, the VMB301 transmits a large number of proven condition indicators in real time: Fatigue (v-RMS), mechanical friction (a-RMS), shocks (a-Peak), mechanical stresses (d-Peak2Peak), statistical bearing wear (crest) and surface temperature. The innovative BearingScout™ for bearing analysis and dynamic unbalance measurement complete the VMB301's range of features as a standalone condition monitoring solution for mobile machines.

For remote monitoring, the condition and machine data can be transmitted via radio modem to mobile IoT, ifm's IIoT platform for mobile machines.

Technical data		
Frequency range	[Hz]	1...7500
Measuring range, velocity	[mm/s]	0...320
Measuring range, displacement	[mm]	0...320
Measuring range, acceleration	[g]	0...60
Temperature measuring range	[°C]	-30...80
Protection rating		IP6K7, IP6K8, IP6K9K

BEST FRIENDS

Graphic display
Programmable HMI for the control of mobile machines

ecomatController
Controller for mobile applications, also for safety applications

Mobile IoT gateway
Global access to the machine via mobile communications

For further technical details, please visit: ifm.com/fs/VMB301