

Technical Datasheet



PRODUCT: FITMACHINE WIRED

PART NUMBER (PN): FMW

Your wired sensor for real-time monitoring of critical rotating assets

FitMachine Wired is a high-sensitivity, industrial-grade sensor designed for assets with transient load patterns including steam fans, compressors, gearboxes, and corrosive environment pumps.

With its high sensitivity, extended frequency range, and rugged stainless steel build, it delivers detailed vibration insights across three axes. This allows you to pinpoint faults like imbalance, misalignment, looseness, and bearing defects earlier, helping you reduce downtime, improve reliability, and operate with confidence in tough industrial conditions.



KEY FEATURES

HIGH-SENSITIVITY TRIAXIAL MONITORING

Captures vibration across three axes with high sensitivity and a wide frequency range of up to 2.5 kHz. Ideal for critical and high-speed assets operating from 20 RPM to 3900 RPM.

EXTENDED TEMPERATURE RANGE

Measures frequencies from 0.2 Hz to 2.5 kHz whilst withstanding temperatures from -40°C to 120°C.

DESIGNED FOR EXTREME CONDITIONS

Designed for extreme industrial environments, the FitWired Standard is built with a stainless steel enclosure and shielded cable. This enclosure is IP68-rated for water and dust resistance.

FLEXIBLE INSTALLATION OPTIONS

Supplied with a cable* and mounted using stud or adhesive depending on RPM and surface accessibility.

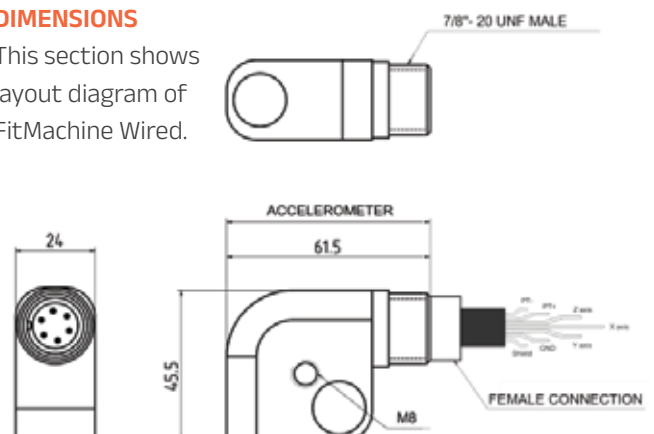
*Cable length determined upon site visit and tailored to your needs.

DETAILED VIBRATION ANALYSIS

Supports high-resolution FFT and velocity/acceleration trend data to detect faults such as misalignment, looseness, imbalance, gear, and bearing defects.

DIMENSIONS

This section shows layout diagram of FitMachine Wired.



Need more information? **Get in touch with us today** info@movus.com.au

TECHNICAL SPECIFICATIONS

Vibration Monitoring	Sensor Type	Triaxial piezoelectric accelerometer w/ integrated temperature sensor
	Sensitivity	100 mV/g $\pm 10\%$ at 160 Hz, 24°C
	Measured Axes	X, Y, Z
	Frequency Range	1 Hz to 2.5 kHz ($\pm 10\%$)
	Machine RPM Range	100 - 3900 RPM
	Configurable Fmax	325 Hz to 2.5 kHz
	Configurable Fmin	0.2 Hz to 10 Hz
	g-Range	$\pm 80g$
Temperature Measurement	Contact Temperature Range	-40°C to +120°C
Mounting Options	Stud Mounting	M8 x 40mm bolt + 5mm pad
	Adhesive Mounting Pad	M8 x 35mm bolt + 8mm pad
	Recommended Adhesive	LOCTITE AA 326 + Activator SF7649 (for vibration pad)
	Mounting Torque	8 Nm
	Surface	Flat (spot-face recommended)
Cabling	Shielding	6-core shielded, screen isolated from connector
	Temperature Rating	250°C
	Standard Cable Length	10m (15-30m available on request)
Power Requirements	Supply Voltage	24 VDC
	Constant Current	4 mA
	Isolation	Base-isolated
Mechanical & Environmental	Enclosure	Stainless Steel 316
	Operating Temperature	-40°C to 120°C
	IP Rating	IP68
	Dimensions (with pad)	61.5mm (L) x 45.5mm (W) x 35.5mm (H)
	Weight	315g
	RoHS	Compliant