

TECHNICAL DATA SHEET



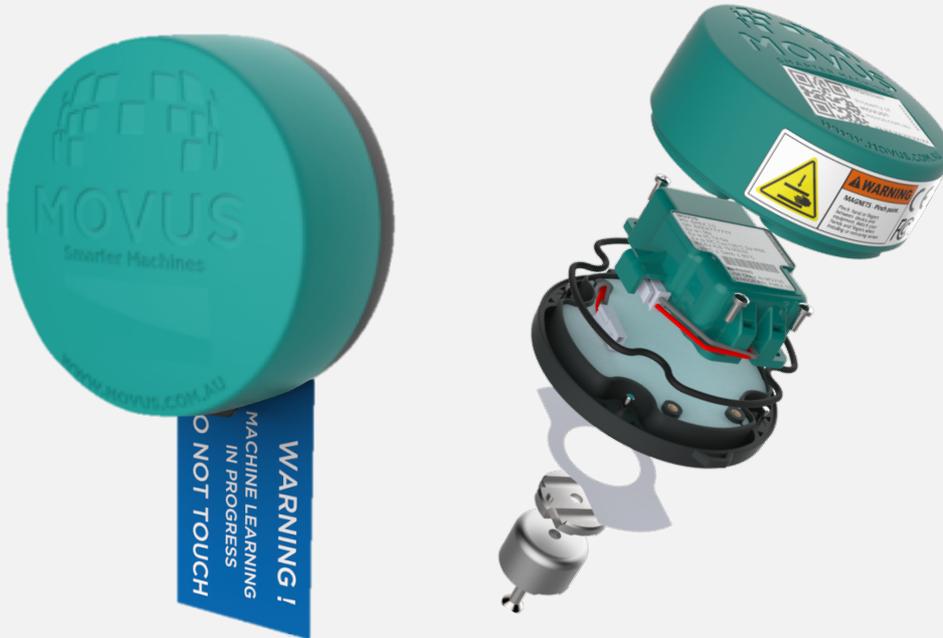
Continuous Condition Monitoring for Explosive Environments

HEAD OFFICE
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**HAZARDOUS
AREA CERTIFIED**



FOR IECEx CERTIFICATE,
VISIT
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FitMachine[®] EX

Part Number (PN): FMEX 3.0

IP66 ENCLOSURE

Housing for outdoor and harsh conditions. Tested to "dust tight" and protected against jets of water.

INTEGRATED WIRELESS

WiFi 802.11 b/n/g
Connects to existing WiFi infrastructure or FitMachine Gateway. Bluetooth 5.0 to connect to smartphone.

MAGNET MOUNTED

Designed for rapid deployment. Magnetic mounts eliminate drilling or cutting. Rare earth magnet (32kg pull strength).



ULTRA-LOW POWER

Two year battery life under normal operating conditions (15 minute sample interval).

QR CODE

QR code with unique MAC address for pairing FitMachine and equipment. Also used to gain quick access to machine data.



LANYARD ATTACHMENT

FitMachine can be secured via lanyard

PROCESSING POWER

Industry leading low power ARM Cortex M4 processor with 0.19mW / MHz.

TECHNICAL SPECIFICATIONS



Mounting Options



STANDARD:
MAGNET MOUNTING



ON REQUEST:
DIRECT M6 x 12mm
STUD MOUNT OPTION



ON REQUEST:
ADHESIVE MOUNT
OPTION

Sensing Modalities For Capturing Environmental Conditions

- Accelerometer
- Microphone (sound)
- Ambient Temperature

Wireless Communication	Network and Radio Standard Frequency WIFI and BT (nominal) Range Max RF WIFI Power Output Max RF BT Power Output	Network: WIFI + BT5.0, Radio: IEEE 802.11 b/g/n 2.4GHz, license free ISM band WIFI: 75m (246ft), BT 50m (164ft) 55 mW 6.5 mW
Temperature Measurement	Measurement Range Resolution	-20°C to 60°C 0.1°C
Acoustic Sound Measurement	Frequency Range	40Hz - 40KHz
Data Processing	A/D Conversion (all) Sampling Interval	16 bit 15 mins (standard)
Power	Battery Type Estimated Battery Lifetime Storage Temperature Battery Module	2 x 3.6V AA Lithium Thionyl Chloride (LI-SOCI2) cell – replaceable battery 2 years (depending on ambient temp, settings) 10°C to 30°C To order additional EX FM Battery Module, use MOVUS PN: BAEX 3.0
Environmental	Temperature IP Class	Operation -20°C to 60°C; -4°F to 140°F IP66 rated housing for outdoor and harsh conditions PC/PBT Material: Good chemical resistance, good impact strength, good UV resistance, good heat resistance
Vibration Measurement (overall values)	Velocity Frequency Range Detection Type	0.1 – 20mm/s DC (0Hz) – 10KHz RMS
Certifications	Radio OH&S Ex (Hazardous Areas)	ACMA, FCC, CE RoHS IECEx ICS 19.0003XX: Ex ia I Ma Ex ia IIC T4 Ga EX ia IIIC T ₂₀₀ 135C Da IP66 -20C < Tamb < +60C ATEX CML 19ATEX2323X: EX I M 1 EX II GD IECEx ExTC 19.0021X: Ex ia I Ma Ex ia IIC T4 Ga EX ia IIIC T ₂₀₀ 135C Da IP66 -20C < Tamb < +60C
Physical	Weight (incl. magnet) Case Material Dimensions (excl. magnet) Mounting	0.41kg (14.46 oz) Thermoplastic (PC/PBT Alloy Permanently Static Dissipative) 90mm Diameter x 50mm High (3.54 in x 1.97 in) 32kg (pull strength) magnet, slotted spacer for 2x metal mounting for straps