

INNOVATIVE WIRELESS MEASUREMENT

VT-301

PATENTED DESIGN US 9,921,136

Unique metrological performance and a patented design help keep your machines spinning without risk. Wireless capabilities change your relationship with machine vibration.

Key benefits

- → **Comfort** during data collection
- → **Safety**: cable-free, step back several metres from the machine
- → **Reliability**: no risk of cable damage
- → **Speed**: typically 8 s per bearing
- → **New possibilities**: machines in enclosed rooms or behind protective casing

3-axis	15 kHz	±80 g	IP65	12 h	20 m
Synchronous	@ ±3 dB (Z)	Full scale	Protection	Battery life	Wireless range (65.6 ft)

SOFTWARE ECOSYSTEM

Main features compatibility	Bearing Defender	Machine Defender	FALCON
Vibration readings ISO 20816-3 velocity, RMS acceleration, peak-peak displacement	✓	✓	✓
Acoem Bearing Defect Factor™	✓	✓	✓
Acoem Accurex™ automatic diagnosis AI	–	✓	✓
Custom measurements for advanced vibration analysis	–	–	✓

Technical **specifications**

Metrology	
Axes	**3 (X, Y, Z)**
Sensing element	**Piezoelectric**
Acquisition	**Synchronous, all axes**
Sampling frequency	**51.2 kHz (Fmax 20 kHz)**
Sensitivity	**Factory calibrated (1 g @ 120 Hz)**
Accuracy	**± 5 % @ 120 Hz, 1 g**
Freq. response (± 3 dB)	**0.4 Hz – 15 kHz (Z), 0.4 Hz – 6 kHz (X, Y)**
Full bandwidth	**20 kHz all axes**
Full scale	**± 80 g**
Electrical noise (0–20 kHz)	**< 5 mg***
Signal-to-noise ratio	**> 80 dB***

* In conditions of high electromagnetic interference, the noise level can reach 15 mg. After the test, the level returns to normal.

Wireless	
Communication	**Wi-Fi point-to-point 2.4 GHz**
Encryption	**WPA2**
Range	**Up to 20 m (65.6 ft) line of sight**
Radio certifications	**EU, FCC, IC**

Physical	
Housing	**Stainless steel 316**
Dimensions (Ø × H)	**Ø 42 × 121 mm (Ø 1.65 × 4.76 in)**
Mounting	**M6 thread (6 mm depth)**
Weight	**375 g (13.23 oz)**

Battery	
Battery type	**Li-ion, USB-C rechargeable**
Battery life	**12 h typical**
Charging time	**6 h**
Charging temperature	**0 to 45 °C (32 to 113 °F)**

Environmental	
Protection	**IP65**
Operating temperature	**-20 to 60 °C (-4 to 140 °F)**
Short-term storage	**-20 to 60 °C (-4 to 140 °F)**
Long-term storage	**0 to 25 °C (32 to 77 °F)**
Relative humidity	**0 to 95 %**
Shock resistance	**5,000 g peak**
Max. altitude	**4,000 m (13,123 ft)**



PACKAGING & DELIVERABLES

In the box

- → VT-301 sensor
- → High-strength bipolar magnet with tightening key
- → Indexed cementing pad sample (for bipolar magnet)
- → USB-C / USB-C cable, 1 m (3.3 ft)
- → Acoem transport pouch
- → Calibration certificate
- → Printed safety instructions

Download the free Acoem **Bearing Defender & Machine Defender** apps

GET IT ON Google play

Download on the App Store

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