

EXTENDED BATTERY WIRELESS VIBRATION SENSOR



ORDER CODE: AT-106
PRODUCT CATEGORY: SENSORS

Smart Vibration Sensing – Longer Life, Lasting Protection.

PRODUCT OVERVIEW

General Description

E4A's AT-106 Wireless Vibration Sensor is an extended-battery version of the AT-105, offering a longer operational life. Slightly larger in size, it features a robust 6-axis accelerometer for precise vibration measurement, making it well-suited for tracking equipment health over extended periods. In addition to vibration sensing, the AT-106 includes integrated ambient light, temperature, and humidity sensors, delivering a complete picture of environmental conditions.

Simple mounting options allow for easy installation across a wide range of equipment, enabling reliable, real-time data collection in virtually any setting. Powered by two CR123A batteries, the AT-106 is optimized for extended deployments while maintaining seamless connectivity via Bluetooth® 5.



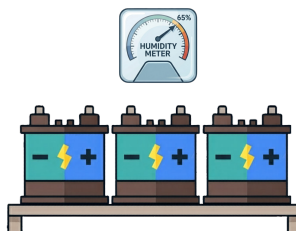
TYPICAL APPLICATIONS

Industrial Pump Monitoring



Insight: Protect your critical infrastructure by mounting the sensor directly to motor or pump housings. Detecting abnormal vibration signatures early, can prevent unplanned downtime and catastrophic motor or pump failure.

Humidity Protection



Insight: Keep batteries and sensitive equipment within safe humidity limits. Real-time alerts prevent degradation, corrosion, or failure due to excessive and unanticipated moisture levels.

Site Condition Awareness



Insight: Observe variations in ambient light to understand changing conditions. Receive alerts if the monitored asset moves outside its normal range, protecting light-sensitive equipment from exposure or damage.

TECHNICAL SPECIFICATIONS

Power Supply

Main Power	Internal Battery CR123A (Li/MnO ₂) cells
Nominal Voltage	3VDC
Maximum Capacity	3000mAh
Current Consumption	24µA (avg.)

Operating Specifications

Operating Temperature	-20°C to +60°C
Storage Temperature	-20°C to +70°C (battery installed) -20°C to +70°C (without battery)
Permissible Humidity	20-85% (operating and storage)
Ingress Protection Rating	IP30
Pollution Degree	2
Altitude	2000m

Measurement Characteristics

Accelerometer	6-axis, ±16g FSR
Light Exposure	0 to 100% relative light Up to 220 lux
Temperature	-200°C to +360°C ±0.5°C accuracy
Humidity	0 to 100% relative humidity ±3.5 accuracy

Physical Characteristics

Housing Material	Flame Retardant Polycarbonate/ABS
Physical Dimensions	Height: 36.5mm / 1.44inch Width: 101mm / 3.9inch Depth: 55mm / 2.1inch
Weight	132g
Mounting	Screw mount Magnetic mount Double sided adhesive

Communications

Wireless Module	2.4GHz Bluetooth® 5 transceiver
Communication Range	125m line of sight
Reporting Interval	User programmable in 30s increments

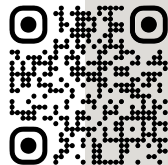
Security

Encryption	AES 128-bit crypto accelerator ECC and RSA public key accelerator (PKA) SHA2 accelerator (full suite to SHA-512) True Random Number Generator (TRNG)
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User Interface

Pushbuttons	1 pushbutton (device reset and device pairing)
Status LED	2 status LED's (red, green)

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