samsara

Machine Health Monitor

HM SERIES DATASHEET

OVERVIEW

HM-series Machine Health Monitors are wireless, real-time vibration and temperature sensors that are designed for harsh industrial environments and deploy in a matter of minutes.

Sensors mount directly onto machines and continuously stream vibration & temperature data, generate alerts and enable advanced diagnosis via FFT to provide real-time visibility of the health of critical equipment including motors, compressors, pumps, fans, etc., thereby reducing unplanned downtime and lowering maintenance costs.

HIGHLIGHTS

- Wirelessly monitor machine vibration and surface temperature

- Waterproof, ruggedized design for hazardous environments

- Class-leading electronics, runs for 3+ years on a single AA battery

- Affordable and Easy to install and operate at any scale

Included Sensors

Vibration	Triaxial accelerometer
	Units: Vibration Velocity (Amplitude and RMS) - mm/s or ips **Frequency Range:** 10Hz to 1 kHz **Measurement Range:** +/- 16g **Sampling Rate:** 1666 Hz with future support up to 6664 Hz **Accuracy:** +/- 10%
Surface Temperature	**Range:** -40° to 85° C / -40 to +185 °F **Accuracy:** +/- 1° C

Wireless Connectivity

Real-time	Temperature sampled every 4 seconds Vibration sampled every 5 minutes
Auto-discovery	Automatically detects and connects to any gateway associated with the same account
Range	100 ft / 30 m (line of sight). Actual range depends on RF interference, building materials, and physical obstacles
Radio Frequency	2.4 GHz, proprietary low-power sensor data protocol

Data Logging

Capacity	3 months on-device storage of vibration & temperature data
Data upload	Automatic (zero-touch) wireless data upload via Samsara gateways

Enclosure

Dimensions	63mm x 63mm x 30.5mm
Weight	91g
Operating temperature	-40° to 85°C
Battery	3+ year battery life. User-replaceable AA battery
Materials	Polycarbonate
Mounting	Magnetic or industrial-grade epoxy (for non-ferrous surfaces)
Ingress protection	IP67 rated waterproof and dustproof per IEC standard 60529. Designed for splash, spray, and dust.

Software Features

Visibility and management	Real-time visibility, SMS and email alerts, and historical reports via Samsara Cloud dashboard for web and mobile devices
All-inclusive license	Requires HM license, which includes maintenance and support, dashboard access, sensor data storage, and feature updates

Ordering Information

Machine Health Monitor

HW-HM11	Samsara Wireless Machine Health Monitor for Vibration and Temperature

License

LIC-HM-1YR	1-year license for HM-series monitors
LIC-HM-3YR	3-year license for HM-series monitors
LIC-HM-5YR	5-year license for HM-series monitors