



SHINKAWA

ZARK Nano

Wireless Condition Monitoring IIoT Technology - Industry 4.0



Triaxial vibration and temperature sensor



Bluetooth 5.0 communication



Alerts via text message and email



Quick and easy to install



Low cost



SHINKAWA

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Zark Nano

Vibration Sensor Specifications	Vibration Sensor Type	MEMS Triaxial technology
	Axis	1 or 3 axis (Controlled by Machine Dossier)
	Dynamic Range	±16 g Peak
	Frequency Response	5 Hz (300 cpm) to 2 KHz (120,000 cpm) ±3db
	Sensitivity	16-bit A/D
	Vibration sensor A/D	16Bit
Vibration Sensor Calibration Specifications	Calibration point	0.2 IPS (5mm/sec) RMS @100 Hz (600 cpm)
	Amplitude linearity	±0.02 IPS (±0.5mm) from 1 to 20 mm/sec rms @ 100 Hz (0.04 to 0.79 IPS rms @ 6000 cpm)
Functions of the Vibration Sensor	Vibration measurements type	Acceleration: g or mm/s ² ; Velocity: in/s or mm/s
	Vibration amplitude type	RMS, True Peak, Calculated Peak
	Waveforms	2048 Data Points
	Number of Resolution Lines (FFT)	800, 1600, 3200 – default is 3200
	Fmax (Sampling rate)	6400 Hz, this is default
	Frequency bands	Six (6) Frequency Bands with Independent Alarm Values
Temperature Sensor Specifications	Temperature sensor type	Semiconductor
	Temperature range	-40°F to 257°F (-40 °C to 125°C)
	Sensitivity	10mV/°C
	Accuracy	± 3°C
	Linearity	0.5°C
Sensor Activation Method	By Scheduled Time	1,2,3,4,6,12 Hours/1 Day
	Measurement by detected event	Immediate activation at the moment of detecting an increase in the programmed variable, and this exceeds the programmed alert values.
Wireless Communication	Type	Bluetooth Low Energy 5.0 / BLE 5.0
	Wireless range	100 meter sensor to access point (zark hub), line of sight. (The actual range depends on the physical limitations and obstructions present)
Battery and Power	Type	Replaceable ½AA Size, 3.6V lithium-thionyl chloride
	Life	2-5 years or 4000± activations (may be less depending on the operating mode and configuration)
Environmental	Operating temperature	-40 to 185°F (-40°C to 85°C)
	Ingress Protection	IP66 Enclosure - Protected against heavy seas or powerful jets of water. (subject to approval)
Physical	Weight	2.64 oz (75 gr)
	Dimensions	Height: 2.05" (52 mm) Diameter: 1.10" (28 mm)
	Mounting	¼ - 28 UNF Female
Gateway Technology	SHINKAWA	Zark Hub X8 II via Bluetooth Low Energy 5.0 Communication
Regulatory Compliance	Intrinsic safety	CSA Class 1 Division 2 ; ATEX/IECEX (subject to approval)
	Conformity	Compliant with all CSA and FCC/IC (subject to approval)