Model Code / Additional Specification Code

ZN-4A

Specification

VIBRATION MEASUREMENT

Sensor type : 3-axis MEMS
Measuring axis : 1 axis (Vertical direction) / 3 axis
Measurement range : 156.8 m/s^2 (reference value: 16 g) peak
Frequency range : 5 to 2000 Hz (±3 dB)

TEMPERATURE MEASUREMENT

Measurement range : -20 to 85°C (±3°C)

MEASUREMENT DATA

Trend Data

Measurement parameter: Acceleration (each axis) : rms, true peak
Velocity (each axis) : rms, cal. peak
CIV[*1, *2, *3] : 1, 2, 3, 4 × RPM band spectrum (max peak), Sub 1× RPM band spectrum (rss)[*4], Over1 × RPM band spectrum (rss)[*4]
Temperature

*1: Condition Indication Values
Velocity Spectrum band set on Machine Dossier
*2: The range of each frequency band is configurable on Machine Dossier.
*3: The rotations per minute (RPM) is configurable on Machine Dossier.
*4: Root-Sum-Square

Waveform Data

Measurement parameter: Acceleration (each axis), raw
Transmission conditions: Never, Only for Alarm[*5], Always
Amount of data: 2048 points
Sampling frequency: 6400 Hz

*5 Only when vibrations exceeding the alarm threshold are detected

Spectrum Data

Measurement parameter: Velocity (each axis)
Transmission conditions: Never, Only for Alarm[*5], Always
Number of lines: 800/1600/3200
Data to be transmitted: Top 200 frequency analysis data

DATA COLLECTION

Interval setting: 1-, 2-, 4-, 6-, 12-hour or 1-day *[6]

When alarm occurred: When vibrations exceeding the alarm threshold are detected, the data collection and transmission interval (min 1 hour) becomes half the setting interval until the alarm is cleared.
During wake-up operation: When vibrations exceeding the wake-up threshold are detected, 3 data will be collected and transmitted in 30min, the 1st one right after the detection, the 2nd one 15min later and the 3rd one 30min later. .

*6 If the total amount of the wired sensor channel for ZARK X8II and the number of relaying ZARK Nano is 10 or more, it is recommended to set the interval to 2 hours or more.

COMMUNICATION

Radio system: Bluetooth® Low Energy (BLE) 5.0, 2.4 GHz
Destination: ZARK X8II HUB/HYBRID
Maximum communication distance: Approx. 40 m to ZARK X8II[*7, *8, *9]

*7 Line-of-sight
*8 The communication distance may vary greatly depending on the installation position and environment.
*9 Check the communication status before installation.

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BATTERY

Type:	Replaceable 1/2AA, 3.6 V, Lithium thionyl chloride
Life:	Up to 3 years[*10], or approx. 4000 times[*11] of data collection/transmission[*12]

*10 Reference value at ambient temperature of 23±3°C, data collection interval setting of 12 hours, without alarm or wake-up detection.
*11 Reference value at ambient temperature of 23±3°C, data collection interval setting of 6 hours, without alarm or wake-up detection.
*12 The battery life may vary depending on the conditions such as measurement data specification, occurrence of alarm in the subject device, ambient temperature, and communication status.

OPERATING ENVIRONMENT

Temperature:	-20 to 85°C
Humidity:	0 to 100% RH (no condensation)
Splash-proof construction:	IP66

PHYSICAL

Dimensions (mm):	ϕ28 × 50 (H)
Mass:	Approx. 75 g (including the battery)
Mounting hole:	UNF ¼-28
Case material:	Plastic (cover), stainless steel (base)

ACCESSORIES

UNF ¼-28 to M6 mounting stud (1 pc.)

⚠ WARNING
To use wireless devices in countries and regions around the world, it is necessary to obtain a certification under the radio law of the relevant country or region.
The wireless module used in the system can only be used in the country where it has been certified.
If the system is to be used outside Japan, contact the sales office where you purchased the system.

*The items or other information included in this document may change without prior notice.