

Online Machine Diagnosis System

- Acceleration
m/s²
- Velocity
mm/s
- Displacement
μm
- Current
A
- Voltage
V

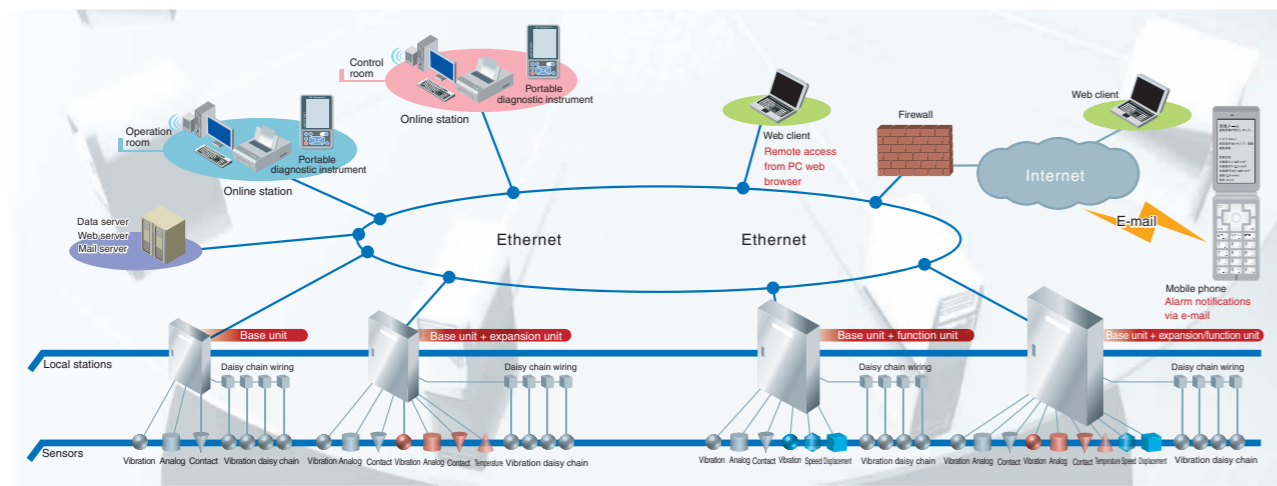
This system contributes to enhanced facility efficiency across a wide range of industries, by realizing efficient maintenance through detecting signs of abnormality, analyzing the cause of abnormality, and forecast of deterioration.

Applicable facilities	Continuous 24-hour facility diagnosis	Pulp and paper, aluminum, copper, steel works, chemicals, semiconductors, clean/sewage water, buildings, etc.
	Diagnosis of explosion-hazard facilities	Petroleum, chemistry, etc.
	Facility diagnosis of utilities	Pumps, blowers, motors, gears, etc.
	Diagnosis of machine tools	Lathes, drilling machines, presses, robots, etc.
	Product quality diagnosis	Detection of scratches and defects

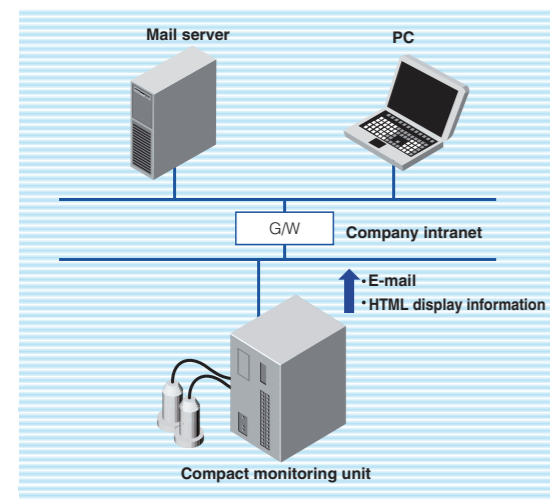
CMS Online Machine Diagnosis System

The New World Classic — An Ever Evolving System —
“CMS Series” has an excellent reputation from our customers.

- Automatic diagnosis of rotating machines**
 Fully automatic system analyzes the cause of abnormality and outputs a diagnostic report.
- Equipped with an advanced vibration analysis function**
 Vibration analysis function uses FFT frequency analysis and now supports 51,200 lines — 16 times the number supported by previous JFE Advantech systems — for more precise abnormality detection.
- Real-time vibration measurement**
 Measures and records the vibration behavior of the running facility in real-time to support post-event analysis and quality control.
- Vibration pickup daisy chain connection (patent pending)**
 Vibration pickup can be connected in a daisy chain configuration for reduced wiring installation costs.



CMU-10000 Compact Monitoring Unit



Easy and inexpensive online machine condition monitoring

- Just the right number of pickup connections**
 A single unit can constantly monitor equipment data from 16 vibration pickups, 8 analog voltage sensors, and 8 non-voltage contacts. Ideal for small-scale/temporary monitoring applications, factories where equipment layout changes frequently, and similar situations.
- No need to installed special software. Screens can be viewed from a regular PC**
 As master settings, measurements, data storage are performed by the unit itself, there is no need to have dedicated control/data collection PCs, data servers, or similar hardware. Compact monitoring unit data can be viewed from a web browser on a PC connected to the network.
- Alarm output**
 Contact output is possible when an alarm is generated. This makes it possible to have e-mail notifications sent out when used in conjunction with a mail server.

MK-64 Online Vibrometer



This online vibrometer accurately detects equipment abnormalities. A digital meter offers higher visibility.

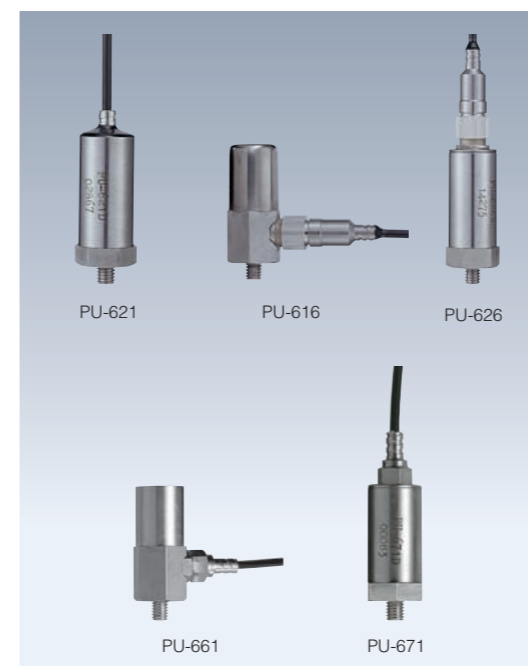
- Applications**
 - Continuous vibration monitoring of a motor, pump, or fan
 - Collection of vibration data for a DCS
 - Diagnosis of a rotating machine
- Digital meter display for higher visibility**
 Enables checking of the signal level instantly.
- Easy alarm setting with digital display**
 You can easily set any value in 1% units using the digital setting switch.
- Level signal and alarm output functions**
 The vibrometer is equipped with level signal (4 to 20 mA DC) and alarm output (relay output).
- Precise diagnosis available by connecting the portable diagnostic instrument**
 By connecting a MK-210HEII Vibration Data Management System, precise diagnosis, frequency analysis, and report output are made available.
- Power source voltages for global application**
 The MK-64 supports power source voltages ranging from 85 to 264 V AC for global applications.

Basic specifications

Pickup	Piezoelectric acceleration type 5.1 mV/(m/s ²) (50 mV/G)		
Measuring mode range*	Measuring mode	Measuring frequency	Measuring range
	Acceleration (RMS)	5 Hz to 20 kHz	5, 15, 50, 150, 500 m/s ²
	Acceleration (RMS)	1 kHz to 20 kHz	5, 15, 50, 150, 500 m/s ²
	Acceleration (PEAK)	1 kHz to 20 kHz	5, 15, 50, 150, 500 m/s ²
	Velocity (RMS)	5 Hz to 1 kHz	5, 15, 50, 150, 500 mm/s
	Displacement (p-p)	5 Hz (or 15 Hz) to 1 kHz	50, 100, 200, 500, 1000 μm
Alarm	Upper limit: 1 level for each measuring mode		
	Relay contact point: 1a		
	Contact point capacity: 5 W, 110 V AC max. Permissible setting delay: 0 to 15 seconds		
Signal output	DC (level output)*: 4 to 20 mA DC Permissible load resistance: 500 ohms max. AC (waveform output): Pickup signal through output 5.1 mV/(m/s ²)		
Power source	85 to 264 V AC, 50/60 Hz, 10 W max.		
Dimensions	54 x 180 x 160 (W x H x D) mm (excluding mounting bracket and projections)		
Weight	Approx. 890 g		
Operating temperature range	-10 to 60 °C (condensation-free)		

* An overall value system (optional) is also available for the operation method. Two measuring modes can be selected from the five modes available. (Two identical modes can be selected to set two levels of alarms.)

Piezoelectric Vibration Pickup



Comprehensive lineup to suit a range of conditions. Made in-house to ensure excellent value for money.

- Compact design and robust construction**
 Use of piezoelectric element contributes to compactness, toughness, and a wide band.
- Noise-resistant design**
 All models are insulated and incorporate a preamplifier for excellent noise resistance. (Note: Models for high-temperature applications require external preamplifiers.)
- Comprehensive lineup**
 A wide range of models is available including heat-resistant, waterproof, and explosion-proof types.

Product	Model	Specifications
Piezoelectric vibration pickup	PU-621	Top-mounted cable, general purpose, waterproof, insulated
	PU-616	Side-mounted cable, connector, general purpose, waterproof, insulated
	PU-626	Top-mounted cable, connector, general purpose, waterproof, insulated
	PU-661	Side-mounted cable, heat-resistant, waterproof, insulated
	PU-671	Top-mounted cable, heat-resistant, waterproof, insulated
	PU-441, 446, 451, 456	Intrinsic safety, waterproof, insulated

* A range of models other than those shown above is available. Contact JFE Advantech for details.