TECHNICAL DATA



Fluke 3563 Analysis Vibration Sensor Wireless vibration sensor for machine fault analysis



POWERFUL, HIGH-VALUE ANALYSIS SENSORS

The Fluke 3563 Analysis Vibration Sensor delivers a range of features, from performance tracking to fault analysis.

Leverage auto-generated or customizable thresholds based on machine type to allow your technicians, regardless of experience, to immediately gather insights and take the time-sensitive steps necessary to avoid unplanned downtime.

The 3563 wireless sensors help ensure four essential components of a reliability program:

- 1. Improved uptime with lower costs
- 2. Data collected from the most critical machines
- 3. Integration of answers on a common platform shared with everyone on the team
- 4. Support from condition-based maintenance experts to help you start, implement, and maintain your new program.

The Fluke 3563 Analysis Vibration Sensor combines a piezoelectric high-frequency sensor with software analytics to enable maintenance teams to track and analyze asset vibration readings continuously. It enables the monitoring of an extensive portfolio of production-critical assets.

Vibration data is transmitted wirelessly to the Fluke 3503 Gateway and the cloud via Ethernet or Wi-Fi. The information is viewable in the LIVE-Asset[™] Portal, which displays trending graphs and machine health dashboards. With a single view, you can assess a facility's overall asset health or do a deep dive into the health of a specific asset.

A unique floating architecture, auto-generated thresholds based on asset details and alarm notifications combine with insightful software to help you identify faults that spur quick action. Early warnings of potential asset malfunction ensure enough time for corrective action before a catastrophic failure. As a result, users are assured 24/7 whether machines are running at high performance, extending their life and reducing operating and maintenance costs.

Using a condition monitoring system in conjunction with this powerful sensor, maintenance teams can build a holistic approach one that enables them to make decisions and schedule work based on the criticality of the machine and what the data is saying, not just on the calendar.

Rather than dedicating equal time to each asset, condition monitoring systems allow teams to focus on the machines most important to a facility's operations. A maintenance technician or engineer can catch a potential catastrophic failure by continuously monitoring those machines before it occurs.

Key benefits at a glance:

• Long battery life

The piezo sensor and software combine to produce a unique, smart battery management capability with a user-determined data transmission rate. Users can adjust and extend the sensor battery life while still getting the necessary data.

• User-friendly experience

Users can configure the sensor based on machine type for precise readings without manually entering severity thresholds.

• Insightful analysis capabilities

The LIVE-Asset[™] Portal software application enables users to analyze both banded overall values and narrowband values. With this capability, they can determine the fault causing a problem as well as the root cause of that fault. Users can then evaluate critical next-step actions.

• Wireless and scalable

The wireless gateway possesses dual network connection capabilities—Wi-Fi and Ethernet—so your system can fit your facility.



Simple steps for program success

1. Survey your plant and order initial system components

A little planning and preparation will help you smoothly install the Fluke 3563 Analysis Vibration Sensor. By following the steps in our Deployment Planning Guide, you'll learn how to select your machines, sensor, gateway locations and learn about your network connectivity options.

2. Follow this simple process for a successful setup



3. Monitor your success and grow the program to cover more assets

Document your savings to get buy-in and support from managers to purchase components for the next implementation phase. This process to start small and grow is a proven method to implement a new program successfully. Remember to use Fluke 3562 Screening Vibration Sensors and Fluke 3563 Analysis Vibration Sensors together to build a complete condition-based monitoring system.

4. Sustain the reliability program over the years to come

Reliability is a journey, not a destination. Ensure that you continue to document savings and accomplishments and report to upper management so that they will not forget the reason for your success. We need to remind everyone that reliability is an investment in our future, not a cost of doing business.





Reliability

Fluke 3563 Analysis Vibration Sensors

Data Transmission		
Transmission interval	Configurable, minimum default is every 10 minutes	
Range		
Frequency range	2 Hz – 10,000 Hz Z (0 Hz – 1,000 Hz X, Y)	
Amplitude range	z-axis: +/- 50g; x- and y-axis: +/- 16g	
Sampling frequency	18.5 – 62.5 kHz	
Temperature		
Measurement range	-20°C to 85°C (-4°F to 185°F)	
Storage range	-20°C to 85°C (-4°F to 185°F)	
Mechanical		
Size	(D x H) 68mm x 53.4mm	
Weight	199.5g (145g without batteries)	
Ingress protection class	IP67	
Shock Limit	5000 g peak	
Power	6 x 3.6V 1/2 AA Li-SOCI 2 battery Battery lifetime: At least 1 year (Every 10 minutes overalls / Every 60 minutes 2 sec. TWF)	
AD Conversion	24 bit	
Wireless communication (sensor to gateway)		
Radio Frequency	2.4 GHz ISM band according to IEEE 802.15.1	
Range (line of sight)	100 meters	

Fluke 3503 Wireless Gateway

Power supply options	
AC main power	AC input 85-264 VAC, 0.35A/115V, 0.25A / 230V, 47-63 Hz
Power-Over-Ethernet	Compliant with IEEE 802.3af
Wireless communication	
WIFI:	IEEE 802.11 ac/a/b/g/n
WIFI Security:	WPA/WPA2
Ethernet:	10/100/1000 MBits/s
Mechanical	
Ingress protection class	IP67
Temperature	Operation: -20°C to 60°C (-4°F to 140°F) Storage: -40°C to 80°C (-40°F to 176°F)
Size	(L x W x H) 160mm x 160mm x 90mm
Weight	948.5 g

Fluke 3720 and 3721 Mounting Adapters

Screw mount	
Size	(D x H) 68mm x 21mm
Weight	187.9 g
Adhesive mount	
Size	(D x H) 68mm x 21mm
Weight	187.9 g

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