

Reliability

User-friendly data capture in the Fluke 3563

The Fluke 3563 Analysis Vibration Sensor's eMaint condition monitoring software application offers a straightforward configuration process for all experience levels.

The eMaint condition monitoring software application in the Fluke 3563 Analysis Vibration Sensor offers a straightforward configuration process for users of all experience levels.

The software application generates customizable frequency band alarms, automated thresholds based on specific machine information, data trending graph visualization, and notifications. It also enables maintenance professionals to configure both banded overall values and narrowband values.

With this capability, users can quickly screen out which machines are healthy or not. They can determine the fault causing a problem in an unhealthy machine and obtain insights to evaluate their next-step actions.

Improved user experience for all levels

Fluke 3563 users can leverage data thresholds that are predefined to the asset type. The eMaint condition monitoring software also enables engineers and technicians to choose either the predefined data parameters or setting their own preferred thresholds. Overall, the configuration process in the eMaint condition monitoring software is user-friendly and intuitive.

The ability to configure begins when someone puts asset information into the software. A new user starts the configuration through a button on the Settings page. During this process, The user can fill in asset details, components, test points, tasks and alarms, and device settings within each named asset.

Here is more about each:

	FLUKE.		0 🦨 🔮	Fluke SalesDemo		
DASHBOARD	Edit	Fluke Manufacturing Facility > Compressor				
	> 🗅 Fluke Park (Main Building)	Asset Details O Components Test Po	oints 🧭 Tasks & Alarms 🔗 Device Settings			
	V 🗁 FRS Florida Office	Asset Name	Default speed [RPM]	0		
	> 🗅 3563 Demonstrator	Compressor	1800			
	> 🗀 Bonita Springs	Asset ID (CMMS ID)	Power [hp]	0		
	✓ ➢ Fluke Manufacturing Facility	Asset ID (CMMS ID)	25.00			
	Compressor	Description	Foundation	0		
¢	> 🗅 IDC Building	Description	RIGID	×		
	> 🗅 FRS Florida Main Building		Æ			
Accelix ⁻	> 🗅 Evergreen Way Building			Next		

Asset details

Under the asset details, the user can include a description, Asset ID number, power (HP/kW), speed (RPM), and foundation type. The software requires the user to input the shaft speed (RPM) of the machine. A popup will appear in the tasks/alarms area to put in this information as a reminder. The RPM is critical to include because it helps build the auto-generated thresholds.

Components

The component area allows users to start defining their machines through the driver component and driven component. For example, the user would tell the software what features make up a centrifugal fan through the selections made.

Test point

The test point section is related to the best location (bearing) to get health and fault information about the machine. Information about the test points includes the name of choice, position on the machine, and sensor orientation. The user can have multiple test points on each machine.



Tasks and alarms

In the tasks and alarms area, a "recommended alarm limits" box appears.



This box provides users the option of having the software set the alarm limits automatically based on a specific asset's information. The ability to have auto-generated information is a timesaver. It sets thresholds for the captured vibration measurements, including overall velocity and trends (velocity bands and acceleration bands).

The velocity bands/frequency bands auto-generate, which helps those who do not have a deep level of vibration knowledge.

Trend Measurements	Velocity Bands										
Temperature	Z-Direction										
Overall Velocity	Band Name	Туре	Mid Point	Width	Unit		Warning	Alarm	Unit		
Overall Acceleration	1.8	 RMS	1.00	0.10	Order -	0	0.14	0.22	inch/s	•	0
Bearing	Band Name	Type	Mid Point	Width	Unit		Warning	Alarm	Unit		
Advanced Trends	2X	 RMS	2.00	0.10	Order -	0	0.09	0.14	inch/s	•	0
Velocity Bands											
Acceleration Bands	Band Name	Туре	Mid Point	Width	Unit		Warning	Alarm	Unit		
	31	 RMS	3.00	0.10	Order -	0	0.06	0.08	inch/s	0	0

Think about a car's flexibility with an automatic transmission that you can also drive with a manual shift. The auto-generated thresholds based on machine details are highly beneficial for those with a beginner to intermediate experience level. And users with more experience can add additional customized bands manually.

Trend Measurements	Velocity Bands											
Temperature	Z-Direction											
Overall Velocity	Band Name	Type		Mid Point	Width	Unit		Warning	Alarm	Unit		
Overall Acceleration	1X	 RMS		1.00	0.10	Order -	0			inch/s	۲	0
Bearing	Band Name	Type		Mid Point	Width	Unit		Warning	Alarm	Unit		
Advanced Trends	2X	 RMS	×	2.00	0.10	Order -	0			inch/s	۲	0
Velocity Bands												
Acceleration Bands	Band Name	Туре		Mid Point	Width	Unit		Warning	Alarm	Unit		
	3X	 RMS		3.00	0.10	Order -	0			inch/s	۲	0
	+ Add band											

Because each machine functions differently, one area that doesn't automatically fill in is temperature.

Device settings

The configuration includes a smart battery management capability with a user-determined data transmission rate. Users can select how often they want data collected and how often they receive data under device settings.

Users can adjust and extend the sensor battery life while still getting the necessary data. By choosing the rates needed for a specific machine, users can extend the battery life and still receive the necessary data to monitor asset health.

Once completed, a box prompts the user to download the Fluke Connect app to add sensors and assign assets to sensors.

Dashboard and Insights

After completing the commissioning and installation of the sensors and gateways, the user would then go to the eMaint condition monitoring software dashboard and see their assets and devices appear.

The dashboard allows the user to quickly see each asset's general information, including active alarms, warnings, system errors, and devices. The dashboard also provides the facility asset health status through color designations. Green means working correctly, yellow means warning, red means critical, and black means system error.



Users can find further data through the insights tab or by clicking on each asset from the dashboard. The insights section provides information on events (alarms and alerts), measurements, devices, and asset details.

A user-friendly configuration process and readable insights result in extended peak operating performance. Efficient maintenance team resources ultimately deliver increased business value from your maintenance operations.



Summary

Combined with setup and vibration training services, the Fluke 3563 Analysis Vibration Sensor can be implemented seamlessly into existing plant operations.

The sensor combined with eMaint condition monitoring software is ideal for kicking off a vibration condition monitoring strategy. The result is a more effective deployment of maintenance team members and increased uptime, ensuring maximum facility productivity.



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