Vibration Analyzer

Get started in three easy steps:

1 Make sure you meet installation requirements.

2 Place data hub(s) and Vibration Analyzer and connect both to 115 VAC or 24 VDC.

3 Establish a network connection.

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1 Installation Requirements:

- Isolated power source (115/1/50-60) for data hubs.
- Tablet or smart phone (Operating system requirements: Android version 4.4 to 7.1, or iOS 8 to 11.0)
- Wi-Fi network emitting a 2.4 GHz frequency, or a wired Ethernet connection, with internet access.
  >> **Note:** See Network Requirements on next of this document.

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2 Install and Supply Power to the Vibration Analyzer and the Data Hub(s):

- Attach the sensor housing/magnet to a smooth flat surface on top of the motor or blower.
  >> **Note:** An optional adhesive mount kit can be used for mounting the sensor on a non-ferrous surface.
- Install the Vibration Analyzer power supply to a convenient flat surface (like the pump frame or control box) – using customer-supplied hardware or 3M Dual Lock™ near where you located the sensor housing. This minimizes the run of the sensor wire.
- Connect supplied plug on the Vibration Analyzer to 115 VAC or 24 VDC depending on the model purchased.
- Peel the protective skin from the 3M Dual Lock™ on the bottom of the data hub and attach the data hub to a clean, dry, flat surface (wall or support pole) within 15 feet of the sensors.
- Connect the micro-USB plug from the power supply to the data hub.
- Provide a local, isolated power source (115/1/50/60) for the data hub(s). They will be powered up in Section 3.
  >> **Note:** Each data hub will support up to two Vibration Analyzer sensors.

3 Establish Network Connection

Network Requirements:
MachineSense Wifigurator requires that certain ports are open for its devices to talk to its cloud services.

Please confirm following ports are open:
- TCP/IP port 8883
- TCP/IP port 443
- TCP/IP port 2123
- TCP/IP port 22
- UDP port 123

If you choose Wired Ethernet, with DHCP mode for the data hub:
- Insert your Ethernet cable connector into the data hub.
- Plug the data hub into the isolated power source (115/1/50/60).
- After 1-3 minutes, the network connection should be complete.

If you choose Wi-Fi, or Wired Ethernet with Static IP Mode for the data hub:
- Download the MachineSense Wifigurator App.

■ **On an iOS or Android device:**
a. Search for 'MachineSense Wifigurator' in the App Store or Play Store and download the App.
b. Launch the App, and follow the on-screen instructions in the Wifigurator to connect your smart device to the data hub.

■ **After your device is connected to the data hub:**
You will be prompted to choose the network interface for the data hub, Wi-Fi or wired Ethernet.

If you choose Wi-Fi:
- The initializing page will scan for available networks.
- Press Scan local Wi-Fi.
- Choose a network with a strong signal strength.
- Click "Connect".
- Enter the password for your Wi-Fi network.
- Choose DHCP or STATIC mode.
- Click "SAVE".

If you choose Wired Ethernet and prefer to set a Static IP Address for the data hub:
- Choose STATIC mode.
- Click "SAVE".
- When prompted, insert your Ethernet cable connection into the data hub.
- Click "OK".

With Wi-Fi, or Ethernet and Static IP Mode for the data hub:
- After 1-2 minutes, the network connection is complete provided you have entered the correct password.
- Network connection is now complete.

> To begin using your products:

■ **If you _have_ a Crystalball account:**
Please login to your Crystalball account and register your product, then onboard the sensor. Detailed instructions are located in the 'RESOURCES' tab in Crystalball.

■ **If you _don't have_ a Crystalball account:**
Please visit machinesense.com and click on the 'Crystalball' link. Please create an account by clicking the 'Create Account' button. After creating an account, login to Crystalball and register your product, then onboard the sensor. Detailed instruction guides are located in the "RESOURCES' tab in Crystalball.

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PH: +1-443-457-1165 | **MachineSense.com**