TECHNICAL DATA

Fluke 3561 FC Vibration Sensor and Fluke 3502 FC Gateway

FLUKE CONNECT

EASE OF USE
Easy to install, operate, collect data, and take maintenance actions without specialized training

INCREASE SAFETY
Place in hard-to-reach or hazardous areas to continuously monitor key assets.

INCREASE UPTIME
Actionable data provides insights to increase the reliability of assets.

The Fluke 3561 FC Vibration Sensor makes predictive maintenance fast and scalable. Install this 10–1000Hz wireless sensor and begin gathering data immediately. Use this sensor to remotely monitor dangerous or hard-to-reach places for three years. Be alerted to conditional changes with alarming based on the Fluke Overall Vibration Severity scale. Monitor vibration measurements to detect imbalance, misalignment, looseness, and bearing wear faults. The Fluke Connect™ system grades asset health from 37 machine categories, enabling you to decrease routes and improve uptime by giving you actionable insights.

Rugged hardware for multiple year use

The 3561 FC is compact and lightweight yet IP67 rated and rugged enough to last in industrial environment.

Battery life provide 3 years of use

Continuous overall vibration measurement (10 Hz – 1,000 Hz) for acceleration, velocity and displacement units of measurement for a wide variety of machines.

Remote monitoring

Use the FCCM software from your computer or mobile device for remote monitoring.

Alarms and alerts

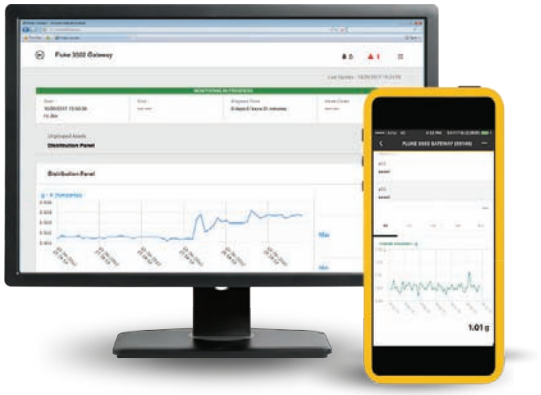
FCCM software uses the Fluke Overall Vibration Severity scale to grade the health of 37 machine categories and sends alarms to users' smart devices or computers within seconds of an abnormality.

Data Trending

View real-time and historic data in a graphs. Use the triaxial vibration trend and temperature trend data along with alarms to take maintenance action.

Connected reliability system

Using the Fluke Connect app, compare your vibration data with data from other portable and fixed Fluke tools and create work orders against the measurement data. Build a reliable maintenance program with over 80 Fluke Connect tools now available.



FLUKE®

Prerequisite for Vibration Monitoring Program

1	2	3
Deployment Planning	**In-App Set-up**	**Hardware Installation**
Wireless Connection (wifi or mobile router)	BLE enabled smartphone	3561 FC Vibration Sensors
	Fluke Connect app installed on smartphone	3502 FC Gateways

Use the Fluke 3561 FC Vibration Sensor to check these machine categories:

Chiller
- Reciprocating (Open motor and compressor separate)
- Reciprocating (Hermetic motor and compressor)
- Centrifugal (Hermetic or Open Motor)

Fans
- Belt-driven Fans 1800 -to 3600 RPM
- Belt driven Fans 600 to 1799 RPM
- General direct drive fans (direct coupled)
- Vacuum blowers (belt or direct drive)
- Large forced draft fans (fluid film brgs.)
- Large induced draft fans (fluid film brgs.)
- Shaft-mounted integral fan (extended motor shaft)
- Axial flow fans (belt or direct drive)

Cooling tower drives
- Long, hollow drive shaft (motor)
- Belt drive (motor and fan – all arrangements)
- Direct drive (motor and fan – all arrangements)

Centrifugal Pumps
- Vertical pumps (12′ to 20′ height)
- Vertical pumps (8′ to 12′ height)
- Vertical pumps (5′ to 8′ height)
- Vertical pumps (0′ to 5′ height)
- Horizontal centrifugal end suction pumps – direct coupled
- Horizontal centrifugal double suction pumps – direct couple
- Boiler feed pumps (turbine or motor driven)

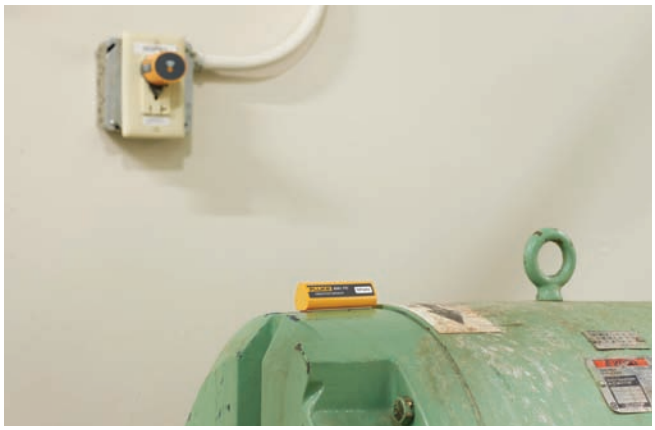
Positive Displacement Pumps
- Positive displacement horizontal piston pumps (under load)
- Positive displacement horizontal gear pumps

Air compressors
- Reciprocating
- Rotary screw
- Centrifugal with or without external gearbox
- Centrifugal – internal gear (axial meas.)
- Centrifugal – internal gear (radial meas.)

Blowers
- Lobe-type rotary blowers (belt or direct drive)
- Multi-stage centrifugal blowers (direct drive)

Generic gearboxes
- Single stage gearbox

Machine Tools
- Motor
- Gearbox input
- Gearbox outbox
- Spindles – roughing operations
- Spindles – machine finishing
- Spindles – critical finishing

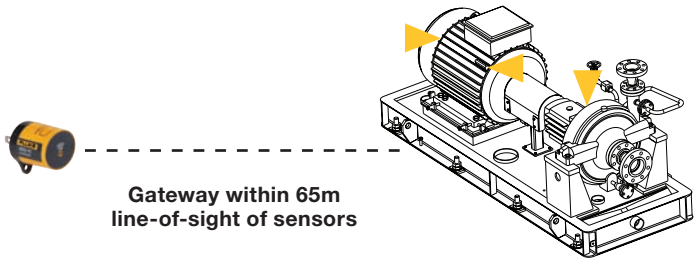


FLUKE®

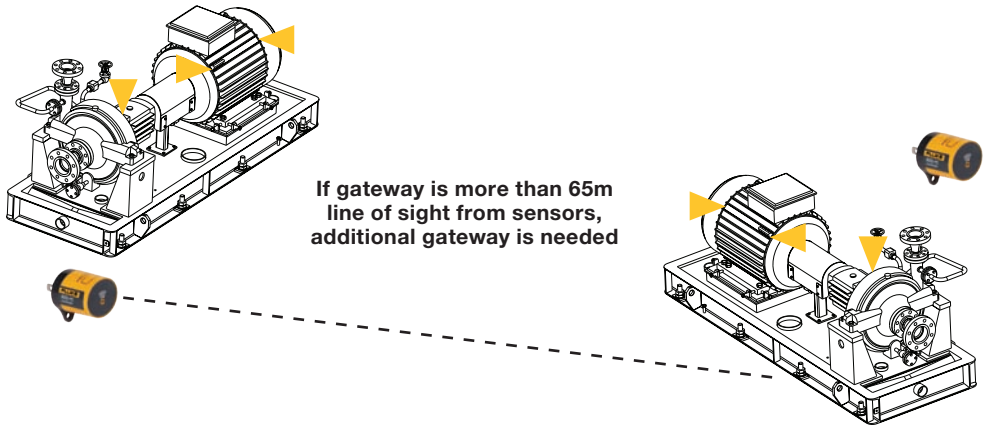
Sensors and Gateway configuration

Multiple 3561 FC Vibration Sensors can connect to a single 3502 FC Gateway. The number of gateways needed for an install will be dependent on the location of the equipment being monitored.

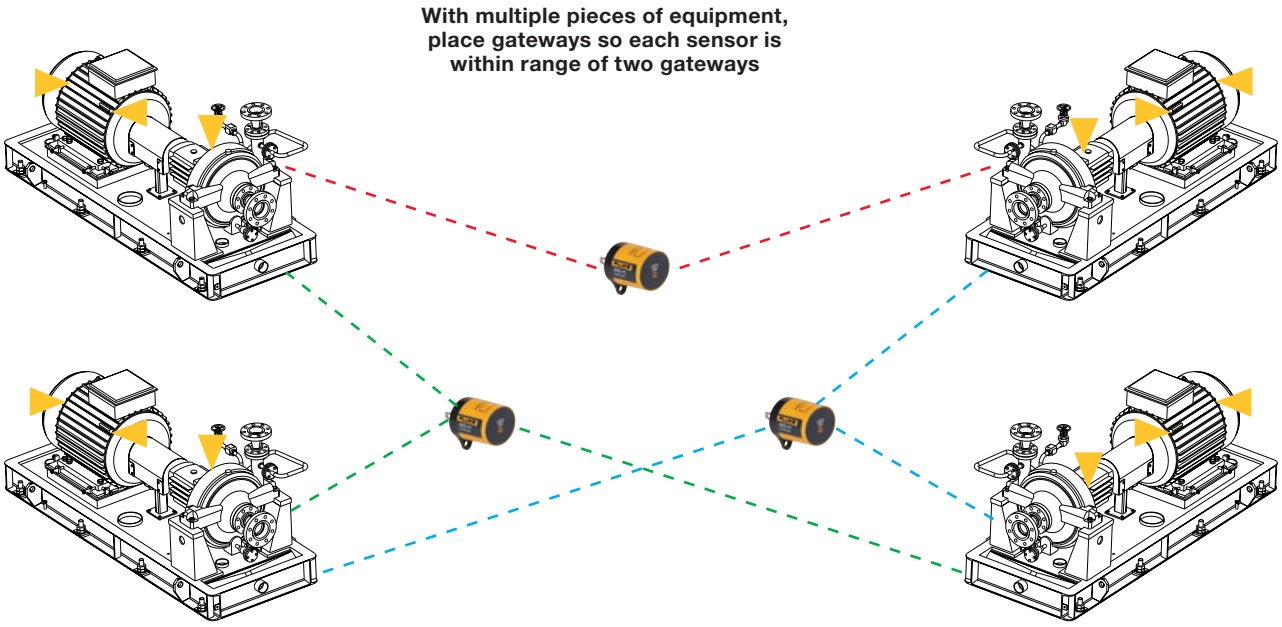
Example 1:



Example 2:



Example 3:



FLUKE®

3561 FC Vibration Sensor

General specifications		
Range	Sensitivity Range	±32 g
	Frequency Range	10 Hz to 1000 Hz
	Sampling Rate	25600 Hz
Temperature	Operating Range	–30 °C to +80 °C (–20 °F to +176 °F)
	Storage Range	–30 °C to +80 °C (–20 °F to +176 °F)
	Trending Range	Displays temperature trends between –30 °C and +80 °C (–20 °F and +176 °F)
Relative Humidity	10 % to 95 % non-condensing	
Altitude	Operating	2000 m
	Storage	12000 m
Size	(H x W) 2.42 in x 0.95 in (61.5 mm x 24 mm)	
Weight	1.4 oz (40 g)	
Power	Battery Type	3.6 V, 2400 mAh Lithium
	Battery Life	3 years typical
Bluetooth	Type	Low Energy 4.1
	Range (during a session)	65 m, line-of-sight
	Frequency Range	2405 MHz to 2480 MHz
	Output Power	<10 mW
	IP Rating	IP67

3502 FC Gateway

General specifications		
Temperature	Operating Range	–25 °C to +65 °C (–13 °F to +149 °F)
	Storage Range	–25 °C to +65 °C (–13 °F to +149 °F)
Relative Humidity	10 % to 95 % non-condensing	
Altitude	Operating	2000 m
	Storage	12 000 m
Size	(H x W x L) 2.26 in x 1.55 in x 1.82 in (57.3 mm x 39.3 mm x 46.1 mm)	
Weight	1.2 oz (35 g)	
Power	AC Input	100 V ac to 240 V ac, 50/60 Hz
Bluetooth	Type	Low Energy 4.1
	Frequency Range	2405 MHz to 2480 MHz
	Output Power	<10 mW
	Antenna	–3 dBm Single Antenna, Omni Directional
WiFi	Type	802.11 b/g/n
	Frequency Band	2.4 GHz ISM Band
	Frequency Range	2412 MHz to 2462 MHz
	Output Power	<100 mW
	Security	WEP/WPA/WPA2
	Antenna	0 dBm Single Antenna, Omni Directional

Accelix. *Connected Reliability.*