



## UNLOCK ADVANCED DIGITAL VIBRATION INSIGHTS

Integrate more vibration data into your existing IT/OT infrastructure using established digital protocols. Extend the reliability gains of digital process monitoring to make better data-driven decisions and improve the ROI of manufacturing processes.



### Operations-level connectivity

Bring more actionable vibration data directly into the control room with Modbus digital vibration data for machine health trending and process monitoring.

- ✓ PLCs
- ✓ DCSs
- ✓ SCADAs
- ✓ HMIs
- ✓ Displays



### Enterprise-level connectivity

Gather asset management information with OPC UA digital vibration data to optimize your plant with a combined control and maintenance system.

- ✓ Process Control Systems
- ✓ Plant Historians
- ✓ EAM/ERP Systems
- ✓ Manufacturing Execution Systems



### Cloud-level connectivity

Access MQTT vibration data through systems utilizing cloud databases and platforms to store and analyze high volumes of data.

- ✓ Internet of Things
- ✓ Artificial Intelligence
- ✓ Machine Learning
- ✓ Digital Twins
- ✓ Vibration SaaS

## 883M MODBUS DIGITAL SENSOR TRIAxIAL ACCELEROMETER WITH TEMPERATURE DATA

Bring more actionable vibration data directly into the control room with Modbus RTU digital vibration data for next level machine health trending and process monitoring.

- ✔ Supports condition monitoring, process monitoring, and IoT edge processing
- ✔ No proprietary monitoring system or software required
- ✔ MEMS accelerometer with frequency response to 5 kHz
- ✔ Exceptional flexibility in process monitoring with 52 metrics that cover spectrum, FFT, acceleration, velocity, and displacement – across three axes! – plus a temperature measurement
- ✔ Frequency bands align with ISO 10816-3 and 20816-3 guidelines



## ILA200 SERIES INLINE ADAPTERS FOR ACCELEROMETERS AND DUAL OUTPUT SENSORS

Allows analog vibration sensors and dual output temperature sensors to send data to digital control and data systems over operations, enterprise, and cloud protocols.

- ✔ 1-1000 mV/g input sensitivity
- ✔ Frequency response to 10 kHz, 6400 lines
- ✔ Modbus RTU output, OPC UA or MQTT over Ethernet
- ✔ Output of vibration spectrum, time waveform, and up to 19 calculated vibration metrics covering acceleration, velocity, displacement, true peak, crest factor, and standard deviation; frequency bands align with ISO 10816-3, 20816-3, 17243 guidelines; temperature data supported



## VDS100 SERIES VIBRATION DATA SOURCES 4-CHANNELS OF VIBRATION PLUS SPEED

Acquire and digitize waveforms from four vibration sensors and a tachometer to share vibration data via standard cloud and IoT protocols.

- ✔ OPC UA or MQTT output over Ethernet
- ✔ 1-1000 mV/g input sensitivity
- ✔ 1 kHz, 2 kHz, 5 kHz, 10 kHz, 20 kHz, 40 kHz selectable spectrum, 6400 lines
- ✔ Calculated vibration metrics: FFT, acceleration, velocity, displacement, true peak, standard deviation, and crest factor; frequency bands align with ISO 10816-3, 20816-3, 17243 guidelines



# DIGITAL ADAPTERS DELIVER ALL THE BENEFITS OF IEPE ACCELEROMETERS

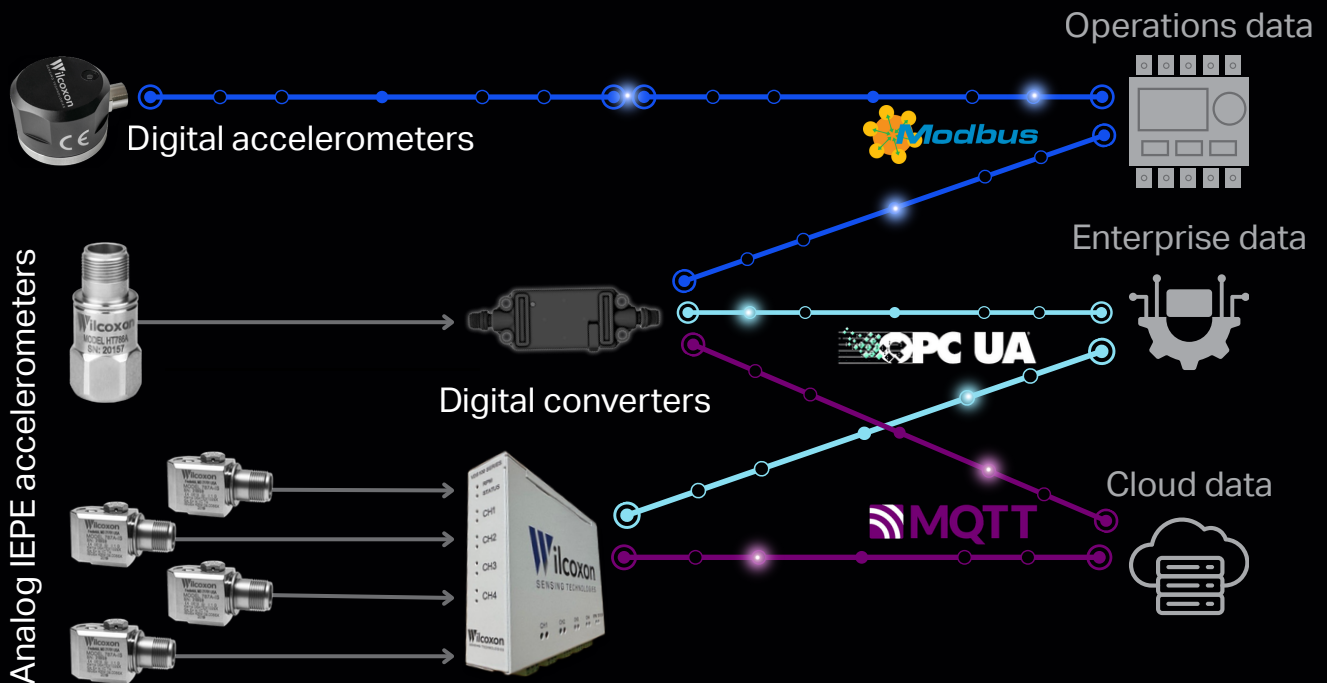
Rugged piezoelectric sensors withstand extreme and hazardous conditions and maintain superior dynamic range and noise performance, ensuring accurate, high-resolution data for vibration analysis and machinery fault diagnostics. Their proven performance can be paired with digital adapters to bring data online.




- ✓ Modbus, OPC UA, or MQTT output
- ✓ Excellent high frequency response
- ✓ Very low noise floor at low speeds
- ✓ Retrofit of installed IEPE sensors

## COMPATIBLE WITH HARSH ENVIRONMENT SENSORS

- ✓ High temperatures
- ✓ Hazardous locations
- ✓ High electromagnetic and radio interference
- ✓ Wet and submerged applications
- ✓ Chemical and corrosive environments

## PATHS TO DIGITAL DATA



DEVICE FEATURES			
	883M digital triaxial accelerometer and temperature sensor	ILA200 series inline adapters for analog IEPE accelerometers	VDS100 series 4-channel adapters for analog IEPE accelerometers
Modbus output	✓	ILA210	●
OPC UA output	●	ILA220 (coming soon)	VDS120 (coming soon)
MQTT output	●	ILA230 (coming soon)	VDS130
Triaxial vibration data	✓	●	●
DC measurements	✓	●	●
Temperature data	✓	● Supported input	●
General purpose vibration monitoring	✓	✓ Supported input	✓ Supported input
High-resolution low-frequency monitoring	●	✓ Supported input	✓ Supported input
High-frequency monitoring	●	✓ Supported input	✓ Supported input
Monitoring in high-temp or harsh environments	●	✓ Supported input	✓ Supported input
Monitoring in hazardous locations	●	✓ Supported input	✓ Supported input
Vibration channels	X, Y, Z axes	1	4
FFT and spectrum	✓	✓	✓
Calculated vibration metrics	52	19	6/channel
Tachometer input	●	●	✓

## EMPOWERING ORGANIZATIONS WITH DATA



Make a one-time hardware purchase without subscriptions or ongoing fees.



Integrate common protocols that are compatible with your existing systems.



Control your data from end-to-end.



Achieve cost effective continuous monitoring for balance of plant assets.



Benefit from your vibration data and operating data working together in a combined control and maintenance system.



Collect data for AI, machine learning, and digital twin model training.



Take frequent measurements without frequent battery changes.



Digitize specialty sensors for high-frequency and low-frequency applications.



Digitize rugged sensors in high-temp, high-EMI, submersible, and hazardous environments.