ILA210-SERIES

Accelerometer inline adapter / Modbus output

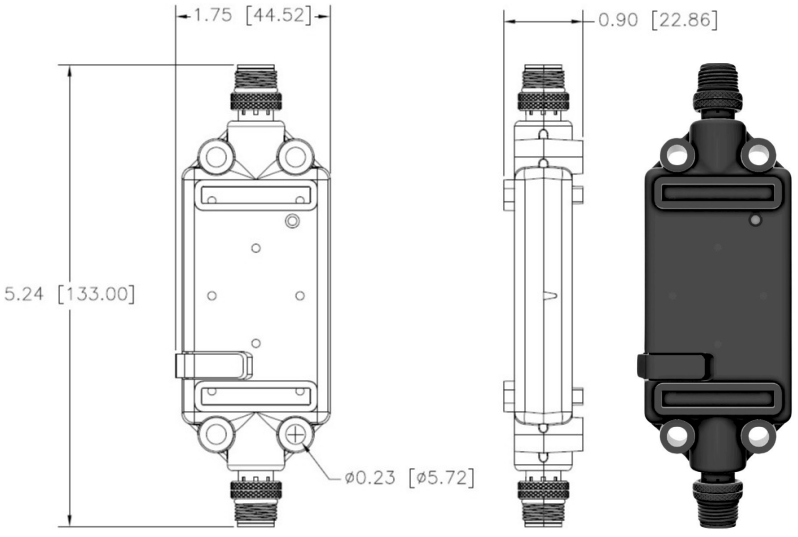
Digitize installed analog accelerometers or specialty sensors for simplified integration into machine control systems.

FEATURES

- **Series ILA 200:** Selectable output: Modbus (ILA210), OPC UA (ILA220), or MQTT (ILA230)
- Transform data from analog sensors that are not current available as digital sensors: high frequency, low frequency, high temperature, voltage isolation, hazardous location certified, and more
- Output of vibration spectrum, time waveform, and 19 calculated vibration metrics covering acceleration, velocity, displacement, true peak, crest factor, and standard deviation
- Temperature output available when used with a dual output accelerometer

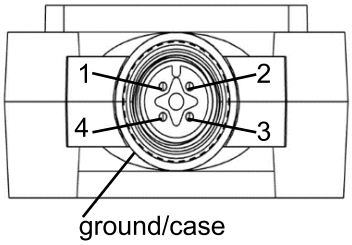
- **Series ILA 210:** Compatible with IEPE vibration or vibration & temperature sensors
- Modbus RTU output
- Frequency bands align with ISO 10816-3 and 20816-3 guidelines
- Stackable on a DIN rail or panel mount

DIMENSIONS



Sensor input connections	
Connection	*Function*
pin 1	accelerometer power/signal
pin 2	accelerometer and temp sensor common
pin 3	temp sensor signal (if applicable)
pin 4	NC
ground/case	shield

Modbus RTU output connections	
Connection	*Function*
pin 1	power, 12-24V
pin 2	common
pin 3	A
pin 4	B
ground/case	shield



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SPECIFICATIONS

SENSOR INPUT

Channels	vibration **or** vibration & temperature
Compatible accelerometers	IEPE, single or dual (vibration & temperature) ouput
Connector	4-pin M12
Mating cable connector	4-socket M12
Recommended sensor cable:	
Vibration only	shielded, twisted pair
Vibration & temperature	shielded, three-conductor

VIBRATION CHANNEL

Input sensor type	vibration (10, 25, 50, 100, or 500 mV/g)
Frequency response	1 Hz - 10 kHz (0 to -3 dB)
Power	IEPE (22V, 3 mA)
Input range	±10 V
Coupling	AC
Input impedance	>100 kΩ
Max sampling rate	25.6 kHz

VIBRATION OUTPUT

Acceleration RMS frequency bands	2 Hz - 1 kHz, 10 Hz - 10 kHz
Acceleration peak frequency bands	2 Hz - 1 kHz, 10 Hz - 10 kHz
Velocity RMS frequency bands	2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1], 10 Hz - 10 kHz
Velocity peak frequency bands	2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 10 kHz
Displacement RMS frequency bands	2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1], 10 Hz - 10 kHz
Displacement peak frequency bands	2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 10 kHz
True peak	Fs @ 25.6 kHz
Power spectrum	0 Hz - 10 kHz, 6400 lines
Time waveform length	1 second
Other features	crest factor, standard deviation

TEMPERATURE CHANNEL

Input sensor type	temperature
Input range	0-5 V
Coupling	DC
Input impedance	>100 kΩ
AD resolution	12 bits
Max. sampling rate	100 Hz
Output	temperature units, °C / °F

COMMUNICATION

Protocol	Modbus RTU, server
Digital output connector	4-pin M12
Mating cable connector	4-socket M12
Recommended output cable	shielded, four-conductor

PHYSICAL & ENVIRONMENTAL

Power requirement	12 - 24 V
Power consumption	max 1.2 W
Exterior mold	Santoprene
Reboot, restore RS485 setting	push button
Self-test status	LED indicator
Operating temperature	–20° to +80° C
Ingress protection	IP67
Mounting feature	panel or DIN rail mountable, accommodates 10-32 thread
Dimensions	see page 2

Notes: [1] Frequency bands align with ISO 10816-3 and 20816-3 guidelines to assess the vibration of industrial machines

Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

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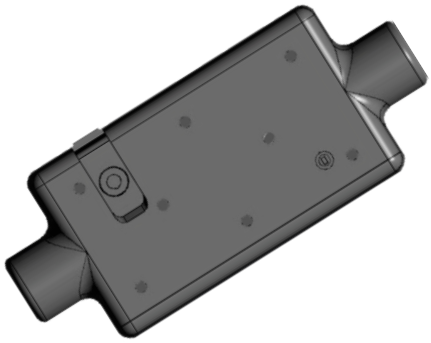
ILA220-SERIES

Accelerometer inline adapter / OPC UA output



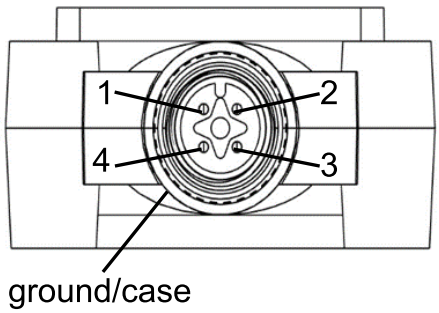
Digitize installed analog accelerometers or specialty sensors for simplified integration into machine control systems.

FEATURES

- **Series ILA 200:**
- Selectable output: Modbus (ILA210), OPC UA (ILA220), or MQTT (ILA230)
- Transform data from analog sensors that are not current available as digital sensors: high frequency, low frequency, high temperature, voltage isolation, hazardous location certified, and more
- Output of vibration spectrum, time waveform, and 19 calculated vibration metrics covering acceleration, velocity, displacement, true peak, crest factor, and standard deviation
- Temperature output available when used with a dual output accelerometer

- **Series ILA 220:**
- Compatible with IEPE accelerometers and dual output temperature sensors
- OPC UA output
- Frequency bands align with ISO 10816-3 and 20816-3 guidelines

Sensor input connections	
Connection	*Function*
pin 1	accelerometer power/signal
pin 2	accelerometer and temp sensor common
pin 3	temp sensor signal
pin 4	NC
ground/case	common



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SPECIFICATIONS

SENSOR INPUT

Channels	vibration **or** vibration & temperature
Connector	4-pin M12
Mating cable connector	4-socket M12
Compatible accelerometers	IEPE, dual output vibration & temperature

VIBRATION CHANNEL

Input sensor type	vibration
Frequency response	1 Hz - 10 kHz (0 to -3 dB)
Power	IEPE
Input range	±10 V
Coupling	AC
Input impedance	>100 kΩ
Max sampling rate	25.6 kHz

VIBRATION OUTPUT

Acceleration RMS frequency bands	2 Hz - 1 kHz, 10 Hz - 10 kHz
Acceleration peak frequency bands	2 Hz - 1 kHz, 10 Hz - 10 kHz
Velocity RMS frequency bands	2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1], 10 Hz - 10 kHz
Velocity peak frequency bands	2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 10 kHz
Displacement RMS frequency bands	2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1], 10 Hz - 10 kHz
Displacement peak frequency bands	2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 10 kHz
True peak	Fs @ 25.6 kHz
Power spectrum	0 Hz - 10 kHz, 6400 lines
Time waveform length	1 second
Other features	crest factor, standard deviation

TEMPERATURE CHANNEL

Input sensor type	temperature
Input range	0-5 V
Coupling	DC
Input impedance	>100 kΩ
AD resolution	12 bits
Max. sampling rate	100 Hz
Output	temperature units, °C / °F

COMMUNICATION OUTPUT

Digital output connector	RJ45 Ethernet port
Mating cable connector	
Protocol	OPC UA

PHYSICAL & ENVIRONMENTAL

Power requirement	power over Ethernet
Power consumption	max 1.2 W (TBD)
Exterior mold	Santoprene
Reboot, restore setting	push button
Self-test status	LED indicator
Operating temperature	–20° to +80° C
Ingress protection	IP67

Notes: [1] Frequency bands align with ISO 10816-3 and 20816-3 guidelines to assess the vibration of industrial machines

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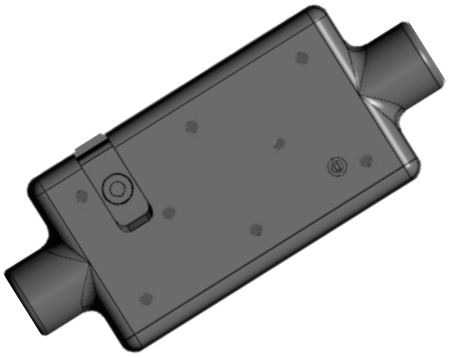
ILA230-SERIES

Accelerometer inline adapter / MQTT output



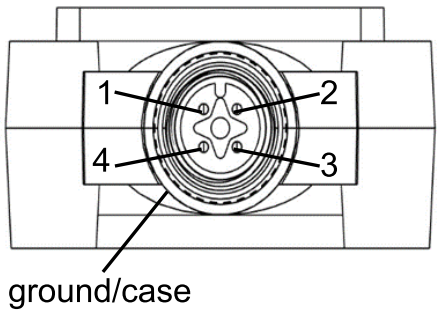
Digitize installed analog accelerometers or specialty sensors for simplified integration into machine control systems.

FEATURES

- **Series ILA 200:**
- Selectable output: Modbus (ILA210), OPC UA (ILA220), or MQTT (ILA230)
- Transform data from analog sensors that are not current available as digital sensors: high frequency, low frequency, high temperature, voltage isolation, hazardous location certified, and more
- Output of vibration spectrum, time waveform, and 19 calculated vibration metrics covering acceleration, velocity, displacement, true peak, crest factor, and standard deviation
- Temperature output available when used with a dual output accelerometer

- **Series ILA 230:**
- Compatible with IEPE accelerometers and dual output temperature sensors
- MQTT output
- Frequency bands align with ISO 10816-3 and 20816-3 guidelines

Sensor input connections	
Connection	*Function*
pin 1	accelerometer power/signal
pin 2	accelerometer and temp sensor common
pin 3	temp sensor signal
pin 4	NC
ground/case	common



Version | 01.2026

SPECIFICATIONS

SENSOR INPUT

Channels	vibration **or** vibration & temperature
Connector	4-pin M12
Mating cable connector	4-socket M12
Compatible accelerometers	IEPE, dual output vibration & temperature

VIBRATION CHANNEL

Input sensor type	vibration
Frequency response	1 Hz - 10 kHz (0 to -3 dB)
Power	IEPE
Input range	±10 V
Coupling	AC
Input impedance	>100 kΩ
Max sampling rate	25.6 kHz

VIBRATION OUTPUT

Acceleration RMS frequency bands	2 Hz - 1 kHz, 10 Hz - 10 kHz
Acceleration peak frequency bands	2 Hz - 1 kHz, 10 Hz - 10 kHz
Velocity RMS frequency bands	2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1], 10 Hz - 10 kHz
Velocity peak frequency bands	2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 10 kHz
Displacement RMS frequency bands	2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1], 10 Hz - 10 kHz
Displacement peak frequency bands	2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 10 kHz
True peak	Fs @ 25.6 kHz
Power spectrum	0 Hz - 10 kHz, 6400 lines
Time waveform length	1 second
Other features	crest factor, standard deviation

TEMPERATURE CHANNEL

Input sensor type	temperature
Input range	0-5 V
Coupling	DC
Input impedance	>100 kΩ
AD resolution	12 bits
Max. sampling rate	100 Hz
Output	temperature units, °C / °F

COMMUNICATION OUTPUT

Digital output connector	RJ45 Ethernet port
Mating cable connector	RJ45 Ethernet plug
Protocol	MQTT

PHYSICAL & ENVIRONMENTAL

Power requirement	power over Ethernet
Power consumption	max 1.2 W (TBD)
Exterior mold	Santoprene
Reboot, restore RS485 setting	push button
Self-test status	LED indicator
Operating temperature	–20° to +80° C
Ingress protection	IP67

Notes: [1] Frequency bands align with ISO 10816-3 and 20816-3 guidelines to assess the vibration of industrial machines

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