



## VDS130

Vibration data source, 4-channel IEPE to MQTT digital converter



Vibration data source with MQTT output, IEPE to digital converter, 4 channels of vibration, tachometer (RPM) input supported for applications requiring rotational speed reference

### FEATURES

- Compatible with IEPE accelerometers
- MQTT digital output
- Frequency bands align with ISO 10816-3, 20816-3 and 17243 guidelines
- Multi functionality LED status indicators for VDS and sensors

### SPECIFICATIONS

#### SENSOR INPUT

<b>Channels</b>	<b>IEPE vibration</b> <b>RPM</b>	4 1
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**Connector** screw terminal

#### VIBRATION CHANNELS

<b>Input sensitivity</b>	10, 25, 50, 100, 500, or 1000 mV/g
<b>Frequency response</b>	40 kHz (±5%)
<b>Power</b>	IEPE (20 V min, 3 mA)
<b>Input range</b>	±5 V / ±20 V selectable
<b>Coupling</b>	AC/DC selectable
<b>Input impedance</b>	320 kΩ
<b>Max sampling rate</b>	102.4 kHz

#### RPM CHANNEL

<b>Input range</b>	5 V TTL (±20 V peak)
<b>Measurement range</b>	0.5 Hz - 5 kHz
<b>Power</b>	5 V (max. 100 mA)

#### VIBRATION OUTPUT

<b>Acceleration frequency band, selectable</b>	RMS: 2 Hz - 1 kHz, 10 Hz - 10 kHz, 2 kHz - 10 kHz <sup>1</sup> peak: 2 Hz - 1 kHz, 10 Hz - 10 kHz, 2 kHz - 10 kHz
<b>Velocity frequency band, selectable</b>	RMS: 2 Hz - 1 kHz <sup>1</sup> , 10 Hz - 1 kHz <sup>1</sup> , 10 Hz - 5 kHz <sup>1</sup> peak: 2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 5 kHz
<b>Displacement frequency band, selectable</b>	RMS: 2 Hz - 1 kHz <sup>1</sup> , 10 Hz - 1 kHz <sup>1</sup> peak: 2 Hz - 1 kHz, 10 Hz - 1 kHz
<b>True peak</b>	Fs @ 102.4 kHz
<b>Power spectrum, selectable</b>	1 kHz, 2 kHz, 5 kHz, 10 kHz, 20 kHz, 40 kHz
<b>Window</b>	rectangular, hanning, flat top
<b>Lines</b>	6400
<b>Time waveform length</b>	1 sec
<b>Other features</b>	crest factor, standard deviation

#### COMMUNICATION

<b>Protocol</b>	MQTT
<b>Digital output connector</b>	RJ45 Ethernet port
<b>Data transmission interval</b>	
<b>Overall value</b>	min. 1 minute
<b>Time waveform</b>	min. 1 minute
<b>Power spectrum</b>	min. 1 minute

**Notes:** <sup>1</sup> Frequency bands align with ISO 17243 guidelines to assess the severity of machine tool spindle vibrations measured on the spindle housing or ISO 10816-3 and 20816-3 guidelines to assess the vibration of industrial machines



Sensor input connections	
Connection	Function
Channels 1-4	
SHLD	shield
-	common
+	power/signal
RPM input	
SHLD	shield
RPM IN	signal
RPM GND	ground
+5 V	power



## SPECIFICATIONS

### PHYSICAL & ENVIRONMENTAL

Power requirement	24 VDC
Power consumption	10 W max.
Exterior material	aluminum (painted)
Reset, restore	push button
Self-test status	LED indicator
Operating temperature	-10 to +80 °C
Dimensions	120mm x 155mm x 34mm
Weight	420 grams
Mounting	optional back or side panel for DIN rail mounting
USB	3.0 Type-A

## DIMENSIONS

