

**m/
s²**

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

Channels

IEPE vibration	4
RPM	1

Connector

screw terminal

VIBRATION CHANNELS

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

RPM CHANNEL

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

VIBRATION OUTPUT

Acceleration frequency band, selectable RMS: 2 Hz - 1 kHz, 10 Hz - 10 kHz, 2 kHz - 10 kHz¹
peak: 2 Hz - 1 kHz, 10 Hz - 10 kHz, 2 kHz - 10 kHz**Velocity frequency band, selectable** RMS: 2 Hz - 1 kHz¹, 10 Hz - 1 kHz¹, 10 Hz - 5 kHz¹
peak: 2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 5 kHz**Displacement frequency band, selectable** RMS: 2 Hz - 1 kHz¹, 10 Hz - 1 kHz¹
peak: 2 Hz - 1 kHz, 10 Hz - 1 kHz**True peak** Fs @ 102.4 kHz**Power spectrum, selectable** 1 kHz, 2 kHz, 5 kHz, 10 kHz, 20 kHz, 40 kHz**Window** rectangular, hanning, flat top**Lines** 6400**Time waveform length** 1 sec**Other features** crest factor, standard deviation

COMMUNICATION

Protocol MQTT**Digital output connector** RJ45 Ethernet port

Data transmission interval

Overall value min. 1 minute**Time waveform** min. 1 minute**Power spectrum** min. 1 minute

Notes: ¹ 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

