Vibration data source
MQTT protocol

VDS130

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 (±5%)
Power	IEPE (20 V min, 3 mA)
Input range	±5 V / ±20 V selectable
Coupling	AC/DC selectable
Input impedance	320 kΩ
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 kHz[1] peak: 2 Hz - 1 kHz, 10 Hz - 10 kHz, 2 kHz - 10 kHz
Velocity frequency band, selectable	RMS: 2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1], 10 Hz - 5 kHz[1] peak: 2 Hz - 1 kHz, 10 Hz - 1 kHz, 10 Hz - 5 kHz
Displacement frequency band, selectable	RMS: 2 Hz - 1 kHz[1], 10 Hz - 1 kHz[1] 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

Key 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

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

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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

Back-panel for DIN rail mounting.
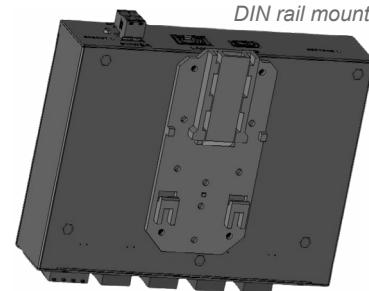
Side-panel for DIN rail mounting.
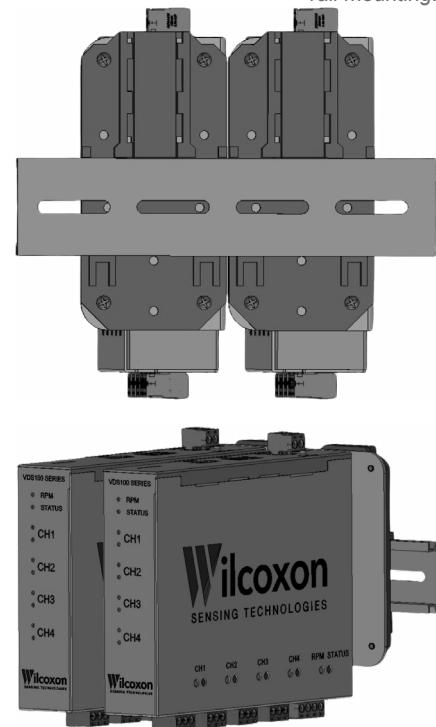
DIMENSIONS
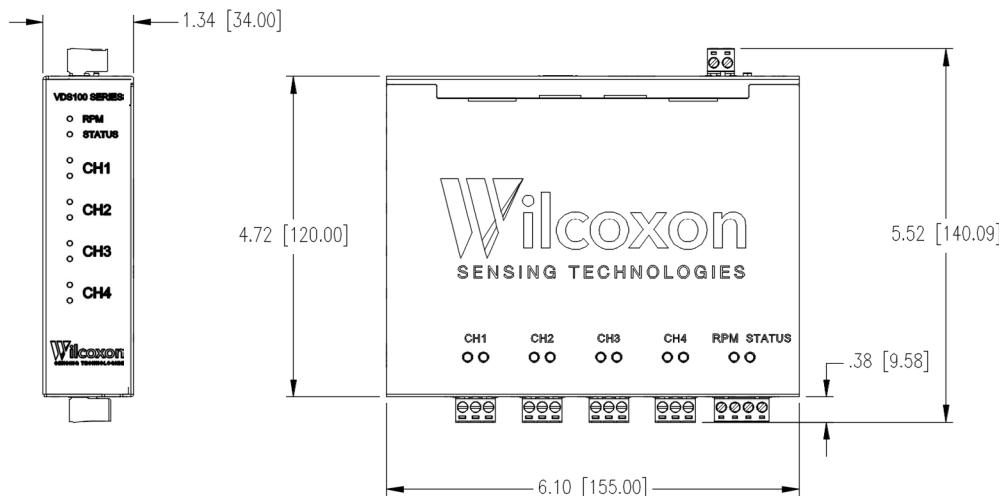
1.34 [34.00]

VDS100 SERIES
RPM
STATUS
CH1
CH2
CH3
CH4

4.72 [120.00]

CH1 CH2 CH3 CH4 RPM STATUS

6.10 [155.00]

5.52 [140.09]

.38 [9.58]

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