

Vibration data source OPC UA protocol

VDS120

SPECIFICATIONS

SENSOR INPUT

Channels	IEPE vibration	4
	RPM	1
Connector	screw terminal	

VIBRATION CHANNELS

Input sensitivity	1 - 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: select 1 frequency band and RMS or Peak	2 Hz - 1 kHz, 10 Hz - 10 kHz, 2 kHz - 10 kHz ¹	
Velocity: select 1 frequency band and RMS or Peak	2 Hz - 1 kHz ¹ , 10 Hz - 1 kHz ¹ , 10 Hz - 5 kHz ¹	
Displacement: select 1 frequency band and RMS or Peak	2 Hz - 1 kHz ¹ , 10 Hz - 1 kHz ¹	
True peak	Fs @ 102.4 kHz	
Other features	crest factor, standard deviation	
Power spectrum, selectable	1 kHz, 2 kHz, 5 kHz, 10 kHz, 20 kHz, 40 kHz	
Time waveform length		
	1 kHz	40 seconds
	2 kHz	20 seconds
	5 kHz	8 seconds
	10 kHz	4 seconds
	20 kHz	2 seconds
	40 kHz	1 second
Lines	6400	
Window	rectangular, hanning, flat top	

COMMUNICATION

Protocol	OPC UA	
Digital output connector	RJ45 Ethernet port	
Data transmission interval		
	Overall value	min. 1 second
	Time waveform	min. 1 minute
	Power spectrum	min. 1 minute



Key features

- Compatible with IEPE accelerometers
- OPC UA 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

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

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



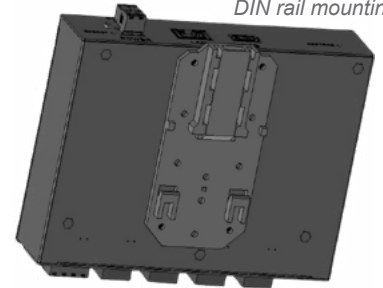
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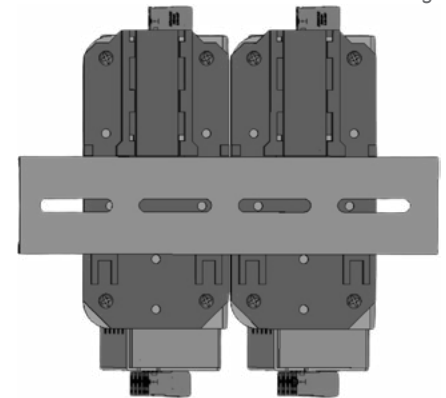
SPECIFICATIONS

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

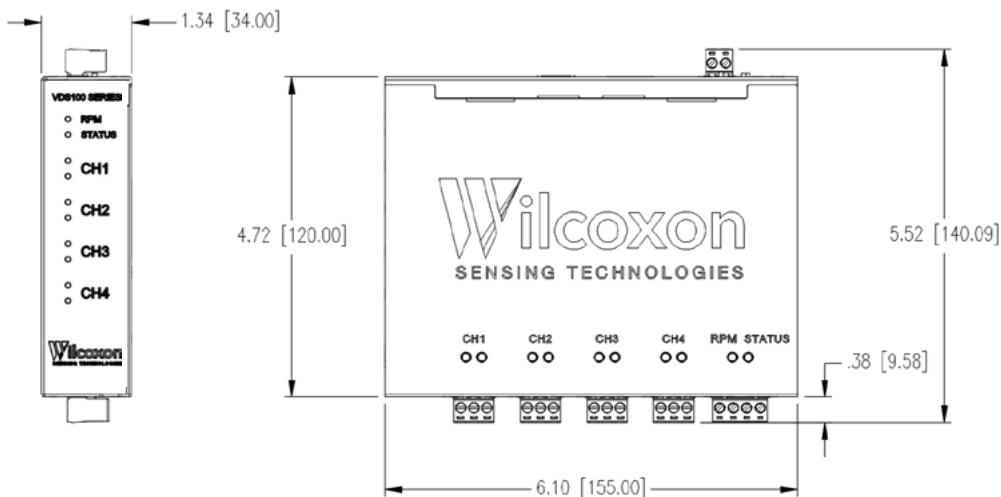
Back-panel for
DIN rail mounting.



Side-panel for DIN
rail mounting.



DIMENSIONS



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