

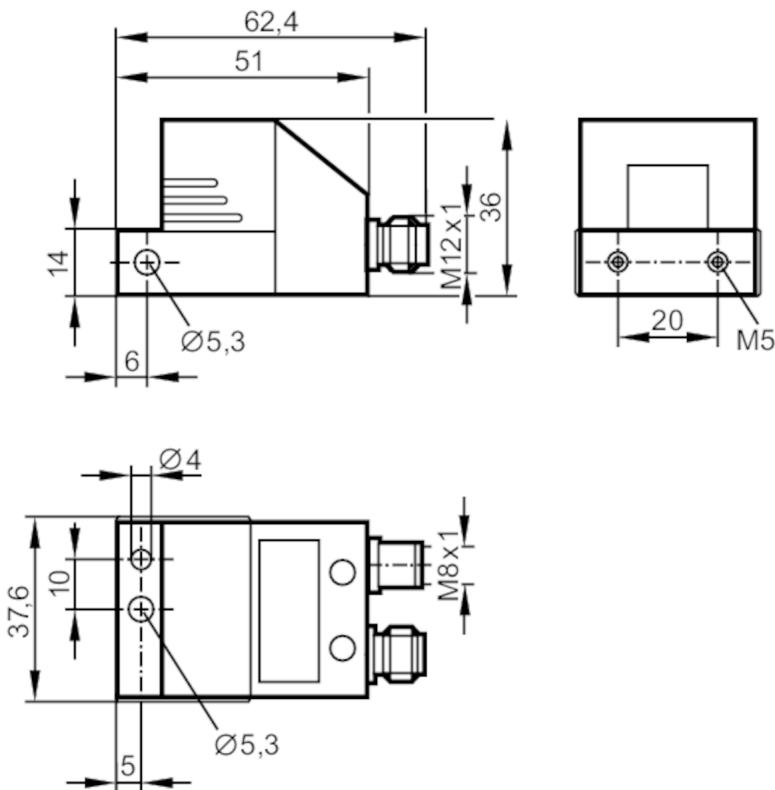
VNB211

Vibration sensor

VIBRATION SENSOR



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Product characteristics		
Measuring range of vibration	[g]	0...25
Frequency range	[Hz]	0...6000
Measuring principle		capacitive
Application		
Application		vibration sensor to ISO 10816
Self-test function		yes
Heartbeat function		yes
Electrical data		
Operating voltage	[V]	9.6...30 DC; (or via USB (switching outputs not active))
Current consumption	[mA]	< 70
Protection class		III
Reverse polarity protection		yes
Sensor type		micromechanical accelerometer
Inputs / outputs		
Total number of inputs and outputs		3; (configurable)



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Number of inputs and outputs Number of analogue inputs: 1; Number of digital outputs: 2; Number of analogue outputs: 1

Inputs		
Number of analogue inputs		1
Analogue input (current)	[mA]	4...20
Outputs		
Output signal		switching signal; analogue signal
Number of digital outputs		2
Max. voltage drop switching output DC	[V]	2
Minimum load current	[mA]	100
Number of analogue outputs		1
Analogue current output	[mA]	4...22
Max. load	[Ω]	9,6...17 V: 150; 17...30 V: 500
Factory setting		switching output: normally closed
		switch point pre-alarm: 2,8 mm/s
		switch point main alarm: 4,5 mm/s
		Frequency range: 10...1000 Hz
		measuring method: RMS
		unit: mm/s
Short-circuit protection		yes
Overload protection		yes
Measuring/setting range		
Measuring range of vibration	[g]	0...25
Frequency range	[Hz]	0...6000
Measuring principle		capacitive
Number of measurement axes		1
Accuracy / deviations		
Measuring error		± 3%
	[% of the final value]	
Interfaces		
Communication interface		USB
Operating conditions		
Ambient temperature	[°C]	-30...60
Storage temperature	[°C]	-30...85
Protection		IP 67
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV contact discharge / 15 kV air discharge
	EN 61000-4-3	10 V/m 80...2000 MHz
	EN 61000-4-4 Burst	4 kV capacitive coupling probe, earthed
	EN 61000-4-6	10 V 0,15...80 MHz
	EN 61000-6-4	industrial environments
Shock resistance	DIN EN 60068-2-27	50 g 11 ms / n=1000
Mechanical data		
Weight	[g]	286.5



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Type of mounting	mounting set M5/M8
Dimensions [mm]	36 x 37.6 x 62.4
Materials	housing: diecast zinc nickel-plated
Tightening torque [Nm]	7
Mechanische Überlastfestigkeit [g]	100

Displays / operating elements

Display	function	6 x LED, green
	pre-alarm	1 x LED, yellow
	main alarm	1 x LED, red
	measured values	7-segment LED display, red / yellow / green 4-digit
Operating elements	2	pushbuttons

Data memories

History memory	yes
Data memory type	ring memory; FIFO
Real-time clock	yes; UTC, battery buffered
Memory location	internal
Memory interval	min. 1 s
Memory size	686774 data records

Accessories

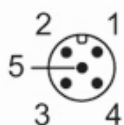
Items supplied	Spring washer
	screw
	adapters: 1 x M8 x M5

Remarks

Pack quantity	1 pcs.
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Electrical connection - Process connection

Connector: 1 x M12; coding: A



1	L+ (9.6...30 V DC)
2	Out 1 switching output analogue output
3	L-
4	Out 2 switching output
5	In 0/4...20 mA

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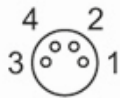


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Electrical connection - USB

Connector: 1 x M8; coding: A



1	VCC (5 V)
2	USB D-
3	L -
4	USB D+