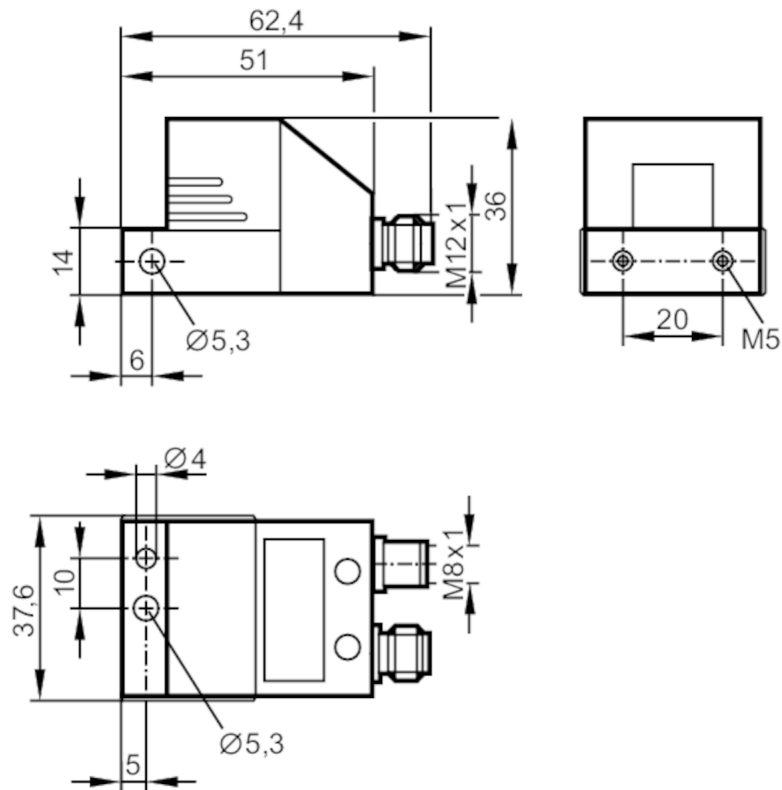


VNB001



Vibration sensor

VIBRATION SENSOR



Product characteristics

Measuring range of vibration [mm/s]	0...500; (depending on the vibration frequency)
Frequency range [Hz]	2...1000
Measuring principle	capacitive

Application

Application	Vibration sensor to ISO 10816
Self-test function	yes
Heartbeat	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
Type of sensor	micromechanical accelerometer

Inputs / outputs

Total number of inputs and outputs	3; (configurable)
Number of inputs and outputs	Number of analog inputs: 1; Number of digital outputs: 2; Number of analog outputs: 1

VNB001



Vibration sensor

VIBRATION SENSOR

Inputs		
Number of analog inputs		1
Analog input (current)	[mA]	4...20
Outputs		
Output signal		switching signal; analog signal
Number of digital outputs		2
Max. voltage drop switching output DC	[V]	2
Minimum load current	[mA]	100
Number of analog outputs		1
Analog 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 [mm/s]		0...500; (depending on the vibration frequency)
Frequency range	[Hz]	2...1000
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
MTTF	[years]	148
Mechanical data		
Weight	[g]	227.8

VNB001



Vibration sensor

VIBRATION SENSOR

Type of mounting	Mounting set M5 / M8
Dimensions [mm]	36 x 37.6 x 62.4
Material	housing: diecast zinc nickel-plated
Tightening torque [Nm]	7

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 memory

History memory	yes
Data memory type	ring memory; FIFO
Real-time clock	yes; UTC, battery buffered
Memory location	internal
Memory interval	5 min
Memory size	686774 data records

Accessories

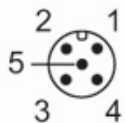
Items supplied	Spring washer
	screw
	adapters: 1 x (M8 / M5)

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 analog output
3	L-
4	Out 2 Switching output
5	In 4...20 mA

VNB001

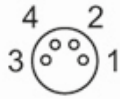


Vibration sensor

VIBRATION SENSOR

Electrical connection - USB

Connector: 1 x M8; coding: A



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