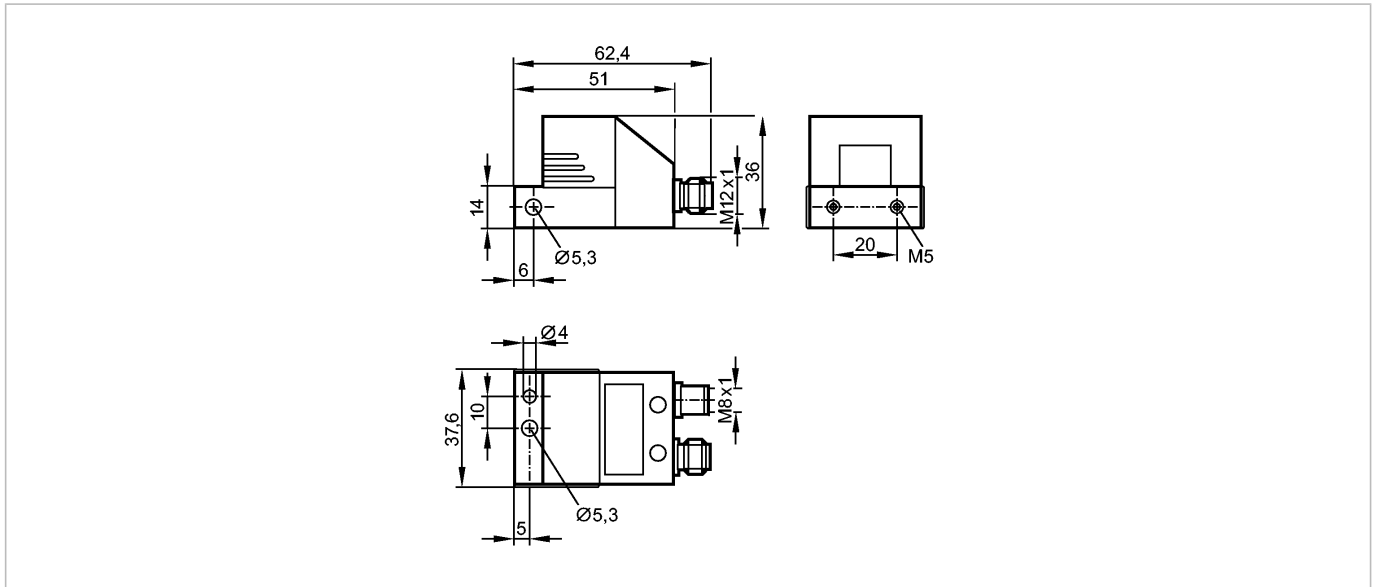


**VNB001**

VIBRATION SENSOR

Vibration sensors



**Product characteristics**

Vibration sensor

VN

Connection via M12 x 1 and M8 x 1 connectors

Vibration sensor to ISO 10816

Parameter setting via pushbuttons

**Electrical data**

Operating voltage [V]	9.6...30 DC; or via USB (switching outputs not active)
Current consumption [mA]	< 70 (24 V)
Protection class	III
Reverse polarity protection	yes

**Inputs / outputs**

Circuit	2 switching outputs or 1 switching output and 1 current output 4...22 mA (can be set via pushbuttons) 1 current input 4...20 mA
Inputs / outputs total	3, configurable

**Inputs**

analogue

Analogue input	4...20 mA
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**Outputs**

Voltage drop [V]	< 2
max. load current	
Short-circuit protection	yes
Overload protection	yes
analogue	
current output [mA]	4...22
Max. load [Ω]	150 (9.6...17 V) / 500 (17...30 V)

**Measuring / setting range**

Measurement method	v peak or v rms (can be set via pushbuttons)
Measuring principle	capacitive

**VNB001**

VIBRATION SENSOR

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Measuring range	[mm/s]	0...500, depending on the vibration frequency
Frequency range	[Hz]	2...1000

**Accuracy / deviations**

Accuracy	[% of the final value]	± 3%
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**Software / programming**

History memory	ring memory, sampling rate 5 min., recording duration approx. 3 years with real-time clock
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**Interfaces**

Data interface	USB; 2.0
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**Environment**

Ambient temperature	[°C]	-30...60
Storage temperature	[°C]	-30...85
Protection		IP 67

**Tests / approvals**

EMC	EN 61000-4-2 ESD: EN 61000-4-3	4 kV contact discharge / 15 kV air discharge 10 V/m (80...2000 MHz) 4 kV (capacitive coupling probe, earthed)
	EN 61000-4-4 Burst: EN 61000-4-6 EN 61000-6-4	10 V (0.15...80 MHz) industrial environments
Shock resistance	DIN EN 60068-2-27	50 g (11 ms) / n=1000
MTTF	[Years]	148

**Mechanical data**

Type of sensor	micromechanical accelerometer
Number of measurement axes	1
Mechanical overload resistance	[g] 100
Housing materials	housing: diecast zinc nickel-plated
Type of mounting	Mounting set M5 / M8
Weight	[kg] 0.274

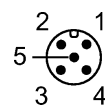
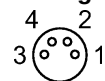
**Displays / operating elements**

Display	4-digit alphanumeric display
Function display	LED 6x green; 1x yellow; 1x red

**Electrical connection**

Connection	M12 connector; M8 connector
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**Wiring**



- Pin 1: VCC (5 V) via USB interface
- Pin 2: USB D-
- Pin 3: L -
- Pin 4: USB D+
- Pin 1: L+ (9.6...30 V DC)
- Pin 2: Out 1 Switching output or current output 4...20 mA (can be set)
- Pin 3: L-
- Pin 4: Out 2 Switching output
- Pin 5: In 4...20 mA

**Other technical data**

Real-time clock	UTC, battery buffered
Self-test	yes

**VNB001**

VIBRATION SENSOR

**Vibration sensors**

Factory setting

OU1, OU2: switching output NC  
switch point early warning (OU1): yellow 2.8 mm/s  
switch point main alarm (OU2): red 4.5 mm/s  
frequency range: 10...1000 Hz  
measurement method: rms  
unit: mm/s

**Accessories**

Accessories (included)

spring washer; screw; Adapter M8 x M5

**Remarks**

Pack quantity

[piece]

1