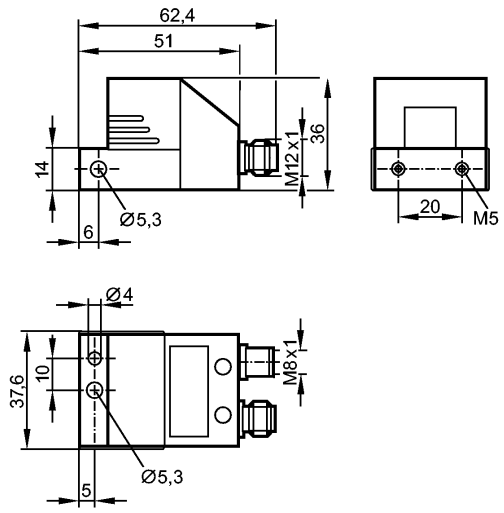
VNB001

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...20 mA (can be set via pushbuttons) 1 current input 4...20 mA
Inputs / outputs total		3, configurable
Inputs		
analogue		
Analogue input		4...20 mA
Outputs		
Voltage drop	[V]	< 2
max. load current		
Short-circuit protection		yes
Overload protection		yes
analogue		
current output	[mA]	4...20
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

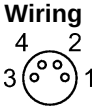
efector800

VNB001

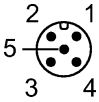
VIBRATION SENSOR

Vibration sensors

Measuring range [mm/s]		0...500, depending on the vibration frequency
Frequency range [Hz]		2...1000
Accuracy / deviations		
Accuracy [% of the final value]		± 3%
Software / programming		
History memory		ring memory, sampling rate 5 min., recording duration approx. 3 years with real-time clock
Interfaces		
Data interface		USB; 2.0
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 EN 61000-4-4 Burst: EN 61000-4-6 EN 61000-6-4	4 kV contact discharge / 15 kV air discharge 10 V/m (80...2000 MHz) 4 kV (capacitive coupling probe, earthed) 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]		0.266
Displays / operating elements		
Display		4-digit alphanumeric display
Function display LED		6x green; 1x yellow; 1x red
Electrical connection		
Connection		M12 connector; M8 connector
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

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