

Sensing Vibrations

Vibration Velocity Sensors PMG 81 / 85



Advantages

- High sensitivity
- Large temperature range
- Generation of signals without auxiliary voltage
- Rugged



Adjustable angle mount

Applications

- Sensing vibration velocity
- Capturing mechanical vibrations on machines and buildings
- Connecting to vibration measuring and monitoring devices

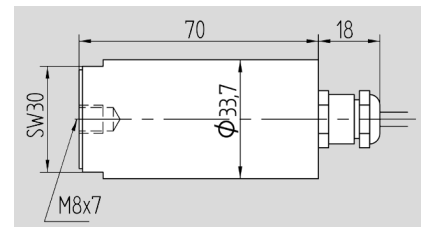
Options

- Various connectors
- Protective hose
- Retaining Magnet
- Probe

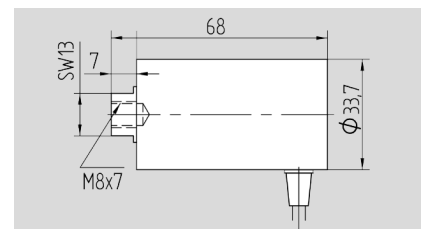
Description

The vibration sensors PMG 81 / PMG 85 are used for converting mechanical vibrations into an analogue alternating electric voltage which is directly proportional to the vibration velocity.

They differ with respect to their frequency range, their design and their field of application. Their rugged design makes the sensors suitable both for mobile and fixed installations for continuous vibration monitoring.



PMG 81 EA / 81 VT / 81 HT / 85 EA



PMG 81 N / 85 H

Technical data

Sensor	PMG 81 N	PMG 81 EA	PMG 81 HT
Input		Vibration velocity	
Orientation		any spatial orientation	
Measuring direction		in direction of sensor axis	
Reference system		absolute - vibration transducer	
Mounting		M8 threaded hole	
Output		alternating electrical voltage	
Weight	approx. 260 g	approx. 330 g	approx. 330 g
Case		Stainless steel, non-magnetic	
Operating temperature	- 40 ...+ 120 °C	- 40 ...+ 120 °C	- 40 ...+ 200 °C
Sensitivity ¹⁾		42.4 mV / (mm/sec.) +/- 2 %	
Internal resistance		approx. 3 kOhms	
Operating frequency		10 ... 2,000 Hz	
Displacement amplitude		max. 1 mm	
Acceleration		max. 20 g	
Directional sensitivity		better than 1: 25	
Natural frequency		approx. 15 Hz	
Damping of measuring system		0,7	

Sensor	PMG 85 H	PMG 85 EA	PMG 81 VT
Input		Vibration velocity	
Orientation		horizontal direction +/- 10 deg.	
Measuring direction		in direction of sensor axis	
Reference system		absolute - vibration transducer	
Mounting		M8 threaded hole	
Output		alternating electrical voltage	
Weight	approx. 260 g	approx. 330 g	approx. 330 g
Case		Stainless steel, non-magnetic	
Operating temperature		- 40 ...+ 120 °C	
Sensitivity ¹⁾		42.4 mV/(mm/sec.) +/- 2 %	
Internal resistance		approx. 3 kOhms	
Operating frequency		2.5 ... 500 Hz	
Displacement amplitude		max. 1 mm	
Acceleration		max. 20 g	
Directional sensitivity		better than 1: 25	
Natural frequency		approx. 4 Hz	
Damping of measuring system		0,7	

¹⁾ at 80 Hz and 50 kOhms termination resistor

All information without obligation, subject to change without notice!