Tri-axial Accelerometer

HDBV-1000

○ HIGH SENSITIVITY

Measurement of low level and low frequency vibrations

○ SUITABLE FOR DIFFERENT APPLICATIONS

human exposure to whole-body vibrations as well as for the measurement of building vibrations

○ RELIABLE SIGNAL TRANSMISSION

CCP Constant Current Power supply (Compatible IEPE/ICP electrical interface) Possibility to connect with long cables

○ EASY TO COMBINE

Compatibility with any vibration analyzer having CCP electrical interface

○ RUGGED AND STABLE DESIGN

Optional heavy support suitable for the measurement of vibrations transmitted by floors and other vibrating surfaces

Technical Specification

Sensing element	MEMS inertial sensors
Number of axis	3
PERFORMANCE	
Sensitivity @ 15.915 Hz	1 V/(m/s2)
Range F.S.	± 5 m/s2
Frequency response (f3dB)	0.2 Hz ÷ 400 Hz
Frequency response (f10%)	0.4 Hz ÷ 300 Hz
Frequency response (f5%)	0.6 Hz ÷ 200 Hz
Resonant frequency (MEMS transducer)	> 5 kHz
Linearity error (FSO)	± 0.5 %
Transverse sensitivity	< 5%
Residual noise (0.4 Hz ÷ 100 Hz)	< 2 mm/s2
Residual noise (Wm ISO 2631-2)	< 1 mm/s2
ELECTRICAL	

ELECTRICAL

Output	CCP (IEPE/ICP compatible)
Compliance (supply) voltage range	+18 to +28 V





MAIN APPLICATIONS

Measurement of vibrations in buildings for comfort evaluations

Laboratory measurements

Constant current supply2 mA ÷ 4 mAOutput bias voltage12 V ÷ 14 VOutput impedance100 ohmGround isolationCase groundedENVIRONMENTAL1000 GShock limit1000 GOperating temperature range-20°C ÷ 60°CTemperature coefficient0.01 %/°CProtection ratingIP65Residual noise (0.4 Hz ÷ 100 Hz)< 2 mm/s2Residual noise (Wm ISO 2631-2)< 1 mm/s2PHYSICAL50 gSize71 mm diameter, 12mm heightMounting10-32 tapped holeConnector4-pin M5MaterialAnodized aluminum		
Output impedance100 ohmGround isolationCase groundedENVIRONMENTAL1000 GShock limit1000 GOperating temperature range-20°C ÷ 60°CTemperature coefficient0.01 %/°CProtection ratingIP65Residual noise (0.4 Hz ÷ 100 Hz)< 2 mm/s2	Constant current supply	2 mA ÷ 4 mA
Ground isolationCase groundedENVIRONMENTAL1000 GShock limit1000 GOperating temperature range-20°C ÷ 60°CTemperature coefficient0.01 %/°CProtection ratingIP65Residual noise (0.4 Hz ÷ 100 Hz)< 2 mm/s2	Output bias voltage	12 V ÷ 14 V
ENVIRONMENTALShock limit1000 GOperating temperature range-20°C ÷ 60°CTemperature coefficient0.01 %/°CProtection ratingIP65Residual noise (0.4 Hz ÷ 100 Hz)< 2 mm/s2	Output impedance	100 ohm
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Temperature coefficient0.01 %/°CProtection ratingIP65Residual noise (0.4 Hz ÷ 100 Hz)< 2 mm/s2	Shock limit	1000 G
Protection ratingIP65Residual noise (0.4 Hz ÷ 100 Hz)< 2 mm/s2	Operating temperature range	-20°C ÷ 60°C
Residual noise (0.4 Hz ÷ 100 Hz)< 2 mm/s2Residual noise (Wm ISO 2631-2)< 1 mm/s2	Temperature coefficient	0.01 %/°C
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SizeheightMounting10-32 tapped holeConnector4-pin M5	Weight	50 g
Connector 4-pin M5	Size	
	Mounting	10-32 tapped hole
Material Anodized aluminum	Connector	4-pin M5
	Material	Anodized aluminum