

GVS-S90041

TRIAxIAL COMPACT ACCELEROMETER

KEY FEATURES

- @IEPE transmission mode
- Annular shear mode
- Dual case isolation with internal Faraday shield
- Standard sensitivity 100 mV/g
- Hermetically sealed (laser welded)

APPLICATIONS

Vibrations measurement in the rugged environments of industrial machinery monitoring. High frequency version will monitor the vibration on roller bearing, pumps cavitation. Medium frequency version will monitor overall vibration on pumps, motors, and fans.



TECHNICAL PERFORMANCE

Frequency response (± 3 dB)	(Z axis) 0.5 to 13,000 Hz (X, Y axis) 0.5 to 10,000 Hz
Mounted Resonant Frequency	40 kHz Nom.
Dynamic Range	10mV/g 800 g pk. 50mV/g 160 g pk. 100mV/g 80 g pk.
Transverse Response	<5%
Sensitivity (20Hz, 5g)	
DC Temperature Response	-10 % at -50°C +10 % at 120°C
Linearity	$\pm 1\%$ Max
Warm Up Time (Typical)	< 1 Sec

Unit 1, 10 Seasands Drive, Redhead, NSW 2290 Australia



RELIABILITY PRODUCTS

MAKE IT RELIABLE.

ELECTRICAL PERFORMANCE

Electrical Grounding	Isolated from machine ground Internal Faraday shielding
Isolation (Case to shield)	100 MΩ Min
Output Impedance	50 Ω Nom
DC Output Bias	4mA supply (AA=3X, 5X, 6X) 12 ± 2 VDC
DC Temperature Response	±2% at -50°C ±2 at max operating temperature
Residual Noise (24°C) : A=3X	1 Hz to 25 kHz 300 µg rms 1 Hz 30 µg
Residual Noise (24°C) : A=6X	1 Hz to 25 kHz 300 µg rms 1 Hz 30 µg
Power Requirements	Constant current : +2 to +10mA DC Voltage : +22 to +28 VDC
Protection	Overtoltage Yes Reverse polarity Yes

ENVIRONMENTAL

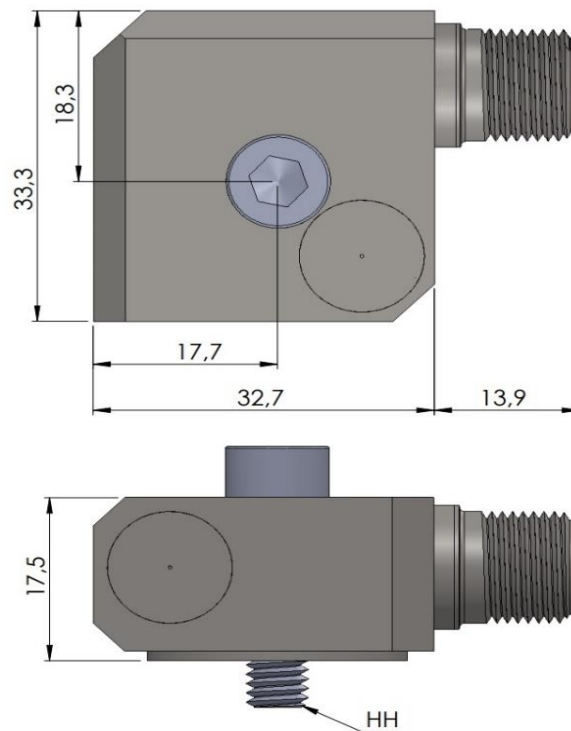
Temperature, operating continuous : max. current =4Ma	-55 to 120 °C (-67 to 250 °F)
Humidity / Enclosure M12 (option 2)	Not affected, hermetically sealed, 1E-8 torr.l/s, >IP68
Acceleration limit : Shock	±5000 g peak
Continuous vibration	±800 g peak
Base strain sensitivity (100 mV/g)	_ g pk/u strain
Temp. transient sens. (3Hz, LLF, 20dB/dec) (100 mV/g)	5 mg/°C
Acoustic sensitivity (164 dBSP) (100 mV/g)	_ mg
Electromagnetic sens. (50Hz, 0.03 T) (100 mV/g)	_ g
Mean Time To Failure	1008 years
ESD Protection	> 40 V

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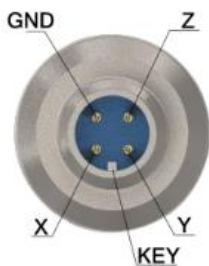
PHYSICAL

Design	Ceramic, annular shear mode
Size	33.3 mm x 32.7 mm x Height 17.5mm
Weight With Connector	110.75 gr Nom (3.90 Oz)
Material	AISI 316L, DIN 1.4404 (Stainless steel)
Mounting Torque (M6 1/4" 28 screw)	Min 4 N.m (35 in-lbs)- Max 8 N.m (70 in-lbs)

Drawing



WIRING



Wiring option (Hansford compatibility)

X = pin 1 Y = pin 2 Z = pin 3 GND = pin 4

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INCLUSIONS

All sensors are supplied with interchangeable M6 and 1/4" - 28 UNF Mounting bolt options.

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www.gvsensors.com.au

+61 (0) 2 4925 2701

✉ sales@gvsensors.com.au

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