

vibro-meter
certified by

CA 952

Piezoelectric Accelerometer Type CA 952

CHARACTERISTICS

- Extreme temperature capability -196°C to +650°C
- Operational in primary circuit of PWR, BWR, FBR and HTGR
- Proven reliability
- Will meet NRC guide 1.20, IEEE 323-1974

FEATURES

- Internal case insulation
- VC2 type crystal element
- Frequency response:
2 Hz to 2500 Hz
- Sensitivity
50 pC/g

WEIGHT

Accelerometer : 450 g
Integral cable : 40 g/m

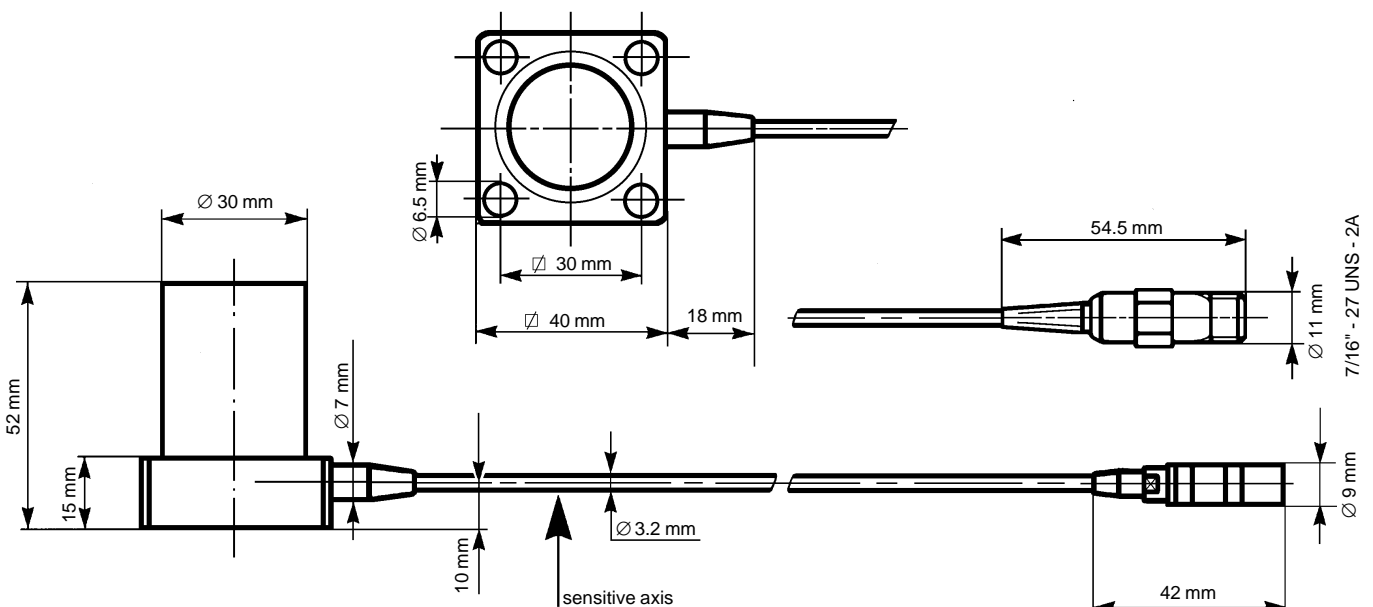


DESCRIPTION

The use of VC2 type single crystal material in the CA 952 compression mode accelerometer provides an extremely stable instrument.

The transducer is designed for long-term monitoring or development testing.

It is fitted with an integral mineral insulated cable (twin conductors) which is terminated with a Lemo or a high-temperature connector from VIBRO-METER.



SPECIFICATIONS

CA 952

Input power requirements :

None

Signal transmission :

2 pole system insulated from casing, charge output

Signal processing :

Charge converter

OPERATING (at 23°C ±5°C)

Sensitivity (at 120 Hz) :

50 pC/g ±5%

Dynamic measuring range (random) :

0.0002 g to 100 g peak

Overload capacity (spikes) :

Up to 200 g peak

Linearity :

±1% over dynamic measuring range

Transverse sensitivity :

<5%

Resonant frequency (mounted) :

>7.5 kHz nominal

Frequency response

- 2 to 1500 Hz nominal : ±5% (lower cutoff frequency is determined by the electronics used)
- 1500 to 2500 Hz : <10%

Internal insulation resistance :

Min. 10⁹ Ω

Capacitance

- : 240 pF nominal pole/pole
- : 20 pF nominal pole/ground (asymmetry 1 pF max.)
- Integral cable : 200 pF/m nominal pole/pole
- : 300 pF/m nominal pole/ground

ENVIRONMENTAL

Temperature range :

-196°C to +600°C

Shock acceleration :

<200 g peak (half sine, 1ms) along sensitive axis

Pressure :

250 bar max.

Corrosion, humidity :

Inconel 600, hermetically welded

Radiations :

- Gamma flux : 10¹¹ erg/g no effect
- Neutron flux : 10¹⁸ n/cm² no effect

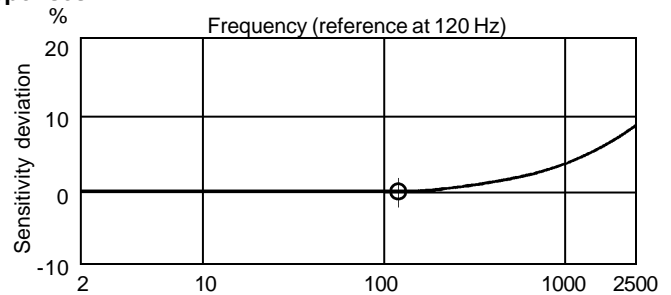
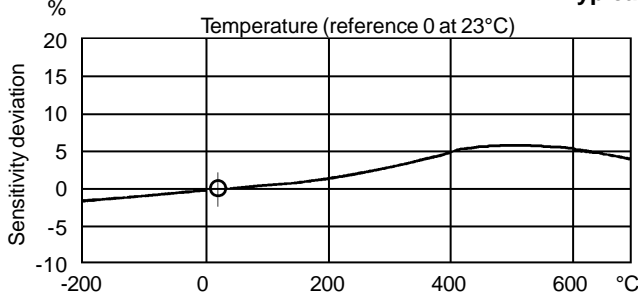
Mounting :

4 Allen screws M6, fastening torque 15 Nm

CALIBRATION :

Dynamic calibration at factory at 5 g peak and 120 Hz (+23°C). No subsequent calibration necessary.

Typical Responses



Accessories :

- Connectors
- Cables
- Electronics

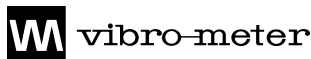
Ordering Information :

To order please specify

- Description / Ordering No : CA 952 / 144-952-000-501 Cable Ø 2 mm MgO insulation, VM Lemo connector 5X2 Cable Ø 3.2 mm MgO insulation, VM Lemo connector
└ 0 cable length defined on order
└ 1 cable length 12.5 m
└ 2 cable length 25 m
- CA 952 / 144-952-000-601 Cable Ø 2 mm Al₂O₃ insulation, VM Lemo connector 6X2 Cable Ø 3.2 mm Al₂O₃ insulation VM Lemo connector
└ Same cable length code as 5X2



Due to the continual development of products, Vibro-Meter reserves the right to modify these specifications without forewarning.



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Vibro-Meter is a member of the
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