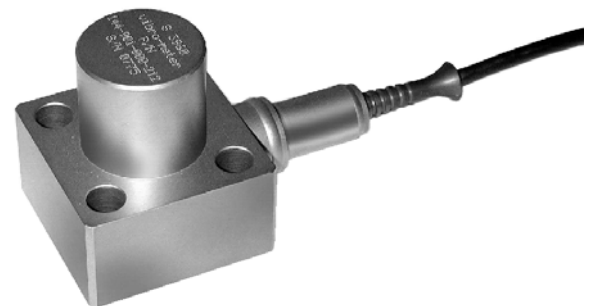


Piezoelectric Accelerometer Type CA 901

FEATURES

- ▶ Extreme temperature capability -196°C to +700°C
- ▶ Operational as loose part monitoring accelerometer
- ▶ Proven reliability
- ▶ Meets NRC guide 1.133, IEEE 323-1974. Qualified to DIN 25.475.1



CHARACTERISTICS

- ▶ Integral case insulation
- ▶ VC2 type crystal element
- ▶ Frequency response
3 Hz to 2800 Hz
- ▶ Sensitivity
10 pC/g

WEIGHT

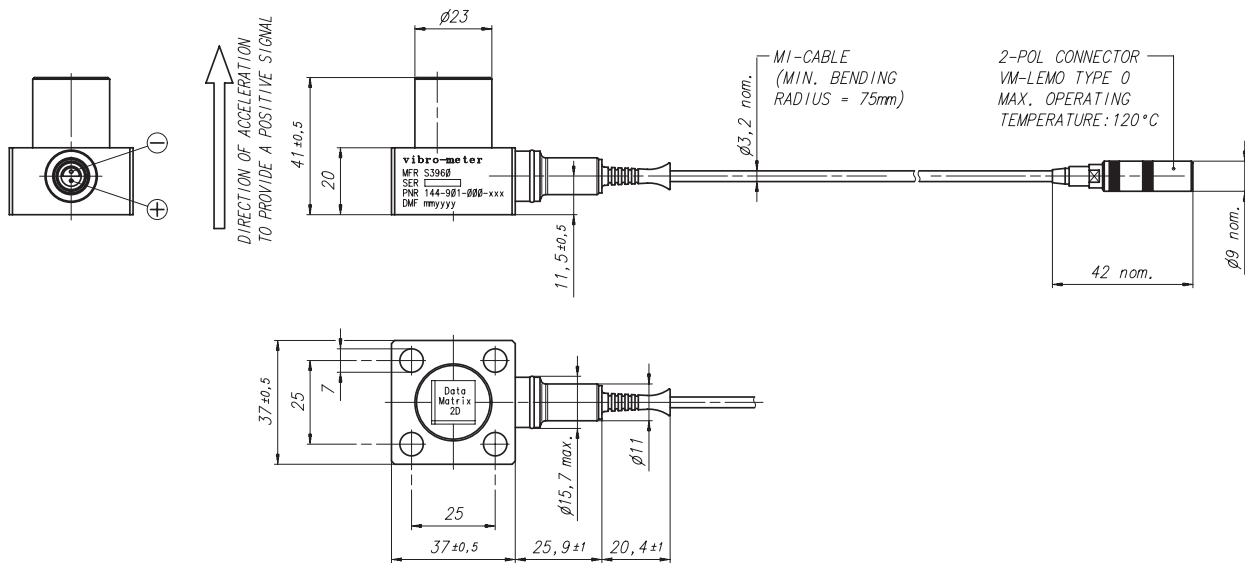
- ▶ Accelerometer:
800 g
- ▶ Integral cable
40 g/m

DESCRIPTION

The use of VC2 type single crystal material in the CA 901 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.

MECHANICAL DRAWING



SPECIFICATIONS

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)	: 10 pC/g ±5%
Dynamic measuring range (random)	: 0.001 g to 200 g peak
Overload capacity (spikes)	: Up to 500 g peak
Linearity	: ±1% over dynamic measuring range
Transverse sensitivity	: < 5%
Resonance frequency (mounted)	: > 17 kHz nominal
Frequency response	
• 3 to 2800 Hz nominal	: ±5% (lower cutoff frequency is determined by the electronics used)

• 2800 to 3700 Hz	: < 10%
Internal insulation resistance	: Min. $10^9 \Omega$
Capacitance	
• Transducer	: 80 pF/m nominal pole/pole 18 pF/m nominal pole/ground (asymmetry 1 pF max.)
• Integral cable	: 200 pF/m nominal pole/pole 300 pF/m nominal pole/ground

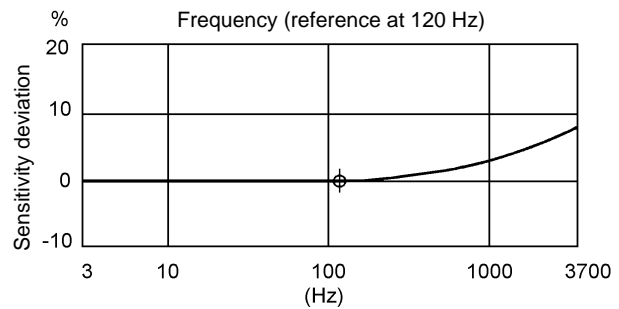
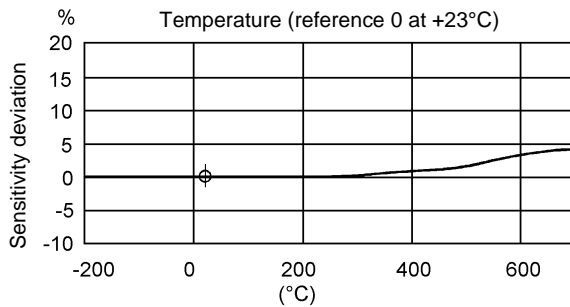
ENVIRONMENTAL

Temperature range	:
• Continuous	: -54°C to +650°C
• Extreme	: -196°C to +700°C
Shock acceleration	: < 500 g peak (half sine 1 ms) along sensitive axis
Pressure	: 140 bar 23°C, 80 bar 300°C
Corrosion, humidity	: Inconel 600, hermetically welded
Radiations	
• Gamma flux	: 10^{11} erg/g no effect
• Neutron flux	: 10^{18} n/cm ² no effect
Mounting inside tube	: 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



ORDERING INFORMATION

To order please specify	Type	Ordering Number	
:	CA 901	144-901-000-2X	VM Lemo connector
			0 cable length defined on order
			1 cable length 5 m
			2 cable length 12.5 m
			3 cable length 20 m
			4 cable length 25 m



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Vibro-Meter has offices in more than 30 countries. For a complete list, please visit our website.

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