

vibro-meter
certified by

CA 134

Piezoelectric Accelerometer Type CA 134

CHARACTERISTICS

- Vibration monitoring
e.g. cryogenic applications
- Low temperature
- ARINC No 554 fixation
- Differential output
- Hermetically welded
- CENELEC approved

FEATURES

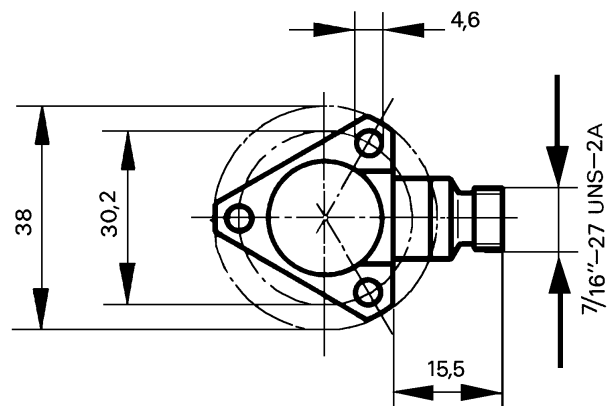
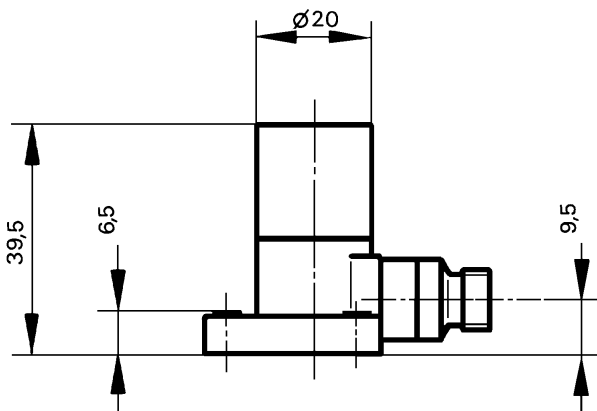
- Internal case isolation
- VC2 type crystal element
- Frequency response:
5 Hz to 6,000 Hz
- Sensitivity:
10 pC/g
- Temperature range:
-196°C to +500°C

WEIGHT

120 g


DESCRIPTION

The use of VC2 type single crystal material in the CA 134 compression mode element accelerometer provides an extremely stable instrument. The transducer is designed for long term monitoring and measurement of vibration in severe temperature environments such as cryogenic installations etc. The CA 134 accelerometer may be operated with either soft line or hard line cables depending on the required temperature.



Input power requirements :

None

Signal transmission :

2 pole system insulated from casing, charge output

Signal processing :

Charge amplifier

OPERATING (at 23°C ±5°C):

Sensitivity (at 120 Hz) :

10 pC/g ±5%

Dynamic measuring range (random) :

0.001 g to 500 g peak

Overload capacity (spikes) :

Up to 1,000 g peak

Linearity :

±1% over dynamic measuring range

Transverse sensitivity:

<5%

Resonant frequency (mounted):

14 kHz nominal

Frequency response:

± 5% between 0.5 Hz and 3,500 Hz (lower cut off frequency is determined by the electronics used).

<10% between 3,500 Hz and 6,000 Hz

Temperature error:

<0.01% per °C between -70°C and +500°C (cryogenic version -196°C)

Internal insulation resistance:

Min. 10⁸ ohms

Capacitance:

150 pF nominal pole to pole, 30 pF nominal pole to ground (asymmetry 1 pF max.)

ENVIRONMENTAL

Temperature range:

-54°C (-196°C) to +450°C

Short term survival temperature:

-70°C (-196°C) to +500°C

Shock acceleration:

<2,000 g peak (half sine 1 ms) along sensitive axis

Explosive atmosphere :

Available in CENELEC approved version, LCIE conformance certificate N° LCIE 93.C6024 X

Corrosion, humidity:

Inconel 600, hermetically welded

Base strain sensitivity:

<10⁻⁴ g/με

Mounting:

3 Allen screws M4 x 16 with spring lock washers M4, screw torque 4,5 Nm. No need for el. insulation of mounting surface

CALIBRATION

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

Ordering Information :

To order please specify:

- Type and designation

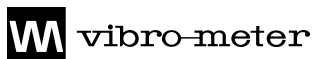
: CA 134 Piezoelectric accelerometer

- Ordering N°

: 144-134-000-2



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



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