

vibro-meter
certified by

CA 201

Piezoelectric Accelerometer Type CA 201

CHARACTERISTICS

- Industrial vibration monitoring
- High sensitivity
- Differential output
- Hermetically welded
- CENELEC approved
- Internal case insulation
- Integral cable

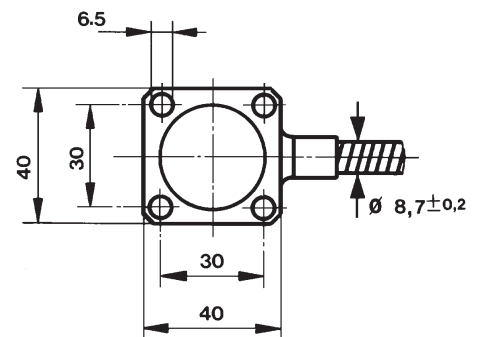
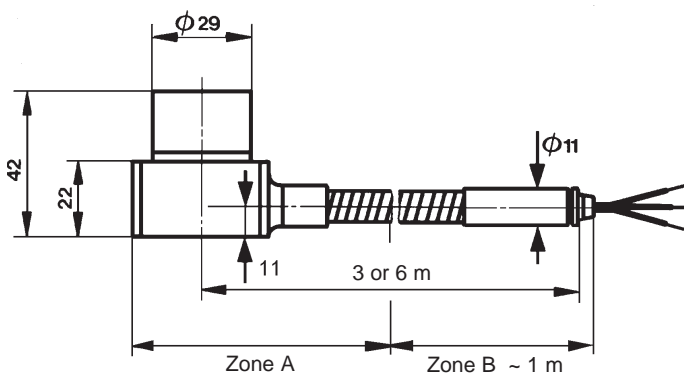


DESCRIPTION

The CA 201 accelerometer is equipped with a symmetrical shear mode polycrystalline measuring element, which has internal case insulation. The transducer is designed for heavy-duty industrial monitoring

and measurement of vibration. The accelerometer is fitted with an integral cable protected by a stainless steel flexible tube welded to the case. The CA 201 accelerometer is available in CENELEC approved versions and has a high sensitivity.

Mechanical Drawing :



Min. bending radius: 50 mm.
Clipping points of the cable should
be no more than 100 to 200 mm apart.

GENERAL

Input power requirements :

None

Signal transmission :

2 pole system insulated from casing, charge output

Signal processing :

Charge amplifier

OPERATING TEMPERATURE (at 23°C ±5°C)

Sensitivity (at 120 Hz) :

100 pC/g ±5%

Dynamic measuring range (random) :

0.0001 g to 200 g peak

Overload capacity (spikes) :

Up to 250 g peak

Linearity :

≤1% between 0.0001 g and 20 g peak, max. 2% between 20g and 200 g peak

Transverse sensitivity :

≤5%

Resonant frequency (mounted) :

11 kHz nominal

Frequency response :

±5% between 0.5 Hz and 3000 Hz (lower cut off frequency is determined by conditioner used) ≤10% between 3 kHz and 4.5 kHz

Internal insulation resistance :

Min. 10⁸ ohms

Capacitance :

3300 pF nominal pole to pole, 1200 pF nominal pole to casing (for 6 m integral cable)

Calibration :

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

ENVIRONMENTAL

Temperature range

- Zone A : -54°C to +260°C
 - Zone B : -54°C to + 125°C
 (+100°C Ex i version)
 (+260°C for cable)

Temperature error :

Typically 0.1% per °C between 23°C and 125°C, typically +25% at 250°C

Shock acceleration :

≤500 g peak (half sine 1 ms)

Explosive atmosphere :

Available in CENELEC approved version, PTB conformance certificat No Ex-80/2183 EEx ib IIC T5

Corrosion, humidity :

Stainless austenitic steel, hermetically welded

Base strain sensitivity :

≤10⁻⁵g/με

MECHANICAL

Cable :

2 pole twisted and shielded

Cable weight :

122 g/m

Mounting :

4 Allen screws M6x35 with M6 spring lock washers, screw torque 15 Nm. No need for electrical insulation of mounting surface

WEIGHT :

600 g with 3 m BOA-steeltube protected cable

Accessories :

JB 105 / JB 116 Junction box
 IPC Signal conditioner

Ordering Information :

To order please specify:

- Type and designation : CA 201 Piezoelectric accelerometer
- Ordering No. : With integral cable 3 m **144-201-000-2**
 With integral cable 6 m **144-201-000-4**
 Ex i with integral cable 3 m **144-201-000-1**



Due to the continual development of our products we reserve the right to modify the specifications without forewarning.



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Vibro-Meter is a member of the Meggitt Aerospace Systems Division