

Vibro Meter Vibro Meter Series Service Manual

144-201-000-222

1. Description

Vibro Meter Piezoelectric Accelerometer

3. Product Information

www.oilautotech.com

Vibro Meter Piezoelectric Accelerometer

Type CA 201 144-201-000-222

CHARACTERISTICS

Industrial vibration monitoring

High sensitivity

Differential output

Hermetically welded

CENELEC approved

Internal case insulation

Integral cable

SPECIFICATIONS CA 201

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

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%

www.oilautotech.com

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

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

www.oilautotech.com