

vibro-meter
certified by

CP 216

Piezoelectric Pressure Transducer Type CP 216

CHARACTERISTICS

- Extreme temperature capability -70°C to +520°C
- High-pressure capability 350 bar
- High reliability

FEATURES

- Internal case insulation
- Sensitivity
200 pC/bar typical

WEIGHT

Transducer : 12 g
Integral cable : 25 g/m



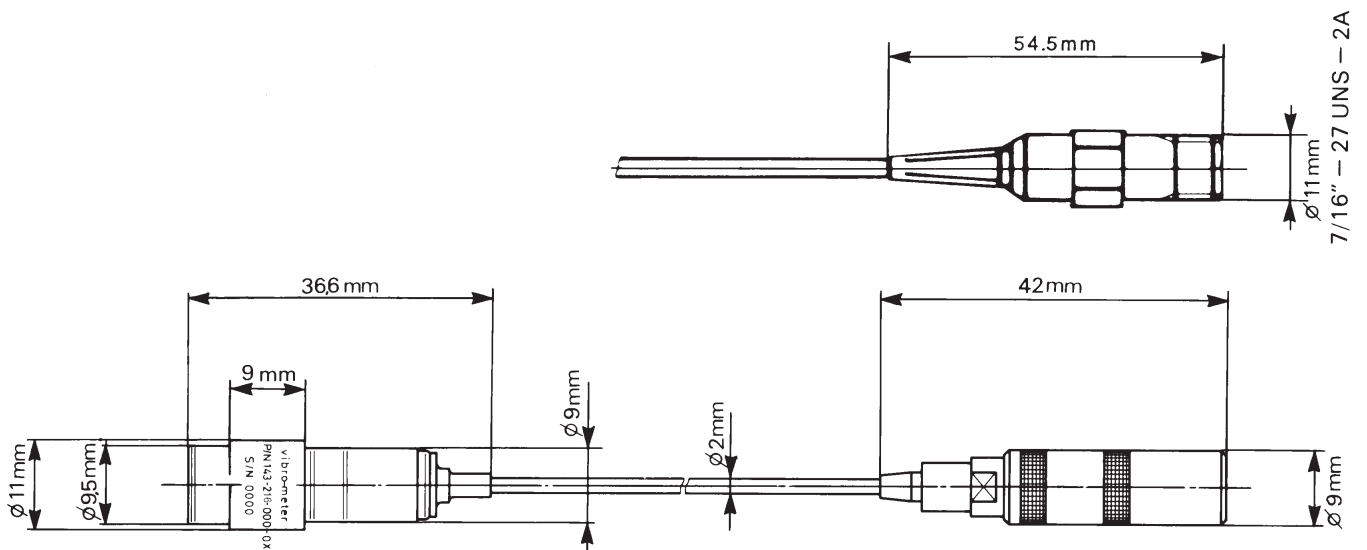
DESCRIPTION

The use of man made piezoelectric material in the CP 216 compression mode dynamic pressure transducer 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 Diagram :



SPECIFICATIONS

CP 216

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 2 Hz) : 200 pC/bar typical
Dynamic measuring range (random) : 0.0005 bar to 250 bar nom.
Overload capacity (spikes) : Up to 350 bar
Linearity : ±1% over dynamic measuring range
Acceleration sensitivity : ≤0.5 pC/g (≤0.0025 bar/g)
Resonant frequency : >80 kHz
Frequency response : 2 to 15,000 Hz ±5% (lower cutoff frequency is determined by the electronics used)
Internal insulation resist. : Min. 10⁹ Ω (5 x 10⁴ at 450°C)

Capacitance
 - Transducer : 320 pF nominal pole/pole
 13 pF nominal pole/ground
 - Integral cable : 270 pF/m nominal pole/pole
 210 pF/m nominal pole/ground

ENVIRONMENTAL
Temperature range
 - Continuous : -54°C to +470°C
 - Extreme : -70°C to +520°C

Shock acceleration : <2000 g peak (half sine 1 ms) along sensitive axis

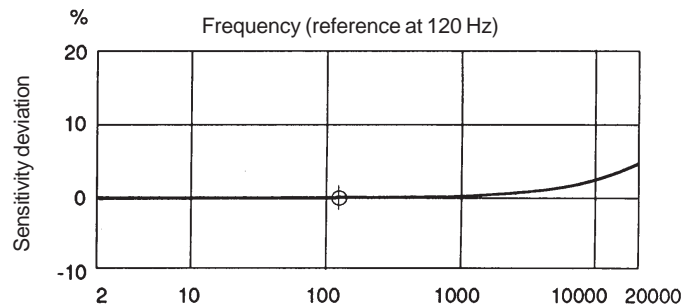
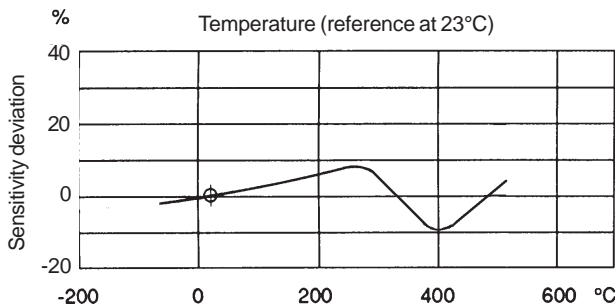
Corrosion, humidity : Nimonic 90, hermetically welded (Inconel 600 for cable)

Radiations
 - Gamma flux : 10¹⁰ erg/g no effect
 - Neutron flux : 10¹⁷ n/cm² no effect

Mounting : See PZ-5084

CALIBRATION : Dynamic calibration at factory at 1 bar peak and 2 Hz (23°C). No subsequent calibration necessary.

Typical Responses



Ordering Information :

To order please specify :

| | | |
|-------------------------------------|--|--|
| - Description / Ordering No. | : CP 216 / 143-216-000-0X CP 216 / 143-216-000-1X MA 104 / 809-104-000-0 | VM Lemo connector 1 cable length defined on order 2 cable length 0.5 m 3 cable length 1 m 4 cable length 2 m 5 cable length 3 m VM high-temperature connector 1 cable length defined on order 2 cable length 0.5 m 3 cable length 1 m 4 cable length 2 m 5 cable length 3 m Mounting Adaptor M12 x 1 |
|-------------------------------------|--|--|



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 Meggitt Aerospace Systems Division