

A/172/F Industrial IEPE Piezo-Tronic IEPE Accelerometer

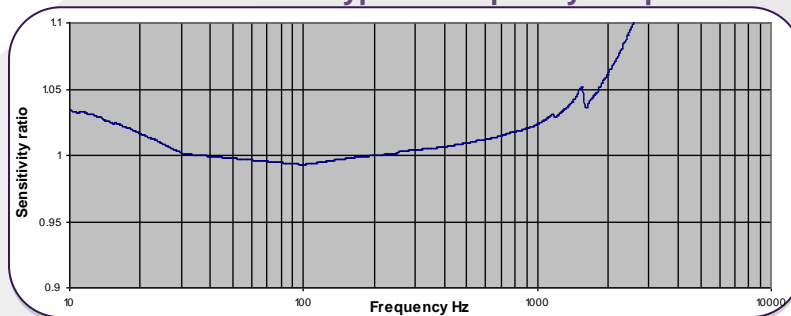
100mV/g $\pm 10\%$ 130gm 185°C max temp

Robust, industrial grade accelerometer with integral two wire charge/voltage converter (QVC) providing standardized 100mV/g output, and suitable for use in hostile environments, including fluid immersion. The transducer will withstand a 7 joule axial impact (1kg x 0.7m drop onto the cap). Convoluted and braided and armored assemblies offer supplementary protection. For submersible operation, proof leak testing is essential. The A/172VF connector has provision for a seal, transducer /cable assembly should be leak tested as whole and the connector seal replaced should the connector joint be subsequently broken. Leak testing is carried out by submersion in pressurized water. This is a rapid means of welded/ metallurgical defect detection water ingress correlates to insulation loss and usually manifests within an hour or two of commencement. A 24 hour test vitally guarantees survivability. The A/172VF requires constant current supply and generates an output signal superimposed on the supply line.

Construction

Konic sensor/hybrid thick film QVC electrically isolated with output via two pole hermetic connector. All welded case, suitable for immiscible applications.

Typical Frequency Response



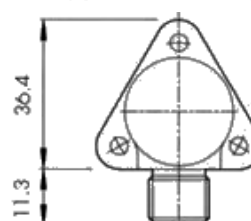
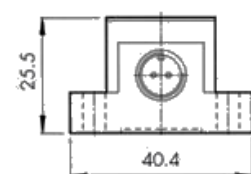
	Metric	Imperial
Voltage Sensitivity $\pm 10\%$	10.2mV/(m/s ²)	100mV/g
Resonant Frequency kHz	11	11
Typical Frequency Response	$\pm 5\%$ $\pm 10\%$	1Hz – 4kHz 0.7Hz – 5kHz
Cross Axis Error % max	5	5
Temp, range	-50/ +185°C	-58/ +365°F
Output, Sensitivity Deviation re 20°C/68 °F	-5% @ -50°C +5% @ +185°C	-5% @ -58°F +5% @ +365°F
Pyro-electric Output g/.C	0.02	0.02
Pyro-electric Corner freq. Hz	0.002	0.002
Base Strain	$\leq 5\%$	$\leq 5\%$
Max Continuous accn, g sine pk	9,807m/s ²	1000g
Supply Voltage V DC	15 / 35	15 / 35
Supply Current mA	2/15	2/15
Bias Voltage V DC @ 20.C	9 / 10	9 / 10
Settling Time, sec to 90% final val.	<5	<5
Noise Level Equiv mg	0.7	0.7
Saturation Limit equiv, pk,g	45 / 50	45 / 50
Case Material	Stainless steel 303 S31	Stainless steel 303 S31
Mounting	3x5mm holes on 34.3 PCD	3x 0.2in holes on 34.3 PCD
Weight	130gm	4.59oz
Connector	2 pole, 7/16 UNF	2 pole, 7/16 UNF
Case Seal	Welded	Welded
Size	40.2 x 36.4 x 24.7mm	1.58 x 1.43 x 0.97in



A/172/F



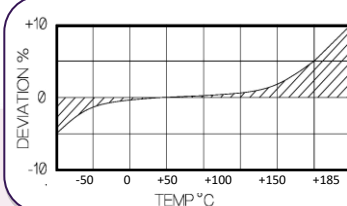
dims. mm



Options

- Temperature calibration up to 185°C
- Proof pressure testing to 80 bar

Temperature Response



Typical Spectral Noise (100mV/g)

1Hz	732µg/√Hz
10Hz	82.1µg/√Hz
100Hz	16.2 µg/√Hz
1kHz	4.2 µg/√Hz
10kHz	3.1 µg/√Hz

Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes.

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