DJB Instruments
SENSING ENGINEERING INNOVATION

A/38-1 Micro-miniature Piezoelectric Triaxial Accelerometer

0.4pC/g nom. 0.9gm 200˚C Max temp

Micro-miniature triaxial vibration transducers comprising three shear plate sensing elements. A/28/E inserts are bonded orthogonally into hard anodised aluminium housing.

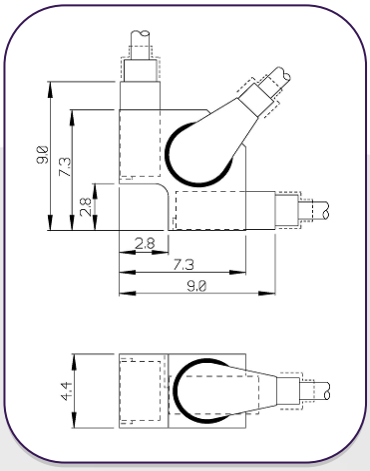
The inserts are electrically insulated, individually and from the housing, thus eliminating ground loop interference.

The additional mechanical isolation implicit in the construction provides near elimination of strain induced error.

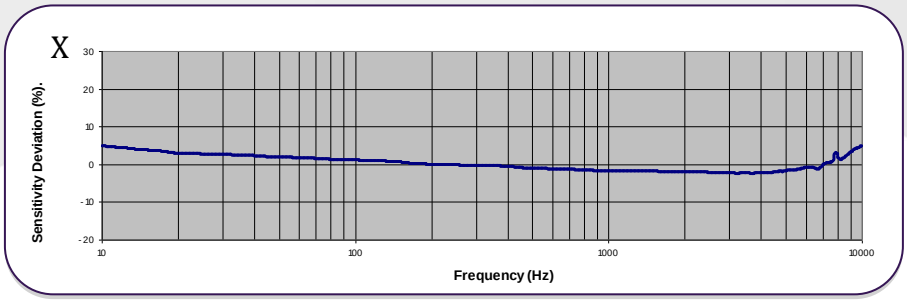
The spatial response of a structure to dynamic forcing may lead to erroneous single axis vibration or shock measurement, due to the inherent directional property of the transducer.
In cases where this is deemed to be a problem, an orthogonal three axis measurement, allowing computation of absolute value and direction offers a solution.

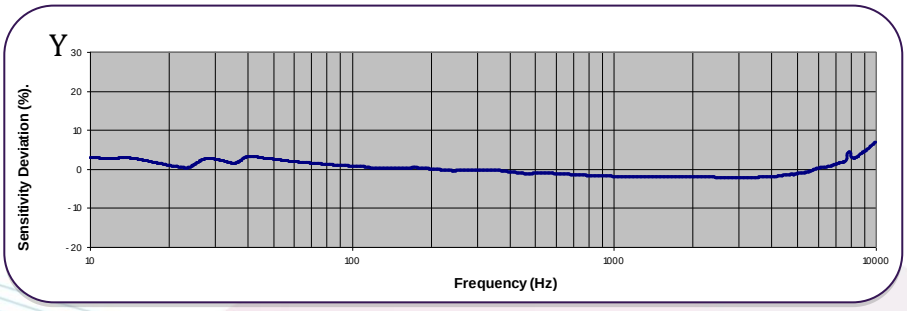
The 3 output connectors of the A/38-1 are in the same horizontal plane.

A/38-1

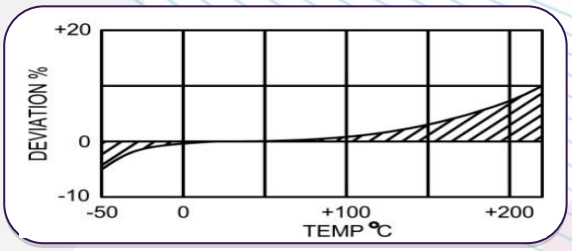


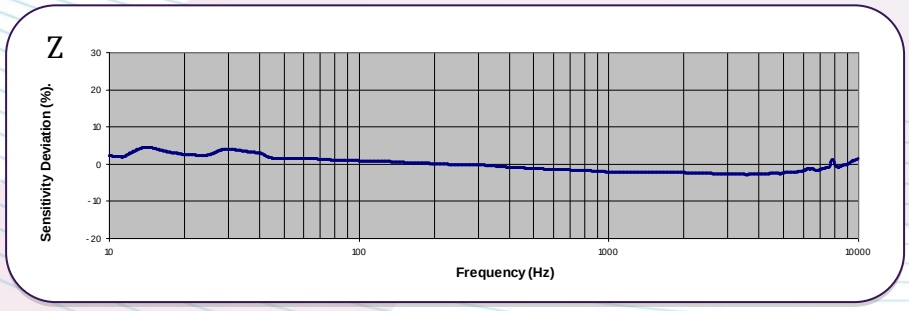
Typical Frequency Response





Temperature Response





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

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A UK company with UK-based manufacturing, assembly and calibration in-house.

DJB Iss.2 2018

bsi. ISO 9001 Quality Management
FM11310

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Options

- Wideband temperature calibration

  A/38, A/38-1

	Metric	Imperial
Charge Sensitivity nom.	0.04pC/(m/s^2)	0.4pC/g
Resonant Frequency	X/Y Axis 32kHz Z Axis 36kHz	
Typical Frequency Response ±5% ±10%	1Hz – 6kHz 0.7Hz – 7kHz	
Pyro-electric output	0.2°C	
Pyro-electric corner frequency	0.001Hz	
Cross Axis error	≤5% max	
Capacitance	280pF	
Temperature Range	-50/+200°C	-58/+ 392°F
Charge sensitivity deviation (20°C/68°F)	-5% @ -50°C +10% @ +200°C	-5% @-58°F +10% @+392°F
Base Strain Sensitivity	≤ 5%	
Maximum Continuous accn.g sine	19613m/s^2	2000g
Max Shock g level, rise time µs	98100m/s^2,20	10000g, 20
Case Material	Inserts s/steel 303 S31 Hard anodized aluminium block	
Mounting	x1 Ø 2.1mm through hole, Adhesive	x1 Ø 1.08in through hole, Adhesive
Weight	0.9g	0.032oz
Case Seal	Welded	
Size	7.2 x 7.2 x 4.4mm	0.28 x 0.28 x 0.17in
Connector	3 x L8	

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