

Micro-miniature triaxial piezo-electric accelerometer

A/38
A/38-1



0.4pC/g nom./axis • ≤ 1gm wt.
200°C max. temp.

Micro-miniature triaxial vibration transducer comprising three shear plate. A/28/E inserts bonded orthogonally into a hard anodised aluminium housing.

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

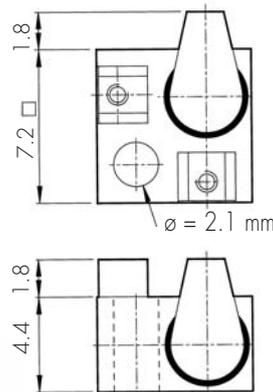
The additional mechanical isolation implicit in the construction provides also near elimination of strain induced error.

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.

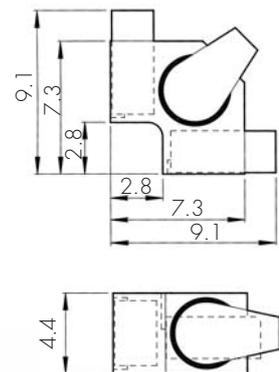
The 3 output connectors of the A/38-1 are in the same horizontal plane.

A/38

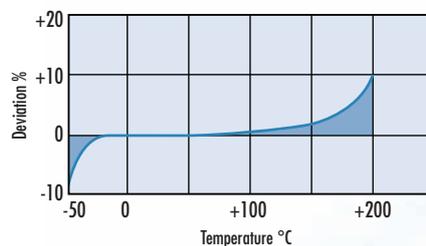


A/38-1

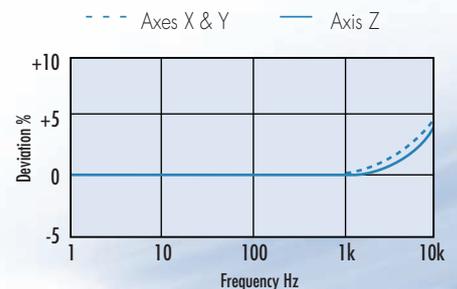
dims. mm



TEMPERATURE RESPONSE



FREQUENCY RESPONSE



options

> wideband temperature calibration

CONVERSION MODE	SHEAR PLATE
Charge sensitivity pC/g (X, Y, Z)	0.3/0.6
Charge sens. % deviation re nom.	±5
Capacitance pF	220/340
Resonant frequency kHz	X (32) ; Y (32) ; Z (36)
Cross axis error % max	5
Temperature range °C	-50/+200
Charge sensitivity deviation re 20°C	-5% @ -50°C +10% @ +200°C
Pyro-electric output, g/°C	0.2
Pyro-electric corner freq. Hz	0.001
Base strain sens. g/μ strain	< 0.002
Max continuous accn. g sine	2000
Insert/block insul.resce., M ohms	1000 @ 100V, 20°C
Materials	inserts s/steel 303 S31, mtg. block al. alloy
Mounting	1x2.1mm ø through hole (A/38), adhesive (A/38-1)
Weight gm	0.9/1
Connector	L8
Case seal	transducer inserts welded, bonded into hard anodised al.block