

Piezo-tronic voltage source accelerometer

standard outputs 10 ; 31.6 ; 100mV/g • 12gm wt. 125°C max. temp.

• eneral purpose piezo'tronic (QVC) U accelerometer, identical in sensitivity range to A/120/V, but annular hole fixing allowing full 360° connector orientation, reduced weight and height.

KONIC mechanically preloaded sensing element, thick film hybrid OVC, welded case seal maximises measurement integrity and reliability. A/122/V will interface directly to spectrum analysers having minimum 15V, 2mA transducer outlet, bearing in mind that the minimal supply constrains high frequency capability, due to drive limitations, and dynamic range at elevated temperature, due to bias point drift.

+10

+5

0

-5

Weight gm

Connector

Case seal

Deviation %

In addition our VV/04 or V4/04 interface module provide QVC current source supply, transducer fault detection, normalised signal scaling up to maximum sensitivity 3V/ milli g. (A/122/V option 3, W/04 normalising dial/multiplier set to 1mV/g, range switch set to 0.0316g/volt). Note that low level measurements are subject to signal noise constraints but may realizable if bandwidth is restricted.

options

- non standard sensitivities within range 10/100mV/g; wideband temperature calibration
- -50/+125°C.

A/122/V ø 16.0 17.1 4.7dims. mm **TEMPERATURE RESPONSE** FREQUENCY RESPONSE option 1 (10 mV/g) +10 +5Deviation % 0 -5

-10

A/177

-10 +100 ٥ +50 0.1 2 5 10 100 1k 10k Temperature °C Frequency Hz **CONVERSION MODE** KONIC/2 WIRE QVC 3 1 2 sensitivity option Voltage sensitivity $\pm 5\%$ @ 20°C mV/g 10 31.6 100 Resonant frequency kHz 20 Cross axis error % max 5 Temperature range °C -50 / +125 Voltage sens. deviation re 20°C -5% @ -50°C +5% @ +125°C Pyro-electric output, g/°C 0.2 Pyro-electric corner freq. Hz 0.002 < 0.01 Base strain sens. g/μ strain 1000 Max continuous accn. g sine Supply voltage V 15/35 Supply current mA 2/15 Bias voltage V (20°C) 8.5/9.5 Settling time to 90% final val. secs. 5 5 5 Noise level, equiv. mg 3 2 1 L.F. corner frequency, Hz 0.2 0.7 2 Saturation limit, equiv. g 450/500 140/155 45/50 Output resistance, ohms (500Hz) 50 100 30 Supply ripple reject @ 50Hz, dB 60 Case material s/steel 303 S31 Mounting through hole, 3.5mm dia.

12

welded

Microdot skt. 10/32 UNF thd.