

A/800/T, A/800/T, A/800/TC Micro g Piezoelectric Accelerometer

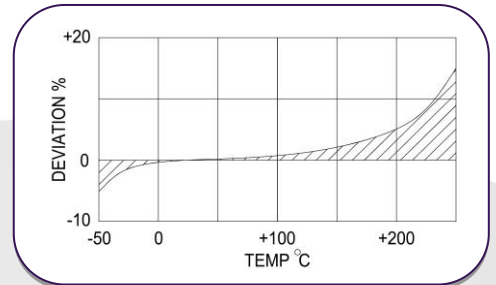
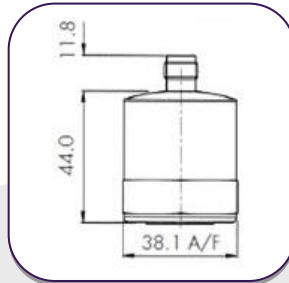
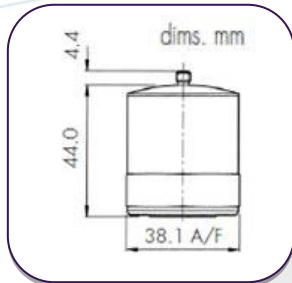
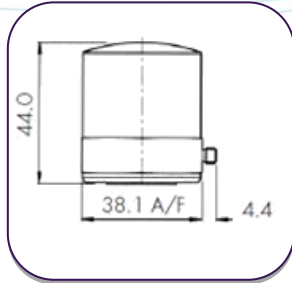
9nC/g nom 400/407gm 250°C max temp

A/800

A/800/T

A/800/TC

Temperature Response



Highest sensitivity multiple shear plate vibration transducers intended for micro g level measurement – virtual immunity to strain input side effects provides guarantee of low frequency, measurement integrity. System noise level of 10^{-2} pC is equivalent to 1mg. With bandwidth restricted to 1 kHz, noise floor should be significantly below this. Bear in mind that charge amplifier noise increases as a function of input capacitance – noise assessment should be made with the charge amplifier input correctly terminated. The transducer adds mass at its point of attachment to a structure, thus imposes a transparency constraint above which data corruption will be excessive.

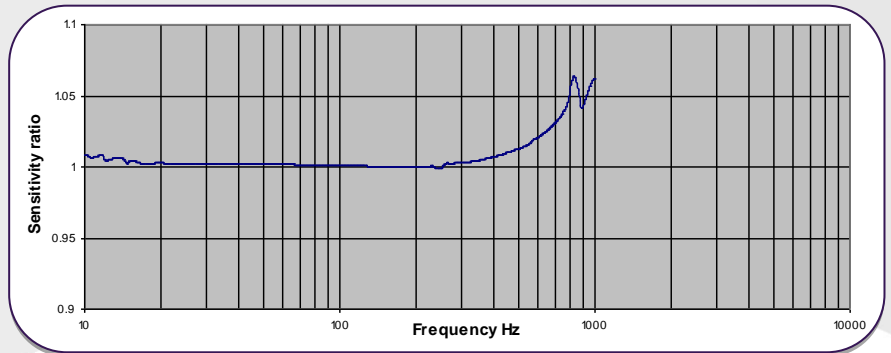
The single degree of freedom example

$\omega = \sqrt{\frac{s}{M} + MT}$ where MT represents the transducer mass, reduces ω by 3% for a transducer adding 10% to the structure mass. Application area of the A/800 is thus limited in scope to low level vibration surveys in the civil engineering and heavy engineering domain.

Options:

- Hermetic TNC connector version: ref A/800, TC
- Wideband temperature calibration - 50/+250°C

Typical Frequency Response



	Metric	Imperial
Charge sensitivity ±5%	0.92nC/(m/s ²)	9nC/g
Capacitance nF	26/31	26/31
Resonant frequency kHz	4	4
Cross axis error % max	5	5
Temperature range	-50/+250°C	-58/+482°F
Charge sensitivity	-5% @ -50°C	-5% @ -58°F
Frequency Response ±10%	10Hz – 1kHz	10Hz – 1kHz
Max continuous accn. G sine	4,903m/s ²	500g
Case material	s/steel 303 S31	s/steel 303 S31
Mounting	Base tapped ¼ UNF x 4mm deep	Base tapped ¼ UNF x 0.16in deep
Weight	400gm (A/800), (A/800/T) 407gm (A/800/TC)	14.11oz (A/800), (A/800/T) 14.36oz (A/800/TC)
Connector	10-32 UNF Microdot (A/800T) TNC (A/800, TC)	10-32 UNF Microdot (A/800T) TNC (A/800, TC)
Case Seal	Welded, hermetic connector (TNC)	Welded, hermetic connector (TNC)
Size	38.1 (A/F) x 44mm	1.5 (A.F) x 1.73in