DJB Instruments
SENSING ENGINEERING INNOVATION

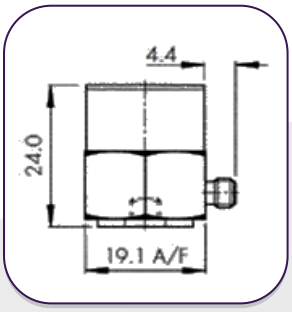
A/29, A/29/T, A/29/TC
Piezoelectric Accelerometer

100pC/g nom. 46gm wt. 250°C Max

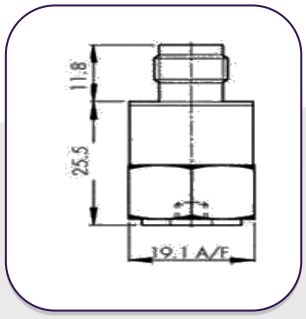
Close tolerance 100pC/g normalized output accelerometers with ultra low strain induced error. Piezo-electric materials convert mechanical loading, however induced, to electrical charge.

The A/29 is specifically configured to minimize the effect of physical inputs other than acceleration, thus enhancing measurement integrity in situations where flexural strain of the transducer could give rise to significant errors. Accelerometers based around piezo-electric discs operating in d33 compression mode are particularly prone to this phenomenon, and typically have strain sensitivity 40dB greater than that of a strain A/29. High sensitivity Konic shear sensing element produces 100pC/g output from 46gm wt, transducer. Totally welded construction maximizes reliability.

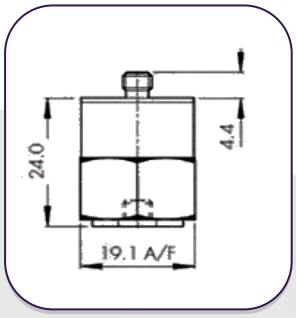
A/29



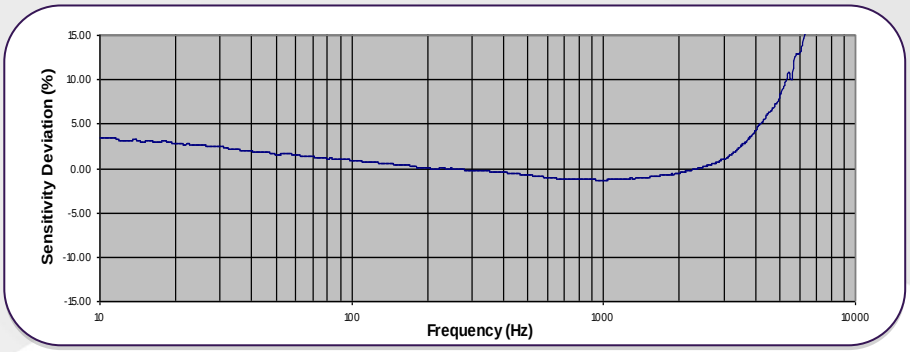
A/29/T



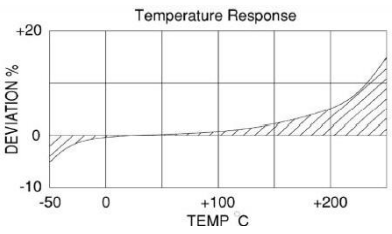
A/29/TC



Typical Frequency Response



Temperature Response



Options

- Wideband temperature calibration, -50/+250ºC
- Hermetic TNC connector version: ref A/29/TC
- Proof pressure testing to 60 bar for submersible applications (hermetic versions)

	Metric	Imperial
Charge sensitivity nom.	10.20pC/(m/s^2)	100pC/g
Capacitance pF	1400/2000	1400/2000
Resonant Frequency KHz	≈15	≈15
Cross Axis error % max	5	5
Temperature Range	-50/ +250°C	-58/ +482°F
Charge sensitivity deviation re 20°C	-5% @ -50°C +15% @ +250°C	-5% @ -58°F +15% @ +482°F
Frequency Response	1Hz- 4KHz +/-5% 1Hz- 6KHz +/-5%	1Hz- 4KHz +/-5% 1Hz- 6KHz +/-5%
Maximum Continuous 'g level	9,807m/s^2	1000g
Mounting	10-32 UNF Tapped Base	10-32 UNF Tapped Base
Case Material	s/steel 303 S31	s/steel 303 S31
Connector	10-32 UNF Microdot (A/29, A/29/T) TNC (A/29/TC)	10-32 UNF Microdot (A/29, A/29/T) TNC (A/29/TC)
Weight	46gm (A/29), (A/29/T) 51gm (A/29/TC)	1.6oz (A/29), (A/29/T) 1.8oz (A/29/TC)
Size	19.1 (A/F) x 21.8mm 19.1 (A/F) x 24mm 19.1 (A/F) x 25.7mm	0.75 (A/F) x 0.86in 0.75 (A/F) x 0.94in 0.75 (A/F) x 1.01in

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

bsi. ISO 9001 Quality Management