



A/161, A/161-1, A/162, A/162-1, A/163-1
Series High Shock IEPE Accelerometers
0.1/0.2/0.5 mV/g ±10% 8/10/16gm wt. 121 °C Max

Developed for demanding applications requiring the measurement of high amplitude, short duration transient events such as pyrotechnic shock or high energy impacts, the A/16X range of stainless steel IEPE accelerometers have a range from 10,000g up to 50,000g

The design of our more standard accelerometers have limitations when used for shock applications, these can either be due to the short duration of the transient event or due to the high level of the shock amplitude, either of these elements can cause issues for the standard sensor and hybrid electronics used in the IEPE accelerometers. To overcome these issues the A/16X range has in built filters which ensure the response is linear across a wide frequency band up to (1Hz to 15kHz) and up to a peak amplitude measurement of 50,000g.

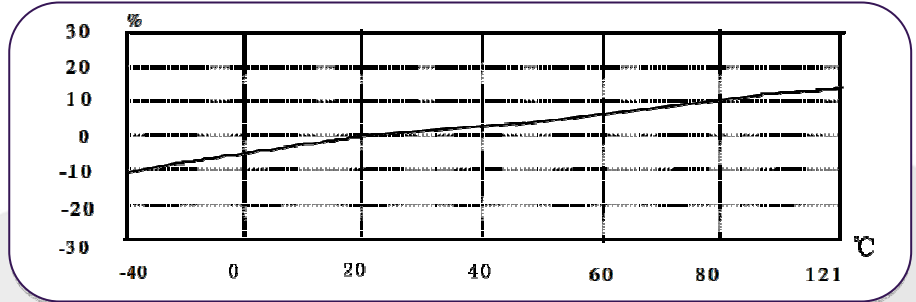
The A/16X range is also designed to withstand over testing, the accelerometers have a physical built in protection up to 60,000g, (depending on version) this is necessary due to the highly variable and sometimes unpredictable nature of pyrotechnic events.

- A/161 – M5 Microdot connector
- A/161-1 – Integral Cable
- A/162 – M5 Microdot connector
- A/162-1 – Integral cable
- A/163-1 – Integral cable

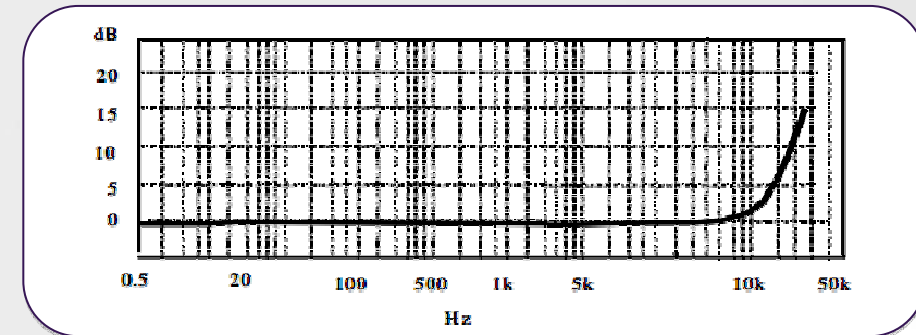
Other applications requiring high transient acceleration measurements can include:

- Pile Driver Monitoring
- Simulated Pyroshock Event
- Recoil and Penetration
- Impact Press Monitoring
- Explosive Studies
- Armour Piercing

Temperature Response



Typical Frequency Response



Model	A/161	A/161-1	A/162	A/162-1	A/163-1
Sensitivity (±10%) mV/g	0.5		0.20		0.1
Range	±10000g		±25000g		±50,000g
Resolution	0.3grms				
Frequency (±3 dB)	1Hz - 15kHz		1Hz - 12kHz		1Hz - 10kHz
Resonant Frequency	≥40 kHz				
Horizontal Sensitivity	≤7%				
Physical Shock Limit	30000g	50000g	30000g	50000g	60000g
Temperature Range °C	-40 to +121				
Excitation Voltage V	+18 to +28				
Excitation Current	2 - 20 mA				
Output Impedance	<150 Ω				
Output Bias Voltage	+8 - +12 VDC				
Isolation Installation	No	Yes	No	Yes	Yes
Sensor	Ceramic Shear				
Dimensions mm	Ø12×25	Ø12×20	Ø12×25	Ø12×20	Ø12×23
Weight	8g	10g	8g	10g	16g
Installation	M5	M5	M5	M5	M6
Connection	M5	Integral Cable	M5	Integral cable	Integral cable