

AMS-3C MEMS ACCELEROMETER

AMS 3C are high sensitivity **Micro Machined MEMS** accelerometers for use in **Strong motion Seismic and low level, low frequency motion studies** to continuously measure the ground acceleration.

The sensors have in-built factory-set calibration and corrections. And no signal conditioning is required in most applications.

The sensors utilize low noise MEMS dispositive to make possible measurements in the low frequency micro G range.

When used with a DYMAS seismic recorder, the AMS-3C MEMS Accelerometer is ideal for utilization in monitoring and **recording of ground acceleration near a site** when used with the DYMAS multi channel recorders – And based on the digital I/O trigger alarms - send SMS or email, or even interface with relay based in the event of **significant ground motion** close to the site in installations such as **atomic power centers**. The AMS-3C is also ideal for utilization in installations such as **Metro rail structures for earthquake warning systems**.

The AMS-3C Accelerometer are IP67 rated 100% water proof with an operating temperature rating of – 40 to + 80deg C and ideal for Outdoor use.



Features:

- Mono, biaxial or triaxial accelerometer settings within the same case.
- 3 different types of fixing options.
- 3 different output cable types: straight-connector or corner-connector with 90° angle or gland cable.
- IP67 100% waterproof case.

Specifications:

ELECTRONIC FEATURES	
Full scale acceleration (Input Range):	± 2 G or ± 5 G
No. of axes:	3
Output Voltage:	± 4 Volts
Sensitivity:	2000 mV/G ~ 800mV/G (5G Type)
Cross Axis Sensitivity:	2% full scale 0.04 V/g (2mV/mg) <2% exclusive of sensitive axis alignment.
Noise, maximum:	10 µV/√Hz
Dynamic range:	> 100 dB
Frequency response:	0 – 400 Hz (nominal, -3dB)
Non-linearity:	<0.1%
Operating voltage:	+6 to +18 Vdc 8 mA (for single axis)
Output Impedance:	90 Ohms
Sensitive Axis alignment:	Better Than 0.25 Deg
Scale Factor Temp Coefficient:	-250 to 250 Ppm/C° Max (-55 to 125°C). Compensated by internal temperature sensor
Test sensor:	External test input, Gravity force non balanced

ENVIROMENTAL	
Ingress Protection:	IP67 100% Water Proof.
Temperature Operating:	-40 to +80 Deg C
Temperature, Storage:	-50 to +90 Deg C
Shock Survival:	2000G, 0.1msec
Vibration Survival:	Fully complied 20 G RMS , random noise from 20 to 500 Hz.
Ambient Pressure:	0 to 5 Bar
Connector:	Mil connector, with positioning key
Calibration:	supplied along with manufacturers calibration certificates. The sensors will not required recalibration for their lifetime.
Humidity:	100% Case IP67

PHYSICAL	
Weight:	800 grams
Size:	60mm x 60mm x 50mm (LxWxH)
Case Material:	Anodized Aluminum
Electrical Interface:	10 terminal Pins
Optional mating connector:	Gland cable