

# AM/50HR.40 Monoaxial MEMS High Resolution DC Response Accelerometer

±50g range, 40mV/g sensitivity



The AM range of accelerometers are MEMS (micro electro mechanical system) DC response voltage output devices for testing at low frequency vibration measurement from DC (0Hz) and above.

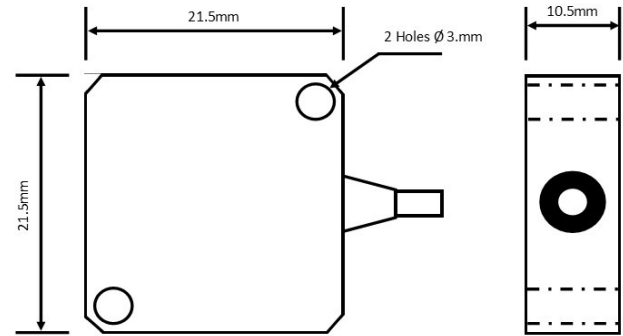
The AM/50HR.40 has an integral 2m integral cable fitted with a 7pin connector to suit the DJB DCM-03 MEMS signal conditioning unit or alternatively as bare wires.

Ideally suited to low frequency vibration applications including low level vibration where high sensitivity is required. Due to their ability to measure DC response they can also be used to measure constant gravity application.

The AM/50HR.40 has a range of ±50g and a sensitivity of 40mV/g, we recommend using with DJB's MEMS signal conditioner the DCM-03

## AM/50HR.40

Dimensions in mm



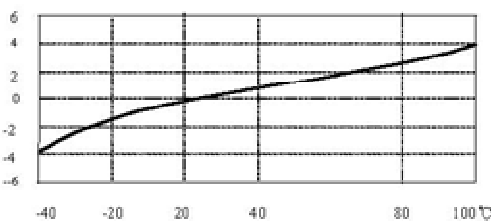
### Features:

- Operational frequency range DC to 1600Hz
- Integral cable with 7 pin connector or pigtailed.
- DJB signal conditioner model DCM-03 available as an option
- Differential Capacitance operation
- Compact form and low mass
- Constant gravity measurement

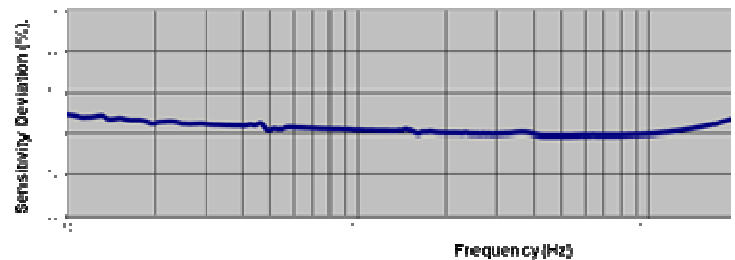
### Applications:

- Auto/Aero structural body surveys
- Constant gravity measurements
- General vibration measurement
- Seismic vibration measurement
- Crash testing

### Typical Temperature Response



### Typical Frequency Response



**Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes.**

### DJB Instruments (UK) Ltd

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

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## AM/50HR.40 Monoaxial MEMS High Resolution DC Response Accelerometer

±50g range, 40mV/g sensitivity

	Metric	Imperial
Sensitivity (20°C)	4.1mV/(m/s <sup>2</sup> ) ±10%	40mV/g±10%
Measurement Range	±490m/s <sup>2</sup> pk	±50g pk
Transverse sensitivity	≤5%	
Frequency Range (±5%)	DC to 1500 Hz	
Frequency Range (±10%)	DC to 1600Hz	
Mounted Resonance Frequency	5,000 Hz	
Temperature Range	-40 to +120°C	-40 to +248°F
Temperature Sensitivity	0.1 mV/°C	
Shock limit (No Supply)	29,420m/s <sup>2</sup>	±3,000g
Power Supply	+6 to +30 VDC	
Operating Current	≤5mA	
Offset Voltage	2.5±0.1VDC	
Noise(100Hz)	< 0.14mVrms	
Resolution	10mg (rms)	
Weight (no cable)	12grams	0.42oz
Case material	Titanium	
Case sealing	Hermetic	
Mounting	2 x Ø3.2mm holes	2 x Ø0.12inch holes
Integral Output Cable	2m	6.5ft
Cable Exit	Side	
Int. Cable Version	Pigtails or 7 Pin connector	
Size	21.5 x 21.5 x 10.5mm	0.84 x 0.84 x 0.41 inches
IP rating	IP65	

### Options:

- DCM-03 – 3 channel MEMS signal conditioning unit.
- Pigtail cable terminations

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