

## Model MA21

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### Accelerometer



#### DESCRIPTION

The Model MA21 miniature, low profile amplified piezoelectric accelerometers are designed to be used in Industrial test and automation environments including laboratory testing, modal studies, and test cells where head room is limited and where a low profile unit is desirable. The constant current low output impedance output combined with the ability to drive high load capacitance allows long runs of low cost cable without degradation of data. The Model MA21 features a high natural

frequency, a wide frequency range and a flat sensitivity vs. temperature response over the temperature range. The seismic element is mechanically isolated from the mounting base, resulting in a low base strain sensitivity. The stainless steel materials are non-magnetic resulting in very low magnetic field susceptibility. These features, together with a sealed body, assure accurate and reliable data.

#### FEATURES

- Miniature size
- Low profile
- IEPE output
- mV/G output
- Isolated ac output
- Stainless steel overbraided PTFE cable

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## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Dynamic range	±80 G
Sensitivity	100 mV/G ±10 % @ 80 Hz
Transverse sensitivity	Less than 5 %
Temperature sensitivity	0.145/°F
Frequency range	2 Hz to 9 kHz
Amplitude linearity	Better than 1 % linearity
Mounted base resonance	18 kHz

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-12 °C to 138 °C [10 °F to 280 °F]
Sealing	IP67/NEMA 4

## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Input	Constant current
Current range	0.5 mA to 8 mA
Bias voltage	12 Vdc
Cable	Stainless steel overbraided PTFE
Standard cable length	4,9 m [16 ft]
Electrical noise	0.1 mG max.
Isolation	Base isolated

## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Weight	0,11 kg [3.9 oz]
Material	Stainless steel
Mounting torque	6 ft-lb

## SENSITIVITY CODES

Sensitivity Code	Sensitivity
<b>GU</b>	10 mV/G
<b>GC</b>	30 mV/G
<b>GH</b>	100 mV/G
<b>GG</b>	1000 mV/G

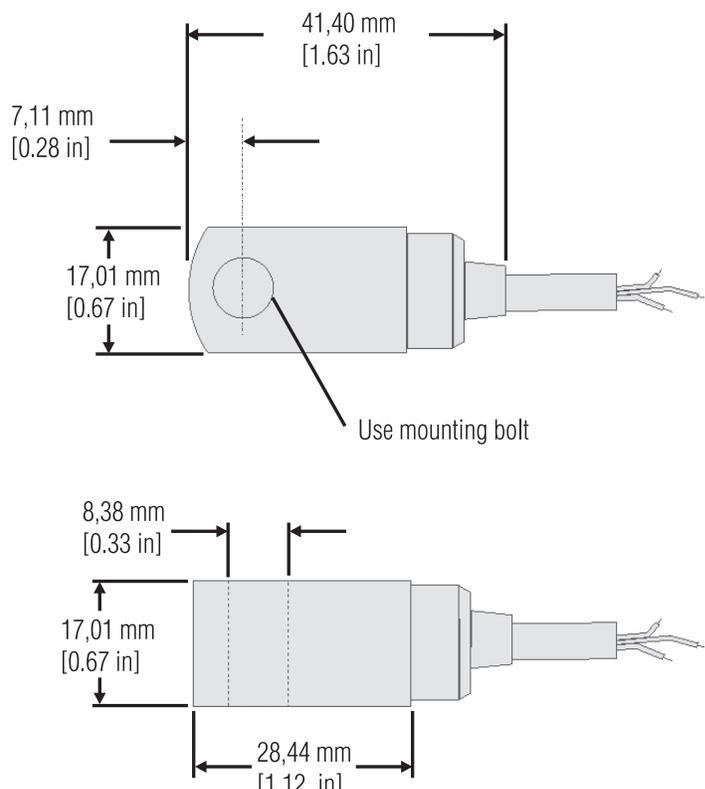
## OPTION CODES

	Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see <a href="http://sensing.honeywell.com/TMsensor-ship">http://sensing.honeywell.com/TMsensor-ship</a> for updated listings.
<b>Sensitivity</b>	10 mV/G, 30 mV/G, 100 mV/G, 1000 mV/G
<b>Electrical termination</b>	Cable length (specify at time of ordering)

## WIRING CODES

Wire	
Black	(+) Supply (+) Output
White	Supply return
Shield	Connected to case

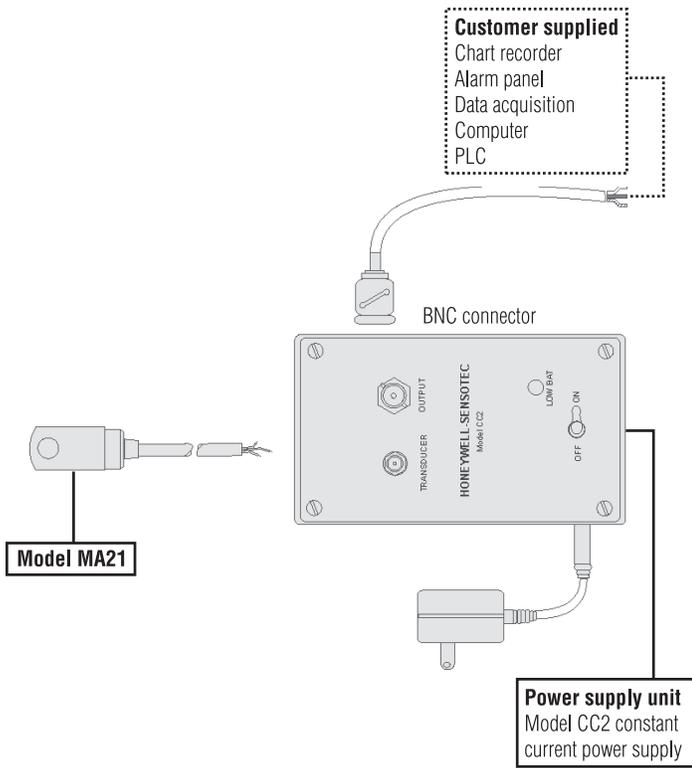
## MOUNTING DIMENSIONS



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## TYPICAL SYSTEM DIAGRAM



**Warranty.** Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

For more information about Sensing and Control products, visit [www.honeywell.com/sensing](http://www.honeywell.com/sensing) or call +1-815-235-6847  
Email inquiries to [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

### **⚠ WARNING** **PERSONAL INJURY**

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### **⚠ WARNING** **MISUSE OF DOCUMENTATION**

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

Sensing and Control  
Automation and Control Solutions  
Honeywell  
1985 Douglas Drive North  
Golden Valley, MN 55422 USA  
+1-815-235-6847  
[www.honeywell.com/sensing](http://www.honeywell.com/sensing)

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