

## Models MA311 and MA312 Accelerometer

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### DESCRIPTION

The MA311/312 Series accelerometers are available in a variety of configurations and can be stud or bolt mounted to meet specific application requirements. Welded austenitic stainless steel construction ensures dependable performance in harsh indus-

trial environments. Designed with low impedance strain gages, the frequency ranges extend down to dc, sensitivity to noise is minimized, and amplifier electronics are simplified.

### FEATURES

- ac and dc response
- Amplified voltage output
- 0 Hz to 1800 Hz usable range
- Stud or bolt mounted
- mV/G output

# Models MA311 and MA312

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Sensitivity	100 mV/G
Transverse sensitivity	Less than 5 %
Temperature sensitivity	0.145/ °F
Frequency range	Dependent on dynamic range $\pm 5$ % (see below)
$\pm 1$ G and $\pm 2$ G	dc to 250 Hz
$\pm 5$ G	dc to 300 Hz
$\pm 10$ G	dc to 500 Hz
$\pm 20$ G	dc to 700 Hz
$\pm 50$ G	dc to 1 kHz
Amplitude linearity	Better than 1 % linearity
Mounted base resonance	18 kHz
Acceleration limits	x20 of dynamic range

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-18 °C to 82 °C [0 °F to 180 °F]
Sealing	IP65/NEMA 2

## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Input	Voltage
Supply voltage	12 V to 24 V @7 mA
Output impedance	50 Ohm
Cable	Stainless steel overbraided PTFE
Standard cable length	4,9 m [16 ft]
Electrical noise	10 mG
Isolation	Base isolated

## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Weight	0,04 kg [1.4 oz]
Material	Stainless steel

## SENSITIVITY CODES

Sensitivity Code	Sensitivity
GH	100 mV/G

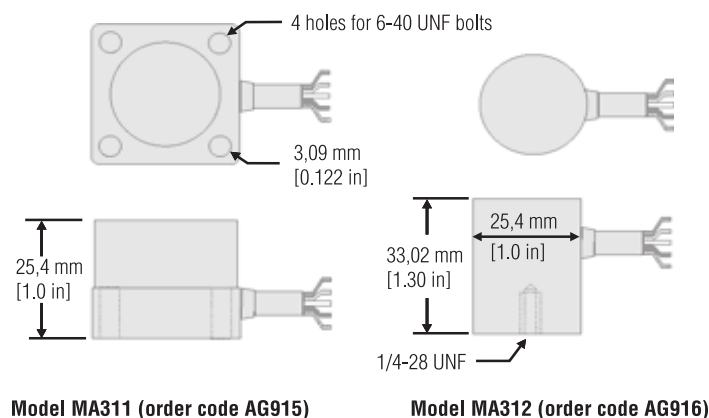
## OPTION CODES

	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.
Dynamic range	$\pm 1$ G, $\pm 2$ G, $\pm 5$ G, $\pm 10$ G, $\pm 20$ G, $\pm 50$ G
Electrical termination	Cable length (specify at time of ordering)
Mounting arrangement	17b. 1/4-28 UNF* 17c. Quickfit female*

## WIRING CODES

Wire	
Red	(+) Supply
Blue	(-) Supply
Yellow	(+) Output
Green	(-) Output
Shield	Not connected

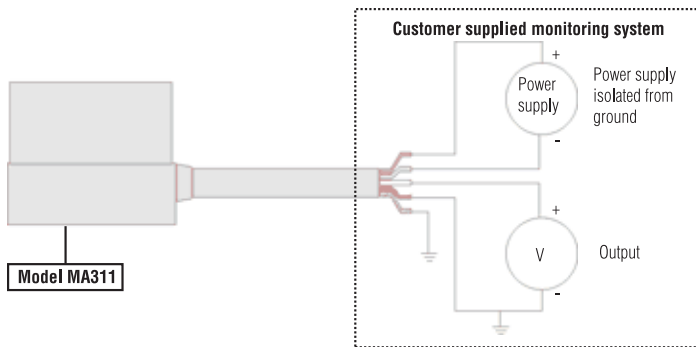
## MOUNTING DIMENSIONS



# Models MA311 and MA312

# Accelerometer

## 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.**

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