

## Model MAV51

### Accelerometer



#### DESCRIPTION

The Model MAV51 amplified piezoelectric accelerometers with velocity output are designed to be used in Industrial test and automation environments; including laboratory testing, modal studies and test cells. The MAV51 is ideal for applications where velocity content of vibration is a more meaningful parameter to measure and where noise issues or system simplicity makes integration of the acceleration signal in the sensor rather than the signal conditioning more attractive. The constant current low output impedance output combined with the ability to drive high load capacitance allows long runs of low cost cable without deg-

radation of data. 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. The Model MAV51 is available in a number of configurations and options that includes connector or integral stainless steel armored cable (specify length at time of ordering). The Model MAV51 can be supplied in a number of different sensitivities to suit the expected vibration levels for the application.

#### FEATURES

- Velocity measurement
- 5 Hz to 4 kHz  $\pm 5$  % usable frequency range
- IEPE output
- mV/mm/s output
- Integral stainless steel overbraided PTFE cable
- Isolated ac output suitable for harsh environments

# Model MAV51

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Sensitivity	4 mV/mm/s
Transverse sensitivity	Less than 5 %
Temperature sensitivity	0.145/°F
Frequency range	5 Hz to 4 kHz ±5 %
Amplitude linearity	Better than 1 % linearity
Mounted base resonance	18 kHz nominal

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-23 °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 <sup>1</sup>	Stainless steel overbraided PTFE
Standard cable length <sup>1</sup>	4,9 m [16 ft]
Electrical noise	0.3 mG max.
Isolation	Base isolated
Mating connector <sup>2</sup>	MH002

## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Weight	0,11 kg [3.88 oz]
Material	Stainless steel
Mounting torque	6 ft-lb

## WIRING CODES

AG926	
Pin A	(+) Supply (+) Output
Pin B	Supply return

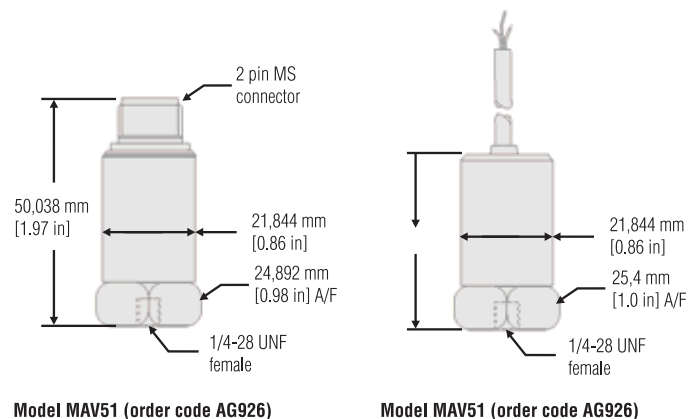
  

AG927	
White	(+) Supply (+) Output
Black	Supply return
Shield	Not connected

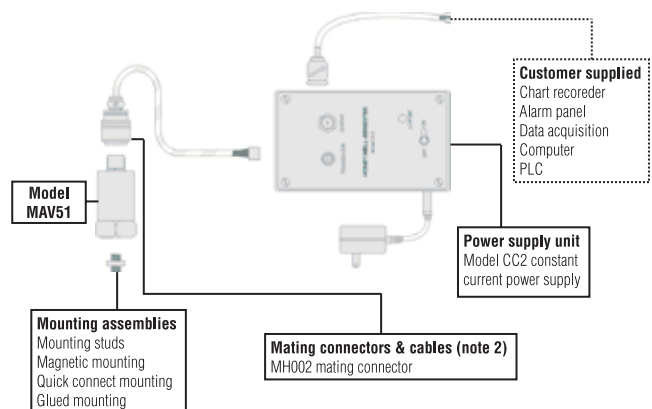
## OPTION CODES

	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.
Mounting arrangement	17b. 1/4-28 UNF 17c. Quickfit female
Optional sensitivity	SA. 12,7 mV/mm/sec SB. 25,4 mV/mm/sec SC. 50,8 mV/mm/sec SD. 101,6 mV/mm/sec
Electrical termination	2-pin MS <sup>1</sup> Cable <sup>2</sup> (specify cable length at time of order)

## MOUNTING DIMENSIONS



## TYPICAL SYSTEM DIAGRAM



## NOTES

1. Not applicable for AG926.
2. Not applicable for AG927.

**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.**