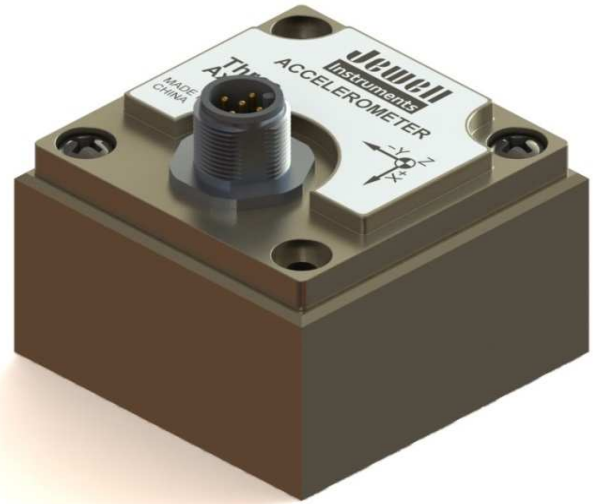


AMA Series - MEMS Analog Accelerometer

Jewell Instruments AMA Series Accelerometers are an excellent choice for cost to performance trade off. The AMA is based on silicon micro-machined MEMS Capacitive Accelerometer technology and designed for low power and high stability.



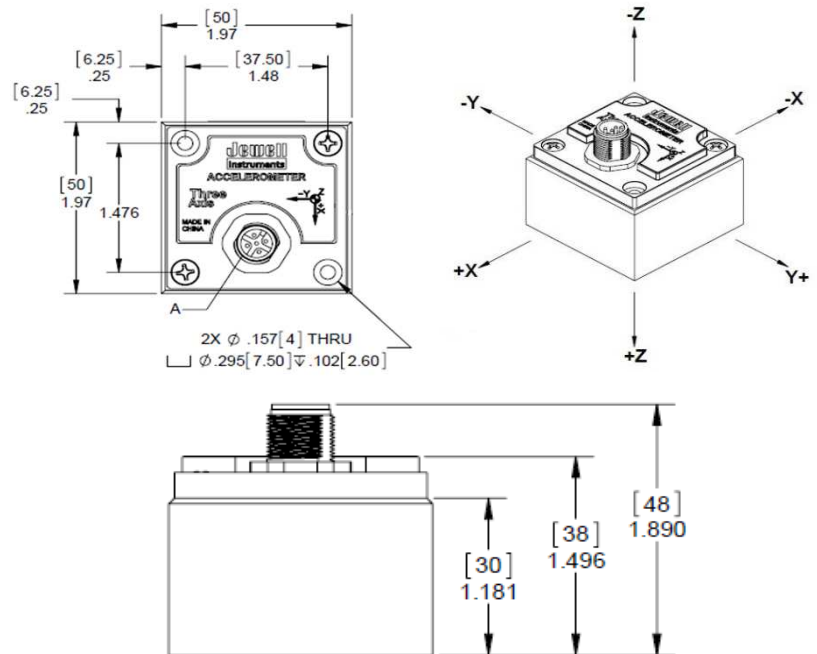
Features

- Single, Dual and Triaxial Configuration
- Excellent long term stability
- Ruggedized for harsh environment operation
- High Sensitivity
- 2m cable whip included

Applications

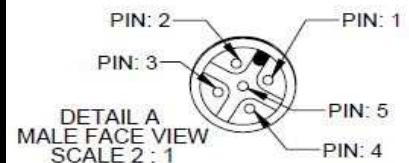
- Tower Cranes
- Robotics
- Low Frequency Vibration Measurement
- Automatic Control Systems
- Vehicle Testing

Outline Diagram



Pin Out

Pin	Function
1	+VDC 9V-36V
2	X Axis Output
3	Y Axis Output
4	Signal/Power Ground
5	Z Axis Output



Performance Specifications

STATIC/DYNAMIC

Measurement Range, (g) ¹	±2	±10	±40
Output Options	0 - 5 Vdc or 4 - 20 mA		
Scale Factor Tolerance (mg)	10	50	150
Scale Factor Temp Coefficient (ppm/°C, typ.)	100	100	100
Bias (g, Max.)	0.02	0.05	0.15
Bias Temp Coefficient (mg/°C, typ.)	0.65	0.5	1.5
Axis Alignment (°)	≤1	≤1	≤1
Resolution and Threshold (mg, Max.)	0.1	0.6	2.8
Nonlinearity (% of Full Scale, Max.)	0.3	0.5	0.6
Nonrepeatability (mg, Max.)	2	10	20
Bandwidth (Hz, Max.)	400	400	400
Scale Factor Long Term Stability (1 yr. ppm, Max.)	300	300	300
Bias Long Term Stability (1 yr. mG, Max.)	1.5	7.5	22.0
Noise Spectral Density (µVolts/√Hz)	18	18	18

ELECTRICAL AND ENVIRONMENTAL

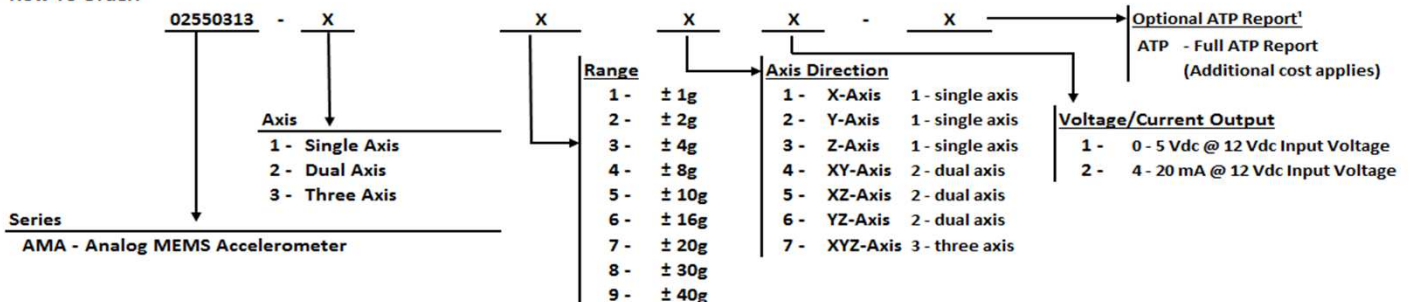
Input Voltage (Vdc)	9 to 36 Vdc
Operating Current	<3mA at 12Vdc
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Shock	100g (11msec ½ sine)
Vibration (grms random 20 to 2,000 Hz)	20
Weight (grams)	100
Seal	IP67

Notes: 1 - Intermediate

2 - Output voltage 0-5 Vdc (- Full Scale to + Full Scale, Zero g = 2.5Vdc)

*Specifications subject to change without notice due to continued product development

How To Order:



Example:

02550313-2241-ATP

AMA Series, dual axis, ±2" range, XY-axis, 0 - 5 Vdc @ 12 Vdc Input Voltage, Full ATP Report

1 - Note: "ATP" must be added to the end of the part number for a full ATP report. An additional cost will apply.
ATP Report Includes: Scale Factor, Axis Misalignment, Bias, Linearity, Input Current.

Jewell Instruments LLC, 850 Perimeter Road, Manchester, NH 03103

sales@jewellinstruments.com • www.jewellinstruments.com • Tel (800) 227-5955