

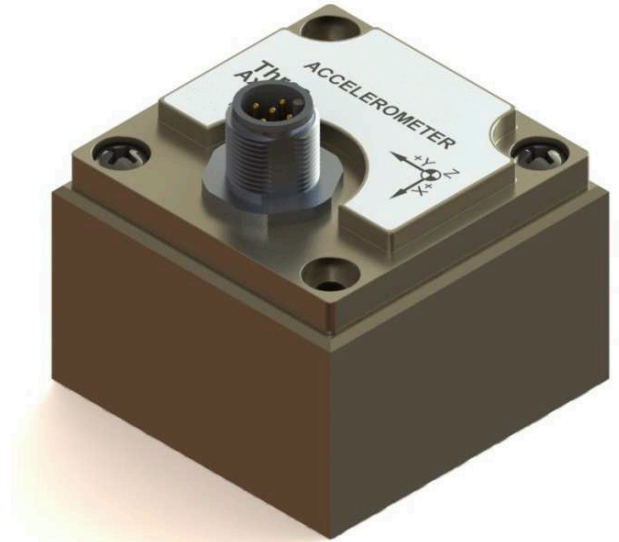


## 9 DMA MEMS Acceleration Sensors

Jewell Instruments DMA Series Accelerometers are an excellent choice for cost to performance trade off. The DMA 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



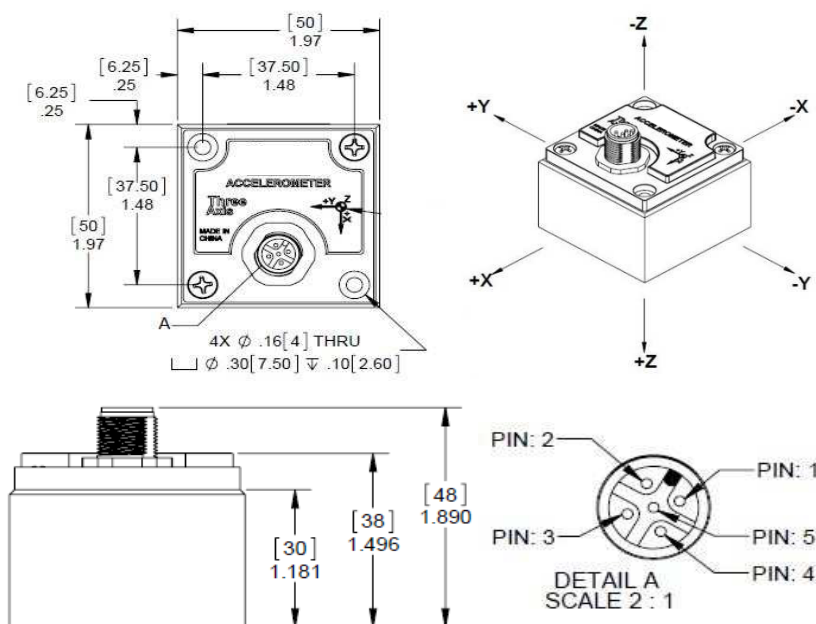
### APPLICATIONS

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

### PIN OUT

Pin	Function	
	RS232	RS485/UART TTL
1	+VDC	+VDC
2	RXD	D+
3	TXD	D-
4	Ground	Ground
5	N/A	N/A

### OUTLINE DIAGRAM





**PERFORMANCE SPECIFICATIONS**

STATIC/DYNAMIC

Measurement Range, (g) <sup>1</sup>	±2 / ±10 / ±40
Scale Factor Tolerance (mg)	2 / 5 / 10
Scale Factor Temp Coefficient (ppm/°C, typ.)	100 / 100 / 100
Zero (g, Max.)	0.01 / 0.05 / 0.15
Zero Temp Coefficient (mg/°C, typ.)	0.1 / 0.5 / 1.5
Axis Alignment (°)	≤1 / ≤1 / ≤1
Resolution and Threshold (mg, Max.)	0.1 / 0.6 / 2.8
Linearity (% of Full Scale, Max.)	0.1 / 0.5 / 0.6
Repeatability (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
Noise Spectral Density (µVolts/√Hz)	18 / 18 / 18

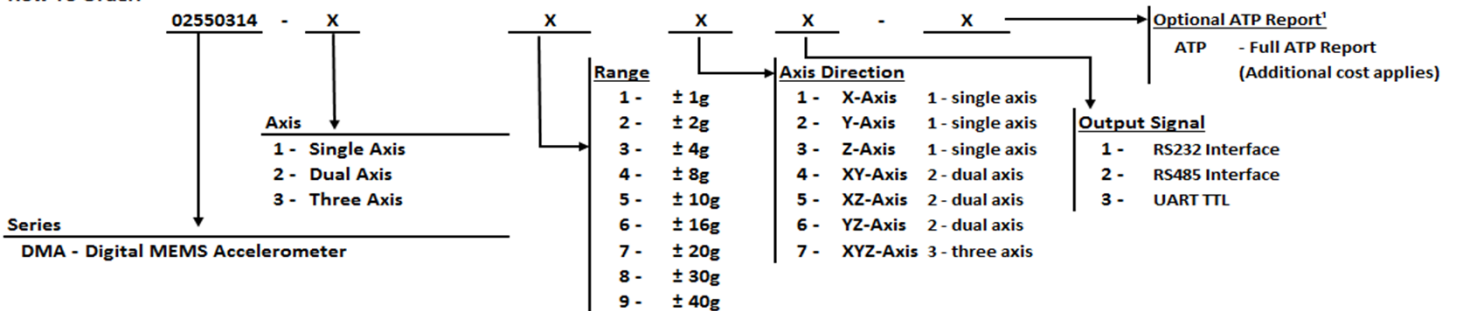
ELECTRICAL AND ENVIRONMENTAL

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 ranges available, please see model number structure below. Custom ranges available on request.

**HOW TO ORDER**

How To Order:



**Example:**  
**02550314-2242-ATP**  
DMA Series, dual axis, ±2° range, XY-axis, RS485 Output, 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.**

The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.