AMI Series - Analog MEMS Inclinometer, Temp. Corrected



Making Sense out of Motion...

The model AMI is a high precision MEMS inclinometer with built-in thermal compensation. Standard units come with 0-5V, 0.5-4.5V or 4-20mA output options. All AMI series inclinometers are rated IP67 for waterproofing up to 1m. Custom ranges and output types are also available on request.

Features & Benefits:

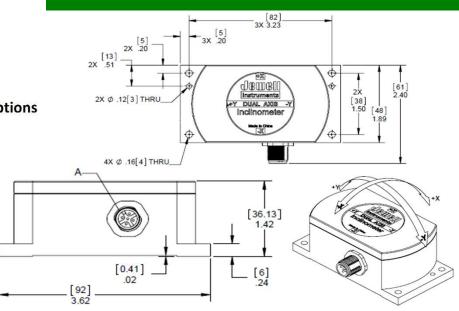
- Single-Axis and Dual-Axis Available
- Resolution: 0.001°
- Zero Temperature Coefficient: ±0.002°/°C
- Analog 0-5V, 0.5-4.5V & 4-20mA Output Options
- -40° to +85°C Operating Range
- High Shock & Vibration Tolerance
- 2m cable whip included

Applications:

- Geotechnical Monitoring
- Radar & Vehicle Platform Leveling
- Drill Rig Alignment
- Offshore/Subsea Platform Pitch & Roll
- Industrial Measurement & Control
- Railway Track Alignment & Maintenance
- Antenna Position Control

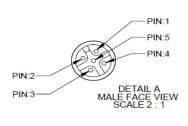


Outline Diagram



*Dimensions in Inches [mm]

Pin Out



Pin	Function		
1	+VDC 9V~36V		
2	X-Axis Out		
3	Y-Axis Out		
4	Ground		
5	Factory Use Only		



Making Sense out of Motion...

Performance Specifications

STATIC/DYNAMIC

Angular Range, °	±10°	±30°	±60°	
Resolution, °	0.001	0.001	0.001	
Hysteresis, °	0.003	0.005	0.008	
Zero Tolerance (°)	0.1	0.1	0.1	
Zero Temperature Coefficient, °/°C	±0.002	±0.002	±0.002	
Scale Factor Tolerance (%)	0.7	1.4	2.8	
Scale Factor Temperature Coefficient, ppm/°C	≤50	≤50	≤50	
Warm Up, s	0.5	0.5	0.5	
Time Constant, s	0.02	0.02	0.02	

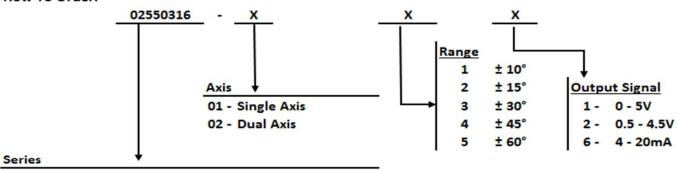
ELECTRICAL AND ENVIRONMENTAL

Output	0-5V, 0.5 - 4.5V or 4-20mA		
Electromagnetic Compatability	EN61000 and GBT17626		
Impact Resistance	100g@11ms, 3 times/axis (1/2 sinusoid)		
Vibration Resistance	10grms @ 10-1000Hz		
Temperature Rating , Operation	-40 to +85°C		
Temperature Rating, Storage	-55 to +100°C		
Enclosure	Anodized Aluminum		
Seal	IP67		
Cables	2m Cable (standard)		
Weight	150g (without cable)		
Power Requirements	9-36 VDC @ 60mA		
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Notes: * - Custom ranges available, please see model number structure below.

Specifications are subject to change without notice on account of continued product development.

How To Order:



AMI - Analog MEMS Inclinometer

(Resolution: 0.001° & Zero Temp Drift: ±0.0008°, Temp Comp.)

Example:

02550316-0116

AMI Single Axis, +/- 10 degrees, 4-20 mA output

Note: ATP report is included with every unit

ATP Report Includes: Scale Factor, Axis Misalignment, Bias, Linearity, Input Current, Thermo Data Points.