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:

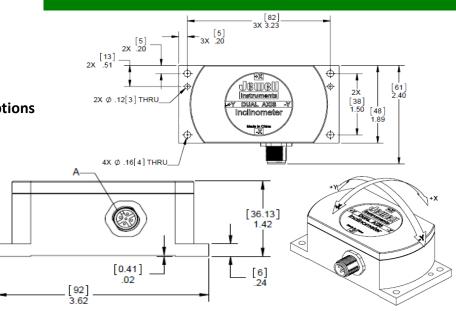
- Single-Axis and Dual-Axis Available
- Resolution: 0.001°
- Zero Temperature Coefficient: ±0.002°/°C
- Analog 0-5V, 0.5-4.5V & 4-20mA Output Options
- -40° to +85°C Operating Range
- High Shock & Vibration Tolerance
- 2m cable whip included

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

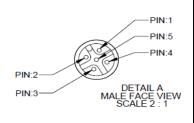


Outline Diagram



*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	

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Performance Specifications

STATIC/DYNAMIC

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

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			

Notes: * - Custom ranges available, please see model number structure below.

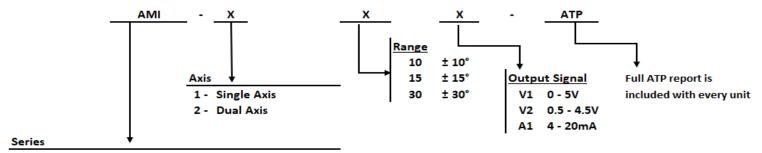
Specifications are subject to change without notice on account of continued product development.

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HOW TO ORDER:



AMI - Analog MEMS Inclinometer

Example:

AMI - 1 - 10 - A1 - ATP

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

Note: ATP report is included with every unit

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

PART NUMBERS:

	Single-axis		Dual-axis		
	Model#	Part #	Model#	Part #	
Voltage output (0-5Vdc)	AMI-1-10-V1-ATP	02550316-0111-ATP	AMI-2-10-V1-ATP	02550316-0211-ATP	
	AMI-1-15-V1-ATP	02550316-0121-ATP	AMI-2-15-V1-ATP	02550316-0221-ATP	
	AMI-1-30-V1-ATP	02550316-0131-ATP	AMI-2-30-V1-ATP	02550316-0231-ATP	
Voltage output (0.5-4.5Vdc)	AMI-1-10-V2-ATP	02550316-0112-ATP	AMI-2-10-V2-ATP	02550316-0212-ATP	
	AMI-1-15-V2-ATP	02550316-0122-ATP	AMI-2-15-V2-ATP	02550316-0222-ATP	
	AMI-1-30-V2-ATP	02550316-0132-ATP	AMI-2-30-V2-ATP	02550316-0232-ATP	
Current output (4-20mA)	AMI-1-10-A1-ATP	02550316-0116-ATP	AMI-2-10-A1-ATP	02550316-0216-ATP	
	AMI-1-15-A1-ATP	02550316-0126-ATP	AMI-2-15-A1-ATP	02550316-0226-ATP	
	AMI-1-30-A1-ATP	02550316-0136-ATP	AMI-2-30-A1-ATP	02550316-0236-ATP	

NOTE: If ATP report is required, please add "-ATP" to model & part numbers. Additional charges will apply.