



AMH Analog MEMS Inclinometer

Features

- Single-Axis and Dual-Axis Available
- Resolution: 0.001°
- Zero Temperature Coefficient: $\pm 0.006^\circ / ^\circ\text{C}$
- Analog 0-5V, 0.5 - 4.5V & 4-20mA
- -40° to +85°C Operating Range
- 1m cable whip included



Application

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

Introduction

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

Performance specifications

Static/dynamic

* Angular Range, °	± 10	± 30	± 60
Resolution, °	0.001	0.001	0.001
Hysteresis, °	0.005	0.008	0.01
Zero Tolerance (°)	0.01	0.01	0.01
Zero Temperature Coefficient, °/°C	± 0.006	± 0.006	± 0.006
Scale Factor Tolerance (%)	0.7	1.4	2.8
Scale Factor Temperature Coefficient, ppm/°C	≤ 200	≤ 200	≤ 200
Warm Up, s	0.5	0.5	0.5
Time Constant, s	0.05	0.05	0.05

Electrical and environmental

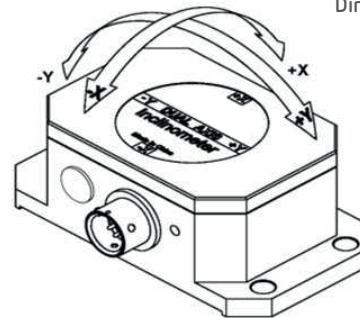
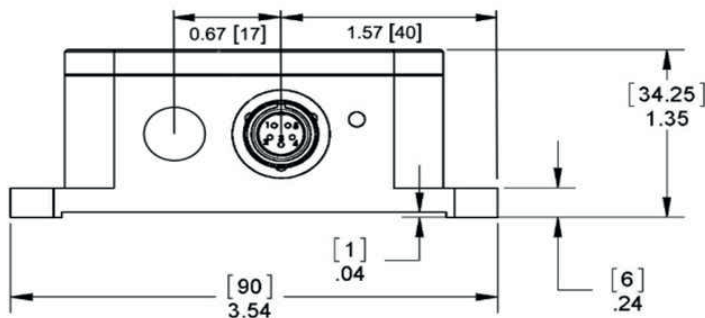
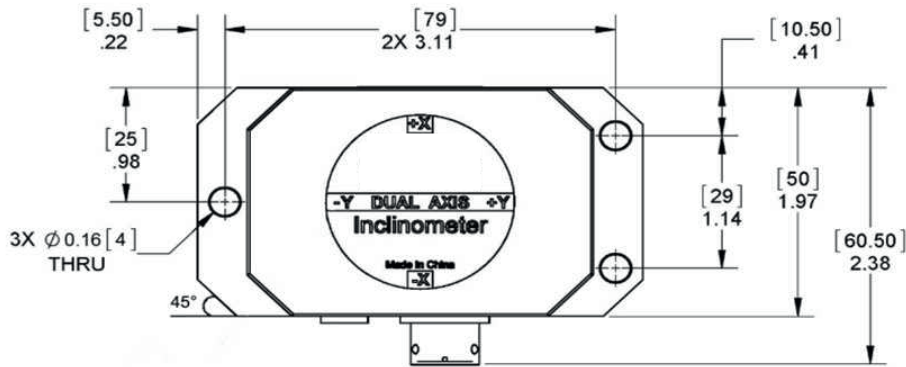
Output	0-5V, 0.5 - 4.5V or 4-20mA
Electromagnetic Compatibility	EN61000 and GBT17626
Impact Resistance	100g@11ms, 3 times/axis (1/2 sinusoid)
Vibration Resistance	10grms @ 10-1000Hz
Temperature Rating, Operation	-40 to +85°C
Temperature Rating, Storage	-55 to +100°C
Enclosure	Anodized Aluminum
Seal	IP67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

Notes

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

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

Outline Diagram



Dimensions in inches [mm]

Pin Out



3-pin Connector
(Single Axis)

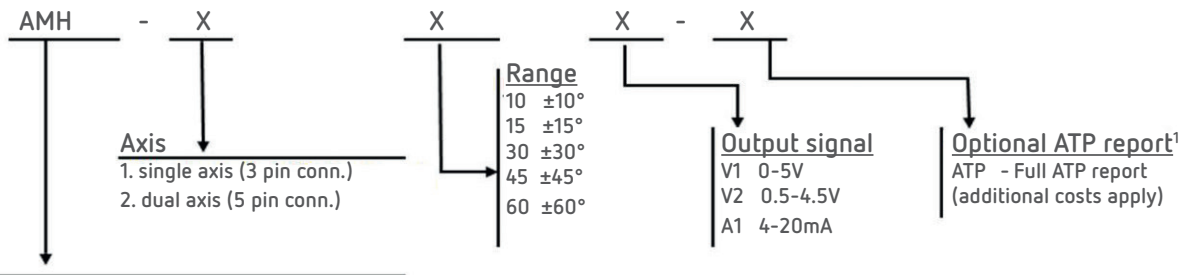


5-pin Connector
(Dual Axis)

Connector Option

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

Ordering information



Series
 AMH - Analog MEMS Inclinometer

Example:
 AMH - 1 - 15 - V1 - ATP
 AMH Single axis, +/- 15 degrees, 0-5V output, Full ATP report

Note
 1. "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

AMH Single or Dual-Axis Analog MEMS Inclinometer

Analog 0-5V and 4-20mA Output, IP67

Part numbers

	Single axis		Dual axis	
	Model #	Part #	Model #	Part #
Voltage output (0-5Vdc)	AMH-1-10-V1	02550318-0111	AMH-2-10-V1	02550318-0211
	AMH-1-15-V1	02550318-0121	AMH-2-15-V1	02550318-0221
	AMH-1-30-V1	02550318-0131	AMH-2-30-V1	02550318-0231
	AMH-1-45-V1	02550318-0141	AMH-2-45-V1	02550318-0241
	AMH-1-60-V1	02550318-0151	AMH-2-60-V1	02550318-0251
Voltage output (0.5-4.5Vdc)	AMH-1-10-V2	02550318-0112	AMH-2-10-V2	02550318-0212
	AMH-1-15-V2	02550318-0122	AMH-2-15-V2	02550318-0222
	AMH-1-30-V2	02550318-0132	AMH-2-30-V2	02550318-0232
	AMH-1-45-V2	02550318-0142	AMH-2-45-V2	02550318-0242
	AMH-1-60-V2	02550318-0152	AMH-2-60-V2	02550318-0252
Current output (4-20mA)	AMH-1-10-A1	02550318-0116	AMH-2-10-A1	02550318-0216
	AMH-1-15-A1	02550318-0126	AMH-2-15-A1	02550318-0226
	AMH-1-30-A1	02550318-0136	AMH-2-30-A1	02550318-0236
	AMH-1-45-A1	02550318-0146	AMH-2-45-A1	02550318-0246
	AMH-1-60-A1	02550318-0156	AMH-2-60-A1	02550318-0256

Note

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

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.

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Germany/Austria/Switzerland
info@althen.de

Benelux
sales@althen.nl

France
info@althensensors.fr

Sweden
info@althensensors.se

USA/Canada
info@althensensors.com

Other countries
info@althensensors.com