

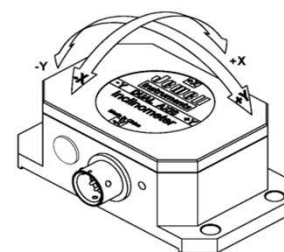
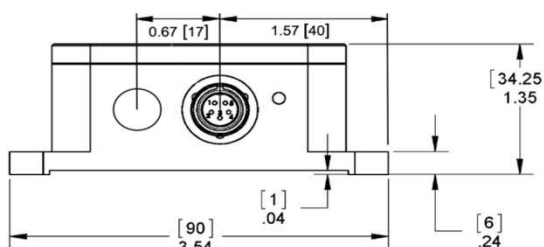
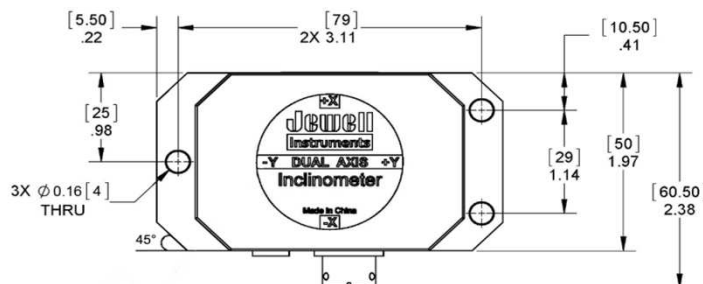
AMH Series - Analog MEMS Inclinometer

Making Sense out of Motion...

The Jewell Instruments model AMH 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.



Outline Diagram



**Dimensions in Inches [mm]*

Features & Benefits:

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

Pin Out



3-pin Connector
(Single Axis)



5-pin Connector
(Dual Axis)

| 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 |

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 |

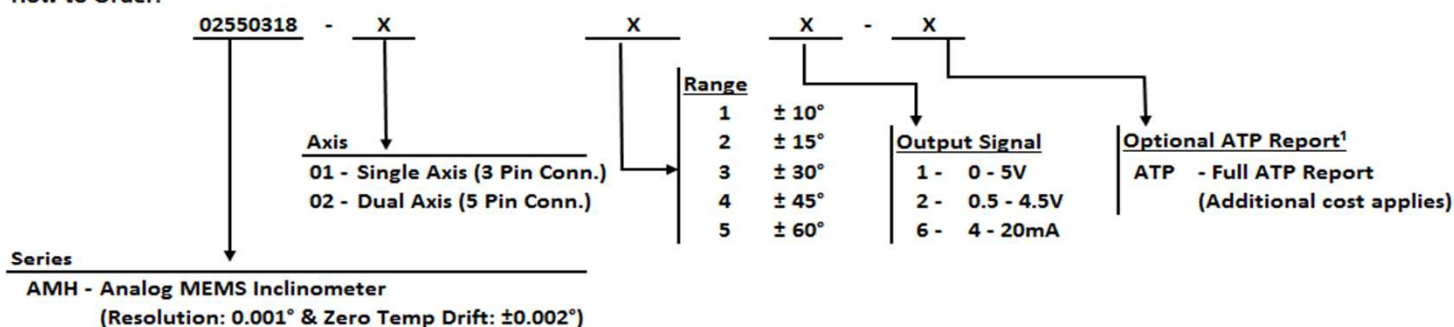
ELECTRICAL AND ENVIRONMENTAL

| | |
|--------------------------------|--|
| 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

How to Order:



Example:

02550318-0121-ATP

AMH Single Axis, +/- 15 degrees, 0-5V 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.