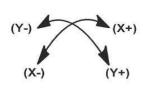






JMI-100/200-D MEMS Inclinometer Series ±5VDC Output

The JMI-100/200 series is available in single (JMI-100) and dual (JMI-200) axis configurations. This presents a robust and rugged design for industrial use, but with the benefit of low-cost MEMS technology.





FEATURES

- Robust and Rugged Enclosure
- Single and Dual Axis Models Available •
- Low-Cost MEMS Technology •
- **RoHS** Compliant •
- Filtering Available •
- Dual Power Input •
- ±5 VDC Output
- Temperature Sensor Option Available
- IP65 Seal

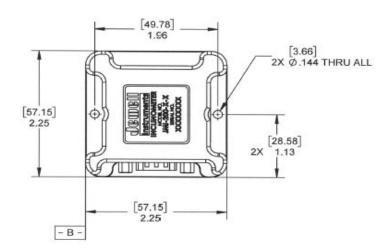
APPLICATIONS

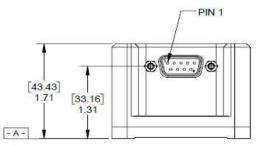
- Industrial Automation & Control
- Solar Tracking
- Construction & Agricultural Equipment
- Mobile Cranes .
- Platform Leveling/Positioning
- Mobile Radar Equipment
- Railway Track Alignment & Maintenance

PIN OUT

Pin #	Function +Vin	
1		
2	Pwr Gnd	
3	-Vin	
4	X Out	
5	Y Out	
6	N/C	
7	Sig Rtn	
8	Temp Out	
9	N/C	

OUTLINE DIAGRAM





NOTES:

- UNITS: [mm] 1
- UNIT IS AVAILABLE IN TWO VERSIONS; SINGLE AXIS (X AXIS), 2.
- DUAL AXIS (X & Y AXIS). DUAL AXIS SHOWN HERE DATUM A AND B ARE DEFINED AS REFERENCE SURFACES. 3.
 - ersion | 06.2022



PERFORMANCE SPECIFICATIONS

STATIC/DYNAMIC				
Measurement Range ¹ (°)	±14.5	±30	±90	
Output Voltage Range (VDC)	±5.00	±5.00	±5.00	
Scale Factor Tolerance (%)	±1	±1	±1	
Scale Factor Temp. Coefficient (PPM/°C max)	150	150	150	
0° Output (Volts max)	±0.03	±0.03	±0.03	
0° Output Temp. Sensitivity (V/°C max)	±0.004	±0.004	±0.004	
Transverse Axis Misalignment (° max)	±0.5	±0.5	±0.5	
Resolution (° max)	0.002	0.002	0.004	
Threshold (° max)	0.002	0.002	0.002	
Non-linearity (% FRO max)	0.05	0.05	0.05	
Nonrepeatability, Hysteresis (° max)	0.004	0.004	0.004	
Bandwidth (Hz nom) (-3 dB)	5	5	5	
Warm Up Time (Seconds max)	0.5	0.5	0.5	
Voltage to Radian conversion ²	ASIN(<voltage>/20)</voltage>	ASIN(<voltage>/10)</voltage>	ASIN(<voltage>/5)</voltage>	

ELECTRICAL AND ENVIRONMENTAL

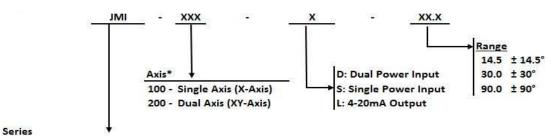
Number of Axes	1 or 2
Input Voltage Range (VDC)	±12 to ±18
Input Current (mA max)	6 (1-axis), 12 (2-axis)
Output Noise (vrms max)	0.005
Output Impedance (Ohms nom)	1
Operating Temp. Range (°C)	-40 to +85
Storage Temp. Range (°C)	-40 to +95
Shock	100 g, 0.011 sec, ½ sine
Weight (grams)	165 (1 axis), 170 (2 axes)
Seal	IP65

Notes: 1 - Custom ranges available on request. 2 - Does not take into account any sources of error.

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

SENSORS & CONTROLS





JMI - Analog MEMS Inclinometer

Example: JMI-100-L-14.5 = JMI series, single axis, 4-20mA Output, ±14.5° range

*Call factory for customized axis configurations

SINGLE AXIS PART NUMBERS

DUAL AXIS PART NUMBERS

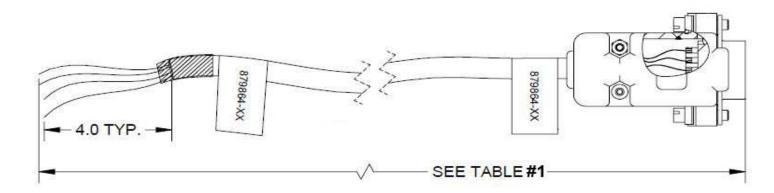
JMI-100-D-14.5	02550375-125	JMI-200-D-14.5	02550375-225
JMI-100-D-30	02550375-126	JMI-200-D-30	02550375-226
JMI-100-D-90	02550375-129	JMI-200-D-90	02550375-229



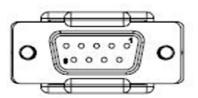
CABLE ASSEMBLY (PN 879864-XX)



DB9 FEMALE CONNECTOR



DIMENSIONS IN FEET [m]



	CONNECTOR F	NOUT	
DB9 PIN	FLY LEADS	FUNCTION	
1	RED	+PWR	
2	BLACK	PWR RTN	
3	VIOLET	N/C	
4	GREEN	X OUT	
5	ORANGE	YOUT	
6	YELLOW	N/C	
7	BROWN	SIG RTN	
8	BLUE	TEMP OUT	
9	WHITE	N/C	

Table #1	
Cabel Config	guration
Part #	Length
879864-10	[10m] 32.8 feet
879864-XX	Other lengths available (specify on order)

Page 3/3

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. Althen – Your expert partner in Sensors & Controls | althensensors.com

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