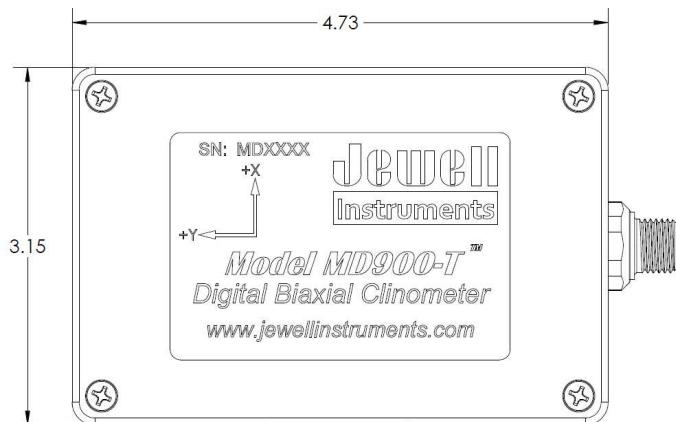
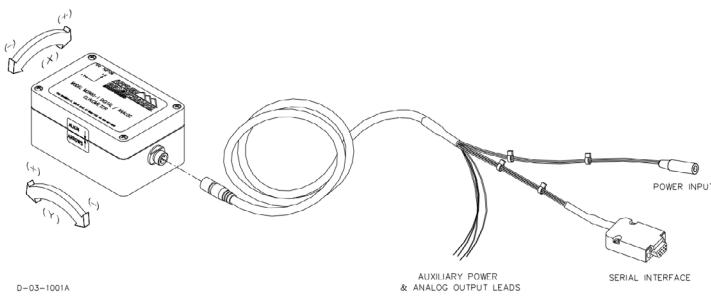


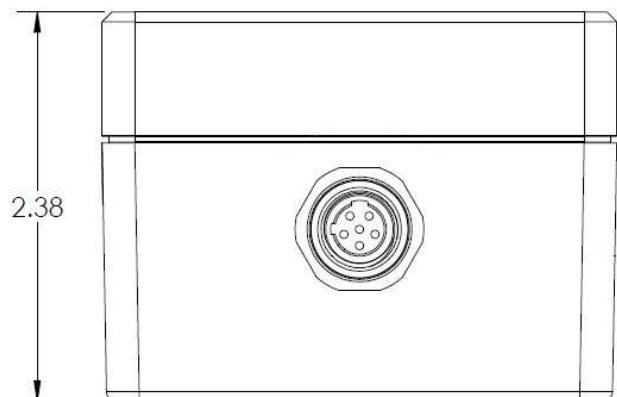
Model MD900-T Digital Clinometer

The biaxial model MD900-T is an economical digital clinometer with powerful firmware features. User programmable settings include AUTO-zero (tare), baud and output rate, sample averaging, and more. Output is RS232 or RS422 (RS485 full duplex). The MD900-T easily integrates with a variety of GPS receivers, and supports Trimble TCM, NMEA XDR, BAE, and Ashtech output protocols. Units ship standard with 6-ft. hook-up cable and 100-240VAC power transformer.



APPLICATIONS:

- Industrial pitch and roll measurement
- Marine piling, dredging, and construction systems
- Platform Leveling
- Geotechnical Monitoring
- Radar platform leveling



PERFORMANCE SPECIFICATIONS

PERFORMANCE

| VERSION | High-Gain | Standard | Wide-Angle |
|--------------------------------------|-----------------------------------------------------------------------------------|----------------------------------|------------|
| ANGULAR RANGE (°) | ±10° | ±25° | ±50° |
| RESOLUTION | 0.002° | 0.004° | 0.01° |
| NONLINEARITY (%FRO) ¹ max | | 1% | |
| NONREPEATABILITY | 0.01° | 0.01° | 0.02° |
| TIME CONSTANT | | 0.15 sec | |
| Kz TEMP COEFFICIENT | | <10 arcsec/°C (typical) | |
| Ks TEMP COEFFICIENT | | 0.03%/C (typical) | |
| OUTPUT | | RS232, RS422 (RS485 full duplex) | |
| OUTPUT FORMAT | NMEA XDR, Trimble TCM, BAE, Ashtec compatible, Simple (default: X, Y, Temp., S/N) | | |
| BAUD RATE | 9600 (default), 19200, 28800, 57600, 115200, 230400 | | |
| CHANNELS | X-tilt, Y-tilt, Temperature, Serial No. | | |

ELECTRICAL & ENVIRONMENTAL

| | |
|-----------------------------|----------------------------------------------------------------|
| NUMBER OF AXES | 2 |
| NATURAL FREQUENCY | 7 Hz |
| POWER | 7-28 VDC @ 30mA, 250 mV ripple max, reverse polarity protected |
| OPERATING TEMPERATURE RANGE | -40° to +85°C |
| STORAGE TEMPERATURE RANGE | -40° to +85°C |
| WEIGHT | 0.55 kg (1.2 lb.) |
| MATERIALS | Die-cast aluminum, painted |

NOTES:

1. Nonlinearity is specified as variation around the best straight line from null to full-range output.

Specifications are subject to change without notice due to continued product development

PIN OUT:

RS232

| CONNECTOR | FUNCTION | DB9 PIN-OUT |
|--------------|--------------|-------------|
| RED-WHITE | GND | 5 |
| RED | V+ (POWER) | - |
| GREEN-YELLOW | ANALOG X OUT | - |
| RED-YELLOW | RXD (RS232) | 3 |
| RED-BLACK | TXD (RS232) | 2 |
| RED-BLUE | ANALOG Y OUT | - |

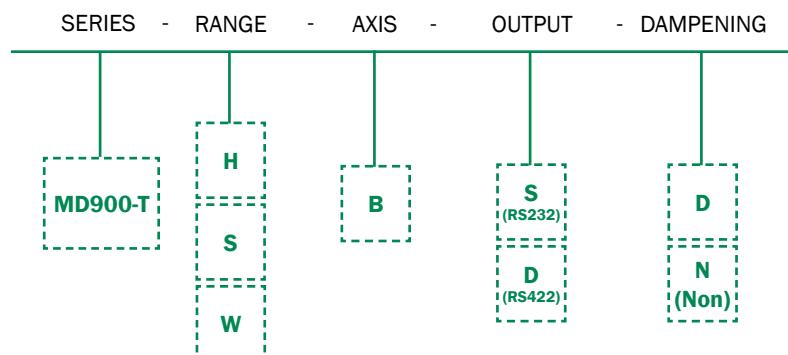
RS422

| CONNECTOR | FUNCTION | DB9 PIN-OUT |
|--------------|-------------|-------------|
| RED-WHITE | GND | 1 |
| RED | V+ (POWER) | - |
| GREEN-YELLOW | RX-(RS422) | 9 |
| RED-YELLOW | RX+ (RS422) | 8 |
| RED-BLACK | TX+ (RS422) | 4 |
| RED-BLUE | TX- (RS422) | 5 |



ORDERING INFORMATION

HOW TO ORDER Model Numbers are comprised of the series, range, # of axes, output, and dampening.



| MODEL # | PART # |
|---------------|---------------|
| MD900-TS-BS-N | 98009-01-ROHS |
| MD900-TS-BD-D | 98009-10-ROHS |
| MD900-TS-BD-N | 98009-07-ROHS |
| MD900-TW-BS-D | 98009-05-ROHS |
| MD900-TW-BS-N | 98009-02-ROHS |
| MD900-TW-BD-D | 98009-11-ROHS |
| MD900-TW-BD-N | 98009-08-ROHS |
| MD900-TH-BS-D | 98009-06-ROHS |
| MD900-TH-BS-N | 98009-03-ROHS |
| MD900-TH-BD-D | 98009-12-ROHS |
| MU900-TH-BD-N | 98009-09-ROHS |
| MD900-TS-BS-D | 98009-04-ROHS |

Accessories:

| PART # | DESCRIPTION |
|----------|---------------------------------------------------------------|
| 70369 | 6-conductor cable (specify required length on order) |
| 84033 | Extra 6-ft Cable Assembly, RS232 Output, w/ DB9-sub Connector |
| 84080-01 | Extra 6-ft Cable Assembly, RS422 Output, w/ DB9-sub Connector |
| 00254-02 | Transformer, 100-240VAC to 12VDC |
| 81439-01 | Mounting bracket for vertical surfaces |
| 84051-01 | Mounting plate for horizontal surfaces |

850 Perimeter Road Manchester, NH 03103 USA

SENSORS: 800.227.5955

www.jewellinstruments.com | sensors@jewellinstruments.com

© Jewell Instruments 2025

Jewell
Instruments

ISO 9001
CERTIFIED