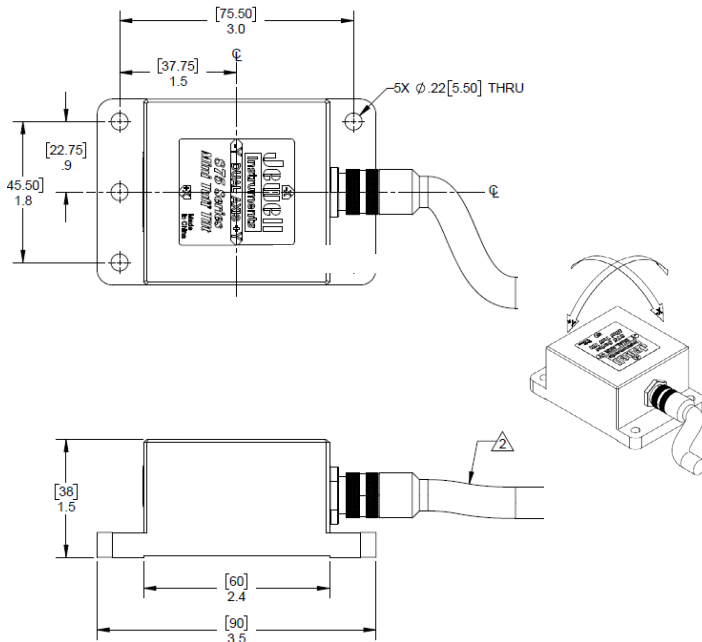


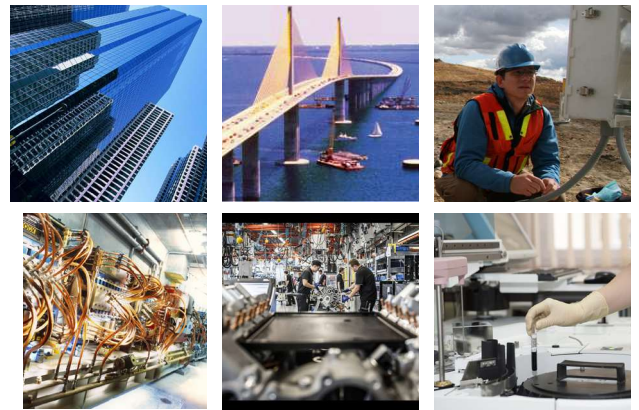
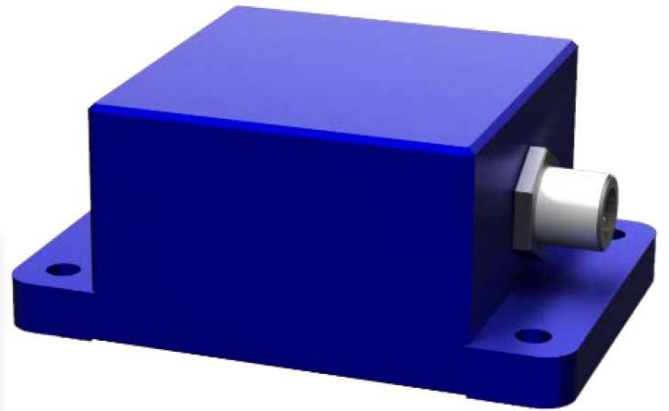
Model C875

Analog MEMS Tiltmeter

The model 875 MEMS Tiltmeter combines high precision and durability in a miniaturized and economical instrument package. Using MEMS technology, the 875 delivers superior measurement accuracy with virtually no long-term drift and a resolution of 0.05°. Output options include 0.5-4.5Vdc, 4-20mA and digital RS485. All units are rated IP67 waterproof for advanced protection from the elements. Use the C875 for structural monitoring, angle measurement and control, platform leveling, testing and research, OEM and more. This product is RoHS compliant.



Dimensions: in [mm]



APPLICATIONS:

- Structural Monitoring
- Platform Leveling
- Laboratory Testing
- Angle Measurement
- Educational Research
- OEM

PIN OUT:

| WIRE COLOR | OUTPUT OPTIONS | | | |
|------------|----------------|----------|-------|----------|
| | 0.5-4.5V | 4-20MA | RS485 | RS232 |
| BROWN | +PWR | | | |
| BLACK | GND | | | |
| BLUE | X OUT | X OUT | D+(A) | TXD |
| WHITE | Y OUT | Y OUT | D-(B) | RXD |
| GREY | ZERO CAL | ZERO CAL | NC | ZERO CAL |

PERFORMANCE SPECIFICATIONS: C875

PERFORMANCE

| | | | |
|---|---------------|---------------|---------------|
| ANGULAR RANGE (°) ¹ | ±5° | ±15° | ±30° |
| RESOLUTION | 0.05° | | |
| OUTPUT RANGE (mA) | 4-20 | | |
| FULL RANGE OUTPUT (FRO) ² VDC ± 0.5% | ±0.5 | | |
| SCALE FACTOR (mA/°) | 1.600 ± 0.008 | 0.533 ± 0.003 | 0.267 ± 0.002 |
| SCALE FACTOR TEMP. SENSITIVITY (PPM/°C, max) | ±100 | | |
| NONLINEARITY (%FRO) ³ max | 2 | | |
| NONREPEATABILITY (° max) | 0.05 | | |
| BANDWIDTH (-3db, Hz, nominal) | <1 | | |
| TRANSVERSE AXIS MISALIGNMENT (° max) | ±1 | | |
| RELATIVE ACCURACY (° max) | 0.10 | 0.15 | 0.27 |
| 0° OUTPUT RANGE (Volts) | ±0.03 | | |
| 0° OUTPUT TEMP. SENSITIVITY (Volts/°C, max) | ±0.005 | | |
| START UP TIME (seconds max) | 5 | | |
| RESPONSE TIME (seconds max) | 0.3 | | |

ELECTRICAL & ENVIRONMENTAL

| | |
|------------------------------|---------------------------|
| NUMBER OF AXES | 1 or 2 |
| INPUT VOLTAGE RANGE (VDC) | 12 to 30 |
| INPUT CURRENT (mA @ 24V max) | 35 |
| NOISE (mA rms max) | 0.03 |
| OPERATING TEMPERATURE RANGE | -40° to +85°C |
| STORAGE TEMPERATURE RANGE | -50° to +105°C |
| SHOCK (g, 1 msec, ½-sine) | 500 |
| WEIGHT (grams) | 210 (7.4 oz.) |
| SEAL | IP67 |
| CABLE | 2m (6.6 ft), flying leads |

NOTES:

1. Custom ranges available on request
2. Full range is defined as "from negative full input angle to positive full input angle." The Inclinometer output is proportional to the sine of the tilt angle.
3. Nonlinearity is specified as variation around the best straight line from null to full-range output

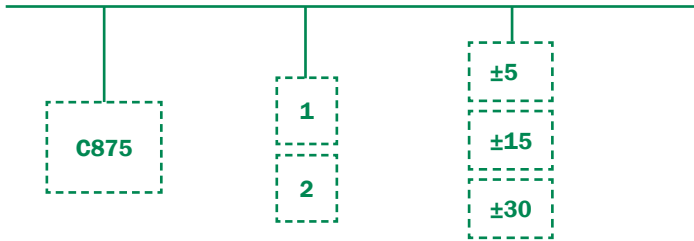
Specifications are subject to change without notice due to continued product development



ORDERING INFORMATION

HOW TO ORDER Model Numbers are comprised of the series, the number of axes, and the angular range.

SERIES - AXIS - ANGULAR RANGE



| | MODEL # | PART # |
|-----|-----------|-----------|
| ±5 | C875-1-5 | 98875-121 |
| | C875-2-5 | 98875-221 |
| ±15 | C875-1-15 | 98875-122 |
| | C875-2-15 | 98875-222 |
| ±30 | C875-1-30 | 98875-123 |
| | C875-2-30 | 98875-223 |

850 Perimeter Road Manchester, NH 03103 USA

SENSORS: 800.227.5955
www.jewellinstruments.com | sensors@jewellinstruments.com

F119
 © Jewell Instruments 2020

