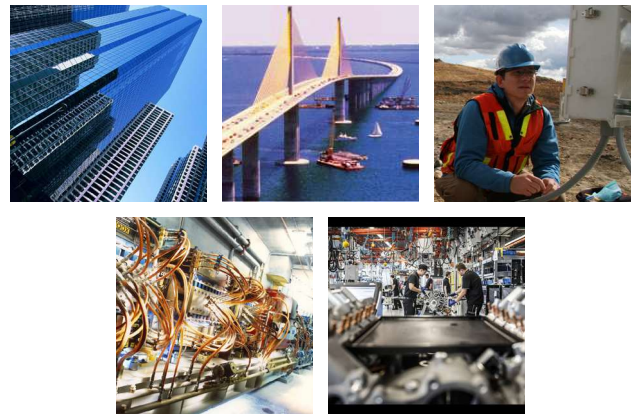
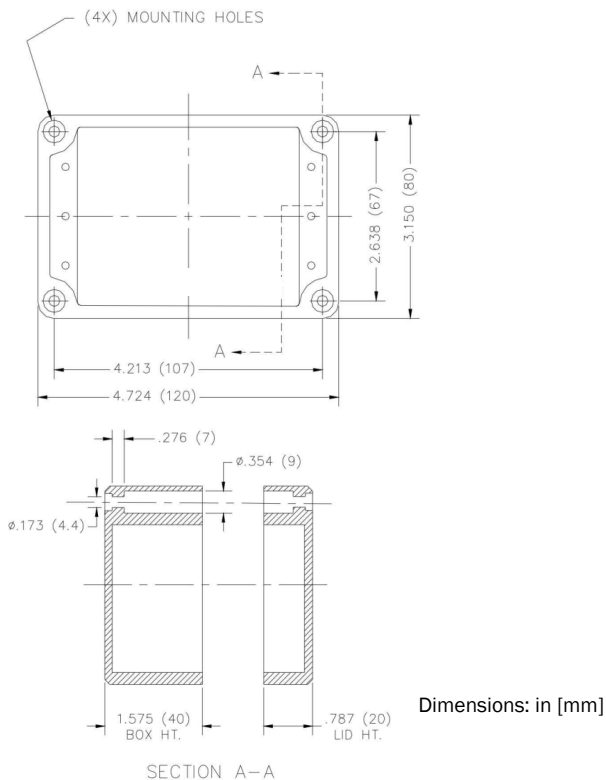


## Model A801

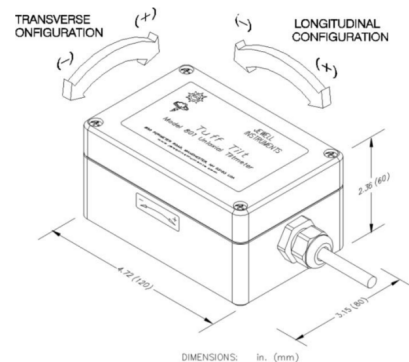
### “Tuff Tilt” Analog Tiltmeter

The model 801 “Tuff Tilt” Analog Tiltmeter combines high precision and durability in an economical instrument package. Using an absolute gravity referenced electrolytic sensor, the A801 delivers superior measurement accuracy with nearly no long-term drift, and high-gain units are sensitive to  $<0.0017$  mm/m or better. Output is a stable  $\pm 5$  DC voltage ( $\pm 10$  VDC differential), which can be read with any VDC input datalogger. All units are rated IP65 waterproof for advanced protection from the elements. Use the A801 “Tuff Tilt” for structural monitoring, angle measurement and control,



#### APPLICATIONS:

- Structural Monitoring
- Platform Leveling
- Industrial Measurement & Control



# PERFORMANCE SPECIFICATIONS

## PERFORMANCE

|  |   |         |          |
|--|---|---------|----------|
| ANGULAR RANGE (°) <sup>1</sup>         | ±0.5°   | ±3°     | ±50°     |
| RESOLUTION                             | <0.0001°                                      | 0.0006° | 0.01°    |
| NONREPEATABILITY (° max)               | <0.0002°                                      | 0.001°  | 0.02°    |
| NONLINEARITY (%FRO) <sup>2</sup> max   | 1   | 2       | 2        |
| SCALE FACTOR (SINGLE-ENDED)            | 0.1°/V  | 0.6°/V  | 10°/V    |
| TIME CONSTANT                          | 1.75 sec (2-pole Butterworth low-pass filter) |         | 0.15 sec |
| K <sub>z</sub> TEMP COEFFICIENT (°/°C) | ±0.0002 °/°C (typical)                        |         |          |
| K <sub>s</sub> TEMP COEFFICIENT (%/°C) | 0.02%/°C (typical)                            |         |          |
| OUTPUT                                 | ±5VDC (single ended); ±10VDC (differential)   |         |          |
| CHANNELS                               | Tilt, Temperature                             |         |          |

## ELECTRICAL & ENVIRONMENTAL

|                                  |   |
|----------------------------------|---|
| NUMBER OF AXES                   | 1 or 2  |
| OUTPUT IMPEDANCE (Ohms, nominal) | 270   |
| TEMPERATURE OUTPUT               | 0.1 °C/mV typical (single ended; 0 °C = 0mV)                        |
| POWER                            | 8-18 VDC @ 8mA, 250 mV ripple max, reverse polarity protected       |
| OPERATING TEMPERATURE RANGE      | -25° to +70 °C  |
| STORAGE TEMPERATURE RANGE        | -30° to +100 °C   |
| WEIGHT                           | 0.6 kg (1.5 lb.)  |
| MATERIALS                        | Diecast painted aluminum  |
| SEAL                             | IP65  |
| CABLE                            | 3m (10 ft) 6 conductor + one overall shield, PVC jacket, tined ends |

## PIN OUT:

### Single Axis

| WIRE COLOR | FUNCTION |
|------------|----------|
| RED        | +VIN     |
| BLACK      | GND      |
| WHITE      | SIG GND  |
| GREEN      | +X       |
| BLUE       | -X       |
| YELLOW     | TEMP     |

### Biaxial

| WIRE COLOR | FUNCTION |
|------------|----------|
| RED        | +VIN     |
| BLACK      | GND      |
| WHITE      | SIG GND  |
| GREEN      | +X       |
| GRAY       | -X       |
| YELLOW     | TEMP     |
| BLUE       | +Y       |
| BROWN      | -Y       |

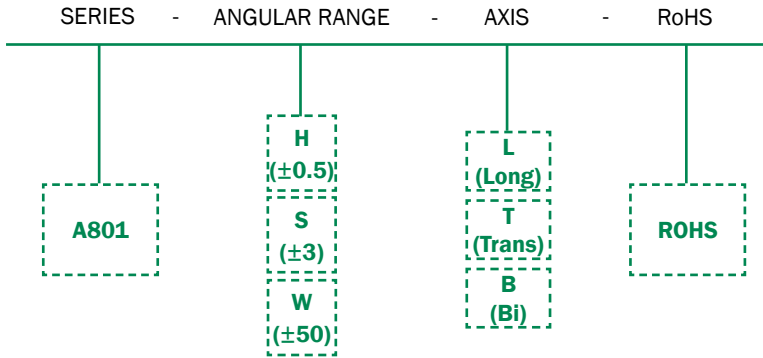
### NOTES:

1. Custom ranges available on request
  2. 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, angular range, axis configuration and RoHS compliance



|      | MODEL #      | PART #        |
|------|--------------|---------------|
| ±0.5 | A801-HL-ROHS | 98801-04-ROHS |
|      | A801-HT-ROHS | 98801-01-ROHS |
|      | A801-HB-ROHS | 98801-07-ROHS |
| ±3   | A801-SL-ROHS | 98801-05-ROHS |
|      | A801-ST-ROHS | 98801-02-ROHS |
|      | A801-SB-ROHS | 98801-08-ROHS |
| ±50  | A801-WL-ROHS | 98801-06-RORS |
|      | A801-WT-ROHS | 98801-03-ROHS |
|      | A801-WB-ROHS | 98801-09-ROHS |

## Accessories:

| PART #  | DESCRIPTION   |
|---------|---|
| 81439   | Mounting bracket for vertical surfaces                          |
| 84051   | Mounting plate for horizontal surfaces                          |
| 70369   | Power/signal cable, 6-conductor (specify total length on order) |
| 62204   | Optional 6-pin male receptacle (installed on tiltmeter cable)   |
| 62202   | Optional 6-socket in-line plug (mates to P/N 62204 connector)   |
| 870/DMM | Optional 870 Readout Module with Digital Multimeter Display     |

850 Perimeter Road Manchester, NH 03103 USA

SENSORS: 800.227.5955  
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