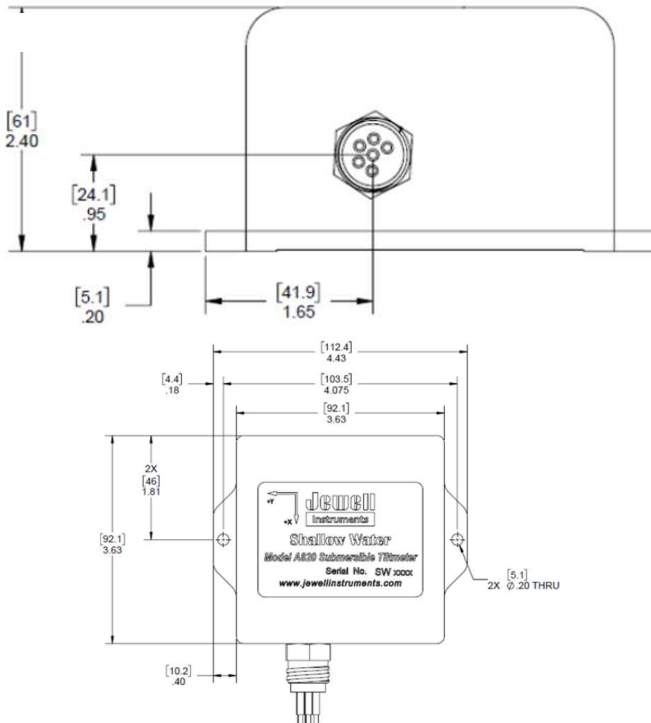
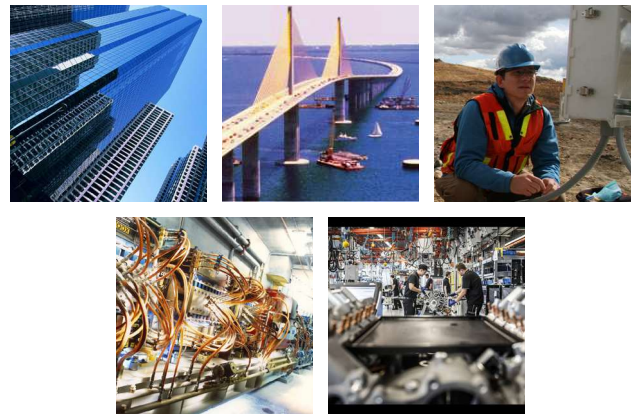


Model A820 Shallow Water Analog Tiltmeter

The model A820 Shallow Water is a high-precision submersible tiltmeter for use in fresh and salt water applications. Using an absolute gravity referenced electrolytic sensor, the A820 delivers superior measurement accuracy with virtually no long-term drift. High-gain units are sensitive to <0.0017 mm/m or better. Output is a stable ± 5 DC voltage, which can be read with any VDC input data recorder. All units are rated to 200 meters (656.2 ft) waterproof for advanced protection from the elements. Use the A820 “Shallow Water” for structural monitoring, angle measurement and control, platform leveling and more.

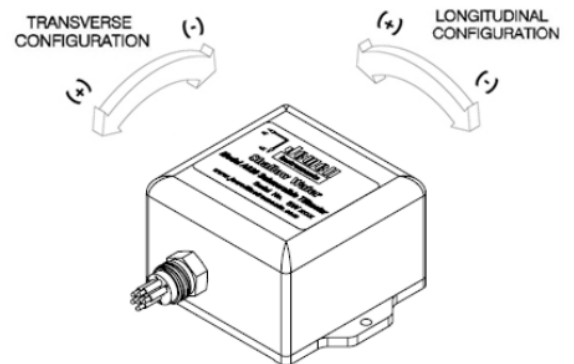


Dimensions: in [mm]



APPLICATIONS:

- Structural Monitoring
- Platform Leveling
- Industrial Measurement & Control



PERFORMANCE SPECIFICATIONS

PERFORMANCE

| | | | |
|--------------------------------------|---|---------|-----------------------|
| ANGULAR RANGE (°) ¹ | ±0.5° | ±3° | ±50° |
| RESOLUTION | <0.0001° | 0.0006° | 0.01° |
| NONREPEATABILITY (° max) | <0.0002° | 0.001° | 0.02° |
| NONLINEARITY (%FRO) ² max | ±1 | <±2 | ±0.5 |
| SCALE FACTOR | 0.1°/V | 0.6°/V | 10°/V |
| TIME CONSTANT | 1.75 sec (2-pole Butterworth low-pass filter) | | 0.15 sec |
| Kz TEMP COEFFICIENT (°/°C) | ±0.0002 °/°C (typical) | | ±0.002 °/°C (typical) |
| Ks TEMP COEFFICIENT (%/°C) | 0.04%/°C (typical) | | |
| OUTPUT | ±5VDC (single ended) | | |
| 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 | -4° to +60 °C |
| STORAGE TEMPERATURE RANGE | -30° to +100 °C |
| WEIGHT | 1.6 kg |
| MATERIALS | 316 SS |
| SEAL | Submersible to 200 meters (656.2 ft) |
| CABLE | 6-conductor unshielded, 20AWG female receptacle with locking sleeve, neoprene jacket. Charged separately. Specify cable length per unit on order |

PIN OUT:

| CONNECTOR | FUNCTION |
|-----------|----------|
| BLACK | PWR GND |
| WHITE | SIG GND |
| RED | PWR |
| GREEN | X - TILT |
| ORANGE | TEMP |
| BLUE | Y - TILT |

NOTES:

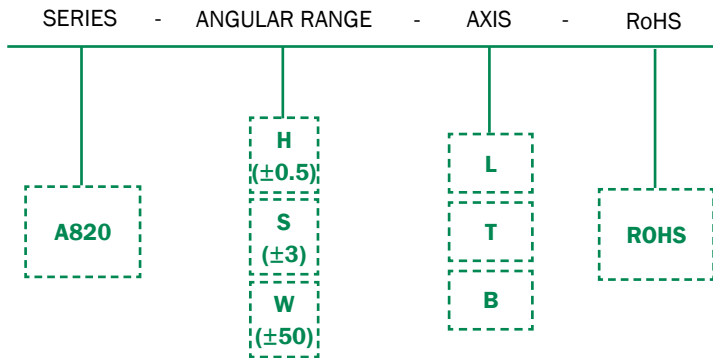
1. Custom ranges available on request
2. Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment

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.



| | MODEL # | PART # |
|------|--------------|---------------|
| ±0.5 | A820-HL-ROHS | 98823-07-ROHS |
| | A820-HT-ROHS | 98823-04-ROHS |
| | A820-HB-ROHS | 98823-01-ROHS |
| ±3 | A820-SL-ROHS | 98823-08-ROHS |
| | A820-ST-ROHS | 98823-05-ROHS |
| | A820-SB-ROHS | 98823-02-ROHS |
| ±50 | A820-WL-ROHS | 98823-09-ROHS |
| | A820-WT-ROHS | 98823-06-ROHS |
| | A820-WB-ROHS | 98823-03-ROHS |

Accessories:

| PART # | DESCRIPTION |
|-----------|--|
| 00389 | Extra 8-socket Female in-line connector, Neoprene, on 24-inch (60 cm) Cable Whip (bare wire leads) |
| 00359 | Extra Delrin Locking Sleeve (locks 00358 and 00389 in-line connector to Male bulkhead) |
| 00358-xxx | Extra 6-socket Female in-line connector, Neoprene, (bare wire leads) price per foot |