

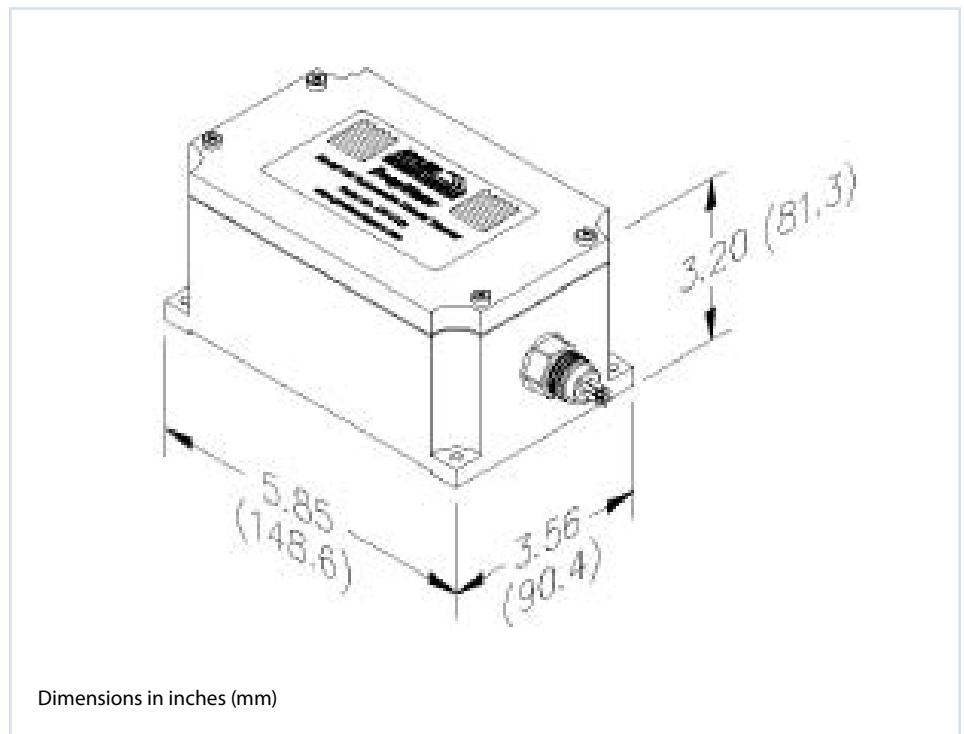
Model 802 DeepWater Submersible Tiltmeter

The Model 802 DeepWater is a precision voltage-output tiltmeter designed for underwater measurements and other applications under high pressure. The housing is machined from a solid piece of 316 stainless steel and incorporates a high-pressure neoprene connector (700 bars depth rating). Inside are a gravity-

referenced electrolytic tilt sensor and our low-noise electronics, delivering sensitivity, high dynamic range and long-term stability under the most demanding conditions. DeepWater tiltmeters are excellent choices for monitoring dams, oil platforms, pipelines and underwater machinery. DeepWater tiltmeters are also available with 4-20 mA and digital outputs.



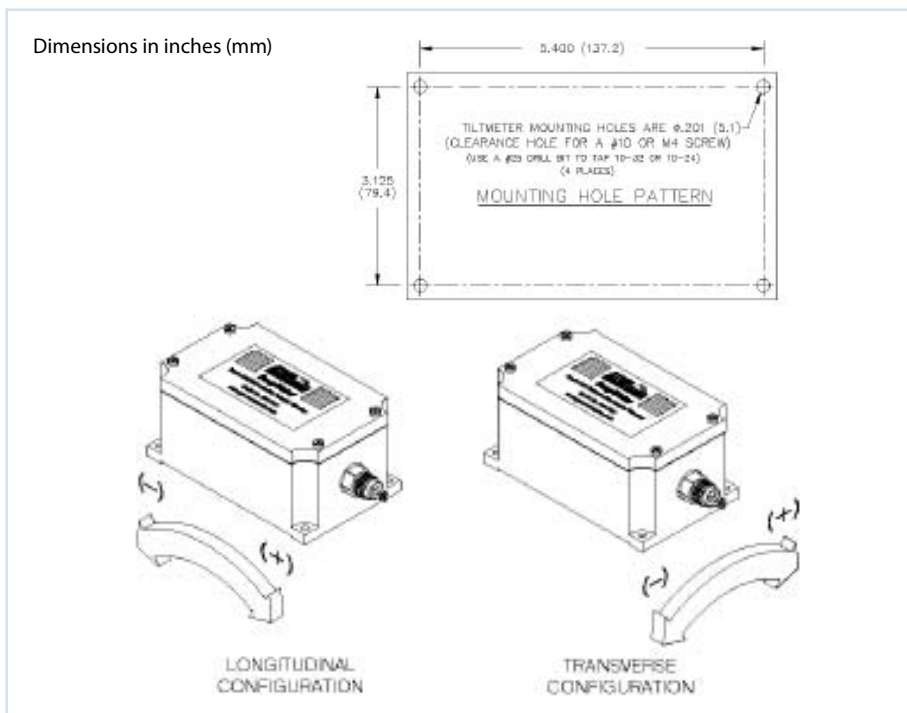
Model 802 Submersible Uniaxial Tiltmeter



| CONNECTOR PIN | WIRE COLOR | CABLE FUNCTION |
|---------------|-----------------|--------------------|
| 1 | Black | Power Ground* |
| 2 | White | Signal Ground* |
| 3 | Red | +8 to +18 Volts DC |
| 4 | Green | + Tilt |
| 5 | Yellow (Orange) | Temperature |
| 6 | Blue | - Tilt |

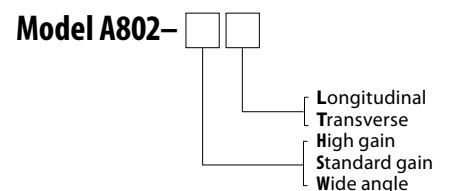
Model 802 Submersible

| | MODEL 802-H HIGH-GAIN VERSION | MODEL 802-S STANDARD VERSION | MODEL 802-W WIDE-ANGLE VERSION |
|-------------------------|---|--|---|
| ANGULAR RANGE | ±0.5 degrees | ±3 degrees | ±50 degrees* |
| SCALE FACTOR | 0.1°/ Volt (single-ended) 0.05°/ Volt (differential) | 0.6°/ Volt (single-ended) 0.3°/ Volt (differential) | 10°/ Volt (single-ended) 5°/ Volt (differential) |
| RESOLUTION | <0.0001 degree (<1.75 μradians) | <0.0006 degree (10.5 μradians) | <0.01 degree |
| REPEATABILITY | <0.0002 degree | 0.001 degree | 0.02 degree |
| LINEARITY | 1% of full span typical | <2% of full span typical | 0.5% of full span typical |
| TEMPERATURE COEFFICIENT | Scale factor: KS < 0.02%/oC typ. Zero shift: KZ = ±0.0002 degree/oC | KS < 0.02%/oC typ. KZ = ±0.0002 degree/oC typ. | KS < 0.02%/°C typ. KZ = ±0.002 degree/°C typ. |
| TIME CONSTANT, T | 1.75 sec. (2-pole Butterworth low-pass filter), faster response available | | 0.15 second |
| TILT OUTPUT | ± 5 VDC single-ended, ±10 VDC differential (both provided) | | |
| TEMPERATURE OUTPUT | 0.1°C/mV (single-ended), -40° to +100°C, ±0.75°C accuracy, 0°C = 0 mV | | |
| OUTPUT IMPEDANCE | 270 Ohms, short circuit and surge protected | | |
| POWER REQ'TS. | +8 to +18 VDC @ 8 mA, 250 mV peak to peak ripple max., reverse polarity protected | | |
| ENVIRONMENTAL | -25° to +70° C operating, -30° to +100° C storage; submersible to 250 bars (3,600 psi) | | |
| ENCLOSURE & MOUNTING | 316 stainless steel enclosure, machined from single block, 149x91x82mm (5.85x3.56x3.20 inches). Four 5.1mm (0.201 inch) dia. external mounting holes (see drawing) | | |
| SEALS | Nitrile (Buna-N) face seal O-rings in lid and bulkhead connector | | |
| CONNECTORS | 6-pin male bulkhead connector (Subconn MCBH6M), neoprene over brass body; mating in-line connector on 2-ft whip (Subconn MCL6F); 700 bars (10,000 psi) depth rating | | |
| CABLE | 6-conductors, two-types available: 1) Neoprene, 20 AWG, no shield or 2) PVC-jacketed, polypropylene-insulation, 24 AWG, shielded. Order cable separately. | | |
| EIGHT | 5 kg (11 lb) | | |



Model 802 Submersible Configuration

ORDER CODES:



USEFUL ACCESSORIES:

- 70304** PVC-jacketed cable, 6mm dia. specify length
- S0-20/6** Neoprene cable, 9mm dia. specify length
- SPLICE** Waterproof cable splice



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