

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-

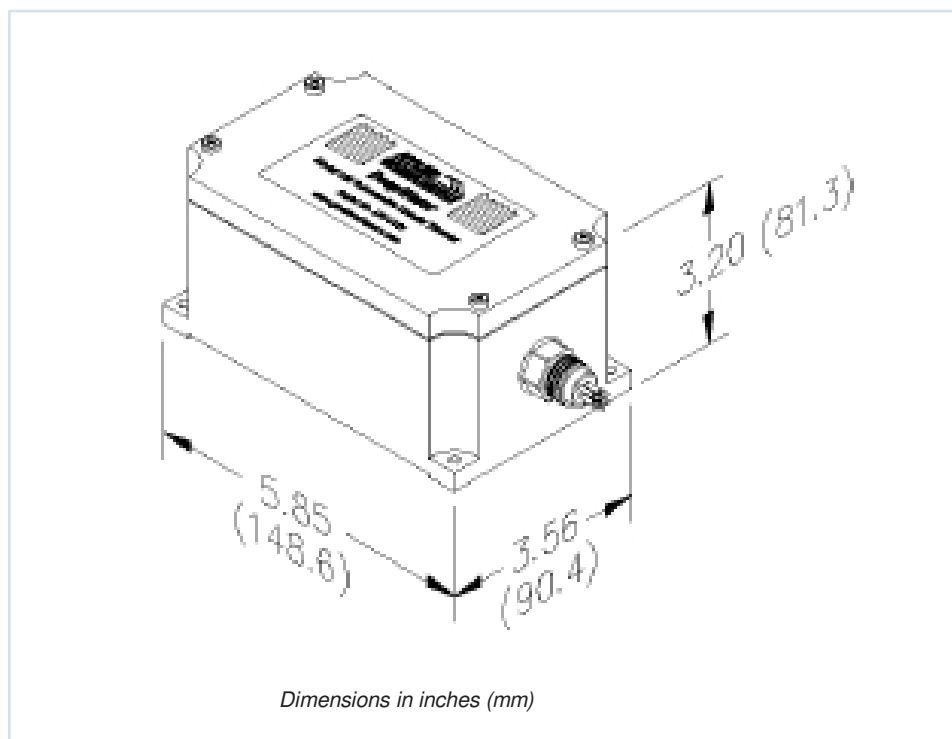
referenced electrolytic tilt sensor and our low- noise electronics, delivering sensitivity, high dynamic range and long-term stability under the most demanding conditions. DeepWater tiltmeters are excellent choices for monitoring dams, oil platforms, pipelines and underwater machinery. DeepWater tiltmeters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



Model 802 Submersible Uniaxial Tiltmeter

CONNECTOR PIN	WIRE COLOR	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

*Common

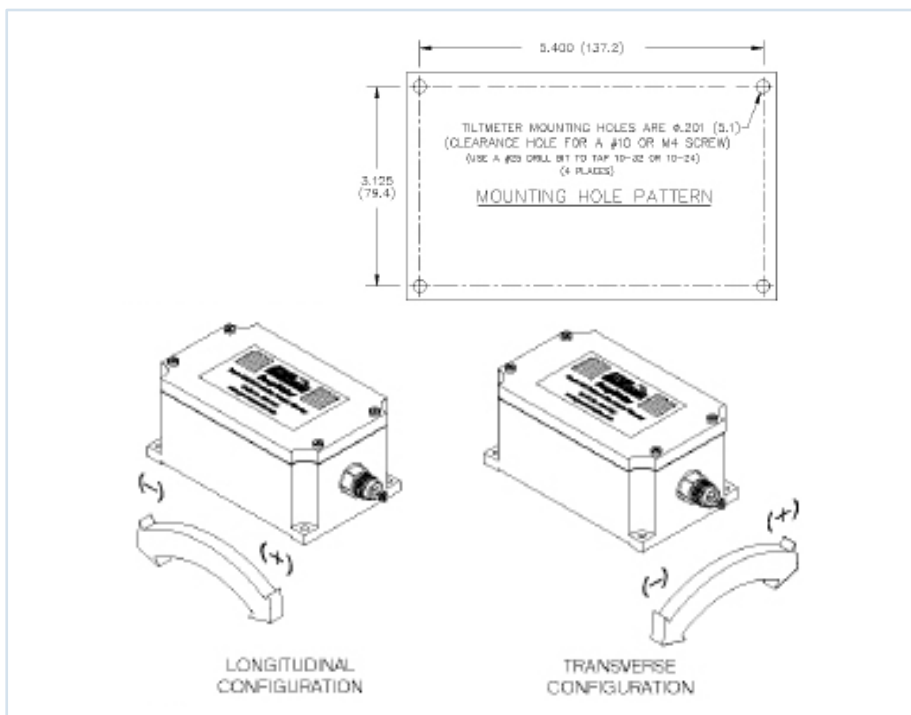


Model 802 Submersible

	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%/°C typ. Zero shift: KZ = ±0.0002 degree/°C	KS < 0.02%/°C typ. KZ = ±0.0002 degree/°C typ.	KS < 0.02%/°C typ. KZ = ±0.0002 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, 149 x 91 x 82 mm (5.85 x 3.56 x 3.20 inches). Four 5.1 mm (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 MCIL6F); 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)		

Dimensions in inches (mm)

*Greater Range Available



Model 802 Submersible Configuration

ORDER CODES:

Model A802- ☐ ☐ ☐ ☐ ☐ ☐

Longitudinal
Transverse
High gain
Standard gain
Wide angle

USEFUL ACCESSORIES:

70304 PVC-jacketed cable, 6mm dia. specify length
50-20/6 Neoprene cable, 9mm dia. specify length
SPLICE Waterproof cable splice