

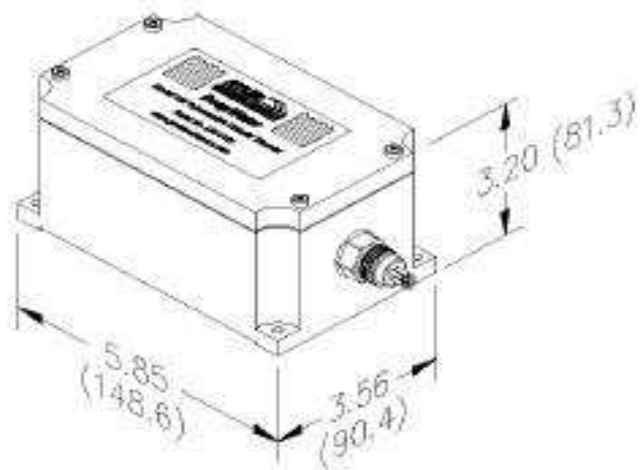
# DeepWater 4-20 mA Submersible Tiltmeter

The Model C802 4-20 DeepWater is a precision 4-20 mA 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). Using a gravity-

referenced electrolytic tilt sensor and our low- noise electronics, the C802 delivers 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.



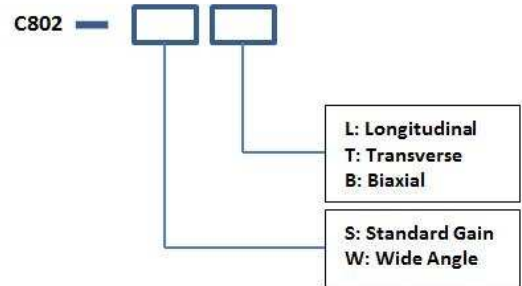
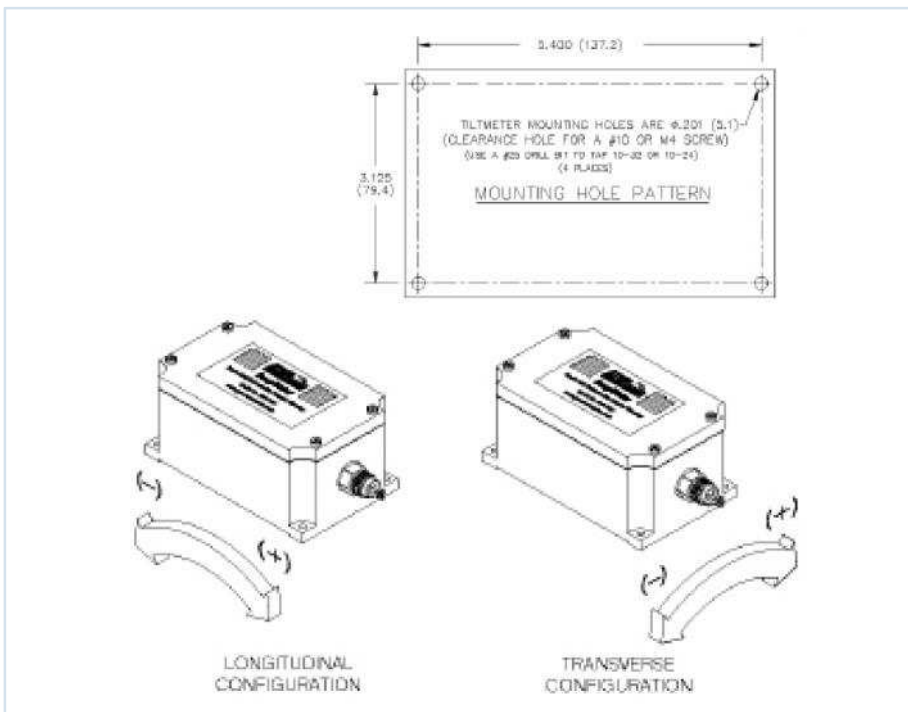
*Model C802 4-20mA Submersible Uniaxial Tiltmeter*



*Dimensions in inches (mm)*

	MODEL C802-S STANDARD VERSION	MODEL C802-W WIDE ANGLE VERSION
ANGULAR RANGE	±3 degrees	±50 degrees*
SCALE FACTOR	0.375°/mA typical	6.25°/mA typical
LINEARITY	1% of half span, 2.5% of full span	1.2% of half span, 7.5% of full span
RESOLUTION	0.0006 degree (10 μradians)	<0.01 degree
REPEATABILITY	0.001 degree	0.02 degree
NATURAL FREQUENCY	3 Hz	7 Hz (critically damped)
TILT OUTPUT	4-20 mA two-wire current loop	
TIME CONSTANT, T	150 msec; output is proportional to $1 - e^{-T/t}$ where T = time in seconds	
TEMPERATURE COEF.	Scale Factor: Ks < 0.04% /°C typ. Zero Shift: Kz = ±0.0002 degree/°C typ.	Ks < 0.1%/°C typ. Kz = ±0.002 degree/°C typ.
POWER REQ'TS, VS	(0.02 Ampere x R + 10 VDC) < Vs < 29 VDC where R is the resistance of the shunt resistor and loop wiring Ohms	
TEMPERATURE OUTPUT	Temperature is measured with a 2500 Ohm thermistor, -50° to +150°C range	
ENVIRONMENTAL	-40°C to +85°C operating and storage	
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, Neoprene, 20 AWG, no shield	
WEIGHT	5 Kg (11 lbs.)	

\*greater range available



#### Model Description

C801-SL Shippable Assembly, Tuff Tilt 420, ±3°, Longitudinal  
C802-WB Shippable Assembly, Tuff Tilt 420, ±50°, Biaxial