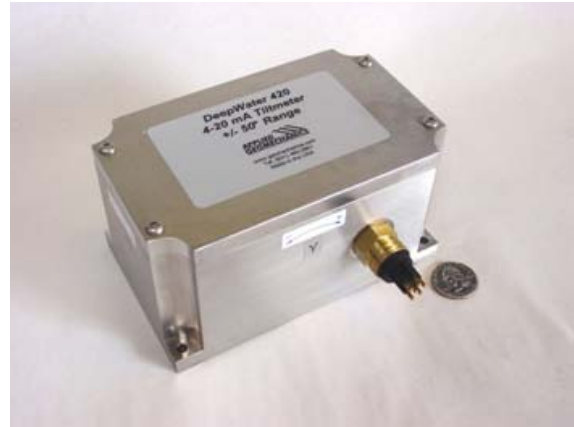


## DeepWater 420

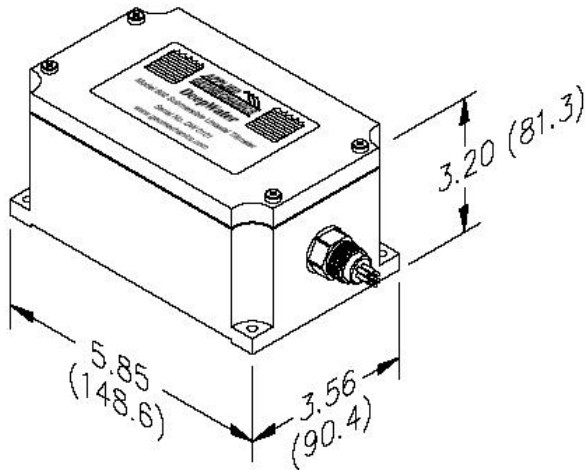
El DeepWater 420 es un clinómetro de precisión (inclinómetro) diseñado para las mediciones subacuáticas o cualquier otro uso donde la medición se debe hacer bajo altas presiones externas. Ofrece durabilidad, sensibilidad sin competencia y estabilidad de largo plazo bajo condiciones exigentes. Su caja se trabaja a máquina de una pieza sólida de acero inoxidable 316 resistente y anticorrosivo. El DeepWater 420 es una opción excelente para supervisar el comportamiento de estructuras subacuáticas tales como presas, plataformas petroleras y tuberías; medir el movimiento rotatorio de rastras y de otra maquinaria subacuática; y verificación del nivel de inclinación de naves y de otros recipientes. La salida de 4-20 mA se puede transmitir sobre cables largos sin pérdidas de la señal.



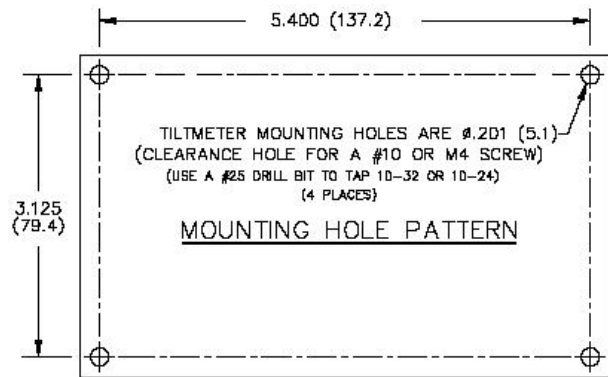
	Standard Version	Wide-Angle Version
ANGULAR RANGE	±3 degrees (6 degrees span)	±50 degrees* (100 deg. span)
SCALE FACTOR	0.375°/mA typical	6.25°/mA typical
RESOLUTION	0.0006 degree (2 arc seconds)	0.01 degree
REPEATABILITY	0.001 degree	0.02 degree
LINEARITY	<2% of full span	0.5% of full span
NATURAL FREQUENCY	3 Hz	7 Hz (critically damped)
TEMPERATURE COEF.	Scale factor: $K_s < 0.04\%/^{\circ}\text{C}$ typ. Zero shift: $K_z = \pm 0.0002 \text{ degree}/^{\circ}\text{C}$ typ.	$K_s < 0.1\%/^{\circ}\text{C}$ typ. $K_z = \pm 0.002 \text{ degree}/^{\circ}\text{C}$ typ.
TILT OUTPUT	One or two 4-20 mA two-wire current loops (for uniaxial or biaxial measurement)	
TIME CONSTANT, $T$	150 msec; output is proportional to $1 - e^{-t/T}$ where $t$ = time in seconds	
TEMPERATURE OUTPUT	Temperature is measured with a 2500 Ohm thermistor, -50 to +150°C range	
POWER REQUIREMENTS, $V_s$	$(0.02 \text{ Ampere} \times R + 10 \text{ VDC}) < V_s < 29 \text{ VDC}$ where $R$ is the resistance of the shunt resistor and loop wiring in Ohms	
ENVIRONMENTAL	-40° to +85°C operating and storage, 240 bars (3500 psi) pressure rating	
ENCLOSURE & MOUNTING	316 stainless steel, O-ring in lid,	
CABLE & CONNECTOR	6-conductor male bulkhead connector with O-ring seal; shipped with mating 45cm (18-inch) neoprene cable whip (longer cables available); cable has 20 AWG conductors and no shield	
SIZE & WEIGHT	152 x 102 x 89 mm (6 x 4 x 3.5 inches), 5 kg (11 lb)	

available \* greater range

DeepWater 420 Order Numbers			Spare Parts & Accessories	Part No.
	Standard Range	Wide Angle		
Uniaxial, Transverse	98043-01	98043-02	Additional cable, specify length	SO-20/6
Uniaxial, Longitudinal	98043-03	98043-04	Additional mating female connector	00358
Biaxial	98043-05	98043-06	Delrin locking sleeve	00359

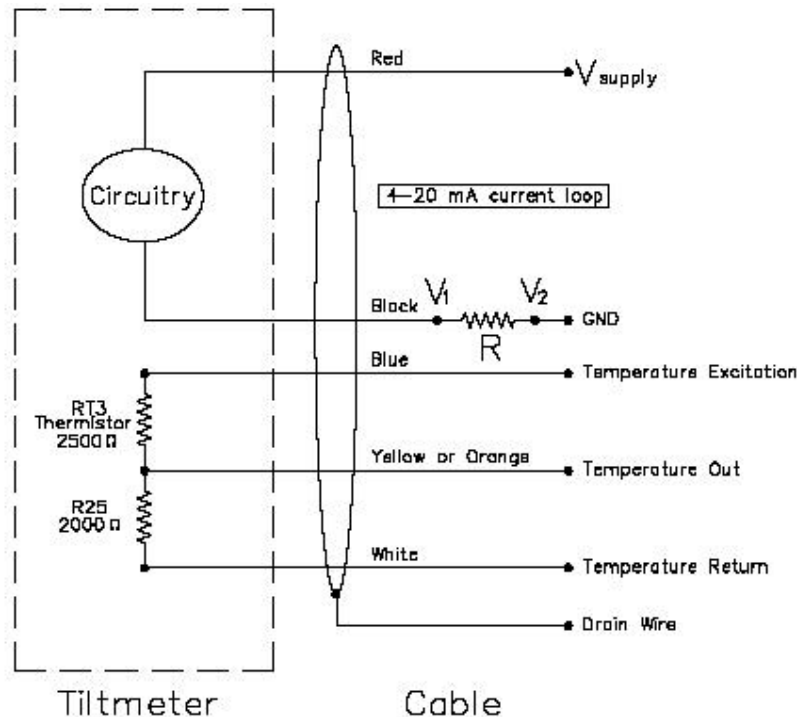


Tiltmeter dimensions in inches (mm)



DIMENSIONS ARE IN INCHES (millimeters)

**DeepWater 420** mounting hole pattern



Uniaxial tiltmeter wiring. The current signal is measured indirectly using a shunt resistor,  $R$ . Ohm's Law states that  $V_1 - V_2 = IR$ , where  $I$  is current in Amperes,  $R$  resistance in Ohms, and  $V_1$  and  $V_2$  the voltages measured on opposite sides of the shunt resistor. Temperature measurement is described in Appendix B. Note that there is no shield in the neoprene tiltmeter cable, SO-20/6.