

Model A802 DeepWater Analog Tiltmeter

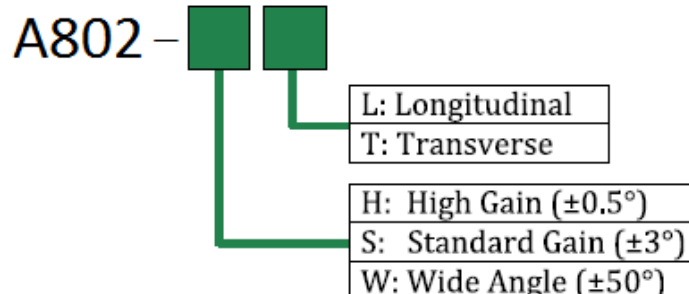
The model A802 Deepwater is a high-precision submersible tiltmeter for use in marine, offshore, and deep ocean applications. Using an absolute gravity referenced electrolytic sensor, the A802 delivers superior measurement accuracy with virtually no long-term drift. High-gain units are sensitive to <math><0.0017\text{ mm/m}</math> or better. Output is a stable $\pm 5\text{ VDC}$ (±10 VDC differential), which can be read with any VDC input data recorder. All units are rated to +2500m waterproof for advanced protection from the elements. Use the A802 “Deepwater” for structural monitoring, angle measurement and control, platform leveling, and more.



| | High-Gain | Standard | Wide-Angle |
|-----------------------------|---|----------------------|--|
| Angular Range | $\pm 0.5^\circ$ | $\pm 3.0^\circ$ | $\pm 50^\circ$ |
| Resolution | $<0.0001^\circ$ | 0.0006° | 0.01° |
| Repeatability | $<0.0002^\circ$ | 0.001° | 0.02° |
| Non-Linearity | 1% | $<2\%$ | 0.5% |
| Scale Factor | $0.1^\circ/\text{V}$ | $0.6^\circ/\text{V}$ | $10^\circ/\text{V}$ |
| Time Constant | 1.75 sec (2-pole Butterworth low-pass filter) | | 0.15 sec |
| Kz Temp Coefficient (deg/C) | $\pm 0.0002\text{ arcsec}/^\circ\text{C}$ (typical) | | $\pm 0.002\text{ arcsec}/^\circ\text{C}$ (typical) |
| Ks Temp Coefficient (%/°C) | 0.02%/°C (typical) | | |
| Output | $\pm 5\text{VDC}$ (single ended); $\pm 10\text{VDC}$ (differential) | | |
| Channels | Tilt, Temperature | | |
| Output Impedance | 270 ohms | | |
| Temperature Output | $0.1^\circ\text{C}/\text{mV}$ typical (single ended; $0^\circ\text{C} = 0\text{mV}$) | | |
| Power | 8-18 VDC @ 8mA, 250 mV ripple max, reverse polarity protected | | |
| Environmental | -25 to +70 operation; -30 to +100 C storage. IP65 | | |
| Dimensions | 120 x 80 x 60 mm, 5 kg (11 lb.) | | |
| Materials | 316 SS (6AL-4V Titanium also available) | | |
| Cable | 6-conductors, two-types available: 1) Neoprene, 20 AWG, no shield or 2) PVC-jacketed, polypropylene-insulation, 24 AWG, shielded. Order cable separately. | | |

Specifications subject to change without notice on account of continued product development

Ordering Code:

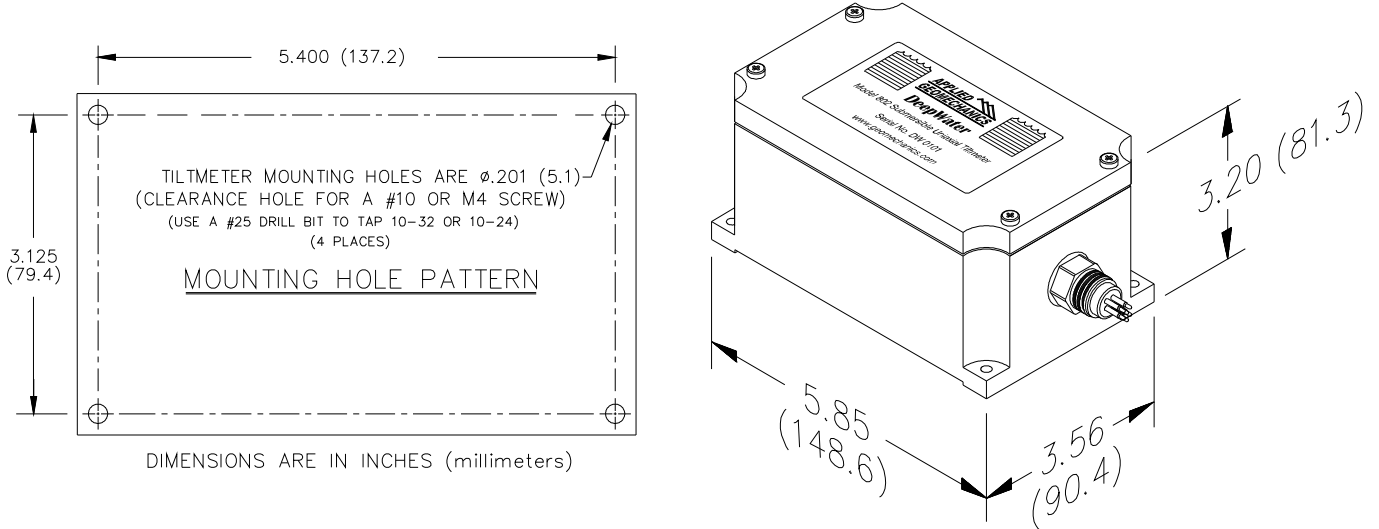


Wiring/Pin-out:

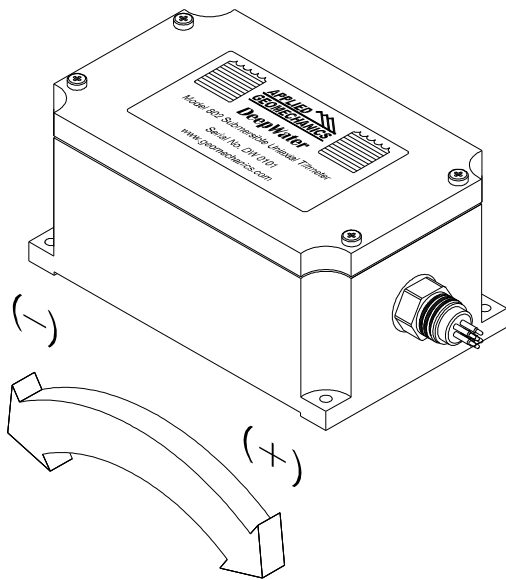
| Pin | Wire Color | Function |
|-----|------------|----------------------|
| 1 | Black | Power Ground |
| 2 | White | Signal Ground |
| 3 | Red | V+ |
| 4 | Green | +Tilt |
| 5 | Yellow | Temperature |
| 6 | Blue | -Tilt (differential) |

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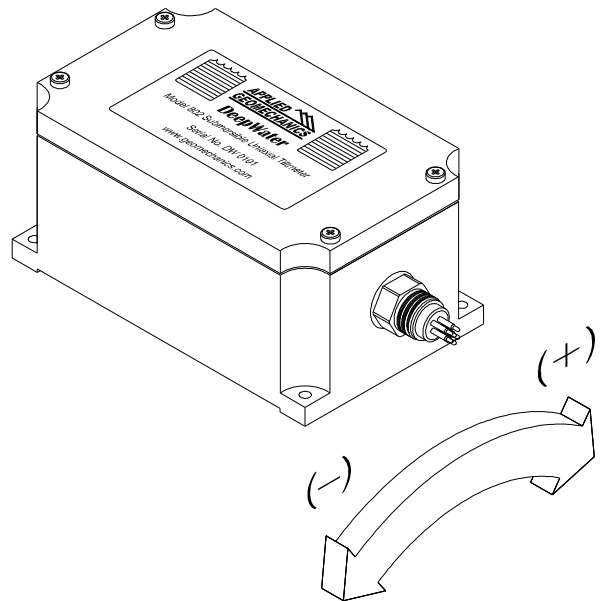
Dimensions:



Axis Configuration:



LONGITUDINAL
CONFIGURATION



TRANSVERSE
CONFIGURATION