

Millirad

Low Power Tilt Sensor



vector
sensor systems

Millirad low power tilt sensor

The Vectory Sensor Systems Millirad is a low power subsea tilt sensor / inclinometer, ideally suited for accurate long-term monitoring of subsea installations.

Extreme low power

The Millirad has been designed with extremely low power consumption in mind. All electronics within are state-of-the art, low-power chips, using the newest technologies to bring the total power of the system down to an amazing 10mW at a 1 Hz output rate.

When the sensor is not outputting data, advanced logic automatically detects unused parts of its circuitry, and disables it to save on power. Therefore, power consumption can even be lowered further for lower output rates.

Built for battery-backed applications

The Millirad accepts a very large range of input voltages, ranging from as low as 4V to 60V. This allows it to run on a large variety of battery packs without any power conditioning.

With its low power consumption, the unit can run for 4 months on just 4 AA batteries.

Optional extras

The Millirad can be supplied with optional extras such as an internal battery pack which can also be used to power external devices such as a subsea display.

Versatile: Configurable for any application

The Millirad has a full 360 degree range in both roll and pitch giving the user full freedom in how to install the tilt sensor. There is no limitations as to how the sensor should be mounted, which removes many installation issues. Setting the installation angles is easily accomplished through the Millirad configuration program, which gives a visual representation of how the tilt sensor is supposed to be installed.

A variety of industry-standard output strings are available from the sensor, such as CDL MiniTilt, TSS1, as well as a proprietary string outputting all values of interest from the Millirad. Custom strings are also available on request.

Accurate

Although the Millirad has been designed for extremely low power consumption, the internal sensing elements are still the highest-accuracy MEMS available on the market. The Millirad keeps a very high accuracy of 0.1 degrees regardless of power consumption.

If even higher accuracy is needed, we offer the Microrad subsea tilt sensor. This sensor has a higher power requirement but a higher 0.05 degree accuracy.

Accuracy

- Roll and pitch: 0.1 degrees
- Resolution: 0.001 deg

Range

- Roll and pitch: 360 degrees

Output

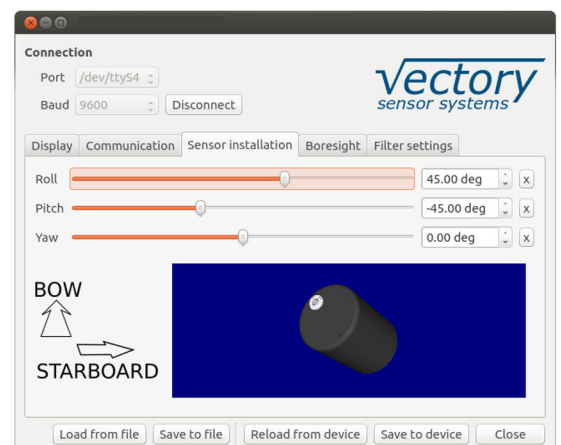
- Maximum update rate: 10 Hz (or polled)
- Output interface: RS232
- Output formats: TSS1, MiniTilt, PVEC-URAD, custom

Small and low power

- Less than 10mW power consumption
- Less than 0.5 kg
- Housing size: 93 mm, Ø 62 mm
- Topside IP68 or 3000M rated housing

Easy to use

- Compatible with many existing sensors
- Intuitive configuration program



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