

MicroTilt



The CDL MicroTilt is a tiny, dynamic, pitch and roll sensor for use in a huge variety of applications. Measuring only 55mm x 37mm x 26mm OEM (matchbox size) the unit can provide highly dynamic pitch and roll readings at a frequency up to 50Hz.

The tiny size is possible by utilising MEMS (Micro-Electro-Mechanical Systems) sensors. MEMS is the integration of mechanical elements, sensors, actuators, and electronics on a common silicon substrate through the utilization of microfabrication technology.

At an output rate of 50Hz the sensor returns an accuracy better than 0.5 degree over the range of +/- 30 degrees. A range of oversampling settings allows the selection of output rates down to 1Hz, where the accuracy is better than 0.2 degrees

A topside software package provides graphic and numeric indication of the pitch and roll readings and allows the selection of a variety of data output formats.

Internal DIP switches allow the selection of various options within the device.

A surface version and two subsea versions (3,000m and 6,000m) are available. The unit can also be supplied as an OEM part for inclusion in your equipment.



Features:

- Very light weight
- Very low power
- Very small size
- Highly dynamic
- Surface version
- Subsea version
- 0.2-0.5° acc @ +/- 30°
- 2Hz-50Hz output

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Product Specification:

Unit Performance:

- Range : ■ +/- 64 Degrees
- Resolution : ■ 0.01 Degrees
- Accuracy : ■ 0.5° accuracy to +/- 30° at maximum update rate (approx 50 updates per second)
- 0.2° accuracy to +/- 30° with oversampling (approx 2 updates per second)
- Sample rates: ■ 1Hz to 50Hz
- Temperature range operating : ■ -30 to +55 °C
- Temperature range storage : ■ -55 to +65 °C
- Telemetry Interface : ■ RS-232 or RS-422 (specify when ordering)
- Baud rate : ■ 19,200 baud
- Data bits : ■ 8
- Stop bits : ■ 1
- Parity : ■ None
- Depth Rating: ■ Standard Subsea 3,000 metres (9,845 ft)
- Special Subsea 6,000 metres (19,690 ft)
- Power requirements: ■ Power input 5-30 Vdc (specify when ordering)
- Current consumption <10 mA (@12V typical)
- Weights and Dimensions: ■ 3000 metre subsea 50mm x 50mm base, (2.0" x 2.0" base)
- 40mm high (1.58" high)
- 67mm high inc penetrator (2.64" inc penetrator)
- 500 grams (1.1 lb)
- Weights and Dimensions: ■ OEM 55mm x 37mm x 26mm (2.2 x 1.5 x 1.0")
- 80 grams (2.8 oz)
- Mounting Details: ■ 4 M3 mount holes 39mm square pitch or 32mm square pitch.

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