

TCM-1

## Lowell Instruments Tilt Current Meter

### Measures water velocity at high and low current ranges

Simply designed with a lower cost, the TCM-1 tilt current meter is ideal for measuring water velocity at multiple locations, from inland to the edge of the continental shelf.

#### Important Information

Requires Domino for Windows<sup>®</sup> Software (Free Download) and compatible computer. TCM-1 Data Sheet



### Supported Measurements

Tilt/Acceleration (water), Ocean Current

### Features

- 300 meter depth rating
- Measures water velocity for a fraction of the cost of an acoustic meter
- Tilt compensated compass for bearing measurements
- Simple, rugged, low maintenance design
- Seaweed snag-resistant
- Change range in the field without software
- 8 GB MicroSD memory card virtually eliminates memory concerns
- Temperature sensor accurate to +/-0.1C

- Lithium battery allows continuous 4Hz sampling for more than 1 year
- USB 2.0 with standard cable and drag and drop data file offload

## Contact Us

Sales (8am to 5pm ET, Monday through Friday)

- Email [sales@onsetcomp.com](mailto:sales@onsetcomp.com)
- Call 1-508-759-9500
- In U.S. toll free 1-800-564-4377
- Fax 1-508-759-9100

Technical Support (8am to 5pm ET, Monday through Friday)

- Contact Product Support [www.onsetcomp.com/support/contact](http://www.onsetcomp.com/support/contact)
- Call 1-508-759-9500
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## Lowell Instruments Tilt Current Meter (TCM-1) Specifications

### Speed (Low Range w/ Ballast Washer)

|                   |                        |
|-------------------|------------------------|
| <b>Range</b>      | 0-40 cm/s              |
| <b>Accuracy</b>   | 2 cm/s + 3% of reading |
| <b>Resolution</b> | 0.1 cm/s               |

### Speed (High Range w/ Ballast Washer)

|                   |                        |
|-------------------|------------------------|
| <b>Range</b>      | 0-80 cm/s              |
| <b>Accuracy</b>   | 3 cm/s + 3% of reading |
| <b>Resolution</b> | 0.1 cm/s               |

### Direction

|                   |                        |
|-------------------|------------------------|
| <b>Range</b>      | 0-360°                 |
| <b>Accuracy</b>   | 5° (for speed >5 cm/s) |
| <b>Resolution</b> | 0.1°                   |

### Temperature

|                                     |   |
|-------------------------------------|---|
| <b>Range: -5 to 30 °C</b>           | Accuracy: 0.1 °C<br>Resolution: <0.005 °C |
| <b>Range: -20 to -5, 30 to 50°C</b> | Accuracy: 0.2 °C<br>Resolution: <0.01 °C  |

### Electronics

|                       |  |
|-----------------------|--|
| <b>Memory</b>         | 8 GB microSDHC flash card (standard)         |
| <b>Communications</b> | Full speed USB micro-B port                  |
| <b>Battery Type</b>   | Months to years depending on recording rates |
| <b>Internal Clock</b> | < 1 minute of error per month                |

### Operating Modes

|                       |  |
|-----------------------|--|
| <b>Start and Stop</b> | Start and Stop at user defined times   |
| <b>Burst Mode</b>     | Variable rate logging at user defined interval   |
| <b>Recording Rate</b> | Current: 64 Hz to 1 sample per hour with typical settings of one 20 second burst @ 8 Hz per minute (12-month battery life)<br>Temperature: 1 Hz to 1 sample per hour |

### Mechanical

|                      |  |
|----------------------|--|
| <b>Minimum Depth</b> | 76 cm (30 in)  |
| <b>Depth Rating</b>  | 300 m (1000 ft)  |
| <b>Dimensions</b>    | Diameter: 2.7 cm (1.05 in)<br>Length: 73 cm (28.75 in) not including lanyard |
| <b>Weight</b>        | 340 g (12 oz)  |
| <b>Construction</b>  | Gray PVC housing with EPDM O-ring  |

## Software

|                       |                                       |
|-----------------------|---------------------------------------|
| <b>User Interface</b> | Domino for Windows® - Free Download   |
| <b>USB</b>            | USB 2.0 compliant MSC and CDC Classes |
| <b>Firmware</b>       | Field upgradable via USB cable        |