

# LaserLEVEL

Non-contact, long range level

[sdi12.com/laser](http://sdi12.com/laser)



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LevelLEVEL monitors water level by measuring the distance to the water surface, while mounted safely above the water body, protected from fouling and corrosion that can damage submersible sensors.

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## Innovative measurement technique

- Near-Infrared laser reflection from water surface with eye-safe laser power levels
- Laser distance is not affected by changes in air temperature or ambient light levels
- Repeated acquisitions filter noise and identify high frequency changes in level such as waves

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## Versatile

- A configurable serial port which can function as:
  - o SDI-12 sensor interface for connection to a SDI-12 master (default)
  - o Serial transmit only port (9600,N,8,1)
- A configurable output port which can provide:
  - o 0 to 1.0V (10-bit) analog output, or
  - o 0 to 3.3V (10-bit) analog output, or
  - o A digital alarm based on the level exceeding a configurable threshold
- A variety of form factors to suit different installation conditions:
  - o Standalone sensor for outdoor monitoring, with IP65 cable and bubble level
  - o Cabinet mounted sensor with 4 connection terminals and integrated USB port
- 3 to 16V input voltage compatible with almost any system
- Measurement frequency configurable from 200Hz to hourly

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## SDI12

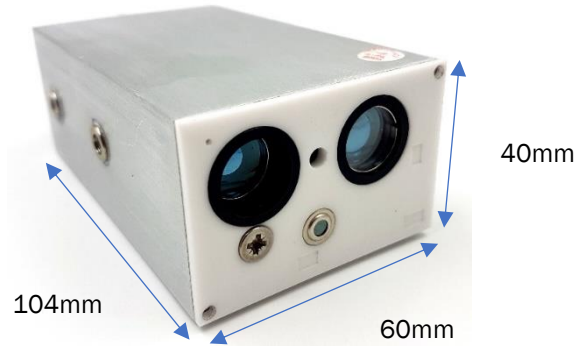
- Sensor fully supports SDI12 v1.2 for operation with a wide range of dataloggers and measurement platforms
- SDI-12 allows detailed measurement information, diagnostics information, terminal mode, program and remote configuration and
- SDI-12 instruction set includes a wide variety of ENHANCED SDI12 commands for:
  - o Configuring analog output update interval range
  - o Enabling alarm output and threshold value
  - o 2-point recalibration
  - o Configuring power saving modes
  - o Remote diagnostic information and instrument reset

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## Options

- Optional integrated infrared temperature sensor for non-contact water temperature measurement
  - Optional wave statistics firmware for Significant Wave Height and Mean Wave Period calculation based on high frequency level measurements
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# Specifications



## SPECIFICATIONS

- **LEVEL MEASUREMENT:**
  - Range: Up to 35m (114ft) with > 75% surface reflectance
  - Accuracy:
    - ±2.5cm (0 to 5m range)
    - ±10cm (5 to 35m range)
  - Resolution: ±1mm
  - Frequency up to 200Hz
- **SDI12 INTERFACE**
  - Compatible to SDI12 v1.2
  - Extensive extended command set for configuration, diagnostics and calibration
- **ANALOG OUTPUT:**
  - Configurable via A<sub>out</sub> port.
  - 0V to 3.3V range, configurable to any level range
  - 10-bit digital to analog conversion
  - Accuracy ±1% with calibration to measurement device
- **ALARM OUTPUT:**
  - Configurable via A<sub>out</sub> port.
  - 3.3V digital signal when level measurement is above configurable threshold
  - 7mA current drive capacity
- **MATERIALS:** Anodized aluminum, acrylic and vinyl
- **CABLE OPTIONS:** Integrated terminals, Detachable cable, 1, 2, 4 and 10m options
- **POWER:** Continuous measurement 150mA at 5V
- **TEMPERATURE:** -10°C to +60°C operating range.
- **WEIGHT:** 470g
- **WARRANTY:** 1 year, return to base, parts and labour
- **COUNTRY OF MANUFACTURE:** Australia

Specifications are subject to change without notice.

**CAUTION:** This device emits laser radiation. This Laser Product is designated Class 1 during all procedures of operation. This designation means that the laser is safe to look at with the unaided eye. However, it is advisable to avoid looking into the beam when operating the device and to turn off the module when not in use

# SDI12 sensors

*Intelligent Environmental Sensors*

*sdi12 sensors (developed by Measurement Science) are intended to be part of a well maintained and comprehensive environmental monitoring system. Reliable operation depends on suitable site selection, correct installation, real time monitoring of data, adequate maintenance and investigation of alarm and diagnostic information. Stations are designed to be mounted above maximum flood elevation, submersion may result in damage. Wave statistics are recommended for qualitative purposes to categorize the wave conditions, not for research applications. Refer to terms and conditions of sale for full details.*

**[sdi12.com/laser](https://sdi12.com/laser)**

contact us for your local distributor for sales and technical support  
[sales@measci.com](mailto:sales@measci.com)

