

## Model H-331

SDI-12 Output Shaft Encoder  
with LCD Display



The **WATERLOG<sup>®</sup>** H-331 is a digital shaft encoder, which measures water level by monitoring the position of a float and pulley. The H-331 is easy to use and works with any SDI-12 data recorder.



### KEY FEATURES

- Battery powered operation with minimal current drain
- Built in LCD Display with "Push to Read" Button
- Low system cost
- Multiple sensors on a simple three wire cable
- 200 counts per revolution for the SDI-12 output

### APPLICATIONS

- Scales the encoder position into user units of Feet, Meters, etc.
- Precision dual bearing design with special low temperature lubricant
- Threaded shaft compatible with older mechanical shaft encoders
- Zero backlash
- Sealed enclosure protects from moisture and dirt
- Low current operation (less than 800 microamps typical standby)
- High speed encoder circuitry prevents missing counts due to rapid movement from wave action or sudden movement in freeze/thaw conditions - 15 ft/sec typical

# SPECIFICATIONS

## General

Input: Shaft Position  
Outputs: SDI-12 & 2-Wire Quadrature  
Display: 4 1/2" Digit x .4 in characters  
with "LO-BAT" Indicator

Resolution (SDI): 200 counts/rev  
Resolution (Quadrature): 100 counts/rev  
Max Shaft Rotation: 15rev/sec  
Offset Adjust: SDI-12 or Screwdriver

## Quadrature Output

Type: Open Drain  
(Optional factory installed  
pull up resistor to 5.0 V)  
Transient Protection: 5.0V Transguard

## SDI-12 Output

Baud Rate: 1200  
Protocol: SDI-12, 7-bit even parity,  
1 stop bit  
Output Voltage Levels:  
minimum high level: 3.5 volts  
maximum low level: 0.8 volts  
maximum cable length: 250 ft.

## Power Requirements

Voltage Input: 9.6 to 16.0 Volts DC  
Current: Less than 2.0mA  
800mA typical

## Environmental

Operating Temperature: -40 to 60 EC  
Storage Temperature: -50 to 70 EC  
Humidity: 0 to 100%



### Australian Distributor:

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## Mechanical

Bearing: Double bearing with external seal and 1.125" separation.  
Starting Torque: 0.15 oz-in typical  
0.50 oz-in max over temperature  
Shaft: 5/16" compatible with Stevens and Fisher and Porter pulleys and accessories.  
Shaft Length: 2.00"  
Shaft Clearance: 1.75"  
Shaft Tread: 24 threads per inch  
Thread Length: 0.75"  
Material: Anodized Aluminum  
Size: 5 1/8" wide (main unit)  
7" wide (base plate)  
4 1/4" high  
4" deep (not including shaft or connectors)

## Connectors (2 ea, same connections)

H-331: AMP 206486-1 (9-Pin male)  
Cable: AMP 206485-1 (9-Pin female)  
(One cable provided with the H-331)

## Warranty

**WATERLOG®** H-331 is warranted against defects in materials and workmanship for one year from date of shipment.

**Note:** Specifications subject to change without prior notice due to on going commitment to product testing and improvement.

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