

Wave Height Sensor

with Distance to Water Output

O'CONNOR



This radar based sensor is a remote, all weather radar ranging device for monitoring the height of waves. Mounted over the water, the sensor continually measures the distance to waves below, sending the serial data in an RS232, ASCII format for readout and storage to a PC or laptop. Its operating frequency allows effective performance in limited visibility conditions and is designed to run continuously for years without maintenance.

With the optional 802.11x wireless system, the data may be sent to a control room without using wires and conduits.

Features

- High range precision, no pulse radar
- Weather penetration
- Weatherproof stainless steel case



*Wave Height Sensor
In
Stainless Steel Case*



*Wave Height Sensor
In
Explosion Proof Enclosure*

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Sensor Specifications

Sensor Type	FMCW radar, 24 GHz
Antenna	75 mm diameter sealed lens, 10° beamwidth
Range	Range Option 1: 3 m to 35 m with nominally 2 cm range precision, Range Option 2: 1 m to 15 m with nominally 1 cm range precision
Output Signal	Standard; RS232, ASCII data stream of distance to the water. The data can be displayed on a PC or laptop in HyperTerminal or recorded to Excel for graphing. Options; RS422 or 802.11b wireless
Update Rate	Radar: 491 samples per second, Processor Output: 3 to 25 updates per second
Connector	Standard: Round 5 pin screw on connector on case with breakout for +12 V dc at end of 10 m cable, others available
Power Required	12 V dc (11 to 16 V dc), 0.5 Amps, solar power package available
Size	Stainless Steel Enclosure: 12 cm x 12 cm x 21 cm, 2 kg Explosion Proof Enclosure: 30 cm x 30 cm x 40 cm, 12 kg