

## Features

- The H2O Degree M54190 & M54191 Transceivers are compatible with encoded register equipped water meters.
- Provides a radio interface to remotely collect data from water meters equipped with a three-wire encoded register interface. Data includes water meter consumption and the water meter serial number.
- Unique design allows a water meter with a three-wire encoded register interface to be connected to both the H2O Degree radio and either a utility touch pad or an AMR (Automatic Meter Reading) radio at the same time. The water meter device remains connected to either the utility touch pad or the utility AMR radio whether power is available to the M54190/M54191 or not.
- The M54190/M54191 reads the utility meter encoded register by switching the water meter encoded register communication wires for less than two seconds each hour.
- Radio is compatible with the H2O Degree secure wireless 2.4 GHz network.
- By using a magnet, the installer can force a radio transmission and receive a LED sequence feedback on radio connectivity in real-time for ease and validation of commissioning.
- Software in this device can be updated over the air.
- Packet data reported:
  - Consumption Packet (default data reporting interval 60 minutes.)
  - Health Packet (default data reporting interval 120 minutes.)
- Model M54190 works with a variety of meters including Badger, Master Meter, Metron Farnier, Neptune, SENSUS and more.
- Model M54191 works with Elster water meters only.
- Operating temperature 32 Degrees F to 86 Degrees F.
- Approvals:
  - US Complies with FCC CFR Part 15
  - European RADIO EN 300 328:v1.7.1
  - European EMC EN 301 489-17:V2.1.1
  - European SAFETY EN 60950-1:2005 (Ed. 2.0)
- Five year warranty.



## Overview

The H2O Degree M54190 & M54191 are wireless transceivers.

The device monitors and records consumption from utility water meters which have an encoded register interface. The device uses a wireless transceiver to report consumption. Even if the radio is unable to transmit the data, the device continues to read the encoded register.

An encoded register water meter maintains the cumulative reading at all times. In contrast to a water meter which supplies pulses, the encoded register of cumulative consumption is available at all times.

## Ordering Information

Model	Description
M54190	Encoded Register reads SENSUS BADGER MASTER METER NEPTUNE water meters
M54191	Encoded Register reads Elster water meters
PS1001	120 VAC to 9 VDC Wall Plug power supply
PS1007	24 VAC to 12 VDC Slip-In 250 mA power supply

## Technical Specifications

### Electrical

- Voltage input: 9 to 28 VDC
- Current Input: 45 mA typical, 250 mA max

### Regulatory Approvals

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- European EMC EN 301 489-17:V2.1.1
- European SAFETY EN 60950-1:2005 (ed. 2.0)

### Radio

- 20 dBm output power
- High Sensitivity—106 dBm
- 16 channels (802.15.4 Channel 11 to 26)
- 2.4 GHz ISM band

### Environmental

- Operating temperature—0 to 30 degrees C
- Storage temperature—25 to 50 degrees C

### Physical

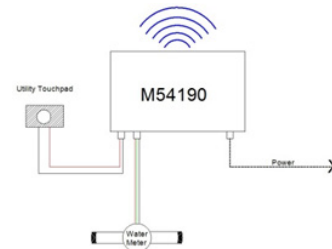
- (H x W x D) 5.0 x 3.5 x 1.0625 inch
- Color: Natural
- Weight/shipping weight < 9 oz./1 lbs.

### Warranty

- Two Years

## Wiring & Installation Information

M54190 with water meter and touch pad



M54190 with water meter and AMR radio

