



# M54190 & M54191 Transceiver

## Reads Water Meters With An Encoded Register

### Features

- The H2O Degree M54190 & M54191 Transceiver is 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.



### Overview

The H2O Degree M54190 & M54191 is a wireless transceiver.

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 consumption 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	M54190 Transceiver for connection to water meters including Badger, Master Meter, Metron Farnier, Neptune, SENSUS (AMCO) and more (requires power supply)
M54191	M54191 Transceiver for connection to Elster water meters only (requires power supply)
PS-1001	PS-1001—120 VAC to 9 volt DC power supply
PS-1007	PS-1007—24 VAC to 9 volt DC power supply

1/2016



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## Technical Specifications

### Electrical

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

### Regulatory 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)

### 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

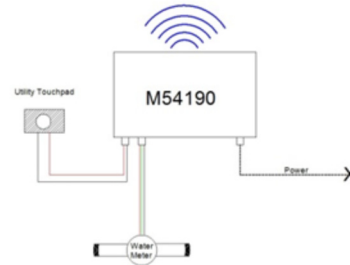
(H x W x D) 5.0 x 3.5 x 1.0625 inch  
Color: Natural  
Weight/shipping weight < 9 oz./1 lbs.

### Warranty

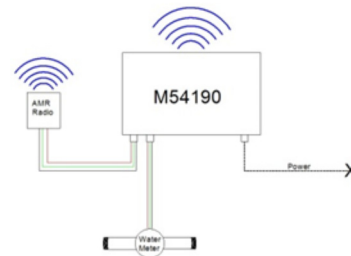
Two Years

## Wiring & Installation Information

### M54190 with water meter and touch pad



### M54190 with water meter and AMR radio



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