

Features

- The H2O Degree M54122 water meter is a line powered device that communicates wirelessly on a 2.4 GHz network.
- The device provides a radio interface to remotely monitor and collect water consumption data from a flow sensor.
- The device collects and records five registers:
 - Gallons
 - Number of events (event is defined as each time water starts and then stops flowing)
 - Time water was flowing in minutes
 - Water temperature
 - Heat units (calculated as Therms)

All of the registers except temperature are cumulative or ever increasing registers. Even if the radio cannot transmit data, the water meter continues to record data.

- Meter is compatible with the H2O Degree secure wireless 2.4 GHz mesh network. The meter simultaneously acts as a mesh transceiver for the wireless network, enhancing the mesh 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.
- Type of packet data reported:
 - Data Packet Consumption (60 minute interval default.)
 - Health Packet (120 minute interval default.)
- Non-volatile memory maintains last reading in the event of a power failure.
- 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)
 - WRAS Approved
 - NSF/ANSI-61G/NSF 372-2011
 - Certification standard ASME A112.4.7-2002
- Accuracy +/- 1.5 percent.
- Flow 0.26-7.9 gpm.
- Five year warranty.



Overview

The M54122 wireless water meter monitors and records water consumption for tenant billing and leak detection principally in the multi-family housing industry.

The meter can be used for either new or retrofit projects and is used for POE (Point-Of-Entry) installation.

Point-Of-Entry (POE) - water enters each apartment at one location. Typically there is a shut off valve or two (hot and cold) at that location.

Point-Of-Entry Applications:

- POE 3/4" Shark Bite (PL1000-SB-06)
- POE 3/4" PropPress (PL1000-PX-06)
- POE 3/4" Uponor (PL1000-UP-06)
- POE 3/4" CPVC (PL1000-CPVC-06)

Ordering Information

Model	Description	Model	Description
M54122	Line Powered Water Meter - Point of Entry (8 gpm) (requires a hose & flow sensor)	PL1000-SB-06	Point-Of-Entry braided hose assembly (3/4") & flow sensor
PS1003	120 VAC to 4.5 VDC Wall Plug 1 Amp power supply	PL1000-PX-06	Point-Of-Entry PEX 3/4" hose assembly with 6" inlet hose & flow sensor
PS1006	24 VAC to 4.0 VDC Slip In 250 ma power supply	PL1000-UP-06	Point-Of-Entry Uponor 3/4" hose assembly
PS1008-05	120-240 VAC to 4.5 - 5 VDC power supply	PL1000-CPVC-06	Point-Of-Entry CPVC 3/4" hose assembly & flow sensor

Technical Specifications

Electrical

- Voltage Input 4.5 volts DC
- Current Input 250 mA

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)
- Data rate 250 kilo bytes per second
- 2.4 GHz ISM band

Environmental

- Operating temperature 0 to 70 degree C
- Storage temperature -25 to 80 degrees C

Measurement

- WRAS approved
- NSF/ANSI-61G/NSF 372-2011
- Flow 0.26 – 7.9 gpm
- Accuracy +/- 1.5 percent
- Certification standard ASME A112.4.7-2002

Physical

- (H x W x D) 3.375x 3.500 x 1.563 inch
- Color natural
- Weight / shipping weight < 10 oz. / 1 lbs. Shipping restrictions

Warranty

- Five Years

Point of Entry Installation



Plumbing Connections

- Inlet ¼ inch NPSM
- National Pipe Straight
- Mechanical
- Outlet ½ inch NPT
- National Pipe Thread taper

Leak Detection Reports

H2O Degree Point of Entry Multi Meter Leak Report
 Diagnostic Report For University Avenue
 Report ID: 1111111111
 Meter ID: M54122-12345
 Meter Type: Point of Entry Multi Meter
 Meter Status: Online
 Meter Location: University Avenue
 Meter Installation Date: 12/15/2023
 Meter Serial Number: 12345678901234567890
 Meter Firmware Version: 1.0.0
 Meter Model: M54122-12345
 Meter Manufacturer: H2O Degree
 Meter Part Number: M54122-12345
 Meter Price: \$1234.56
 Meter Warranty: 5 Years
 Meter Date of Birth: 12/15/2023
 Meter Date of Death: 12/15/2023
 Meter Date of Installation: 12/15/2023
 Meter Date of Last Reading: 12/15/2023
 Meter Date of Last Alarm: 12/15/2023
 Meter Date of Last Leak: 12/15/2023
 Meter Date of Last High Use: 12/15/2023

Event ID	Event Type	Event Date	Event Time	Event Location	Event Description	Event Status
1	High Use	12/15/2023	10:00:00	University Avenue	High use event detected	Resolved
2	High Use	12/15/2023	10:05:00	University Avenue	High use event detected	Resolved
3	High Use	12/15/2023	10:10:00	University Avenue	High use event detected	Resolved
4	High Use	12/15/2023	10:15:00	University Avenue	High use event detected	Resolved
5	High Use	12/15/2023	10:20:00	University Avenue	High use event detected	Resolved
6	High Use	12/15/2023	10:25:00	University Avenue	High use event detected	Resolved
7	High Use	12/15/2023	10:30:00	University Avenue	High use event detected	Resolved
8	High Use	12/15/2023	10:35:00	University Avenue	High use event detected	Resolved
9	High Use	12/15/2023	10:40:00	University Avenue	High use event detected	Resolved
10	High Use	12/15/2023	10:45:00	University Avenue	High use event detected	Resolved
11	High Use	12/15/2023	10:50:00	University Avenue	High use event detected	Resolved
12	High Use	12/15/2023	10:55:00	University Avenue	High use event detected	Resolved
13	High Use	12/15/2023	11:00:00	University Avenue	High use event detected	Resolved
14	High Use	12/15/2023	11:05:00	University Avenue	High use event detected	Resolved
15	High Use	12/15/2023	11:10:00	University Avenue	High use event detected	Resolved
16	High Use	12/15/2023	11:15:00	University Avenue	High use event detected	Resolved
17	High Use	12/15/2023	11:20:00	University Avenue	High use event detected	Resolved
18	High Use	12/15/2023	11:25:00	University Avenue	High use event detected	Resolved
19	High Use	12/15/2023	11:30:00	University Avenue	High use event detected	Resolved
20	High Use	12/15/2023	11:35:00	University Avenue	High use event detected	Resolved
21	High Use	12/15/2023	11:40:00	University Avenue	High use event detected	Resolved
22	High Use	12/15/2023	11:45:00	University Avenue	High use event detected	Resolved
23	High Use	12/15/2023	11:50:00	University Avenue	High use event detected	Resolved
24	High Use	12/15/2023	11:55:00	University Avenue	High use event detected	Resolved
25	High Use	12/15/2023	12:00:00	University Avenue	High use event detected	Resolved