



# M54232 Two Channel Pulse Counter w/Display Battery Powered

## Features



### Overview

The H2O Degree M54230 wireless pulse counter monitors and records dry contact pulses from utility meters to determine energy or water consumption. The device is designed to support water, gas and electric pulse water and gas pulse meters. The pulse counter device uses a battery powered wireless radio to report consumption. There is a 32 bit unsigned cumulative pulse counter register for each of the two channels. The pulse counter continues to count pulses even if the radio is unable to transmit the data.

### Compatibility

- Water Meter w/Pulse Output
- Gas Meter w/Pulse Output

- The H2O Degree M54232 is a wireless pulse counter that has 2 dry contact channels and a display.
- The M54232 has a display so the meters can be mounted in one location and the pulse counter can be mounted in a different location up to 100 feet away.
- The display on the M54232 shows the same reading(s) as shown on the remote meter(s).
- Device provides a radio interface to remotely collect utility consumption from up to two (2) separate pulse meters (any combination of gas or water meters with dry contact.)
- Device can connect to new or retrofit meters including: (sample list)  
Water meters with pulse output:
  - Badger
  - Master Meter
  - Norgas
  - Elster (AMCO)
  - Neptune
  - SENSUS
 Gas meters with pulse output:
  - Dattus
  - Norgas
  - Itron Metris
- Channel 1 and 2 can interface to dry contact pulse inputs only.
- Radio is compatible with H2O Degree secure wireless 2.4 GHz mesh network.
- The M54232 pulse counter with display is configured using an Android phone with OTG capability and a proper USB OTG cable.
- By using a magnet, the installer can force a radio transmission and receive a LED sequence feedback on radio connectivity in real time.
- By pressing a display button, the display shows both Channel 1 and Channel 2 readings, units and scale factors.
- Types of packet data reported:
  - Consumption packet (60 minute interval default)
  - Health packet (120 minute interval default)
- Non-volatile memory maintains last reading in the event of a power failure.
- Five year warranty.

## Ordering Information

| Model  | Description  |
|--------|--|
| M54232 | Two Channel pulse counter radio with display (battery powered) |
| IT4000 | Android Phone—Samsung Galaxy Note J1                           |
| IT4010 | OTG Micro USB Type B to Micro USB Type B                       |
| IT4011 | OTG Micro USB Type C to Micro USB Type B                       |

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# M54232 Two Channel Pulse Counter w/Display Technical Specifications

## Electrical

Battery Voltage: 3.6 Volts

Battery: D Cell Lithium

## 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 degree C

Storage temperature -25 to 50 degrees C

## Installation indicators

Reed switch used with magnet to test successful radio connection  
Two LEDs (green and red) to indicate successful radio connection

## Length of Signal Wires

(The M54230 battery pulse counter has been tested with 22 AWG stranded wire between the meter and the M54230 pulse counter for up to 100 feet in length. This length of wire proved to be 100% pulse accurate.

## Physical

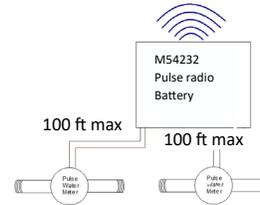
(H x W x D) 5.4 x 3.3 x 1.7 inch

Color black

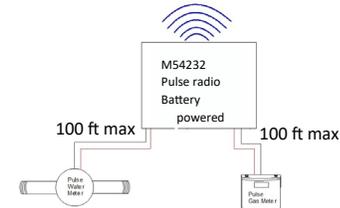
Weight / shipping weight < 9 oz. / 1 lbs.

## Wiring & Installation Instructions

### M54232 Meter—Two Water Meters



### M54230 Meter—One water & one gas meter



## M54232 signal wiring

(Push connectors with press to release. Not Polarity Sensitive.)



- 1 Channel A Terminal 1 Signal
- 2 Channel A Terminal 2 Ground
- 3 Channel B Terminal 3 Signal
- 4 Channel B Terminal 4 Ground

The push connectors can accommodate 18-22 gauge wire either solid or stranded. If the wire is stranded, the end should be tinned to prevent shorts/wire breaks.

## Ordering Information

### Model

M54232

IT4000

IT4010

IT4011

### Description

Two Channel pulse counter radio with display (Battery powered)

Android Phone—Samsung Galaxy Note J1

OTG Micro USB Type B to Micro USB Type B

OTG Micro USB Type C to Micro USB Type B

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