



M54500 Transceiver for Electric Meters Reads MODBUS Electric Meters

Overview

The H2O Degree M54500 is a wireless transceiver.

The device monitors and records kWh consumption from up to 40 MODBUS electric meters over a RS-485 serial line and transmits the data to the H2O Degree gateway.

The device reads data from electric meters from the following manufacturers:

- Leviton 1000 & 2000 meters
- Accu-Energy
- Satec Branch Feeder Monitor
- E-Mon D-Mon
- Quadlogic

The M54500 can be provided in an NEMA4 enclosure for indoor or outdoor applications.

Features

- The H2O Degree M54500 Radio is compatible with a variety of MODBUS electric meters including:
 - Leviton 1000 & 2000 meters
 - Accu-Energy
 - Satec Branch Feeder Monitor
 - E-Mon D-Mon
 - Quadlogic
 - Contact factory for other configurations.
- The M54500 provides a radio interface to remotely collect kWh data from 1 up to 40 electric submeters equipped with MODBUS RS-485 communication.
- An electric meter maintains the cumulative kWh consumption reading at all times. This cumulative kWh register is read using the MODBUS protocol over RS-485. If a radio device is used to read the pulse outputs from an electric meter, then pulses could be missed whenever the radio device is not powered on. In contrast, the M54500 devices uses MODBUS serial protocol to read the cumulative kWh register which is maintained by the electric meter.
- Transceiver 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 feedback on radio connectivity in real time.
- If the transceiver is unable to transmit the data, the device continues to poll the electric meters attached to the device.
- NOTE: All meters connected to a single M54500 transceiver must be the same model electric meter and from the same manufacturer. In addition, the MODBUS ID address must be within the range of 1 to 40. Contact factory for additional information.



Ordering Information

Model	Description
M54500	M54500 MODBUS Transceiver for Electric Meters (requires power supply)
PS-1001	120 VAC to 9 VDC power supply
PS-1007	24 VAC to 12 VDC power supply

1/2016



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Technical Specifications

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Electrical

Voltage input 9 to 28 volt DC

Current input 45 milli-amps typical, 250 milli-amp 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 degree C

Storage temperature -25 to 50 degrees C

Physical

(H x W x D) 5.0 x 3.5 x 1.0625 inch

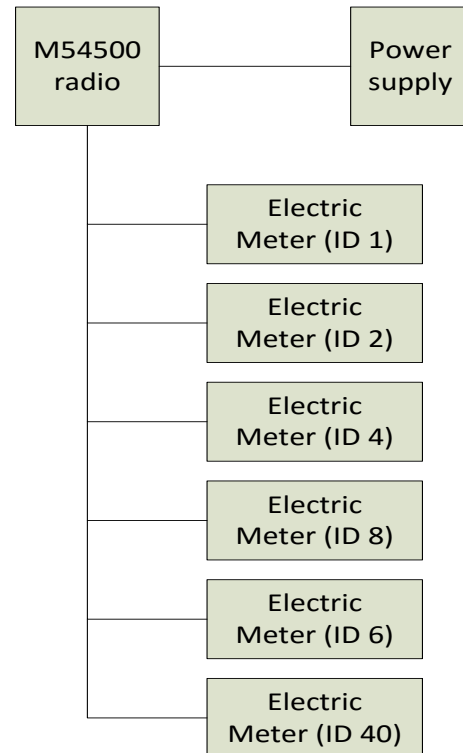
Color natural

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

Warranty

18 months

Wiing & Installation Information



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