

DAE AMR130-RN

Auto Meter Reading Module with RF Output for 1 Water Meter

[Specification]

Model	AMR130-RN
Size	8-inch x 11-inch x 6-inch
Accessory	Not included
Communication	RF 900 ~ 930 MHz (default: 915 MHz)
Modbus Address	1 ~ 254 (default: last 2-digit of serial number)
RS485 Baud Rate	9600 bps (Used with WSC500A)
Protocol	Modbus RTU
LED Indicators	RF TX/RX LED, Pulse input LED
Auxiliary Power	DC 12-15V / 5.4VA
Operating Temperature	-40 to 70°C (-40 to 158°F)
Operating Humidity	0 to 90% RH (non-condensing)
RF Transmission Rate	0.3 ~ 62.5 (default: 2.4kbs)
Transmitter RF Output Power	22dBm, 17dBm, 13dBm, 10dBm
Antenna Type	Suction type, 3.5dBi
Transmission Range	5 km (Clear weather, open area without obstacles, antenna 2 meters above the ground.)
Certification	FCC certified
Settable Parameters	Address 0 ~ 254
Baud Rate	1200, 2400, 4800, 9600 bps
Decimal Places	0, 0.0, 0.00
Pulse Divider	1, 4, 8, 10, 16, 32, 64
Mount	Din Rail, TS35/7.5 or TS35/15

[Feature]

- Cloud Metering System available with DAE CC2030 Gateway. CC2030 will collect water usage wirelessly from AMR130-RN (Auto Meter Reading Module with RF communication) and send them to the cloud (DAE server) through Ethernet. With PC or cell phone, the landlords will be able to see real time data and monthly water usage & billing reports to their tenants. If there is abnormal usage (ex. Broken piping), an email alert will be sent to your cell phone automatically.
- Non-volatile memory retains metering data during power failure.
- Indoor use only, DAE B1725 watertight enclosure available for outdoor use.
- Accessories (not included) are the Power Adapter (output 12V DC, input 120V AC), Din Rail (to install AMR130-RN to the wall).

- We suggest that UL2464 cable be used to connect AMR130-RN and Water Meters.
- UL2464 shielded twisted cable from the water meter to the AMR130-RN can be extended up to 328 feet (100 meters).
- AMR130-RN can collect the data from water meters and send them to remote host through RF and RS485 with third party software.



[Picture 1]

The diagram illustrates the connection setup for the CC2030 Gateway. It shows the following components and connections:

- ③ WSC 500A** and **② AMR130-RN**: Two smart meters are shown at the top. They are connected to each other via yellow lightning bolt symbols, indicating a radio frequency (RF) connection.
- ① Water Meter**: A blue water meter is connected to the **AMR130-RN** meter via a green line, representing a radio frequency (RF) connection.
- UL2464 Cable**: A green cable connects the bottom of the **WSC 500A** meter to the top of the **CC2030 Gateway**.
- ④ CC2030 Gateway**: A black gateway device with the DAE logo and model number CC2030.
- Cat5e Cable**: A blue cable connects the bottom of the **CC2030 Gateway** to the back of the **Router**.
- Router**: A black and blue wireless router with two antennas.

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The diagram illustrates the setup for a Wireless Cloud Metering system. It shows the following components and connections:

- Router:** A black router with a power adapter. A grey Ethernet cable connects it to the CC2030 Gateway.
- CC2030 Gateway:** A black rectangular device that acts as the central hub for the wireless network.
- WSC500A:** A DAE module connected to the gateway via a grey UL 2464 cable. It has a power adapter and an antenna.
- AMR130-RN:** A DAE module connected to the gateway via a grey UL 2464 cable. It has a power adapter and an antenna.
- Water Meter:** A brass water meter with a blue cap, connected to the AMR130-RN module via a grey UL 2464 cable.

Annotations and notes in the diagram include:

- To Router:** Points to the Ethernet cable connecting the router to the gateway.
- CC2030 should be close (in 30 feet) to Router.**
- CC2030 Gateway:** Points to the central gateway device.
- UL 2464 Cable:** Points to the cable connecting the gateway to the WSC500A module.
- UL 2464 cable can be extended to 300 feet between AMR and meters.**
- AMR130-RN:** Points to the module connected to the water meter.
- Wire of antenna cannot be extended:** Two instances of this note point to the antennas of the WSC500A and AMR130-RN modules.
- UL 2464 Cable:** Points to the cable connecting the gateway to the AMR130-RN module.
- Wire of antenna cannot be extended:** Points to the antenna of the AMR130-RN module.

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[Picture 3]