Display and Communication Module for Digital Water Meters

AMR130

Installation Guide
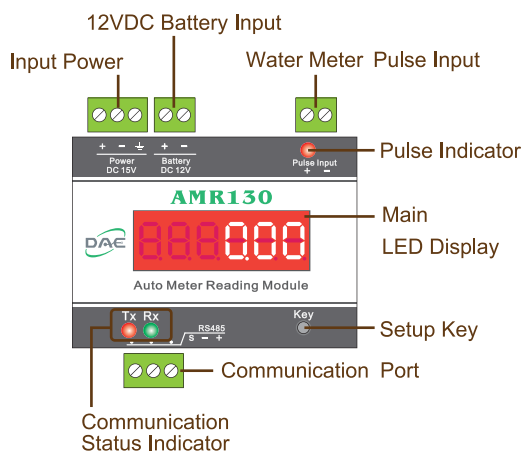
1 Warnings & Precautions

⚠ Danger

To reduce the risk of electric shock, turn off all sources of electrical power to the device during installation or wiring.
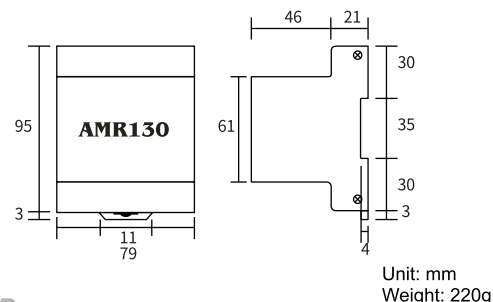
⚠ Warnings

- Install only by a qualified and trained personnel.
- Follow these instructions accordingly, otherwise damage may occur to the device.
- Follow electrical rules and regulations in the selection of wire materials and gauges.
- Avoid having oil, water, metallic powder or other foreign substances enter the device.
- Avoid using the device in environments where it will be exposed to steam, corrosive, or flammable substances; which can cause short circuits, fires, or explosions.
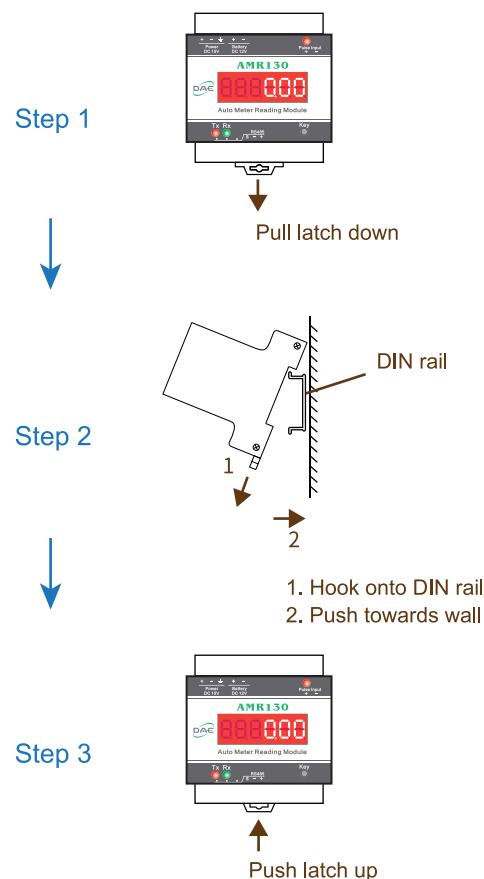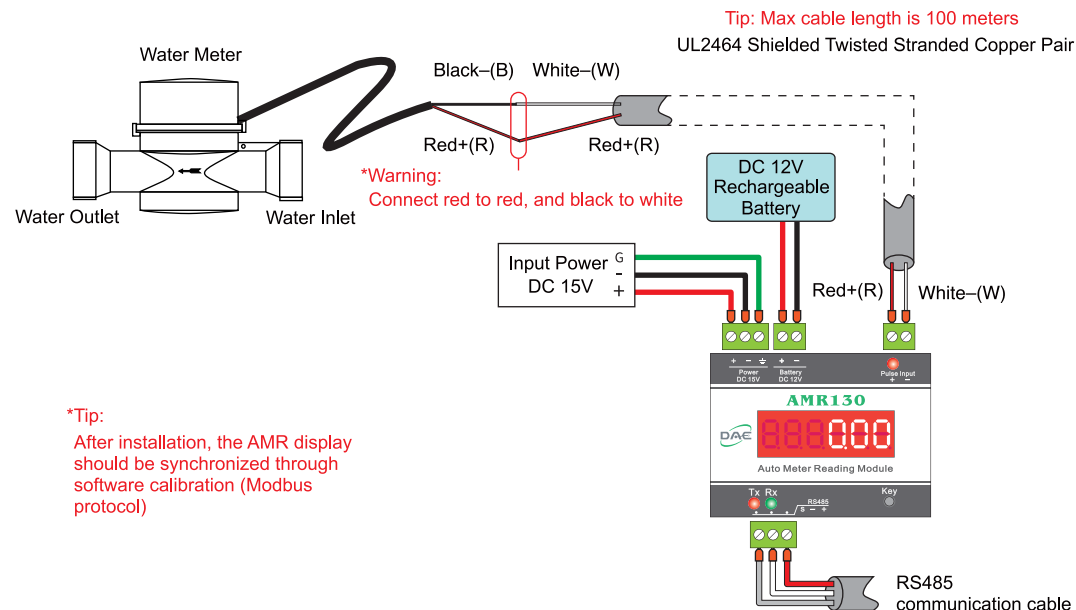
2 Front Panel & Terminals

12VDC Battery Input

Input Power

Water Meter Pulse Input

Pulse Indicator

Main LED Display

Setup Key

Communication Port

Communication Status Indicator

3 Dimensions

AMR130

95
3
11
79
46 21
61
30
35
30
3
4

Unit: mm
Weight: 220g

4 Mounting

Step 1

Pull latch down

Step 2

DIN rail

1
2

1. Hook onto DIN rail
2. Push towards wall

Step 3

Push latch up

5 Wiring Diagram

Tip: Max cable length is 100 meters
UL2464 Shielded Twisted Stranded Copper Pair

Water Meter

Black–(B)   White–(W)

Red+(R)   Red+(R)

*Warning:
Connect red to red, and black to white

Water Outlet   Water Inlet

DC 12V Rechargeable Battery

Input Power
DC 15V   G – +

Red+(R)   White–(W)

Power DC 15V   Battery DC 12V   Pulse Input

AMR130
Auto Meter Reading Module
Tx Rx   RS485 S – +   Key

*Tip:
After installation, the AMR display should be synchronized through software calibration (Modbus protocol)

RS485 communication cable

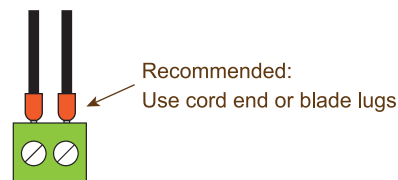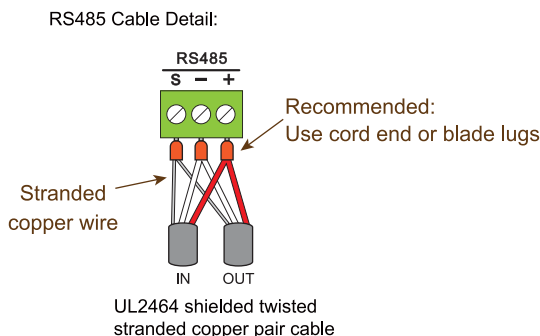## 6 Wiring Detail

1. Please follow electrical regulations and recommendations in selecting the wire size and type.
2. Ensure that the wires are making good contact with the terminals and have been screwed securely.
3. Terminals can accept wires with size of no more than 2.0mm².
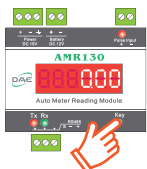
Recommended:
Use cord end or blade lugs

7 RS485 Cable Detail

1. Use UL2464 shielded twisted stranded copper pair, 24 to 22 AWG recommended.
2. Terminate wire ends with cord end or blade lugs.
3. Ensure that the wires are screwed tightly to their corresponding terminals.
4. Ensure that the positive and negative polarities are correct.

RS485 Cable Detail:

RS485
S – +

Recommended:
Use cord end or blade lugs

Stranded copper wire

IN   OUT

UL2464 shielded twisted stranded copper pair cable

Press and hold setup key for 3 seconds to enter parameter view.

Long Press

Typical Setup Values:

1 gallon per pulse

	Value
rAtE (scaling factor)	1
dEC (decimal point)	0

Select Parameter (Blinking)

Add — Long Press → **Add 0** : Add (address) : 0 ~ 254

Short Press ↓

CYC — Long Press → **CYC n** : CyC (cycle display) : y (yes), n (no)

Short Press ↓

rAtE — Long Press → **1** : rAtE (scaling factor) : 1, 4, 8, 10, 16, 32, 64, 100, 160, 320, 640, 1000, 2000, 10000, 20000

Short Press ↓

dEc — Long Press → **0** : dEC (decimal point) : 0, 0.0, 0.00

Short Press ↓

br — Long Press → **br 24** : bPS (baud rate) : 1200, 2400, 4800, 9600

Short Press ↓

ELC — Long Press → **ELC n** : ELC (pulse input) : n (water), y (electricity)

Short Press (loops back)

View Parameter (Steady)

Long Press → Finish