# AMR100-D
## Display & Communication Module For Digital Water Meter

**DAE**

Smart for Greenlife!

## Description

- The AMR100-D is a combined display and communication module. Its LED display allows it to be installed in any desirable location for convenient reading of the water consumption. Its communication capability allows it to be connected to a remote host for automated meter reading.
- The AMR100-D has one channel to interface with a digital water meter that allows the meter readings to always be in sync between the two.
- When the power is restored from an interruption, this module will automatically read and sync with the meter.

## Features

- The AMR100-D to meter cable can be extended up to 50 meters using a 22~24AWG UL2464 cable.
- The communication to the host is RS485 using the open Modbus/RTU protocol.
- Built-in LED display to allow for direct reading of the water consumed.
- Wall surface mounted.
- Meter reading always in sync, no need to worry about power interruptions.
- Communication LED indicators for ease of maintenance and troubleshooting.
- Easy setup using the two on-board function keys.

## Applications

- Monitoring of water usage
- Resource management
- Condominiums
- Dormitories, rental offices, rented stalls
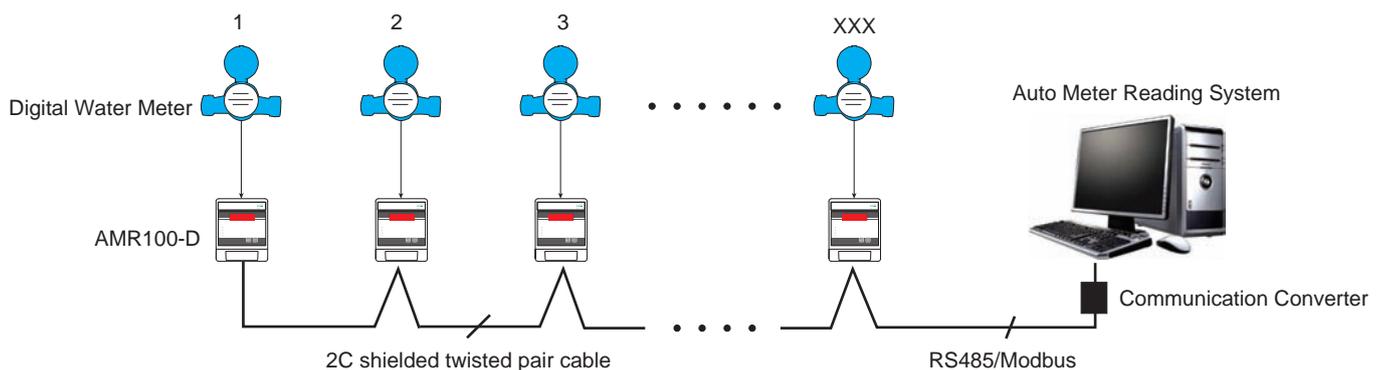- Leak detection

Dormitories
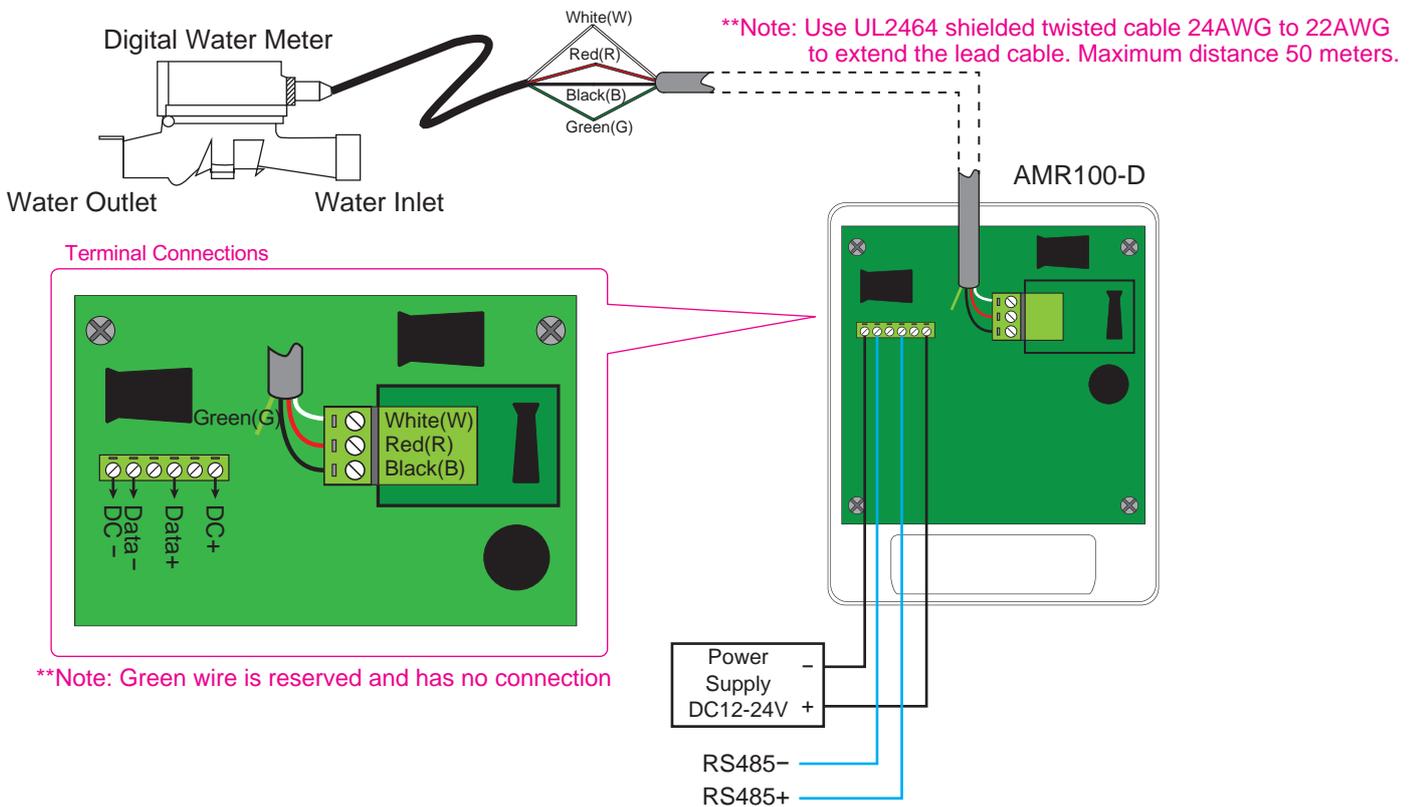
Retail Shops

Market Stalls

## System Diagram



1  2  3  XXX

Digital Water Meter

AMR100-D

Auto Meter Reading System

Communication Converter
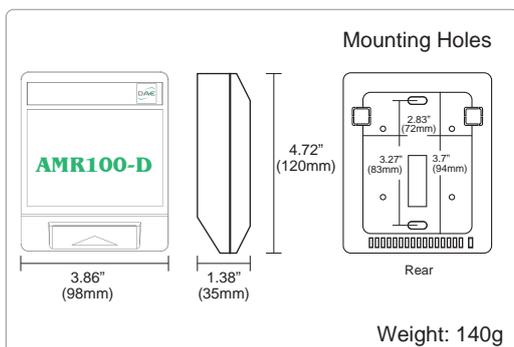
2C shielded twisted pair cable

RS485/Modbus

## Specifications

- Channel: One data communication port for digital water meter
- Communication (Remote Host): RS485 interface, 8/n/1, Modbus/RTU protocol
- AMR100-D to Digital Water Meter Distance: 50 meters (UL2464 shielded twisted)
- Displayed Value: Cumulative water meter reading (unit the same on meter native unit)
- Display: 6 digit LED display unit
- Setup: Two function keys
- Device Address: selectable from 0 to 254
- Decimal Place Selection: 0, 0.0, 0.00, 0.000, 0.0000, 0.00000

- Baud Rate (Remote Host): selectable among 1200/2400/4800/9600 bauds
- Cable Type for Extension: For AMR to water meter, use UL2464 shielded twisted 22~24AWG
- Power Supply: DC12~24V
- Operating Temperature: 0~60℃
- Operating Humidity: 0~90%RH (non-condensing)
- Mounting: Wall surface mounted
- Indicators: 4 for communication activity
  - (1)Water Meter TX - transmit to water meter
  - (2)Water Meter RX - receive from water meter
  - (3)RS485 TX - transmit to host
  - (4)RS485 RX - receive from host

## Wiring Diagram

Digital Water Meter

White(W)
Red(R)
Black(B)
Green(G)

Water Outlet     Water Inlet

**Note: Use UL2464 shielded twisted cable 24AWG to 22AWG to extend the lead cable. Maximum distance 50 meters.

AMR100-D

Terminal Connections

Green(G)
White(W)
Red(R)
Black(B)

Data- DC-
Data+
DC+

**Note: Green wire is reserved and has no connection

Power Supply DC12-24V   −   +

RS485−
RS485+

## Dimensions

Mounting Holes

AMR100-D

4.72" (120mm)

2.83" (72mm)
3.27" (83mm)  3.7" (94mm)

Rear

3.86" (98mm)

1.38" (35mm)

Weight: 140g

## Ordering

| Order Code | Description |
|---|---|
| AMR100-D | Display and communication module for digital water meter (DWM series) |