

wPrime™ Series 280W-R
Residential Ultrasonic Water Meter
<Installation and operation Guide>

For support, please email to support@SpireMT.com

1. Safety Instructions:

- Never hold and transport the meter by the electronics box but only by the threaded joint or flanged
- Assembling and dismantling should be carried out only when there is no pressure in the pipe
- Beware of sharp edges
- After installation the tightness must be verified by pressurizing with cold water
- use meter only under the specified operating conditions when conducting pressure test, make sure the pressure does not exceed 2.5Mpa. otherwise, dangers may arise and will void warranty

Make sure flow rate range does not exceed the specifications

The environment temperature should not exceed the specified temperature range for the electronic box. The water temperature should not exceed the specifications for the flow-cell sensor

- calibration maintenance, replacement of components, and repairs must only be performed by a qualified person familiar with the hazards involved
- calibration-related seals of the heat meter must not be altered or removed! Otherwise, the warranty will be void
- Disposal of the Lithium battery must be in accordance to environmental regulations
- we regret that we do not provide lightning protection, however, lightning protection should still be ensured through other proper means

2. Mounting Instructions:

- Do not install the meter within 0.5m of an AC Power line or a high frequency radiation source
- when installing, make sure the arrow on the meter sensor points to the flow direction
- when installing, do not turn the electronics box. when using a wrench to install, hold the metal part of the sensor rather than the electronics box
- when connecting to pipe line using O-ring for the sealing, make sure the O-ring is centered at the joining point. otherwise, it



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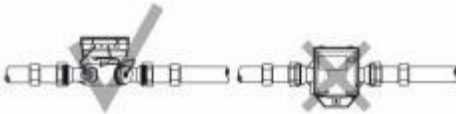
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- when connecting to pipe line using o-ring for the sealing , make sure the O-ring is centered at the joining point. otherwise , it could generate disturbance to the flow, thus , degrade the meter accuracy
- It is recommended to have a 5D Straight pipe run upstream and 2D Straight pipe run downstream for best accuracy, where D Stands for pipe diameter

when two or more meters are installed closely, make sure they are distanced by 0.3m or more Flange connection



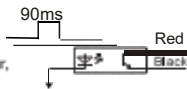
(1) check the flow-cell dimension and reserve sufficient clearance for the flow-cell installation .

(2) Install the flow-cell between two shut-off



3. Wiring Diagram:

- For M-Bus output:
Two wires, no polarity.



- Wire size: AWG28 or bigger, depending on distance.
- Wireless Output
The 280W-R could be remotely monitored with its robust and reliable wireless module. This module can be RF (for short distances, less than 2K feet), GPRS or GSM. All the data can be monitored and analyzed using our software .
For details on the wireless interface, please consult with our tech support department by phone at +1978-263-7100 or by email at support@spiremt.com .

4. Cable Protection:

- when mounting the sensors , please be careful not to touch the meter wires
- All cables must be properly protected so that no damage , short circuit or disconnection occurs

5. Power Supply:

- wprime 280w- R Comes equipped with a long-life battery for 6 (or 10) years of operating time. static current :<10UA. Battery type: Li
- Due to transport regulations the battery might be deactivated by an insulating strip. Remove the strip completely in order to activate the meter
- Batteries must not be opened , come into contact with water, or be exposed to temperatures above 80°C
- Disposal of used batteries at proper collection centers
- If the meter needs to be sent by air freight then the battery must be removed prior to shipping!

6. First-time Check:

After the battery is activated , the meter should display EO when it is not connected to a water pipe (no water inside of the flow sensor) . when the meter is connected to a water pipe and the water is full in the pipe , the meter will display the quantity of flow pressing the red button on the front panel will display other items .