








-  Quick guide installation steps
-  Important information before installation 1
-  Installation 2
-  Info codes and display 3
-  Check the installation 4
-  Encoded Output 5
-  FCC Cautions 6

Kamstrup Water Metering, LLC
 245 Hembree Park Drive, Ste. 110
 Roswell, GA 30076, USA
 T: +1 (404) 835-6716
 info-us@kamstrup.com

1.1 Important information before installation

Only **installers are approved** to perform installation





Further information on kamstrup.com


1.2 Important information before installation

Permitted water temperature

33 °F...120 °F ✓

Maximum operating pressure ✓

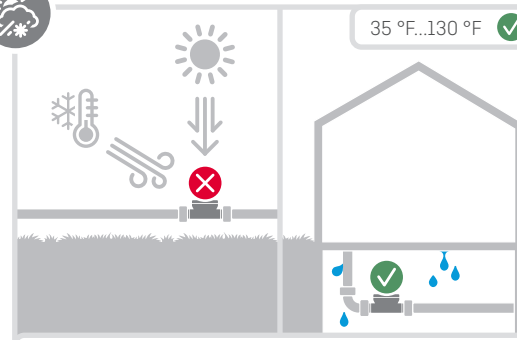
300 PSI ✓



Fixed installation with min. vibration. Electromagnetic environmental class: Residential and commercial


1.3 Important information before installation

35 °F...130 °F ✓

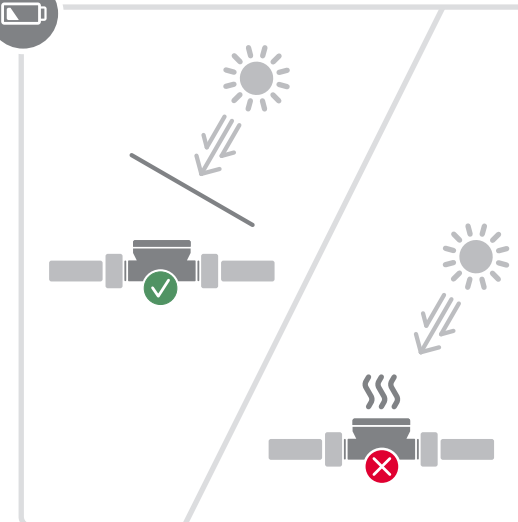


Condensing humidity permitted. (Indoors mounted in utility rooms and outdoors in meter pits). Installation in direct sun and freezing conditions must be avoided

IP68-rated (waterproof-submersible) ✓



1.4 Important information before installation

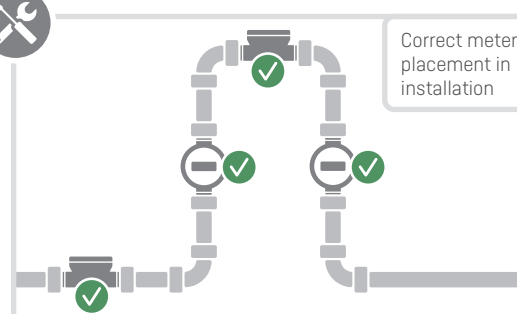


The meter can be installed indoors, in a pit or under water, but direct sun should be avoided. Increased ambient temperature can adversely affect battery life

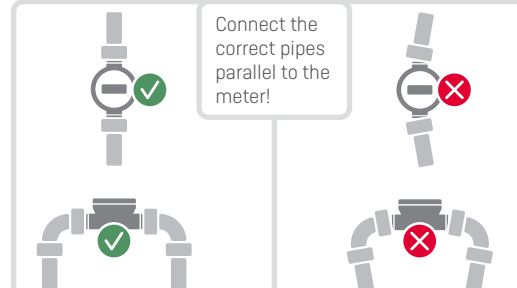
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2.1 Ensure correct piping during installation

Correct meter placement in installation



Connect the correct pipes parallel to the meter!



2.2 Ensure correct pressure during operation

The Meter is filled with water during operation

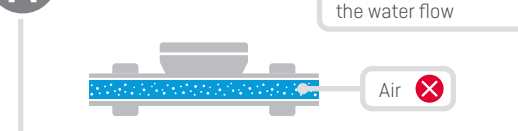
≥ 5 PSI ✓

Water pressure too low

< 5 PSI ✗

Avoid entrained air in the water flow

Air ✗




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Replace gaskets when installing new meter 2.3

- Remove the old gasket from the meter body.
- Remove the old gasket from the pipe.
- Install the new gasket on the meter body.
- Install the new gasket on the pipe.

Important! Be aware of maximum torque 2.4

Maximum torque for 3/4": 11 ft-lb ✓

3/4" 11 ft-lb

Maximum torque for 1": 22 ft-lb ✓

1" 22 ft-lb

Install meter in the correct direction of flow 2.5

Correct direction

Wrong direction

Info codes and display 3.1

Display for flowIQ® 3101

| Info code | Meaning |
|------------------|--------------------------------------|
| LEAK | Possible leak |
| BURST | Possible broken pipe |
| TAMPER | Attempt of fraud |
| DRY | Meter is missing water |
| REVERSE | The water flows in reverse direction |
| RADIO OFF* | The meter is still in transport mode |
| ■ (SQUARE 'DOT') | Flashing square means active meter |

* RF version only

Check the installation 4.1

Installation is complete

Make sure the meter displays **DRY** and the desired unit of measurement

Open the water supply

Check the installation 4.2

Check that the display switches to **FLOW** and that the counter is in movement

Current display status... ...4 sec. later

The first 8 hours the meter operates in Installation Mode. The display will update every 4 seconds during Installation Mode, permitting the installer to confirm that the meter is properly operating. Every time the meter becomes dry and subsequently rewetted, Installation Mode will re-initiate

Mount the cable for encoded output on meter 5.1

- Remove cap
- Mount cable clamp
- Mount plug
- Mount clamps
- Mount clamps

Connect with other electronic reading systems 5.2

Three wire

• Data • Ground • Clock

The reading unit must comply with the electrical requirements of the specification for the Sensus protocol UI 1203R20, September 2009. The most important issues:

Type: **Open Drain** On voltage: **< 0.4V @ 3.2mA**
 Max. input voltage: **15V** OFF condition: **R > 6MΩ**
 Max. current sink: **5mA**

| Compatibility table | | | | |
|---------------------|--------|---------|----------|----------|
| | Sensus | Neptune | Itron #1 | Itron #2 |
| Data | Green | Red | Red | Brown |
| Ground | Black | Green | White | Grey |
| Power | Red | Black | Black | Yellow |

FCC Cautions 6.1

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the users authority to operate the equipment.

RF Exposure compliance statement: This device may be used with no restrictions, since the source-based time-averaged output power is $\leq 60/f(\text{GHz}) \text{ mW}$.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1 This device may not cause harmful interference, and
- 2 This device must accept any interference received, including interference that may cause undesired operation.

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