

Ultrasonic water troubleshooting guide

This document contains information to help you troubleshoot ultrasonic water sensors. Please consult this document first. If you still encounter any problems, feel free to contact your onboarding representative.

1. Check power supply

- ☐ The power plug is connected.
- ☐ The power adapter is powered on (the light on the product is on).
- ☐ The flow meter powers on (display shows information).
- ☐ The green LED inside the pulse counter is on.

2. Check basic settings

Step	Menu #	Description	What to input
1	M11	Outer diameter of the pipe in mm	Check your TA and/or check your pipe
2	M12	Pipe wall thickness in mm	Check your TA and/or check your pipe
3	M14	Pipe material	Check your TA and/or check your pipe. Selecting the correct material is crucial. If the material is not listed in the flow meter menu, select “Other” and insert the material sound speed in M15.
4	M20	Fluid type	Water (unless other liquid is measured)
5	M24	Transducer mounting method	V-method
6	M32	Totalizer unit	M3 or Liter, depending on your setup. Check with your Onboarding Representative.
7	M79	Relay output	If measuring fluid volume (no temperature sensors): <ul style="list-style-type: none">- Select POS Int Pulse If measuring energy (with temperature sensors) <ul style="list-style-type: none">- Select Energy POS Pulse
8	M26	Solidify settings	Save settings to the memory. Press enter twice.

3. Check transducer distance

- ☐ Check the value for transducer spacing displayed in M25.
- ☐ Make sure the transducers are placed at the correct distance. Even small deviations from the instructed transducer spacing will lead to incorrect data readings in the Sensorfact platform.

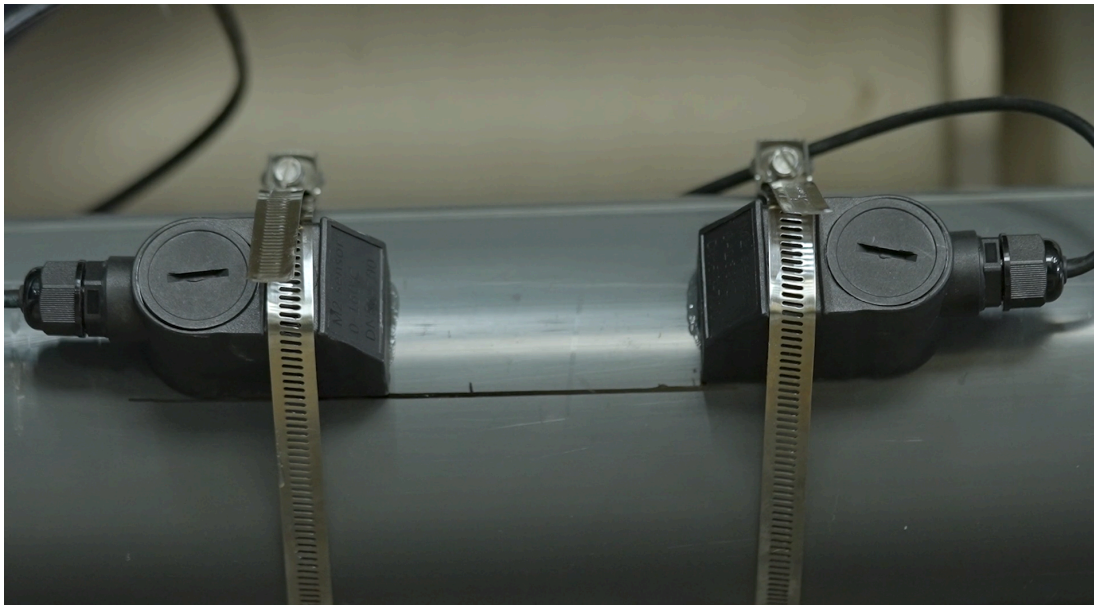
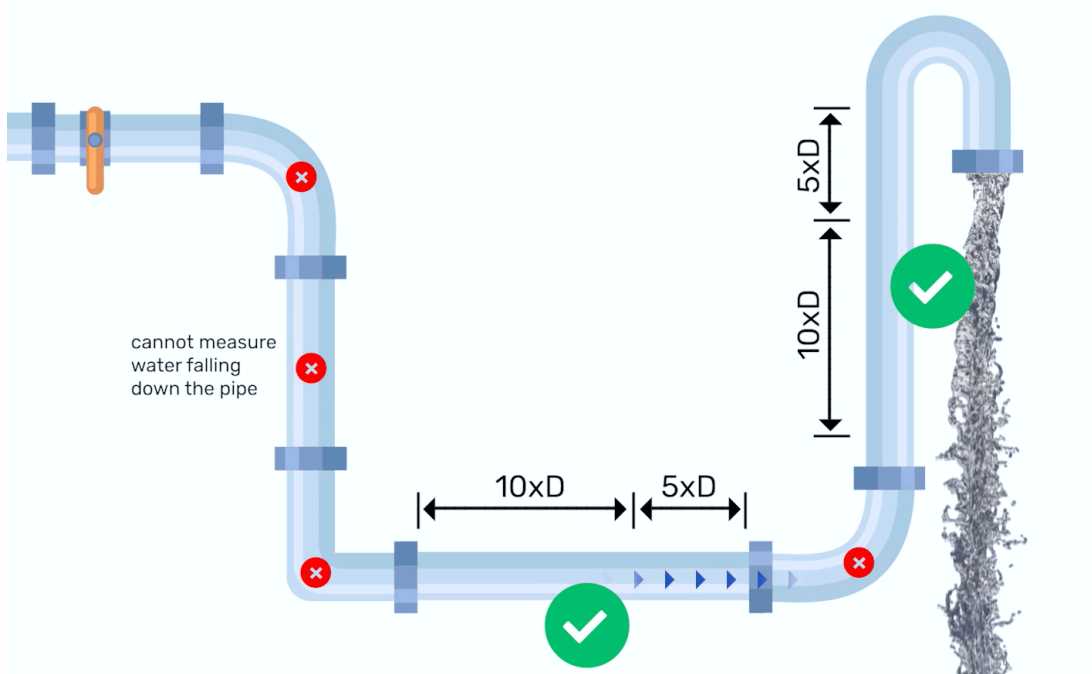
4. Check signal quality

The following settings are crucial, and the installation is only complete once all three parameters are within range.

Step	Menu #	Description
1	M90	Values should fall within range: UP/DN: 60-99; Q:70-99
2	M91	Values should fall within 97%-103%. If below 97%, place the transducers slightly farther apart. If over 103%, place them slightly closer together. If spacing adjustment is more than 5 mm, check settings in M11, M12, & M14 and contact your onboarding representative.
3	M08	Does not display any error code

5. If the flow meter displays an error code

- ☐ Ensure sufficient couplant is applied to the pipe.
- ☐ Ensure the surface of the pipe was extensively cleansed and greased before applying the transducers.
- ☐ Ensure transducers are connected relatively tight to the pipe.
- ☐ Ensure transducers are spaced correctly: according to M25 on the flow meter.
- ☐ Check the connection of the transducer cables to the device.
- ☐ Check whether the device is installed either horizontally, or vertically with an upward water stream.
- ☐ In case installation on a horizontal pipe, move the transducers on the pipe, 45 degrees down from the horizontal.
- ☐ Ensure there is at least 15 times the pipe diameter of undisturbed pipe in length from bends, valves, and pumps. At least 5 times from the Down transducer, and 10 times from the Up transducer.



- ☐ Ensure transducers face each other.
- ☐ Do not install on non-pressurized pipes.
- ☐ Do not install on a pipe with inside corrosion.