TOP 3 QUESTIONS:

1. Why is my meter reading zero even though water is flowing?

If the meter is not registering flow, check the following common causes:

• **The pipe is not completely full of water** – Paddle wheel meters require a full pipe to operate properly.
• **Debris is preventing the paddle wheel from turning** – Remove the sensor and inspect the paddle wheel for obstruction.
• **Flow rate is below the meter's minimum operating range.**
• **Air in the pipeline** – Air pockets can prevent the paddle wheel from rotating normally.

2. Why are my flow readings higher or lower than expected?

Inaccurate readings are typically caused by installation or system conditions rather than the meter itself. The most common causes include:

• **Insufficient straight pipe before the meter**
• **Installation near pumps, elbows, or valves**
• **Air in the pipeline**
• **Partially full pipe conditions**

For best accuracy, install the meter with approximately **10 pipe diameters of straight pipe upstream** and **5 pipe diameters downstream**.

3. What conditions can affect the accuracy of a paddle wheel flow meter?

Several system conditions can affect flow measurements:

• **Air entering the pipeline** (pump cavitation, suction leaks, or system startup)
• **Partially full pipes**
• **Heavy debris or sediment in the water**
• **Installation too close to turbulence sources such as pumps, elbows, or valves**

The meter performs best when installed in a **full pipe with stable flow conditions**.

ADDITIONAL COMMON QUESTIONS:

1. How is the meter installed?

There are two pipe saddle options: Bonded and Clamped. Bonded Saddles come adhered to a section of pipe. This pipe section is installed via couplings into your existing system. Clamped Saddles are adhered onto your existing pipes with clamps to hold the saddle in place while it is

curing to the pipe. Once cured, you bore a hole into the pipe with a 1 1/2" hole saw using the saddle as a guide.

2. What pipe sizes can the meter be installed on?

Meters can be used on schedule 40 and schedule 80 pipes ranging in size from 1/2" to 8.” The pipe mounting saddle is specific to the pipe size and schedule. For example, a saddle for a 3" schedule 40 pipe will not work on a 3" schedule 80 pipe. Please take care to order the appropriate saddle for your system.

3. Can the meter be installed vertically or horizontally?

Yes. The meter can be installed in horizontal or vertical piping as long as the pipe remains completely full of water during operation.

4. Does the meter require external power?

No. The meter operates on internal batteries and does not require external power.

5. How long do the batteries last?

Battery life depends on the model. Meters with replaceable AA batteries typically operate for approximately two years, while sealed battery models generally last about five years before factory replacement is required.

6. What information does the display show?

The display simultaneously shows:

- flow rate
- Resettable totalizer
- Non-resettable totalizer

Large digits allow the readings to be easily viewed even in low light conditions.

7. Does the meter create pressure loss in the pipe?

No. The paddle wheel design introduces negligible head loss, allowing the meter to operate without significantly affecting system pressure.

8. Does the meter need straight pipe before or after the sensor?

For best accuracy, we recommend installing the meter with approximately 10 pipe diameters of straight pipe upstream and 5 pipe diameters downstream of the sensor.

9. Can the meter handle water with sediment or debris?

The meter can tolerate moderate particulate loads. The paddle wheel assembly can be easily removed for cleaning if debris accumulates.

10. What happens if air gets into the pipeline?

Air in the pipeline can affect flow readings because the paddle wheel is designed to measure water flow. Air can enter a system due to pump cavitation, suction leaks, or partially full pipes.

11. Can the meter be used outdoors?

Yes. The enclosure is designed for outdoor use and protects the electronics from weather exposure.

12. Does the display rotate for easier viewing?

Yes. The meter head rotates, allowing the display to be positioned vertically for easy viewing regardless of pipe orientation.

13. Is pulse output available?

Yes. Optional pulse output models are available for connection to data loggers, PLCs, or monitoring equipment.

14. How do I clean or service the paddle wheel?

The paddle wheel assembly can be removed from the meter body for inspection and cleaning. This allows debris to be cleared if necessary.

Paddle Wheel Replacement: The armature that holds the paddle wheel has a hole on each side. Using a vice or locking pliers to hold a 1/16” drill bit, insert bit into the smaller of the two holes and push the pin out. Install the new paddle wheel by pushing the new pin into the larger of the two holes. Do not grab the new pin with a pliers; this will mar the pin surface.

15. Can the meter handle chemicals or non-potable water?

The meter is designed primarily for water applications. Compatibility with specific chemicals depends on the materials used in the system. Contact us if you have questions about a particular fluid.

16. How long does shipping take?

Most orders ship within one to two business days. Delivery times depend on shipping method and destination.

Why choose a paddle wheel meter instead of other flow meter types?

- low cost
- simple installation
- negligible head loss
- wide flow range
- easy service