

What is a Paddle Flow Meter?

Flow meters are used to measure either the linear, nonlinear, volumetric or mass flow rate. Most commonly, flow meters are used with liquids and gas. More specialist flow meters can also be used with viscous liquids. Here, BM Engineering answers the question, 'what is a paddle flow meter', by explaining the working principle, advantages and paddle wheel flow meter accuracy.

How does a paddle flow meter work?

The paddle flow meter working principle is relatively simple. Similar to the working process of a paddle wheel on a boat, the flow of a liquid or gas makes the paddle in the flowmeter spin. The rate of flow is then determined by how fast the paddle turns in the device. Usually operating with either a battery or AC, flow meters use advanced solid-state circuitry, eliminating the need for electrical connections. These meters are usually supplied with an AC/DC plug-in style transformer.

Paddle flow meter accuracy

Commonly, paddle wheel flow meters are accurate to within 1% of the full-scale range reading, making the component even more cost-efficient for the level of accuracy you receive. The accuracy of a paddle flow meter can change depending on installation variables. However, this is similar in almost any flow technology.

Paddle wheel flow meter advantages

Paddle flow meters are extremely reliable, accurate and cost efficient, which nicely sums up all the main advantages of a paddle wheel flow meter.

Paddle wheel flow meters are also very easy to install, another main advantage of a paddle wheel flow meter. They can be installed either horizontally or vertically, with the ability to flow in either direction, without compromising overall performance. These flowmeters can also be purchased complete with a sensor, digital display and in-line meter body, which can be easily installed into a piping system. Alternatively, paddle wheel flow meters can be purchased with a saddle mount type pipe fitting.

The versatility of a paddle wheel flow meter is another main advantage, as the components not only work with water applications, but also with viscous fluids.