



Flow Sensor Technology: Precision Measurement Meets Versatility

OTT 1749

Applications

Water Systems Monitoring, Industrial Fluid Measurement, Environmental Monitoring, Agricultural Irrigation Systems, Building Management Systems

Target Problems

Imagine a breakthrough that transforms fluid measurement by solving three critical challenges:

- **Improving Measurement Accuracy:** This sensor technology provides precise measurements across a wide range of flow rates, from under 50 mL/min to above 1 L/min.
- **Flexible Use in Different Applications:** The modular design of the sensor makes it a versatile tool for different industries and applications.
- **Lowering Production Costs:** This sensor technology uses innovative manufacturing methods with silicone-based materials, significantly reducing production costs.

Key Benefits

This multidirectional flow sensor disc uses a special strain sensor to measure fluid flow accurately. It has been fabricated with reduced graphene oxide and tested for better sensitivity. The design is flexible, suitable for various uses like detecting leaks and measuring flow rates in pipes.

Technology

This flow sensor disc activates in specific fluid environments. With the refined and innovative design, the strain sensor provides real-time data on fluid flow. The modular design allows it to be used in different applications, including monitoring water systems and detecting degradation of seals and valves.

Commercial Impact

This technology cuts down on high production costs, reduces inaccurate measurements, and gives researchers powerful new tools. Traditional flow meters can be expensive and limited in range, but this sensor offers precise, responsive measurements for both ultra-low and moderate flow rates.

Why It Matters

Old flow meters often can't measure both ultra-low and moderate flow rates accurately. This new sensor offers precise, real-time monitoring, making it ideal for leak detection and usage monitoring in water systems.

Intellectual Property

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About the Inventor(s)

[Nathan Salowitz](#), PhD, Associate Professor, UW-Milwaukee Mechanical Engineering

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