

# Hot wire anemometer with interchangeable head and top accuracy

## The LSI LASTEM technical pills

**NEW PRODUCT:  
Hot wire anemometer  
with replaceable head  
and top accuracy**



## LSI LASTEM launches the new hot wire anemometer with interchangeable head and top accuracy

LSI LASTEM stands out in the environmental monitoring sector thanks to its **cutting-edge technologies**, among which the **hot wire anemometer** stands out. This technical pill explores the features and benefits of the new model, focusing on its distinctive technology and the benefits it offers to those who use it.

### Hot wire anemometer: technological excellence

Unlike other sensors that use thermistors or hot spheres, the LSI LASTEM hot wire anemometer uses a 10  $\mu\text{m}$  **tungsten wire** as the sensing element. This technological choice offers numerous advantages, including a fast response and increased **accuracy** compliant with the rigorous ISO 7726 standard. In fact, the hot wire has a very low thermal inertia, allowing a **response time of only 0.01 s**, which is essential for calculating turbulence and properly monitoring changes in air velocity.

## The novelty of autonomous measuring head replacement

One of the strengths of LSI LASTEM's new series of hot wire anemometers is the possibility of **independently replacing the head**, a particularly valuable feature given the high fragility of the tungsten wire. This feature not only **reduces the costs and time** associated with maintenance, but also ensures **continuous operation** of the appliance without having to send it to the factory for replacement.

## The improvement of accuracies

The modification of the sensor's production methodology has also allowed a significant **improvement** in the **declared accuracies**, which fully comply with the accuracies necessarily required by the ISO 77226 standard.

Below are the values for the different measurement ranges:

- NA (0...0.1);
- $\pm 0.06$  m/s (0.1...0.4 m/s);
- $\pm 0.08$  m/s (0.4...3.0 m/s);
- $\pm 0.035 * VM$  (3.0...20 m/s).

## Optimal performance in any environment

The extremely **wide measurement range**, ranging from 0.01 to 20 m/s, makes the LSI LASTEM hot wire anemometer **suitable** for a **wide range of applications**, including those related to environmental comfort and thermal stress. The sensitivity of the tungsten wire to air currents coming from different directions (up to 300° in the plane perpendicular to the wire) ensures **accurate** and complete **detection** of **environmental conditions**, guaranteeing optimal performance in any environment.

## The true hot wire anemometer

Despite the widespread use of other technologies, the **hot wire anemometer** remains the most **advanced** and **reliable solution for measuring indoor air speed**. It is important to point out that many products on the market are improperly labelled as “hot wire”, when in reality they use lower performing sensors such as thermistors or hot spheres. Laboratory tests have shown that these alternative sensors have significant limitations in terms of directional response and thermal inertia, compromising the accuracy and reliability of measurements.

In conclusion, the **LSI LASTEM hot wire anemometer**, with its combination of **top accuracy, reliability** and **versatility**, is confirmed as the ideal choice for the most demanding applications in terms of air speed measurement.