

Press Release

Precision and efficiency in focus – The new AVS701 from E+E Elektronik

With the AVS701, E+E Elektronik has consistently further developed and optimised its proven air / gas velocity sensor for industrial applications.

(Engerwitzdorf, November 2025) Developed and designed for demanding industrial applications, the new AVS701 from E+E Elektronik sets a new standard in air and gas velocity measurement. Maximum efficiency and process reliability thanks to the highest measurement accuracy, quick installation using accurate sensor positioning with a specially developed alignment tool, and an integrated process gas library are the key features of this sensor. An optional external pressure sensor enables environment compensation by correcting for ambient pressure fluctuations. The robust thin-film ceramic sensing element with special coating and the stainless-steel probe head deliver highly precise measurement results even under extreme or corrosive conditions, significantly reducing downtime and lifecycle costs.

The optically and technically redesigned air and gas velocity sensor stands out above all for its accuracy and reliability, as well as significantly simplified installation. It is optimised for demanding industrial applications in a measuring range from 0 to 40 m/s and –40 to +140 °C and is suitable for a wide variety of uses – from cleanroom and pharmaceutical applications to process monitoring in 3D printers. Increased process efficiency and sensor installation that is up to 60% quicker make the AVS701 the best choice in its performance class.

Thanks to the specially developed alignment crimp for the remote probe, the AVS701 can be positioned in the process with high repeatability. This enables fast, reproducible sensor mounting and quick sensor replacement, which speeds up commissioning and significantly increases efficiency.

Optimum product quality thanks to the highest measurement accuracy

The AVS701 impresses with exceptional measurement accuracy of $\pm 1\%$ of the measured value and, in the range from 0 to 2 m/s, even ± 0.03 m/s. This level of precision ensures excellent process reliability, which is particularly crucial in sensitive applications such as cleanrooms and pharmaceutical production. Highly accurate monitoring of the air velocity optimises product quality and reduces scrap. Changes in the process can be detected more reliably and prevented at an early stage. In addition, the long-term stability of the AVS701 minimises maintenance intervals.

Reliable accuracy even in the harshest environments

The AVS701 is equipped with a robust thin-film ceramic sensing element protected by a durable stainless steel probe head. A special coating on the sensing element protects it against moisture and corrosive influences such as hydrogen peroxide or ammonia. This makes the sensor particularly well suited for use in the most challenging environments, for example in the pharmaceutical sector or the chemical industry.

In long-term tests under increased ammonia exposure, all conventional sensors failed on average after 440 hours and showed considerable corrosion as well as electrical malfunctions. By contrast, the AVS701 remained fully functional even after more than 1,000 test hours – with no corrosion and with stable sensor data.

Significant time savings through intelligent gas adaptation

The AVS701 is equipped with a flexible process gas library that automatically applies gas-specific corrections. This function adapts the measurements to the properties of the respective process gas, minimising measurement errors and ensuring high accuracy – even with changing gases such as CO₂ or argon. The appropriate gas can be selected quickly via the control system so that the sensor is immediately ready for operation. This results in significant time savings and enhanced process reliability, as precise parameterisation is performed automatically and potential sources of error are reduced. Intelligent gas adaptation thus enables simple and efficient process control.

The AVS701 stands for precision and reliability in the measurement of air and gas velocities. With state-of-the-art thin-film ceramic technology, robust design and straightforward installation, it is the ideal solution for the highest demands in industrial environments.

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Image



AVS 701 with remote probe

Photo: E+E Elektronik Ges.m.b.H., reprinting free of charge

Company profile

E+E Elektronik is an Austrian sensor specialist in the fields of humidity, dew point, moisture in oil, CO2, air velocity, flow, pressure and temperature. Handheld measuring devices, humidity calibration systems and calibration services complete the comprehensive product portfolio. The aim of E+E is to support its partners in the area of energy savings and process optimization. The main applications for E+E products are in industrial measurement technology as well as HVAC and building automation.

A certified quality management system in accordance with ISO 9001 and IATF 16949 ensures the highest quality standards. E+E Elektronik is represented by its own subsidiaries in China, Germany, France, India, Italy, Korea, USA and sales partners in more than 60 countries worldwide. The accredited E+E calibration laboratory is commissioned by the Austrian Federal Office of Metrology and Surveying (BEV) to provide the national standards for humidity, dew point, air flow velocity and CO₂ gas concentration.

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