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Hanover hotspot: Archigas rocks the trade fair!

Our participation in “Hydrogen + Fuel Cells Europe” was a sensational success. Thank you very much!

What a time in Hanover! Archigas’ appearance at the trade fair from 22 to 26 April was a resounding success. Huge attention literally from the first to the last minute, guests from all over the world, lively discussions without end, non-stop product presentations and live tests at the stand—in short: we were overwhelmed by the enormous interest in our new H₂ gas analyser. We would like to thank everyone for that! It even started on Sunday evening, when we received the “HERMES Startup AWARD 2024” from Federal Research

Minister Bettina Stark Stark-Watzinger and in front of Federal Chancellor Olaf Scholz, EU Commission President Ursula von der Leyen and other high-ranking political, economic and industrial celebrities. As I said: What a time in Hanover!

You can find more information about the event in the articles in this newsletter. We wish you an exciting read.

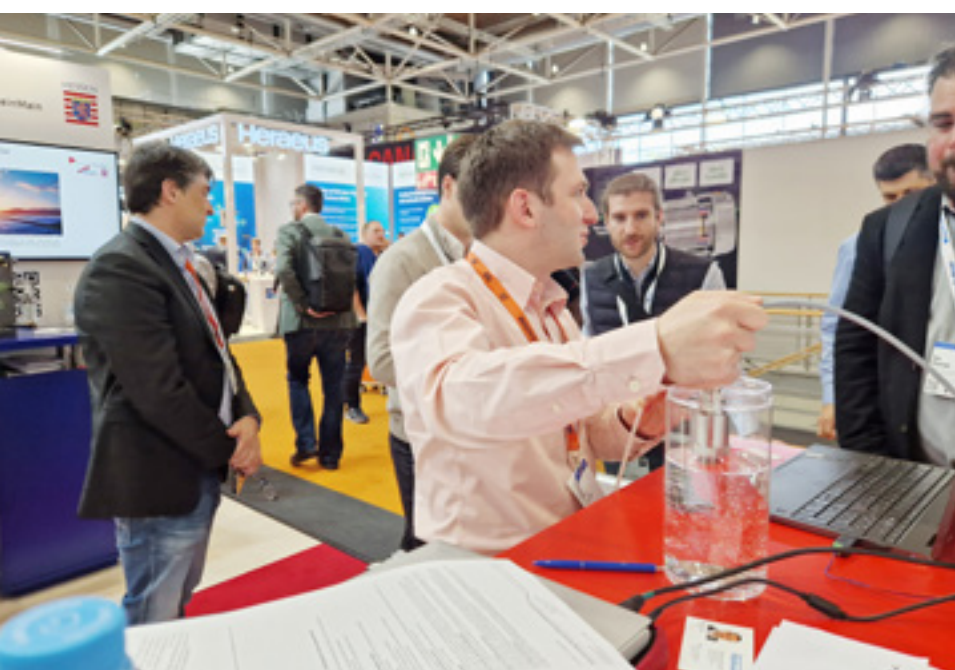
With this in mind and best regards
Your Illya and Wladimir Illya und Wladimir





H₂ measurement technology as a crowd favourite:

Outstanding interest in Archigas at the Hannover Messe



Archigas was a co-exhibitor at the Hessian joint booth

So that was it, Archigas' first presentation to a wide audience at Hydrogen + Fuel Cells Europe at Hanover Messe 2024, where the assembled hydrogen world was able to see the benefits of the innovative H₂ gas analyser in screw screw-in form for themselves.

The sensor solution from Archigas stood out with its particularly fast, precise, stable and even moisture moisture-independent detection. The positive response was correspondingly high. "We are very happy that we were able to give the countless guests at the stand a clear picture of the capabilities and multi multi-talent of our microsensor. The visitors were enthusiastic and many were downright amazed. Planning for the next trade fair appearance in the coming months is already in full swing," say the two managing directors Illya Kaufman and Wladimir Barskyi.

The vital interest in the unique sensor technology, the combination of a technically newly implemented thermal conductivity measurement and MEMS semi-conductor technology, is no coincidence. In addition to extraordinary measurement precision and stability as well as the extremely compact design of the micro-sensors for easy implementation, they are also characterised in particular by their reaction speed and even resistance to moisture. For example, if condensate comes into contact with conventional sensors for gas analysis, this usually leads

to their destruction. This not only resulted in safety gaps, but also high costs. The sensor technology from Archigas now effectively minimises contact with liquids. This is made possible by the special design of the measuring module, which prevents condensate from coming into contact with the sensors.

Archigas demonstrated these and other impressive features to its guests at the Hanover Messe: Quite a few of the countless visitors to the stand were surprised when the sensor continued to function without any problems even after being immersed in a container filled with water. The remarkable reaction speed and particularly high measuring precision also aroused enthusiasm. "The dimensions of the compact screw screw-in unit alone brought a smile to many people's faces. The exuberant reactions to the various features of our innovation delighted us time and time again," recalls the Archigas trade fair team, namely Illya, Wladimir, Jacqueline and Thomas.

So it's no wonder that those responsible are planning their next trade fair appearances right after the show in Hanover - for example on 23 and 24 October in Hamburg.

Federal Minister Bettina Stark-Watzinger presents Archigas with the coveted “HERMES Startup AWARD”!



Archigas in the spotlight: The company received the prestigious “HERMES Startup AWARD” for the development of its innovative sensor solution for optimised H₂ detection following the decision of a jury led by Prof. Dr.-Ing. Holger Hanselka, President of the Fraunhofer Gesellschaft.

The highly coveted award was presented by Bettina Stark-Watzinger, Federal Minister of Education and Research, at the festive opening event for Hannover Messe 2024, where Stark-Watzinger paid “great respect” to Archigas and emphasised that the founders and their work were “exactly the spirit we need in this country”. Federal Chancellor Olaf Scholz and EU Commission President Ursula von der Leyen applauded, as did the Norwegian Prime Minister, the Prime Minister of Lower Saxony, the Lord Mayor of Hanover and other leading figures from politics, business and industry.

“We are simply blown away! This is of course a real highlight for our young company and a great tribute to our many years of research and development work,” said the honourees afterwards, delighted with the award. In its highly innovative sensors, Archigas GmbH has implemented the thermal conductivity measurement principle in a technically new way and intelligently combined it with MEMS semiconductor technology.

This leads to highly remarkable measurement properties, which include not only exceptionally fast response times, particular accuracy and reliable stability, but also the ability to detect H₂ even in very humid environments, for example in the presence of condensate. The design of the emphatically compact sensor units also enables the mass production of identical products without time-consuming calibration.



Less than 30 milliseconds— that's how fast the sensors from Archigas are

Archigas is really stepping on the gas: in addition to their already highly regarded properties for particularly precise and reliable hydrogen analysis, high resistance to moisture and compact dimensions, the innovative systems are also characterised by a remarkably fast response time. Visitors to the Archigas stand at Hannover Messe 2024 had the opportunity to see for themselves the extremely short reaction time, which can be less than 30 milliseconds.

Need for speed: As hydrogen is known to be highly reactive, its detection should take place virtually in real time across the entire process chain of production, transport, storage and utilisation. This is because even the smallest leaks in tanks or pipes can cause partial and temporary gas vapours due to the small molecular size of H_2 , which are associated with a high risk of explosion—depending on the situation, people and technology may be at risk. In addition, particularly fast H_2 measurement is not only highly relevant in the context of safety monitoring, but also in terms of process technology: Because if any impurities are detected quickly, potential eco-

nomic damage can also be avoided or minimised. Particularly prompt detection of hydrogen in an industrial environment is therefore essential in several respects.

Thanks to its unique design, the innovative sensor technology from Archigas consistently takes this into account: at less than 30 milliseconds, it has a particularly high response speed—as tests and empirical values from the application impressively demonstrate. This is made possible by the specific orchestration of signal processing and the reaction of various elements of the sensor.

In addition to the aforementioned reaction speed, the multi multi-talented sensor solution from Archigas is also characterised by outstanding precision and stability of the hydrogen measurement, moisture resistance and compact dimensions for easy implementation.

At the Hannover Messe in April, the numerous guests at the joint Hessian stand in Hall 13 were suitably impressed by the properties of the new H_2 gas analyser from Archigas.

Archigas news compact



From left: Kurt Bolliger (CFO SERTO Group), Andreas Mühlthaler (CEO SERTO Group), Frederik Hombach (COO SERTO Group), Norbert Kern (CTO SERTO Group / COO Switzerland)

+++ Archigas is delighted to have the well well-known SERTO AG on board as a shareholder with immediate effect!

The official participation of the esteemed and globally successful tube connection specialist from Frauenfeld in Switzerland was preceded by years of trusting co co-operation. The high-quality stainless steel housings and screw connection systems are a key feature of Archigas' sensor innovations for hydrogen measurement. "Our solutions for more precise, faster and more stable H₂ detection are closely linked to SERTO. As a particularly experienced and committed expert in its field, the company vir-

tually moulds our microsensor technology for gas analysis. In short, we can't imagine a better partner in its new additional role as a shareholder," said the Archigas managing directors. The top management of SERTO (see photo) shares the joy. +++



Centre right: Patrick Burghardt, Lord Mayor of Ruesselsheim am Main

+++ After the award ceremony in Hanover with top German and European politicians, Ruesselsheim's Lord Mayor Patrick Burghardt also congratulated the company—and did so in person at Archigas' company headquarters. He was very interested to find out about the technological background to the H₂ sensor system and described the city's advanced plans to support future startstart-ups. The assembled Archigas team loved it! +++

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