

Gas Sensing Innovations Showcased at Sensor + Test

In line with the consistent theme of design and manufacturing excellence, City Technology recently showcased its latest gas sensing technologies at Sensor + Test in Germany on 19th – 21st May.

With over 5 million sensors delivered in 2014, City is one of the largest manufacturers of gas sensors worldwide. One of the key activities in the conference was City's keynote presentation on new pioneering technologies that will help sensors to evolve into more connected, intelligent and wearable solutions for users.



Sensoric sensors are designed to detect exotic gases, many of which are particularly difficult to sense. They are used in a plethora of applications including medical, pulp and paper, semiconductor and rocket fuel storage monitoring, detecting exotic gases like hydrides, fluorine and ozone in industrial environments.

Celebrating 25 years of Specialist Gas Sensing

In addition to talking about new developments and showcasing a comprehensive range of diverse gas sensors, City Technology also celebrated its 25th anniversary of manufacturing the Sensoric range of specialist gas sensors in Bonn, Germany.

John Warburton, Strategic Marketing Manager for City Technology, explains why Sensor + Test was an important show for the company and visitors.



"City pioneered the gas sensor market in 1977 and continues to do so today, bringing the largest volume of class-leading solutions to the market. 2015 is an important year for us, as we are seeing high demand for our new long life oxygen and emissions portfolios but we are also celebrating 25 years of specialist gas sensing excellence with the Sensoric range.

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"Highlights from our toxic and exotic gas sensing range include ammonia sensors, used extensively in refrigerant applications globally. These offer class-leading performance, reliability and flexible customisation for specific application use. We have seen a consistent double digit year-on-year growth for niche sensing thanks to these aspects and we currently produce 40 basic cell designs with 60 variations; this enables us to meet exact customer needs effectively."

Addressing Evolving Specialist Sensing Market Needs

Specialist gas sensing has been an ever-growing market in recent years, owing to a number of trends and factors like increased use of ammonia for refrigerant applications, changing chemical uses and global legislative requirements, which are driving an increased demand for exotic sensors like phosphine, diborane, chlorine and hydrogen fluoride.

A global macro trend towards higher standards of health care – particularly in regions like Asia Pacific – are also impacting specialist gas sensing growth for applications such as ventilators, incubators and anaesthesia benches, as John comments. "We are also seeing an increasing demand for medical sensors detecting oxygen, nitrous oxide, nitrogen dioxide and carbon monoxide."

Introducing Class-leading Long Life Oxygen Sensing

Another highlight featured on City Technology's stand was the new long life oxygen platform; two new sensors already in great demand by many leading instrument manufacturers since their recent launch, with many more conducting testing and evaluations.

Tom Gurd, Senior Product Marketing Manager for City Technology, explains why the new 40xLL and 50xLL long life oxygen sensors represent such a significant step forward: "Our new 40xLL and 50xLL long life oxygen sensors are designed to work for the whole instrument life (five years in safety critical applications). This new platform represents our continued commitment to exceeding market demands and delivering solutions that add real tangible value in terms of reducing servicing needs and total cost of ownership. We have used Six Sigma and modelling techniques to develop this platform, which combines increased longevity with a value-added feature set; the

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new sensors provide improved stability, accuracy and benchmark performance even in transient environmental extremes. This makes the new oxygen platform ideal for diverse applications like safety-critical industrial facilities and mines through to emissions monitoring."

City Technology also showcased its extended emissions gas sensing range, which includes the addition of six new sensors for oxygen and carbon monoxide. The range includes new 4 Series sensors, offering a smaller profile for EN50379-3 compliant analysers.

Highlights in premium 5 series range designed for high specification flue gas analysers compliant to EN50379-2 - include the A5F+ carbon monoxide high range sensor. Using a robust and advanced design with hydrogen compensation and high capacity filters to achieve reliability and extended operational life

(5 years), A5F+ mirrors the new oxygen platform in its ability to last for whole instrument life and add attractive affordability by dramatically reducing servicing needs.

New Innovations in Development

John Warburton continues by explaining the importance of the company's keynote presentation. "We have some very exciting innovations; products that will no doubt revolutionise the industry in terms of providing connected, smaller, more intelligent and wearable solutions that are easier to use and maintain. The keynote presentation delivered by our **Research and Development Manager, Dr Stefan Degen** featured sensors that will allow greater integration with PPE, increased resilience in environmental extremes and have the ability to overcome

traditional issues associated with current technologies.

"The keynote presentation covered gas sensing trends, state-of-the-art technologies and how

City Technology continues to forge ahead as an innovation pioneer and manufacturer of solutions that reduce total cost of ownership. Dr Degen's session also highlighted Sensoric specialist sensing expertise gained over the last 25 years of manufacturing in Bonn, Germany."

Not only did City Technology showcase a comprehensive range of diverse gas sensors for varied application uses, the team was also on hand to discuss leading-edge sensing innovations that can assist with more efficient and cost-effective application monitoring, attracting considerable interest with Sensor + Test's visitors."



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