

City News

Spring 2003

Quality Gas Sensors



Welcome

Welcome to the start of the **MICRO Revolution**. At the Sensors Show in Nuremberg May13-15 City launched its new innovative range of MICROceL Gas Sensors. **New products:** The initial launch commenced with the MICROpeL, City's new and innovative Catalytic Bead Gas sensor, which is targeted at the Safety Instrument markets. Along with the MICROpeL City also launched other new products; IRidium50 Infrared Vehicle Emissions 2-gas bench for Automotive markets; MMOS semiconductor gas sensors CAP21 Ozone, CAP06-NF Ammonia for fixed detection markets and CMP200 Pellistor for fixed safety applications, these new sensors will help address global market needs. More details enclosed. **City Team:** Two new appointments one in our customer services team and one in our marketing team will undoubtedly increase our level of global support for our Customers. More enclosed.



Brian Roake - Sales and Marketing Director

Do enjoy this edition of City News and let me take this opportunity to thank you for your most valued business and continued interest in our products. **Thank you.**

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website
www.citytech.com



A MICRO Revolution

Introducing the new MICROpeL™ Combustible Gas Sensor

The new MICROpeL™ combustibile gas sensor marks the biggest advance in gas sensor technology in 25 years. As the first of our revolutionary MICROceL™ range of small, flat sensors, the MICROpeL™ offers instrument manufacturers exciting new possibilities to reduce the size and weight of portable gas detectors.



Drawing on over 25 years experience in the design, development and manufacture of gas sensors, City Technology's team of scientists have used a radical new design to reduce the size of the MICROpeL™ by 75%. It is just 17mm square by 4mm high and weighs just 1.2g, making it 95% lighter than existing combustibile sensors. The reduction in size and weight is achieved by using an injection-moulded polymer housing in place of the traditional machined stainless steel body.

Another significant innovation with MICROpeL™ is its connectivity. The sensor no longer uses the traditional "pins and sockets" but has a specially designed slot-in connector. The connector is designed to occupy the minimum amount of space, can be directly soldered onto a pcb and is fully compatible with surface mount technology.

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25
YEARS
OF QUALITY AND
INNOVATION

CD ROM

To have instant access to all City Technology's company information and Product Data Sheets why not request a copy of our CD Rom.



For your copy please contact Nicola Nye on +44 23 9228 8146 or sensors@citytech.co.uk

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The remarkable reduction in size has been achieved without any loss in performance. In fact the MICROpeL™ sensors use the same catalytic beads as used in the current 4P75 range of pellistors and have over 5 years proven performance in the field.

MICROpeL™ has excellent stability, with zero drift typically less than 3% per month and methane signal drift less than 2% per month, so ensuring stable, long-term operation.



As a result of optimising the size, catalyst formulation and manufacturing process of the catalytic bead, the MICROpeL™ offers industry leading standards of poison resistance to both H₂S and silicones. The "C version" incorporates a special impregnated glass wool filter that provides additional resistance to HMDS and silicone poisons.

MICROpeL™ is certified to flame proof and intrinsically safe standards. It is already fully certified to ATEX E Ex d ia I/IIC T4 and both UL and CSA certification is pending.

For more information please contact Nicola Nye on +44 23 9228 8146 or sensors@citytech.co.uk

Are you a 3-Series customer?

Have you tried the new 4-20mA transmitter board?

The new 4-20mA Board was developed last year by City Technology Limited for use with the 3 Series Range of toxic sensors. This board is a small, printed circuit board that is attached to the sensor and converts the sensor's output into the industry standard 4-20A output for two-wire fixed point monitoring applications. A key benefit to using this product is that it can be pre-calibrated to the users specified range so being ready to use immediately on receipt.



MMOS

A New Ozone Sensor

CAP 21 is a new Mixed Metal Oxide sensor to detect ozone with dual temperature operation. The sensor provides improved baseline stability and increased operating life by operating in a two-temperature cycle. It has a 5 second measurement period at 500°C followed by a 20 second "purge" at 600°C so giving a reading every 30 seconds.

An Ammonia Sensor without a Filter

City Technology Limited have produced an ammonia sensor without a filter – the CAP06-NF. City Technology has found that removing the filter improves response to Ammonia and reduces cross sensitivity to hydrogen. This sensor can operate in constant backgrounds of Ammonia (0-100ppm) without any effect on performance.

For more information please contact Nicola Nye on +44 23 9228 8146 or sensors@citytech.co.uk



German website at - www.de.citytech.com



AUTOMOTIVE



IRidium®50 – 2 Gas infra-red bench for exhaust gas analysers

The new IRidium®50 which is based on the successful and proven IRidium®100 infrared bench, is designed to meet the requirements of repair, maintenance and diagnostic applications. It is designed to meet OIML Class 2 specification.

The innovative IRidium® range has been developed as the smallest, lowest power infra-red analyzer that is easy for OEM's to integrate into exhaust gas analysers.



IRidium®50 is a 2-gas bench measuring both carbon monoxide and hydrocarbons in vehicle exhaust gases. Because it is compact, it measures just 31mm x 40mm x 163mm and weighs only 114g, it is ideal for integration into small, hand held analyser units. Its low power requirement, with an average power consumption of less than 1 watt, allows it to be powered by batteries rather than a mains supply.

It's fast warm up period of less than 60-second (to full accuracy) means IRidium®50 can help to increase vehicle throughput and operator productivity, a measurable benefit for the end-user.

The IRidium®50 system is fully compatible with City Technology's electrochemical sensors and can easily be configured into either a 3 or 4 gas system with the addition of City's automotive NO and O₂ sensors.

City Technology has developed IRidium®50 as an excellent value alternative to the high performance IRidium®100 for use in less demanding repair, maintenance and diagnostic applications.

For more information please contact Nicola Nye on +44 23 9228 8146 or sensors@citytech.co.uk



SAFETY



New for Safety Customers - CMP200

The CMP200 is a new small general purpose pellistor, which is supplied as a "pair" of beads (detector and compensator) in open top cans that has been developed by City Technology Limited.

The pellistor operates at 3.3v and a current of 68mA with excellent resistance to H₂S and silicone poisons.

This product also offers the added benefit of improved shock resistance and fast response times (T₉₀ typically 5 sec or less) due to its small size.



For more information please contact Nicola Nye on +44 23 9228 8146 or sensors@citytech.co.uk

New Appointments

Customer Services

AGNES MARIN joined City Technology Limited in January 2003 after working for Brittany Ferries as a Passenger Receptionist. With her French origins and having spent 4 years as a language co-ordinator, Agnes is able to converse in French, English and Spanish.

We are delighted to welcome Agnes as the new Customer Services Representative for all our Safety West Customers.



Marketing

NICOLA NYE has joined as a Marketing Assistant after returning from living and working in Dublin. Prior to that Nicola was a Marketing Assistant for a national charity and has worked as a Customer Care Supervisor for Ford dealerships.

We are delighted to welcome her to the team.



Automechanika China 2003

City Technology recently participated in a successful automotive show in the Peoples Republic of China. The Automechanika China 2003 Show, held in Beijing, from the 11-14 March 2003, was hailed by the organisers to be the most successful ever held in China, with 366 companies from 17 countries exhibiting in the Show, attracting over 15,000 visitors from 46 countries.

China, as a potential market, certainly has the right statistical credentials - China's average year-on-year GDP growth from 1995 to 1999, averaged about 8.8 %, which is the highest in the world. Boosted by its accession to the WTO, China's GDP growth for 2002 is predicted to be 8%. With the purchasing power of China's 100 million strong middle class, automotive sales over the past 10 months chalked up a staggering increase of 50% over the previous year.

Not surprisingly, there is increasing concern from the authorities on the effect this will have on the environment, especially with the world's eyes soon to be on China due to the Beijing Olympics 2008. Legislation on emissions control can only be enforced through measurement, and there is clearly a lot of interest in automotive gas sensors from the many manufacturers of exhaust gas analysers, anticipating a growth in the market for analysers.

City Technology, with its commitment to preserving the environment through gas sensing technology, introduced its range of automotive gas sensor products, the AutoceLs AO2, AO3, NX-1 and NX-3, the IRidium Infra-red benches, IRidium 50 and IRidium 100 and the cabin air quality dual sensor, the CAP0710.

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QUALITY

CITY TECHNOLOGY LTD GOES GREEN!

In 2001 City Technology Limited undertook an environmental review with the objective of attaining ISO 14001 accreditation.

As a result of this review procedures have been put in place to monitor, control and improve impacts on the environment. City Technology Limited has implemented environmental objectives such as reducing the amount of water consumption and reducing the amount of electricity usage. To emphasise the company's commitment to the environment, City Technology has written a Company Environmental Policy, which stipulates that environmental issues must be discussed during the design of new products and processes, all emissions are monitored and that environmental legislations are complied to. The company has also taken a pro-active approach to working with other companies and its customers to help reduce waste.



The official audit for ISO 14001 took place at City Technology Limited in April 2003 and City Technology Limited have now been recommended for ISO 14001 accreditation.

For more information on City Technology's Environmental Policy or how you and your company can work in partnership with City Technology to help the environment please contact the Quality Department or check out the company website on www.citytech.com

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