



# Your Partner for Humidity and Flow Sensor Solutions

Humidity and Temperature ▪ Liquid Flow ▪ Flow Meter ▪ Flow Controllers ▪ Differential Pressure

**SENSIRION**  
THE SENSOR COMPANY





## Sensirion – The Sensor Company

Sensirion is the leading manufacturer of high-quality sensors and sensor solutions for the measurement and control of humidity, and gas and liquid flows. Founded in 1998 as a spin-off from the Swiss Federal Institute of Technology (ETH), the company is based in Staefa near Zurich, Switzerland, and has offices in North America, South Korea, Japan, China and Taiwan. The head office in Switzerland is responsible for research, development, and production.

Millions of Sensirion's sensor components and solutions are used all over the world. Customers in various industries, including demanding mass markets such as the automotive and medical industry, rely on our products. Sensirion's success is based on the innovative CMOSens® Technology, which combines the sensor and analysis electronics on a single semiconductor chip. This enables the low-cost production of a large number of high-quality units, making Sensirion a preferred supplier of microsensors and sensor solutions.

With locations around the world and a seamless distribution network, we can provide the highest level of customer support at every stage of the project. The many awards we have won demonstrate that we are prepared to go the extra mile for our customers. We received the Ernst & Young Entrepreneur of the Year® 2010 award, which is presented to companies that have made a contribution to the competitiveness of the Swiss economy by means of personal commitment and a willingness to take risks.



## Present in the Markets

With numerous applications in various industries, our sensors provide many useful functions. In the medical industry, they enable continuous and reliable patient monitoring, and precise control of medical equipment, making it more effective and safer. In the automotive industry, our products help to achieve precise and efficient climate and engine control, and thus contribute to reduced fuel consumption; they can also be used to prevent window fogging, which enhances safety. Our sensors support efficient heating, ventilation, and air conditioning in building automation and burner control systems, and thus help to reduce energy consumption and enhance personal comfort. Our humidity and temperature sensors are also used in consumer goods, such as mobile phones.

Indeed, whether for the automotive industry, HVAC systems, medical technology, process automation, the consumer goods industry or household appliances, the goals are essentially the same: to reduce energy consumption, improve health, increase comfort, enhance safety, and reduce costs. Through measurement of the environment, we can make the world smarter. This puts Sensirion and its products at the forefront of efforts to meet the many emerging social and environmental challenges.

## Quality and Sustainability

Sensirion does its best to ensure that its products and services satisfy the most stringent quality specifications. After all, the reliable delivery of impeccable products is a fundamental prerequisite to achieving high customer satisfaction. This applies in particular to applications in sophisticated markets such as medical technology and the automotive industry. To address increasingly demanding specifications, we continuously improve and refine our quality management system. Sensirion has been certified according to the automotive standard ISO/TS 16949, which extends and supplements its quality certificate according to ISO 9001. The ISO certifications of our quality management system are a reflection of our ongoing efforts to design processes that achieve the highest customer satisfaction, and support our customers' value-added processes. These standards certify the structure, implementation, monitoring, and continuous improvement of standardized and reliable business processes.

As well as its dedicated approach to quality, Sensirion also works constantly to improve its environmental performance. Our main goals are an increase in energy efficiency, the safe handling of chemicals, and the avoidance of restricted or hazardous materials – making our production more sustainable. As evidence of this policy, Sensirion has been certified according to the ISO 14001 environmental standard.



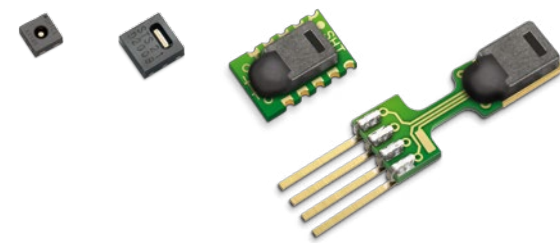
## Your Partner for Innovative Sensor Products

Sensirion is a leading manufacturer in the provision of relative humidity sensors and flow sensor solutions with unique performance characteristics. In addition to our capacitive humidity sensors, the product range includes liquid flow sensors, mass flow meters, mass flow controllers and differential pressure sensors. Using our microsensor solutions, OEM customers benefit from our proven CMOSens® Technology and excellent technical support.

# Automotive

### HUMIDITY AND TEMPERATURE SENSORS

Sensirion's family of relative humidity and temperature sensors has become established as the industry standard – mainly due to their high performance and miniature format. The capacitive humidity and temperature sensors provide digital and fully calibrated output, which allows for easy integration without the need for additional calibration. The excellent long-term stability of our products has been very well received, and their low levels of energy consumption are unrivalled.



Our humidity and temperature sensors are used in a wide variety of OEM applications, such as the HVAC and medical fields and the automotive and consumer goods industries. Our customers benefit from the high quality at competitive prices that we are able to achieve with our CMOSens®-based mass production.

For more information, please ask for the Humidity Sensors product flyer or visit [www.sensirion.com/humidity](http://www.sensirion.com/humidity)

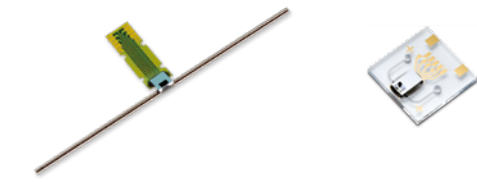
# Consumer Electronics

### LIQUID FLOW SENSORS

Sensirion's liquid flow sensors measure flow rates in the range of milliliters, microliters or even nanoliters per minute. Our innovative sensor technology allows high-precision measurements to be made through the wall of the flow channel, keeping a straight fluidic path without moving parts or any obstacles. Our customers benefit from this non-invasive technology in a multitude of applications, such as medical equipment and diagnostics, process engineering and the semiconductor industry.

The small sensors are suitable for water, hydrocarbon liquids, and many other media. Thanks to the media-isolated measurement principle and the use of high-quality inert materials, these products offer excellent biocompatibility and chemical resistance. The liquid flow sensors also feature extremely high sensitivity and speed, which allows monitoring of highly dynamic processes. In addition to standard liquid flow sensors, Sensirion offers customized solutions for high-volume applications. We develop and produce products that are perfectly tailored to our customers' specific requirements.

For more information, please ask for the Liquid Flow Sensors product flyer or visit [www.sensirion.com/liquidflow](http://www.sensirion.com/liquidflow)



# Semiconductor

# Appliance

### MASS FLOW METERS FOR GASES

Sensirion's mass flow meters ensure fast, accurate and economical measurements of gas flow over a wide dynamic range. At the heart of these mass flow sensors is a MEMS-based calorimetric microsensor, which measures the gas flow using the thermal measurement principle. The sensor element is integrated with the complete signal conditioning electronics on a single chip. This unique integrated technological approach results in excellent performance at a very attractive cost. That is why leading manufacturers, including many in the medical industry, rely on Sensirion's highly sensitive flow meters.

For more information, please ask for the Mass Flow Meter product flyer or visit [www.sensirion.com/massflowmeter](http://www.sensirion.com/massflowmeter)

### MASS FLOW CONTROLLERS FOR GASES

Sensirion's mass flow controllers are characterized by fast and accurate control of gas flow over a wide dynamic range. At the heart of these mass flow controllers is a MEMS-based calorimetric microsensor, which is integrated with the complete signal conditioning electronics on a single chip. Flow is measured using the thermal measurement principle, and efficient control is provided by a digital controlling circuit. This unique integrated technological approach results in excellent performance and reliability – at a very attractive cost. These controllers are designed for process automation in a vast range of applications with non-aggressive gases.

For more information, please ask for the Mass Flow Controller product flyer or visit [www.sensirion.com/massflowcontroller](http://www.sensirion.com/massflowcontroller)



# Automation



# Building Technology

### DIFFERENTIAL PRESSURE SENSORS FOR GASES

Sensirion offers a large selection of differential pressure sensors for extremely reliable, fast and sensitive measurements. These analog and digital sensors are individually calibrated and temperature-compensated. Customers benefit from the highest performance and flexibility for the measurement of differential pressures with air or dry gases. Our differential pressure sensors are based on a dynamic measurement principle in which the differential pressure is determined from the calorimetric mass flow measurement. As a result, the sensors are distinguished by their high precision and resolution, especially for minute pressure differences. The small, cost-effective sensors are used in medical equipment and other industrial applications. Thanks to their outstanding long-term stability, there are no drift problems and sensor repeatability is excellent.

For more information, please ask for the Differential Pressure Sensors product flyer or visit [www.sensirion.com/differentialpressure](http://www.sensirion.com/differentialpressure)



# Medical

### CUSTOMER-SPECIFIC SOLUTIONS

For applications not covered by standard commercial products, Sensirion offers individual OEM solutions and special customized system solutions. These are achieved by modifying an existing product or developing a tailor-made sensor according to the customer's specific instructions and requirements. The basis for such customer-specific sensor solutions is our CMOSens® Technology. Supported by our highly qualified engineers, you receive a reliable, intelligent, and above all cost-effective product.

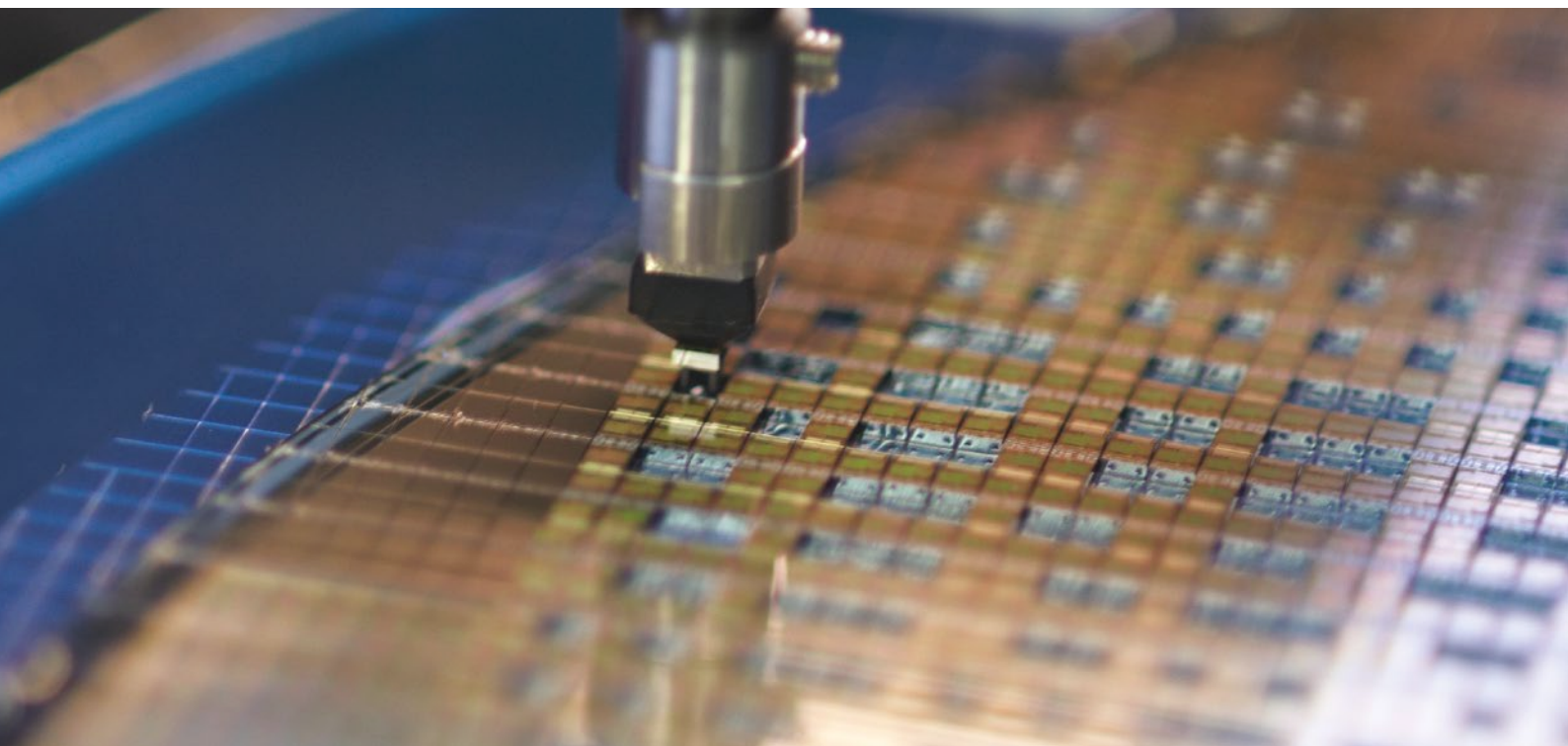


## Unique CMOSens<sup>®</sup> Technology

Sensirion sensor products guarantee outstanding performance and correspondingly high customer utility. They are based on our innovative CMOSens<sup>®</sup> Technology, which enables the sensor component to be combined with the analog and digital signal processing circuitry on a tiny CMOS silicon chip. This is implemented using advanced semiconductor technology, including specific microsystem processing steps to produce the microsensors on specially developed and patented semiconductor parts.

The resulting sensor chips allow precise and reliable sensing of the desired physical parameters, such as relative humidity, temperature, and mass flow. CMOSens<sup>®</sup> represents a guarantee of high precision, reliability, and functionality combined with cost effectiveness.

**CMOSENS<sup>®</sup>**  
TECHNOLOGY

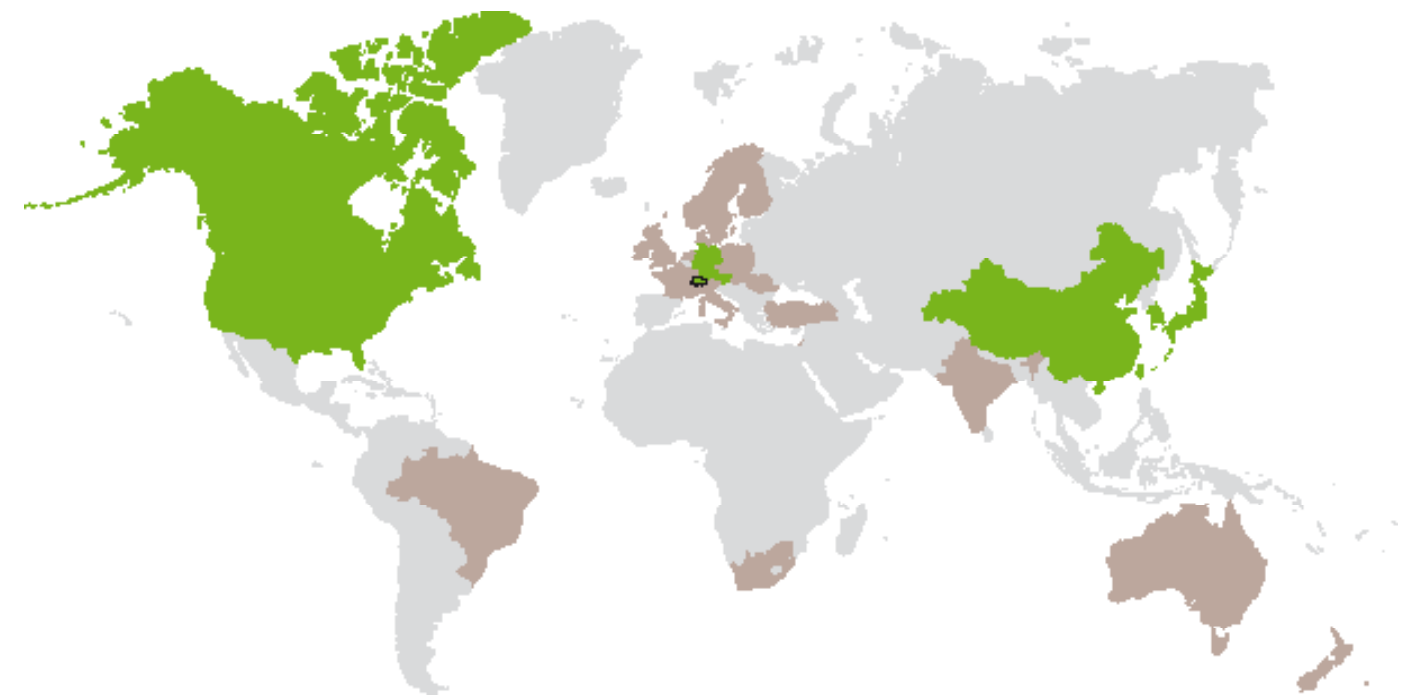


## Sensing. Anytime. Anywhere.

Sensirion places a great deal of importance on the highest level of customer service. Our customers can always count on quick, efficient and competent support from our highly qualified sales and development teams. To ensure knowledgeable technical services on site, we rely on an international sales network. In addition to our headquarters in Switzerland, we have offices in China, Japan, Taiwan, South Korea and North America.

We are also supported by a number of distribution partners and catalog distributors. This comprehensive network guarantees seamless customer service worldwide.

To find your personal contact, please go to [www.sensirion.com/contact](http://www.sensirion.com/contact)



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