

Press release

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Sensirion's multi-gas meter modules measure pure hydrogen, hydrogen blends and natural gas

SGM64xx: proven and improved gas meter modules for a sustainable future

The SGM64xx is the first gas metering module on the market able to measure any gas mixtures, including pure hydrogen, blends of hydrogen, biomethane and natural gas types H, L, and E. Therefore, no meter replacement nor any firmware update will be required for meters that feature the SGM64xx product line when natural gas is gradually or fully substituted with hydrogen. Since replacing even a small fraction of meters currently in use is significantly more expensive than installing multi-gas capable meters today, utility companies can rest easy and cut future costs significantly.

Carbon neutrality, sustainability and the reduction of CO₂ emissions are the main global trends in the energy sector. Our current gas infrastructure must be prepared for the arrival of renewable gases. In one example, starting in 2025, all new gas boilers installed in the UK will have to be compatible with pure hydrogen. Similar requirements for gas meters are expected to follow shortly after. With SGM64xx, meters will be ready for whatever the future holds.

The SGM64xx is based on the proven and reliable SGM63xx platform, and brings it to a new level by extending its measurement capabilities to pure hydrogen. This is achieved via an augmented calibration procedure, which otherwise does not introduce any changes to the product's mechanical, electrical and software interfaces. Furthermore, the hydrogen flow ranges supported by SGM64xx are three-times higher than those of natural gas, which guarantees a compact meter size no matter the hydrogen content.

Gas meters incorporating thermal-mass modules are the best choice for the transition towards a sustainable future. Sensirion's gas meter modules provide excellent measurement performance and robustness at ultra-low power consumption levels. Therefore, they are suitable for residential and industrial applications covering flow ranges from G1.6 to G25.

Proven technology for years

Thermal-mass technology has been proven over the years by more than six million meters in the field and billions of hours of reliable metering. Two third-party studies confirm the long-term reliability of this technology for applications in extreme environments. These studies investigated gas meters that were in the field for more than a decade. All meters operated well within the accuracy limits set for field operation, and most of them met the requirements placed on brand-new gas meters. In addition, Sensirion's gas meter modules are certified according to the EN 14236 and OIML R 137 standards, with EN 17526 certification on its way. These evaluation certificates facilitate MID approval for gas meter manufacturers.

Lead the energy transition with Sensirion's solutions for the multi-gas future. Learn more about it by visiting us at Enlit Europe in Milan from November 30, 2021 to December 2, 2021, or visit our website www.sensirion.com/thermal-mass.

About Sensirion – experts for environmental and flow sensor solutions

Sensirion, headquartered in Staefa, Switzerland, is a leading manufacturer of digital microsensors and systems. The product range includes gas and liquid flow sensors, differential pressure sensors and environmental sensors for the measurement of humidity and temperature, volatile organic compounds (VOC), carbon dioxide (CO₂) and particulate matter (PM_{2.5}). An international network with sales offices in the US, Europe, China, Taiwan, Japan and Korea supplies international customers with standard and custom sensor system solutions for a vast range of applications. Sensirion sensors can commonly be found in the medical, industrial and automotive sectors, analytical instruments, consumer goods and HVAC products.

One of the hallmark features of Sensirion products is the use of its patented CMOSens® Technology, which permits intelligent system integration of the sensor element, logic, calibration data and a digital interface on a single chip. Sensirion's credentials as a reliable supplier are underscored by its loyal customers, reputation for high quality (ISO/TS 16949) and top customer pedigree.

Contact: www.sensirion.com, info@sensirion.com, Tel. +41 44 306 40 00, Fax +41 44 306 40 30