

Gas chromatography

Real-time monitoring and control to provide optimal solutions

From clinical research to forensics, separating the different compounds of a gas mixture is a key step in various processes. Gas chromatography is a major method for such applications, providing fast, precise, and versatile operation. Sensirion's mass flow controllers offer accurate measurements with unmatched repeatability down to a few liters/hour.



Application challenges

- 1 Accurate mixing of the carrier and sample is vital for a precise result
- 2 Various carrier gases can be used, and the system requires lengthy factory calibration
- 3 Repeatability is crucial to ensure a reliable measurement



Sensirion's solutions

- 1 High accuracy, repeatability, and fast response time
- 2 Factory-calibrated digital sensor for multiple gases and temperatures
- 3 Unmatched repeatability down to subml/min

Sensirion sensor solution:



SFC5500 versatile mass flow controller
with best-in-class performance

Size (LxWxH): 105 x 38.5 x 90.5 mm³

Additional sensor features

- Both mass flow meter and mass flow controller versions available
- Several communication interfaces and fittings available

Other applications

- Thermal analysis
- Mass spectrometry
- Semiconductor manufacturing

FAQs

- **What gases can the sensor be calibrated for?**

Standard calibration gases: Air/N₂, H₂, O₂, He, Ar, CO₂.

On request we calibrate by gas conversion for: SF₆, C₄F₈, CF₄, NH₃, SiH₄, N₂O, O₃, CO, CH₄, CH₃F, Xe, Ne, Kr (+ other gases on request, not compatible with aggressive gases)

- **What are the wetted materials?**

Body: Aluminum; On request: Stainless steel or plastic

Sensor: Silicon (Si), Silicon oxide (SiO_x), Silicon nitride (Si₃N₄), Stainless steel, Glass, glob top

Sealing: FKM; On request: EPDM/FFKM

Valve: Brass, FKM; On request: Stainless steel, EPDM/FFKM

- **Which fittings can be used?**

Downmount fittings with manifold.

- **Which communication interfaces are available?**

RS485, DeviceNet, IO-Link, SHDL, Modbus.

- **Is the sensor's response compensated for temperature and pressure?**

The sensor is temperature compensated.

Getting started



EK-F5x evaluation kit

Useful documents



Datasheets, application notes, handling instructions, samples codes, step files, certificates

Related sensors

➤ SFM5xxx gas flow sensor

➤ SFM6xxx gas flow sensor

➤ SFC6xxx mass flow controller