

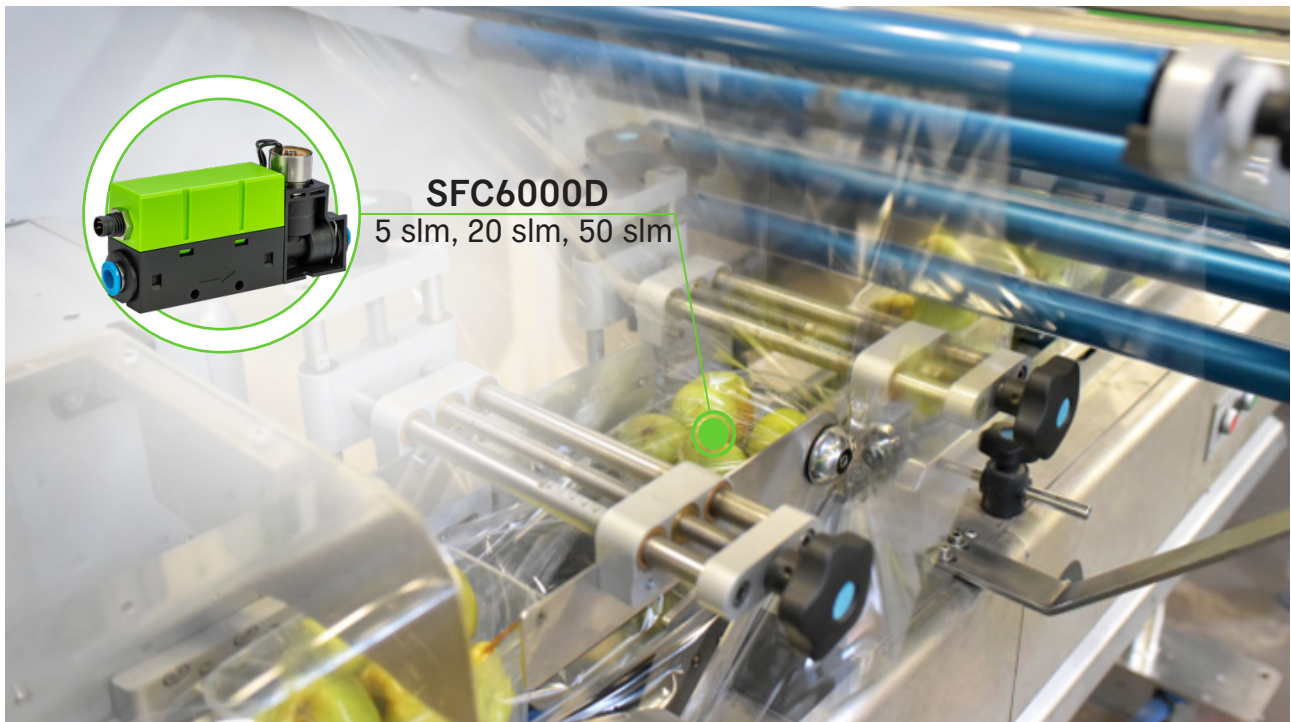
# Inert gas purging in process industries

## Cost effective gas control for repeatable processes

In the process industries inert gases such as nitrogen and argon are used. For instance, in the food industry a controlled atmosphere is created to keep food freshness; in welding processes, argon or helium are used to displace gases like nitrogen or oxygen, that are detrimental for the quality of welds. Sensirion's products, owing to their small size, accuracy, and competitive price can be easily integrated into process automation to increase production speed and reduce costs.

### Target customers:

- Manufacturers of welding or packaging machines
- Vacuum pumps
- Coating equipment (PVD)



### Application challenges

- 1 Dispense the correct amount of protective inert gas to ensure quality and reduce cost
- 2 Ensure disinfection/protection from spoiling of food
- 3 Complex integration of flow sensor + valve + microcontroller



### Sensirion's solutions

- 1 Exact, reliable, and rapid adjustment of inert gas
- 2 Precise, stable and fast regulation of the purged gas
- 3 Plug-and-play mass flow controller

# Sensirion sensor solution:



**SFC6000D Mass Flow Controller with best price-performance ratio:**

Size (LxWxH): 102 x 45 x 20 mm<sup>3</sup>

## Additional sensor features

- Available as mass flow controller or mass flow meter
- Available in plastics or metal body

## Other applications

- Analytical instruments
- FOUP
- Thin film deposition

## FAQs

- **Which fittings are available?**  
Downmount, push-in
- **Which communication interfaces are available?**  
Analog voltage, RS485, Modbus RTU, I<sup>2</sup>C
- **Do I need to periodically calibrate the mass flow controller?**  
No, due to the excellent long-term stability of CMOS technology, recalibration is never required
- **Can humidity damage the mass flow controller?**  
The mass flow controller is fully operational when dealing with non-condensing humidity levels
- **At which pressure range can the SFC6xxx operate?**  
The operational pressure ranges are determined by the flow range of the mass flow controllers. The maximum allowed differential pressure between the inlet and outlet is 7 bar for the 5 slm version, 5.5 bar for the 20 slm version, and 4.0 bar for the 50 slm version. In all cases, the maximum allowed inlet overpressure is 10 bar.

## Getting started



EK-F5x

## Useful documents



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

## Related sensors

- [SFC54xx mass flow controller](#)
- [SFC53xx mass flow controller](#)