



Process sensors



Keep a close eye on the consumption of industrial gases



Flow sensors / flow meters



Sensor for recording the consumption of helium completes the portfolio

Precise measurement enables efficient energy and usage management

Clearly visible colour display for on-site consumption monitoring

- Output of various process values reduces the number of measuring points required
- Simulation mode simplifies set-up and handling



Energy-efficient



IP 65
IP 67



IO-Link



Broad
measurement
dynamics



4...20 mA

Convenient: Simultaneous recording of several process values

The SD series flow sensors detect the important industrial gases helium, argon, carbon dioxide, nitrogen and air. This makes them the ideal choice for bottling and packaging machines in the food industry as well as for welding, cutting or soldering processes in which protective gases are used. Besides the current flow rate, the sensors also detect temperature, pressure and the total volumetric flow quantity. The values can be read on the colour display and are available as digital data via IO-Link.

User-friendly handling via IO-Link

IO-Link provides further useful features that simplify the handling of the sensors: In the simulation mode, customised display and switch point settings can be checked before set-up and by means of the flash mode, the user can quickly visually identify the sensor with the triggered output.



Assure quality, reduce costs

Thanks to the flow meter, the user can keep an eye on the precise consumption of expensive industrial gases. Very small quantities are detected as reliably as large flows. The high measuring accuracy ensures product and process quality wherever the precise dosing of gases is important. While excessive consumption unnecessarily increases costs, too low a supply will compromise the final quality of the product.

The basis for a comprehensive energy management according to DIN EN ISO 50001

The EU directive on energy efficiency DIN EN ISO 50001 requires companies to keep records on measurement equipment calibration to ensure correctness and repeatability of the measured data. Combining the new SD compressed air meter with regular DAkkS calibrations provides the optimum basis for a reliable energy management system.

Highest precision in every process

No matter which SD is used – maximum precision is always guaranteed. The SDX6XX 4-in-1 sensor with four integrated gas characteristics offers consumption measurement of argon, carbon dioxide, nitrogen and air as well as high measurement dynamics.

For helium use the SDX8XX series. These units are specially adapted to the properties of helium. This ensures that even this very costly industrial gas is measured with maximum precision.

As all SD sensors also detect pressure, temperature and the total volumetric flow quantity of the medium, fewer additional sensors including wiring and input cards are required – this reduces installation and maintenance costs.

* Applies to the specified article(s) and must be requested when ordering the sensor. Subsequent orders are only possible if the device is returned.

Medium	Measuring range [Nm ³ /h]	Process connection	Order no.
Argon (Ar) nitrogen (N ₂), carbon dioxide (CO ₂), air	0.05...15	G 1/4 (DN8)	SD5600
	0.25...75	R 1/2 (DN15)	SD6600
	0.8...225	R 1 (DN25)	SD8600
Helium (He)	0.05...5	G 1/4 (DN8)	SD5800
	0.1...10	R 1/2 (DN15)	SD6800

Calibration certificate for flow sensors (SD)*

ISO calibration, only for air (6 calibration points)	ZC0020
DAkkS calibration, only for air (6 calibration points)	ZC0075

Common technical data Type SD

Flow

Measuring range	[Nm ³ /h]	0.05...225
Accuracy	[%]	± (6.0 MV + 0.6 VMR)
Repeatability	[%]	± (0.8 MV + 0.2 VMR)
Response time	[s]	0.1

Temperature

Measuring range	[°C]	-10...60
Accuracy	[K]	± 0.5
Response time T09	[s]	0.5

Pressure

Measuring range	[bar]	-1...16
Linearity error	[%]	< ± 0.5 (BFSL)
Repeatability		± 0.2
Response time	[s]	0.05

Output signal

Switching output,
analogue output,
pulse output,
IO-Link (configurable)



Stored gas characteristics ensure precise measured values for different gases. With the output of four process values (current flow rate, total quantity, pressure, temperature), the SD is a true all-rounder.