



Process sensors



# 4 in 1: flow meter determines the consumption of four industrial gases

Flow sensors / flow meters

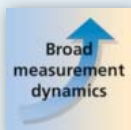
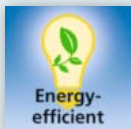


**High versatility reduces sensor variety and stock-keeping**

**Precise measured data enables efficient energy management**

↻ **Different process values being indicated simultaneously removes the need for multiple instruments**

↻ **Simulation mode simplifies set-up and handling**



## "All-in-one sensor" reduces costs

The new flow meter of the SD series detects four important industrial gases: argon, carbon dioxide, nitrogen and air. This makes it 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, the sensor also detects 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

Via IO-Link, the sensor offers various useful features that simplify the handling: 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 visually determine the exact position of the triggered sensor.



### 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.

### High versatility reduces sensor variety and stock-keeping

The integration of four gas characteristics, high measurement dynamics as well as several measuring parameters in just one sensor significantly reduces hardware costs. Being suitable for a wide range of deployment scenarios, the SD reduces sensor variety and stock-keeping. As the sensor also detects 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 <sup>3</sup> /h]	Process connection	Order no.
Argon (Ar), nitrogen (N <sub>2</sub> ), carbon dioxide (CO <sub>2</sub> ), air	0.05...15	G 1/4 (DN8)	<b>SD5600</b>
	0.25...75	R 1/2 (DN15)	<b>SD6600</b>
	0.8...225	R 1 (DN25)	<b>SD8600</b>

#### Calibration certificate for flow sensors (SD)\*

ISO calibration, only for air (6 calibration points)	<b>ZC0020</b>
DAkkS calibration, only for air (6 calibration points)	<b>ZC0075</b>

#### Common technical data Type SD

<b>Flow</b>		
Measuring range	[Nm <sup>3</sup> /h]	0.05...225
Accuracy	[%]	± (2.0 MV + 0.5 VMR)
Repeatability	[%]	(0.8 MV + 0.2 VMR)
Response time	[s]	0.1
<b>Temperature</b>		
Measuring range	[°C]	-10...60
Accuracy	[K]	± 0.5
Response time T09	[s]	0.5
<b>Pressure</b>		
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)



Four gas characteristics and four measuring parameters (current and total volumetric flow quantity, pressure, temperature) turn the SD into an all-in-one solution.