Simply a question of
better measurement

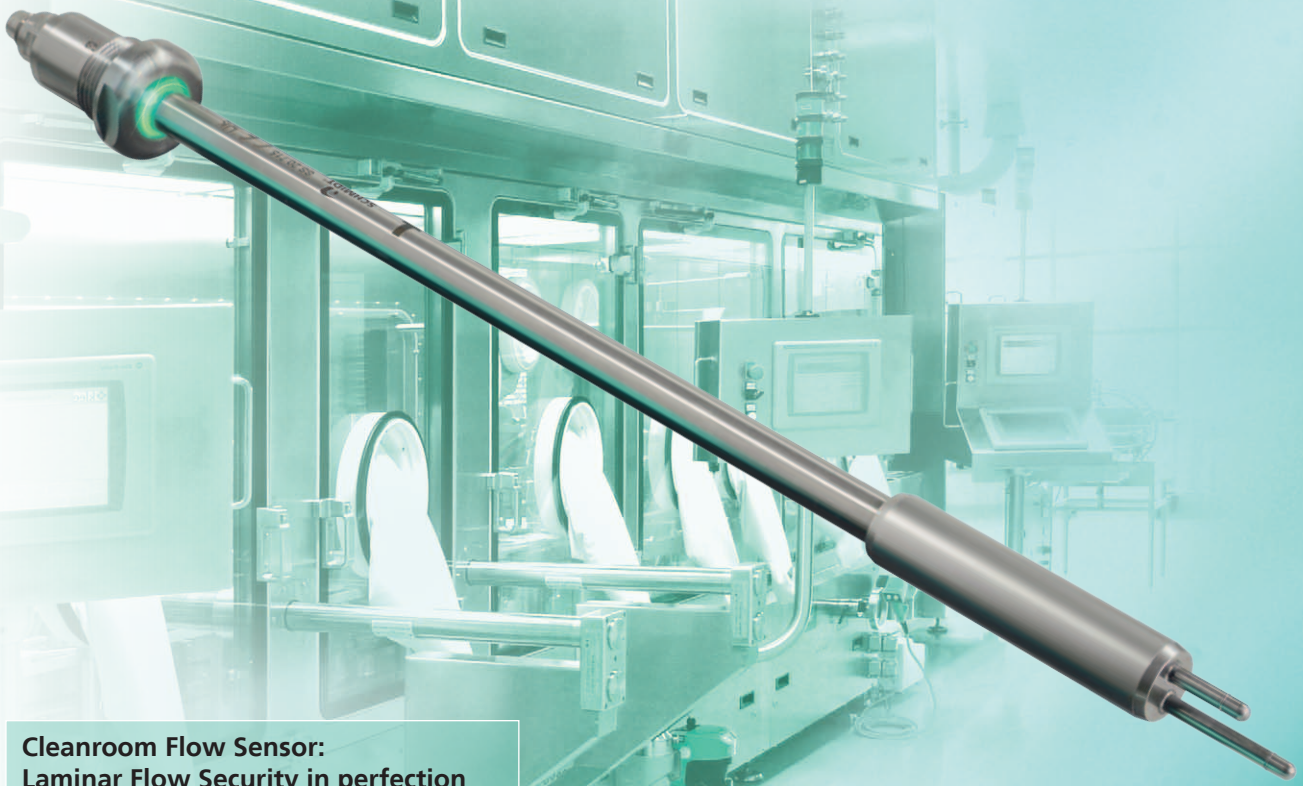
SCHMIDT® Technology

SCHMIDT® Laminar-Flow Sensor SS 20.715 LED
Robust validation of laminar flow

- Validation of laminar flow applications
- Sensor elements completely encapsulated in stainless steel
- Easy to clean and resistant against H_2O_2
- GMP-compliant and robust design
- 'Plug and Play' and quick assembly
- Precise measurement of low flow velocities [w_N]
- Straight and angled design for wall or ceiling mounting

Industrial processes

Cleanroom and pharmaceuticals



Cleanroom Flow Sensor:
Laminar Flow Security in perfection and GMP-compliant design!

Perfect for validation of laminar flow in applications with frequent cleaning intervals or product changes.

Sensor elements completely encapsulated in stainless steel

Flow monitoring in cleanrooms and clean zones

A direction-defined airflow in cleanrooms protects the products against contamination and unwanted particles will be safely evacuated. To do so, a uniform air flow from the ceiling to the floor ("oriented, low-turbulence displacement flow") is maintained in cleanrooms of high purity levels. The monitoring range is from w_N = 0.36 to 0.54 m/s flow velocity. In the cleanroom, the measurements are made behind terminal filters. Since the recirculation of air is reduced during standstill periods, an extremely precise measurement of the air velocity is mandatory from 0.1 m/s onwards.

Air flow measurement and control by SCHMIDT® Flow Sensor SS 20.715 LED

The thermal **SCHMIDT® Flow Sensor SS 20.715 LED** is the robust solution for extremely challenging cleanroom applications. Product changes in pharmaceutical filling systems or internal requirements force operators of cleanrooms and systems in clean zones to clean them regularly. When aggresive media is used for cleaning or more intensive cleaning is required due to considerable or very stubborn contamination, the new SS 20.715 LED laminar flow sensor with double-pin sensor head made of stainless steel is the first choice.
The double-pin sensor head has been designed to meet the aforementioned requirements and, due to the sensor elements being completely encapsulated in stainless steel these are ideally suited for extremely demanding applications. In addition to the flow velocity, the SS 20.715 LED also measures the process temperature, with a range of -20 to +70 °C.
Thanks to the **SCHMIDT® cleanroom-compliant quick assembly kit**, the flow sensor can be installed easily or even exchanged for an existing sensor without any additional effort.
On request the SS 20.715 LED can also be delivered with a **DAkkS accredited calibration**.

Technical data

Measuring parameters	Standard velocity w_N of air, based on standard conditions 20 °C and 1013.25 hPa; Medium temperature T_M
Measuring range w_N	0.1 … 1 / 2.5 / 10 m/s
Measuring range T_M	-20 ... +70 °C
Measuring accuracy [1] w_N - Standard - High precision	 ±(3 % of measured value + 0.05 m/s) ±(1 % of measured value + 0.04 m/s)
Measuring accuracy T_M ($w_N \geq 0.3$ m/s)	±1 K (T_M = 10 ... 30 °C) ±2 K (rest of measuring range T_M)
Response time (t_{90}) w_N	15 s
Signal outputs - Voltage output - Current output	2 analogue outputs: w_N and T_M 0 … 10 V 4 … 20 mA
Operating voltage U_B	24 V DC ± 20 %
Pressure range	Atmospheric (700 …1,300 hPa)
Humidity	< 95 % rH (in measurement operation)
Operating temperature	-20 ... +70 °C
Connection	M9 connector, male, 7-pole
Probe length	150 mm x 300 mm angulated 270 mm x 300 mm angulated 300 mm straight
Material	Stainless steel 1.4404 Gluing groove with H_2O_2 resistant epoxy resin
Type of protection	IP65
Protection class	III (SELV), PELV (EN 50178)
DAkkS accredited calibration	Available on request

[1] under reference conditions, related to the calibration reference

Order code SCHMIDT® Flow Sensor SS 20.715 LED

	Description	Article number							
Basic sensor	SCHMIDT® Flow Sensor SS 20.715 LED	566 900	A	B	C	D	E	F	G
Type	Standard		1						
Mechanical type	Sensor length 150 mm x 300 mm (angulated)			1					
	Sensor length 270 mm x 300 mm (angulated)			2					
	Sensor length 300 mm (straight)			3					
Mechanical fixation	Threaded bush M25 with counter nut				1				
	Threaded bush M25 with thread adaptor M25 x 1.5 to PG21				2				
	Threaded bush M25 with shank nut				3				
	Welding bush				4				
	Flange bush				5				
	Without fixation material				6				
Measuring range	0 … 1 m/s					1			
	0 … 2.5 m/s					2			
	0 ... 10 m/s					3			
Output signal	0 … 10 V						1		
	4 … 20 mA						2		
Adjustment accuracy and calibration	Standard adjustment without certificate							1	
	Standard adjustment with factory calibration certificate							2	
	High precision adjustment with factory calibration certificate							3	
Sensor programming	Factory setting								1

Want to learn more about the **SCHMIDT® Flow Sensor**? Further information is available on our website **www.schmidt-sensors.com** or from Mr. Oliver Joos, phone +49 7724 / 899-198 or by e-mail at **o.joos@schmidttechnology.de**

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