



Flow Sensor SS 20.515LED

Flow meter / flow sensor for air according to the calorimetric principle (anemometer)

For monitoring of clean rooms



- Precise measurement of low air speeds
- Sensor version: dumbbell head
- With additional temperature measurement
- Protective cover for aggressive media and alcohols
- Disinfectable with alcohols and H₂O₂ (VHP suitable)
- Self-monitoring and output of error signals
- Special lengths up to 1,000 mm (straight version)



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Merkmaile

- High-precision measurement of the flow rate
- Highest reproducibility of the measurement results
- Highly integrated evaluation electronics in the sensor tube - no further transducers required
- Integrated operating status display via LED light ring
- Optional LF status indicator "0.45 m / s ± 20%" via LED signal
- Cleanroom suitable, easy to clean
- Easy installation and commissioning (visual support during commissioning, LED signal)
- 5 mechanical fastening variants (straight wall and angled ceiling mounting possible)

Typical applications

- Precise measurement of the smallest air velocities
- Cleanroom and pharmaceuticals (laminar flow monitoring and control, laboratory systems and deductions)
- Packaging technology



Technical data

Measured variable W_N	Standard velocity W_N based on normal conditions ($T_N = 20^\circ\text{C}$ and $p_N = 1.013.25 \text{ hPa}$)
Medium	Clean air / nitrogen / other gases on request
Measuring ranges flow W_N	0...1/2,5/10 m/s
Max. display range W_N	+ 10% over measuring range
Lower detection limit W_N	0,06 m/s
Measuring range temperature T_M	-20...+70°C

Measurement accuracy

Standard W_N	±(3% of measured value + 0,05 m/s) ¹⁾
High precision (optional) W_N	±(1% of measured value + 0,04 m/s) ¹⁾
Reproducibility W_N	±1% of measured value
Start-up time $t_{90} W_N$	3 s (jump from 0 to 5 m/s)



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Technical data	
Temperature gradient W_N	<2K/min at 5 m/s
Measuring accuracy T_M ($W_N > 1 \text{ m/s}$)	$\pm 1 \text{ K}$ (10 ... 30 °C) $\pm 2 \text{ K}$ all other measuring ranges
Operating temperature	
Operating temperature	-20...+70°C
Storage temperature	-20...+85°C
Material	
Sensor head	PBT glass fiber reinforced, stainless steel 1.4404, protective coating (optional)
Sensor tube	Stainless steel 1.4404
General data	
Medium, surroundings	Non-condensing (up to 95% relative humidity)
Operating pressure	Atmospheric (700...1,300 hPa)
Supply voltage	24 V DC ±10%
Current consumption	typ. 80 mA / max. 120 mA
Analog output	0...10 V ($R_L \geq k\Omega$) or 4...20 mA/max. 21,6 mA ($RL \leq 300 \Omega$); short circuit protected
Error signal	Only at 4 .. 20 mA output: 2 mA (according to NAMUR NE43)
Connection	Connector M9 screwed connection, 7 pins, male
Maximum cable length	Voltage signal : 10 m, current signal: 100 m
Mounting position	In downflow direction
Protection / protection class	IP 65 / III (SELV or PELV EN 50178)
Sensor length	angled 270 x 300 mm, straight 300 mm / 301...1.000 mm
Weight	ca. 200 g (angled design)



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Important instructions!

Technical changes and errors reserved.

Pictures can be similar.

The operating instructions belonging to this device must be observed! Download at www.schmidt-messtechnik.com.