

SCHMIDT® 流量传感器

Flow Sensor

SS 20.260



产品描述

热式流量传感器可测量空气和气体的流速和温度并且带有线性信号输出
通过LED显示传感器的工作状态（正常或有错误）
紧凑型插入式传感器安装在空气通道中带有极高精度的探头

Product description

Thermal flow sensor for the measurement of flow velocity and temperature in air and gases with linear output signal. Two diagnostic LED's show operation status and correct function. Compact insertion type sensor for mounting in pipes and air ducts.

产品优势

- n 快速的单孔安装
- n 流量测量不需要压力和温度修正
- n 压力流失非常小
- n 设计紧凑
- n 探针管长度可达 500 mm

Product advantages

- n Simple single hole mounting
- n Mass flow measurement with pressure and temperature compensation
- n Very small pressure loss
- n Compact design
- n Sensor length up to 500 mm

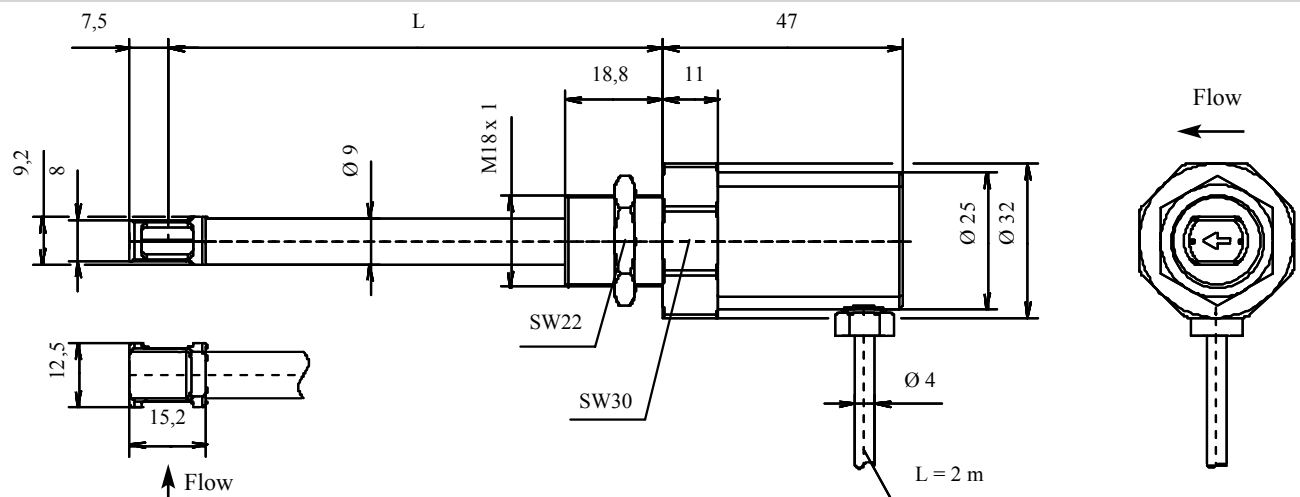
应用举例

- n 空气管道的流量测量
- n 体积流量测量
- n 燃烧气体控制如 油-碳-, 木料- 或 燃烧气体-
- n 干燥系统的气体测量

Applications

- n Flow measurements in air ducts
- n Volume flow measuring in test benches
- n Combustion air control in burners for oil, coal, wood or gas
- n Process air in drying systems

尺寸 / Physical dimensions



Form 1073/12.08/2500/6 - Art.-Nr. 508 978 - B - Technische Änderungen vorbehalten - Data subject to change

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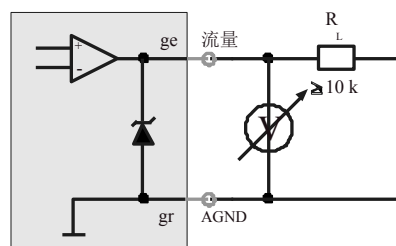
技术参数	
技术 / 设计	插入式热式流量计
量程 w_N	2.5 / 10 / 20 / 40 / 50 m/s 在 20 °C 和 1013,25 hPa
测量下限	0,2 m/s
测量精度 w_N	±(测量值的 5 % +量程的 0,4 %)
量程 T	-20 ... 85 °C / 120 °C
测量精度 T	±2 °C
工作压力	大气压 (700 ... 1.300 hPa)
工作温度	介质: -20 ... +85 °C / +120 °C 电子元件: -20 ... +70 °C
响应时间 (t_{90})	3 s
安装长度	50 / 100 / 200 / 350 / 500 mm
固定	外螺纹 M 18 x 1 可选 螺纹套管接头 ¹⁾
模拟输出	0 ... 10 V / 0 ... 20 mA / 4 ... 20 mA 线性
显示	LED 绿色: 准备就绪 LED 红色: 传感器错误
电源电压	24 V DC ±20 %
电流消耗	30 mA max. (ohne Last am Ausgang)
电气连接	电缆 4-针, 固定连接, 长度 2 m
外壳材料	PBT, 玻璃钢
传感器材料	铂, 玻璃钝化
探针管材料	不锈钢 1.4571
重量	100 g
保护等级 ^t	IP 65 (外壳) IP 65 (探针管)

Technical data	
Technology / design	thermal anemometer as insertion design
Measuring range w_N	2.5 / 10 / 20 / 40 / 50 m/s 8.2 / 32.8 / 65.6 / 131.2 / 164 ft/s at 20 °C and 1013.25 hPa
Lower range limit	0.2 m/s / 0.66 ft/s
Measurement inaccuracy w_N	±(5 % of measured value + 0.4 % of measuring range)
Measuring range T	-20 ... 85 °C / 120 °C
Measurement inaccuracy T	±2 °C
Pressure range	atmospheric (700 ... 1,300 hPa)
Operating temperature	medium: -20 ... +85 °C / +120 °C electronics: -20 ... +70 °C
Response time (t_{90})	3 s
Mounting length	50 / 100 / 200 / 350 / 500 mm 20 / 39 / 79 / 138 / 197 inch
Mounting	thread M 18 x 1, opt. tube throughpassage ¹⁾
Analogue output	0 ... 10 V / 0 ... 20 mA / 4 ... 20 mA linear
Display	LED green: operation status LED red: malfunction
Supply voltage	24 V DC ±20 %
Current consumption	30 mA max. (without load at output)
Electrical connection	cable 4-pole, pigtail, length 2 m
Material housing	PBT, glass fibre reinforced
Material sensor element	platinum, glass passivated
Material sensor tube	stainless steel 1.4571
Weight by mass	100 g
Protection type	IP 65 (housing) IP 65 (sensor tip and tube)

1) 产品编号 / Article No. 517 206

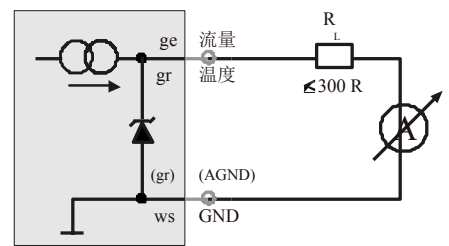
接线图 / Connecting diagram

说明	功能	颜色
Designation	Function	Colour
Power	电源电压 Operating voltage	棕色 brown
GND	地线电源 Mass operating voltage	白色 white
A _{Out, Flow}	模拟输出流量 Analogue output flow	黄色 yellow
A _{Out, Temp}	模拟输出 温度 Analogue output temperature	绿色 green
oder / or AGND	模拟输出地线 Mass velocity signal	



模拟输出 / Analogue output:

0 ... 10 V, $R_L \geq 10 \text{ k}\Omega$



模拟输出 / Analogue output:

0 ... 20 mA / 4 ... 20 mA, $R_L \leq 300$

产品编号	安装长度	量程 w_N	输出	连接	工作温度
Article No.	Mounting length	Measuring range w_N	Output	Connection	Operational temp.
506 690 - XYZAT	X	Y	Z 流量 / flow 温度 / temperature	A	T
	1 50 mm	1 0 ... 2.5 m/s	1 0 ... 10 V	1 电缆 / cable	1 -20 ... +85 °C
	2 100 mm	2 0 ... 10 m/s	2 4 ... 20 mA		2 -20 ... +120 °C
	3 200 mm	3 0 ... 20 m/s	3 0 ... 20 mA		
	4 350 mm	4 0 ... 40 m/s	4 4 ... 20 mA 4 ... 20 mA		
	5 500 mm	5 0 ... 50 m/s	5 0 ... 20 mA 0 ... 20 mA		

2) 不具备的组合 Z = 4, 5 / not available in combination with Z = 4, 5

3) 不具备的组合 Z = 1, 2, 3 / not available in combination with Z = 1, 2, 3