

流量传感器/风速计

Flow Sensor/Transmitter



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

产品优势

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

应用举例

- 空气管道的流量测量
- 体积流量测量
- 燃烧气体控制，如油、碳、木料或燃烧气体
- 干燥系统的气体测量

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.

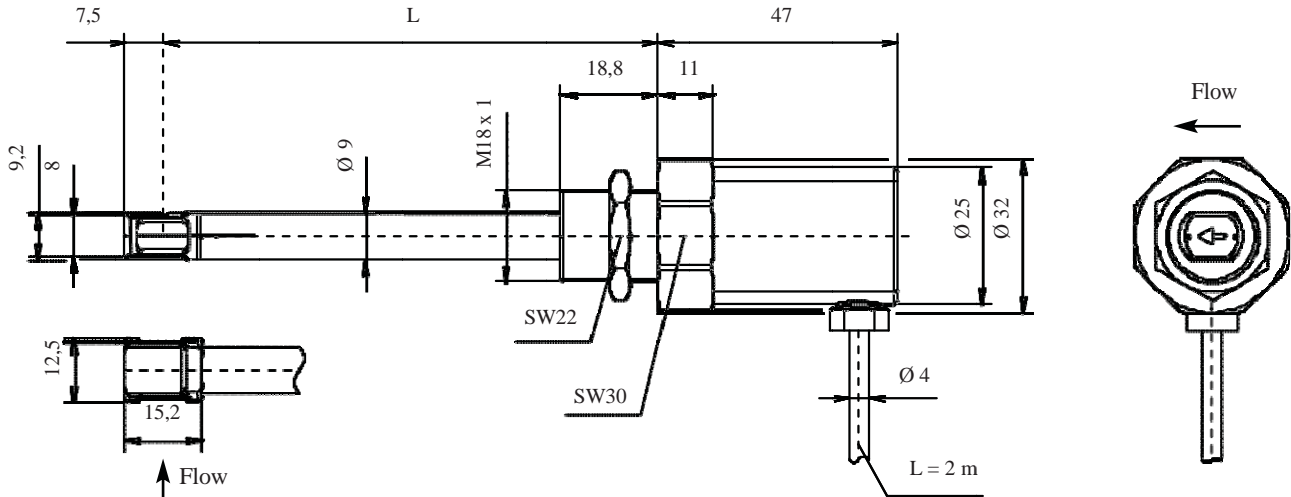
Product advantages

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

Applications

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

尺寸 / Physical dimensions



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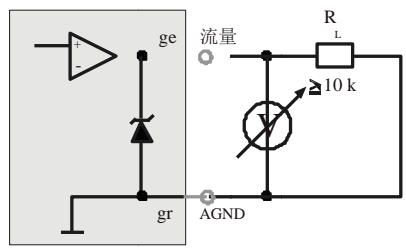


技术参数	
技术/设计	插入式热式传感器
风速量程	2.5 / 10 / 20 / 40 / 50 m/s 在 20 °C 和 101.325kPa
风速测量下限	0.2 m/s
风速测量精度	±(测量值的 5 % +量程的 0.4 %)
温度量程	-20 ... 85 °C / 120 °C
温度测量精度	±2 °C
工作压力	大气压 (700 ... 1.300 hPa)
工作温度	介质: -20 ... +85 °C / +120 °C 电子元件: -20 ... +70 °C
响应时间 ¹⁾	3 s
安装长度	50 / 100 / 200 / 350 / 500 mm
固定	外螺纹 M 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
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	白, 玻璃钝化
探针管材料	不锈钢
重量	1.4571 100 g
保护等级	IP 65 (外壳) IP 65 (探针管)

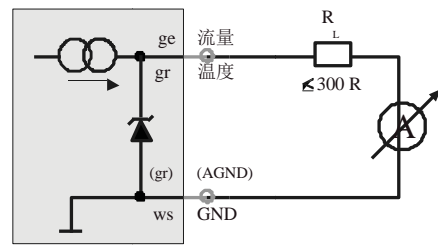
Technical data	
Technology / design	thermal anemometer as insertion design
Measuring range w _N	2.5 / 10 / 20 / 40 / 50 m/s 8.2 / 32.8 / 65.6 / 131.2 / 164 ft/s at 20 °C and 1013.25 hPa
Lower range limit	0.2 m/s / 0.66 ft/s
Measurement inaccuracy w _N	±(5 % of measured value + 0.4 % of measuring range)
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 PBT,
Material housing	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)

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 三 10 k Ω



模拟输出 / Analogue output:
0 ... 20 mA / 4 ... 20 mA, R_L 三₃₀₀

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.
TMF	X	Y	Z	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		
	5 500 mm	5 0 ... 50 m/s	5 0 ... 20 mA		