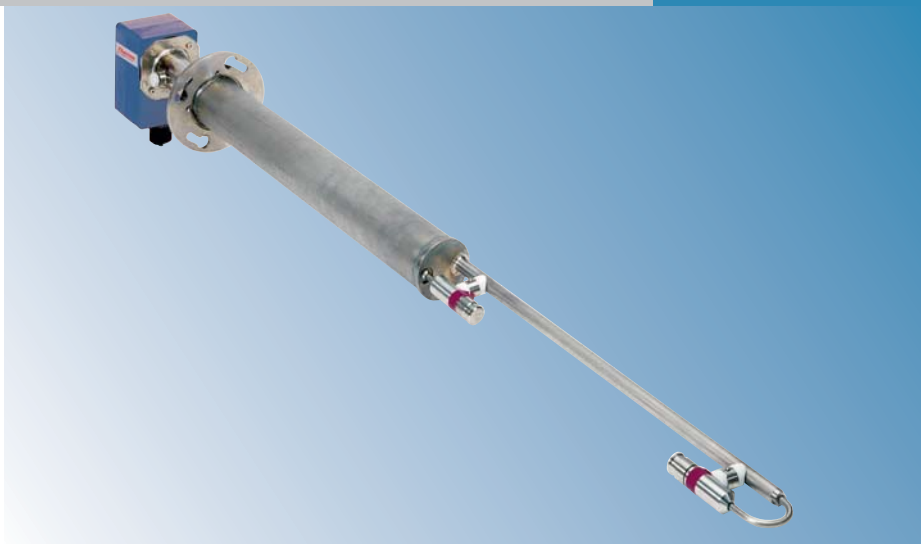


Thermo Scientific Model TS Flow 100, Probe Type

No-contact, In-Situ Ultrasonic Flow Meter



Key Features

- Compact design and easy installation
- User-selectable response time
- Digital signal between transmitter/receiver unit and evaluation unit
- Automatic measurement of transducer temperature

The Thermo Scientific Model TS Flow 100, Probe type is a no-contact, in-situ flow meter. An ultrasonic transducer is mounted on one side of the gas duct at a certain angle to the direction of flow. The transducer alternately transmits and receives sound pulses with and against the flow direction. The Thermo Scientific TS Flow 100 measures the propagation time delay of the pulses and uses this to calculate the velocity of the gas and determine the volume flow during operation.

The robust, field-proven TS Flow 100 probe-type flow meter utilizes ultrasonic technology to measure gas velocities with a single stack penetration. The probe-type flow meter consists of the probe with a single transducer, an evaluation unit (control panel) and connecting cable. A cross stack version is also available for measurement across the entire stack.

Additional features include:

- Compact design for easy installation on one side of the duct
- Highly reliable with low maintenance requirements
- Integrated measurement of the gas velocity between the transducers are independent of pressure, temperature and gas composition
- Minimal gas flow disruption as only the narrow probe and transducers are in the stack

The TS Flow 100, Probe type is reliable, accurate, easy to plan, install and commission. Additionally there are extremely low maintenance requirements during operation.

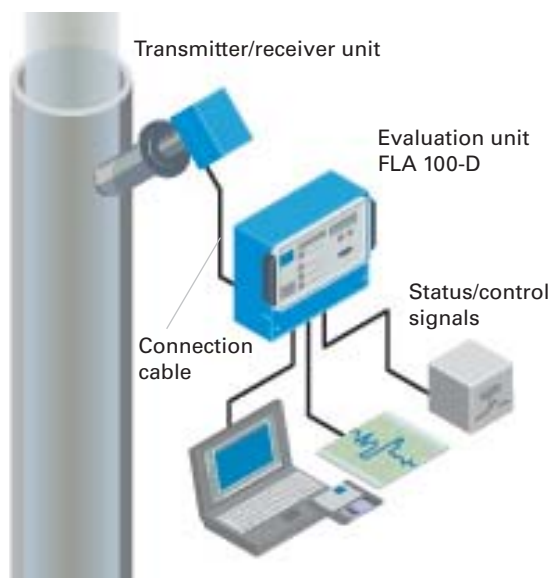
Product Specifications

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

Model TS Flow 100, Probe Type

Active measuring path	11.8" (0.3m)
Inner channel diameter	> 1" 2" (> 0.35m)
Gas temperature	392°F (200°C)
Inner channel pressure max.	± 0.1 bar
Dust concentration (load) max.	1 g/m ³ s.s.
Ambient temperature	-4 - +130 °F (-20 - +55 °C)
Distance: elevation unit to transmitter/receiver unit	1000m
Measured quantity	Gas velocity, volume flow s.s./o.s., gas temperature
Measuring range	v: °40 m/s; user-selectable
Emission measurement accuracy	±0.1 m/s
Process control precision	±1% for v > 2m/s; ±0.02 m/s for v < 2m/s
Signals	1 analog output: 0/2/4-20 mA: 750 Ω load 4 relay outputs f. status signals: 48 V/1A (el. isolated)
Interfaces	RS232
Response time (T₉₀)	1-300 seconds ; user-selectable
Mounting angle	45° -
Options	2 analog modules max. 0-20 mA, 1 pulse output 1 interface module RS232/422/485
Power supply	90-140 VAC/180-240 VAC; 50/60 Hz; ca. 20 W
Protection class	IP 65

Diagram



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This product is manufactured in a plant whose quality management system is ISO 9001 certified.

Lit_TSFlow100PTAQI_10/09

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