AFMP
Average Flow Measuring Tube

| Features |

- **Pitot tube** : Measure differential pressure caused by flow, combined with differential pressure sensor to calculate flow.
- **Multi-Hole Structure** : Averages differential pressure readings from multiple points for stable and reliable measurements.
- **High Sensitivity** : Low pressure drop within the tube enables measurement of small value, with sensitivity down to 1 Pa.
- **Durable Material** : Made of SS316, providing strong corrosion resistance and long-term stability across diverse environments.
- **Environment Resistant** : Ideal for extreme conditions. Options for operating temperature up to 600C and pressure up to 10 bar.
- **Dust-Resistant** : Features a dust-resistant structure that resists clogging, ensuring stable flow measurement.

| Introduction |

AFMP adapts the Pitot tube principle, where the combination of the Pitot tube and a differential pressure sensor is commonly used for flow measurement. It measures the differential pressure between the total pressure and static pressure of the fluid, allowing for the calculation of fluid velocity. The difference between total and static pressure is known as dynamic pressure, which results from fluid flow and is proportional to the square of the flow velocity. By measuring dynamic pressure, the fluid speed can be accurately determined. The AFMP averaging Pitot tube features a multi-hole structure, which averages pressures from multiple points to better represent the actual flow profile within the pipe, ensuring stable and precise measurements.

| Applications |

HVAC system / Ventilation ducts / Exhaust gas treatment / Low and high flow measurement

| Specification |

Environment

Operating pressure	Standard type : Max. 10 bar
	High-temp. type : Max. 4 bar
Operating temperature	Standard type : Max. 200°C
	High-temp. type : Max. 600°C
Measuring medium	Air
Flow coefficient (K)	1

Connection

Installation connection	3/4"PT movable thread
Outlet connection	1/8"G inside thread

Material

Measuring tube	SUS316
Connection	Nickel plated copper

Installation

Installation	Duct type

| Formula |

$$V = K\sqrt{\frac{2}{\rho}\Delta P}$$

$$Q_v = K\epsilon A\sqrt{\frac{2}{\rho}\Delta P}$$

$$Q_m = Q_v \times \rho$$

V = Velocity

ΔP = Difference between total pressure and static pressure

ρ = Density

K = Calibration factor

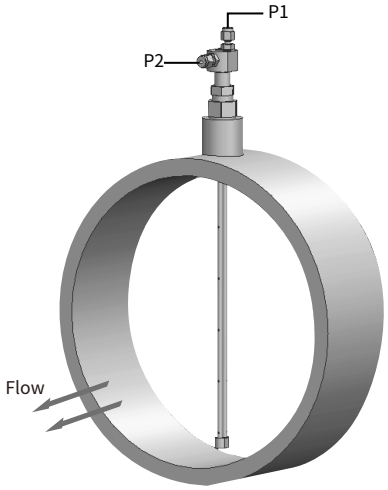
Q_v = Volumetric flow rate

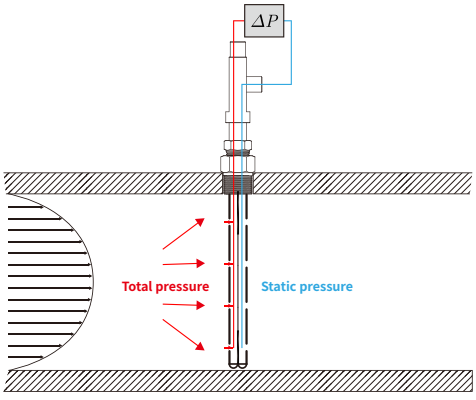
Q_m = Mass flow rate

ϵ = Inflation coefficient

A = Cross-sectional area

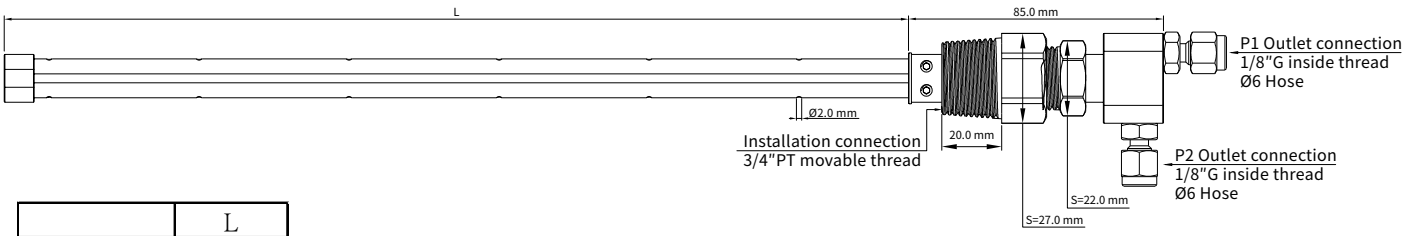
| Installation Direction |





The averaging pitot tube

| Dimension | Unit : mm



	L
DN50(2")	50
DN100(4")	100
DN150(6")	150
DN200(8")	200
DN300(12")	300
DN450(18")	450
DN600(24")	600
DN800(32")	800
DN1000(40")	1000

| Ordering Guide |

	Installation	Material		Length	Type
AFMP	– 04	2	–	300	H
	Tube type	SUS316			

Length:
- 2″ : 50 mm
- 4″ : 100 mm
- 6″ : 150 mm
- 8″ : 200 mm
- 12″ : 300 mm
- 18″ : 450 mm
- 24″ : 600 mm
- 32″ : 800 mm
- 40″ : 1000 mm

Type:
- ☐ : Standard type (200°C, 10 bar)
- H : High-temp. type (600°C, 4 bar)

*Please leave blank for the standard type.