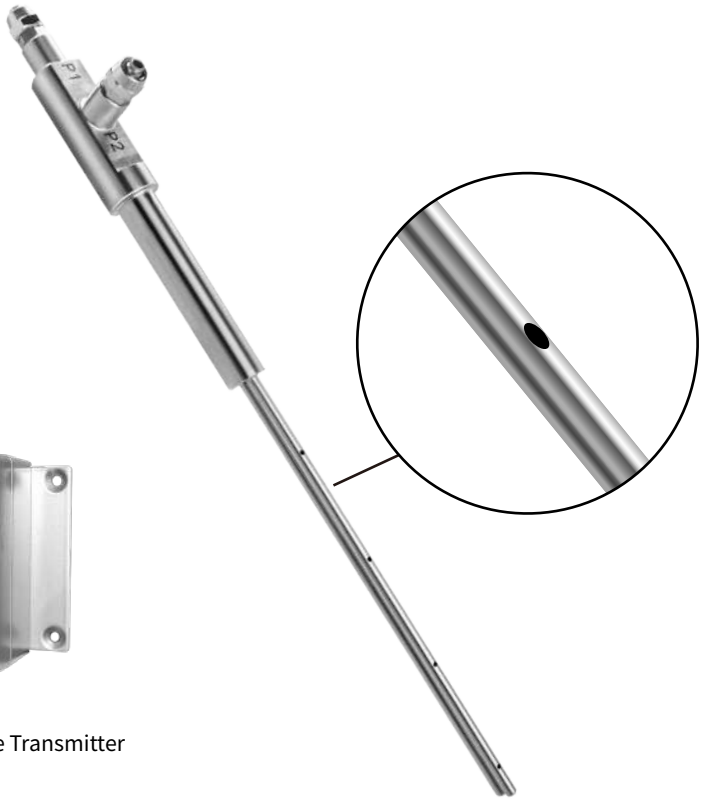
AFMT
Average Flow Measuring Tube



Match with
eyc-tech Industrial Differential Pressure Transmitter

| Features |

- Stainless steel housing, high temperature resistant, corrosion resistance, dust resistance, can measure micro flow rates
- With eyc-tech industrial grade differential pressure transmitter for air velocity measurement
- Applied in harsh environments, exhaust gas emission, environmental protection engineering, installation location is not restricted
  ※Can be customized according to customer needs

| Introduction |

AFMT and differential pressure transmitter are often being used in the measurement of flow. With several pressure detecting holes on the AFMT, we can get the average of the flow inside the duct and improve the problem happened in the flow measuring where disturbance occurs when there's no adequate space inside the straight inlet.

AFMT is a probe we inserted into the duct(along with the whole diameter) to measure the flow. When the probe encounters the flow, will sense and get the average total pressure P1 in windward side and static pressure P2 in leeward. AFMT then gets the flow velocity by measuring the difference between total pressure and static pressure(i.e.) dynamic pressure(ΔP) and flow average velocity(V).

| Applications |

Ventilation pipes / Flue industry / Exhaust gas emission / Environmental protection engineering /
Air conditioning systems / Vacuum cleaning / Especially high temperature and chimney,
wind speed measurement of dusty air and high flow rate in environmental testing

| Specification |

Environment

Operating pressure	Max.10 bar
Operating temperature	Max.250°C
Measuring medium	Air
Flow coefficient (K)	1

Installation

Installation	Tube type

Connection

Installation connection	4 ... 12″below 3/4″PT movable thread
	18 ...40″below 1″PT movable thread
Outlet connection	1/8″G inside thread or 1/4″G inside thread

Material

Measuring tube	SUS316
Connection	Copper or stainless steel (Optional)

| Air Velocity formula |

■ Flow rate formula

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

■ Flow formula

$$qv = k\varepsilon A\sqrt{\frac{2}{\rho}\Delta P}$$

$qm = qv \times \rho$

V = Velocity of the liquid(m/s)

Δ P = Difference between total pressure and static pressure(Dynamic pressure)(Pa)

ρ = Flow density(kg/m³)

K = Flow coefficient

qv = Volume flow of liquid(m³/s)

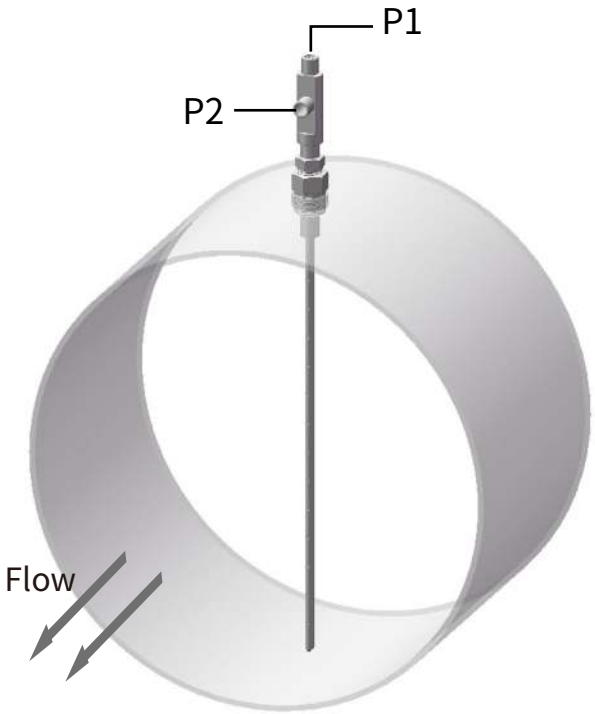
qm = Mass flow of liquid(kg/s)

K = Flow coefficient of average flow measuring

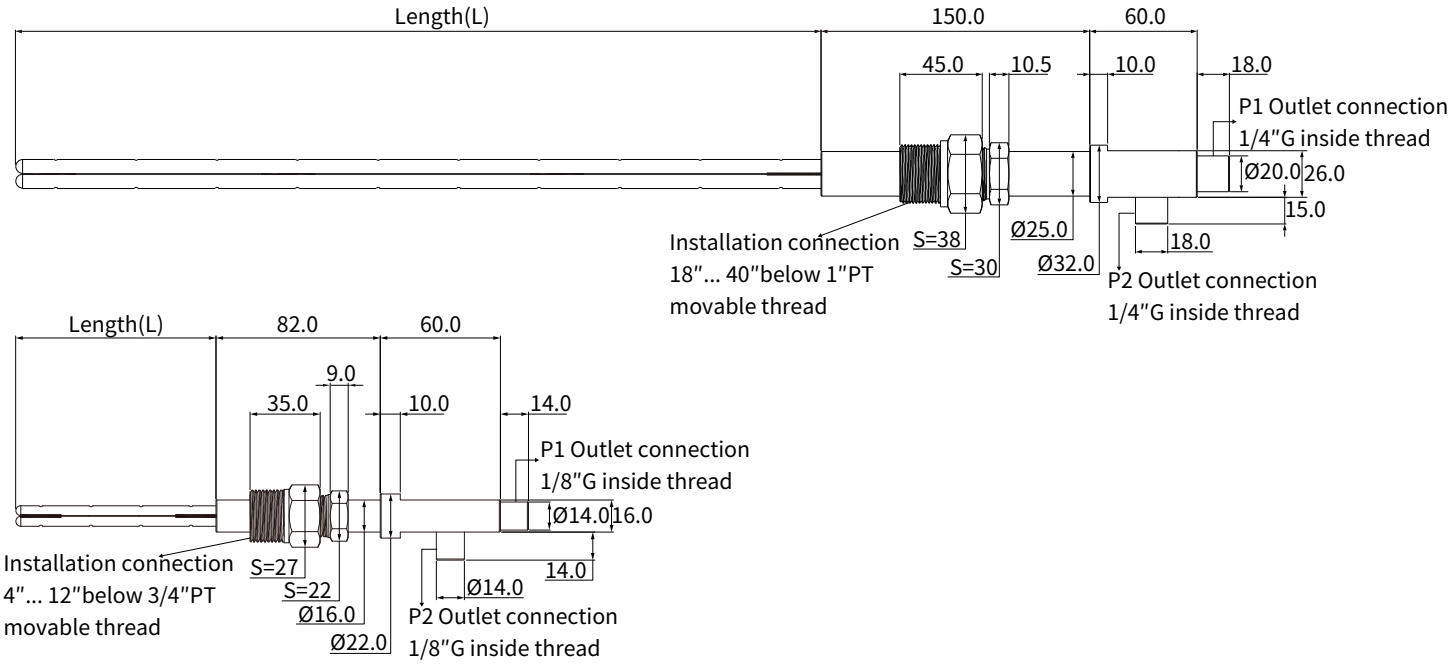
ε = Inflation coefficient of liquid going thru measuring tube during operation

A = Cross-sectional area of duct during operation(m²)

| Installation direction |



| Dimension | Unit：mm



| Ordering Guide |

	Installation	Material		Length
AFMT	- 04	2	-	450
	Tube type	SUS316		4"：100 mm 6"：150 mm 8"：200 mm 12"：300 mm 18"：450 mm 24"：600 mm 32"：800 mm 40"：1000 mm