

# ICE-500PTV Temperature, pressure & Flowrate Integrated

## Overview

ICE-500PTV Temperature, pressure & velocity integrated monitor has high precise micro-differential pressure sensor and static pressure sensor. Meanwhile, it is equipped with purge unit. ICE-500PTV is specially developed for continuously monitoring high dust level, high temperature, high humidity and low flow rate of emission flue gas. It can be applied with CEMS to carry out real time monitor of temperature, pressure and velocity.

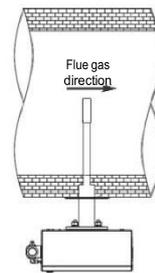
Compared with conventional integrated monitor: ICE-500PTV can measure flow rate low to 2m/s and has auto timing or manual calibration for dynamic pressure and flow rate; with LCD screen to display all measurement data and signal; easy for reading and debugging.



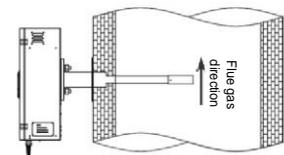
## Installation instruction

When taking differential pressure, differential pressure transmitter needs to measure total pressure and static pressure. So special attention should be paid to pitot direction during installation. Make sure the direction of two pressure taking ports is the same as flow direction of flue gas: total pressure taking port is directed to coming direction of flue gas and static pressure taking port is directed to leaving direction of flue gas.

There are two installation methods, vertical installation and Horizontal Installation, as following figure:



Vertical installation



Horizontal installation

## Specification

Range: 0–40m/s; 0–15m/s (Optional)

Accuracy:  $\pm 5\%$  F.S.

Principle: pitot

Output signal: 3x 4–20mA, 1x232/485

Pressure limit of differential pressure transmitter: 4.0Mpa

Pitot material: 316 SS, 316L SS

Pitot insert length: 500–1700mm (Optional)

Range of pressure transmitter: -5kPa : 5kPa, -200kPa : +200kPa (customizable)

Range of temperature transmitter: 0–300 $\text{degC}$

(customizable) Purge pressure: 0.3MPa–0.8MPa

Temperature range of flue gas: 0-300 $\text{degC}$  (customizable)

Work temperature: -40 : 70 $\text{degC}$

Storage temp : 0–50 $\text{degC}$

Storage humidity: 0–85%RH

## Features

- x 2m/s low flowrate measurement by pressure sensor of ultra-low range
- x Operation unit with LCD screen: perfect HMI provided
- x Settable parameters: timing purge, velocity field, pitot coefficient and etc.
- x Protection for over pressure to avoid damage to pressure sensor and lower operation cost
- x Auto zeroing calibration
- x Anti-blocking and anti-corrosion for pitot
- x Strengthen protection for signal output

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