

Pitot tube

Type S



Presentation

KIMO offers a wide range of high-quality and accurate **Pitot tubes**, as per the ISO 10780 norm.

These **Pitot tubes** when being connected to a differential column / or needle / or electronical manometer, can measure the dynamic pressure of a moving fluid in a duct, and then, can deduct its air velocity in m/s and its airflow in m3/h.

These **Pitot tubes** are used in HVAC field, vacuum cleaning and pneumatical transport. They are mainly dedicated to measure hot and particle-charged air, and also high air velocity.

Features

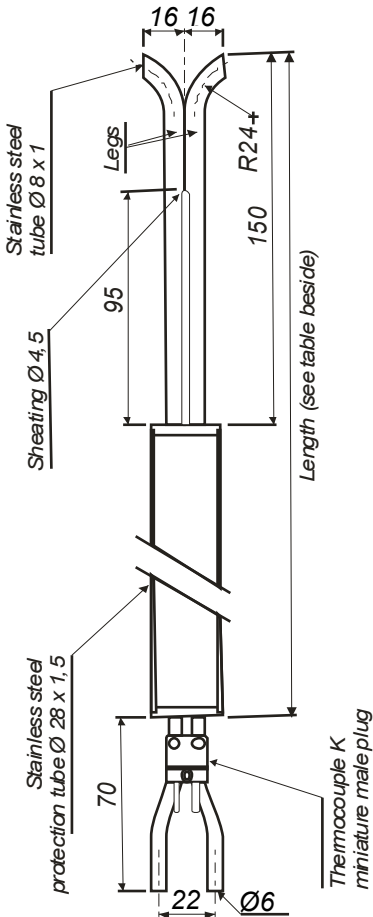
- Norm.....ISO 10 780
- Coefficient.....0,84±0,01
- Accuracy.....Better than 4 %, for a ± 15° alignment to the fluid flow
- Quality.....stainless steel 316 L
- Working temperature.....from 0 to 1000 °C



- The extent error of an air velocity or airflow measurement with a KIMO Pitot tube remains inferior to 3%, when being carried out as per the ISO 10 780 norm.
- To meet ISO 10 780 norm's requirements, it is recommended to carry out a calibration of the Pitot tube, in order to determine its exact coefficient.

Dimensions

Ø 8 mm	TPS-08-500-T	500 mm
	TPS-08-1000-T	1000 mm
	TPS-08-1500-T	1500 mm
	TPS-08-2000-T	2000 mm
	TPS-08-2500-T	2500 mm
	TPS-08-3000-T	3000 mm

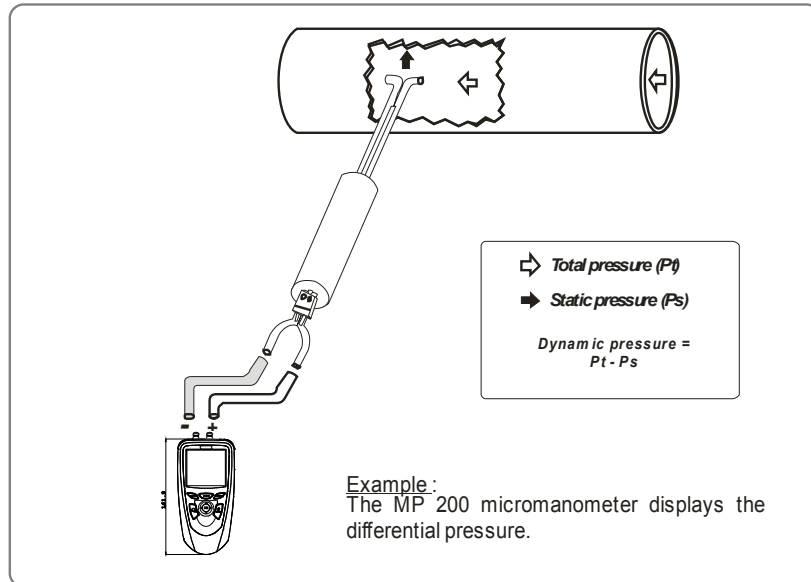


■ Operating

The **Pitot tube** must be introduced perpendicularly into the duct, in several points pre-determined.
The holes must be made in proper alignment to the line of the air or gas flow.
Compared to the **Pitot tube L**, the **Pitot tube S** is much more sensitive to wrong alignments.

Taking into account that the **Pitot tube** is symmetrical, it is no use to identify the 2 legs. However, it is important to connect the instrument as follows :

- the leg facing the air flow must be connected to the + sign of the manometer
- the leg opposite to the air flow must be connected to the - sign of the manometer.



With the dynamic pressure in mm CE or in Pa, we can calculate the air velocity in m/s, with the simplified BERNOULLI formula :

$$V \text{ in m/s at } 20^\circ\text{C} : K \times \sqrt{\frac{2}{\delta} \times \Delta P \text{ in Pa}}$$



**Formula to get the velocity,
with temperature balancing of the airflow :**

$$V \text{ in m/s} = K \times \sqrt{\frac{574,2 \theta + 156842,77}{P_0}} \times \sqrt{\Delta P \text{ in Pa}}$$

With

P_0 = barometric pressure in PA
 θ = temperature in °C
 K = coefficient of Pitot tube
 δ = volumic mass

■ Accessories

- Extension cable for thermocouple K class 1 :
- Clamping blocks made of cast iron 
- Tubes 

大華高科股份有限公司

www.taiwah.com.tw info@taiwah.com.tw

台北 TEL: (02) 2592 - 5119 Fax: (02) 2592- 3577
 台中 TEL: (04) 2707 - 2269 Fax: (04) 2707- 1799
 台南 TEL: (06) 243 - 2338 Fax: (06) 243 - 2339

KIMO® 為 KIMO 儀器公司的註冊商標。

資料中任何商標和圖片為本公司版權所有。未經本公司書面許可不得以任何形式複製，轉印，發行或儲存資料中所包含的訊息。
 本資料如有變更，恕不另行通知。