



## Straight Pitot tubes

0635.2040, 0635.2140, 0635.2240

Straight Pitot tubes measure velocities when used with a differential pressure probe, control unit or analyser box. Temperature measurement is also integrated. Using the pressure probe, dynamic pressure is calculated from the difference between total pressure and static pressure.

Velocity is calculated as follows:

$$v = S \times \sqrt{\frac{2 \times P_{\text{dynamisch}}}{\rho \times \text{rho}}}$$

S: Pitot tube factor  
P<sub>dyn</sub>: Dynamic pressure (Pa)  
rho: Density (kg/m<sup>3</sup>)

\* Velocity speed is calculated as follows in instruments in which it is not possible to input the Pitot tube factor (0.67):

$$v = \sqrt{\frac{2 \times P_{\text{dynamisch}}}{2.228 \times \rho}}$$

! If temperatures are > 100 °C, keep a distance of min. 100 mm between handle and measurement aperture to avoid high temperatures in the handle.

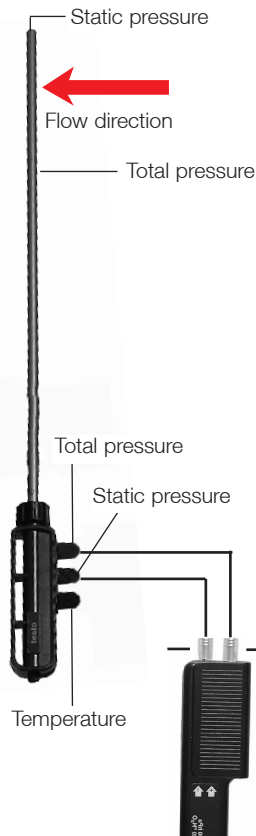
### Note:

The value displayed decreases if the flow impact onto the Pitot tube is not at a right angle.

### Technical data

Pitot tube factor	0.67
Minimum immersion depth:	150 mm
Measuring range	1 to 30 m/s 0 to +600 °C

Pressure probes	Length	Part No.
100 Pa 1...8 m/s	360 mm	0635.2040
10 hPa 1...26 m/s	500 mm	0635.2140
100 hPa 1...30 m/s	1000 mm	0635.2240



Example of connection with external probe



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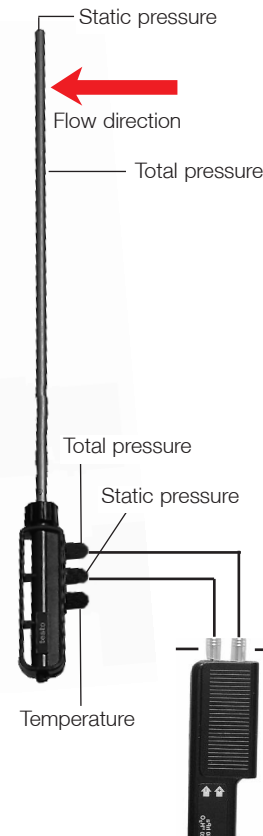
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