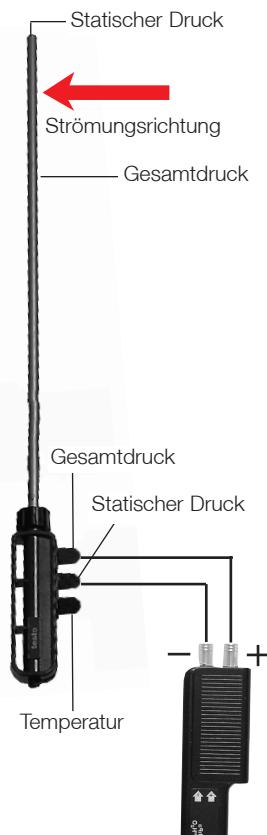




Gerade Staurohre

0635.2040, 0635.2140, 0635.2240

Gerade Staurohre messen, in Verbindung mit einer Differenzdrucksonde, Strömungsgeschwindigkeiten. Zusätzlich ist die Temperaturmessung integriert. Über die Drucksonde wird der dynamische Druck aus der Differenz von Gesamtdruck und statischem Druck gebildet.



Anschlussbeispiel mit externer Sonde

Technische Daten

| | |
|-----------------------|---------------------------|
| Staurohrfaktor | 0,67 |
| Mindesteintauchtiefe: | 150 mm |
| Messbereich | 1...30 m/s 0...+600 °C |

| Drucksonden | Länge | Art.-Nr. |
|--------------------|---------|-----------|
| 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 |



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Anschlussbeispiel mit externer Sonde

Hinweis

Bei nicht rechtwinkliger Anströmung des Staurohrs verringert sich der angezeigte Wert.

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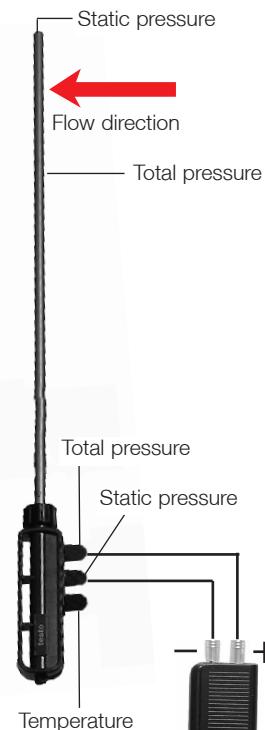
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Straight Pitot tubes

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:

$$v = S \times \sqrt{\frac{2 \times P_{\text{dynamisch}}}{\rho}} \quad \begin{aligned} S: & \text{ Pitot tube factor} \\ P_{\text{dyn}}: & \text{ Dynamic pressure (Pa)} \\ \rho: & \text{ Density (kg/m}^3\text{)} \end{aligned}$$

* 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 |

Example of connection with external probe

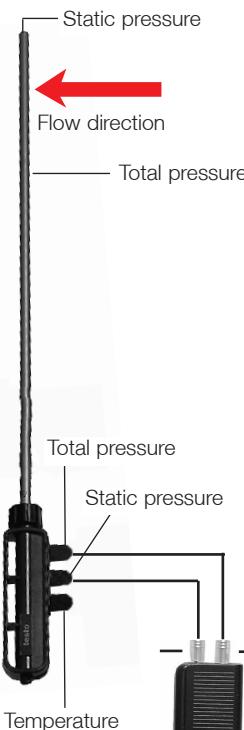
| Pressure probes | Length | Part No. |
|--------------------|---------|-----------|
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