PITOT TUBE FLOW / CONSUMPTION SENSOR
S 430
Measures air delivery at compressor discharge —  
**ideal flow meter for compressor performance tests**

### S 430 FEATURES AT A GLANCE

- Flow and consumption measurement in wet air or high mass flow / velocity applications
- Measurement at compressor outlet
- Tube diameters of 1.25" to 10" through center installation, bigger diameters through non-center installation
- Insertion type, easy installation under pressure through ball valve possible
- High temperature applications up to 230°C
- No mechanical wear parts
- All parts which are in contact with flow medium are made of stainless steel
- Compressor-FAD-Measurement

### S 430 BENEFITS

The S 430 is based on the pitot tube principle to measure flow. Properly installed (refer to instruction manual for details) the sensor can measure in wet and dirty gases as occurring, for example, at the discharge of a compressor.

The sensor features long term stability, wide turndown ratio and good temperature stability. It can be used in compressed air and non-corrosive gases.

The sensor can be installed through a ball valve while the system is pressurised.

Various output signals allow the sensor to be connected to SUTO displays and/or third-party displays and PLCs.

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SMARTPHONE ANDROID APP  
For remote configuration

ACCURATE RESULTS  
Very fast response time

EASY PROCESS MONITORING  
Effective and inexpensive measurements

TOTAL FLOW  
High accuracy and reliable measurements

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www.suto-itec.com
S 430 TECHNICAL DATA

**General Specifications**
- **Flow range**: Refer to table below
- **Pressure range**: 0 ... 1.6 MPa
- **Temperature range**: -40°C ... +230°C
- **Accuracy**: Flow: ±(1.5%+0.3% full scale)
  - Pressure: 0.5% F.S.
  - Temperature: ±0.5°C
- **Reference conditions**: Programmable, default P = 1000 hPa(a), T = 20°C
- **Medium**: Wet and dry air, non-corrosive gases
- **Output signals**: 4 ... 20 mA and Pulse (optional)
  - Modbus/RTU (optional)
- **Medium temp.**: -40°C ... +230°C
- **Ambient temp.**: -20°C ... +60°C
- **Power supply**: 24 VDC, 150 mA
- **Display option**: 2.4" color graphic display with keypad
- **Process connection**: 3/4" G type (ISO 228-1)
- **Sensor material**: Stainless steel 1.4404 (SUS 316L)

**Flow Ranges**

<table>
<thead>
<tr>
<th>Tube</th>
<th>Volumetric Flow</th>
<th>Inch</th>
<th>mm</th>
<th>m³/h</th>
<th>m³/min</th>
<th>cfm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Min</td>
<td>Max</td>
<td>Min</td>
<td>Max</td>
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<tr>
<td>1</td>
<td></td>
<td>27.3</td>
<td>3</td>
<td>229</td>
<td>0.38</td>
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<tr>
<td>1¼&quot;</td>
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<td>36.0</td>
<td>51</td>
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<td>756</td>
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<td>44125</td>
<td>73.54</td>
<td>735.4</td>
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</table>

Flow range for Air at 6 barg, 50°C and 90% humidity. For other gas and condition please download Flow Range software from www.suto-itec.com

**Installation**

Flow range for Air at 6 barg, 50°C and 90% humidity. For other gas and condition please download Flow Range software from www.suto-itec.com

- Standard flow in air
- Reference pressure: 1000 hPa
- Reference Temperature: +20°C

**Dimensions**

- Outer Diameter
- Height of Valve
- Installation depth
- Engraved depth scale

S 430 Installation through a ball valve
**S 430 ORDERING**

Please use the following tables to assist in placing your order with our sales staff.

### S 430 Pitot Tube Flow Sensor, Insertion Type, 220 mm Shaft

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Code</th>
<th>Description</th>
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<tr>
<td>S6954300</td>
<td>$4300</td>
<td>S 430, pitot tube flow sensor, insertion type, 220 mm shaft</td>
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**Connection thread**

- A G ¾” standard
- A1068 B PT ¾” adaptor
- A1069 C NPT ¾” adaptor

**Gas type**

- A1007 A Medium Air
- A1008 B Medium CO₂
- A1009 C Medium O₂ (Oil- & grease-free cleaned)
- A1010 D Medium N₂
- A1011 E Medium N₂O
- A1012 F Medium Ar
- A1013 G Medium Natural gas (Exact gas mix required)
- A1014 H Medium H₂
- A1015 I Others (Please specify the gas or gas mix)
- A1016 J Medium He

**Fieldbus**

- A1061 A Modbus/RTU
- A1062 B Analog, Pulse
- A1063 C M-Bus

**Calibration**

- A Standard
- A1066 B Bi-directional
- A1067 C High speed: Max flow increased by 30%

**Display**

- A Without Display
- A1060 B With Display standard

### S 430 Pitot Tube Flow Sensor, Insertion Type, 300 mm Shaft

<table>
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<th>Order No.</th>
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</table>

**Connection thread**

- A G ¾” standard
- A1068 B PT ¾” adaptor
- A1069 C NPT ¾” adaptor

**Gas type**

- A1007 A Medium Air
- A1008 B Medium CO₂
- A1009 C Medium O₂ (Oil- & grease-free cleaned)
- A1010 D Medium N₂
- A1011 E Medium N₂O
- A1012 F Medium Ar
- A1013 G Medium Natural gas (Exact gas mix required)
- A1014 H Medium H₂
- A1015 I Others (Please specify the gas or gas mix)
- A1016 J Medium He

**Fieldbus**

- A1061 A Modbus/RTU
- A1062 B Analog, Pulse
- A1063 C M-Bus

**Calibration**

- A Standard
- A1066 B Bi-directional
- A1067 C High speed: Max flow increased by 30%

**Display**

- A Without Display
- A1060 B With Display standard