

# testo 420 Flow Hood

Lightweight, tough and accurate.

Patented flow straighteners greatly improve accuracy and stability of measurements at turbulent outlets

Weighs less than 6.4 lbs. (2.9 kg.)

Detachable 420 Multi-function flow instrument that can be used with the 420 flow hood, pitot tubes, or flow matrix

Quick, easy remote monitoring and reporting with Bluetooth and free App

Data logging using on-board 2 GB memory

Logged data can be transfered to PC using mini-USB cable



The new testo 420 flow hood system is a lightweight, accurate and convenient solution for balancing volume flow at registers and returns. At turbulent outlets, the patented flow straighteners significantly improve measurement accuracy & stability, save time and eliminate the uncertainty of measuring turbulent outlet ducts. Positioning is especially easy with its ergonomic handles, and low weight of less than 6.4 lbs. The optional tripod stand provides convenient handling when testing in large buildings, or at greater heights. The testo 420 flow hood has a wide variety of optional interchangeable flow skirts in different sizes and configurations. The lightweight testo 420 is easy to setup and disassemble and comes in a convenient rollaround case.

The detachable 420 Multi-function flow instrument provides accurate and convenient measurements using the 420 flow hood, Pitot tubes, or the testo flow matrix. Bluetooth connectivity allows for a wide variety of test functions and reporting options using your smart phone or device. The powerful testo 420 App makes testing and reporting versatile, customizable, and convenient. The detachable 420 Multi-function flow instrument is a powerful and precise differential pressure instrument with available calculating and reporting functions built-in. When installed on the testo 420 flow hood, this multi-function flow instrument can be tilted or positioned for convenient viewing and handling.



# Technical data



#### General technical data

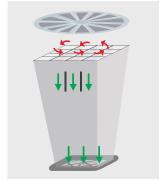
| Operating temperature | 20 to 140 °F (-5 to +60 °C)    |
|-----------------------|--------------------------------|
| Storage temperature   | -5 to 140 °F (-20 to +60 °C)   |
| Weight                | 6.4 lbs. (2.9 kg)              |
| Standard hood         | 24" x 24" (610 x 610 mm)       |
| Battery type          | Type AA                        |
| Battery life          | 30 hrs                         |
| Display               | Dot matrix LCD with back-light |
| Memory                | 2 GB internal                  |
| Interface             | Micro USB & Bluetooth          |
| NIST Certification    | Optional                       |
| Warranty              | 2 years                        |

## **Key Features:**

- Data logging directly to on-board 2 GB memory
- Convenient joystick navigation within menu for setting up individual folders
- Total volume flow in CFM (cubic feet per minute) is displayed
- Individual measurement data saved in folders can be recalled and displayed as total volume flow of all measurements
- Logged data can be transferred to PC using micro-USB cable

### **Measurement Specifications:**

|                 | Flow Volume                                       | Flow Velocity                      | Air Flow<br>Temperature                         | Differential<br>Pressure             | Absolute<br>Pressure | Relative<br>Humidity | Dew Point /<br>Wet Bulb           |
|-----------------|---|------------------------------------|---|--------------------------------------|----------------------|----------------------|-----------------------------------|
| Measuring range | 25 to 2,300 CFM<br>(40 to 4000 m <sup>3</sup> /h) | 0 to 2,750 ft/min<br>(0 to 14 m/s) | -5 to 140°F<br>(-20 to +60 °C)                  | -0.5 to 0.5 inWC<br>(-120 to 120 Pa) | 700 to 1,100<br>mbar | 0 to 100 %RH         | 20 to 140°F /<br>(-104 to 140 °F) |
| Accuracy        | ±3 % of m.v.<br>(+7 CFM)                          | ±2.0 ft/m<br>(0.01 m/s)            | ±0.9 °F (20 to 140 °F)<br>±0.5 °C (-5 to 60 °C) | ±2 % of m.v.<br>+0.02                | ±1.2 inWC<br>±3 mbar | ±1.8 %RH<br>+3% m.v. | Not Specified                     |
| Resolution      | 1.0 CFM   | 0.01 ft/min<br>(0.0001 m/s)        | 0.1 °F  | 0.000001 inWC                        | 0.1 mbar             | 0.1%RH               | 0.1 °F                            |



Patented flow straighteners tame turbulence to allow more accurate and stable flow readings.



Patented flow straighteners are standard in all 420 flow hood sizes and configurations.



Testo 420 Bluetooth App allows for Smart, hands-free operation. Display and create custom reports on mobile devices. Send reports via email from the job site.



Sturdy, wheeled tripod (optional) for large jobs or sites with high installed outlets. Convenient hands free 420 hood operation with Bluetooth connectivity.



# **Accessories**

#### Part no.

| Flow hood 14" x 14" (360 x 360 mm)  | 0554 4200   |
|---|-------------|
| Flow hood 12" x 48" (305 x 1220 mm)   | 0554 4201   |
| Flow hood 24" x 48" (610 x 1220 mm)   | 0554 4202   |
| Flow hood 36" x 36" (915 x 915 mm)  | 0554 4203   |
| Tripod, extendable to 13' (4m)  | 0554 4209   |
| Connection hose; silicone; length 16.4' (5m); max. load 280 inWC (700 mbar)   | 0554 0440   |
| Connection hose silicone-free for differential pressure measurement, length 16.4' (5m), max. load 280 inWC (700 mbar) | 0554 0453   |
| NIST Flow Hood Certification  | 400520 4403 |
|   |             |



### **Air Flow Matrix Kit** Air flow / velocity matrix, incl. 6ft Order no. 0699 7077/1 telescopic extension pole & ball swivel head, two 6ft silicon-free connection hoses and attachment straps Air Flow Matrix Kit w/ testo 420 Multi-function Flow Instrument Order no. Air flow / velocity matrix, and 420 0699 7077/2 Multifunction Flow Instrument. incl. 6ft telescopic extension pole with ball swivel head, 6ft silicon-free connection hoses, and attachment straps

| Pitot Tubes   | Dimensions<br>Probe shaft/probe shaft tip | Measuring range  | Part no.  |
|---|---|--|-----------|
| Pitot tube, 20 in. (0.5 m) long, 0.28 in. Dia. (7 mm), stainless steel, for measuring flow velocity*  | 20 in. (0.5 m) .28 in. Dia. (7 mm)        | Measuring range:<br>200 to 2,750 ft/min                            | 0635 2045 |
| Pitot tube, 14 in. (0.35 m) long, 0.28 in. Dia. (7 mm), stainless steel, for measuring flow velocity* | 14 in. (0.35 m) .28 in. Dia. (7 mm)       | (1 to 14 m/s)  Operating temperature: 32 to 1,112 °F (0 to 600 °C) | 0635 2145 |
| Pitot tube, 39.4 in. (1.0 m) long, 0.28 in. Dia. (7 mm) stainless steel, for measuring flow velocity* | 39.4 in. (1.0 m) .28 in. Dia. (7 mm)      | Pitot tube factor: 1.0   | 0635 2345 |

<sup>\*</sup>Connection hose required (order no. 0554 0440) or (order no. 0554 0453)



Precision measurements for critical applications



Detachable Differential Pressure (t420) instrument allows Pitot tube measurements in ducts (Pitot tube optional)

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