

## Volume flow hood

testo 420 – light, precise and convenient

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Less than 2.9 kg weight

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Flow straightener for more precise measurement at swirl outlets

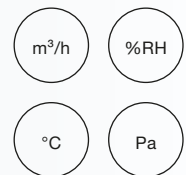
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Removable and tiltable measuring instrument with a large display

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App integration via Bluetooth for fast and easy monitoring and reporting on site

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Bluetooth  
+ App

testo Smart App  
for free download



The testo 420 volume flow hood is the light, precise and convenient solution for regulating volume flow at larger air inlets and outlets. At swirl outlets in particular, the flow straightener significantly reduces the usual measurement errors. This allows users to fulfil hygienic Indoor Air Quality guidelines and stipulations in ventilation and air conditioning systems quickly and precisely, e.g. in industry, office rooms or in cleanrooms.

Handling is especially easy with a uniquely low weight of less than 2.9 kg and ergonomic handles. The measuring instrument can be tilted and removed for more comfortable readout of the measurement values. The app connection enables mobile devices to be used via Bluetooth as a secondary display, for customer and measurement data management and as a remote control. This makes using a tripod for high ceilings, for example, especially safe and comfortable. Moreover, the user can use the app to finalize and send the measurement report directly on site.

# Technical data

## testo 420 set

testo 420 volume flow hood, with measuring instrument, body, 610 x 610 mm flow hood, 5 x tension rods, USB cable, batteries and trolley, incl. calibration protocol



Part no. 0563 4200

## testo 420

testo 420 differential pressure measuring instrument incl. batteries and calibration protocol



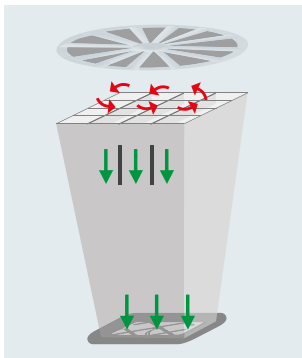
Part no. 0560 0420

### General technical data

|                       |   |
|-----------------------|---|
| Compatibility         | requires iOS 12.0 / Android 6.0 or newer                                    |
|                       | requires mobile end device with Bluetooth® 4.0                              |
| Operating temperature | -5 to +50 °C  |
| Storage temperature   | -20 to +60 °C   |
| Weight                | 2.9 kg  |
| Standard hood         | 610 x 610 mm  |
| Battery type          | Alkali manganese, mignon, Type AA   |
| Battery life          | 40 h (Zeroing interval 10 seconds, display illumination off, Bluetooth off) |
| Display               | Dot matrix with illumination 3.5 inch                                       |
| Memory                | 2 GB internal (approx. 18,000 measurements)                                 |
| Interface             | Micro USB   |
| Material              | Measuring instrument housing: ABS<br>Base: PP<br>Standard hood: Nylon       |
| Data transmission     | Bluetooth®, e.g. for connection to testo 400                                |

### Sensor types

|                   | Volume flow   | NTC  | Capacitive humidity sensor                    | Differential pressure sensor             | Absolute pressure probe |
|-------------------|---|--|---|--|-------------------------|
| Measuring range   | 50 to 4000 m³/h   | -20 to +60 °C                                  | 0 to 100 %RH                                  | -120 to +120 Pa                          | +700 to +1100 hPa       |
| Accuracy ±1 digit | ±3 % of m.v. +12 m³/h at +22 °C, 1013 hPa (85 to 3500 m³/h) | ±0.5 °C (0 to +60 °C)<br>±0.8 °C (-20 to 0 °C) | ±1.8 %RH +3 % of m.v. at +25 °C (5 to 80 %RH) | ±2 % of m.v. +0.5 Pa at +22 °C, 1013 hPa | ±3 hPa                  |
| Resolution        | 1 m³/h  | 0.1 °C   | 0.1 %RH                                       | 0.001 Pa                                 | 0.1 hPa                 |



Functional principle of the flow straightener.



Flow straightener for significantly more precise measurements at swirl outlets.



App integration via Bluetooth for displaying the measurement data on mobile devices and finalizing the measurement report on site.



Stable, wheeled tripod with central fitting for secure working at high ceiling outlets.

# Accessories

|   | Part no.  |
|---|-----------|
| Flow hood 360 x 360 mm, with bag  | 0554 4200 |
| Flow hood 305 x 1220 mm, with bag   | 0554 4201 |
| Flow hood 610 x 1220 mm, with bag   | 0554 4202 |
| Flow hood 915 x 915 mm, with bag  | 0554 4203 |
| Tripod, extendable to 3.3 m, with rollers   | 0554 4209 |
| Connection hose; silicone; length 5 m; max. load 700 hPa (mbar)   | 0554 0440 |
| Connection hose silicone-free for differential pressure measurement, length 5 m, load up to maximum 700 hPa, (mbar) | 0554 0453 |
| testo Smart App   | 0501 5001 |



**The testo Smart App**

- For all kinds of IAQ applications of the testo 420 – from measurement to documentation
- Compatible with all Bluetooth-enabled Testo measuring instruments for air conditioning/ refrigeration systems and heat pumps
- Integrated measurement database incl. customer and measuring point management
- Quick analysis thanks to clear presentation of the values, e.g. as a graph
- Create digital measurement reports including photos as PDF/CSV files on site and email them straight away



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| Calibration Certificates  | Part no.  |
|---|-----------|
| ISO calibration certificate, 15 to 2000 m <sup>3</sup> /h bi-directional  | 0520 0154 |
| ISO calibration certificate, 10 measurement points regularly distributed over the measuring range (bi-directional)<br>Calibration points 150/300/450/600/750/900/1050/1200/1350/1500 Nm <sup>3</sup> /h   | 0520 0194 |
| ISO calibration certificate, 5 measurement points regularly distributed over the measuring range (bi-directional)<br>Calibration points 300/600/900/1200/1500 Nm <sup>3</sup> /h                          | 0520 0164 |
| DAkkS calibration certificate, 15 to 1800 Nm <sup>3</sup> /h bi-directional   | 0520 1264 |
| DAkkS calibration certificate, 10 measurement points regularly distributed over the measuring range (bi-directional)<br>Calibration points 150/300/450/600/750/900/1050/1200/1350/1500 Nm <sup>3</sup> /h | 0520 0294 |
| DAkkS calibration certificate, 5 measurement points regularly distributed over the measuring range (bi-directional)<br>Calibration points 300/600/900/1200/1500 Nm <sup>3</sup> /h                        | 0520 0264 |

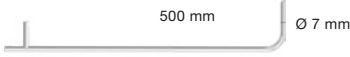
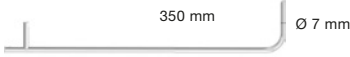
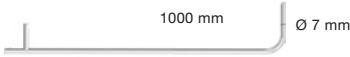



Comfortable measurement thanks to low weight



Removable instrument allows Pitot tube measurements in ducts (Pitot tube available separately)

## Pitot tubes / air flow velocity matrix

| Probe type  | Dimensions<br>Probe shaft/probe shaft tip  | Measuring range  | Part no.  |
|---|--|--|-----------|
| Pitot tube, 500 mm long, Ø 7 mm, stainless steel, for measuring flow velocity*  |  500 mm Ø 7 mm  | Measuring range: 1 to 100 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 1.0 | 0635 2045 |
| Pitot tube, 350 mm long, Ø 7 mm, stainless steel, for measuring flow velocity*  |  350 mm Ø 7 mm  | Measuring range: 1 to 100 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 1.0 | 0635 2145 |
| Pitot tube, 1000 mm long, stainless steel, for measuring flow velocity*   |  1000 mm Ø 7 mm | Measuring range: 1 to 100 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 1.0 | 0635 2345 |
| Air flow velocity matrix, telescope with ball head, length 1.8 m, with 2 x 2 m connection hose, silicon-free, with Velcro attachment on the telescope, for connection to differential pressure measuring instrument |                 |  | 8721 0025 |

\*Connection hose required (order no. 0554 0440) or (order no. 0554 0453)

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Subject to change without notice.



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