

We measure it.



# Thermal anemometer

testo 405



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Flow velocity measuring instrument with temperature measurement

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Volume flow measurement up to 99,990 m<sup>3</sup>/h

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Extendable telescope up to 300 mm

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Display illumination

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m/s

°C

testo 405 is a thermal anemometer. It allows the precise measurement of air flow velocity, volume flow and temperature. With the extendable telescope (up to 300 mm), testo 405 is particularly suited for measuring the flow velocity in ducts. Thanks to the attachment included in delivery, the telescope can be optimally positioned in a duct.

The testo 405 measures especially accurately in the range from 0 and 2 m/s. Low air flow velocities such as at draughty windows, for example, can thus be localized exactly and measured extremely accurately. The display can be rotated into different positions. This enables optimum readout of the measurement values.

## Technical data / Accessories

### testo 405

testo 405 thermal anemometer with duct holder,  
incl. attachment clip and batteries

Part no. 0560 4053



#### General technical data

Storage temp.	-20 to +70 °C
Oper. temp.	0 to +50 °C
Battery type	3 batteries Type AAA
Battery life	Approx. 20 h
Dimensions	490 x 37 x 36 mm
Length Probe shaft	300 mm
Diameter Probe shaft / Probe shaft tip	Ø 16 mm / Ø 12 mm
Weight	115 g (with batteries, without packaging)
Warranty	1 year

#### Sensor types

	Thermal	NTC
Meas. range	0 to 5 m/s (-20 to 0 °C) 0 to 10 m/s (0 to +50 °C) 0 to +99990 m <sup>3</sup> /h	-20 to +50 °C
Accuracy ±1 digit	±(0.1 m/s + 5% of mv) (0 to +2 m/s) ±(0.3 m/s + 5% of mv) (remaining range)	±0.5 °C
Resolution	0.01 m/s	0.1 °C

#### Accessories

#### Part no.

##### Accessories for measuring instrument

testovent 410, volume flow funnel, Ø 340 mm/330x330 mm, incl. case	0554 0410	
testovent 415, volume flow funnel, Ø 210 mm/210x210 mm, incl. case	0554 0415	
ISO calibration certificate velocity, two point calibration; calibration points 5m/s and 10m/s	0520 0094	
ISO calibration certificate velocity, hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004	

## Vane anemometer

### testo 410 – Pocket-sized flow velocity measuring instrument

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Flow velocity measuring instrument with temperature measurement

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Integrated measurement with 40 mm vane

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Time mean value calculation

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Hold function and max./min. values

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Windchill calculation for outdoor areas

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Additional advantages testo 410-2: Air humidity measurement with long-term stable Testo humidity sensor

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m/s

°C

%RH

Illustration 1.1

The vane anemometers testo 410-1 and testo 410-2 offer perfect flow velocity measurement results in handy pocket format. The small, user-friendly testo 410-1 measures air flow velocity and temperature, and is suitable for fast spot checks on ventilation outlets thanks to the integrated measurement with the 40 mm vane. A timed mean value calculation is also possible. The measuring instrument has an illuminated display, a clip-on protective cap, and a wrist strap and a belt holder ensure safekeeping.

In addition to air flow velocity and air temperature, the testo 410-2 also measures air humidity. This allows air conditions to be tested reliably. In addition to this, dewpoint and wet bulb are calculated and displayed fully automatically.

# Technical data / Accessories

## testo 410-1

testo 410-1 handy vane anemometer with integrated NTC air thermometer incl. protection cap, batteries and calibration protocol

Part no. 0560 4101



### General technical data

Dimensions	133 x 46 x 25 mm (incl. protective cap)
Oper. temp.	-10 to +50 °C
Storage temp.	-20 to +70 °C
Protection class	IP10
Battery type	2 batteries Type AAA
Weight	110 g (with protective cap and batteries)
Measuring rate	0.5 s
Warranty	1 year

## testo 410-2

testo 410-2 handy vane probe anemometer with integrated humidity measurement and NTC-air thermometer incl. protection cap, batteries and calibration protocol

Part no. 0560 4102



Technical data	testo 410-1/-2		testo 410-2
Sensor types	Vane	NTC	Testo humid. sensor, cap.
Meas. range	0.4 to 20 m/s	-10 to +50 °C	0 to 100 %RH
Accuracy ±1 digit	±(0.2 m/s + 2% of mv)	±0.5 °C	±2.5 %RH (5 to 95 %RH)
Resolution	0.1 m/s	0.1 °C	±0.1 %RH
Battery life	100 h (average, without display illumination)		60 h (average, without display illumination)

Accessories	Part no.
<b>Accessories for measuring instrument</b>	
ISO calibration certificate velocity two point calibration; calibration points 5m/s and 10m/s	0520 0094
ISO calibration certificate velocity hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034

# Vane anemometer

## testo 416

- Direct display of volume flow
- Point and timed mean value calculation
- Max./min. values
- Hold button for freezing measurement value
- Display illumination
- Auto-off function
- TopSafe, protects the instrument from dirt and impact (optional)



The testo 416 is a compact anemometer with a fixed vane probe. The measuring instrument is particularly suitable for flow velocity measurements in ducts thanks to the extendable telescope (max. length 890 mm, diameter 16 mm). The volume flow is directly shown in the display. For volume flow calculation purposes, the duct cross-section area can be conveniently entered into the testo 416. The timed and point mean value calculations provide information on the average volume flow.

The Hold function allows the current measurement value to be fixed in the display. Min./max. values are also displayed at the press of a button. The optional TopSafe reliably protects the instrument from dirt and impact, ensuring a particularly long working life.

## Technical data / Accessories

### testo 416

testo 416 vane anemometer with telescope (max. 890 mm) incl. batteries and calibration protocol



Part no. 0560 4160

#### Sensor type

#### Vane

Meas. range	+0.6 to +40 m/s
Accuracy ±1 digit	±(0.2 m/s +1.5% of mv)
Resolution	0.1 m/s

#### General technical data

Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +85 °C
Battery type	9V block battery, 6F22
Battery life	80 h
Dimensions	182 x 64 x 40 mm
Weight	325 g
Material/Housing	ABS
Warranty	1 year

### Accessories

### Part no.

#### Accessories for measuring instrument

Case for measuring instrument and probes	0516 0210	
TopSafe, protects from impact and dirt	0516 0221	
Transport case for meas. instr. and probes (405 x 170 x 85 mm)	0516 0201	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	
9V rech. battery for instrument, instead of battery	0515 0025	
ISO calibration certificate velocity hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004	
ISO calibration certificate velocity hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034	

# Vane anemometer

## testo 417 – With built-in vane

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Measurement of flow velocity, volume flow and temperature

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Recognition of flow direction

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Point and timed mean value calculation

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Max./min. values

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Hold button for freezing measurement value

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Display illumination

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Auto-off function

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testo 417 is a compact, large-area anemometer with a built-in flow velocity / temperature vane. It measures flow velocity, volume flow and temperature. Thanks to the integrated measurement with the 100 mm vane, it is ideally suited for measurements at air input and output vents. The flow direction, i.e. blowing or sucking flow, is visible in the display. The optimum funnel set additionally allows measurements on ventilation grilles and disc outlets.

The volume flow is directly shown in the display. For the purposes of volume flow calculation, the duct area can

be easily entered into the testo 417. In addition to this, the instrument can be switched over to display the current temperature.

Timed and point mean value calculation provide information on the average volume flow, flow velocity and temperature measurement value. The Hold function allows the current measurement value to be frozen in the display, min./max. values are also displayed at the press of a button.

## Technical data / Accessories

### testo 417

testo 417 vane anemometer with integrated 100 mm vane incl. temperature measurement, battery and calibration protocol

Part no. 0560 4170



### General technical data

Storage temp.	-40 to +85 °C
Oper. temp.	0 to +50 °C
Battery type	9V block battery, 6F22
Battery life	50 h
Weight	230 g
Dimensions	277 x 105 x 45 mm
Material/Housing	ABS
Warranty	1 year

### Sensor types

	NTC	Vane	Volume flow
Meas. range	0 to +50 °C	+0.3 to +20 m/s	0 to +99999 m <sup>3</sup> /h
Accuracy ±1 digit	±0.5 °C	±(0.1 m/s +1.5% of mv)	
Resolution	0.1 °C	0.01 m/s	0.1 m <sup>3</sup> /h (0 to +99.9 m <sup>3</sup> /h) 1 m <sup>3</sup> /h (+100 to +99999 m <sup>3</sup> /h)

### Accessories

### Part no.

Accessories for measuring instrument	Part no.
Case for measuring instrument and probes	0516 0210
testovent 417 funnel set for disc valve (200x200 mm) and ventilator (330x330 mm)	0563 4170
Recharger for 9V rechargeable battery for external recharging of 0515 0025 battery	0554 0025
9V rech. battery for instrument instead of battery	0515 0025
DAkkS calibration certificate velocity, hot wire, vane anemometer; calibration points 0.5; 1; 2; 5; 10 m/s	0520 0244
ISO calibration certificate velocity, hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004
ISO calibration certificate velocity, hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034
ISO calibration certificate velocity, hot wire, vane anemometer; calibration points 0.5; 0.8; 1; 1.5 m/s	0520 0024



# Thermal anemometer

testo 425 – With fixed flow velocity  
probe

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Measurement of flow velocity, volume flow and temperature

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Point and timed mean value calculation

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Max./min. values

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Hold button for freezing measurement value

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Display illumination

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Auto-off function

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TopSafe, protection of the instrument from dirt and impact  
(optional)

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testo 425 is a compact anemometer with a fixed thermal flow velocity probe. The probe head has a diameter of 7.5 mm. With the extendable telescope (length max. 820 mm), the measuring instrument is suitable for flow velocity measurement in ducts. The testo 425 also measures extremely accurately in the low flow velocity range. The volume flow is directly shown in the display. For the purposes of volume flow calculation, the duct area can be

easily entered into the testo 425. In addition to this, the instrument can be switched over to display the current temperature. Timed and point mean value calculation provide information on the average volume flow, flow velocity and temperature measurement value. The Hold function allows the current measurement value to be frozen in the display, min./max. values are also displayed at the press of a button.

## Technical data / Accessories

### testo 425

testo 425 compact thermal anemometer with fixed velocity probe incl. temperature measurement and telescope (max. 820 mm), battery and calibration protocol

Part no. 0560 4251



### General technical data

Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +85 °C
Battery type	9V block battery, 6F22
Battery life	20 h
Dimensions	182 x 64 x 40 mm
Weight	285 g
Material/Housing	ABS
Warranty	1 year

### Sensor types

	Thermal	NTC
Meas. range	0 to +20 m/s	-20 to +70 °C
Accuracy ±1 digit	±(0.03 m/s +5% of mv)	±0.5 °C (0 to +60 °C) ±0.7 °C (remaining range)
Resolution	0.01 m/s	0.1 °C

### Accessories

### Part no.

Case for measuring instrument and probes	0516 0210	
TopSafe, protects from impact and dirt	0516 0221	
Transport case for meas. instr. and probes (405 x 170 x 85 mm)	0516 0201	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	
9V rech. battery for instrument, instead of battery	0515 0025	
ISO calibration certificate velocity hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004	
ISO calibration certificate velocity hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034	
ISO calibration certificate velocity hot wire, vane anemometer; calibration points 0.5; 0.8; 1; 1.5 m/s	0520 0024	