

Vane anemometer

testo 410 – Pocket-sized flow velocity measuring instrument

Flow velocity measuring instrument with temperature measurement

Integrated measurement with 40 mm vane

Time mean value calculation

Hold function and max./min. values

Windchill calculation for outdoor areas

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



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)
Operating temperature	-10 to +50 °C
Storage temperature	-20 to +70 °C
Protection class	IP10
Battery type	2 AAA micro batteries
Weight	110 g (with protective cap and batteries)
Measuring rate	0.5 s
Warranty	2 years

testo 410-2

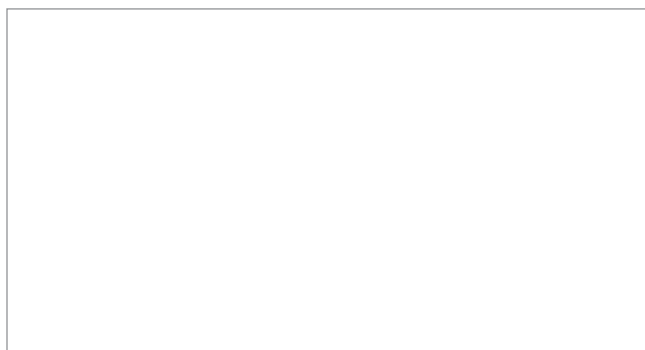
testo 410-2 handy vane probe anemometer with integrated humidity measurement and NTC-air thermometer incl. protection cap, batteries and calibration protocol

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.
Accessories for measuring instrument	
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





testo 416

Compact Vane Anemometer

Direct display of volume flow and air velocity

NEW!



fpm

cfm

testo 416

Compact Vane Anemometer

The compact testo 416 is an easy to use vane anemometer with attached 16 mm (0.63 in) vane probe on a telescopic handle. Just enter the duct measurements directly into the testo 416 and volume flow measurements (cfm) are shown on the clear display. You can switch between flow and temperature readings easily. Timed and multi-point mean flow calculations allow easy flow analysis, volume accumulation estimates, and temperature variation monitoring. Min-Max values are one button simple, while the "Hold" function freezes the current readings in the display for easy data recording.

- Direct display of volume flow
- Multi-point and timed mean calculations
- Max - Min values make comparisons fast and easy
- "Hold" button freezes readings
- Display light
- Auto-Off function
- TopSafe, protection against dirt and impact



testo 416 monitoring the volume flow of exhaust air



testo 416 helping to adjust supply air

testo 416 vane anemometer with cabled telescopic vane probe, battery and calibration document.

Part no.
0560 4160

Accessories	Part no.
Case for instrument	0516 0210
TopSafe, protection from impact and dirt	0516 0221
Recharger for 9 V rechargeable battery For external recharging of 0515 0025 battery	0554 0025
9V rechargeable battery for instrument	0515 0025
NIST calibration certificate/Velocity Hot wire, vane anemometer, Pitot tube; calibration points 400; 1000; 2000; 3000; 4000	0520 0204
ISO calibration certificate/Velocity Hot wire, vane anemometer, Pitot tube; calibration points 200; 400; 1000;	0520 0004
ISO calibration certificate/Velocity Hot wire, vane anemometer, Pitot tube; calibration points 1000; 2000; 3000; 4000 fpm	0520 0034

Technical data			
Probe type	Vane		
Meas. range	+118 to +8000 fpm	Oper. temp.	-4 to +122 °F
Accuracy	±(40 fpm +1.5% of rdg.)	Storage temp.	-40 to +185 °F
±1 digit		Battery type	9V battery
Resolution	0.1 fpm	Battery life	80 hr
		Dimensions	7 x 2.5 x 1.6 in
		Weight	11.5 oz
		Material/Housing	ABS
		Warranty	2 years



testo 417

Vane Anemometer

Flow, volume flow (cfm) and temperature with a fixed vane

NEW!



°F

fpm

cfm

testo 417

Vane Anemometer

The compact testo 417 anemometer utilizes a fixed flow-temperature vane to directly measure flow, volume flow and temperature. Volumetric flow is shown directly on the clear backlit display. Just input the duct measurements, and accurate volume flow calculations are automatically displayed. You can also switch between flow and temperature. Flow direction, either from pressure or vacuum source, is visible in the display. Timed and multi-point mean calculations provide information on mean volume flow, velocity and temperature. Min-Max values can also be displayed. The "Hold" function freezes current readings in the display making data recording easy.

- Flow direction is shown in display
- Flow, volume flow (cfm), and temperature measurements
- Multi-point and timed mean calculations
- Max - Min values
- "Hold" button freezes readings
- Clear backlit display
- Auto Off



testo 417 monitoring the air flow at a ventilation duct



testo 417 monitoring the exhaust air flow at a wall duct

testo 417, vane probe anemometer with built-in 4 in. vane, incl. temperature measurement, battery and calibration document

Part no.
0560 4170

Technical data			
Probe type	NTC	Vane	Volume flow
Meas. range	32 to +122 °F	+0.3 to +20 fpm	0 to +99999 cfm
Accuracy ±1 digit	±0.9 °F	±(0.1 fpm +1.5% of m.v.)	
Resolution	0.1 °F	0.01 fpm	0.1 cfm (0 to +99.9 cfm) 1 cfm (+100 to +99999 cfm)
Oper. temp.	32 to +122 °F	Dimensions	11 x 4 x 1.8 in
Storage temp.	-40 to +185 °F	Weight	8 oz
Battery type	9V battery	Material/Housing	ABS
Battery life	50 hr	Warranty	2 years

Accessories	Part no.
Case for instrument	0516 0210
Funnel kit consisting of funnel for disc valves (8" x 8") and funnel for ventilator (12" x 12")	0563 4170
Recharger for 9 V rechargeable battery For external recharging of 0515 0025 battery	0554 0025
9V rechargeable battery for instrument	0515 0025
NIST calibration certificate/Velocity Hot wire, vane anemometer; calibration points 100; 200; 400; 1000; 2000 fpm	0520 0244
ISO calibration certificate/Velocity Hot wire, vane anemometer, Pitot tube; calibration points 200; 400; 1000;	0520 0004
ISO calibration certificate/Velocity Hot wire, vane anemometer, Pitot tube; calibration points 1000; 2000; 3000;	520 0034
ISO calibration certificate/Velocity Hot wire, vane anemometer; calibration points 100; 160; 200; 300 fpm	0520 0024

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Thermal anemometer

testo 425 – With fixed flow velocity
probe

Measurement of flow velocity, volume flow and temperature

Point and timed mean value calculation

Max./min. values

Hold button for freezing measurement value

Display illumination

Auto-off function

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



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	2 years

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.

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

Pocket Hygro-Thermo-Anemometer-Light Meter

Rugged 4-in-1 Environmental Meter
Measures Humidity, Temperature, Air Velocity and Light

Features:

- Ergonomic pocket size housing with large dual LCD simultaneous display of Temperature and Air Velocity or Relative Humidity
- Characters on display reverse direction depending on Hygro-Thermo-Anemometer or Light Mode
- Data Hold to freeze the displayed value
- Records Min/Max readings
- Built-in low friction vane wheel improves accuracy of air velocity in ft/min, MPH, m/s, km/h, and Knots
- Built-in precision thin-film capacitance humidity sensor for fast response
- Built in thermistor for ambient temperature measurements
- Type K input measures temperature to 2372° (1300°C) using optional Type K probe
- Utilizes precision photo diode and color correction filter
- Cosine and color corrected light measurements
- Defaults to last function when powered off
- Auto power off 10 minutes after last key is pressed with disable feature
- Low Battery and overrange indication
- Complete with built-in Humidity sensor, Light sensor and Vane wheel, wrist strap, and 9V battery. (Optional Type K thermocouple probe)



Measurements	Range	Resolution	Basic Accuracy (Full Scale)
Air Velocity			
ft/min (feet per minute)	80 to 5910 ft/min	10ft/min	±3%
m/s (meters per second)	0.4 to 30m/s	0.1m/s	±3%
km/h (kilometers per hour)	1.4 to 108km/h	0.1km/h	±3%
MPH (miles per hour)	0.9 to 67MPH	0.1MPH	±3%
knots (nautical miles per hour)	0.8 to 58.3 knots	0.1knots	±3%
Light			
Foot Candles	0 to 1860Fc	0.1Fc	±(5% rdg + 8 digits)
Lux	0 to 20,000Lux	1Lux	±(5% rdg + 8 digits)
Temperature (thermistor)	32 to 122°F	0.1°F	±2.5°F
	0 to 50°C	0.1°C	±1.2°C
% Relative Humidity	10 to 95%RH	0.1%RH	±4%RH of reading
Temperature (thermistor)	32 to 122°F	0.1°F	±2.5°F
	0 to 50°C	0.1°C	±1.2°C
Temperature (Type K)	-148°F to 2372°F	0.1°F	±(1%+2°F) of reading
	-100°C to 1300°C	0.1°C	±(1%+1°C) of reading
Power	9V battery		
Dimensions	Meter: 6.1 x 2.4 x 1.3" (156 x 60 x 33mm); Vane: 1.2" (31mm)		
Weight	5oz (160g)		

Ordering Information:

45170Pocket Hygro-Thermometer-Anemometer-Light Meter
 TP870Type K Bead Wire Thermocouple
 409992Vinyl Pouch Carrying Case



VANE ANEMOMETER BAROMETER/HUMIDITY TEMPERATURE

Model : ABH-4225

ISO-9001, CE, IEC1010



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The Art of Measurement

VANE ANEMOMETER/BAROMETER/HUMIDITY/TEMP.

Model : ABH-4225

FEATURES

* Anemometer, Barometer, Humidity, Temperature meter, 4 in one, professional.
* Anemometer unit : m/S, Km/h, FPM, mph, Knot.
* Barometer unit : hPa, mmHg, inHg.
* Humidity with Dew point measurement
* Temperature measurement with °C, °F unit.
* Vane anemometer, available for wind speed measurement, high reliability.
* Fast response time for humidity measurement.
* Atmosphere measurement with high accuracy.
* Two display can select the six mode (function) : Humidity/Temp., Humidity/Dew point, Anemometer/Temp., Barometer/Temp. Barometer/Humidity, Barometer/Anemometer,
* Bright LCD display.
* Microprocessor circuit ensures high accuracy and provides special functions and features.
* Records Maximum and Minimum readings with recall.
* Auto power off saves battery life.
* Operates from DC 1.5V (UM4/AAA) x 4 PCs batteries.
* Low-friction ball vane wheels is accurate in both high and low velocities.
* Durable, long-lasting components, enclosed in strong, compact ABS-plastic housing.

GENERAL SPECIFICATIONS

Display	LCD size : 28 mm x 19 mm.	
Anemometer Unit	m/S (meters per second) Km/h (kilometers per hour) FPM (feet per minute) mph (miles per hour) Knot (nautical miles per hour)	
Temp. unit	°C, °F	
Barometer unit	hPa, mmHg, inHg.	
Humidity unit	%RH	
Dew point	°C, °F	
Circuit	Custom one-chip of microprocessor LSI circuit.	
Sensor Structure	Anemometer	Van probe with low friction ball bearing design.
	Barometer	Semiconductor
	Humidity	Capacitance humidity sensor, semiconductor
	Temperature	Semiconductor
Data Hold	Freeze the display reading.	
Memory Recall	Maximum & Minimum value.	
Sampling Time	Approx. 1 second.	
Power off	Auto shut off saves battery life or manual off (REC function).	
Operating Temperature	0 to 50 °C.	
Operating Humidity	Less than 80% R.H.	
Power Supply	DC 1.5 V battery (UM4/AAA) x 4 PCs,	
Power Current	Approx. DC 5.2 mA	
Weight	182 g/ 0.4 LB. @ Battery is included.	

Dimension	205 x 48 x 40 mm (8.1" x 1.9" x 1.6")
Accessories Included	Instruction manual.....1 PC
Optional Accessory	Soft carrying case with sash (210 x 80 x 50 mm), Model : CA-52A

ELECTRICAL SPECIFICATIONS (23±5 °C)

Anemometer (Air velocity)

Measurement	Range	Resolution	Accuracy
m/S	0.4 to 30.0 m/s	0.1 m/S	≤ 20 m/s : ± 3% F.S.
Km/h	1.4 to 108.0 km/h	0.1 Km/h	> 20 m/s : ± 4% F.S.
FPM	80 to 5910 ft/min	1 Ft/min	
mph	0.9 to 67.0 mile/h	0.1 Mile/h	
Knot	0.8 to 58.3 knots	0.1 Knots	

Note :
m/S (meters per second) mph (miles per hour)
Km/h (kilometers per hour) Knot (nautical miles per hour)
FPM (feet per minute)

Temperature

Measuring Range	0 °C to 50 °C/32 °F to 122 °F
Resolution	0.1 °C/0.1 °F
Accuracy	± 0.8 °C/1.5 °F

Humidity / Dew point

a. Humidity

Range	10 % to 95 % R.H.
Resolution	0.1 % R.H.
Accuracy	≥ 70% RH ± (3% reading + 1% RH). < 70% RH - 3% RH. ± 3% RH.

b. Dew point

°C	Range	-25.3 °C to 48.9 °C
	Resolution	0.01 °C
°F	Range	-13.5 °F to 120.1 °F.
	Resolution	0.01 °F.

Remark :

- * Dew Point display value is calculated from the Humidity/Temp. measurement automatically.
- * The Dew Point accuracy is sum accuracy value of Humidity & Temperature measurement..

Barometer

Measurement	Range	Resolution	Accuracy @ reading
hPa	10.0 to 999.9	0.1	± 1.5 hPa
	1000 to 1100	1	± 2 hPa
mmHg	7.5 to 825.0	0.1	± 1.2 mmHg
inHg.	0.29 to 32.48	0.01	± 0.05 inHg

*Anemometer, Humidity/Temp., Barometer, Altitude, Light, Heat index
Wind Chill, Dew point, Wet bulb, Optional Pt 1000 ohm Temp.*

ENVIRONMENT METER + Light

Model : SP-9201

ISO-9001, CE, IEC1010



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The Art of Measurement

Mini Pocket Environment meters Weather/sport meters



Anemometer, Humidity/Temp., Barometer, Altitude, light ENVIRONMENT METER + Light

Model : SP-9201

- * Multi-functions, mini pocket size, easy carryout.
- * Air velocity (Wind speed)/Temp., Air flow (CMM, CFM).
- * Humidity/Temp., Dew point, Wet bulb Temp..
- * Wind chill, Heat index.
- * Barometer, Altitude.
- * Light (0 to 30,000 Lux).
- * Display unit :
Air velocity : m/s, ft/min., kmh, mph, knot.
Air flow : CMM, CFM.
Humidity/Dew point/Wet bulb : %RH, °C/°F.
Wind chill/Heat index : °C/°F.
Barometer : hPa, inHg, mmHg.
Altitude : meter, feet (ft).
Light : Lux, Foot-candle .
- * Air velocity : 0.4 to 20.0 m/s.
- * LCD with backlight.
- * Optional Pt 1000 ohm Temp. probe for external. Temp. measurement.
- * Size : 120 mm x 45 mm x 20 mm



Anemometer, Humidity/Temp., Barometer, Altitude, UV ENVIRONMENT METER + UV light

Model : SP-9202

- * Multi-functions, mini pocket size, easy carryout.
- * Air velocity (Wind speed)/Temp., Air flow (CMM, CFM).
- * Air velocity : 0.4 to 20.0 m/s.
- * Humidity/Temp., Dew point, Wet bulb Temp..
- * Wind chill, Heat index.
- * Barometer, Altitude.
- * UV Light (spectrum : 260 nm to 390 nm, UVA/UVB).
- * Display unit :
Air velocity : m/s, ft/min., kmh, mph, knot.
Air flow : CMM, CFM.
Humidity/Dew point/Wet bulb : %RH, °C/°F.
Wind chill/Heat index : °C/°F.
Barometer : hPa, inHg, mmHg.
Altitude : meter, feet (ft).
UV : mW/cm².
- * Optional Pt 1000 ohm Temp. probe for external. Temp. measurement.
- * Size : 120 mm x 45 mm x 20 mm



5 in 1 Anemometer, Humidity/Temp., Barometer Light Meter, Pt 1000 ohm Thermometer

Model : SP-8001

- * Multi-functions, mini pocket size.
- * Air velocity : 0.4 to 20.0 m/s.
- * Air flow (CMM, CFM).
- * Humidity/Temp., Dew point.
- * Light (0 to 30,000 Lux).
- * Pt 1000 ohm Thermometer, probe is optional.



ANEMOMETER + Air flow

Model : SP-82AM

- * Multi-functions, mini pocket size.
- * Air velocity : 0.4 to 20.0 m/s.
- * Air Temp. : °C /°F.
- * Air flow (CMM, CFM).
- * Air velocity unit : m/s, ft/min., kmh, mph, knot.



Mini pocket

Environment meters Weather/sport meters

Model : SP series

ISO-9001, CE, IEC1010



Model : SP-9201 + Light, 11 in 1

1. Air velocity/Temp., 2. Humidity/Temp.
3. Light, 4. Barometer, 5. CFM, CMM
6. Dew point, 7. Wet bulb, 8. Wind chill
9. Heat index, 10. Altitude
11. Pt Temp.(optional)

Model : SP-9202 + UV, 11 in 1

1. Air velocity/Temp., 2. Humidity/Temp.
3. Light, 4. Barometer, 5. CFM, CMM
6. Dew point, 7. Wet bulb, 8. Wind chill
9. Heat index, 10. Altitude
11. Pt Temp.(optional)

Model : SP-8001 + Light, 9 in 1

1. Air velocity/Temp., 2. Humidity/Temp.
3. Light, 4. CFM, CMM, 5. Dew point
7. Wind chill, 8. Heat index
9. Pt Temp.(optional)

Model : SP-8002 + UV, 9 in 1

1. Air velocity/Temp., 2. Humidity/Temp.
3. UV, 4. CFM, CMM, 5. Dew point
7. Wind chill, 8. Heat index
9. Pt Temp.(optional)

Model : SP-7000 7 in 1

1. Air velocity/Temp., 2. Humidity/Temp.
3. CFM, CMM, 4. Dew point, 5. Wet bulb
6. Wind chill, 7. Heat index

Model : SP-82RH

Humidity/Temp.

Model : SP-82LX

Light

Model : SP-82UV

UV

Model : SP-82AM

Air velocity



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VA8020 Temperature/Vane anemometer



Measure: m/s, km/h, fpm, mph, knots, Beaufort scale, °C, °F

Resolution: 0.1 m/s, 1 fpm, 0.1°C, 0.1°F

Range: 0.4~20 m/s, 80~4000 fpm

Sample Rate: 0.5sec

Operating temperature: -10~50°C, 14~122°F

Special function: Auto power off; Data hold; MAX and MIN; Back light

Dimension: 157 x 60 x 30mm, Weight: 180g

Accessories included:

- 1.5V x3AAA batteries
- Protect cover, protective carrying case
- Wrist Strap & User's Manual