

We measure it.



Differential pressure measuring instrument

testo 510 – Pocket-sized differential pressure measurement

Differential pressure measurement 0 to 100 hPa

Flow velocity measurement possible with Pitot tube

Temperature and air density compensation

Display illumination

10 selectable units



hPa

Illustration 1.1

testo 510 measures differential pressure in the range from 0 to 100 hPa. The differential pressure measurement is temperature-compensated for accurate measurement values. The measurement values can be displayed in Pascal over the entire measurement range. Magnets at the rear permit free-hand work. The backlit display allows the

measurement values to be easily read out, even in unfavourable light conditions. The testo 510, in combination with a Pitot tube, measures air flow velocity. For accurate measurement values, the air density can be compensated. testo 510 is very handy, small and easy to operate.

Technical data / Accessories

testo 510

testo 510 handy measuring instrument for differential pressure incl. protection cap, batteries and calibration protocol

Part no. 0560 0510



Sensor type

Differential pressure sensor

Meas. range	0 to 100 hPa
Accuracy ±1 digit	±0.03 hPa (0 to 0.30 hPa) ±0.05 hPa (0.31 to 1.00 hPa) ±(0.1 hPa + 1.5 % of mv) (1.01 to 100 hPa)
Resolution	0.01 hPa

General technical data

Positive pressure	500 mbar
max. static pressure	1.5 bar
Oper. temp.	0 to +50 °C
Storage temp.	-40 to +70 °C
Selectable units	hPa, mbar, Pa, mmH ₂ O, inH ₂ O, inHg, mmHg, psi, m/s, fpm
Protection class	IP40
Battery type	2 batteries Type AAA
Battery life	50 h (average, without display illumination)
Measurement rate	0.5 s
Dimensions	119 x 46 x 25 mm
Weight	90 g (with batteries and protective cap)
Warranty	1 year

Accessories

Part no.

Accessories for measuring instrument

Connection hose, silicone, 2 m long, max. load 700 hPa (mbar)	0554 0448	
ISO calibration certificate pressure; differential pressure; 3 points distributed over meas. range	0520 0095	
ISO calibration certificate pressure; differential pressure; 5 points distributed over meas. range	0520 0005	

Absolute pressure measuring instrument

testo 511 – Pocket-sized absolute pressure measurement

Highly accurate absolute pressure measurement to ± 3 hPa

Barometric altitude measurement

Calculation of barometric air pressure

8 available pressure units

Display illumination



hPa

Illustration 1.1

testo 511 measures absolute pressure to an accuracy of ± 3 hPa. The measuring instrument is ideal for absolute pressure compensation during flow velocity measurements with a Pitot tube, for example. By entering the altitude above sea level, this is converted into barometric air pressure. In addition to this, a barometric pressure measurement between two points is also possible. The eight switchable pressure units offer the user highest flexibility in measurement.

The clip-on protective cap, wrist strap and belt holder ensure safekeeping of the instrument. testo 511 is very handy, small and easy to use.

Technical data / Accessories

testo 511

testo 511 handy measuring instrument for absolute pressure incl. protection cap, batteries and calibration protocol

Part no. 0560 0511



Sensor type

Absolute pressure probe

Meas. range	300 to 1200 hPa
Accuracy ±1 digit	±3.0 hPa
Resolution	0.1 hPa

General technical data

Selectable units	hPa, mbar, Pa, mmH ₂ O, mmHg, inH ₂ O, inHg, psi, m, ft
Measurement rate	0.5 s
Storage temp.	-40 to +70 °C
Oper. temp.	0 to +50 °C
Battery type	2 batteries Type AAA
Battery life	200 h (average, without display illumination)
Protection class	IP40
Weight	90 g (with batteries and protective cap)
Dimensions	119 x 46 x 25 mm (incl. protective cap)
Warranty	1 year

Accessories

Part no.

Accessories for measuring instrument

Connection hose, silicone, 2 m long, max. load 700 hPa (mbar)	0554 0448	
ISO calibration certificate relative pressure, 3 measurement points distributed over the measurement range	0520 0085	
ISO calibration certificate pressure, differential pressure, accuracy 0.1 to 0.6 (% of fsv)	0520 0025	

Differential pressure measuring instrument

testo 512 – The pro in pressure and flow velocity measurement

8 pressure units can be selected: kPa, hPa, Pa, mm H₂O, mmHg, psi, inch H₂O, inch Hg

2 flow velocity units can be selected: m/s, fpm

Integrated tightness compensation

Display illumination

Max./min. as well as Hold-function

Printout of measurement values incl. date/time and min./max. values



hPa

m/s

The differential pressure measuring instrument testo 512 is available in four different versions:

- Measuring range 0 to 2 hPa
- Measuring range 0 to 20 hPa
- Measuring range 0 to 200 hPa
- Measuring range 0 to 2000 hPa (without flow velocity and Pascal measurement)

testo 512 simultaneously shows pressure and flow velocity (apart from version 0 to 2000 hPa) in the large, easily legible, illuminated display, the measurement values can be printed out on site with date and time as well as minimum and maximum values.

testo 512 has two switchable units for flow velocity, and for pressure, eight units can even be set.

In the testo 512, damping for a sliding mean value calculation can be individually programmed, tightness compensation is integrated. The actual value displayed can be frozen in the display with the Hold-button, and the minimum and maximum values can be displayed and stored in the instrument.

The TopSafe protects the instrument from impact, dirt and splash water in tough practical applications (optional).

Differential pressure measuring instrument

1

testo 512 0 to 2 hPa/mbar

testo 512 pressure meter (0 to 2hPa) incl.
battery and calibration protocol

Part no. 0560 5126



2

testo 512 0 to 20 hPa/mbar

testo 512 pressure meter (0 to 20hPa) incl.
battery and calibration protocol

Part no. 0560 5127

3

testo 512 0 to 200 hPa/mbar

testo 512 pressure meter (0 to 200hPa) incl.
battery and calibration protocol

Part no. 0560 5128

4

testo 512 0 to 2000 hPa/mbar w/o flow velocity and Pascal measurement

testo 512 pressure meter (0 to 2000hPa) incl.
battery and calibration protocol

Part no. 0560 5129

Sensor type Differential pressure sensor

	1	2	3	4
Meas. range	0 to +2 hPa +2 to +17.5 m/s 395 to 3445 fpm	0 to +20 hPa +5 to +55 m/s 985 to 10830 fpm	0 to +200 hPa +10 to +100 m/s 1970 to 19690 fpm	0 to +2000 hPa
Accuracy ± 1 digit	0.5% of fsv	0.5% of fsv	0.5% of fsv	0.5% of fsv
Resolution	0.001 hPa 0.1 m/s 0.1 fpm	0.01 hPa 0.1 m/s 0.1 fpm	0.1 hPa 0.1 m/s 0.1 fpm	1 hPa
Overload	± 10 hPa	± 200 hPa	± 2000 hPa	± 4000 hPa

Common Technical Data

Measuring medium	All non-corrosive gases
Display	LCD, 2 lines
Storage temp.	-10 to +70 °C
Oper. temp.	0 to +60 °C
Battery type	9V block battery, 6F22

Battery life	120 h
Auto Off	10 min
Weight	300 g
Dimensions	202 x 57 x 42 mm
Warranty	1 year



Accessories

Accessories for measuring instrument		Part no.
9V rech. battery for instrument, instead of battery	0515 0025	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	
Printer and Accessories		
Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries	0554 0549	
Spare thermal paper for printer (6 rolls), permanent ink, measurement data documentation legible for up to 10 years	0554 0568	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610	
Transport and Protection		
TopSafe, protects from impact and dirt	0516 0221	
Case for measuring instrument and probes	0516 0210	
Transport case for meas. instr. and probes (405 x 170 x 85 mm)	0516 0201	
Pitot tube measurement		
Pitot tube, 350 mm long, stainless steel, for measuring flow velocity	0635 2145	
Pitot tube, 500 mm long, stainless steel, for measuring flow velocity	0635 2045	
Pitot tube, 1000 mm long, stainless steel, measures flow speed	0635 2345	
Connection hose; silicone; 5 m long; max. load 700hPa (mbar)	0554 0440	
Calibration Certificates		
DAkkS calibration certificate/pressure, diff. and pos. pressure; 11 measuring points distributed over the instr. meas. range	0520 0215	
ISO calibration certificate pressure, differential pressure, accuracy 0.1 to 0.6 (% of fsv)	0520 0025	
ISO calibration certificate pressure, differential pressure; 5 points distributed over meas. range	0520 0005	

Differential pressure measuring instrument

testo 521 – Precise Pitot tube measurement

Temperature-compensated differential pressure sensor in instrument

Additional 2 probe inputs for the connection of further probes for the measurement of pressure and temperature

Direct calculation of flow velocity and volume flow

Direct zeroing of display value from pressure probes

Display of Hold-, max. and min. values

Easy data storage by measurement site as well as analysis, archiving and documentation via optional PC software

Point and timed mean value calculation



hPa

°C

testo 521-1/-2/-3 are highly accurate differential pressure measuring instruments with an internal sensor. The versionstesto 521-1 and testo 521-2 both have a measuring range from 0 to 100 hPa, however they are available in two accuracy classes:

- testo 521-1: accuracy 0.2 % of final value
- testo 521-2: accuracy 0.1 % of final value

testo 521-1 and testo 521-2 are optimally suited to checks on extraction systems and ventilators and for the monitoring of pressure drop at filters. In combination with a Pitot tube, the internal sensor measures flow velocities from 5 to 100 m/s. The instrument additionally has two probe inputs for the connection of further probes for the measurement of

pressure and temperature. A large selection of probes is available for this purpose.

testo 521-3 has a measuring range of 0 to 2.5 hPa and records even the smallest pressure differences without difficulty. Its high accuracy and a resolution of 0.1 Pa make it ideal for differential pressure measurements in cleanrooms. In combination with the Pitot tube, the internal sensor measures flow velocities from 1 to 20 m/s. The testo 521-3 is also equipped with two probe inputs for the connection of further probes for the measurement of pressure and temperature.

Differential pressure measuring instrument

testo 521-1

testo 521, differential pressure measuring instrument with measuring range 0 to 100 hPa and 0.2 hPa accuracy, incl. calibration protocol and batteries

Part no. 0560 5210



testo 521-2

testo 521, differential pressure measuring instrument with measuring range 0 to 100 hPa and 0.1 hPa accuracy, incl. calibration protocol and batteries

Part no. 0560 5211

testo 521-3

testo 521, differential pressure measuring instrument with measuring range 0 to 2.5 hPa, incl. calibration protocol and batteries

Part no. 0560 5213

testo 521-1/-2 with internal sensor 0 to 100 hPa / 0.1 %

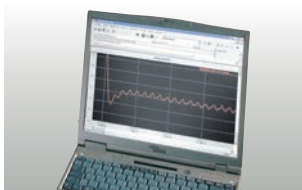
testo 521-1/-2 is equipped for accurate differential pressure measurements in the VAC sector, for example pressure drops in filters, inspections on ventilators and suction systems. Use testo 521-1/-2 for Pitot tube measurements in the range 5 to 100 m/s.

testo 521-3 with internal sensor 0 to 2.5 hPa

Even the smallest differential pressures up to 2.5 hPa are measured using testo 521-3. A high accuracy level and a resolution of 0.1 Pa make the instrument ideal for measurements in cleanrooms or for flue draught inspections. Use testo 521-3 for accurate measurements during Pitot tube measurements in the range 1 to 20 m/s.

Advantages testo 521

- Built-in differential pressure probe
- 2 user defined probe sockets for pressure and temperature
- Wide selection of probes
- Documentation on site
- Easy data management via PC
- 2 line display with text menu guide
- Display light
- Mains socket/fast battery recharging
- Fast-action coupling connections M8x0.5



Easy data management via PC



Inspection of transmitters with 4 to 20 mA interface



2 user defined probe sockets for pressure and temperature



Further advantages testo 521

Wide selection of probes

The differential pressure sensor is integrated into testo 521. Up to two additional probes can be connected through user-defined probe sockets.

- Differential pressure probes to 2000 hPa
- Absolute pressure probes to 2000 hPa
- Relative pressure probes to 400 bar
- Temperature probes from -200 to +1250 °C
- Probes for measuring current/voltage

Advantages while measuring

- The short-text menu facilitates the handling vastly.
- Two measurement channels are displayed in the large two-lined LED-display; switching between the calculated measurement parameters is done by way of the arrow buttons.
- Zeroing of the relative and differential pressure is done by pressing the P=O button.
- When measuring pressure, the following units can be selected: mbar, hPa, bar, Pa, kPa, inH2O, mmH2O, torr and psi.
- Button for Hold, max, min and mean values.
- Hands-free: TopSafe (impact protection) including carrier strap and magnet disc as useful accessories.

Long-term monitoring also during dynamic measurement (only testo 521-1/-2)

- Measurement data can be saved separately or as a measurement series. The measurement rate (0.04 seconds, 1 second to 24 hours) and the number of values to be saved are freely selectable. The maximum memory size is 100 KB (25.000 readings).
- Dynamic measurements can be saved on the instrument in cycles of 0.04 seconds - online measurement for large quantities of data can be activated via PC.

Documentation on site

- Measurement protocols can be printed on site. No awkward cables required on account of the infrared interface.
- Long-term legible thermal paper ensures that measurement data documentation can be stored for up to 10 years.

Easy data management via PC

- The saved measurement data can be easily analysed and processed using the software available.
- Readings are taken by the instrument and can be depicted online by the software.

Pitot tube measurement, Pitot tube factor 1.00

With the built-in pressure sensor with an accuracy of 0.1 % of the full-scale value, the testo 521-2 enables precise measurement results in the range of 5 to 100 m/s:

Accuracy at 5 m/s:	0.32 m/s
Accuracy at 10 m/s:	0.09 m/s
Accuracy at 50 m/s:	0.05 m/s

In the lower flow range of 1 to 12 m/s, high accuracy can be reached by connecting the 100 Pa-probe. The double membrane technology completely eliminates positional dependences. Changes in position do not influence the measurement result:

Accuracy at 2 m/s:	0.1 m/s
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Technical data

General technical data testo 521-1/-2/-3

Storage temp.	-20 to +70 °C
Oper. temp.	0 to +50 °C
Power supply	Battery/Rechargeable battery, Mains unit 12 V
Battery type	9 V (6LR61)
Battery life	Continuous operation w/ internal pressure sensor: 30 h With rech. battery: 10 h With carbon battery: 18 h
Weight	300 g
Dimensions	219 x 68 x 50 mm
Material/Housing	ABS
Memory	100 kB (corresponds to approx. 25,000 readings)

Connection	Hose: inner Ø 4 mm outer Ø 6 mm
Display	LCD display with symbol, 7 segment display and point matrix
Updating rate in display	2x per second, in fast measurement 4x per second
Measuring rate	from 0.04 seconds
PC	RS232 interface
Other features	Mains connection and battery recharging in instrument Automatic recognition of all connected probes 9 measurement units selectable: mbar, hPa, bar, Pa, kPa, inH ₂ O, mmH ₂ O, torr, psi
Warranty	1 year

Sensor types

	Piezoresistive pressure sensor	Piezoresistive pressure sensor For external pressure probes	Ceramic sensor for external pressure probes	NTC	Type K (NiCr-Ni)
Meas. range	0 ... 100 hPa (testo 521-1/-2) 0 to 2.5 hPa (testo 521-3**)	0 to 2000 hPa	-1 to 400 bar	-40 to +150 °C	-200 to +1370 °C
Accuracy ±1 digit*	±0.2 % of fsv (testo 521-1) ±0.1 % of fsv (testo 521-2) ±0.5 Pa (0 to 20 Pa) ±(0.5 Pa ±0.5% of mv) (20.1 to 250 Pa) (testo 521-3**)	±0.1 % of mv	±0.2 % of fsv	±0.2 °C (-10 to +50 °C) ±0.4 °C (remaining range)	±0.4 °C (-100 to +200 °C) ±1 °C (remaining range)
Resolution	0.01 hPa (testo 521-1/-2) 0.1 Pa (testo 521-3**)	0.1 Pa (0638 1347) 0.001 hPa (0638 1447) 0.01 hPa (0638 1547) 0.1 hPa (0638 1847 / 0638 1647)	0.01 bar	0.1 °C	0.1 °C
Static pressure	2000 hPa (testo 521-1/-2) 100 hPa (testo 521-3**)				
Overload	300 hPa (testo 521-1/-2) 50 hPa (testo 521-3**)				
Zeroing	to 2.5 hPa (testo 521-1/-2) to 0.5 hPa (testo 521-3**)				

*Accuracy information applies only to instrument without probes connected

**Sensor is not suitable for long-term measurements



Accessories

Additional accessories and spare parts		Part no.
Desk-top power supply with international connection options	0554 1143	
9V rech. battery for instrument, instead of battery	0515 0025	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	

Transport and Protection		
TopSafe (protection case), incl. carrier strap, bench stand and magnet. Protects instrument from dust, impact, scratches	0516 0446	






Printer and Accessories		
Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries, for printing out measurements on site	0554 0549	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610	
Spare thermal paper for printer (6 rolls), permanent ink, measurement data documentation legible for up to 10 years	0554 0568	

Software and Accessories		
ComSoft Professional, Pro software incl. data archiving	0554 1704	
RS232 cable, connects instrument to PC (1.8 m) for data transfer	0409 0178	

Calibration Certificates		
DAkkS calibration certificate/Pressure, Differential pressure, accuracy < 0.1 (% of full scale value)	0520 0205	
DAkkS calibration certificate/pressure, differential pressure, accuracy 0.1 to 0.6 (% of full-scale value)	0520 0215	
DAkkS calibration certificate/pressure, differential pressure, accuracy > 0.6 (% of full-scale value)	0520 0225	
ISO calibration certificate/Pressure, Differential pressure, accuracy < 0.1 (% of full scale value)	0520 0035	
ISO calibration certificate pressure, differential pressure, accuracy 0.1 to 0.6 (% of fsv)	0520 0025	
ISO calibration certificate pressure, Differential pressure, accuracy > 0.6 (% of fsv), for testo 521-3	0520 0005	
ISO calibration certificate/Pressure, Differential pressure, accuracy > 0.1 (% of fsv), for testo 521-2	0520 0405	
ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001	
ISO calibration certificate/temperature, meas. instr. with air/immersion probe; cal. points 0°C; +150°C; +300°C	0520 0021	
ISO calibration certificate/temperature, meas. instr. with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071	
DAkkS calibration certificate/temperature, meas. instr. with air/immersion probe; calibration points -20 °C; 0 °C; +60 °C	0520 0211	
DAkkS calibration certificate/temperature, contact surface temperature probes; calibration points +100°C; +200°C; +300°C	0520 0271	
ISO calibration certificate/electrical	0520 1000	





Probe accessories		
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument, PUR coating material	0430 0143	
Cable, 5 m long, connects probe with plug-in head to measuring instrument, PUR coating material	0430 0145	
Connection hose; silicone; 5 m long; max. load 700hPa (mbar)	0554 0440	
Connection cable, 2.5 m long, for pressure probes 0638 1741/1841/1941/2041/2141	0409 0202	
Adapter to connect NiCr-Ni thermocouples and probes with open wire ends	0600 1693	

Probes

Probe type	Illustration	Measuring range	Accuracy	Overload	Static pressure	Zeroing	Part no.
Differential pressure probe							
Precision pressure probe, 100 Pa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		0 to +100 Pa	$\pm(0.3 \text{ Pa} \pm 0.5\% \text{ of mv})$	50 hPa	100 hPa	to 20 Pa	0638 1347
Pressure probe, 10 hPa, in robust metal housing with impact protection incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		0 to +10 hPa	$\pm 0.03 \text{ hPa}$	50 hPa	1000 hPa	to 0,4 hPa	0638 1447
Pressure probe, 100 hPa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		0 to +100 hPa	$\pm 0.5\% \text{ of mv (+20 to +100 hPa)}$ $\pm 0.1 \text{ hPa (0 to +20 hPa)}$	300 hPa	1000 hPa	to 4 hPa	0638 1547
Pressure probe, 1000 hPa, measures differential pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment		0 to +1000 hPa	$\pm 1 \text{ hPa (0 to 200 hPa)}$ $\pm 0.5\% \text{ of mv (200 to 1000 hPa)}$	2000 hPa	1000 hPa	to 20 hPa	0638 1647
Absolute pressure probe							
Pressure probe, 2000 hPa, measures absolute pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment		0 to +2000 hPa	$\pm 5 \text{ hPa (0 to +2000 hPa)}$	4000 hPa	–	–	0638 1847

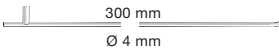
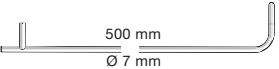


Oper. temp.: 0 to +50 °C (compensated)
 Connection: Plug-in head. connection cable 0430 0143 or 0430 0145 required

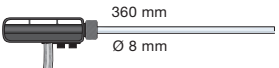
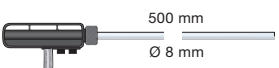
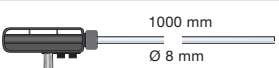
Probes

Probe type	Illustration	Measuring range	Accuracy	Overload	Zeroing	Part no.
Relative pressure probe (media compatible)						
Low pressure probe, refrigerant-proof stainless steel, up to 10 bar		-1 to +10 bar	±1% of fsv	25 bar	to 0,1 bar	0638 1741
High pressure probe, refrigerant-proof stainless steel, up to 30 bar		-1 to +30 bar	±1% of fsv	120 bar	to 0,3 bar	0638 1841
High pressure probe, refrigerant-proof stainless steel, up to 40 bar		-1 to +40 bar	±1% of fsv	120 bar	to 0,4 bar	0638 1941
High pressure probe, refrigerant-proof stainless steel, up to 100 bar		-1 to +100 bar	±1% of fsv	250 bar	to 1 bar	0638 2041

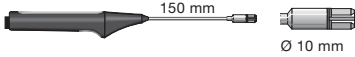
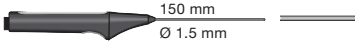

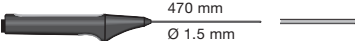
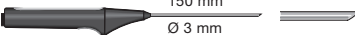
Oper. temp.: -40 to +100 °C; 0 to +70 °C (compensated)

Connection: Plug-in head, connection cable 0409 0202 required
screw-in thread 7/16" UNF

Probe type	Illustration	Oper. temp.	Part no.
Pitot tubes			
Pitot tube, 300 mm long, stainless steel, for measuring flow velocity		0 to +600 °C	0635 2245
Pitot tube, 500 mm long, stainless steel, for measuring flow velocity In conjunction with 0638 1347 / 0638 1447 / 0638 1547 pressure probes or testo 521, testo 435-3, testo 435-4 and testo 480 with internal sensor		0 to +600 °C	0635 2045
Pitot tube, 350 mm long, stainless steel, for measuring flow velocity In conjunction with 0638 1347 / 0638 1447 / 0638 1547 pressure probes or testo 521, testo 435-3, testo 435-4 and testo 480 with internal sensor		0 to +600 °C	0635 2145
Pitot tube, 1000 mm long, stainless steel, measures flow speed		0 to +600 °C	0635 2345

Probe type	Illustration	Measuring range	Probe type	Part no.
Straight Pitot tubes				
Pitot tube, stainless steel, 360 mm long, measures velocity with temperature, for pressure probes 0638 1345/..1445/..1545		-40 to +600 °C	Type K (NiCr-Ni)	0635 2040
Pitot tube, stainless steel, 500 mm long, measures velocity with temperature, for pressure probes 0638 1345/..1445/..1545		-40 to +600 °C	Type K (NiCr-Ni)	0635 2140
Pitot tube, stainless steel, 1000 mm long, measures velocity with temperature, for pressure probes 0638 1345/..1445/..1545		-40 to +600 °C	Type K (NiCr-Ni)	0635 2240

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
Temperature probes					
Quick-action surface probe**	 150 mm Ø 10 mm	-200 to +300 °C	Class 2*	3 s	0604 0194
Super quick-action immersion/penetration probe for measurements in liquids **	 150 mm Ø 1.5 mm	-200 to +600 °C	Class 1*	1 s	0604 0493
Super quick-action immersion/penetration probe for measurements in gases and liquids with a low-mass tip**	 150 mm Ø 1.4 mm 20 mm Ø 0.5 mm	-200 to +600 °C	Class 1*	1 s	0604 9794
Super quick-action immersion/penetration probe for high temperatures **	 470 mm Ø 1.5 mm	-200 to +1100 °C	Class 1*	1 s	0604 0593
Fast response immersion/penetration probe **	 150 mm Ø 3 mm	-200 to +400 °C	Class 1*	3 s	0604 0293

*According to standard EN 60584-2, the accuracy of Class 1/2 refers to -40 to +1000/+1200 °C

**Connection: Plug-in head. connection cable 0430 0143 or 0430 0145 required

Part no.

Adapter to connect NiCr-Ni thermocouples and probes with open wire ends	0600 1693	
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We measure it.



Differential pressure measuring instrument

testo 526 – Pressure measurement for all pressure ranges

Temperature-compensated differential pressure sensor 0 to 2000 hPa in instrument

Additional 2 probe inputs for the connection of further probes for the measurement of pressure and temperature

Direct zeroing of display value from pressure probes

Display of Hold-, max. and min. values

Easy data storage by measurement site as well as analysis, archiving and documentation via optional PC software

Leakage rate measurement (pressure drop per time)

Testing of pressure drop in containers, pipelines etc.



hPa

°C

testo 526-1/-2 is a highly precise differential pressure measuring instrument with an internal sensor. This has a measuring range from 0 to 2000 hPa. The instrument is optimally suited to pressure checks in sensitive industrial processes, and is available in 2 accuracy classes.

- testo 526-1: accuracy 0.1 % of final value
- testo 526-2: accuracy 0.05 % of final value

The testo 526-1/-2 additionally has two probe inputs for the connection of further probes for the measurement of pressure and temperature. A large selection of probes is available for this purpose.

Specially for the purposes of tightness tests on containers, uninterrupted recording is possible via the test menu in testo 526-1 and testo 526-2. The subsequent processing of the measurement data via software or printout via the printer allow the documentation of the pressure test.

Differential pressure measuring instrument

testo 526-1

testo 526-1 (0 to 2000hPa 0.1% acc') incl. battery and calibration protocol

Part no. 0560 5280



testo 526-2

testo 526-2 (0 to 2000hPa 0.05% acc), fast coupling connection, battery and calibration protocol included

Part no. 0560 5281

testo 526-1 with internal sensor

0 to 2000 hPa / 0.1%

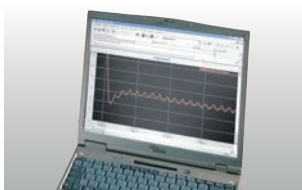
testo 526 is the ideal differential pressure meter for industrial applications. Processes can be accurately measured and monitored with an accuracy of 0.1% of the full-scale value.

testo 526-2 with highly accurate internal sensor 0 to 2000 hPa, 0.05%

testo 526 is the ideal differential pressure meter for sensitive industrial applications. Critical processes can be efficiently measured and monitored at an accuracy of up to 0.05% of the full-scale value.

Advantages testo 526-1 and testo 526-2

- Built-in differential pressure probe
- 2 user defined probe sockets for pressure and temperature
- Wide selection of probes
- Documentation on site
- Easy data management via PC
- 2 line display with text menu guide
- Display light
- Mains socket/fast battery recharging
- Fast-action coupling connections M8x0.5



Easy data management via PC



Inspection of transmitters with 4 to 20 mA interface



2 user defined probe sockets for pressure and temperature

Further advantages testo 526-1 and testo 526-2

Wide selection of probes

The differential pressure sensor is built into testo 526. Up to two additional probes can be connected via user-defined probe sockets.

- Differential pressure probes to 2000 hPa
- Absolute pressure probes to 2000 hPa
- Relative pressure probes to 400 bar
- Temperature probes from -200 to +1250 °C
- Probes for measuring current/voltage

Inspection of transmitters with 4 to 20 mA interface

All transmitters or non-Testo probes (in 2 or 4 wire systems, 18 V) can be connected to the 4 to 20 mA interface. Scaling is carried out on the hand-held measuring instrument.

Major benefit: The transmitter connected does not need its own power; it is supplied by the testo 526 pressure meter.

Documentation on site

- Measurement protocols can be printed on site. No awkward cables required on account of the infrared interface.
- Long-term legible thermal paper ensures that measurement data documentation can be stored for up to 10 years.

Easy data management via PC

- The saved measurement data can be easily analysed and processed using the software available.
- Readings are taken by the instrument and can be depicted online by the software.
- Pressure drops can be protocolled online in cycles of 0.05 seconds in the Fast Measurement menu. Since, in most cases, pressure drops cannot be predicted, a rule can be defined via the trigger function; the pressure drops are then filtered out and stored separately for the user in indexed pages.

Long-term monitoring made easy

- Measurement data can be saved separately or as a measurement series. The measurement rate (0.04 seconds, 1 second to 24 hours) and the number of values to be saved are freely selectable. The maximum memory size is 25,000 readings.
- The readings are saved under separate names for the sites (max. 99 sites) - with retracing guarantee.
- Online measurement for large quantities of data can be activated via PC.

Technical data

General technical data testo 526-1/-2

Storage temp.	-20 to +70 °C
Oper. temp.	0 to +50 °C
Power supply	Battery/Rechargeable battery,Mains unit 12 V
Battery type	9 V (6LR61)
Battery life	Continuous operation w/ internal pressure sensor: 30 h With rech. battery: 10 h With carbon battery: 18 h
Weight	300 g
Dimensions	219 x 68 x 50 mm
Material/Housing	ABS
Memory	100 kB (corresponds to approx. 25,000 readings)

Connection	Hose: inner Ø 4 mm outer Ø 6 mm
Display	LCD display with symbol, 7 segment display and point matrix
Updating rate in display	2x per second, in fast measurement 4x per second
Measuring rate	from 0.04 seconds
PC	RS232 interface
Other features	Mains connection and battery recharging in instrument Automatic recognition of all connected probes 9 measurement units selectable: mbar, hPa, bar, Pa, kPa, inH ₂ O, mmH ₂ O, torr, psi
Warranty	1 year

Sensor types

	Piezoresistive pressure sensor	Ceramic sensor for external pressure probes	Piezoresistive pressure sensor For external pressure probes	NTC	Type K (NiCr-Ni)
Meas. range	0 to 2000 hPa	-1 to 400 bar	0 to 2000 hPa	-40 to +150 °C	-200 to +1370 °C
Accuracy ±1 digit*	±0.1 % of fsv (testo 526-1) ±0.05 % of fsv (testo 526-2)	±0.2 % of fsv	±0.1 % of mv	±0.2 °C (-10 to +50 °C) ±0.4 °C (remaining range)	±0.4 °C (-100 to +200 °C) ±1 °C (remaining range)
Resolution	0.1 hPa	0.01 bar	0.1 Pa (0638 1347) 0.001 hPa (0638 1447) 0.01 hPa (0638 1547) 0.1 hPa (0638 1647; 0638 1847)	0.1 °C	0.1 °C
Static pressure	2000 hPa				
Overload	3000 hPa				
Zeroing	to 50 hPa				

*Accuracy information applies only to instrument without probes connected



Accessories

Additional accessories and spare parts		Part no.
Desk-top power supply with international connection options	0554 1143	
9V rech. battery for instrument, instead of battery	0515 0025	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	

Transport and Protection		
TopSafe (protection case), incl. carrier strap, bench stand and magnet. Protects instrument from dust, impact, scratches	0516 0446	






Printer and Accessories		
Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries, for printing out measurements on site	0554 0549	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610	
Spare thermal paper for printer (6 rolls), permanent ink, measurement data documentation legible for up to 10 years	0554 0568	

Software and Accessories		
ComSoft Professional, Pro software incl. data archiving	0554 1704	
RS232 cable, connects instrument to PC (1.8 m) for data transfer	0409 0178	

Calibration Certificates		
DAkkS calibration certificate/Pressure, Differential pressure, accuracy < 0.1 (% of full scale value)	0520 0205	
DAkkS calibration certificate/pressure, differential pressure, accuracy 0.1 to 0.6 (% of full-scale value)	0520 0215	
DAkkS calibration certificate/pressure, differential pressure, accuracy > 0.6 (% of full-scale value)	0520 0225	
ISO calibration certificate/Pressure, Differential pressure, accuracy < 0.1 (% of full scale value)	0520 0035	
ISO calibration certificate pressure, differential pressure, accuracy 0.1 to 0.6 (% of fsv)	0520 0025	
ISO calibration certificate pressure, Differential pressure, accuracy > 0.6 (% of fsv), for testo 521-3	0520 0005	
ISO calibration certificate/Pressure, Differential pressure, accuracy > 0.1 (% of fsv), for testo 521-2	0520 0405	
ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001	
ISO calibration certificate/temperature, meas. instr. with air/immersion probe; cal. points 0°C; +150°C; +300°C	0520 0021	
ISO calibration certificate/temperature, meas. instr. with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071	
DAkkS calibration certificate/temperature, meas. instr. with air/immersion probe; calibration points -20 °C; 0 °C; +60 °C	0520 0211	
DAkkS calibration certificate/temperature, contact surface temperature probes; calibration points +100°C; +200°C; +300°C	0520 0271	
ISO calibration certificate/electrical	0520 1000	





Probe accessories		
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument, PUR coating material	0430 0143	
Cable, 5 m long, connects probe with plug-in head to measuring instrument, PUR coating material	0430 0145	
Connection hose; silicone; 5 m long; max. load 700hPa (mbar)	0554 0440	
Connection cable, 2.5 m long, for pressure probes 0638 1741/1841/1941/2041/2141	0409 0202	
Adapter to connect NiCr-Ni thermocouples and probes with open wire ends	0600 1693	

Probes

Probe type	Illustration	Measuring range	Accuracy	Overload	Static pressure	Zeroing	Part no.
Differential pressure probe							
Precision pressure probe, 100 Pa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		0 to +100 Pa	$\pm(0.3 \text{ Pa} \pm 0.5\% \text{ of mv})$	50 hPa	100 hPa	to 20 Pa	0638 1347
Pressure probe, 10 hPa, in robust metal housing with impact protection incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		0 to +10 hPa	$\pm 0.03 \text{ hPa}$	50 hPa	1000 hPa	to 0,4 hPa	0638 1447
Pressure probe, 100 hPa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		0 to +100 hPa	$\pm 0.5\% \text{ of mv (+20 to +100 hPa)}$ $\pm 0.1 \text{ hPa (0 to +20 hPa)}$	300 hPa	1000 hPa	to 4 hPa	0638 1547
Pressure probe, 1000 hPa, measures differential pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment		0 to +1000 hPa	$\pm 1 \text{ hPa (0 to 200 hPa)}$ $\pm 0.5\% \text{ of mv (200 to 1000 hPa)}$	2000 hPa	1000 hPa	to 20 hPa	0638 1647
Absolute pressure probe							
Pressure probe, 2000 hPa, measures absolute pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment		0 to +2000 hPa	$\pm 5 \text{ hPa (0 to +2000 hPa)}$	4000 hPa	–	–	0638 1847

Oper. temp.: 0 to +50 °C (compensated)
 Connection: Plug-in head. connection cable 0430 0143 or 0430 0145 required

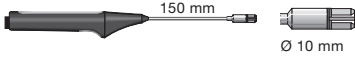
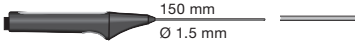
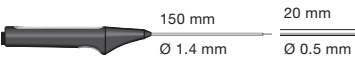
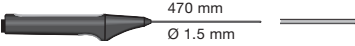
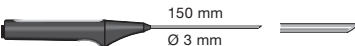
Probes

Probe type	Illustration	Measuring range	Accuracy	Overload	Zeroing	Part no.
Relative pressure probe (media compatible)						
Low pressure probe, refrigerant-proof stainless steel, up to 10 bar		-1 to +10 bar	±1% of fsv	25 bar	to 0,1 bar	0638 1741
High pressure probe, refrigerant-proof stainless steel, up to 30 bar		-1 to +30 bar	±1% of fsv	120 bar	to 0,3 bar	0638 1841
High pressure probe, refrigerant-proof stainless steel, up to 40 bar		-1 to +40 bar	±1% of fsv	120 bar	to 0,4 bar	0638 1941
High pressure probe, refrigerant-proof stainless steel, up to 100 bar		-1 to +100 bar	±1% of fsv	250 bar	to 1 bar	0638 2041

Oper. temp.: -40 to +100 °C; 0 to +70 °C (compensated)

Connection: Plug-in head, connection cable 0409 0202 required
screw-in thread 7/16" UNF

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
Temperature probes					
Quick-action surface probe**	 150 mm Ø 10 mm	-200 to +300 °C	Class 2*	3 s	0604 0194
Super quick-action immersion/penetration probe for measurements in liquids **	 150 mm Ø 1.5 mm	-200 to +600 °C	Class 1*	1 s	0604 0493
Super quick-action immersion/penetration probe for measurements in gases and liquids with a low-mass tip**	 150 mm Ø 1.4 mm 20 mm Ø 0.5 mm	-200 to +600 °C	Class 1*	1 s	0604 9794
Super quick-action immersion/penetration probe for high temperatures **	 470 mm Ø 1.5 mm	-200 to +1100 °C	Class 1*	1 s	0604 0593
Fast response immersion/penetration probe **	 150 mm Ø 3 mm	-200 to +400 °C	Class 1*	3 s	0604 0293

*According to standard EN 60584-2, the accuracy of Class 1/2 refers to -40 to +1000/+1200 °C

**Connection: Plug-in head. connection cable 0430 0143 or 0430 0145 required

Part no.

Adapter to connect NiCr-Ni thermocouples and probes with open wire ends	0600 1693	
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