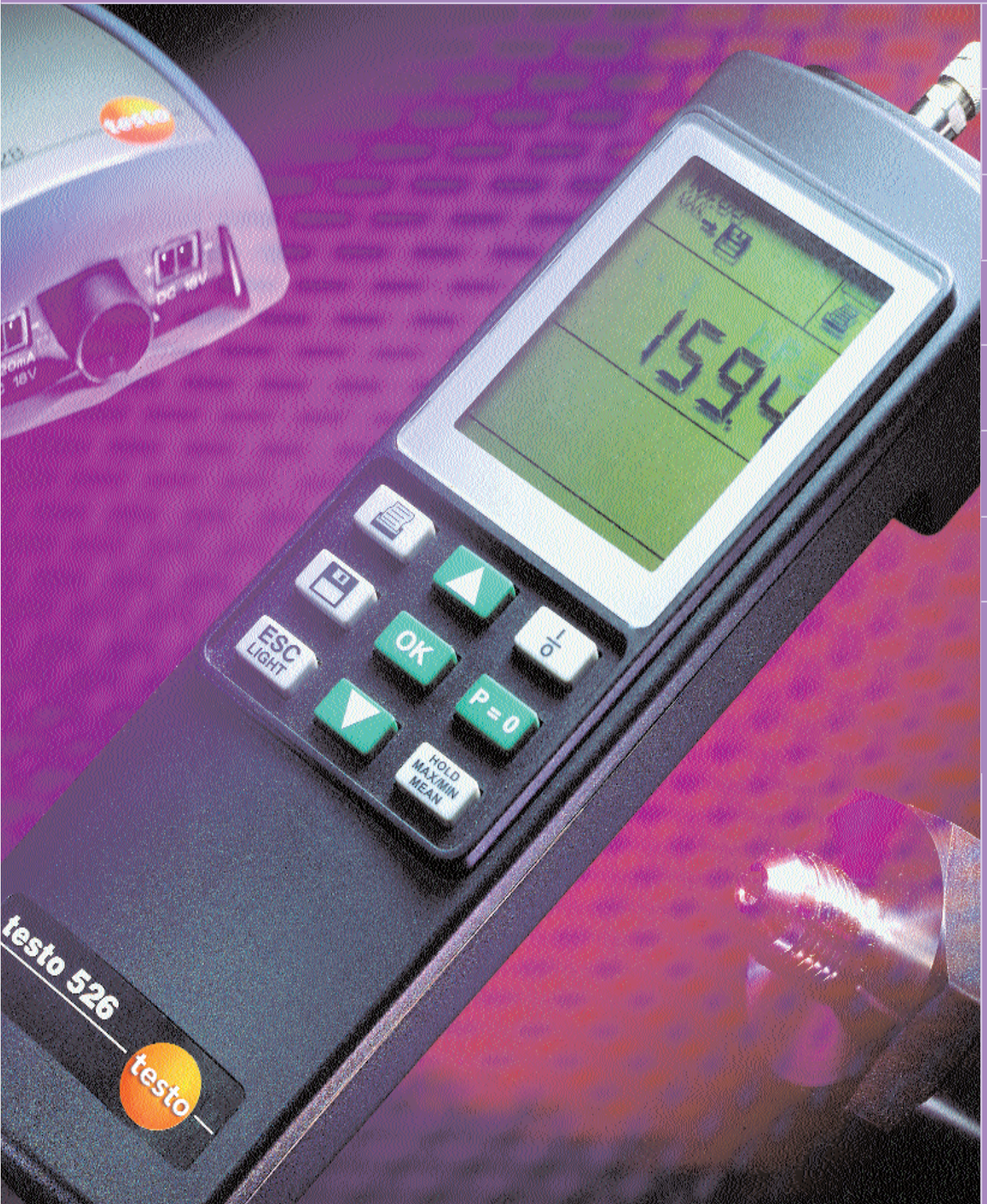




testo 521/526

Precision Meters For All Pressure Ranges

Internal sensor, externally connected probes



hPa

bar

°C

m/s

m³/h

mA

mV

testo 526



Precision meters for all pressure ranges



testo 521 with internal sensor 0...100 hPa / 0.1%

The testo 521 is configured for precise differential pressure measurements in the VAC range, e.g. pressure drops at filters, inspection of fans and extraction equipment.

Pitot tube measurement: Flow velocities of 5 ... 100 m/s are measured via the internal pressure sensor. The external 100 Pa probe allows precise measurements in the 1 ... 12 m/s range. The advantages during flow measurement are direct calculation of the flow velocity and volume flow, averaging by points and time and automatic tightness compensation.

- Two probe sockets for connecting additional probes for measuring pressure, temperature, current and voltage
- Dynamic pressure measurement at a measuring rate of 0.04 seconds
- Calculation of the flow velocity and volume flow via pitot tube
- Available in 2 accuracy classes: 0.2 % and 0.1 % of full scale value

testo 526 with internal sensor from 0...2000 hPa / 0.05 %

The testo 526 is the pressure meter for industrial applications. Critical processes can be measured and monitored precisely with an accuracy of up to 0.05 % of full scale value.

Pressure test: The integrated test menu in the hand instrument permits seamless recording, particularly for leak tests in containers. The data can be subsequently processed using the software or printed out via the printer so that the pressure test is documented.

- Two probe sockets for connecting additional probes for measuring pressure, temperature, current and voltage
- Dynamic pressure measurement at a measuring rate of 0.04 seconds
- Verification of the pressure drop in tanks, pipes etc. via the integrated test menu
- Measurement of the leakage rate (time-dependent pressure drop)
- Available in 2 accuracy classes: 0.1 % and 0.05 % of full scale value

testo 521/526 Features



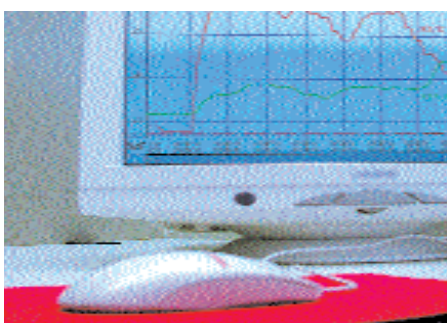
Precision meter for all pressure ranges: Differential pressure measurement at a filter with external pressure probe



Precision meter for any parameters: Testing a transmitter with 0/4 ... 20 mA interface



Documentation at the measuring site on printer



Easy data management on PC

Flexibility thanks to external probes

Additional probes can be connected to testo 521/526 pressure meters via 2 user defined probe sockets.

Precision meter for all pressure ranges

The differential pressure sensor is integrated in the testo 521 / 526. A large range of external pressure probes is available for additional applications:

- Probes for differential pressures up to 2000 hPa
- Probe for absolute pressures up to 2000 hPa
- Probes for relative pressures up to 400 bar

Precision meter for any parameters

- Probes can be connected to enable temperatures in the range -200...+1250 °C to be measured in air, liquid or on surfaces.
- The 0/4...20 mA interface allows a corresponding mA signal of a transmitter to be measured and simulated in the corresponding unit on the hand instrument. The major advantage: galvanic isolation for the 0/4...20 mA interface. The transmitter is powered via the hand instrument - no external power source required.

Advantages during measurement

- The short-text menu makes operation of the instrument much easier.
- The large, two-line LCD display shows two measuring channels; the arrow keys are used to switch over to the calculated parameters.
- The relative and differential pressure probes are zeroed directly via the P=O key.
- When measuring pressure, you can choose between the following units: mbar, hPa, bar, Pa, kPa, inH₂O, mmH₂O, torr and psi.
- Key for Hold, Max, Min and Mean.
- Hands-free: TopSafe (impact protection) incl. carrying strap and magnetic plate is a useful accessory.

Long-term monitoring even for dynamic measurements

- Measurement data can be stored individually or as a series of measurements. The measuring rate (0.04 seconds, 1 second, ... 24 hours) and the number of values to be stored can be freely selected. The storage capacity is 100 KB (approx. 25,000 measurements).
- Dynamic measurements can be stored in the measuring instrument every 0.04 seconds - for large data volumes, activate online measurement via the PC.

Documentation at the measurement site:

- The individual measurement protocols can be printed out on site on the printer without the need for cables.
- Temperature-sensitive paper allows measurement data to be documented with high legibility for up to 10 years.

Simple measurement management on PC

- The stored measurements can be conveniently analysed and processed via the software.
- The readings are logged and can be displayed online using the software.

Precision for years ahead from the Testo DKD laboratory

Our DKD laboratory for pressure, temperature and electrical parameters means that you can be sure that all requirements regarding measuring and calibration technology as well as quality assurance will be satisfied fully and completely. How you benefit:

- Independent verification by certified and accredited service providers.
- Traceability to national standards.
- Individual on-site documentation conforming to standards.

Overview of probes



Probes for differential pressures up to 2000 hPa
Dimensions: 116x80x40 mm



Probe for absolute pressures up to 2000 hPa_{abs}
Dimensions: 116x80x40 mm



Probes for relative pressures up to 400 bar
Dimensions: approx. 122x27 mm



0/4...20 mA interface
Dimensions: 116x80x40 mm



Temperature probes

Probes for differential pressures up to 2000 hPa

In robust metal housing with impact protection. The magnet on the rear and the hook ensure optimal positioning of the probe. The probe is connected to the meter via the plug-in head cable. The piezoresistive sensors are long-term stable and temperature-compensated. Area of application: measurements in air or non-corrosive and non-ionising gases.

Probes for absolute pressures up to 2000 hPa_{abs}

Housing, connection, sensor properties and area of application as for differential pressure probes.

Probes for relative pressures up to 400 bar

Very robust probes made from refrigerant-resistant stainless steel with screw-in thread 7/16" UNF (optional adapter 1/2" external and 1/4" internal thread available). The probe is connected to the meter via a connecting lead. The ceramic sensors are long-term stable and temperature-compensated. Suitable for all fluids, gases or vapours which can come into contact with stainless steel 1.4305 (303), ceramic Al₂O₃ and NBR.

0/4...20 mA interface

0/4 to 20 mA transmitters or external sensors in 2 or 4-wire systems can be connected to the 0/4...20 mA interface via terminals. 1 analogue signal can be analysed per interface. Up to 2 interfaces can be connected to the hand instrument. The major advantage is that the connected transmitter does not need its own power supply, because power is supplied directly via the testo 521/526 handheld meter. The analogue signal is scaled to the corresponding unit directly in the hand instrument.

Temperature probes

Numerous thermocouple and NTC sensors for all areas of application can be connected to the testo 521/526, including air probes, surface probes and penetration probes.

Technical data: Probes for differential pressures up to 2000 hPa

Meas. range	Accuracy *	Overload	Static pressure
0...100 Pa	± 0.3 Pa ± 0.5 % of reading	50 hPa	100 hPa
0...10 hPa	± 0.03 hPa	50 hPa	1000 hPa
0...100 hPa	± 0.1 hPa (0-20 hPa) ± 0.5 % of reading (20-100 hPa)	300 hPa	1000 hPa
0...1000 hPa	± 1 hPa (0-200 hPa) ± 0.5 % of reading (200-1000 hPa)	2000 hPa	1000 hPa
0...2000 hPa	± 2 hPa (0-400 hPa) ± 0.5 % of reading (400-2000 hPa)	3000 hPa	1000 hPa

Temperature range (compensated): 0 ... +50 °C

Technical data: Probe for absolute pressures up to 2000 hPa_{abs}

Meas. range	Accuracy *	Overload	Static pressure
0...2000 hPa _{abs}	± 5 hPa	4000 hPa	-

Temperature range (compensated): 0 ... +50 °C

Technical data: Probes for relative pressures up to 400 bar

Meas. range	Accuracy *	Overload
-1...10 bar	± 1 % of full scale value	25 bar
-1...30 bar	± 1 % of full scale value	120 bar
-1...40 bar	± 1 % of full scale value	120 bar
-1...100 bar	± 1 % of full scale value	250 bar
-1...400 bar	± 1 % of full scale value	600 bar

Temperature range: -40 ... +100 °C

Temperature compensation: 0 ... +70 °C

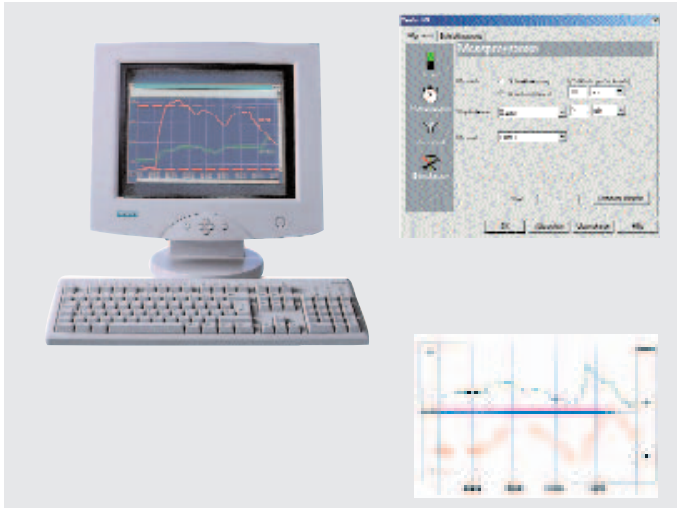
Technical data: 4...20 mA interface

Meas. range	Accuracy	Channels	Auxiliary power output
0/4...20 mA	± 0.04 mA	1 (galvanically isolated)	18 V DC ± 20 % (max. 24 mA)

Temperature range: -20 ... +80 °C

* includes: linearity, hysteresis and reproducibility

Software and Accessories



ComSoft 3 Professional with measurement data management

Easy data management

The Windows®-compatible ComSoft 3 user interface allows stored data from the testo 521/526 pressure meters to be read out.

The software enables stored measurement protocols to be simply archived in the data area by "Drag & Drop" or analysed in the work area. The readings are logged by the meter and can also be displayed online using the software.

In advance of measurements, you can, for instance, define measurement sites in the software which are then imported into the instrument.

Complex analysis - easy archiving

Analysing:

- with computation function
- with crosshair
- with averaging
- with calculation of the standard deviation

Imaging:

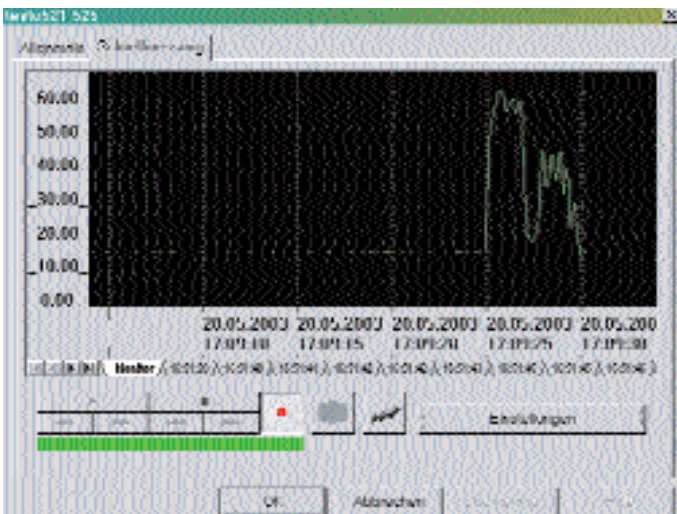
- as a table or graph
- as a number field or histogram
- measuring channels overlaid and screened out

Documenting:

- the data can be easily exported into Excel tables via "Copy and Paste"

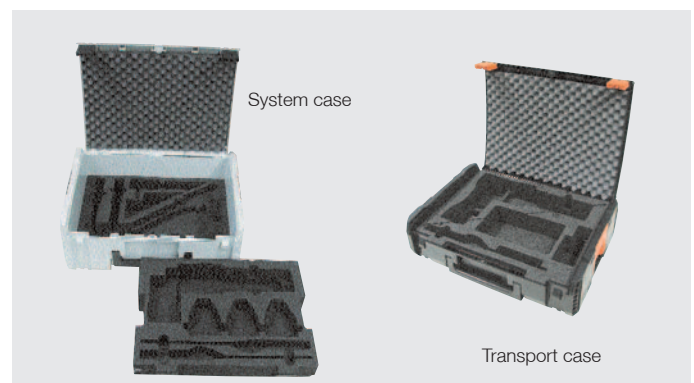
Long-term monitoring of dynamic processes

The rapid measurement facility enables pressure peaks to be recorded every 0.04 seconds. Since pressure peaks occur unpredictably in most cases, the trigger function can be used to define a rule that filters out the pressure peaks and stores them separately for the user in the corresponding register pages.



Online monitoring of pressure peaks with ComSoft 3 Professional

Accessories



Ordering data

Meters		Accuracy	Part no.
testo 521-1, differential pressure meter 0...100 hPa incl. battery and calibration protocol		Accuracy 0.2 % of full scale value	0560 5210
testo 521-2, differential pressure meter 0...100 hPa incl. battery and calibration protocol		Accuracy 0.1 % of full scale value	0560 5211
testo 526-1, differential pressure meter 0...2000 hPa incl. quick-release coupling, battery and calibration protocol		Accuracy 0.1 % of full scale value	0560 5280
testo 526-2, differential pressure meter 0...2000 hPa incl. quick-release coupling, battery and calibration protocol		Accuracy 0.05 % of full scale value	0560 5281

Pressure probes							
Differential pressure probes	Illustration	Probe type	Meas. range	Accuracy	Connection	Part no.	
Precision pressure probe, 100 hPa, for measuring differential pressure and flow velocities (in combination with pitot tube), in robust metal housing with impact protection, incl. magnet for rapid positioning		Differential pressure probe	0 ... +100 Pa	$\pm(0.3 \text{ Pa} \pm 0.5\% \text{ of m.v.})$ (0 ... +100 Pa)	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0638 1347	
Pressure probe, 10 hPa, for measuring differential pressure and flow velocities (in combination with pitot tube), in robust metal housing with impact protection, incl. magnet for rapid positioning		Differential pressure probe	0 ... +10 hPa	$\pm 0.03 \text{ hPa}$ (0 ... +10 hPa)	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0638 1447	
Pressure probe, 100 hPa, for measuring differential pressure and flow velocities (in combination with pitot tube), in robust metal housing with impact protection, incl. magnet for rapid positioning		Differential pressure probe	0 ... +100 hPa	$\pm 0.5\% \text{ of m.v.}$ (+20 ... +100 hPa) $\pm 0.1 \text{ hPa}$ (0 ... +20 hPa)	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0638 1547	
Pressure probe, 1000 hPa, for measuring differential pressure, in robust metal housing with impact protection, incl. quick-release coupling (for hoses 4x6 mm), magnet for rapid positioning		Differential pressure probe	0 ... +1000 hPa	$\pm 1 \text{ hPa}$ (0 ... 200 hPa) $\pm 0.5\% \text{ of m.v.}$ (200 ... 1000 hPa)	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0638 1647	
Pressure probe, 2000 hPa, for measuring differential pressure, in robust metal housing with impact protection, incl. quick-release coupling (for hoses 4x6 mm), magnet for rapid positioning		Differential pressure probe	0 ... +2000 hPa	$\pm 2 \text{ hPa}$ (0 ... 400 hPa) $\pm 0.5\% \text{ of m.v.}$ (400 ... 2000 hPa)	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0638 1747	
Absolute pressure probe	Illustration	Probe type	Meas. range	Accuracy	Connection	Part no.	
Pressure probe, 2000 hPa, for measuring absolute pressure, in robust metal housing with impact protection, incl. quick-release coupling (for hoses 4x6 mm), magnet for rapid positioning		Absolute pressure probe	0 ... +2000 hPa	$\pm 5 \text{ hPa}$ (0 ... +2000 hPa)	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0638 1847	
Relative pressure probes	Illustration	Probe type	Meas. range	Accuracy	Connection	Part no.	
Low-pressure probe made from refrigerant-resistant stainless steel, up to 10 bar		Screw-in thread 7/16" UNF Relative pressure probe	-1 ... +10 bar	$\pm 1\% \text{ of fsv}$ (-1 ... +10 bar) Overload 25 bar	Plug-in head, connection lead 0409 0202 required	0638 1741	
High-pressure probe made from refrigerant-resistant stainless steel, up to 30 bar		Screw-in thread 7/16" UNF Relative pressure probe	-1 ... +30 bar	$\pm 1\% \text{ of fsv}$ (-1 ... +30 bar) Overload 120 bar	Plug-in head, connection lead 0409 0202 required	0638 1841	
High-pressure probe made from refrigerant-resistant stainless steel, up to 40 bar		Screw-in thread 7/16" UNF Relative pressure probe	-1 ... +40 bar	$\pm 1\% \text{ of fsv}$ (-1 ... +40 bar) Overload 120 bar	Plug-in head, connection lead 0409 0202 required	0638 1941	
High-pressure probe made from refrigerant-resistant stainless steel, up to 100 bar		Screw-in thread 7/16" UNF Relative pressure probe	-1 ... +100 bar	$\pm 1\% \text{ of fsv}$ (-1 ... +100 bar) Overload 250 bar	Plug-in head, connection lead 0409 0202 required	0638 2041	
High-pressure probe made from refrigerant-resistant stainless steel, up to 400 bar		Screw-in thread 7/16" UNF Relative pressure probe	-1 ... +400 bar	$\pm 1\% \text{ of fsv}$ (-1 ... +400 bar) Overload 600 bar	Plug-in head, connection lead 0409 0202 required	0638 2141	
Current/voltage probes	Illustration	Meas. range	Accuracy	Connection	Part no.		
Current/voltage cable ($\pm 1 \text{ V}$, $\pm 10 \text{ V}$, 20 mA)		0 ... +1000 mV 0 ... +10 V 0 ... +20 mA	$\pm 1 \text{ mV}$ (0 ... +1000 mV) $\pm 0.01 \text{ V}$ (0 ... +10 V) $\pm 0.04 \text{ mA}$ (0 ... +20 mA)	Fixed line	0554 0007		
4 ... 20 mA interface (galvanically isolated) for connection and the temporary power supply of transmitters (scaling via hand instrument), in robust metal housing with impact protection, incl. magnet for quick positioning		0/4 ... 20 mA	$\pm 0.04 \text{ mA}$	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0554 0528		
Temperature probes	Illustration	Meas. range	Accuracy	t ₉₉	Connection	Part no.	
Super quick-action surface sensor with sprung thermocouple strip, measurement range short-term up to +500 °C		-200 ... +300 °C	Class 2	3 s	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0604 0194	
Pipe wrap probe for pipes with diameter of up to 2", for flow/return temperature measurement		-60 ... +130 °C	Class 2	5 s	Fixed cable extended	0600 4593	
Super quick-action immersion/penetration sensor for measurements in liquids		-200 ... +600 °C	Class 1	1 s	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0604 0493	
High-precision air probe for air and gas temperature measurements with bare, mechanically protected sensor		-40 ... +130 °C	To UNI curve	60 s	Fixed cable extended	0610 9714	

Other temperature probes can be connected. Ask our sales team.

Ordering data / Technical data

Prandtl pitot tubes	Illustration	Meas. range	Part no.
Pitot tube, 350 mm long, stainless steel, measures velocity in combination with pressure probes 0638 1347/...1447/...1547		Oper. temp. 0 ... +600 °C	0635 2145
Pitot tube, 500 mm long, stainless steel, measures velocity in combination with pressure probes 0638 1347/...1447/...1547		Oper. temp. 0 ... +600 °C	0635 2045

Probe accessories	Part no.	Probe accessories	Part no.
Cable, 1.5 m long, connects sensor with plug-in head to meter Coating material PUR	0430 0143	Connecting hose set, (4x6 mm), 2 x 1 m, coiled, incl. 1/8" screw connection pressure-resistant up to 20 bar, for probes 0638 1647/1747/1847	0554 0441
Cable, 5 m long, connects sensor with plug-in head to meter Coating material PUR	0430 0145	Cable, 2.5 m long, for pressure probes 0638 1741/1841/1941/2041/2141	0409 0202
Connecting hose, silicone, (4x6 mm), 5 m long Max. load 700 hPa (mbar)	0554 0440	Adapter for pressure probes, 1/2" external thread, 1/4" internal thread for pressure probes 0638 1741/1841/1941/2041/2141	0699 3127

Ordering data for accessories	Part no.
9 V rechargeable battery for meter instead of battery	0515 0025
Plug-in mains unit for mains operation and charging the rechargeable batteries in the instrument	0554 0088
TopSafe (indestructible protection case) incl. carrying strap, table stand and magnet. Protects the instrument against dust, impact and scratches	0516 0446
Testo printer with 1 roll of temp.-sensitive paper and 4 mignon batteries for printing out readings on site	0554 0545
Charger for printer (with 4 standard rechargeable batteries) Rechargeable batteries are recharged externally	0554 0110
Spare temperature-sensitive paper for printer (6 rolls)	0554 0569
Spare temperature-sensitive paper for printer (6 rolls) Measurement data documentation legible for up to 10 years	0554 0568
ComSoft 3 Professional with measurement data management incl. database, analysis and graphics function, data analysis, trend curve	0554 0830
RS232 lead Connecting lead from instrument to PC (1.8 m) for data transfer	0409 0178
Ethernet adapter, RS 232 - Ethernet incl. software driver, power supply unit enables data communication in the network	0554 1711
Transport case for meter, probes, Prandtl pitot tube, accessories	0516 0527
System case for meter, probes, straight or Prandtl pitot tube, accessories	0516 0526
DKD calibration certificate/Pressure Differential pressure, accuracy < 0.1 (% of full scale value)	0520 0205
DKD calibration certificate/Pressure Differential pressure, accuracy 0.1 ... 0.6 (% of full scale value)	0520 0215
DKD calibration certificate/Pressure Differential pressure, accuracy > 0.6 (% of full scale value)	0520 0225
DKD calibration certificate/Pressure Absolute pressure, accuracy 0.1 ... 0.6 (% of full scale value)	0520 0212
ISO calibration certificate/Pressure Differential pressure, accuracy < 0.1 (% of full scale value)	0520 0035
ISO calibration certificate/Pressure Differential pressure, accuracy 0.1 ... 0.6 (% of full scale value)	0520 0025
ISO calibration certificate/Pressure Differential pressure, accuracy > 0.6 (% of full scale value)	0520 0005
ISO calibration certificate/Pressure Absolute pressure, accuracy 0.1 ... 0.6 (% of full scale value)	0520 0125
ISO calibration certificate/Temperature for air/immersion probe, calibration points -18 °C; 0 °C; +60 °C	0520 0001
ISO calibration certificate/Temperature Meas. instr. with air/immersion probe, calib. points +150 °C; 0 °C; +300 °C	0520 0021
ISO calibration certificate/Temperature Measuring instr. with surface probe, calib. points +60 °C; +120 °C; +180 °C	0520 0071
DKD calibration certificate/Temperature Meas. instr. with air/immersion probe, calib. points -20 °C; 0 °C; +60 °C	0520 0211
DKD calibration certificate/Temperature Surface temp. probe touching, calibration points +100 °C; +200 °C; +300 °C	0520 0271
ISO calibration certificate/Electrical	0520 1000

	Technical data			
	testo 521-1	testo 521-2	testo 526-1	testo 526-2
Sensor type	Piezoresistive pressure sensor	Piezoresistive pressure sensor	Piezoresistive pressure sensor	Piezoresistive pressure sensor
Measuring range	0 ... 100 hPa	0 ... 100 hPa	0 ... 2000 hPa	0 ... 2000 hPa
Overload	300 hPa	300 hPa	3000 hPa	3000 hPa
Static pressure	2000 hPa	2000 hPa	2000 hPa	2000 hPa
Accuracy ± 1 digit	±0.2% of fsv	±0.1% of fsv	±0.1% of fsv	±0.05% of fsv
Resolution	0.001 hPa	0.001 hPa	0.01 hPa (0 ... <1000 hPa) 0.1 hPa (1000 ... 2000 hPa)	0.01 hPa (0 ... <1000 hPa) 0.1 hPa (1000 ... 2000 hPa)
Dimensions	219 x 68 x 50 mm	219 x 68 x 50 mm	229 x 68 x 50 mm	229 x 68 x 50 mm
Weight	300 g	300 g	322 g	322 g
Common data				
Sensor type	Piezoresistive press. sensor for external pressure probes	Ceramic sensor for ext. pressure probes	NTC	
Measuring range	0 ... 2000 hPa	-1 ... 400 bar	-40 ... +150 °C	
Accuracy * ± 1 digit	±0.1 % of reading	±0.2 % of reading	±0.2 °C (-10 ... +50 °C) ±0.4 °C (rem. meas. range)	
Resolution	0.1 Pa (0638 1347) 0.001 hPa (0638 1447) 0.01 hPa (0638 1547) 0.1 hPa (0638 1647; 0638 1747; 0638 1847)	0.01 bar	0.1 °C	
Sensor type	Type K (NiCr-Ni)	Volt. measur. (0554 0007)	Curr. measur. (0554 0007)	Current measur. (0554 0528)
Measuring range	-200 ... +1370 °C	0 ... 10 V	0 ... 20 mA	0 ... 20 mA
Accuracy * ± 1 digit	±0.4 °C (-100 ... +200 °C) ±1 °C (remaining meas. range)	±0.01 V	±0.04 mA	see sensor data
Resolution	0.1 °C	0.01 V	0.01 mA	0.01 mA
Oper. temp. (compensated)	0 ... +50 °C	Connection		Hose: Ø internal 4 mm Ø external 6 mm
Storage temp.	-20 ... +70 °C	Housing material		ABS
Battery type	9 V (6LR61)	Memory		100 KB (corresp. to approx. 25.000 measurements)
Power supply	Battery/rech. battery, PSU 12V	PC		RS232 interface
Battery life	In permanent operation with internal pressure sensor (AIMn): 30 h. With rechargeable battery (NiMH): 10 h. With zinc carbon: 18 h	Miscellaneous		Mains connection and battery charging in the instrument Automatic detection of all connected sensors
Display	LCD display with symbol, 7-segment display and dot matrix	Warranty		2 years
Refresh rate of display	2x per second, for quick measurements 4x per sec.			

* Accuracy figures apply only for the instrument (without connected probes).