

# Differential pressure measuring instrument

## testo 526 - Pressure measurement for all pressure ranges

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

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

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Direct zeroing of display value from pressure probes

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Display of Hold-, max. and min. values

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

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Leakage rate measurement (pressure drop per time)

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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<br>With rech. battery: 10 h<br>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)   |

|                          |  |
|--------------------------|--|
| Conn.                    | Hose: inner Ø 4 mm<br>outer Ø 6 mm   |
| Display                  | LCD display with symbol,<br>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<br>Automatic recognition of all connected probes<br>9 measurement units selectable: mbar, hPa, bar, Pa, kPa, inH <sub>2</sub> O, mmH <sub>2</sub> O, torr, psi |
| Warranty                 | 2 years  |

## Sensor types

|                    | <b>Piezoresistive pressure sensor</b>   | <b>Ceramic sensor for external pressure probes</b> | <b>Piezoresistive pressure sensor For external pressure probes</b>                                       | <b>NTC</b>   | <b>Type K (NiCr-Ni)</b>                              |
|--------------------|---|--|--|--|--|
| 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<br><b>(testo 526-1)</b><br>±0.05 % of fsv<br><b>(testo 526-2)</b> | ±0.2 % of fsv                                      | ±0.1 % of mv   | ±0.2 °C (-10 to +50 °C)<br>±0.4 °C (remaining range) | ±0.4 °C (-100 to +200 °C)<br>±1 °C (remaining range) |
| Resolution         | 0.1 hPa   | 0.01 bar   | 0.1 Pa (0638 1347)<br>0.001 hPa (0638 1447)<br>0.01 hPa (0638 1547)<br>0.1 hPa (0638 1647;<br>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

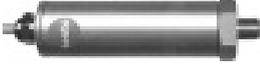
| <b>Additional accessories and spare parts</b>  | <b>Part no.</b> |  |
|--|-----------------|--|
| Desk-top power supply with international connection options  | 0554 1143       |  |
| 9V rech. battery for instrument, instead of battery  | 0515 0025       |  |
| Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery  | 0554 0025       |  |
| <b>Transport and Protection</b>  |                 |  |
| TopSafe (protection case), incl. carrier strap, bench stand and magnet. Protects instrument from dust, impact, scratches   | 0516 0446       |  |
| Transport case, for measuring instrument, probes, Prandtl Pitot tube, accessories  | 0516 0527       |  |
| System case, For measuring instrument, probes, straight or Prandtl Pitot tube, accessories   | 0516 0526       |  |
| <b>Printer and Accessories</b>   |                 |  |
| Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries; for printing out measurements on site , 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)  | 0554 0569       |  |
| Spare thermal paper for printer (6 rolls), permanent ink, measurement data documentation legible for up to 10 years  | 0554 0568       |  |
| <b>Software and Accessories</b>  |                 |  |
| ComSoft Professional 4, Pro software incl. data archiving  | 0554 1704       |  |
| RS232 cable, connects instrument to PC (1.8 m) for data transfer   | 0409 0178       |  |
| Ethernet adapter, RS232 - Ethernet incl. software driver, mains unit, facilitates data communication in network  | 0554 1711       |  |
| <b>Calibration Certificates</b>  |                 |  |
| 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       |  |
| <b>Probe accessories</b>   |                 |  |
| 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 hose set, 2 x 1 m, coiled, incl. 1/8" screw connection, pressure-tight up to 20 bar, outer diameter 6.3 mm, inner diameter 4.8 mm   | 0554 0441       |  |
| 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.  |
|---|---|-----------------|---|----------|-----------------|------------|-----------|
| <b>Differential pressure probe</b>  |   |                 |   |          |                 |            |           |
| 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   | $\pm 0.5\% \text{ of mv (+20 to +100 hPa)}$<br>$\pm 0.1 \text{ hPa (0 to +20 hPa)}$ | 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  | $\pm 1 \text{ hPa (0 to 200 hPa)}$<br>$\pm 0.5\% \text{ of mv (200 to 1000 hPa)}$   | 2000 hPa | 1000 hPa        | to 20 hPa  | 0638 1647 |
| <b>Absolute pressure probe</b>  |   |                 |   |          |                 |            |           |
| 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)  
 Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required

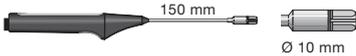
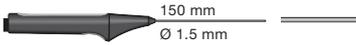
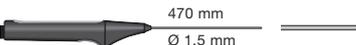
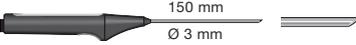
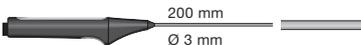
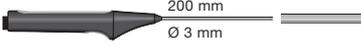
# Probes

| Probe type  | Illustration  | Measuring range | Accuracy   | Overload | Zeroing    | Part no.  |
|---|---|-----------------|------------|----------|------------|-----------|
| <b>Relative pressure probe (media compatible)</b>                     |   |                 |            |          |            |           |
| 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 |
| High pressure probe, refrigerant-proof stainless steel, up to 400 bar |  | -1 to +400 bar  | ±1% of fsv | 600 bar  | to 4 bar   | 0638 2141 |

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

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

# Probes

| Probe type   | Dimensions<br>Probe shaft/probe shaft tip   | Measuring range  | Accuracy   | t <sub>99</sub> | Part no.  |
|--|---|------------------|--|-----------------|-----------|
| <b>Temperature probes</b>  |   |                  |  |                 |           |
| Quick-action surface probe**   |    | -200 to +300 °C  | Class 2*   | 3 s             | 0604 0194 |
| Super quick-action immersion/penetration probe for measurements in liquids**                               |    | -200 to +600 °C  | Class 1*   | 1 s             | 0604 0493 |
| Robust surface probe**   |    | -200 to +600 °C  | Class 1*   | 25 s            | 0604 9993 |
| Super quick-action immersion/penetration probe for measurements in gases and liquids with a low-mass tip** |    | -200 to +600 °C  | Class 1*   | 1 s             | 0604 9794 |
| Super quick-action immersion/penetration probe for high temperatures**                                     |   | -200 to +1100 °C | Class 1*   | 1 s             | 0604 0593 |
| Fast response immersion/penetration probe**  |  | -200 to +400 °C  | Class 1*   | 3 s             | 0604 0293 |
| Standard immersion/penetration probe**   |  | -200 to +400 °C  | Class A (-100 to +400 °C)<br>Class B (remaining range)                             | 20 s            | 0604 0273 |
| Highly accurate immersion/penetration probe**  |  | -200 to +400 °C  | ±(0.03 °C +0.05% of mv) (0 to +100 °C)<br>±(0.06 °C +0.1% of mv) (remaining range) | 30 s            | 0628 0015 |
| Flexible precision immersion probe, cable heat-proof up to +300°C**  |  | -100 to +265 °C  | 1/10 Class B (0 to 100°C) 1/5 Class B (rem. range) to EN 60751                     | 80 s            | 0628 0016 |

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

