

# 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.

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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.

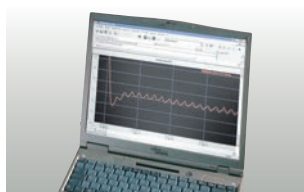
### testo 526-2 with highly accurate internal sensor 0 to 2000

#### 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

### 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 25000 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 temperature   | -20 to +70 °C   |
| Operating temperature | 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  |
| Housing material      | ABS   |
| Memory                | 100 kB (corresponds to approx. 25000 readings)  |

|                          |  |
|--------------------------|--|
| Connection               | 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

|                    | Piezoresistive pressure sensor                                    | Ceramic sensor for external pressure probes | Piezoresistive pressure sensor For external pressure probes  | NTC  | Type K (NiCr-Ni)                                     |
|--------------------|---|---|--|--|--|
| Measuring 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>(testo 526-1)<br>±0.05 % of fsv<br>(testo 526-2) | ±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 (abs)  |   |  |  |  |
| 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 700 hPa (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.  |
|---|---|-----------------|---|----------|-----------------|------------|-----------|
| <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 |

Operating temperature: 0 to +50 °C (compensated)

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

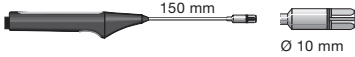
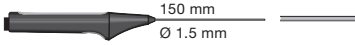
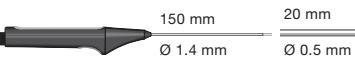
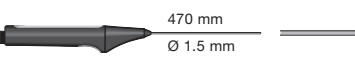
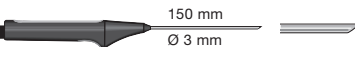
# Probes

| 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 |

Operating temperature: -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<br>Probe shaft/probe shaft tip   | Measuring<br>range | Accuracy | t <sub>99</sub> | Part no.  |
|--|---|--------------------|----------|-----------------|-----------|
| <b>Temperature probes</b>  |   |                    |          |                 |           |
| Quick-action surface probe**   |  150 mm<br>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<br>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<br>Ø 1.4 mm      20 mm<br>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<br>Ø 1.5 mm                        | -200 to +1100 °C   | Class 1* | 1 s             | 0604 0593 |
| Fast response immersion/penetration probe **   |  150 mm<br>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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Subject to change without notice.

## Authorized & Exclusive Distributor:



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