

Data logger

Pressure, temperature and humidity

testo 176 P1

High level of data security

Internal absolute pressure sensor and connection possibility
for two external temperature/humidity probes

Parallel temperature/humidity measurement at two sites

Measurement data memory 2 million measurement values

Up to 8 years' battery life

Data transfer via USB cable or SD card



hPa

°C

%RH

td

g/m³

inch
H₂O

When ambient conditions need to be documented extremely accurately and securely, for example in a laboratory, the testo 176 P1 is the right data logger. It has an internal absolute pressure sensor and connection possibilities for two external temperature/humidity probes.

An integrated dewpoint calculation makes it universally applicable. The free ComSoft Basic software allows fast programming and easy data analysis.

Technical data / Accessories

testo 176 P1

testo 176 P1, 5-channel pressure, temperature and humidity data logger with internal sensor (absolute pressure) and external sensor connections (NTC/capacitive humidity sensor) incl. wall holder, lock, battery and calibration protocol

Part no. 0572 1767



General technical data

| | |
|------------------|---|
| Channels | 1 x internal, 2 probes external, 4 external channels (temperature/humidity) |
| Battery type | 1 x Lithium (TL-5903) |
| Battery life | 8 years at 15 min. meas. rate |
| Oper. temp. | -20 to +70 °C |
| Storage temp. | -40 to +85 °C |
| Dimensions | 103 x 63 x 33 mm |
| Protection class | IP54 |
| Measuring rate | 1 s - 24 h |
| Memory | 2 mio. measurement values |

Sensor types

| | NTC | Testo humid. sensor, cap. | Absolute pressure sensor |
|----------------------|--|-----------------------------|--------------------------|
| Meas. range | -20 to +70 °C | 0 to 100 %RH* | 600 to 1100 mbar |
| Accuracy ±1 digit | ±0.2 °C (-20 to +70 °C) ±0.4 °C (remaining range) | dependent on probe selected | ±3 mbar (0 to +50 °C) |
| Resolution | 0.1 °C | 0.1 %RH | 1 mbar |

* Not for condensing atmospheres. For continuous applications in high humidity (>80 %RH at ≤30 °C for >12 h, >60 %RH at >30 °C for >12 h), please contact us via our website.



Lateral connection of Mini USB cable and SD card



Probe connection at lower end of housing for two temperature/humidity probes







Large, clear display for showing measurement values

Accessories

| Accessories for measuring instrument | Part no. |
|---|-----------|
| Wall holder (black) for testo 176 | 0554 1703 |
| Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB | 0449 0047 |
| SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C | 0554 8803 |
| Battery for testo 176 -1 x TL-5903 AA cell | 0515 1760 |
| ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (if free download with registration not desired) | 0572 0580 |
| ComSoft Professional, Pro software incl. data archiving | 0554 1704 |
| ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers | 0554 1705 |
| ISO calibration certificate temperature temperature probe; calibration points -18°C; 0°C; +40°C per channel/instrument | 0520 0153 |
| DAkkS calibration certificate temperature Temp. data logger; cal. points -20°C; 0°C; +60°C; per channel/instrument | 0520 0261 |
| ISO calibration certificate humidity calibration points 11.3 %RH and 75.3 %RH at +25 °C/+77 °F; per channel/instrument | 0520 0076 |
| DAkkS calibration certificate humidity humidity probe; cal. points 11.3%RH and 75.3%RH at +25°C; per channel/instrument | 0520 0246 |
| ISO calibration certificate pressure differential pressure, accuracy 0.1 to 0.6 (% of fsv) | 0520 0025 |
| DAkkS calibration certificate/pressure diff. and pos. pressure; 11 measuring points distributed over the instr. meas. range | 0520 0215 |

Probes

| Probe type | Dimensions Probe shaft/probe shaft tip | Measuring range | Accuracy | Part no. |
|--|--|--------------------------------|---|-----------|
| Humidity/temperature probes | | | | |
| Humidity/Temperature Probe 12mm |  | -20 to +70 °C 0 to 100 %RH | ±0,3 °C ±2 %RH at +25 °C (2 to 98 %RH) ±0,03 %RH/K ± 1 digit | 0572 6172 |
| Humidity/Temperature Probe 4 mm |  | 0 to +40 °C 0 to 100 %RH | ±0,3 °C ±2 %RH at +25 °C (2 to 98 %RH) ±0,08 %RH/K ± 1 digit | 0572 6174 |
| Thin humidity probe with built-in electronics, incl. 4 attachable PTFE protection caps for material moisture equilibrium measurement |  60 mm Ø 4 mm | 0 to +40 °C 0 to +100 %RH | ±0,2 °C ±2 %RH (+2 to +98 %RH) | 0636 2135 |
| Humidity/temperature probe |  Ø 12 mm | -20 to +70 °C 0 to +100 %RH | ±0,3 °C ±2 %RH (+2 to +98 %RH) | 0636 9735 |