

Data Logger

Pressure, Temperature and Humidity

testo 176 P1

High level of data security

Internal absolute pressure sensor

Two din-type ports for external temp/humidity cable probes

Barometric Pressure (mbar, hPa, psi, inH₂O)

Parallel temperature/humidity measurement at two measurement points

Measurement data memory for 2 million values

Up to 8 years of battery life

Data transfer via USB cable or SD card



mbar

psi

inch
H₂O

hPa

°C

°F

%RH

td

g/m³

The absolute pressure, temperature and humidity measurements are recorded e.g. in the calibration laboratories, high tech manufacturing environments and at scientific research sites.

The testo 176 P1 assures +/- 3% mbar and 2% temp/humidity probes accuracy and is ideally suited for long term measurements with internal storage for 2 million measurement values.

The testo 176 loggers can be programmed and have data retrieved and analyzed starting with the ComSoft Basic 5 software (free download), as well as more sophisticated ComSoft Pro and ComSoft CFR.

Testo Inc. also offers NIST calibration services for testo 176 P1 and other loggers.

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 factory calibration document
Part no. 0572 1767



General technical data

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

Sensor types

	NTC	Testo humid. sensor, cap.	Absolute pressure sensor
Measuring 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.
Mobile thermal printer for data loggers testo 175/176/184	0572 0576
Wall holder (black) for testo 176	0554 1703
Cable for connecting the data loggers testo 175 and testo 176 to the PC, 5 Pin Mini USB (B) to USB (A)	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 5 software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function. Order as a CD, or go to testo.com for free download.	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
NIST calibration certificate temperature temperature probe; calibration points 10 °C, 25 °C, 40 °C or -20 °C, 25 °C, 40 °C per channel/instrument	400520 1901
NIST calibration certificate humidity calibration points 11.3 %RH and 75.3 %RH at +25 °C/+77 °F; per channel/instrument	400520 2601
NIST calibration certificate pressure accuracy 0.1 to 0.6 (% of fsv), 5 points distributed over meas. range	Please Call Testo Inc.

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	Part no.
Humidity/temperature probes				
Humidity/temperature probe 12 mm		-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

