





# The new generation of data loggers – into the future with USB connection and storage card

A high level of user-friendliness and absolute security characterize the new generation of Testo data loggers. With the current range of a total of 13 data loggers, Testo offers the right solution for various applications. In addition to the eleven new instruments from the testo 175 and testo 176 series, it also includes the two mini data loggers testo 174T and testo 174H.

The testo 175 series consists of four compact data loggers for the measurement of temperature and humidity. The testo 176 series contains seven data loggers which are especially suited to applications in demanding surroundings, such as in laboratories. An absolute innovation in this series is the testo 176 P1, with which absolute pressure can be measured and documented, in addition to temperature and humidity.

All new data loggers from the series testo 175 and testo 176 have a USB and an SD card interface, making readout of the data fast and easy. The considerably higher memory capacity and the power supply using conventional batteries are further plus points of the new products. It goes without saying that the proven one-button menu structure, which offers absolute operating convenience, has been retained in the new generation of data loggers.







One-button menu structure



Secure and simple – an overview of the new data loggers testo 175 and testo 176:

#### Safety

- Data security thanks to non-volatile memory even when the batteries are spent, the data are not lost
- Password protection prevents changes by unauthorized persons
- Anti-theft lock with the help of a wall holder, the loggers can be permanently attached and secured against theft with a padlock
- Robustness three data loggers from the testo 176 series have a metal housing which offers optimum protection from impact

## User-friendliness

- Two standard interfaces (mini USB and SD card) allow easy programming and readout of the loggers via direct connection to the PC
  - an additional interface for the readout is not required
- Large display for non-problematic reading of measurement data –
   even in badly lit rooms, thanks to backlighting at the press of a button
- Operating comfort thanks to one-button menu structure a click on the "Go" button and the recording of the measurement values begins
- Longer battery life due to improved energy management the loggers testo 176 record data without interruption for up to 8 years
- The large memory of the loggers testo 176 collects up to 2 million measurement values – the logger needs to be read out considerable less often

# The right logger software for every application

Three software versions are available for programming and reading out the data loggers, as well as for the analysis of the data. Depending on the requirement, Testo offers the right software solution. The **testo ComSoft Basic 5** with new graphic user interface offers all the basic functions of a standard logger software. Independently of where the data loggers are used – the testo ComSoft Basic 5 facilitates the configuration and readout of the instruments as well as the analysis of the data. User-friendliness and intuitive operation are paramount here. Requirements over and above this, such as the correlation of measurement data which have been recorded at different sites, are optimally fulfilled by the **testo ComSoft Professional 4**. The pharmaceutical industry makes very special demands, whose fulfilment is guaranteed by the **testo ComSoft CFR21 Part 11**.

### testo ComSoft Basic 5 - for easy operation and convenient analysis

- Graphic user interface guides the user step-by-step through the individual procedures
- Convenient export functions, e. g. for further processing of the data in Microsoft Excel, or the generation of a PDF which can be made available to other users
- The testo ComSoft Basic 5 offers all the basic functions of a logger software
- Free download of the testo ComSoft Basic 5 with mandatory registration

More information: www.testo.com



CD ComSoft Basic 5, if free, registration-mandatory download not wanted

Order no.: 0572 0580





### testo ComSoft Professional 4 - for demanding users

- The ComSoft Professional 4 offers analysis and presentation possibilities over and above the basic functions
- Many measurement sites and data loggers can be organized in a clear tree structure, for example

Order no.: 0554 1704

#### testo ComSoft CFR 21 Part 11 - specially for the requirements of the pharmaceutical industry

- The ComSoft CFR 21 Part 11 is a validation-capable software, and fulfils all the stipulations of the FDA (Food and Drug Administration) in the framework of a closed system
- · Conformity with the CFR guidelines is confirmed by an independent institute

Order no.: 0554 1705



# Logger series testo 174 The small ones...

#### testo 174T

1-channel temperature logger with internal sensor (NTC) incl. wall bracket, batteries and calibration protocol

- Reliable temperature measurement for the monitoring of cold chains and sensitive products in stroage and transport
- Easy readout of the data, and transfer to a PC via Testo USB interface.

#### testo 174H

2-channel temperature and humidity data logger with internal sensor (NTC/capacitive humidity sensor) incl. wall bracket, batteries and calibration protocol

- Low-budget temperature and humidity monitoring for living, work, and storage rooms
- Easy readout of the data, and transfer to a PC via Testo USB interface

# Logger series testo 175 The compact ones...

#### testo 175 T1

1-channel temperature logger with internal sensor (NTC) incl. wall bracket, padlock, batteries and calibration protocol

- Professional temperature monitoring for refrigerated and deepfreeze rooms
- Compact data logger for longterm monitoring of temperature, e. g. during transport of goods

#### testo 175 T2

2-channel temperature data logger with internal (NTC), and external sensor connection (NTC) incl. wall bracket, padlock, batteries and calibration protocol

- Simultaneous monitoring of air and product temperature
- External probe input for easy connection, e. g. of a permitted food probe for measuring the core temperature of the goods









	D 1300
Technical data	testo 174T *
Sensor	NTC
Channels	1 x internal
Measurement units	°C, °F
Measuring range	-30 to +70 °C
Accuracy	±0.5 °C
± 1 digit	(-30 to +70 °C)
Resolution	0.1 °C
Battery life	500 days
(at +25 °C)	at 15 min. meas. rate
Operating temperature	-30 to +70 °C
Storage temperature	-40 to +70 °C
Dimensions	60 x 38 x 18,5 mm
Battery type	2 x CR 2032 Lithium
Protection class	IP 65
Meas. cycle	1 min - 24 h
Memory	16,000 readings
Software	ComSoft Basic 5
	ComSoft Professional 4

testo 174T
Order no.: 0572 1560
Set testo 174T
Order no.: 0572 0561

testo 174H \* NTC/ capacitive humidity sensor 2 x internal °C, °F, %rF, %RH -20 to +70 °C internal 0 to 100 %RH ±0.5 °C (-20 to +70 °C) ±3 %RH (2 to 98 %RH) at +25 °C +0.03 %RH/K 0.1 °C, 0.1 %RH 1 year at 15 min. meas. rate -20 to +70 °C 40 to +70 °C 60 x 38 x 18,5 mm 2 x CR 2032 Lithium IP 20 1 min - 24 h 16,000 readings ComSoft Basic 5 ComSoft Professional 4

testo 174H Order no.: 0572 6560

Set testo 174H

Order no: 0572 0566

testo 175 T1

NTC

1 x internal

°C, °F

-35 to +55 °C internal

±0.5 °C

(-35 to +55 °C)

0.1 °C

3 years

3 years
at 15 min. meas. rate
-35 to +55 °C
-35 to +55 °C
89 x 53 x 27 mm
3 x AlMn Type AAA or Energizer
IP 65
10 sec - 24 h

1 mio. measurement values ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11

testo 175 T1

Order no.: 0572 1751



0	Go	

NIC	
1 x internal, 1 x external	Ī
°C, °F	i
-35 to +55 °C internal	
-40 to +120 °C external	

 $\pm 0.5$  °C (-35 to +55 °C) internal  $\pm 0.3$  °C (-40 to +120 °C) external

0.1 °C
3 years
at 15 min. meas. rate
-35 to +55 °C
-35 to +55 °C
89 x 53 x 27 mm
3 x AlMn Type AAA or Energizer
IP 65
10 sec - 24 h

1 mio. measurement values ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11

testo 175 T2

Order no.: 0572 1752

-\* Not for condensing atmosphere. For continuous applications in high humidity (>80 %RH at  $30\,$  C for >12 h, >60 %RH at >12h),

please contact us via www.testo.com.au









#### testo 175 T3

2-channel temperature data logger with external sensor connections (TC Type T und Type K) incl. wall bracket, padlock, batteries and calibration protocol

- Parallel monitoring and recording of two temperature measurement sites
- Easy monitoring and documentation, e. g. of the flow and return temperature of a heating

#### testo 175 H1

2-channel temperature and humidity data logger with external humidity sensor (NTC/capacitive humidity sensor) incl. wall bracket, padlock, batteries and calibration protocol

- Professional long-term monitoring of temperature and humidity in work and storage rooms
- Fast reaction time thanks to external humidity probe



#### testo 175 T3

TC (Types T and K)

2 x external °C, °F

-50 to +400 °C (Type T)

-50 to +1000 °C (Type K)

±0.5 °C (-50 to +70 °C)

±0.7 % of mv (+70.1 to +1000 °C)

0.1 °C

3 years

at 15 min. meas. rate

-20 to +55 °C

-20 to +55 °C

89 x 53 x 27 mm

3 x AlMn Type AAA or Energizer

IP 65

10 sec - 24 h

1 mio. measurement values ComSoft Basic 5

ComSoft Professional 4 ComSoft CFR 21 Part 11

testo 175 T3

Order no.: 0572 1753

#### testo 175 H1 \*

NTC/ capacitive humidity sensor

2 x internal (stump)

°C, °F, %rF, %RH, td, g/m<sup>3</sup>

-20 to +55 °C

-40 to +50 °C<sub>td</sub>

0 to 100 %RH

±2 %RH (2 to 98 %RH) at +25 °C

+0.03 %RH/K

±0.4 °C (-20 to +55 °C)

0.1 °C, 0.1 %RH

3 years

at 15 min. meas. rate

-20 to +55 °C

-20 to +55 °C

149 x 53 x 27 mm

3 x AlMn Type AAA or Energizer

IP 54

10 sec - 24 h

1 mio. measurement values

ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11

Order no.: 0572 1754

# Logger series testo 176 The versatile ones...

#### testo 176 T1

1-channel temperature logger in metal housing with highly accurate internal sensor (Pt100) incl. wall bracket, padlock, batteries and calibration protocol

- Highly accurate temperature measurementt under extreme conditions
- Robust metal housing protects from mechanical influences such as impact

#### testo 176 T2

2-channel temperature logger with connections for highly accurate external sensor (Pt100) incl. wall bracket, padlock, batteries and calibration protocol

- · Highly accurate temperature measurement in the food sector and in laboratories
- · Temperature monitoring e. g. in refrigerators with highly accurate Pt100 probes

#### testo 176 T3

4-channel temperature data logger in metal housing with external sensor connection (TC Type T, Type K and Type J) incl. wall bracket, padlock, batteries and calibration protocol

- · Parallel temperature measurement at up to four measurement sites using different connectable thermocouple probes for different applications
- Robust metal housing protects from mechanical influences such as impact



#### testo 176 T1

Pt100 class A

1 x internal

°C, °F

-35 to +70 °C

±0.2 °C (-35 to +70 °C)

0,01 °C

8 years

at 15 min. meas. rate

-35 to +70 °C

40 to +85 °C

103 x 63 x 33 mm

1 x Lithium (TLH-5903)

IP 68

1 sec - 24 h

2 mio. measurement values

ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11

Order no.: 0572 1761



## testo 176 T2

Pt100 class A

2 x external °C, °F

-50 to +400 °C

±0.2 °C (-50 to +200 °C) ±0.3 °C (+200.1 to +400 °C)

0,01 °C

8 years

at 15 min. meas. rate

-35 to +70 °C

-40 to +85 °C 103 x 63 x 33 mm

1 x Lithium (TLH-5903)

IP 65

1 sec - 24 h

2 mio. measurement values

ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11

testo 176 T2

Order no.: 0572 1762



### testo 176 T3

TC (Types T, K and J)

4 x external

°C, °F

-200 to +400 °C (Type T)

-195 to +1000 °C (Type K)

-100 to +750 °C (Type J)

±1% of mv (-200 to -100.1 °C) ±0.3 °C (-100 to +70 °C)

±0.5% of mv (+70.1 to +1000 °C)

0.1 °C

8 years

at 15 min. meas. rate

-20 to +70 °C -40 to +85 °C

103 x 63 x 33 mm

1 x Lithium (TLH-5903)

IP 54

1 sec - 24 h

2 mio. measurement values

ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11

testo 176 T3

Order no.: 0572 1763









#### testo 176 T4

4-channel temperature data logger with external sensor connections (TC Type T, Type K and Type J) incl. wall bracket, padlock, batteries and calibration protocol

- Parallel temperature measurement at up to four measurement sites using different connectable thermocouple probes for different applications
- Easy monitoring and documentation,
   e. g. of the flow and return temperature of an underfloor heating system at up to four measurement sites simultaneously

#### testo 176 H1

4-channel temperature and humidity data logger with external sensor connections (NTC/capacitive humidity sensor) incl. wall bracket, padlock, battery and calibration protocol

- Parallel temperature and humidity measurement
- Different connectable humidity and temperature probes, e. g. for humidity monitoring in storerooms

#### testo 176 H2

4-channel temperature and humidity data logger in metal housing with external sensor connections (NTC/capacitive humidity sensor) incl. wall bracket, padlock, batteries and calibration protocol

- Parallel temperature and humidity measurement with various connectable humidiy and temperature probes for different applications
- Robust metal housing protects from mechanical influences such as impact

#### testo 176 P1

5-channel pressure, temperature and humidity data logger with internem sensor (absolute pressure) and external sensor connections (NTC/capacitive humidity sensor) incl. wall bracket, padlock, batteries and calibration protocol

- Highly accurate and secure documentation of the ambient conditions e. g. in a laboratory
- Internal absolute pressure sensor and connection possibilities for two external humidity probes









testo	176	T4	

TC (Types T , K and J)

4 x external °C, °F

-200 to +400 °C (Type T)

-195 to +1000 °C (Type K)

-100 to +750 °C (Type J)

±1% of reading (-200 to 100.1 °C)

±0.3 °C (-100 to +70 °C) ±0.5% of m.v. (+70.1 to +1000 °C)

0.1 °C

8 years

at 15 min. meas. rate

\_-20 to +70 °C

-40 to +85 °C

103 x 63 x 33 mm

1 x Lithium (TLH-5903)

IP 54 1 sec - 24 h

2 mio. measurement values

ComSoft Basic 5
ComSoft Professional 4

ComSoft CFR 21 Part 11

testo 176 T4

Order no.: 0572 1764

#### testo 176 H1

NTC/ capacitive humidity sensor

2 probes, 4 external channels

°C, °F, %rF, %RH, td, g/m³, WB

-20 to +70 °C

-40 to +70 °C<sub>td</sub>

0 to 100 %RH

 $\pm 0.2~^{\circ}\text{C}$  (-20 to +70  $^{\circ}\text{C})$ 

 $\pm 0.4~^{\circ}\text{C}$  (rest of measuring range)

#### 0.1 °C, 0.1 %RH

8 years

at 15 min. meas. rate

-20 to +70 °C

-40 to +85 °C

103 x 63 x 33 mm

1 x Lithium (TLH-5903)

IP 65

1 sec - 24 h

2 mio. measurement values

ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11

testo 176 H1

Order no.: 0572 1765

#### testo 176 H2

NTC/ capacitive humidity sensor

2 probes, 4 external channels

°C, °F, %rF, %RH, td, g/m³, WB

-20 to +70 °C

-40 to +70 °C<sub>td</sub>

0 to 100 %RH

±0.2 °C (-20 to +70 °C)

±0.4 °C (remaining meas. range)

#### 0.1 °C, 0.1 %RH

8 years

at 15 min. meas. rate

-20 to +70 °C

-40 to +85 °C

103 x 63 x 33 mm

1 x Lithium (TLH-5903)

IP 65

1 sec - 24 h

2 mio. measurement values

ComSoft Basic 5

ComSoft Professional 4

ComSoft CFR 21 Part 11

testo 176 H2

Order no.: 0572 1766

#### testo 176 P1

NTC/ capacitive humidity sensor/ absolute pressure sensor

1 x internal, 2 probes, 4 external channels

°C, °F, %rF, %RH, td, g/m³, hPa, mbar, in Hg, in H20, psi

-20 to +70 °C

-40 to +70 °C<sub>td</sub>

0 to 100 %RH / 600 mbar to 1100 mbar

 $\pm 0.2$  °C (-20 to +70 °C)

±0.4 °C (remaining measuring range)

±3 mbar (0 to 50 °C)

0.1 °C, 0.1 %RH, 0,1 mbar

8 years

at 15 min. meas. rate

-20 to +70 °C

-40 to +85 °C

103 x 63 x 33 mm

1 x Lithium (TLH-5903)

IP 54

1 sec - 24 h

2 mio. measurement values ComSoft Basic 5

ComSoft Professional 4

testo 176 P2

ComSoft CFR 21 Part 11

Order no.: 0572 1767







