testo 175-T1

Part no.

1 channel temperature logger with internal

sensor, wall holder and calibration protocol

0563 1754

# 1 channel temperature logger with internal sensor



Easy and highly affordable temperature monitoring

- During transport
- In refrigerated rooms
- In display cabinets
- In containers
- For monitoring rooms

temperature simultaneously

During transport

• In containers

• In refrigerated rooms

• During production





#### **Technical data**

**Parameter** Temperature (°C/°F) NTC (internal) 1 channel (internal) No. of channels -35 °C to +70 °C Measuring range 0.1 °C of -20 to +70 °C Resolution 0.3 °C in remaining range ±0.5 °C (-20 to +70 °C) Accuracy/System ±1 °C (-35 to -20.1 °C) ±1 digit 7,800 readings Memory Application temp. -35 °C to +70 °C Storage temp. -40 °C to +85 °C

**Battery type** Lithium (1AA) Weight 90 q

IP 68 **Protection class** 

#### **Ordering data/Accessories**

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder 0554 1759

testo 575 fast printer Part no. 0554 1775

Part no.

testo 580 data collector incl. readout holder for logger 0554 1778

Accessories and Calibration Certs./P. 14

# testo 175-T2

# 2 channel temperature logger with internal sensor/external probe socket





2 channel temperature logger with internal sensor and external probe socket, wall holder and calibration protocol

Part no.

0563 1755





**Technical data** 

Parameter

NTC (internal + external) Sensor 2 channels (1int./1ext.) No. of channels **Measuring range** -35 °C to +70 °C (intern.) -40°C to +120 °C (extern.)

Temperature (°C/°F)

0.1 °C of -20 to +70°C Resolution 0.3 °C rem. range

±0.5 °C (-20 to +70 °C) **Accuracy/System** Internal: ±1 digit ±1 °C (-35 to -20.1 °C) Accuracy/Instr. ±0.3 °C (-25 to +70 °C) External: ±1 digit ±0.5 °C rem. range 16,000 readings Memory

-35 °C to +70 °C Application temp. Storage temp. -40 °C to +85 °C **Battery type** Lithium (1AA)

Weight 84 g **Protection class** IP 68

#### Ordering data/Accessories

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

Part no. 0554 1759

testo 575 fast printer Part no. 0554 1775

testo 580 data collector incl. readout holder for logger Part no. 0554 1778

**Probes on page 15** 

Accessories and Calibration Certs./ P. 14



°C

#### mA/V

# 2 channel temperature logger for external thermocouples



#### **Technical data**

Parameter Temperature (°C/°F) T/C-Type K or T (external) 2 channels (external) No. of channels

-50 °C to +1000 °C (Type K) **Measuring range** -50 °C to +400 °C (Type T)

Resolution 0.1 °C Accuracy/Instr. ±0.5 °C (-50 to +70 °C) ±0.7% of reading (without probes) ±1 digit (70.1 to +1000 °C) 16,000 readings Memory Application temp.  $0 \, ^{\circ}\text{C}$  to  $+70 \, ^{\circ}\text{C}$ Storage temp. -40 °C to +85 °C Lithium (1/2 AA) **Battery type** Weight 90 g



ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

IP 54

Part no. 0554 1759 testo 575 fast printer

**Protection class** 

Part no. 0554 1775 testo 580 data collector incl. readout holder for logger

0554 1778

Accessories and Calibration Certs./P. 14







Fast 2 channel temperature monitoring in

- Heating appliances
- Domestic housing
- Metal processing
- Production
- Technical laboratories

#### testo 175-T3

2 channel temperature logger for external thermocouples, wall holder and calibration

Part no. 0563 1756

**Probes on page 15** 

# testo 175-S1

# 1 channel current/voltage logger

#### **Technical data**

**Accuracy/System** 

Parameter Current/voltage No. of channels 1 channel (external) Measuring range 0 to 1 V / 0 to 10 V 0 to 20 mA / 4 to 20 mA Resolution

1 mV (0 to 1 V)

10 mV (1 to 10 V) 0.01 mA (0 to 20 mA)

± 2 mV(0 to 1 V)

± 20 mV(1 to 10 V) ±1 digit ± 0.05 mA(0 to 20 mA)

16,000 readings Memory

Built-in screwed contact Probe socket

-10 °C to +50 °C Application temp. Storage temp. -40 °C to +70 °C **Battery type** Lithium (1/2 AA)

Weight

#### Ordering data/Accessories

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

Part no. 0554 1759 testo 575 fast printer Part no. 0554 1775 testo 580 data collector incl. readout holder for logger

Part no

Accessories and Calibration Certs./ P. 14

0554 1778







# Easy current/voltage monitoring

- Industrial processes
- Laboratories
- Control systems
- Development
- Production
- Transmitter outputs

#### testo 175-\$1

1 channel current/voltage logger with external terminal screws, wall holder and calibration protocol

Part no. 0563 1759



# 2 channel humidity/temperature logger with internal sensors

°C

%RH



#### testo 175-H1

2 channel humidity/temperature logger with internal sensors, wall holder and calibration

Part no.

0563 1757



humidity/temperature values in

- Warehouses
- Domestic housing
- Museums
- Industrial processes
- · Mechanical engineering





#### **Technical data**

**Parameter** Humidity/Temperature

Humidity sensor/ Sensor NTC (internal)

2 channels No. of channels

(internal %RH; °C)

Measuring range 0 to 100 %RH -10 °C to +50 °C

Resolution 0.1 %RH / 0.1 °C

± 3 %RH Accuracy/System

±1 digit  $\pm 0.5$  °C 3,700 readings Memory

Application temp. -10 °C to +50 °C

-40 °C to +70 °C Storage temp. **Battery type** Lithium (1/2 AA)

Weight 80 g

#### Ordering data/Accessories

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

Part no. 0554 1759

testo 575 fast printer

Part no. 0554 1775

testo 580 data collector incl. readout holder for logger 0554 1778

Accessories and Calibration Certs./P. 14

# testo 175-H2

# 2 channel humidity/temperature logger with internal sensors

%RH



#### testo 175-H2

2 channel humidity/temperature logger with internal sensors, wall holder and calibration protocol

Part no. 0563 1758



#### **Efficient monitoring of** humidity/temperature values in

- Industrial processes
- Domestic housing
- Offices
- Warehouses
- Museums





#### **Technical data**

Parameter Humidity/Temperature

Humidity sensor / Sensor

NTC (internal)

No. of channels 2 channels

(internal %RH; °C) 0 to 100 %RH

Measuring range -20 °C to +70 °C

Resolution 0.1 %RH / 0.1 °C

±3 %RH **Accuracy/System** ±1 digit ±0.5 °C

16,000 readings Memory

-20 °C to +70 °C Application temp.

Storage temp. -40 °C to +85 °C **Battery type** Lithium (1/2 AA)

Weight 85 g

#### Ordering data/Accessories

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

0554 1759

testo 575 fast printer

Part no. 0554 1775

testo 580 data collector incl. readout holder for logger Part no. 0554 1778

Accessories and Calibration Certs./P. 14

°C

# 1 channel temperature logger w/ int. sensor for long-term monitoring



#### **Technical data**

**Parameter** Temperature (°C/°F) Sensor NTC (internal) 1 channel No. of channels (internal) **Measuring range** -40 °C to +70 °C

Resolution 0.1 °C

±0.4 °C; -25 to +70 °C Accuracy/System ±0.8 °C; -40 to -25.1 °C

±1 digit **48,000** readings Memory Application temp.  $-40~^{\circ}\text{C}$  to  $+70~^{\circ}\text{C}$ Storage temp. -40 °C to +85 °C Lithium (1AA) **Battery life** Weight 111 g IP 68 Protection class

**Ordering data/Accessories** 

diagram and table function, interface for logger incl. desk-top holder

0554 1774

0554 1775

Part no.

Part no.

testo 575 fast printer

testo 580 data collector

**Technical data** 

incl. readout holder for logger 0554 1778

ComSoft 3 - Basic Set, easy-to-use software with







#### Long-term temperature monitoring in refrigeration and deep-freeze

- Freezer rooms
- Warehouses
- Refrigerated rooms
- Transport
- Containers

#### testo 177-T1

1 channel temperature logger with internal sensor, wall holder and calibration protocol

Part no. 0563 1771

Accessories and Calibration Certs./P. 14

### testo 177-T2

# 1 channel temperature logger with internal sensor for long-term monitoring

#### Parameter Temperature (°C/°F) Sensor NTC (internal) No. of channels 1 channel (internal) -40 °C to +70 °C Measuring range Resolution 0.1°C Accuracy/System ±0.4 °C; -25 to +70 °C ±0.8 °C; -40 to -25.1 °C ±1 digit 48.000 readings Memory -40 °C to +70 °C Application temp. -40 °C to +85 °C Storage temp. Lithium (1AA) **Battery type** Weight 122 g **Protection class** IP 68







#### Ordering data/Accessories

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

Part no. 0554 1774 testo 575 fast printer Part no. 0554 1775 testo 580 data collector incl. readout holder for logger

0554 1778 Part no Accessories and Calibration Certs./P. 14

#### **Long-term temperature monitoring** with temperature display for

- Refrigerated rooms
- Warehouses
- Domestic housing
- Containers
- Transport



#### testo 177-T2

1 channel temperature logger with internal sensor, wall holder and calibration protocol

0563 1772



Temperature (°C/°F) NTC (int. + 2 external)

4 channels (1 int.; 2 ext.;) + 1 door contact (external) -40 °C to+70 °C (internal)

-40 °C to+120 °C (extern)

±0.4 °C; -25 to +70 °C

±0.4 °C rem. range 48,000 readings

-40 °C to +85 °C Lithium (1AA)

±0.8 °C; -40 to -25.1 °C ±0.2 °C; -25 to +70 °C

Event logging e.g. door contact

**Technical data** 

No. of channels

**Measuring range** 

Accuracy/System

Internal: ±1 digit

Accuracy/Instr. External: ±1 digit

Storage temp.

**Protection class** 

Battery type Weight

Resolution

**Parameter** 

Sensor

°C

# 3 channel temperature logger with event logging



#### testo 177-T3

3 channel temperature logger with internal sensor, 2 probe sockets, door contact, wall holder and calibration protocol

Part no. 0563 1773

Multi-channel temperature logger with display for monitoring transport

- Transport logs
- Refrigerated room logs
- Warehouses
- Containers
- Blood plasma monitoring





#### Ordering data/Accessories

**Application temp.**  $-40 \,^{\circ}\text{C}$  to  $+70 \,^{\circ}\text{C}$ 

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

IP 67

Part no. 0554 1774

testo 575 fast printer
Part no. 0554 1775

Technical data

Parameters

Sensors

testo 580 data collector incl. readout holder for logger

Accessories and Calibration Certs./P. 14

0554 1778

Probes on page 15

# testo 177-T4

# 4 channel temperature logger for external thermocouples



#### testo 177-T4

4 channel temperature logger for external thermocouples, wall holder and calibration protocol

Part no. 0563

0563 1774

Fast measurement of high temperatures in

- Harderning bays
- Mechanical engineering
- Industrial processes
- Heating installation
- Laboratories





# No. of channels 4 channels (external) Measuring range Type K: -200 °C to +1000 °C Type T: -200 °C to +400 °C Resolution 0.1 °C Accuracy/instr. ±0.3 °C; -100 to +70 °C ±0.5% of reading; +70 to +1000 °C ±0.5% of readings Memory 48,000 readings Application temp. 0 °C to +70 °C

Temperature (°C/°F)
T/C-Type K or T

(4 x external)

Storage temp. -40 °C to +85 °C

Battery type Lithium (1AA)

Weight 129 g

Protection class IP 43

#### **Ordering data/Accessories**

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

Part no. 0554 1774

testo 575 fast printer
Part no. 0554 1775

testo 580 data collector incl. readout holder for logger Part no. 0554 1778

Accessories and Calibration Certs./P. 14

Probes on page 15

# testo

# 4 channel humidity/temperature logger with internal sensors and external probe socket

#### **Technical data**

Parameters Humidity/Temperature/

Dew point

Sensors Humidity sensor/ NTC (internal)

NTC (internal)

No. of channels 4 channels

(3 x int. %RH; °C, °C td)

(1 x external °C)

Measuring range 0...100 %RH

-20 to +70 °C (internal) -40 to +70 °C td -40 to +120 °C (external)

**Resolution** 0.1%RH/0.1 °C/0.1 °C td

 $\begin{array}{lll} \textbf{Accuracy/System} & \pm\,2\%\,\text{RH} \\ \textbf{Internal:}\,\, \pm 1\,\, \textbf{digit} & \pm\,0.5\,\,^{\circ}\text{C} \end{array}$ 

Weight 130 g Protection class IP 54



#### **Ordering data/Accessories**

ComSoft 3 - Basic Set, easy-to-use software with diagram and table function, interface for logger incl. desk-top holder

Part no. 0554 1774 testo 575 fast printer

Part no. 0554 1775

testo 580 data collector incl. readout holder for logger Part no. 0554 1778

Accessories and Calibration Certs./P. 14

Probes on page 15



#### **Example of application in domestic building**



#### **Building defect or incorrect ventilation?**

Moisture on ceilings and walls can be caused by faults in the building. However, in most cases it is a sign of incorrect ventilation. Long-term measurement with a data logger will clarify the situation. The data logger calculates the difference based on the wall surface temperature and the dew point temperature of the ambient air. If it is established that the room was aired on a regular basis and the walls are still moist (dew point temperature is higher than the wall surface temperature), then there must be a defect in the building or insulation is insufficient. (Send for more information on Page 16.)



#### Advantages of the testo 177-H1 data logger

- External humidity sensor resulting in fast response time
- Extensive range of temperature probes
- Measure dew point difference via connectable surface temperature probe
- Control and adjustment options thanks to adjustment set
- Various protective caps available for dirty, highly humid air or corrosive gases

#### Advantages of the testo humidity sensor

The humidity sensor, developed by Testo, has been tried and tested throughout the world. The use of the sensor in the humidity data logger results in the following excellent properties:

- Efficiency
- Long-term stability
- Temperature resistance
- Robustness

#### Ideal for air humidity and temperature monitoring

- In domestic buildings (See photo opposite)
- In greenhouses
- In clean rooms
- In warehouses
- During production
- In computer rooms
- In museums

#### testo 177-H1

4 channel humidity/temperature logger with int. sensors and additional external probe socket, wall holder and calibration protocol

Part no. 0563 1775

°C

%RH

td

# testo 575 – Fast printer and logger control in one

# Prints and analyses data on-site without a PC



To be able to quickly print out on-site is an important requirement of many users, which has now been fulfilled by Testo. The result is the testo 575 fast printer which even restarts the logger without having to connect it to a PC.

#### testo 575

testo 575 fast printer, infrared thermal line printer with graph function

incl. 1 roll of thermal paper and batteries

Part no. 0554 1775

#### testo 575 - more than just a fast printer/Fast and easy documentation without PC

#### **Print functions**

- Fast-action print mechanism prints up to 6 lines per second (up to 40 readings/s)
- · Easy to insert paper
- Prints tables at the touch of a button
- Prints graphs at the touch of a button
- · Brief information or complete memory can be printed as required
- . A time mark can be set in the logger at the



touch of a button, the printer recognises which part is to be printed

- · Printer for all Testo measuring instruments with print function
- Your language can be set
- · Self-adhesive paper can also be used

#### **Technical data**

Infrared thermal with graph function

Contrast Can be adjusted Paper width 56 mm **Roll diameter** Up to 35 mm Standard paper and Paper

two layer-adhesive

Number of characters/line

**Graph resolution** 203 dni Operating temp. -5 to +50 °C

(for 5 min at -30 °C) -30 to +70 °C Storage temp.

6x round cell 1AA Power **Battery life** Up to 40,000 print lines

**Battery change** By user ABS (black), with Casing "Soft-Protect" inserts

#### **Control functions**

- Stops testo 175/177 loggers
- Restarts logger with saved parameters (reprogramming)
- . Both buttons can be blocked by PC software

# testo 580 – Compact data collector

# **Collects and transports data to PC**

logger Read out time/PC

**Technical data** 

**Memory capacity** Read out time in

Logger interface

Operating temp. Storage temp.



The pocket-size testo 580 - data collector transfers data from loggers on-site for PC download

# testo 580

testo 580 data collector incl. readout holders for testo 175/177 data loggers

Part no 0554 1778

#### testo 580 - Data collector

- Downloads the complete memory of a testo 175/177 at the touch of a button
- · Displays all status information
- Can transfer up to 25 full testo 175 loggers or 10 full testo 177 loggers
- . Downloads the collected data to PC via



#### **Control function**

- · Stops loggers
- · Reprograms logger
- · Both control functions can be blocked via PC

#### On/Off switch **Functions:**

**Display** 

PC interface

Memory occupied/ Logger

IR transfer. bidirectional RS 232 (Sub\_D socket)

-30 to +70 °C;

-40 to +85 °C

Memory occupied/ testo 580 Battery life: Logger Battery life: testo 580 Data transfer in progress Data transfer ok or defective Wraparound/Display

1MB (ap. 1,000,000 values)

Approx. 400 readings/s

Approx. 1.500 readings/s

Off: AutoOFF after 1 min

Other: Data secure even if battery

3x micro AAA cells Power Casino ABS (black)

# Fast filing with ComSoft 3 - Professional

# **Testo ComSoft software and interface**

# **Fast transfer and easy analysis**



#### ComSoft 3 - Basic: Easy operation, convenient analysis

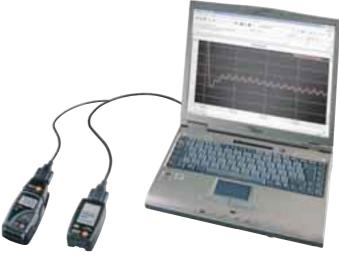
The Basic version has all the functions needed to monitor, analyse, save and print data. The data loggers are programmed and read out using the instrument drivers available. The limit values to be monitored can be defined as required; short titles, text fields and channel names ensure clear location if several loggers are in use. Once read out, the data can be shown in table or graph form and then analysed. The crosshair function helps you to find specific readings in a large file. The course of the line is scanned with the crosshair and number, date, time and reading are displayed.

The e-mail address of the person destined to receive the data can be input when programming so that the data can passed onto the locally installed e-mail program by simply clicking on "Send..." when the data is being read out. The saved e-mail address is entered in the address box.

#### Additional functions:

- Axes can be scaled as required
- Frequently used scales can be saved for future use
- Min/max and mean calculation in tables
- Printout as table or graph on all printers compatible with Windows
- Data export to other applications via clipboard
- Automatic search for instrument driver during initial operation (Autodetect)





Convenient, easy-to-use software for Windows 95, 98, NT, ME, XP

- ComSoft 3 Basic: Reads out, displays, prints and programs all testo 175 and 177 loggers; with e-mail function
- ComSoft 3 Professional: Saves data in a tree structure for easy and convenient data management.

#### ComSoft 3 - Professional: Convenient data filing included

The Professional version has all the functions of the Basic version but with additional options (e.g. digit field, bar display, analogue instrument, xy plot) and a convenient data filing function. Data can be saved in separate files so that, for example, several data loggers from different locations can be organised in a tree structure. This is particularly recommended for instruments which can manage many measurement protocols, e.g. the testo 580 data collector. The instrument driver in this instrument is set up in such a way that the directory structure of the Professional software is supported. The result is clear and comprehensible data handling.

#### Additional functions:

- Additional display options such as digit field, bar display, analogue instrument and xy plot
- Adaptation of menu and range of functions
- Input of mathematical functions with calculation on a new measurement channel
- Compensation functions 0 (mean) to 7th degree
- Selection of different print heads for printing tables and graphs
- Developer ToolBox with functions to integrate the instrument driver in non-Testo software

# Set ComSoft 3 - Basic for testo 175 Easy software with diagram and table display, interface incl. desk-top holder Part no. 0554 1759 Set ComSoft 3 - Basic for testo 177 Part no. 0554 1774



#### **ComSoft 3 - Professional**

ComSoft 3 - Professional with data management incl. database, analysis and graph function, data analysis, trend curve (w/o interface) Part no. 0554 0830

ata analysis, trend curve (w/o interface)
0554 0830

#### testo 175 and testo 177 data loggers

The testo 175 and testo 177 data loggers are read out and newly programmed at the serial interface of the PC. Thanks to the fast data transfer speed of 500 values/second, even full loggers are read out in no time. The interface is noncontact (infrared) so there is no need for awkward cables.

The actual readout unit can be snapped onto attached loggers and then read out on-site.

#### Interface

Interface for testo 175 /177 incl. desk-top holders for testo 175/177, PC connection cable (for ComSoft 3 - Professional, please order)
Part no. 0554 1757

