testo 922
温度测量仪

本品已获《中华人民共和国制造计量器具许可证》
粤制：03000253 号

操作手册

目录

1. 安全说明

本节描述安全使用本产品必须服从和遵守的一般规则。

避免人员受伤/设备损坏

> 不要在有电部件上或其附近使用本测量仪器和探头进行测量。

> 不要将测量仪器/探头与溶剂存放在一起，并且不要使用任何干燥剂。

本产品安全/质保有效性的声明

> 仅在技术数据中规定的参数范围内操作测量仪器。

> 始终以正确的方式及其预定的用途使用测量仪器。不要使用外力。

> 不要将手柄和馈线置于 70℃以上温度下，除非它们明确允许用于高温。探头上给出的温度仅与传感器的测量范围相关。

> 仅当文档中明确表明是为了维护和修理目的时，才可打开仪器。

仅执行文档中描述的维护和修理工作。按照规定的步骤执行维护和修理工作。为了安全起见，仅使用 Testo 的原装备件。

正确处置申明

> 将损坏的可充电电池/用完的电池送到为其提供的收集点。

> 在本产品使用寿命结束时，将产品寄回 Testo。我们将保证以环境友好的方式处置这些产品。

一般说明

本节提供使用本文档的重要信息。

本文档包含安全有效地使用本产品必须用到的信息。

请在使用本产品之前，仔细通读本文档，并熟悉本产品的操作。请将本文档放在手头，以便你在需要时可以查阅。

标识

标识	意义	说明
	注意	提供有用的提示和信息。
➢, 1, 2	目标	表示经由描述的步骤所要达到的目标。步骤编号的地方，你必须始终遵守给出的顺序！
√	条件	在按照描述执行一个动作时必须满足的条件。
>, 1, 2,...	步骤	执行步骤。步骤编号的地方，你必须始终遵守给出的顺序！
文本	显示文本	在仪器显示器上显示的文本。
按钮	控制按钮	按下该按钮。
Button	功能按钮	按下该按钮。
-	结果	表示上一步的结果。
	交叉参照	请参照更广泛或更详细的信息。

2. 预定的用途

本节描述本产品预定的使用范围。

仅将本产品用于为其设计的那些应用。如果你有任何疑问，请向 Testo 咨询。

testo 922 是一款用于测量温度的精密型测量仪器。

本产品用于下列任务/应用：

- 暖通空调工业
- 表面温度测量

本产品**不能**应用于下列区域：

- 有爆炸危险的区域。
- 用于医疗用途的诊断测量。

3. 产品描述

本节描述本产品组件及其功能的概况。

3.1 显示和控制元件

概述

① 红外接口，探头插口
② 显示屏
③ 控制按钮
④ 背面：电池盒和无线电模块室

按钮功能

按钮	功能
	打开仪器； 关闭仪器（按键并保持）
	开/关背光灯
	保持读数、显示最大值/最小值
	打开/退出配置模式（按键并保持） 在配置模式里： 确认输入
	在配置模式里： 选择选项，增加数值（按住不放，快速增加数值）
	打印数据
	切换接线探头和无线电探头
	在配置模式里：选择选项， 降低数值（按键不放，快速降低数值）

3．产品描述

重要显示

显示	意义
	电池容量（仅对电池/可充电电池的操作）： • 电池符号 4 段亮：仪器电池完全充满 • 电池符号都不亮：仪器电池差不多用完
（闪烁）	打印功能：将数据发送到打印机
	报警上限：超出时闪烁
	报警下限：超出时闪烁
	测量通道号：无线电探头（“无线电波”的格数表示信号的强弱）

3.2 接口

红外接口

经由仪器头部的红外线接口，可以将测量数据发送到 Testo 打印机。

探头插口

可插式探头可以经由该探头插口连接到仪器上。

无线电模块

无线电探头只能在获得许可的国家内使用（见无线电探头应用信息）

3.3 电压的提供

经由 1 块 9V 电池（交付时提供的）或充电电池来提供电压。不能在仪器中给充电电池充电。

4. 调试

本节描述调试本产品所需的步骤。

- **撕下显示器上的保护薄膜：**

  > 仔细撕下保护薄膜。

- **放入电池/可充电电池：**

  1 按照箭头方向推动仪器背面的电池盒盖子，来打开盒盖。

  2 将电池/可充电电池（9V 电池）放入电池盒中。注意电池极性！

  3 按箭头相反的方向推入电池盒的盖子

  — 仪器自动打开，配置模式启动

  4 设置日期，时间和测量单位
  见章节 *设置仪器* 的 *设置日期/时间*

- **插入无线电模块（附件）：**

只能在已获许可的国家内使用无线电探头（见无线电探头的应用信息）

✓ 仪器关闭

1 向下推动仪器背面的无线电模块盒的盖子，移去盖子

2 放入无线电模块

3 合上无线电模块盒，并关闭

5. 操作

本节描述使用本产品时经常执行的步骤。

5.1 连接探头

可插式探头

在打开测量仪器之前，必须连接可插式探头，以便仪器识别探头。

> 将探头的插头插入测量仪器的探头插口。

无线电探头

ℹ 无线电探头仅在获得许可的国家内才可使用（见无线电探头的应用信息）。

使用无线电探头需要无线电模块（附件）。在打开测量仪器之前，必须放入无线电模块，以便测量仪器识别该探头。

每个无线电探头有一个必须在配置模式下进行设置的探头 ID（标识号）。

见章节 *设置仪器*。

5.2 开/关仪器

➢ **打开仪器：**

> 按 ⏻ 。

- 打开测量视图：显示当前读数，如果无可用的读数，显示----。

➢ **关闭仪器：**

> 按住 ⏻（大约 2 秒），直到显示熄灭。

5.3 显示灯

➢ **开/关显示灯：**

√ 打开仪器。

> 按下 ☀。

5.4 设置仪器

1 打开配置模式

√ 仪器打开并处于测量视图下。Hold,Max or Min 处于未激活状态

> 按住↵不放（大约 2 秒），直到显示发生变化。

ℹ 可以使用↵按钮切换到下一功能。随时都可以退出配置模式，只要按住↵不放（约 2 秒），直到切换到其他视图。在配置模式下已作的更改可以得到保存。

3 注册无线电探头

ℹ 无线电探头仅在已获许可的国家内才可使用（见无线电探头的应用信息）。

ℹ 对于无线电探头的使用，需要在仪器内安装无线电模块（附件）。

- 见章节 *调试*

如果未安装无线电模块

- 继续操作 *自动关机设置*

每个无线电探头有一个探头 ID（RF ID）。它由序列号的最后 3 位数字和无线电探头中滑动开关的位置（**H** 或 **L**）组成。

√ 配置模式开启，RF ID 和 Auto（自动）闪烁

√ 打开无线电探头，传输速率设置为每秒 2 读数（见无线电探头的应用信息）

1 用△选择需要的选项，然后用↵确认

- YES: 打开自动搜索探头功能（推荐）
- No: 关闭自动搜索探头功能

选择 No：

2 使用△/▽按钮，手动设置探头 ID，用↵确认

选择 YES：

- 开启自动搜索探头功能。在仪器搜索连接的无线电探头时，Auto 闪烁。

- 一旦找到无线电探头，探头 ID 显示出来。如果未找到探头，NONE 亮起。

如果没有发现无线电探头，可以是由于下列原因：

无线电探头没有打开，或无线电探头的电池用完。

无线电探头在测量仪器范围之外。

干扰源影响无线电发射（例如，在发射器和接收器之间的钢筋混凝土、金属物体、墙或其它障碍物，其它相同频率的发射器，强电磁场）。

> 如果需要纠正无线电发射故障的可能原因。按△重新启动无线电探头搜索功能

2 按↵切换到下一功能

3 自动关机设置

√ 打开配置模式，Auto Off（自动关机）亮起。

> 用△选择需要的选项，然后用↵确认

- On: 如果 10 分钟内不按按钮，仪器将自动关机。例外：当记录的读数显示在显示屏上时（Hold 亮起）或者读数正在循环打印时（🖶）
- OFF: 仪器不会自动关闭

4 设置打印最小/最大值

√ 配置模式开启， MaxMin 和🖶亮起

1 用△选择需要的选项，然后用↵确认

- On（打开）： 打印当前读数或记录读数时，同时打印最大值和最小值
- OFF（关闭）: 打印当前读数或记录读数时， 不会打印最大值和最小值

5 设置循环打印

√ 配置模式开启， TIME 和🖶亮起

〉用△/▽选择读数传输至打印机需要的时间间隔，然后用↵确认

6 设置日期/时间

√ 配置模式开启， Year 亮起

1 用△/▽来设置年份 Year，然后用↵确认

2 用△/▽来设置其他的值月份 Month，日 Day 和时间 Time，然后用↵确认

7 设置测量单位

√ 设置模式被打开，℃或℉闪烁

〉 用△选择需要的选项，然后用↵确认

8 复位

√ 设置模式被打开，RESET 亮起

〉 用△选择需要的选项，然后用↵确认

- No: 仪器未复位
- Yes: 仪器复位。仪器被复位到出厂设置。无线电探头 ID 设置不会被复位。

- 仪器返回到测量视图

6. 测量

本节描述用本产品执行测量所需的步骤。

√ 打开仪器，进入测量视图

- 执行测量

  〉置入探头，读取读数

- **修改上面测量通道行显示：**

  可以在可插式探头和无线电探头之间切换

  > 改变显示：按

- **显示温差**

  可以显示 2 个通道之间的温差

  √ 可以设置测量通道的显示方式，从而显示用于计算温差的 2 个通道的数值

  见章节*改变测量通道显示方式*

  1 显示温差：按住不放，直至显示更改

  2 按，返回测量视图

6．测量

- **保持读数，显示最大值/最小值**

  可记录当前读数。显示最大值和最小值（从仪器最后一次打开开始）

  〉按键 数次，直到显示出需要的数值为止。

  - 轮流显示以下数值：

    Hold：记录的读数

    Max： 最大值

    Min： 最小值

    当前读数

  - 除了记录值，最大和最小值外，第 2 行显示当前读数。

- **复位最大值/最小值：**

  复位所有测量通道的最小或最大值。

  该功能仅在 Auto Hold(自动保持)打开时不能使用

  1 按 几次，直到显示最大值或最小值。

  2 按住 不放。

  - 显示值闪烁两次，所有最大值和最小值复位到当前读数

- **打印读数：**

  屏幕显示（当前读数，记录读数或最大值/最小值）数值可以打印出来

  前提：配备德图打印机（附件）

  打开最大值/最小值打印功能，在打印当前读数和记录读数时，同时打印最大值和最小值

  见章节 *设置仪器*

  1 可设置仪器，以便在屏幕上显示要打印的数值。

  2 按

- **循环打印读数**

  显示屏上显示的测量通道的当前读数可以一定的时间间隔自动打印出来。

  - ✓ 前提：配备德图打印机（附件）
  - ✓ 已经设置好循环打印的时间间隔
  - ⇨ 见章节 *设置仪器*
  - 〉 按住不放，直至亮起
  - 〉 结束循环打印：按

7. 维护与保养

本节描述有助于维护本产品的功能并延长其使用寿命的步骤。

- **清洁外壳：**

  > 如果外壳脏了，用潮湿的布（肥皂水）清洁外壳。不要使用侵蚀性清洁剂或溶液！

- **更换电池/可充电电池：**

  √ 关闭仪器。

  1 松下仪器背面的两颗螺丝，并取下电池室盖。

  2 拿出用完的电池/可充电电池，并将新电池/可充电电池（3 个小型）放入电池室中。注意电池极性！

  3 放回电池盒盖子，按照箭头方向推进。

  如果电压供应被长期中断，则必须重新设置日期/时间和测量单位：

  - 设置日期/时间和测量单位

  〉 设置日期/时间和测量单位
  见章节*仪器设置*的设置日期/时间

8. 问与答

本节给出经常问到的问题的答案。

问题	可能的原因	可能解决办法
亮	• 仪器电池几乎用完。	• 更换仪器电池。
仪器自动关闭	• 打开了自动关机功能。 • 电池剩余容量太低。	• 关闭自动关机功能。 • 更换电池。
显示：-----	• 探头未插入。 • 与无线电探头联系的无线电中断。 • 探头断开。	• 关闭仪器、连接探头并再次打开仪器。 • 打开无线电探头，如果需要再次注册无线电探头。 • 请与你的经销商或 Testo 客户服务中心联系。
显示：uuuuu	• 达不到允许的测量范围。	• 保持允许的测量范围。
显示：ooooo	• 超出允许的测量范围。	• 保持允许的测量范围。
仪器设置不再正确	• 电源长时间中断。	• 重新输入仪器设置。

如果我们未能回答你的问题，请与你的经销销或 Testo 客户服务中心联系。详细联系方式可在保修卡上或网站 *www.testo.com* 中找到。

9. 技术数据

特征	数值
参数	温度（℃/℉）
量程	-50...+1000℃ -58...+1832℉
分辨率	0.1°C / 0.1 °F (-50.0...+199.9 °C / - 58.0...+391.8 °F) 1°C / 1 °F (其余量程)
精确度	±(0.5°C+0.3% 读数) / ±(0.9°F+0.3%读数)* (-40.0...+900°C / -40.0...+1652°F) ±(0.7°C+0.5% 读数) / ±(1.3°F+0.5%读数)* (其余量程)
传感器连接	2×欧米茄 TC 温度插座 K 型（NiCi-Ni），无线电模块插座
测量速率	2/s
操作温度	-20 ... +50°C / -4 ... +122°F
存放温度	-40 ... +70°C / -40 ... +158°F
电源	1 节 9V 电池/充电电池
电池寿命（开/关背光灯）	连接热电偶探头：近 200 小时/近 68 小时 连接无线电探头：近 45 小时/33 小时
保护等级	配保护软套（选配）和连接探头：IP65
EC 标准	89/336/EEC
保修期	1 年

* 系统精确度受使用探头质量的影响！
以上所列为 testo 922 本机精确度。

10. 附件/备用件

本节给出本产品的重要附件和备用件。

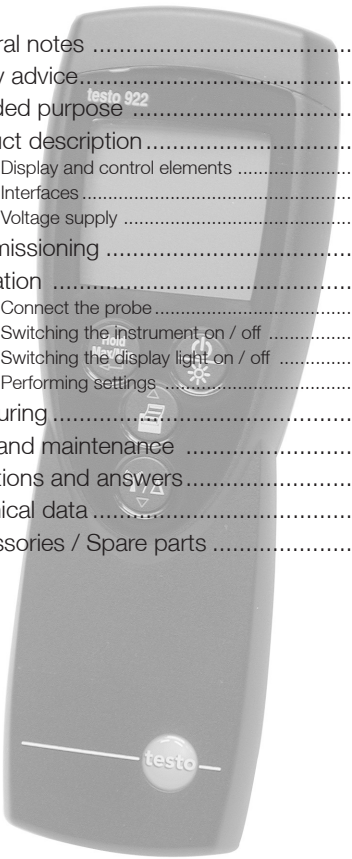
名称	零件号
无线电模块	
无线电模块 869.85MHz, 获许可 for e. g. DE, ES, IT	0554 0188
无线电模块 915.00MHz, 获许可 for e. g. USA	0554 0190
无线电模块 869.35MHz, 获许可 for e. g. FR,GB, BE	0554 0192
无线电探头	
浸入/插入式无线电探头，NTC，获许可 for e. g. DE, ES, IT	0613 1001
浸入/插入式无线电探头，NTC，获许可 for e. g. USA	0613 1002
浸入/插入式无线电探头，NTC，获许可 for e. g . FR,GB, BE	0613 1003
多功能无线电手柄	
无线电探头手柄，包括 TC 适配器，获许可 for e. g. DE, ES, IT	0554 0189
无线电探头手柄，包括 TC 适配器，获许可 for e. g. USA	0554 0191
无线电探头手柄，包括 TC 适配器，获许可 for e. g . FR,GB, BE	0554 0193
适配器，连接热电偶探头至无线电手柄	0554 0222
热电偶空气/浸入式探头尖端，连接无线电探头手柄	0602 0293
热电偶探头，K 型	
防水浸入式/插入式探头，K 型热电偶	0602 1293
防水表面探头，带扩展测量尖端，用于平整表面，K 型热电偶	0602 1993
坚固空气探头，K 型热电偶	0602 1793
附件	
保护软套	0516 0220
德图红外打印机，包括 1 卷热敏打印纸和 4 节电池	0554 0547

关于所有附件和备用件的完整清单，请查阅产品目录和宣传册，或查阅我们的网站：www.testo.com

testo 922
Temperature measuring instrument

Bedienungsanleitung de
Instruction manual en
Mode d'emploi fr

Content



General notes

This chapter provides important advice on using this documentation.

The documentation contains information that must be applied if the product is to be used safely and efficiently.

Please read this documentation through carefully and familiarise yourself with the operation of the product before putting it to use. Keep this document to hand so that you can refer to it when necessary.

Identification

Representation	Meaning	Comments
i	Note	Offers helpful tips and information.
➢, 1, 2	Objective	Denotes the objective that is to be achieved via the steps described. Where steps are numbered, you must always follow the order given!
✓	Condition	A condition that must be met if an action is to be carried out as described.
›, 1, 2, ...	Step	Carry out steps. Where steps are numbered, you must always follow the order given!
Text	Display text	Text appears on the instrument display.
Button	Control button	Press the button.
-	Result	Denotes the result of a previous step.
⇨	Cross-reference	Refers to more extensive or detailed information.

1. Safety advice

This chapter gives the general rules which must be followed and observed if the product is to be handled safely.

Avoid personal injury/damage to equipment

- Do not use the instrument and probes to measure on or near live parts.
- Never store the instrument/probes together with solvents and do not use any dessicants.

Product safety/preserving warranty claims

- Operate the instrument only within the parameters specified in the Technical data.
- Always use the instrument properly and for its intended purpose. Do not use force.
- Do not expose handles and feed lines to temperatures in excess of 70 °C unless they are expressly permitted for higher temperatures.
  Temperatures given on probes/sensors relate only to the measuring range of the sensors.
- Open the instrument only when this is expressly described in the documentation for maintenance and repair purposes.
  Carry out only the maintenance and repair work that is described in the documentation. Follow the prescribed steps when doing so. For safety reasons, use only original spare parts from Testo.

Ensure correct disposal

- Take faulty rechargeable batteries/spent batteries to the collection points provided for them.
- Send the product back to Testo at the end of its useful life. We will ensure that it is disposed of in an environmentally friendly manner.

2. Intended purpose

This chapter gives the areas of application for which the product is intended.

Use the product only for those applications for which it was designed. Ask Testo if you are in any doubt.

testo 922 is a compact measuring instrument for measuring temperatures.

The product was designed for the following tasks/applications:

- HVAC applications
- Measuring surface temperatures

The product should **not** be used in the following areas:

- Areas at risk of explosion
- Diagnostic measurements for medical purposes

3. Product description

This chapter provides an overview of the components of the product and their functions.

3.1 Display and control elements

Overview

① Infrared interface, probe socket(s)
② Display
③ Control buttons
④ Radio module compartment, battery compartment (rear)

Key functions

Key	Functions
⏻	Switch instrument on; switch instrument off (press and hold)
☼	Switch display light on / off
Hold / Max / Min	Keep reading, display maximum/minimum value
↵	Open/leave configuration mode (press and hold) In configuration mode: Confirm input
△	In configuration mode: Select option, increase value (press and hold to increase values rapidly)
🖶	Print data; cyclical printing (press and hold)
(•)/△	Change measurement channels that are shown on the display
Δ	Change between displaying temperature and differential temperature
▽	In configuration mode: Select option, decrease value (press and hold to decrease values rapidly)

Important displays

Display	Meaning
	Battery capacity (bottom left in display): 4 segments in the battery symbol are lit: Instrument battery is fully charged · No segments in the battery symbol are lit: Battery is almost spent
	Print function: Readings are sent to the printer
	Cyclical printing: Readings are sent to the printer at set intervals of time
1, 2,	Measurement channel: Channel 1, channel 2, radio probe (the number of “radio wave” segments shown indicates the strength of the signal)

3.2 Interfaces

Infrared interface

Measurement data can be sent to a Testo printer via the infrared interface on the head of the instrument.

Sensor socket(s)

Plug-in measuring probes can be connected via the probe socket(s) on the head of the instrument.

Radio module (accessory part)

ℹ Radio probes may only be used in countries in which they have been Type Approved (see application information of the radio probe).

A radio measuring probe can be connected via the radio module.

3.3 Voltage supply

Voltage is supplied by means of a 9 V monobloc battery (included in delivery) or rechargeable battery. It is not possible to run the instrument from the mains supply or charge a rechargeable battery in the instrument.

4. Commissioning

This chapter describes the steps required to commission the product.

➢ **Removing the protective film on the display:**

› Pull the protective film off carefully.

➢ **Inserting a battery/rechargeable battery:**

1 To open the battery compartment on the rear of the instrument, push the lid of the battery compartment in the direction of the arrow and remove.

2 Insert a battery/rechargeable battery (9 V monobloc). Observe the polarity!

3 To close the battery compartment, replace the lid of the battery compartment and push it against the direction of the arrow.

- The instrument switches itself on and configuration mode is opened.

4 Set the date, time and unit of measurement.
➫ See the chapter PERFORMING SETTINGS, objectives SETTING THE DATE/TIME and following.

➢ **Inserting a radio module (accessory part):**

🛈 Radio probes may only be used in countries in which they have been Type Approved (see application information of the radio probe).

✓ The instrument is switched off.

1 To open the radio module compartment on the rear of the instrument, push the clip lock downwards and remove the lid of the radio module compartment.

2 Insert the radio module.

3 To close the radio module compartment, replace the radio module compartment and close it.

5. Operation

This chapter describes the steps that have to be executed frequently when using the product.

5.1 Connect the probe

Plug-in probes

Plug-in probes must be connected before the measuring instrument is switched on so that they are recognised by the instrument.

› Insert the connector of the probe into the probe socket.

Radio probes

ℹ Radio probes may only be used in countries in which they have been Type Approved (see application information of the radio probe).

A radio module (accessory part) is required for the use of radio probes. The radio module must be connected before the measuring instrument is switched on so that it is recognised by the instrument.

Each radio probe has a probe ID (identification number). This must be set in configuration mode.
⇨ See the chapter PERFORMING SETTINGS.

5.2 Switching the instrument on / off

➢ Switching the instrument on:

› Press [⏻].

- Measurement view is opened: The current reading is displayed, or ---- lights up if no reading is available.

➢ Switching the instrument off:

› Press and hold [⏻] (for approx. 2s) until the display goes out

5.3 Switching the display light on / off

➢ Switching the display light on / off:

✓ The instrument is switched on.

› Press [☼].

5.4 Performing settings

1 To open configuration mode:

✓ The instrument is switched on and is in measurement view. **Hold**, **Max** or **Min** are not activated.

› Press and hold [↵] (for approx. 2s) until the display changes.

ℹ You can change to the next function with [↵].
You can leave configuration mode at any time. To do so, press and hold [↵] (for approx. 2s) until the instrument has changed to measurement view. Any changes that have already been made in configuration mode will be saved.

2 To register the radio probe:

ℹ Radio probes may only be used in countries in which they have been Type Approved (see application information of the radio probe).

ℹ The setting function for radio probes is only available if a radio module (accessory part) is inserted into the measuring instrument.
➥ See the chapter COMMISSIONING.

If no radio module is inserted:

➥ Continue with objective TO SET AUTO OFF.

Each radio probe has a probe ID (RF ID). This consists of the last 3 digits of the serial no. and the position of the slide switch in the radio probe (H or L).

✓ Configuration mode is opened and RF ID and Auto are lit.

✓ The radio probe is switched on and the transfer rate is set to 2 readings per second (see application information of the radio probe).

1 Select the desired option with [△] and confirm with [↵]:

- YES: Switches automatic probe detection on (recommended).
- no: Switches automatic probe detection off.

no was selected:

2 Use [△] / [▽] to set the probe ID manually and confirm with [↵].

YES was selected:

- Automatic probe detection is started. Auto flashes while the instrument looks for a radio probe that is switched on.
- Once a radio probe is found, the probe ID is displayed. If no probe is found, NONE lights up.

  Possible reasons why probes are not found:

  - The radio probe is not switched on or the battery of the radio probe is spent.
  - The radio probe is outside the range of the measuring instrument.
  - Sources of interference are influencing the radio transmission (e.g. reinforced concrete, metal objects, walls or other barriers between transmitter and receiver, other transmitters of the same frequency, strong electromagnetic fields).

  › If necessary, rectify the possible causes for the disruption to the radio transmission and start automatic probe detection again with [△].

  2 Press [↵] to change to the next function.

3 To set Auto Off:

✓ Configuration mode is opened, Auto Off is lit.

› Select the desired option with △ and confirm with ↵:

- On: The measuring instrument switches off automatically if no button is pressed for 10 min. Exception: A recorded reading is shown on the display (Hold is lit) or readings are being printed cyclically (🖶 lit).
- OFF: The measuring instrument does not switch itself off automatically.

4 To set the max./min.print function:

✓ Configuration mode is opened, MaxMin and 🖶 are lit.

› Select the desired option with △ and confirm with ↵.

- On: Maximum and minimum values are printed out as well when current or recorded readings are printed.
- OFF: Maximum and minimum values are not printed out as well when current or recorded readings are printed.

5 To set cyclical printing:

✓ Configuration mode is opened, Time and 🖶 are lit.

› Use △ / ▽ to set the time interval (in minutes) at which the readings are to be sent to the printer and confirm with ↵.

6 To set the date/time:

✓ Configuration mode is opened, Year is lit.

1 Use △ / ▽ to set the current year and confirm with ↵.

2 Use △ / ▽ to set the other values for the month (Month), day (Day) and time (Time) and confirm each one with ↵.

7 To set the unit of measurement:

✓ Configuration mode is opened, °C or °F flashes.

› Select the desired unit of measurement with △ and confirm with ↵.

8 To reset:

✓ Configuration mode is opened, RESET is lit.

› Select the desired option with △ and confirm with ↵:

· no: Instrument is not reset.

· Yes: Instrument is reset. The instrument is reset to the factory settings. The setting of the probe ID for the radio probe is not reset.

- The instrument returns to measurement view.

6. Measuring

This chapter describes the steps that are required to perform measurements with the product.

✓ The instrument is switched on and is in measurement view.

➢ Taking a measurement:

› Put the probe in position and read off the readings.

➢ Changing the measurement channel display:

You can choose between a variety of display combinations, depending on which measurement channels are active.

› To change the display: Press [📡].

➢ Displaying the differential temperature:

The differential temperature between 2 measurement channels can be displayed.

✓ The measurement channel display was configured so that the measurement channels from which the differential temperature is to be calculated are displayed.
➪ see objective CHANGING THE MEASUREMENT CHANNEL DISPLAY.

1 To display the differential temperature: press and hold [Δ] until the display changes.

2 Press [Δ] to change back to measurement view.

➢ **Holding the reading, displaying the maximum/minimum value:**

The current reading can be recorded. The maximum and minimum values (since the instrument was last switched on) can be displayed.

› Press Hold / Max / Min several times until the desired value is displayed.
  - The following are displayed in turn:
    · **Hold**: the recorded reading
    · **Max**: Maximum value
    · **Min**: Minimum value
    · The current reading

➢ **Resetting the maximum/minimum values:**

The maximum/minimum values of all channels can be reset to the current reading.

ℹ This function is not available if the Auto Hold function is switched on.

1 Press Hold / Max / Min several times until **Max** or **Min** lights up.

2 Press and hold Hold / Max / Min.
  - The displayed value flashes twice. All maximum and minimum values are reset to the current reading

➢ **Printing readings:**

The readings shown on the display (current reading, recorded reading or max./min. reading) can be printed out.
A Testo printer is required (accessory part).

ℹ With the Max./Min. print function switched on, the maximum and minimum values are printed out as well as the current reading or recorded reading.
➪ See the chapter PERFORMING SETTINGS.

1 Configure the instrument so that the value to be printed is shown on the display.

2 Press 🖨.

➢ **Printing readings cyclically:**

The current readings of the measurement channels shown on the display can be printed out automatically at a fixed interval of time.

✓ A Testo printer is required (accessory part).

✓ The desired interval of time for cyclical printing has been set.
➫ See the chapter PERFORMING SETTINGS.

› Press and hold [🖹] until 🖶 lights up.

› To end cyclical printing: Press [🖹].

7. Care and maintenance

This chapter describes the steps that help to maintain the functionality of the product and extend its service life.

➢ Cleaning the housing:

› Clean the housing with a moist cloth (soap suds) if it is dirty. Do not use aggressive cleaning agents or solvents!

➢ Changing the battery/rechargeable battery:

✓ The instrument is switched off.

1 To open the battery compartment on the rear of the instrument, push the lid of the compartment in the direction of the arrow and remove it.

2 Remove the spent battery/rechargeable battery and insert a new battery/rechargeable battery (9 V monobloc). Observe the polarity!

3 To close the battery compartment, replace the lid of the compartment in position and push it against the direction of the arrow.

If the voltage supply had been interrupted for a long period, the date/time and unit of measurement will have to be reset:

- The instrument switches itself on and configuration mode is opened.

› Set the date/time and unit of measurement.
➫ See the chapter PERFORMING SETTINGS, objectives SETTING THE DATE/TIME and following.

8. Questions and answers

This chapter gives answers to frequently asked questions.

Question	Possible causes	Possible solution
is lit (bottom left in display).	· Instrument battery is almost spent.	· Replace instrument battery.
is lit (above symbol).	· Radio probe battery is almost spent.	· Replace radio probe battery.
Instrument switches itself off.	· Auto Off function is switched on.	Switch function off.
	· Residual capacity of battery is too low.	· Replace battery
Display: -----	· Sensor is not plugged in.	· Switch instrument off, connect probe and switch instrument back on again.
	· Sensor break.	· Please contact your dealer or Testo Customer Service.
Display: uuuu	· Permitted measuring range was undershot.	· Keep to permitted measuring range.
Display: oooo·	Permitted measuring range was exceeded.	· Keep to permitted measuring range.
Display: no Signal	· Registered probe was not found.	· Register radio probe again, see chapter Performing settings, objective To register the radio probe.
Date/time are no longer correct	· Voltage supply was interrupted for a longer time	· Reset date and time.

If we are unable to answer your question, please contact your dealer or Testo Customer Service. Contact details can be found on the guarantee card or on the Internet under *www.testo.com*.

9. Technical data

Characteristic	Value
Parameters	Temperature (°C / °F)
Meas. range	-50.0...+1000 °C / -58.0...+1832 °F
Resolution	0.1 °C / 0.1 °F (-50.0...+199.9 °C / - 58.0...+391.8 °F) 1 °C / 1 °F (rest of range)
Accuracy	± (0.5 °C+0.3 % of reading) / ± (0.9 °F+0.3 % of reading) (-40.0...+900 °C / -40.0...+1652 °F) ± (0.7 °C+0.5 % of reading) / ± (1.3 °F+0.5 % of reading) (rest of range)
Sensor connections	2x Omega TC socket for temperature probe type K (NiCr-Ni), radio module (accessory part)
Measuring rate	2/s
Operating temperature range	-20 ... +50 °C / -4 ... +122 °F
Storage temperature	-40 ... +70 °C / -40 ... +158 °F
Voltage supply	1x 9 V monobloc battery/rech. battery
Running time (display lighting off / on)	with probe connected: approx. 200 h / approx. 68 h, with radio probe: approx. 45 h / 33 h
Protection class	with TopSafe (accessory part) and probe connected: IP65
EC Directive	89/336/EEC
Warranty	1 years

10. Accessories / Spare parts

Name	Part no.
Radio modules [1]	
Radio module 869.85MHz, authorisation for e. g. DE, ES, IT, FR, GB	0554 0188
Radio module 915.00MHz, authorisation for e. g. USA	0554 0190
Radio probes [1]	
Radio immersion/penetration probe, NTC, authorisation for e. g. DE, ES, IT, FR, GB	0613 1001
Radio immersion/penetration probe, NTC, authorisation for e. g. USA	0613 1002
Universal radio handles	
Radio handle for plug-in probeheads incl. TC adapter, authorisation for e. g. DE, ES, IT, FR, GB	0554 0189
Radio handle for plug-in probeheads incl. TC adapter, authorisation for e. g. USA	0554 0191
Adapter for connection to TC probes on radio handle	0554 0222
TC -probehead for air/immersion tip, attachable to radio handle	0602 0293
TC probes, type K	
Water-proof immersion/penetration probe, TC type K	0602 1293
Water-proof surface probe with widened measurement tip for smooth surfaces, TC type K	0602 1993
Robust air probe, TC type K	0602 1793
Miscellaneous	
TopSafe testo 922, protects from impact and dirt particles	0516 0222
Testo printer with IRDA and infrared interface, 1 roll thermal paper and 4 round cell batteries	0554 0547

[1] Radio probes may only be used in countries in which they have been Type Approved (see application information of the radio probe).

For a complete list of all accessories and spare parts, please refer to the product catalogues and brochures or look up the www.testo.com Internet site.