

testo 510i Smart Probes Pressure Gauge Instruction Manual

510i Smart Probes Pressure Gauge Instruction Manual



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Safety and the environment

2.1. About this document

Use

> Please read this documentation through carefully and familiarize yourself with the product before putting it to use. Pay particular attention to the safety instructions and warning advice in order to prevent injuries and damage to the products.
> Keep this document to hand so that you can refer to it when necessary.
> Hand this documentation on to any subsequent users of the product.

Symbols and writing standards

Representation	Explanation
	Warning advice, risk level according to the signal word: Warning! Serious physical injury may occur. Caution! Slight physical injury or damage to the equipment may occur. > Implement the specified precautionary measures.
	Note: Basic or further information.
1…. 2….	Action: more steps, the sequence must be followed.
> …	Action: a step or an optional step.
– …	Result of an action.
Menu	Elements of the instrument, the instrument display or the program interface.
[OK]	Control keys of the instrument or buttons of the program interface.
…. I …..	Functions/paths within a menu.
“… “	Example entries

2.2. Ensure safety

> Do not operate the instrument if there are signs of damage at the housing, mains unit or feed lines.
> Do not perform contact measurements on non-insulated, live parts.
> Do not store the product together with solvents. Do not use any desiccants.
> Carry out only the maintenance and repair work on this instrument that is described in the documentation. Follow the prescribed steps exactly. Use only original spare parts from Testo.
> Dangers may also arise from the systems being measured or the measuring environment: Note the safety

regulations valid in your area when performing the measurements.

2.2.1. Safety and the testo 510i/605i/915i

- Magnetic field
- May be harmful to those with pacemakers.

> Keep a minimum distance of 10 cm between pacemaker and instrument.

2.2.2. Safety and the testo 605i

- Not for condensing atmospheres. For continuous application in high humidity (> 80 %RH at ≤ 30 °C for > 12 h, > 60 %RH at > 30 °C for > 12 h), contact us via www.testo.com.
- The sensor must not be exposed to volatile chemicals such as solvents (e.g. ketene, ethanol, isopropyl alcohol, toluene) or organic compounds, especially in high concentrations and corresponding gases, over a prolonged period of time.

2.2.3. Safety and the testo 549i/552i

- Risk of injury due to pressurized, hot, cold or toxic refrigerants/media!

> Only to be used by qualified staff.
> Wear protective goggles and safety gloves.
> Before applying pressure to the measuring instrument: always fix the instrument tightly onto the pressure connection
> Comply with the permissible measuring range (0 to 60 bar). Pay particular attention to this in systems with R744 refrigerant, since these are frequently operated at higher pressures!
> Use with A2L refrigerants
Testo measuring instruments (as of July 2020) can be used in compliance with the prescribed laws, standards, directives and safety regulations for refrigeration systems and refrigerants as well as regulations of the manufacturers of refrigerants of safety group A2L as per ISO 817.
Regional standardization and interpretation must always be observed.
For example, DIN EN 378-Part 1-4 applies to the scope of the EN standards.
During maintenance work, the employer must ensure that a hazardous explosive atmosphere is prevented (see also TRBS1112, TRBS2152 VDMA 24020-3).
A hazardous and potentially explosive atmosphere must be anticipated during maintenance and repair work on refrigeration systems with flammable refrigerants (e.g. those of category A2L and A3).
Maintenance, repairs, removal of refrigerants and commissioning of systems may only be carried out by qualified personnel.

2.2.4. Safety and the testo 805i

Laser radiation! Class 2 laser
> Do not look into the laser beam!

2.2.5. Safety and the testo 552i

- The testo 552i Smart Probe must not be connected if the pressure is higher than 5 bar. Otherwise, damage may occur.

2.3. Protecting the environment

> Dispose of faulty rechargeable batteries/spent batteries in accordance with the valid legal specifications.
> At the end of its useful life, send the product to the separate collection for electric and electronic devices (observe local regulations) or return the product to Testo for disposal.

Specifications

Testo Smart Probes are different hand-held measuring instruments for various applications that communicate with your mobile terminal devices by means of an app. The respective Smart Probe performs the measurement and is operated by your mobile terminal device. The various Smart Probes allow you to measure the temperature, humidity, flow, and volume flow at the outlet, or perform pressure, differential pressure, and non-contact temperature measurements in the duct.

Product description

4.1. Overview of Smart Probes



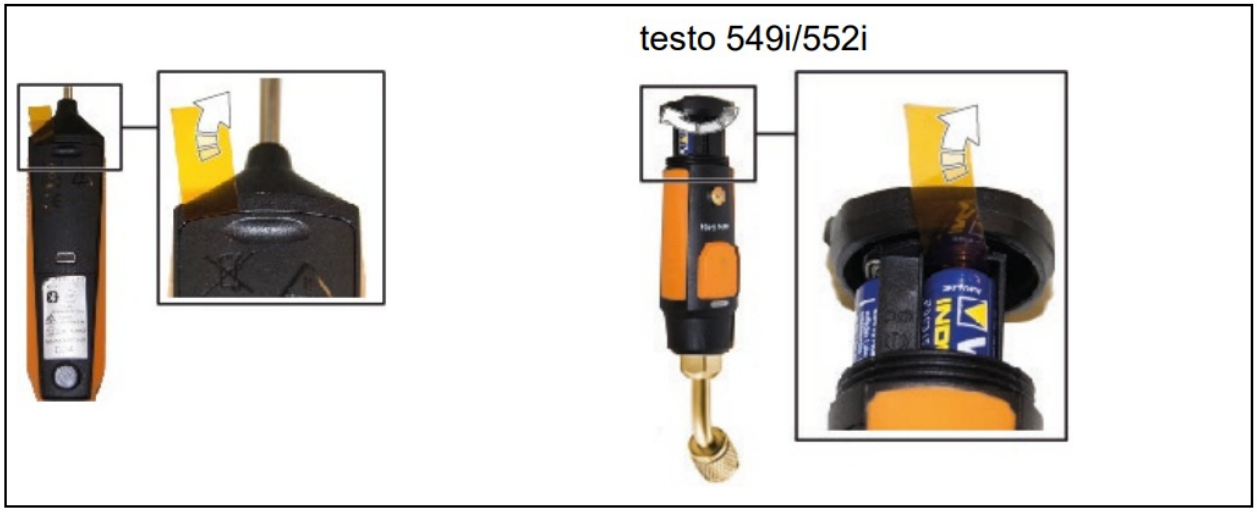
1. Measuring unit
2. LED
3. Key
4. Battery compartment (at the back)
5. Direction of flow testo 405i / testo 410i (not shown) (An arrow on the top of the housing displays the direction of flow in which the measuring instrument has been calibrated and which achieves the best measurement results. Please note the direction of flow during usage.)

4.2. LED status

LED status	Meaning
Flashing red	Low battery status
Flashing yellow	• Smart Probe is switched on. • Smart Probe is searching for a BT connection, but is not connected.
Flashing green	• Smart Probe is switched on. • Bluetooth is connected.

First steps

5.1. Switching on/off



5.1.1. Switching on

1. Pull the film out of the battery compartment.
2. Press the button on your Smart Probe.
   – The Smart Probe switches on.

5.1.2. Switching off

1. Press and hold the button on your Smart Probe.
   – The Smart Probe switches off.

5.2. Establishing Bluetooth® connection
You need a tablet or smartphone with the Testo SMART App already installed on it to be able to establish a Bluetooth connection.
You can get the App for iOS instruments in the App Store or for Android instruments in the Play Store.
Compatibility:

- requires iOS 12.0 or later/Android 6.0 or later
- requires Bluetooth 4.2

✓ The Testo SMART App is installed on your terminal device and ready for use.

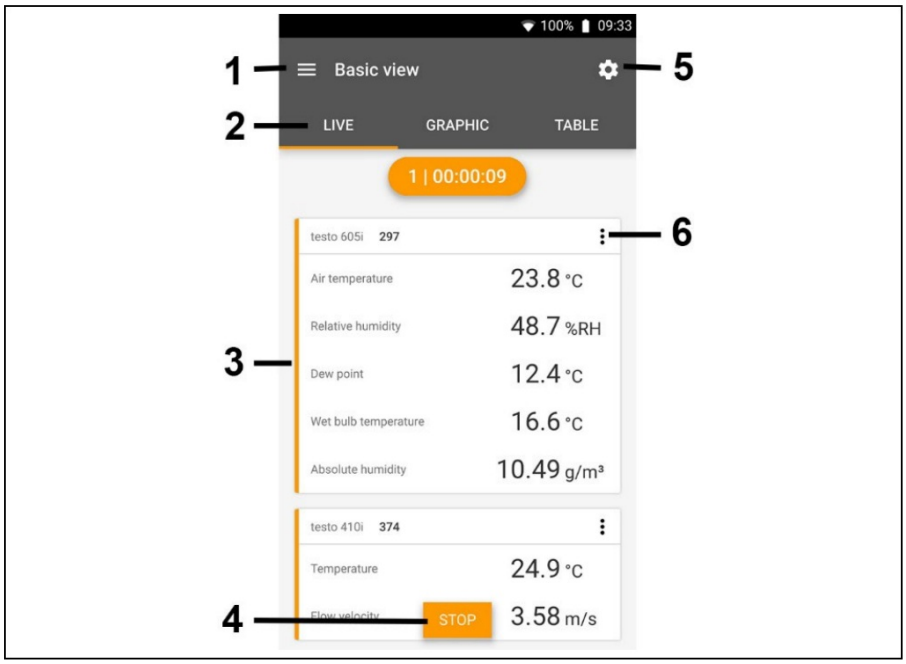
1. Press the button on the Smart Probe.
   – The Smart Probe switches on.
   – The LED flashes yellow while connecting via Bluetooth and then flashes green once the connection is established.
   – The connection between the Smart Probe and your mobile terminal device is established.

5.3. Transmitting readings
✓ The Smart Probe is switched on and connected to your mobile terminal device via Bluetooth.

- The current readings are automatically displayed in the App.

Using the App

6.1. Overview of operating controls



1. Choice of applications.
2. Switch between the views (list, graphic diagram, table)
3. Display of connected Smart Probes including readings
4. Start/stop
5. Measurement configuration (the menu changes depending on the Smart Probe connected and the application selected)
6. Smart Probe configuration

6.2. App options

6.2.1. Set “Language”

1. Tap -> Settings -> Language.
   – A selection list is displayed.
2. Tap the required language.
   – The language has been changed.

6.2.2. Display Tutorial

The Tutorial guides you through the first steps when operating the Testo SMART App.

1. Tap -> Help & Information -> Tutorial
   – The Tutorial is displayed. In Tutorial, swipe to display the next page.
2. Tap X to close the Tutorial.

6.2.3. Display App Info

In App Info you can find the version number of the installed App.

1. Tap  -> Help & Information -> Instrument information
   – The App's version number is displayed, as well as the ID.

6.3. Application menus

6.3.1. Selecting the application menu

1. Press  .
   – A selection of menus for various applications is displayed.
2. Select the required application.
   – The selection disappears and your selected application is displayed.

6.3.2. Setting favourites

1. Press  .
   – A selection of applications is displayed.
2. Press  next to the application that you would like to designate as a favourite.
   – The asterisk is displayed in orange  .

6.3.3. Displaying information about an application

1. Press.
   – A selection of applications is displayed.
2. Press  .
   – The information about an application is displayed.

6.4. Smart Probe settings

If the readings fluctuate wildly, it is advisable to damp the readings.
The probe is connected to the SMART App.

1. Click on  .
   ▶ Main menu opens.
2.  Click on Sensors.
   ▶ The Sensors menu opens.
3. Click on the required sensor.
   ▶ Information is displayed about the model, order number, serial number and firmware version.
4. Click on the Settings tab.
   ▶ The settings window opens.
5. Enable Activate damping using the slider.
6. Click on Average of the measured values.

▶ Window for Average of the measured values opens.

7. Enter a value between 2 and 20 seconds.

6.5. testo 115i/915i – Surface increment

Surface probes withdraw heat from the measured surface immediately after the initial contact. This makes the measurement result lower than the true surface temperature without the probe (or the reverse if the surface is colder than the environment). This effect can be corrected by an increment in % of the reading.

✓ The probe is connected to the SMART App.

1. Click on  .

   ▶ Main menu opens.

2.  Click on Sensors.

   ▶ The Sensors menu opens.

3. Click on the required sensor.

   ▶ Information is displayed about the model, order number, serial number and firmware version.

4. Click on the Settings tab.

   ▶ The settings window opens.

5. Click on Use surface increment.
6. Enable Activate surface increment using the slider.

6.6. List, graphic diagram and table view

The available readings can be displayed in different ways in the various views.

- List view

  Displays the readings transmitted by the Smart Probe in the form of a list. Readings from all connected Smart Probes are displayed here.

- Graphic diagram view

  The graphical progression of up to four different readings can be displayed. Tap on a reading above the diagram to select the readings to be displayed.

- Table view

  In the Table view, all readings are displayed in sequence according to date and time. The different readings from the individual Smart Probes can be selected by pressing ◄ ►.

6.7. Settings view

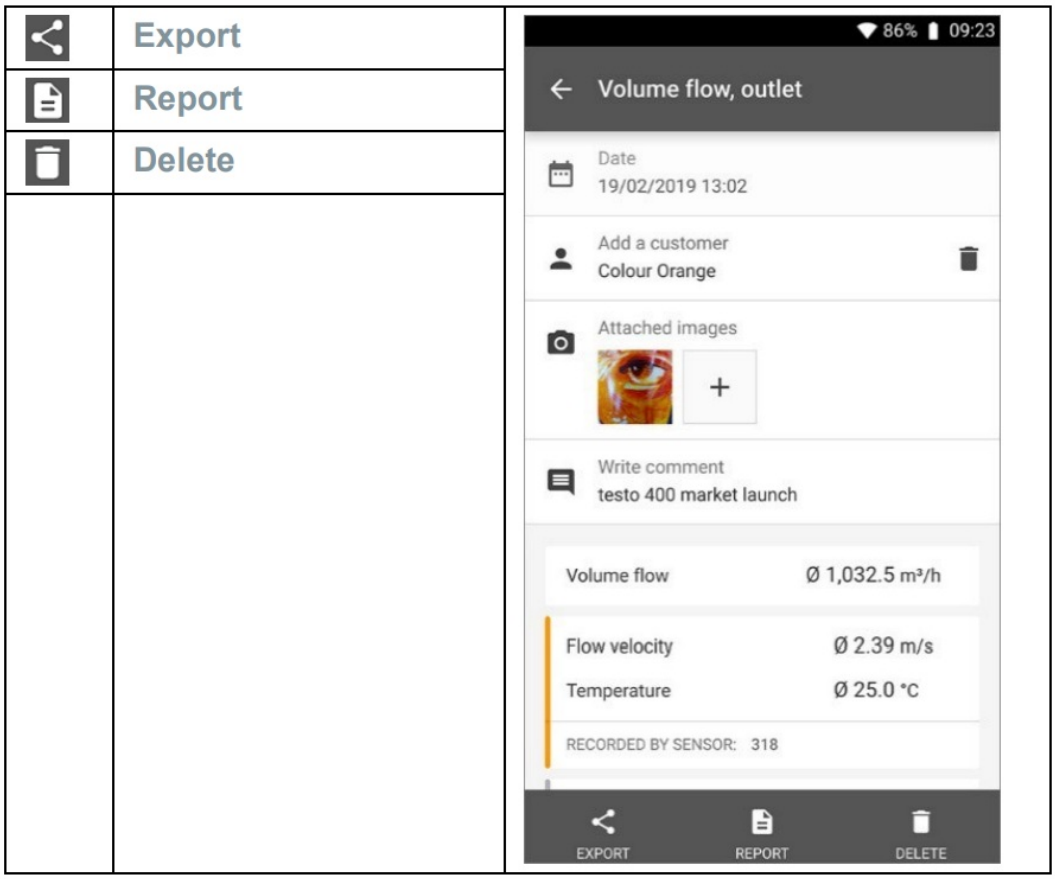
1. Press  and select Edit View.

   – An overview of parameters is displayed.

2. Deselect the check mark to hide a Smart Probe reading.
3. Press ▼ to select the unit for a reading.
4. Press OK to confirm your settings

6.8. Exporting readings

1. Press  -> Memory -> Select measurement.



6.8.1. Excel (CSV) Export

1. Press  .
   – A selection of export options appears.
2. Press Start export.
   – A selection of sending/export options appears.
3. Select your required sending/export options.

6.8.2. PDF Export

1.  Click on Report.
   ▶ A selection window is displayed.
2. If required, activate the Create PDF with all readings button.
3. Click on Create.

For measurements, please be aware that the option Create PDF with all readings is only possible up to 30 pages, due to the resulting file size and number of pages. In the testo DataControl software, however, PDF reports can be created for all measurements without any restrictions.

▶ A report containing all the information is created.

▶ A selection window is displayed. The report can be sent via e-mail or Bluetooth®.

4 Click on e-mail or Bluetooth®.

▶ The report will be sent.

Maintaining the product

7.1. Maintaining Smart Probes

Cleaning the instrument

> Do not use any aggressive cleaning agents or solvents!
> Mild household cleaning agents or soap suds may be used.
> If the housing of the instrument is dirty, clean it with a damp cloth.

Keeping connections clean

> Keep connections clean and free of grease and other deposits, clean with a damp cloth as required.

Ensuring measuring accuracy

> Testo Customer Service would be glad to further assist you if you so wish.
> Keep within the permissible measuring range!
> Calibrate instrument regularly (recommendation: once a year).

7.2. Smart Probes App

The Testo SMART App is kept updated via the Play Store for Android devices and the App Store for iOS devices. Please update the App as soon as a new update is available. We therefore recommend that you do not disable automatic notifications when new updates are available.

Tips and assistance

8.1. Questions and answers

Question	Answer
LED flashes red	• Batteries are almost spent. • Change batteries.
The instrument switches itself off	Remaining battery capacity insufficient > Change the batteries.
— lights up instead of the measurement p arameter display	• Outside the permissible measuring range. > Keep within the permissible measuring range. • Sensor is defective > Contact your testo Service department.
The App cannot be found in the store	• No correct search terms were entered. Enter an unambiguous search term, e.g.: “testo > Smart Probes” or use the link on the testo website. • Your mobile terminal device does not meet the technical requirem ents (iOS 12.0 or later, Android 6.0 or later / Bluetooth 4.2 (Low En ergy)) > Please check the technical data for your mobile terminal device

8.2. Accessories and spare parts

Designation	Item number
testo Smart Case (Refrigeration) for storing and transporting 2 x testo 115i and 2 x testo 549i, dimensions 250 x 180 x 70 mm	0516 0240
testo Smart Case (Heating) for storing and transporting testo 115i, testo 410i, testo 510i, testo 549i and testo 805i, dimensions 250 x 180 x 70 mm	0516 0270
testo Smart Case (VAC) for storing and transporting testo 405i, testo 410i, testo 510i, testo 605i testo 805i and testo 905i, dimensions 270 x 190 x 60 mm	0516 0250
testo Smart Case (temperature) for the storage and transportation of testo 915i and plug-in probes, dimensions 250 x 180 x 70 mm	0516 0032

Technical data

9.1. Bluetooth module

The use of the wireless module is subject to the regulations and stipulations of the respective country of use, and the module may only be used in each case in countries for which a country certification has been granted. The user and every owner undertake to adhere to these regulations and prerequisites for use, and acknowledge that the re-sale, export, import, etc. in particular in, to or from countries without wireless permits, is their responsibility.

9.2. General technical data

All accuracy specifications apply at a nominal temperature of 22 °C.

9.2.1. testo 905i

Feature	Values
Measuring range	-50 to 150 °C / -58 to 302 °F
Accuracy ± 1 digit	±1 °C / ± 1.8 °F
Resolution	0.1 °C / 0.1 °F
Measurement rate	1/sec
Available units of measurement	°C, °F
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to +50 °C / -4 to 122 °F
Battery type	3 micro batteries AAA
Battery life	150 h
Dimensions	222 mm x 30 mm x 24 mm Probe shaft length 100 mm Probe shaft diameter 4 mm
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.2. testo 410i

Feature	Values
Measuring range	0.4 to 30 m/s / 80 to 5,900 fpm -20 to 60 °C / -4 to 140 °F
Accuracy ± 1 digit	± (0.2 m/s + 2% of m.v.) (0.4 to 20 m/s) ± (40 fpm + 2% of m.v.) (80 to 4,000 fpm) ± 0.5 °C / ±0.9 °F
Resolution	0.1 °C / 0.1 °F 0.1 m/s / 1 fpm
Measurement rate	1/sec
Available units of measurement	°C, °F, m/s, fpm, m3/h, cfm, Vs
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to +50 °C / -4 to 122 °F
Battery type	3 micro batteries AAA
Battery life	130 h
Dimensions	154 mm x 43 mm x 21 mm 30 mm vane diameter
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.3. testo 405i

Depending on the point of use, the ambient pressure (default value 1.013 hPa) must be entered in the SMART App so that the air pressure can be compensated. Otherwise, errors of measurement may occur.

Feature	Values
Measuring range1	0 to 30 m/s / 0 to 5,900 fpm -20 to 60 °C / -4 to 140 °F

1 Please switch on the Smart Probe in the following ambient conditions: > 10 °C, air velocity 0 m/s = protective cap closed to enable the sensor to heat up.

Feature	Values
Accuracy ± 1 digit	±(0.1 m/s + 5% v. Mw) (0 … +2 m/s) ±(0.3 m/s + 5% v. Mw) (2 … +15 m/s) ±(0.5 m/s + 5% v. Mw) (15 … +25 m/s) ±(20 fpm + 5% v. Mw) (0 … +394 fpm) ±(59 fpm + 5% v. Mw) (394 … +3.000 fpm) ±(100 fpm + 5% v. Mw) (3.000 … +4.900 fpm) ±0.5 °C / ±0.9°F
Resolution	0.01 m/s / 1 fpm 0.1 °C / 0.1 °F
Measurement rate	1/sec
Available units of measurement	°C, °F, m/s, fpm, m³/h, cfm, l/s
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to +50 °C / -4 to 122 °F
Battery type	3 micro batteries AAA
Battery life	15 hrs
Dimensions	200 mm × 30 mm × 41 mm Extendible telescope 400 mm Probe shaft diam eter 12 mm Probe tip diameter 9 mm
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.4. testo 549i

Feature	Values
Measuring range	0 to 60 bar (rel) / 0 to 870 psi (rel)
Overpressure	65 bar
Accuracy ± 1 digit	0.5% of full scale value
Resolution	0.01 bar / 0.1 psi
Measurement rate	2/sec
Available units of measurement	bar, psi, MPa, kPa
Connection	1× 7/16″ UNF / 1/4″ SAE connection

Feature	Values
Overload rel.	65 bar
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to +50 °C / -4 to 122 °F
Battery type	3 micro batteries AAA
Battery life	130 hrs
Measurable media	CFC, HFC, HCFC, N, H20, CO2
Dimensions	152 mm x 35 mm x 35 mm
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.5. testo 805i

Feature	Values
Measuring range	-30 °C to 250 °C / -22 to 482 °F
Accuracy ± 1 digit	± 1.5 °C or ± 1.5% of m.v. (0 to 250 °C) ± 2.0 °C (-20.0 to -0.1 °C) ± 2.5 °C (-30.0 to -20.1 °C) ± 2.7 °F or ± 1.5% of m.v. (32 to 482 °F) ± 3.6 °F (-4 to 32 °F) ± 4.5 °F (-22 to -4 °F)
Resolution	0.1 °C / 0.1 °F
Measurement rate	2/sec
Available units of measurement	°C, °F
Connection	7/16“ – UNF
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-10 °C to +50 °C / 14 to 122 °F
Battery type	3 micro batteries AAA
Battery life	30 hrs
Optics	10:1
Laser marking	Diffraction lens as laser marking (laser circle)
Dimensions	140 mm × 36 mm × 25 mm

Feature	Values
Emission level	Adjustable from 0.1 to 1.0
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.6. testo 605i

Feature	Values
Measuring range	-20 to 60 °C, -4 to 140 °F, 0 to 100% RH
Accuracy ± 1 digit	±0.8 °C (-20 … 0 °C) / ±1.44 °F (-4 … 32 °F) ±0.5 °C (0 … +60 °C) / ±0.9 °F (32 … 140 °F) ± 3.0 %RH (10%RH…35%RH) ± 2.0 %RH (35%RH…65%RH) ± 3.0 %RH (65%RH…90%RH) ± 5.0 %RH (<10%RH or >90%RH) @ 25°C ±1°C Hysteresis: ± 1.0 %RH Long term stability/year :± 1.0 %RH/year
Resolution	0.1 °F / 0.1 °C 0.1% RH
Measurement rate	1/sec
Available units of measurement	°C, °F, %RH, °Ctd, °Ftd, wetbulb °C, wetbulb °F
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to +50 °C / -4 to 122 °F
Battery type	3 micro batteries AAA
Battery life	150 h
Dimensions	218 mm × 30 mm × 27 mm Probe shaft length 90 mm
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.7. testo 510i

Feature	Values
Measuring range	-150 … 150 hPa / 60 in wc

Feature	Values
Accuracy ± 1 digit	± 0.05 hPa (0 to 1.00 hPa) / ± 0.02 in wc (0 to 0.4 in wc) ± 0.2 hPa + 1.5% of m.v. (1.01 to 150 hPa) ± 0.08 in wc + 1.5% of m.v. (0.41 to 60 in wc)
Overpressure	500 mbar
Resolution	0.01 hPa / 0.01 inch wc
Measurement rate	2/sec
Available units of measurement	mbar, hPa, Pa, mmHg, inHg, in WC, psi, mmWC In conjunction with Pitot tube (optional): m/s, fpm, m^3/h, cfm, l/s
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to +50 °C / -4 to 122 °F
Battery type	3 micro batteries AAA
Battery life	150 hrs
Dimensions	148 × 36 × 23 mm
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.8. testo 115i

Feature	Values
Measuring range	-40 to 150 °C / -58 to 302 °F
Accuracy ± 1 digit	± 1.3 °C (-20 to 85 °C) ± 2.34 °F (-4 to 185 °F)
Resolution	0.1 °C / 0.1 °F
Measurement rate	1/sec
Available units of measurement	°C, °F
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to +50 °C / -4 to 122 °F
Battery type	3 micro batteries AAA
Battery life	150 h

Feature	Values
Dimensions	183 mm × 90 mm × 30 mm max. 35 mm pipe diameter
Directives, standards and tests	EU guideline: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

9.2.9. testo 915i

Feature	Values
Measuring range: handle (0560 1 915)	-60 to +1000 °C -76 to +1832 °F
Measuring range with TC probe 0 602 1093	-50 to +400 °C -58 to +752 °F
Measuring range with TC probe 0 602 2093	-50 to +350 °C -58 to +662 °F
Measuring range with TC probe 0 602 3093	-50 to +400 °C -58 to +752 °F
Measuring range with TC probe 0 602 4093	-50 to +400 °C -58 to +752 °F
Accuracy ± 1 digit: handle (0560 1915)	±(0.5 °C + 0.3% of m.v.) ±(0.9 °F + 0.3% of m.v.)
Accuracy ± 1 digit: handle with T C probe 0602 1093	±1.0 °C (-50 °C to 100 °C) ±1% of m.v. (remaining meas. range) ±1.8 °F (-58 °C to 212 °F) ±1% of m.v. (remaining meas. range)
Accuracy ± 1 digit: handle with T C probe 0602 2093	±(1.0 + 1% of m.v.) °C ±(1.8 + 1% of m.v.) °F
Accuracy ± 1 digit: handle with T C probe 0602 3093	±1.0 °C (-50 °C to 100 °C) ±1% of m.v. (remaining meas. range) ±1.8 °F (-58 °C to 212 °F) ±1% of m.v. (remaining meas. range

Feature	Values
Accuracy ± 1 digit: handle with T C probe 0602 4093	±1.0 °C (-30 °C to +80 °C) ±(0.7 + 1% of m.v.)(-50 to -30 °C) ±(0.2 + 1% of m.v.) (+80 °C to 400 °C) ±1.8 °F (-22 °F to +186 °F) ±(1.3 + 1% of m.v.)(-58 °F to -22 °F) ±(0.4 + 1% of m.v.)(+186 °F to +752 °F)
Resolution	0.1 °C / 0.1 °F
Available units of measurement	°C, °F
Storage temperature	-20 °C to 60 °C / -4 to 140 °F
Operating temperature	-20 °C to + 50 °C / -4 to 122 °F
Battery type	3 AAA batteries
Battery life	150 h
Dimensions of handle	129 x 31 x 31 mm
Directives, standards and tests	EU Directive: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863
Cable length of plug-in sensor	max. 3 m

9.2.10. testo 552i

Feature	Values
Measuring range	0 to 26.66 mbar 0 to 20000 microns
Accuracy ± 1 digit	±10 microns + 10% of m.v. (100 to 1000 microns)
Resolution	1 micron (0 to 1000 microns) / 10 microns (1000 to 2000 microns) / 100 microns (2000 to 5000 microns)
Measurement rate	1/sec
Available units of measurement	bar, psi, MPa, kPa
Storage temperature	-20 °C to 50 °C / -4 to 122 °F
Operating temperature	-10 °C to + 50 °C / -14 to 122 °F
	PA66 +30 % GF TPE, P

Feature	Values
Protection class	IP 54
Battery type	3 AAA batteries
Battery life	39 h
Connection	7/16″ UNF
Dimensions	155 x 35 x 35 mm 6.10 x 1.38 x 1.38 inch
Directives, standards and tests	EU Directive: 2014/30/EU RED: 2014/53/EU RoHS: 2011/65/EU + (EU) 2015/863

Certifications

Module Lierda L Series BLE

Product	testo 115i, testo 405i, testo 410i, testo 510i, testo 549i, testo 605i, testo 805i, testo 905i
Mat.-No.	0560 1115, 0560 1405, 0560 1410, 0560 1510, 0560 1549, 0560 1605, 0560 1805, 0560 1905

Country	**Comments**	
Australia		E 1561
Brazil		
Canada	Product IC ID: testo 115i IC ID: 12231A-1115 testo 405i IC ID: 12231A-1405 testo 410i IC ID: 12231A-1410 testo 510i IC ID: 12231A-1510	

	testo 549i IC ID: 12231A-1549 testo 605i IC ID: 12231A-1605 testo 805i IC ID: 12231A-1805 test o 905i IC ID: 12231A-1905 see IC Warnings
China	CMII ID: testo 115i CMIIT ID: 2015DP6557 testo 405i CMIIT ID: 2015DP6558 testo 410i CMIIT ID: 2015DP6612 testo 510i CMIIT ID: 2015DP6559 testo 549i CMIIT ID: 2015DP6560 testo 605i CM IIT ID: 2015DP6561 testo 805i CMIIT ID: 2015DP6562 testo 905i CMIIT ID: 2015DP6563
Europa + E FTA	CE The EU Declaration of Conformity can be found on the testo homepage www.testo.com und er the product specific downloads.\ **EU countries:** Belgium (BE), Bulgaria (BG), Denmark (DK), Germany (DE), Estonia (EE), Finland (FI), France (F R), Greece (GR), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovaki a (SK), Slovenia (SI), Spain (ES), Czech Republic (CZ), Hungary (HU), United Kingdom (GB), Re public of Cyprus (CY). **EFTA countries:** Iceland, Liechtenstein, Norway, Switzerland
Hongkong	Authorized
Japan	testo 115i

	testo 405i testo 410i testo 510i testo 549i testo 605i testo 905i see Japan Information
Korea	testo 115i Certification No. MSIP-CRM-Toi-115i testo 405i Certification No. MSIP-CRM-Toi-405i

	testo 410i Certification No. MSIP-CRM-Toi-410i testo 510i Certification No. MSIP-CRM-Toi-510i t esto 549i Certification No. MSIP-CRM-Toi-549i testo 605i Certification No. MSIP-CRM-Toi-605i te sto 805i Certification No. MSIP-CRM-Toi-805i testo 905i Certification No. MSIP-CRM-Toi-905i see KCC Warning
Taiwan	testo 115i NCC: CCAB16LP177FT0 testo 405i NCC: CCAB16LP177AT3 testo 410i NCC: CCAB1 6LP1770T1 testo 510i NCC: CCAB16LP177DT9 testo 549i NCC: CCAB16LP177ET1 testo 605i NCC: CCAB16LP177BT5 testo 805i NCC: CCAB16LP177CT7 testo 905i NCC: CCAB16LP177GT2
Turkey	Authorized
USA	Product FCC ID: testo 115i FCC ID: 2ACVD-1115 testo 405i FCC ID: 2ACVD-1405 testo 410i FCC ID: 2ACVD-141 0 testo 510i FCC ID: 2ACVD-1510 testo 549i FCC ID: 2ACVD-1549 testo 605i FCC ID: 2ACVD-16 05 testo 805i FCC ID: 2ACVD-1805 testo 905i FCC ID: 2ACVD-1905 see FCC Warnings
Russia	Authorized

Philippines	**Authorized**		
South Africa	testo 115i	TA-2016/1207	
	testo 405i	TA-2016/1201	
	testo 410i	TA-2016/1200	
	testo 510i	TA-2016/1199	
	testo 549i	TA-2016/1198	
	testo 605i	TA-2016/1204	
	testo 805i	TA-2016/1206	
	testo 905i	TA-2016/1205	
Bluetooth SIG List	Bluetooth®		Range 15 m (free field) (varies with the used mobile device)
	Bluetooth® type		LSD Science & Technology Co., Ltd
			L Series BLE Module (08 Mai 2013) based on TI
			CC254X chip
	Qualified Design ID		B016552
	Bluetooth® radio class		Class 3
	Bluetooth® company ID		10274

IC Warnings
This instrument complies with Part 15C of the FCC Rules and
Industry Canada RSS-210 (revision 8). Commissioning is subject to the following two conditions:

1. This instrument must not cause any harmful interference and
2. this instrument must be able to cope with interference, even if this has undesirable effects on operation.

FCC Warnings
Information from the FCC (Federal Communications Commission)
For your own safety
Shielded cables should be used for a composite interface. This is to ensure continued protection against radio frequency interference.
FCC warning statement

This equipment has been tested and found to comply with the limits for a Class C digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is ncouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cable must be used in order to comply with the emission limits.
Warning
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Module Lierda LSD4BT-S37

Product	testo 115i, testo 549i, testo 605i
Mat.-No.	0560 2115, 0560 2549, 0560 2605
Date	23.04.2021

The use of the wireless module is subject to the regulations and stipulations of the respective country of use, and the module may only be used in countries for which a country certification has been granted. The user and every owner has the obligation to adhere to these regulations and prerequisites for use, and acknowledges that the re-sale, export, import etc. in particular in countries without wireless permits, is his responsibility.

Country	Comments	
Australia		E 1561
Brazil	testo 605i:	04852-19-04701
	testo549i:	04853-19-04701
	testo 115i	04851-19-04701
Canada	Product IC ID: testo 115i: IC: 6127B-05602115 testo 549i: IC: 6127B-05602549 testo 605i: IC: 6127B-05602605 see IC Warnings	
China	testo 115i: CMIIT ID: 2020DJ5843	

	testo 549i: CMIIT ID: 2020DJ5838 testo 605i: CMIIT ID: 2020DJ5782
Europa + EFTA	CE The EU Declaration of Conformity can be found on the testo homepage **www.testo.com** under the product specific downloads. EU countries: Belgium (BE), Bulgaria (BG), Denmark (DK), Germany (DE), Estonia (EE), Finland (FI), France (FR), Greece (GR), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovakia (SK), Slovenia (SI), Spain (ES), Czech Republic (CZ), Hungary (HU), United Kingdom (GB), Republic of Cyprus (CY). EFTA countries: Iceland, Liechtenstein, Norway, Switzerland WEEE Reg. no.: DE 75334352
India	Authorized
Malaysia	Type Approval Code: testo 115i: RGJP/21A/0321/S(21-1021) testo 549i: RGJP/19A/0321/S(21-1022) testo 605i: RGNH/02A/0321/S(21-1024)
South Africa	testo 115i: TA-2019/546 testo 549i: TA-2019/548 testo 605i: TA-2019/547
Turkey	Authorized

UAE	testo 605i: ER78468/20
USA	testo 115i: WAF-05602115 testo 549i: WAF-05602549 testo 605i: WAF-05602605 see FCC Warnings
Bluetoothe Information	<table><tr><th>Feature</th><th>Values</th></tr><tr><td>Bluetooth® range</td><td>Open air: typical 100 m</td></tr><tr><td>radio type</td><td>Bluetooth® Low Energy (BLE) 4.2</td></tr><tr><td>Bluetooth® radio class</td><td>1</td></tr><tr><td>Bluetooth® company</td><td>LSD Science & Technology Co., Ltd Lierda LSD4BT_S37</td></tr><tr><td>RF Band</td><td>BT LE: 2402 – 2480MHz</td></tr><tr><td>power output</td><td>BT LE: 16.94dBm</td></tr></table>
Bluetooth® SIG List	<table><tr><th>Feature</th><th>Values</th></tr><tr><td>Declaration ID</td><td>D043363</td></tr><tr><td>member company</td><td>Testo SE & Co. KGaA</td></tr></table>

IC Warnings

RSS-Gen & RSS-247 statement:
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Caution: Radio Frequency Radiation Exposure
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets the IC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person´s body in normal use position to ensure compliance with RF exposure requirement.

Co-Location:
This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC Warnings
Information from the FCC (Federal Communications Commission)

For your own safety
Shielded cables should be used for a composite interface. This is to ensure continued protection against radio frequency interference.

FCC warning statement
This equipment has been tested and found to comply with the limits for a Class C digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cable must be used in order to comply with the emission limits.

Warning
This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Caution: Radio Frequency Radiation Exposure
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person´s body in normal use position to ensure compliance with RF exposure requirement.

Co-Location:
This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Mat.-No.	0560 2115 55 0560 2549 55 0560 2605 55

Country	Comments
Japan	Contains Lierda S37 BLE module

	see Japan Information			
South Korea	testo 115i: R-R-TTT-testo115i testo 549i: R-R-TTT-testo549i testo 605i: R-R-TTT-testo605i see KCC Warning			
Bluetooth® Information		Feature	Values	
		Bluetooth® range	up to100m (328 feet) (free field	
		power output	9.37dBm	

Product	testo 552i
Mat.-No.	0564 1552
Date	18.05.2021

The use of the wireless module is subject to the regulations and stipulations of the respective country of use, and the module may only be used in countries for which a country certification has been granted. The user and every owner has the obligation to adhere to these regulations and prerequisites for use, and acknowledges that the re-sale, export, import etc. in particular in countries without wireless permits, is his responsibility.

Country	Comment
Australia	E 1561
Brazil	05188-21-04701 See Brazil Information
Canada	IC ID: 6127B-05641552 See IC Warnings
China	CMIIT ID: 2021DJ5269
Europa + EFTA	The EU Declaration of Conformity can be found on the testo homepage www.testo.com under the product specific downloads. **EU countries:** Belgium (BE), Bulgaria (BG), Denmark (DK), Germany (DE), Estonia (EE), Finland (FI), France (FR), Greece (GR), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands

	(NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovakia (SK), Slovenia (SI), Spain (ES), Czech Republic (CZ), Hungary (HU), United Kingdom (GB), Republic of Cyprus (CY). **EFTA countries:** Iceland, Liechtenstein, Norway, Switzerland  WEEE Reg. no.: DE 75334352
Hongkong	Authorized
Malaysia	Type Approval Code: RGQU/01A/0321/S(21-1019)
South Africa	TA-2020/8013
Turkey	Authorized
USA	FCC ID: WAF-05641552 See  FCC Warnings

Bluetooth® Information		Feature	Values	
		Bluetooth® range	up to150m (490 feet) (free field	
		radio type	Bluetooth® Low Energy (BLE) 4.2	
		company	LSD Science & Technology Co., Ltd Lierda LSD4BT_S37	
		RF Band	2402 – 2480MHz	
		power output	15.22dBm	
Bluetooth® SIG Listing		Feature	Values	
		Declaration ID	D043363	
		member company	Testo SE & Co. KGaA	

IC Warnings
CAN ICES-003(B)/NMB-003(B):
This Class B digital apparatus complies with Canadian ICES-003.
RSS-Gen & RSS-247 statement:
This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Caution: Radio Frequency Radiation Exposure
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets the IC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person´s body in normal use position to ensure compliance with RF exposure requirement.

Co-Location: This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC Warnings

Information from the FCC (Federal Communications Commission)

For your own safety

Shielded cables should be used for a composite interface. This is to ensure continued protection against radio frequency interference.

FCC warning statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cable must be used in order to comply with the emission limits.

Warning

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Caution: Radio Frequency Radiation Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person´s body in normal use position to ensure compliance with RF exposure requirement.

Co-Location:

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Mat.-No.	0564 1552 55
Country	Comments
Japan	Contains Lierda S37 BLE module see Japan Information
South Korea	R-R-te2-05641552 See KCC Warning
Bluetooth® Information	

Mat.-No.	564155255
Country	Comments
Japan	Contains Lierda S37 BLE module R 201-200983 see Japan Information
South Korea	R-R-te2-05641552 See KCC Warning
Bluetooth® Information	**Feature** / **Values** Bluetooth® range / up to100m (328feet) (free field power output / 9.37dBm

Product	testo 915i
Mat.-No.	0560 1915
Date	29.10.2021

The use of the wireless module is subject to the regulations and stipulations of the respective country of use, and the module may only be used in countries for which a country certification has been granted.
The user and every owner has the obligation to adhere to these regulations and prerequisites for use, and acknowledges that the re-sale, export, import etc. in particular in countries without wireless permits, is his responsibility.

Country	Comments
Australia	 E 1561
Brazil	 14309-21-04701 See Brazil Information
Canada	IC ID: 6127B-05601915 See ISED Warnings
China	CMIIT ID: 2021DJ5252
Europa + EFTA	CE The EU Declaration of Conformity can be found on the testo homepage **www.testo.com** under the product specific downloads. **EU countries:** Belgium (BE), Bulgaria (BG), Denmark (DK), Germany (DE), Estonia (EE), Finland (FI), France (FR), Greece (GR), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Sweden (SE), Slovakia (SK), Slovenia (SI), Spain (ES), Czech Republic (CZ), Hungary (HU), United Kingdom (GB), Republic of Cyprus (CY).

	EFTA countries: Iceland, Liechtenstein, Norway, Switzerland  WEEE Reg. no.: DE 75334352
Hongkong	Authorized
Malaysia	Type Approval Code: RGOF/05A/0321/S(21-1025)
Turkey	Authorized
USA	 FCC ID: WAF-05601915 See FCC Warnings
Bluetooth® Information	

Feature	Values
Bluetooth® range	up to150m (490 feet) (free field)
radio type	Bluetooth® Low Energy (BLE) 4.2
company	LSD Science & Technology Co., Ltd Li erda LSD4BT_S37
RF Band	2402 – 2480MHz
power output	13.70dBm

Bluetooth® SIG Listing		Feature	Values	
		Declaration ID	D043363	
		member company	Testo SE & Co. KGaA	

EU SAR Information
The SAR limit of Europe is 2.0 W/kg. The highest SAR value reported for 0560 1915 under testing standard for use in hand is 0.275W/kg.
This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.
ISED Warnings
CAN ICES-003(B)/NMB-003(B):
This Class B digital apparatus complies with Canadian ICES-003.
RSS-Gen & RSS-247 statement:
This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

ISED SAR warning:
The highest SAR value reported under this standard during product certification for use in the hand is 0.450W/kg.
Co-Location:
This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.
FCC Warnings
Information from the FCC (Federal Communications Commission)
For your own safety
Shielded cables should be used for a composite interface. This is to ensure continued protection against radio frequency interference.
FCC warning statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cable must be used in order to comply with the emission limits.
Warning
This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

FCC SAR warning:
The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification of 0560 1915 (FCC ID:WAF-05601915) for use when properly worn in the hand is 0.450 W/kg.
Co-Location:
This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

<table>
<tr><td>Mat.-No.</td><td>564155255</td></tr>
<tr><td>Country</td><td>Comments</td></tr>
<tr><td>Japan</td><td>Contains Lierda S37 BLE module
R 201-200983
see Japan Information</td></tr>
<tr><td>South Korea</td><td>R-R-te2-05641552 See KCC Warning</td></tr>
<tr><td>Bluetooth® Information</td><td>
<table>
<tr><th>Feature</th><th>Values</th></tr>
<tr><td>Bluetooth® range</td><td>up to100m (328feet) (free field</td></tr>
<tr><td>power output</td><td>9.37dBm</td></tr>
</table>
</td></tr>
</table>

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E-Mail: info@testo.de
Internet: www.testo.com
0970 4901 en 10 – 05.2023

Documents / Resources

	testo 510i Smart Probes Pressure Gauge [pdf] Instruction Manual 510i Smart Probes Pressure Gauge, 510i, Smart Probes Pressure Gauge, Probes Pressure Gauge, Pressure Gauge, Gauge

References

- Testo, Inc | Leading innovator in state-of-the-art measuring technology
- Testo, Inc | Leading innovator in state-of-the-art measuring technology

- Anatel — Agência Nacional de Telecomunicações

Manuals+,