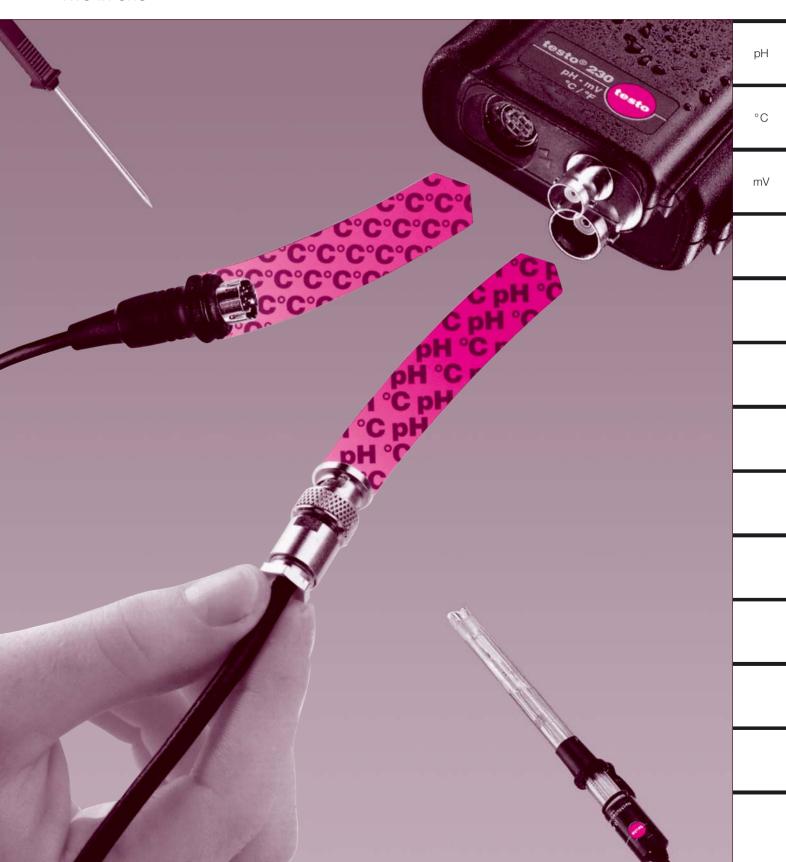


pH measurement plus temperature measurement

Two in one



The company

For the past 40 years testo AG has been developing, producing and distributing electronic measuring instruments and probes on a worldwide basis for

- temperature
- humidity
- velocity
- flue gas
- hydrology
- water analysis

The continuous research and further development of our products is always customer-orientated!



Worldwide distribution

Our accurate measuring instruments leave Lenzkirch for destinations throughout the world. With subsidiaries in Australia, Austria, Belgium, China/Hong Kong, France, Great Britain, Italy, Japan, The Netherlands, Spain, USA and sales representatives in the rest of the world, our measuring instruments have found successful markets throughout the five continents.

A high level of quality

The DIN EN ISO 9001 test certificate is a confirmation of Testo's high level of workmanship.

Fully-qualified service

We offer our customers qualified advice and assistance even after the sale of a product. Our world wide sales network always guarantees quick support.



Our objectives

A high level of quality, a favourable price/quality relationship and a customer-friendly service have made us one of the market leaders in portable, electronic measuring instruments.

All important industrial sectors use our highly-valued measuring instruments.

We offer practical instruments for water analysis for each application and price range.

Should you wish to effect measurements without printing the data, the following instruments from the low-cost Compact Class are ideal:

testo 230: measures pH value,

temperature and redox

testo 240: measures conductivity

and temperature

The compact alternative



The most important features:

- pH and temperature measuring instrument in one
- easy to use
- pH/°C electrodes are conneted via one plug-in connection

display latest probe technology for practically

every

large two line

proof (IP 54)

rugged and splash-

Practical measurements

The testo 230 is a complete pH measuring instrument as well as an accurate thermometer.

The pH value and temperature are not only measured with just one probe, but are also only connected to the measuring instrument via one single BNC compatible connection. This facilitates the use of the instrument considerably.

The second probe connection enables the NTC temperature probes from the testo 110 measuring instrument to be connected to the testo 230 instrument, i.e. the highly-resistant laboratory probe, the rugged, stainless steel food probe, the immersion/penetration probe, air probe and surface probe.

pH electrodes for every application

Accurate pH measurements in aqueous solutions such as acids and electrolyte are no problem with the type 01 pH, 02 pH and 04 pH electrodes.

The type 05 pH electrode has proved to be particularly suited to critical environments. The diaphragms usually used (very small pores) become blocked when used in suspensions, emulsions or solutions with proteins. The new obstruction-free single pore diaphragm (a large pore) guarantees:

- fewer problems with dirt/pollution
- high accuracy
- shorter response times

The type 03 pH electrode is ideal for penetration measurements solids or semi-solids. The hole diaphragm (a very large pore) is of



Technical data

testo 230 instrument

Measuring range 0 to 14 pH –50 to +150 ° C ± 1999 mV Resolution 0.01 pH 0.1 ° C (° F) 1 mV Accuracy ±0.01 pH ±0.4 ° C (-50 to -25.1 ° C) ± 1 digit ±0.2 ° C (-25 to +74.9 ° C) ±0.4 ° C (+75 to +99.9 ° C) $\pm 0.5 \%$ of m.v. (+ 100 to + 150 ° C) ± 1 mV (0 to ±999 mV) $\pm 2 \, mV \, (\pm 1000 \, to \, \pm 1999 \, mV)$ man -10 to +150 ° C **Temperature** auto -50 to +150 ° C compensation 0 to +40 ° C Operating temperature Storage/transport temp. – 20 to +70 ° C Display two lines •BNC compatible socket Connections for pH or pH/° C • mini DIN socket for temp. probe (testo 110) **Battery life** approx. 100 h Weight 170 g (incl. battery) • IP 54 Other • ° C/° F conversion housing material ABS Auto-off switch

Electrodes for aqueous solutions



Universal electrode type 01 pH: low-cost robust plastic electrode with gel electrolyte, thus practically maintenance-free.

Application range 0 to 60 °C (briefly: 80 °C)
Connection fixed cable with BNC street Diameter of shaft 12 mm



Laboratory electrode type 02 pH: highlyaccurate glass electrode with excellent chemical resistance. Long life as liquid electrolyte can be refilled. Incl. standard ground sleeve adapter, immersion cap.

Measuring range pH 0 to 14 Application range 0 to 80 °C (briefly: 100 °C) standard plug-in head S7 Connection Diameter of shaft



Universal electrode type 04 pH: robust plastic electrode with temperature sensor. Gel electrolyte, thus practically maintenance-free. Incl. standard ground sleeve adapter and immersion cap

pH 0 to 14 0 to 60 ° C 0 to 60 ° C Measuring range **Application range**

(short-term to +80°C) Connection fixed cable (BNC compatible)

Diameter of shaft

problems with dirt, high accuracy in critical environments and short response time due to single pore diaphragm. Incl. standard ground sleeve adapter and immersion cap.

pH 0 to 14 0 to 60 ° C Measuring range 0 to 60 ° C Application range Connection fixed cable (BNC compatible)
Diameter of shaft 12 mm

Warrantv

Measuring instrument 24 months

*for manufacturing faults

pH electrode for soft substances and semi-solids



Penetration electrode type 03 pH: highly-accurate glass electrode with solidified electrolyte suitable for use in food, short response times, insensitive to dirt due to hole diaphragm. Incl. standard ground sleeve adapter and immersion cap.

Measuring range pH 2 to 14 Application range0 to 40 ° C (briefly: 60 °C)
Connection standard plug-in head S7 Connection standard plug-in head S7
Length of measuring tip 35 mm

Ø Measuring tip

Penetration electrode type 13ph: with break-proof plastic coating around the glass electrode and food-proof electrolyte. Not affected by dirt thanks hole diaphragm. Incl. immersion cap

Measuring range pH 2 to 14 Application range Connection 0 to 40 ° C fixed cable with BNC

Redox electrode

Redox electrode type 06 mV: rugged glass electrode, insensitive to electrode poisoning due to two chamber system.
Incl. standard ground sleeve adapter and

immersion cap. ± 2000 mV Measuring range 0 to 80 Application range Connection st standard plug-in head S7 Diameter of shaft

Temperature probes (NTC)

Immersion/penetration probe type 02 T: for all applications

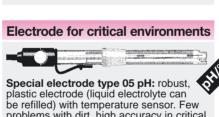
Measuring range -50 to +150 ° C Response time t99 10 sec. Length of probe shaft 110 mm Ø Probe shaft 4 mm

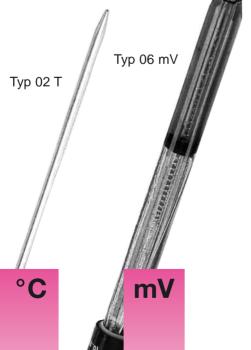
Robust food penetration probe with special handle, IP65, reinforced cable (PUR) and reinforced protection against buckling

Measuring range -50 to +150 ° C Response time to 7 sec. Length of probe shaft 115 mm Ø Probe shaft 5 mm (at the top 3,5 mm)

Food probe type 22 T: boilproof, waterresistant, completely out of V4A and robust

Measuring range -50 to +150 ° C Response time t99 10 sec. 125 mm Length of probe shaft Ø Probe shaft 4 mm (at the top 3 mm)













Ordering data

Photocopy this page, indicate the article and quantity you wish to order and fax your order to us. **Do not forget to add your name and address!**

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Signature

	Quantity Description	Part no.
Meas. inst.	testo 230 meas. instrument for pH, °C, mV (incl. 9 V battery, 2 electrode clips)	0560.2304
Electrodes for aqueous solutions	Universal electrode type 01 pH, practically maintenance-free	0650.0623 0650.1223 0650.0823
Electrode for critical envi- ronments	Special electrode type 05 pH, insensitive to dirt/pollution	0650.1623
pH electro- des for solids and semi-solids	Penetration electrode* type 03 pH, insensitive to dirt/pollution	0000.0220
Redox electrode	Redox electrode* type 06 mV, insensitive to dirt/pollution	0650.2523
Temperature probe	Immersion/penetration probe type 02 T, for all applications	0613.2411
	Electrode cable S7-BNC, for connecting electrodes with plug-in head to instrument	0554.2314 0554.2321 0554.2320
	DIN buffer set 4,008/6,865 (250 ml each), for calibration according to DIN in acidic range DIN buffer set 6,865/9,180 (250 ml each), for calibration according to DIN in alcaline range Storage solution (50 ml) for electrodes	
Electrode accessories	type 01 pH, 02 pH, 04 pH, 06 mV (refill solution for type 02 pH)	
0000001165	Storage and refill solution (50 ml) for electrodes type 05 pH	0554.2319 0554.2333
Case	Set case for testo 230, probes and accessories	0516.0230

Subject to change without notice.

Universal Set

consists of **testo 230**, battery, 2 electrode clips set pH 4, 7 (50 ml each), universal electrode **type 04 pH**, instruction manual, set case

Part no. 0563.2305

Affordable Set

consists of **testo 230**, battery, 2 electrode clips, buffer set pH 4, 7 (50 ml each), universal electrode **type 01 pH**, instruction manual, set case

_ Part no. 0563.2307

Food Set

consists of **testo 230**, battery, 2 electrode clips, buffer set pH 4, 7 (50 ml each), penetration electrode **type 03 pH**, 50 ml storage solution, S7-BNC electrode cable, food probe **type 22 T**, instruction manual, set case

_ Part no. 0563.2306

Food Set for solid/semi-solid food

consists of **testo 230**, battery, 2 electrode clips; buffer set pH 4, 7 (50 ml each), penetration electrode **typ 13 pH**; food penetration probe with special handle, IP 65, reinforced cable (PUR) and reinforced protection against buckling, set case

Part no. 0563.2308