

Hand-held thermometer Model CTH6200

WIKA data sheet CT 51.01



for further approvals
see page 3

Applications

- Calibration service companies and service industry
- Measurement and control laboratories
- Industry (laboratory, workshop and production)
- Quality assurance

Special features

- Pt100 probes for -50 ... +250 °C (-58 ... +482 °F)
- Accuracy: < 0.2 K (complete measuring chain)
- Integrated data logger
- GSoft data logger evaluation software available
- Incl. calibration certificate



Hand-held thermometer model CTH6200

Description

Extensive application possibilities

The model CTH6200 hand-held thermometer is suitable for all precise temperature measurement tasks and impresses with its simple operation. Its design makes it especially suitable for the commissioning, maintenance and service/calibration of temperature instruments and equipment.

Functionality

The digital indicator is the central functional unit of the hand-held temperature measuring instrument and provides the option to connect Pt100 temperature probes of the CTP62x0 series.

Both immersion and penetration probes are available from stock, along with an extensive range of accessories. Customer-specific probes are available on request.

An integrated data logger and various other functions (such as Min, Max, Hold or Alarm) ensure that the hand-held thermometer can be used for many different applications.

Its simple operation, very handy design and low weight round off the convenience of this hand-held temperature measuring instrument.

Complete test and service cases

For the secure transportation and storage of the instrument and accessories, a rugged service case is available as a sensible addition. The service case can carry up to two model CTH6200 digital indicators and several temperature probes, or the case is available with a model CPH6200 hand-held pressure indicator as well.

Certified accuracy

For each temperature probe, the accuracy for the complete measuring chain is certified by a factory calibration certificate which accompanies the instrument. On request, we can provide a DKD/DAkkS calibration certificate for this instrument.

Specifications

Model CTH6200

Hand-held thermometer model CTH6200 (complete measuring chain)	
Measuring inputs	1
Probe type	Pt100 (4-wire)
Measuring range	-50 ... +250 °C (-58 ... +482 °F)
Resolution	0.01 K up to 200 °C (392 °F); then 0.1 K
Accuracy of the measuring chain ¹⁾	0.2 K (optional: increased accuracy through specific adjustment)

1) The accuracy applies for the respective indicator-probe combination following adjustment and calibration, that is the deviation between reference and CTH6200.

Digital indicator model CTH6200	
Display	
Display	Large LC display for display of values and additional information
Indication range	-99.99 ... +99.99 °C or -199.9 ... +650.0 °C (-99.99 ... +99.99 °F or -199.9 ... +999.9 °F) (dependent on temperature probe)
Temperature units	°C, °F
Nominal temperature	25 °C
Temperature drift	≤ 0.002 °C/K
Functions	
Functions via key press	Min/Max memory, Hold, Logger (Start/Stop)
Menu function	Min/Max alarm (audible/visual), automatic Power-Off function [1 ... 120 min], zero point/slope input, data logger settings
Data loggers	- Individual value logger: Up to 99 recordings incl. time via key press - Cyclic logger: Automatic recording of up to 16,200 values incl. time - Cycle time: Selectable from 1 ... 3,600 seconds
Voltage supply	
Power supply	9 V zinc-carbon battery (in scope of delivery), {alternative: 9 V rechargeable battery or mains power supply}
Battery life	approx. 20 hours of operation
Current supply	Slow measuring cycle: < 1.6 mA; fast: < 7.0 mA; low-power logger funct.: < 0.3 mA
Permissible ambient conditions	
Operating temperature	-10 ... +50 °C (14 ... 122 °F)
Storage temperature	-25 ... +70 °C (-13 ... +158 °F)
Relative humidity	0 ... 95 % r. h. (non-condensing)
Communication	
Interface (serial)	RS-232 or USB via special interface cable
Case	
Material	impact-resistant ABS plastic, membrane keyboard, transparent screen
Dimensions	see technical drawings
Weight	approx. 160 g (0.35 lbs)

{ } Items in curved brackets are optional extras for an additional price.

Temperature probe model CTP62x0

Probe characteristics

Sensor type	Immersion and penetration probe
Probe type	Pt100 (4-wire)
Wetted parts	Immersion probe and penetration probe: V4A
Connection to the CTH6200	4-pin mini DIN connector with PVC cable (approx. 1.0 m)






Measuring ranges

Immersion probe CTP6210	-50 ... +250 °C (-58 ... +482 °F)
Penetration probe CTP6290	-50 ... +250 °C (-58 ... +482 °F)

Sensor input

Current supply	Slow measuring cycle: < 1.6 mA; fast: < 7.0 mA; low-power logger funct.: < 0.3 mA
Nominal temperature	25 °C (77 °F)
Temperature drift	≤ 0.002 °C/K

Approvals

Logo	Description	Country
	EC declaration of conformity ■ EMC directive 2004/108/EC	European Community
	EAC ■ Electromagnetic compatibility ■ Low voltage directive	Eurasian Economic Community
	GOST Metrology, measurement technology	Russia
	KazInMetr Metrology, measurement technology	Kazakhstan
	MtschS Permission for commissioning	Kazakhstan
	Uzstandard Metrology, measurement technology	Uzbekistan

Certificates

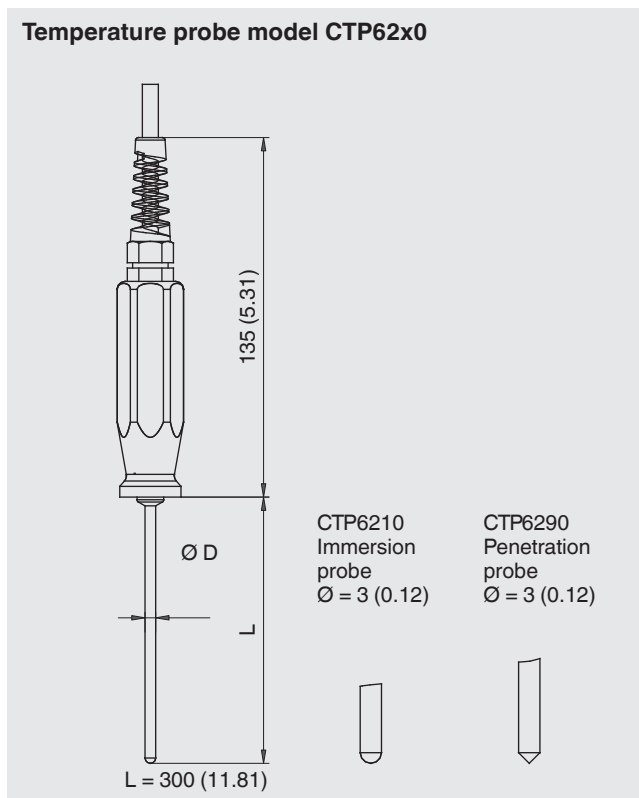
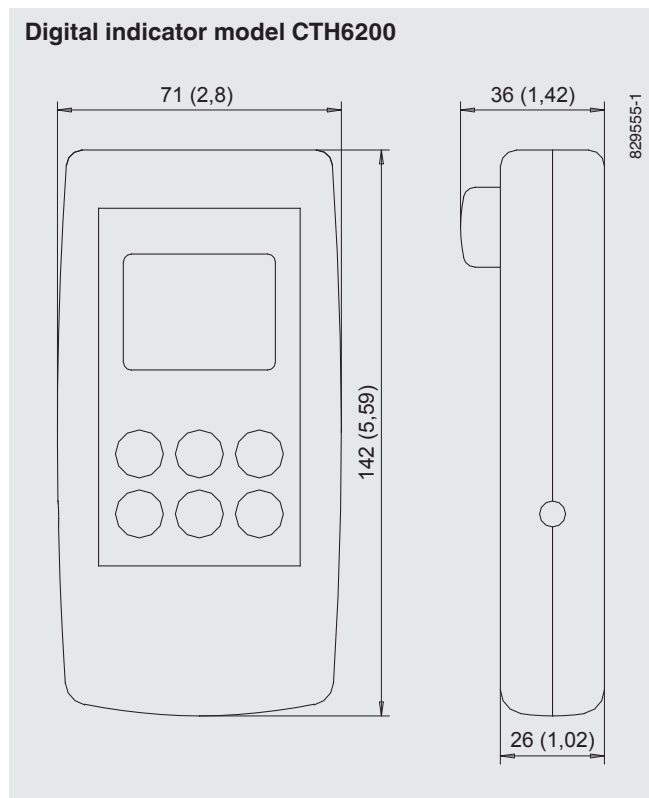
Certificate

Calibration ²⁾	Standard: 3.1 calibration certificate per DIN EN 10204 Option: DKD/DAkS calibration certificate
Recommended recalibration interval	1 year (dependent on conditions of use)

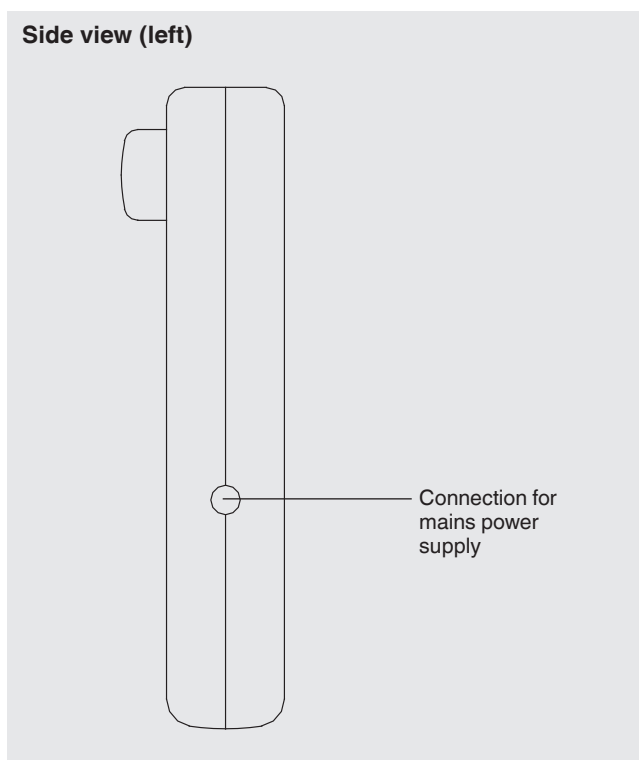
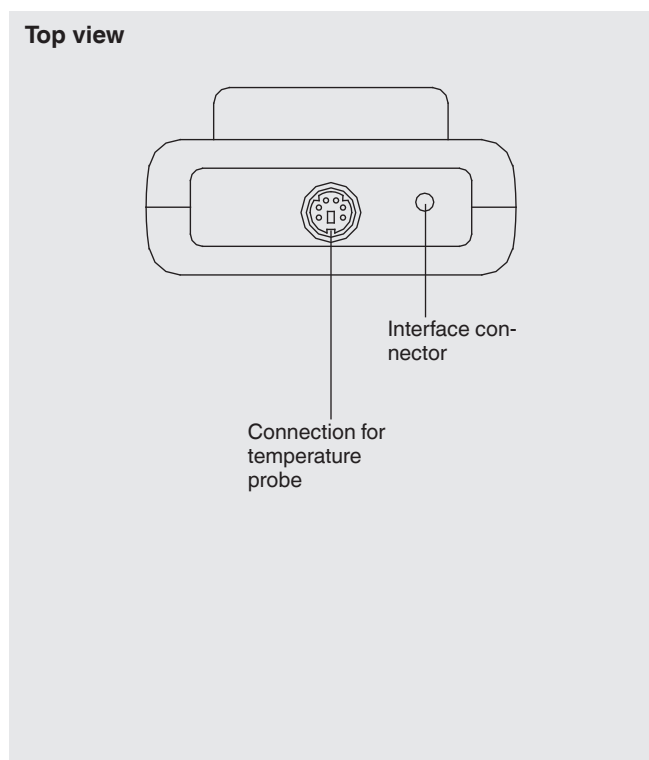
²⁾ Calibration at 23 °C ±2 °C (73.4 °F ±3.6 °F) ambient temperature.

Approvals and certificates, see website

Dimensions in mm (in)

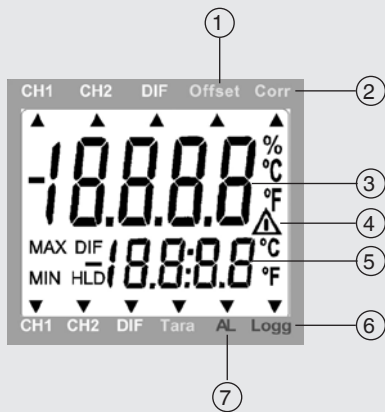


Electrical connections



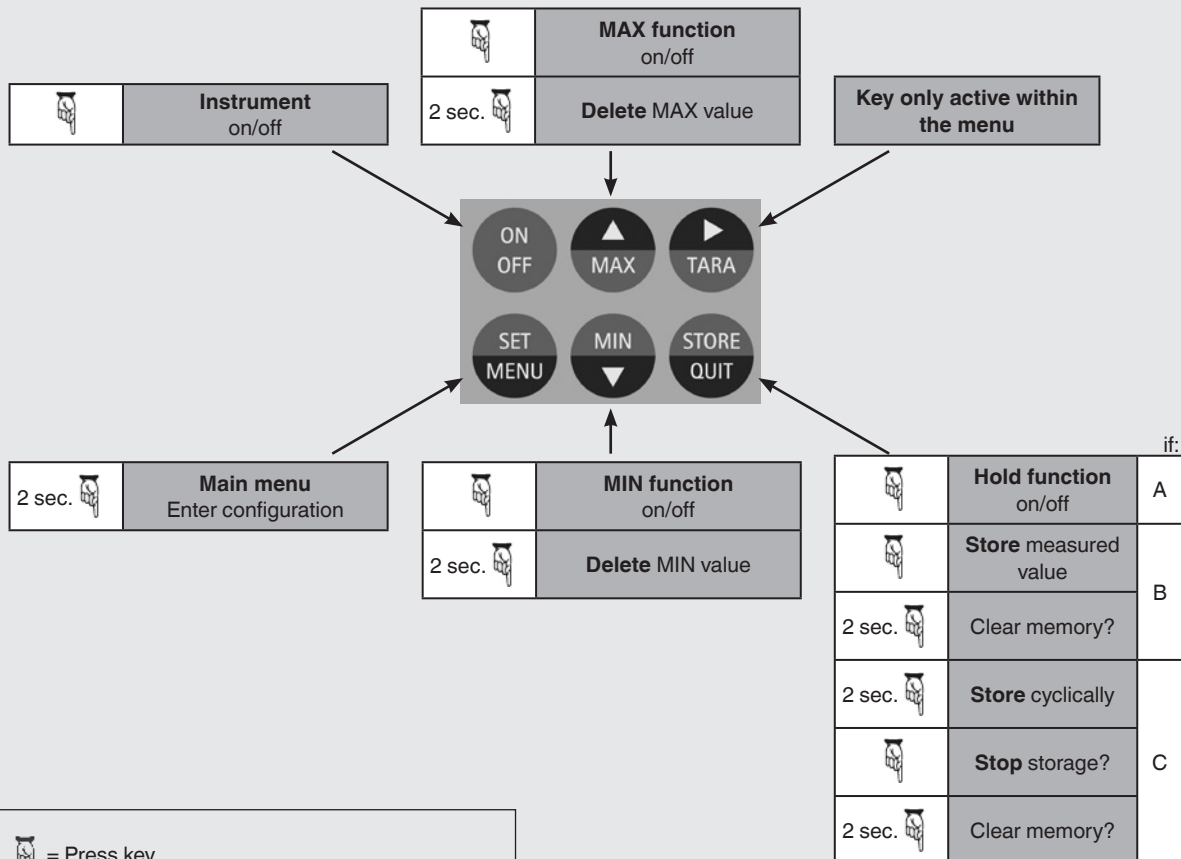
Operating functions model CTH6200

Display



- ① **Offset:** Zero offset is activated
- ② **Corr:** Slope correction is activated
- ③ **Main display:** Current temperature display
- ④ **Symbol:** Indicates a low battery and other warnings
- ⑤ **Secondary display:** Display according to the selected function keys Min, Max or Hold value
- ⑥ **Logg:** Arrow appears, logger function was selected via menu
Arrow blinking: Automatic recording (Logg CYCL) active
- ⑦ **AL:** Indicates an alarm state

Keyboard



= Press key
 2 sec. = Press key for 2 seconds
 For more information: see operating instructions

A = Logger functions deactivated
 B = Logger function "Store measured value" activated via menu
 C = Logger function "Store cyclically" activated via menu

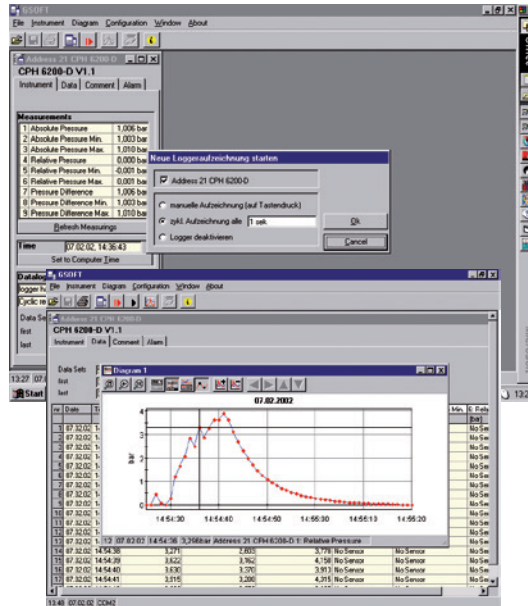
GSoft data logger evaluation software

The GSoft data logger evaluation software is used to display the logger data from the model CTH6200 hand-held thermometer on a PC in tabular form and as a chart.

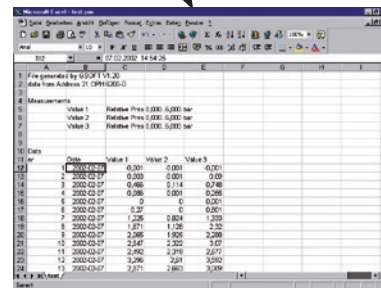
- Easy operation with self-explanatory toolbars
- Data from the pressure and temperature hand-helds can be displayed in a single chart (two separate y-axes)
- Chart offers a zoom function
- Operation of the logger function via PC (remote control)
- Data can be exported (Excel®, etc.)
- Languages: German, English, French, Spanish and Czech

System requirements

- IBM compatible PC (Pentium®)
- At least 20 MB free hard disc space
- CD-ROM drive
- At least 32 MB RAM
- Windows® operating system 95, 98, NT 4.0 (with Service Pack 3.0 or higher), 2000, XP, Vista or 7
- Mouse
- One free serial interface or USB connection (via interface cable)

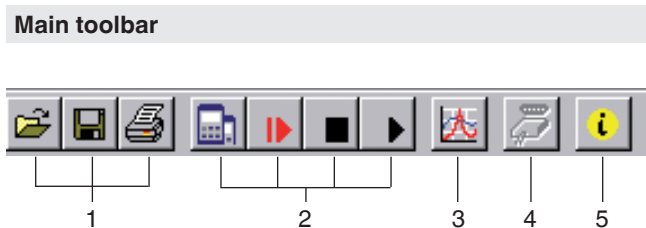


Data export e.g. in an Excel® file

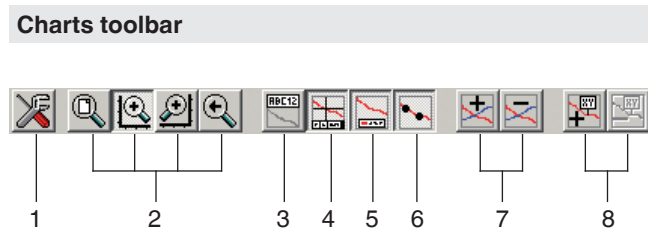


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Easy operation with self-explanatory icon keys



1. File functions: open, save, print
2. Logger functions: Start communication, start logger, stop, read data
3. Data display: Create chart
4. Interface configuration
5. Program information



1. Settings: Grid and colour settings, manual zooms
2. Zoom: All, left or right y-axis (via mouse), back
3. Rename chart
4. Cursor on/off (info footer)
5. Legend on/off
6. (Measuring point) Symbols on/off
7. Measurement series (add/delete)
8. Comments on measuring points (add/delete)

Scope of delivery

- Hand-held thermometer model CTH6200 incl. 9 V battery
- 3.1 calibration certificate per DIN EN 10204
- Choice of temperature probes

Options

- Immersion probe
- Penetration probe
- Other probes on request
- DKD/DAkkS calibration certificate

Accessories

Test case

- Robust transport case
- Various test and service cases

Software

- GSoft data logger evaluation software
- Appropriate interface cable

Voltage supply

- Power supply unit
- Rechargeable battery and battery charger



Example of a service case (temperature and pressure)

Ordering information

Model / Reference temperature probe with handle / Accuracy / Power supply unit / Rechargeable battery and charger / Software / Interface cable / Transport case / Calibration (with factory calibration certificate for 1 probe) / Additional ordering information

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