Hand-held thermometer, industrial version
Model CTH6300
Model CTH63I0, Ex version

for further approvals
see page 2 - 3

Applications

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

Special features

- Accuracy up to 0.1 K (complete measuring chain)
- One- and two-channel versions
- Connection possibilities for various probe types
- Intrinsically safe version Ex ib IIB T4 Gb

Hand-held thermometer, model CTH6300

Description

The all-purpose model CTH6300 hand-held thermometer, for superior mobile temperature measurement, is notable for its flexibility and ease of handling.
In addition to Pt100 resistance thermometers, it can also process signals from typical thermocouples. Thus temperatures from -200 ... +1,500 °C (-328 ... +2,732 °F) can be measured.
The explosion proof version is only for measuring Pt100 resistance thermometers available.

Its design makes it especially suitable for the commissioning, maintenance and service/calibration of temperature instruments and equipment.

Low-drift measuring amplifiers ensure small measurement errors, while easy-to-use adjustment features considerably simplify adjustments and calibrations:
- Calibration by code for fast setting of standard probes via identification numbers
- Physical calibration of probe and display at one, two or three different temperatures

In this way it is possible to reduce measuring errors to a minimum and ensure a high display accuracy.

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 one model CTH6300 digital indicators and several temperature probes.

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.

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Part of your business

Specifications

Hand-held thermometer	Model CTH6300	Model CTH63I0
Probe types	Pt100, thermocouples	Pt100
Measuring inputs	1 or 2	1 or 2
Measuring ranges		
Pt100	-200 ... +600 °C (-328 ... +1,112 °F)	-200 ... +600 °C (-328 ... +1,112 °F)
Thermocouples	-200 ... +1,500 °C (-328 ... + 2,732 °F)	-
Accuracies		
Resistance thermometer type Pt100	0.1 K for -100 ... +200 °C (-148 ... +392 °F) otherwise 0.1 % of reading	0.1 K for -100 ... +200 °C (-148 ... +392 °F) otherwise 0.1 % of reading
Thermocouple types K, J, L, N and T	0.3 K for 0 ... 200 °C (32 ... 392 °F) 1 K for 200 ... 1,000 °C (392 ... 1,832 °F) 1.5 K above 1,000 °C (1,832 °F)	-
Thermocouple types R and S	1 K + 0.1 % of reading	-

Digital indicator	
Display	
Screen	Large 4 1/2-digit 2-line LC display with backlighting
Resolution	0.1 K
Functions	
Measuring rate	4/s ("fast"); 1/s ("slow")
Memory	Min./Max.
Functions via key press	Min./Max. memory, Hold, Tare, Zero-point adjustment
Real-time clock	integrated clock with date
Voltage supply	
Power supply	DC 9 V battery or rechargeable battery
Battery life	approx. 20 hours of operation with battery
Permissible ambient conditions	
Operating temperature	0 ... 40 °C (32 ... 104 °F)
Storage temperature	-10 ... +50 °C (14 ... 122 °F)
Communication	
Interface	USB via interface cable
Case	
Material	impact-resistant ABS plastic, transparent screen
Dimensions (L x W x H)	200 x 93 x 44 mm (7.87 x 3.66 x 1.73 in)
Weight	300 g (0.66 lbs.)

Approvals

Logo	Description	Country
CE	**EU declaration of conformity for CTH6300** ■ EMC directive EN 61326 emission (group 1, class B) and interference immunity (industrial application) ■ RoHS directive	European Union

CE
 	
⟨Ex⟩
	EU declaration of conformity for CTH63I0
	■ EMC directive
	  EN 61326 emission (group 1, class B) and interference immunity (portable test and measuring equipment)
	■ RoHS directive
	■ ATEX directive
	  - Ex i Zone 1 gas II 2G Ex ib IIB T4 Gb
	                              T4 at 0 ... 40 °C
		European Union

Logo	Description	Country
EHI	**EAC** EMC directive	Eurasian Economic Community
☉	**GOST** Metrology, measurement technology	Russia
-	**MTSCHS** Permission for commissioning	Kazakhstan
ß	**KazInMetr** Metrology, measurement technology	Kazakhstan
◉	**UkrSEPRO** Metrology, measurement technology	Ukraine

Certificates

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

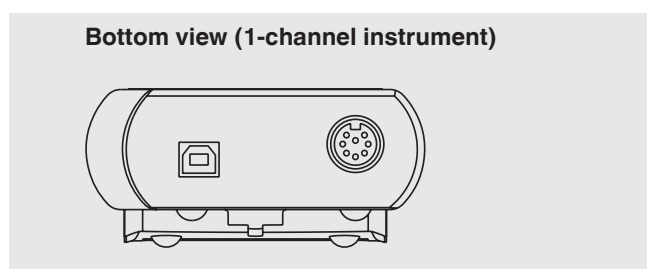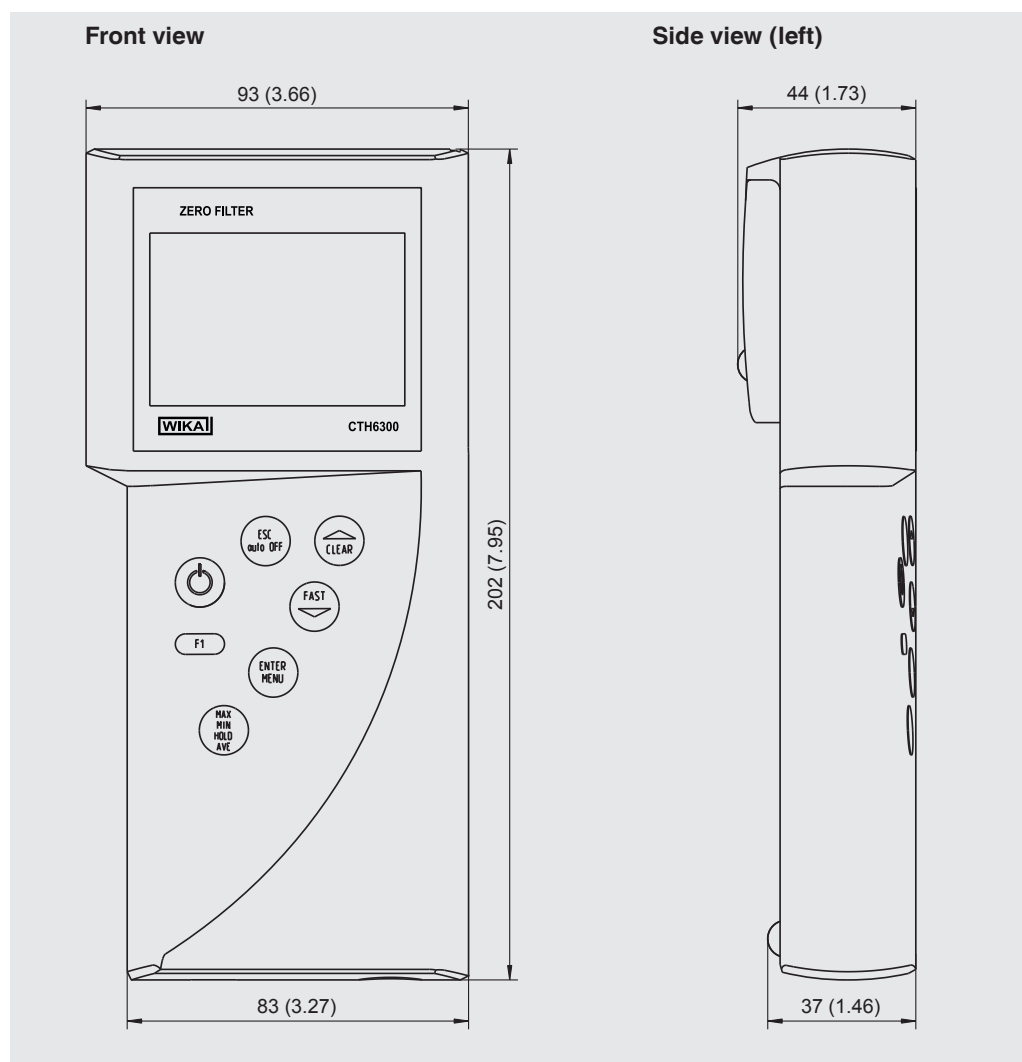Approvals and certificates, see website

Temperature probes

Standard probe (immersion probe)	Temperature range	
	°C	**°F**
Pt100, d = 3 mm, l = 150 mm (d = 0.12 in, l = 5.91 in)	-200 ... +450	-328 ... +842
Pt100, d = 3 mm, l = 300 mm (d = 0.12 in, l = 11.81 in)	-200 ... +450	-328 ... +842
Pt100, d = 6 mm, l = 300 mm (d = 0.24 in, l = 11.81 in)	-200 ... +450	-328 ... +842
TC K, d = 3 mm, l = 300 mm (d = 0.12 in, l = 11.81 in)	-100 ... +1,100	-148 ... +2,012
TC K, d = 3 mm, l = 500 mm (d = 0.12 in, l = 19.69 in)	-100 ... +1,100	-148 ... +2,012

Fig. left: Penetration probe
Fig. right: Immersion probe

Dimensions in mm (in)

Hand-held thermometer, model CTH6300 and CTH63I0 Ex version

Front view

93 (3.66)

ZERO FILTER

WIKA   CTH6300

ESC auto OFF

CLEAR

FAST

F1

ENTER MENU

MAX MIN HOLD AVE

202 (7.95)

83 (3.27)

Side view (left)

44 (1.73)

37 (1.46)

Bottom view (1-channel instrument)

Features of the hand-held thermometer

- Simple handling
- Large display with dual temperature display and bargraph
- Min./Max. value for monitoring of temperature limits
- Mean value function for statistical evaluation
- "Fast mode" for faster measurements up to 4/s
- Selectable channel can be switched off to improve the clarity of the display data
- Recording and visualisation of temperature cycles with the help of the DE-Graph software
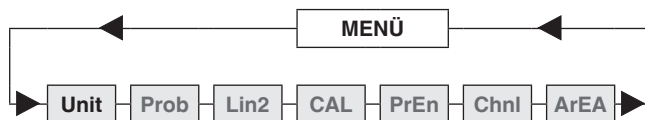
Operation

In the **SETUP** menu, a menu point can be selected and altered using the **UP** and **DOWN** keys. **ENTER** and **ESC** are used for confirmation and exit.

The operator menu is intuitively understandable and is subdivided into only two levels:
Main menu for the selection of the basic functions and parameter menu for setting the parameters.

① Probe holder
② Connection port 1 for temperature probe
③ Connection port 2 for temperature probe
④ USB connection port for PC
⑤ Keyboard
⑥ Large LC display

MENÜ

| Unit | Prob | Lin2 | CAL | PrEn | Chnl | ArEA |

Main menu for CTH6300

Unit	Prob	Lin2	CAL	PrEn	Chnl	ArEA
°C	P	T1-T2	OFF	OFF	OFF	c
°F	J		oP1	ON	ON	m
m/s	K		oP2			
%rh	L					
g/m³	N					
°C td	R					
°F td	S					
Pa	T					
hPa	RH					
m³/s	D					
	Pr					
	H					

Parameter menu for CTH6300

Scope of delivery

- Model CTH6300 hand-held thermometer incl. 9 V battery or model CTH63I0 intrinsically safe hand-held thermometer incl. 9 V battery
- 3.1 calibration certificate per DIN EN 10204
- Choice of temperature probes

Option

- DKD/DAkkS calibration certificate

Accessories

Temperature probes
- Immersion probe
- Penetration probe
- Customer-specific probes are available on request
- Adapter for thermocouples, DIN on TC miniature connector
- Spare DIN connector for the probe

Voltage supply
- AC adapter
- 9 V rechargeable battery and charger
- 9 V battery

Test case
- Transport case, robust
- Case set with rechargeable battery, charger, power supply unit, interface cable and software
- Case set with power supply unit AC 100 ... 260 V, interface cable and software

Software
- DE-Graph software
- PC adapter cable USB

Service case

Intrinsically safe hand-held thermometer, model CTH63I0

Ordering information

Model / Version / Probe at input 1 / Probe at input 2 / Service case / Calibration / Additional ordering information

09/2017 EN