Intrinsically-safe hand-held pressure indicator (ATEX version)
Model CPH62I0-S1 (1-channel version)
Model CPH62I0-S2 (2-channel version)

Applications

- Calibration service companies and service industry
- Measurement and control laboratories
- Quality assurance

Special features

- Digital instrument with interchangeable pressure sensors (plug and play)
- Measuring ranges from 0 ... 100 mbar to 0 ... 1,000 bar
- Accuracy 0.2 %, optional 0.1 % (incl. calibration certificate)
- Intrinsically safe version Ex ib IIC T4
- GSoft data-logger evaluation software, EasyCal Light calibration software and complete service cases (incl. pumps) available

Hand-held pressure indicator model CPH62I0-S1 with optional model CPT62I0 reference pressure sensor

Description

Extensive application possibilities

Stainless steel pressure sensors with ranges up to 1,000 bar are available for the CPH62I0 digital instrument. It is therefore particularly suitable as a test instrument for applications such as process engineering, chemical industry, refineries, etc..
This digital instrument automatically detects the range of the connected pressure sensor and guarantees high-precision pressure measurement.

Functionality

As well as pressure sensors for both gauge and absolute pressure, with the 2-channel version, the CPH62I0-S2, with two pressure sensors connected, differential pressure can also be measured. The selectable pressure units are bar, mbar, psi, Pa, kPa, MPa, mmHg or inHg.
An integrated data logger and various functions (such as Min, Max, Hold, Tare, Offset correction, Alarm, Power-off, 3 different Sample rates, Sea level, etc.) ensure that the instrument can be used for many different applications.

Complete test and service cases

For maintenance and service applications, various service cases are available. Available options range from pressure service cases either with or without a pressure pump, connection adapters, etc., to combinations with the model CTH6200 hand-held thermometer.

Software

In addition to the GSoft data-logger evaluation software for the tabular and graphical representation of the logger data, EasyCal Light calibration software for calibration functions is also available.

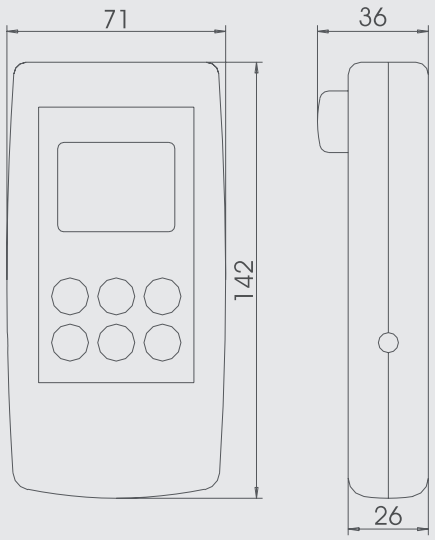
Certified accuracy

For each reference pressure transmitter, the accuracy for the complete measuring chain is certified by a factory calibration certificate which accompanies the instrument.
On request, we are also pleased to provide a DKD/DAkkS calibration certificate for the instrument from our own DKD/DAkkS laboratory.

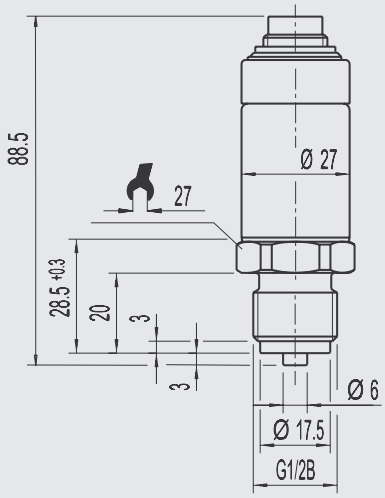
Data sheets showing similar products and accessories:
Hand-held pressure indicator; model CPH6200; see data sheet CT 11.01
Hand-held thermometer; model CTH6200; see data sheet CT 51.01
Test pumps, hydraulic; CPP series; see data sheet CT 91.05
Hand pump, pneumatic; model CPP30; see data sheet CT 91.06
Calibration software; EasyCal; see data sheet CT 95.01

Dimensions in mm

Digital instrument CPH62I0



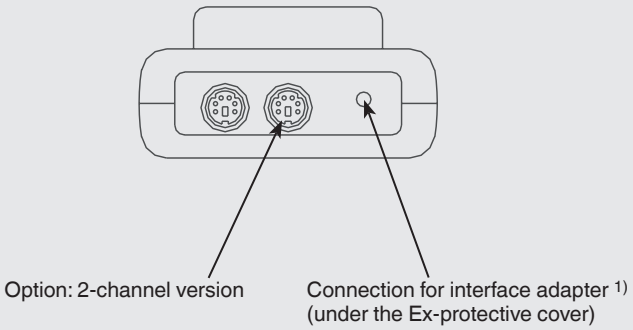
Reference pressure sensor CPT62I0



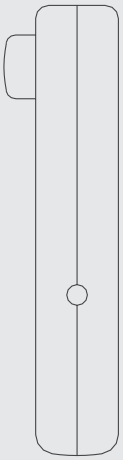
Note: The CPH62I0 intrinsically-safe version in a protective leather case has no rubber base on the back.

Electrical connections to the digital instrument

Top view



Side view (left)



1) For the CPH62I0 intrinsically-safe version, the use of the serial interface and power supply unit is only permitted outside the hazardous area.

Specifications		CPH62I0 hand-held indicator (complete measuring chain)										
Measuring inputs		1 input for CPH62I0-S1					2 inputs for CPH62I0-S2					
Measuring range 1)	bar	0.1	0.16	0.25	0.4	0.6	1.0	1.6	2.5	4.0	6.0	10
Overpressure safety	bar	1	1.5	2	2	4	5	10	10	17	35	35
Burst pressure	bar	2	2	2.4	2.4	4.8	6	12	12	20.5	42	42
Resolution (max.)		dependent on pressure range										
Measuring range 1)	bar	16	25	40	60	100	160	250	400	600	1,000	
Overpressure safety	bar	80	50	80	120	200	320	500	800	1,200	1,500	
Burst pressure	bar	96	250	400	550	800	1,000	1,200	1,700	2,400	3,000	
Resolution (max.)		dependent on pressure range										
Type of pressure		gauge pressure {absolute pressure from 0.25 up to 16 bar & vacuum ranges on request}										
Measurement uncertainty for the measuring chain		0.2 % FS ± 1 digit at reference temperature of 20 °C; optional: 0.1 %										
Display		Large LCD screen for display of 2 values and additional information										
Scale range		maximum -19999 up to 19999, depending on sensors used										
Pressure units		bar, mbar, psi, Pa, kPa, MPa, mmHg and inHg (depending on the measuring range, freely selectable)										

Specifications		CPH62I0 digital instrument
Functions via keypad		Min/Max memory, Hold, Tare, Offset correction, Logger (Start/Stop)
Functions via menu		Min/Max Alarm (visual), Sea level (barom. air pressure), Power-Off function, Measuring rate: 4/sec ("slow"); > 1000/sec ("fast"); > 1000/sec unfiltered ("peak-detect") [via "peak-detect" pressure peaks of 1.5 msec duration can be detected in the min/max memory]
Data logger		- discrete value logger: up to 99 recordings incl. time via key press - cyclic logger: automatic recording of up to 10,000 values incl. time - cycle time: selectable from 1 ... 3,600 seconds
Interface (serial) 2)		RS-232 or USB via special interface cable
Analogue output 2)		0 ... 1 V; configurable (activated over serial interface, alternatively via menu)
Power supply		9 V zinc-carbon battery (in scope of delivery)
Current consumption		slow measuring cycle: < 1.6 mA; fast: < 7.0 mA; Low-power logger funct.: < 0.3 mA
Permissible		
■ Ambient temperature	°C	-10 ... +50
■ Relative humidity	% r. H.	0 ... 95 (non-condensing)
■ Storage temperature	°C	-20 ... +70
Case		Impact-resistant ABS plastic, membrane keypad, transparent screen, with protective leather case
Weight	g	approx. 160
Connection values		
■ Max. voltage	DC V	U_O = 10.38
■ Max. strenght of current	mA	I_O = 93
■ Max. power	mW	P_O = 240
■ Max. effective internal capacitance	nF	C_O = 1240
■ Max. effective internal inductance		L_O negligible
CE conformity		
■ EMC directive		2004/108/EC, EN 61326 Emission (Group 1, Class B) and Immunity (portable equipment)
■ ATEX directive		94/9/EC, Category 2G, Ignition protection type Ex ib IIC T4

Specifications		CPT62I0 reference pressure sensor
Pressure connection 1)		G ½ B; {flush diaphragm (G 1 for 0.1 up to 1.6 bar) or various connection adapters on request}
Material		
■ Wetted parts		Stainless steel or Elgiloy®, (> 25 bar additionally with NBR seal) Flush diaphragm version: stainless steel {Hastelloy C4}; O-ring: NBR 3) {FKM/FPM or EPDM}
■ Internal transmission fluid		Synthetic oil, (only for pressure ranges up to 16 bar or flush diaphragm) {Halocarbon oil for oxygen applications}; {Listed by FDA for food industry}
One year stability		0.2 % of span at reference conditions
Permissible		
■ Medium temperature 1)	°C	-20 ... +50 (T4)
■ Ambient temperature	°C	-20 ... +50 (T4)
■ Storage temperature	°C	-40 ... +80
Ingress protection		IP 67 (Sensor) / IP 54 (Plug)
Compensated range	°C	0 ... 70
Temperature coefficients		
■ Mean TC of zero		0.2 % / 10 K (< 0.4 for pressure ranges < 250 mbar)
■ Mean TC of span		0.2 % / 10 K
Power supply circuit		
■ Max. voltage	DC V	U_i = 10.4
■ Max. strenght of current	mA	I_i = 93
■ Max. power	mW	P_i = 500
■ Max. effective internal capacitance	nF	C_i = 600
■ Max. effective internal inductance		L_i negligible
CE conformity		
■ Pressure equipment directive		97/23/EC
■ EMC directive		2004/108/EC, EN 61326 Emission (Group 1, Class B) and Immunity (portable equipment)
■ ATEX directive		94/9/EC, Category 2G, Ignition protection type Ex ib IIC T4
Connection to the CPH62I0		via 1 m connection cable (plug and play); optional: up to 5 m
Weight	g	approx. 220

1) For oxygen version, a flush diaphragm model is not available. In an oxygen version, the model CPT62I0 is only available in gauge pressure ranges ≥ 0.25 bar, with media temperatures between -10 … +50 °C and using stainless steel or Elgiloy® wetted parts.
2) For the intrinsically safe version, the serial interface and analogue output must not be used within the hazardous area.
3) O-ring from FKM/FPM or EPDM for flush diaphragm with integrated cooling element.
{} Items in curved brackets are optional extras for an additional price.

Operation of the model CPH62I0-S1 and CPH62I0-S2 hand-held pressure indicators

1- and 2-channel version with external pressure sensors

Display

An arrow points to the selected measuring unit.

Main display shows the current measured value of channel 1 (CH1).

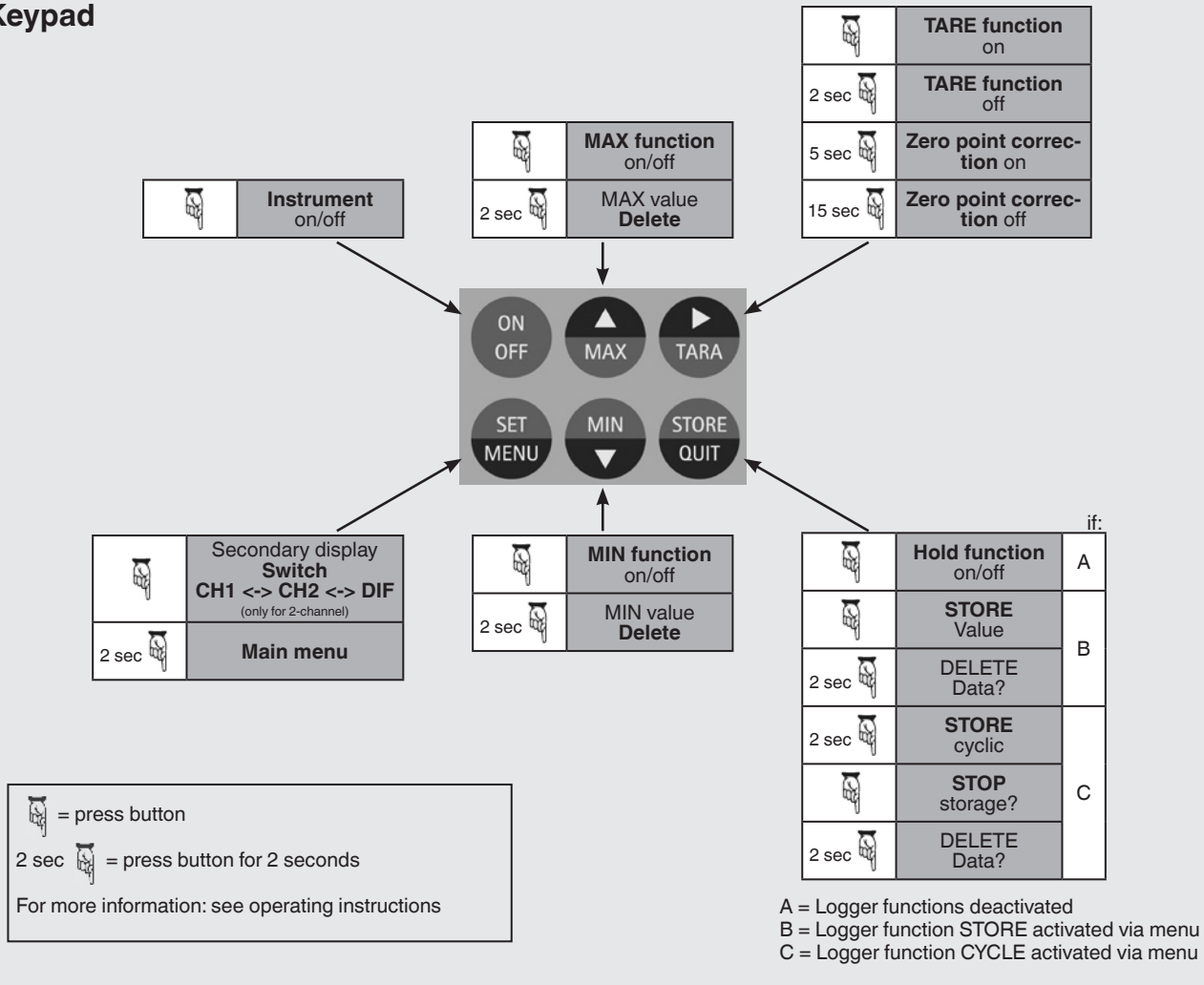
Secondary display shows the ...

- Measured value of CH2 or DIF (CH1-CH2) for 2-channel version
- Min, Max or Hold value for 1-channel version with function key pressed

An arrow above

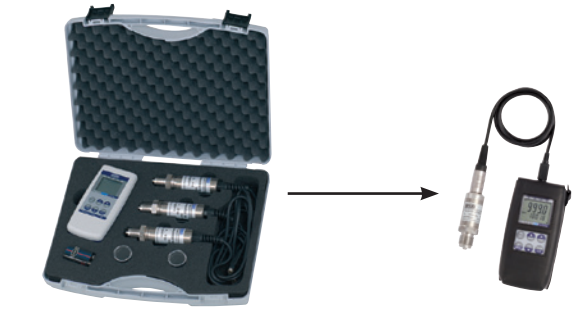
- **Logg:** appears when logger function is selected, flashes if cyclic logger is running.
- **Tare:** indicates that the tare function is activated.
- **SL:** indicates that the sea level function is activated.

Keypad



A = Logger functions deactivated
B = Logger function STORE activated via menu
C = Logger function CYCLE activated via menu

Complete test and service cases



Basic version

Calibration case with model CPH62I0 hand-held pressure indicator for pressure, consisting of:

- Plastic service case with foam insert
- Hand-held pressure indicator model CPH62I0
- 9 V replacement battery
- Various seals
- Sensor cable
- Space for different CPT62I0 reference pressure sensors

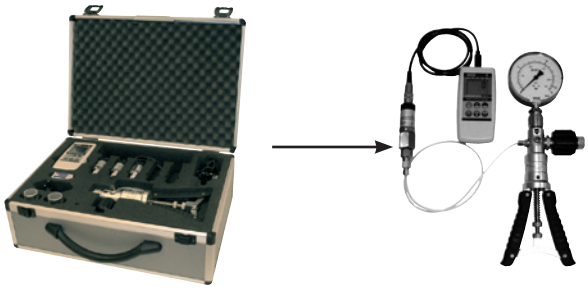
Available pressure ranges: see specifications on page 3.

Equipment freely selectable

Calibration case for pressure and/or temperature (equipment freely selectable), consisting of:

- Transport case with foam insert and space for max. 2 hand-held pressure indicators/thermometers, several CPT62I0 reference pressure sensors, 2 temperature sensors and battery

For further specifications, see data sheet CT 51.01.

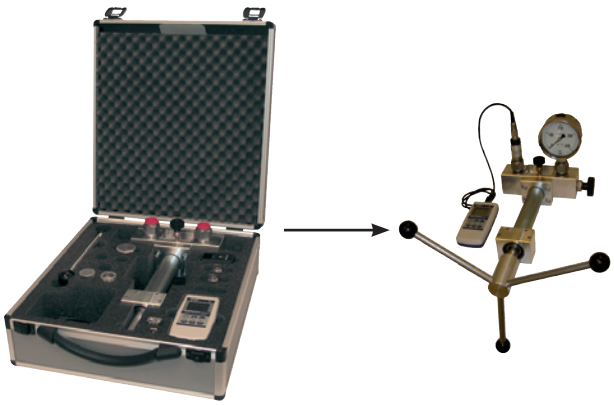


Basic version incl. pneumatic pressure generation

Calibration case with model CPH62I0 hand-held pressure indicator and model CPP30 hand test pump for pressures of -0.95 up to +35 bar, consisting of:

- Transport case with model CPH62I0 hand-held pressure indicator
- Pneumatic hand test pump model CPP30, -0.95 ... +35 bar
- Various seals
- Sensor cable
- Space for different CPT62I0 reference pressure sensors

Available pressure ranges: see specifications on page 3.



Basic version incl. hydraulic pressure generation

Calibration case with model CPH62I0 hand-held pressure indicator and model CPP1000-L hand spindle pump for pressures of up to 1,000 bar, consisting of:

- Transport case with model CPH62I0 hand-held pressure indicator
- Hydraulic hand spindle pump model CPP1000-L, up to 1,000 bar
- Various seals
- Sensor cable
- Space for different CPT62I0 reference pressure sensors

Available pressure ranges: see specifications on page 3.

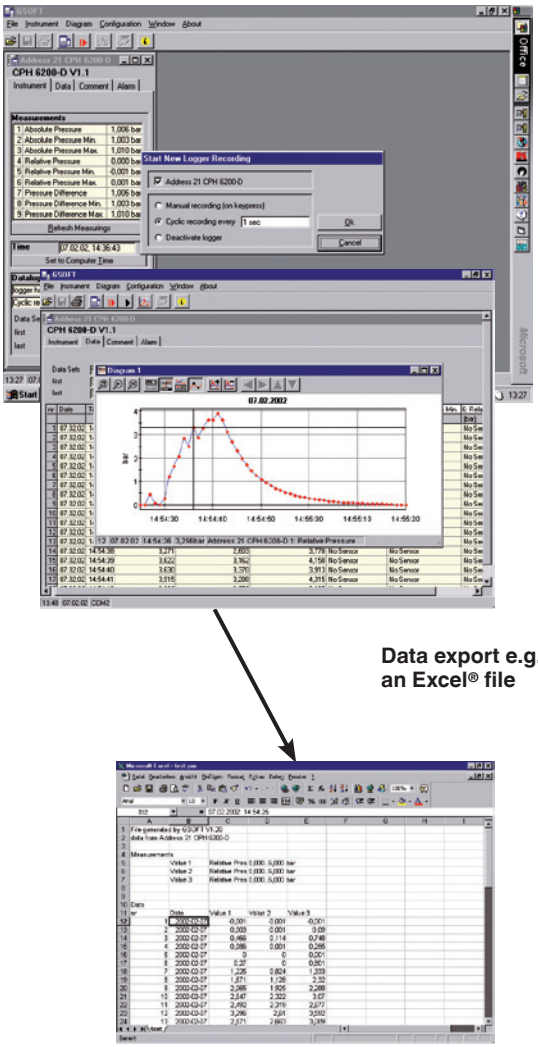
GSoft data-logger evaluation software

The GSoft data-logger evaluation software is used to display the logger data (from the model CPH6200/CPH62I0 hand-held pressure indicators and/or the model CTH6200 hand-held thermometers) on a PC in tabular form and as charts.

- Easy operation with self-explanatory icon buttons
- Data from the pressure and temperature hand-helds can be displayed in a single chart (2 separate y-axes)
- Charts offer a zoom function
- Operation of the logger function via PC (remote control)
- Data can be exported (Excel®, etc.)
- Languages: German/English/French/Spanish

System requirements

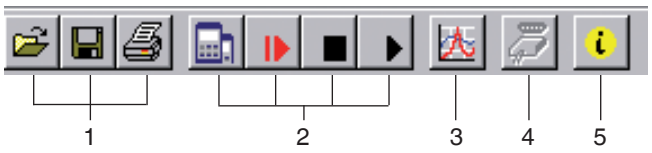
- IBM compatible PC (Pentium®)
- At least 20 MB free hard disc space
- CD-ROM drive
- At least 32 MB RAM
- Windows® operating system 95, 98, 2000, XP, Vista, Windows 7 or NT 4.0 (with Service Pack 3.0 or higher)
- Mouse
- One free serial port or USB-Port (via interface cable)



Data export e.g. in an Excel® file

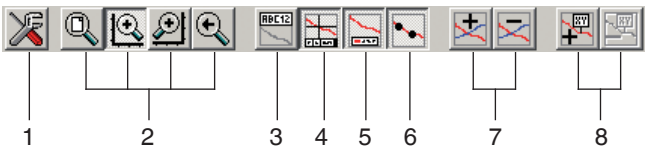
Easy operation with self-explanatory icon buttons

Main toolbar



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

Charts toolbar



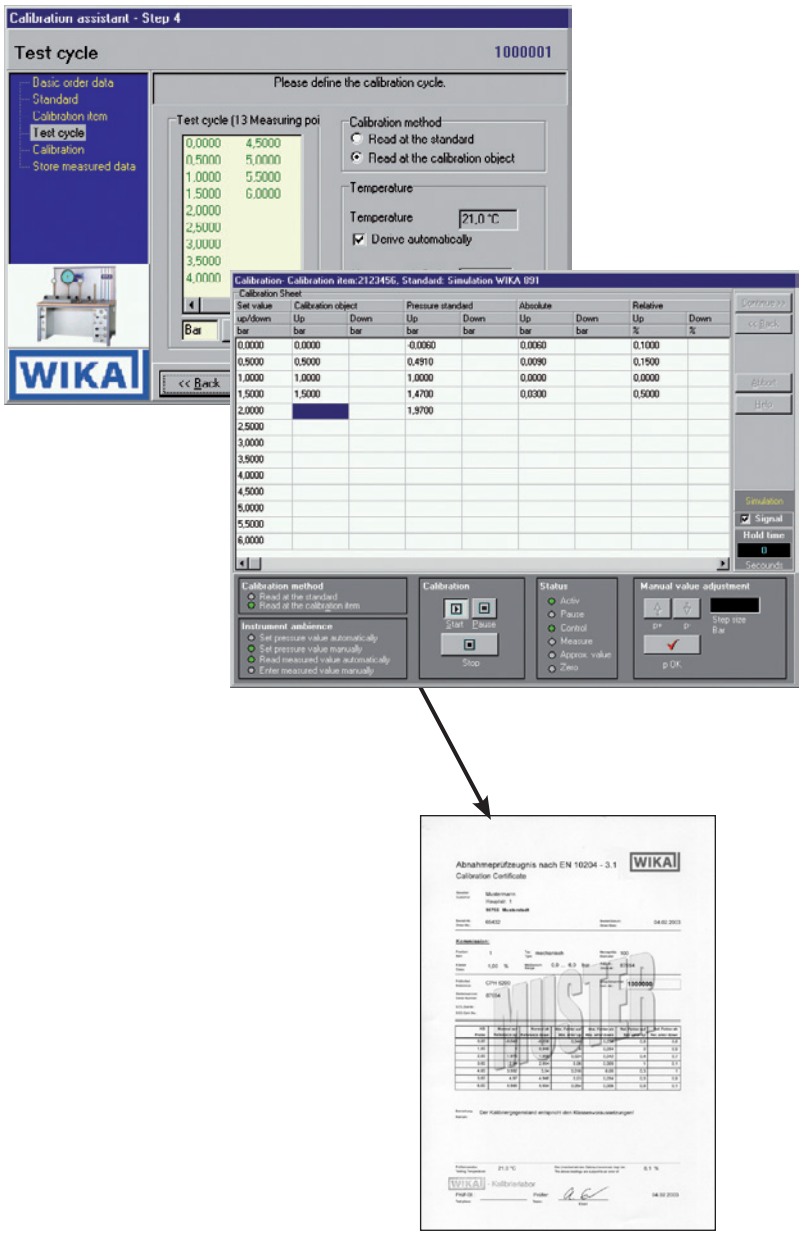
1. Settings: Grid and colour settings, manual zooms
2. Zoom: all, left or right y-axes (via mouse), back
3. Rename chart
4. Cursor on/off (info footer)
5. Legend on/off
6. (Measuring point) Symbol on/off
7. Measurement series (add/delete)
8. Comments on measuring points (add, delete)

EasyCal calibration software

The WIKA EasyCal calibration software is used for the calibration (inspection equipment monitoring) of mechanical and electronic pressure measuring instruments in accordance with DIN ISO 9000ff.

- A calibration-assistant guides you through the calibration
- User-friendly interface
- Automatic generation of the calibration steps in accordance with DIN EN 837-1
- Generation of 3.1 certificates in accordance with DIN EN 10204
- Customer-specific test reports possible (Access report-designer)
- Calibration data storage and instrument management via Access database
- Languages: German/English/Spanish/French

Free demo version available



Scope of delivery

- CPH62I0-S1: Intrinsically-safe version EX ib IIC T4 or ATEX directive 94/9/EC incl. 9 V block battery
- One sensor connection cable per channel
- 3.1 calibration certificate in accordance with DIN EN 10204
- Choice of sensors

Options

- CPH62I0-S2: 2-channel version (differential pressure measurement possible via 2 connected CPT62I0 reference pressure sensors)
- CPH6200 (see data sheet CT 11.01)
- DKD/DAkkS certified accuracy of 0.2 % or 0.1 %
- Sensors for oxygen applications

Hand-held pressure indicator model CPH62I0-S2 with two model CPT62I0 reference pressure sensors

Accessories

Connection adapters
- Various pressure adapters
- "Minimess" Quick-Connect process connection system

Pressure generation
- Pneumatic test pumps
- Hydraulic test pumps
- Integral reservoir and pressure hoses

Test cases
- Measuring cases
- Various calibration cases incl. test pump

Software
- GSoft data-logger evaluation software for model CPH6200/CPH62I0/CTH6200
- EasyCal Light calibration software for model CPH6200/CPH62I0

Products and services within our calibration technology programme

- DKD/DAkkS calibration services for pressure
- Repair of calibration units of all makes
- Portable pressure measuring devices for test and calibration tasks
- Precision pressure measuring instruments and pressure controllers
- Primary standards for pressure
- Testing technology system solutions
- DKD/DAkkS calibration services for temperature
- Portable measuring instruments and calibrators
- Temperature dry well calibrators
- Calibration baths and ovens
- Precision thermometers
- Primary standards for temperature
- Consulting and training

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