

USER MANUAL

WATER LEVEL CONTROLLER

PCE-WLC 10

ENGLISH



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:
www.pce-instruments.com

TECHNICAL SPECIFICATIONS

- 1 - Input signal: Thermocouple: B,S,K,E,T,J,WRe ... etc;
 - » Thermal resistance: PT100,Cu50, Cu10 ... etc;
 - » Voltage: 0 ... 5V, 1 ... 5V, 0 ... 10V;
 - » Current: 0 ... 10mA, 0 ... 20mA, 4 ... 20mA;
 - » Linear resistance: 0 ... 4000.

- 2 - Output function: Analog output: Voltage or current(Optional);
 - » Communication output: RS485;
 - » Supports 2-way or 4-way relay output.

- 3 - Accuracy: 0.5%FS(Default)

- 4 - Measuring range: -1999 ... 9999 measurement value display

- 5 - Power method: DC24V (switch power supply);
 - » AC220V (linear power supply).

- 6 - Display type: -1999 ... 9999 measurement value display;
 - » -999 ... 9999 set value display;
 - » Current channel AH and AL alarm value display;
 - » Led working status display;
 - » High brightness LED digital display.

- 7 - Output signal: DC 0 ... 10mA (Load resistance:≤750 Ω);
 - » DC 4 ... 20mA (Load resistance:≤500 Ω);
 - » DC 0 ... 5V (Load resistance:≤250 Ω);
 - » DC 1 ... 5V (Load resistance:≤250 Ω).
 - »

- 8 - Switch output: Relay controls output (AC220V /3A,DC24V /5A)
- 9 - Alarm type: 2-way relay alarm output, LED indicator.

- 10 - setting method: Panel touch button digital setting;
 - » Set value stored permanently after power off;
 - » Password lock the parameter settings.

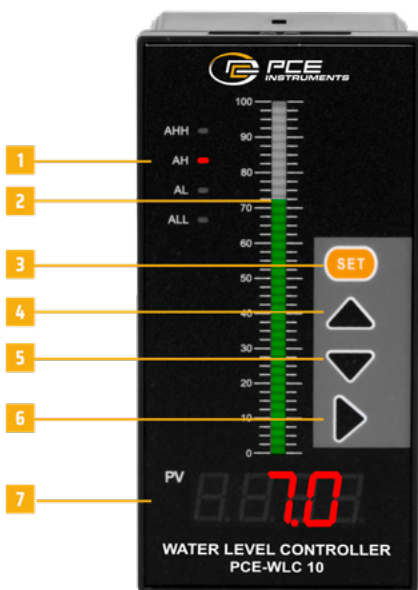
- 11 - Power consumption: ≤3W (DC24V switch power supply)
- 12 - ≤5W (AC220 linear power supply)
- 13 - Usage ambient: Temperature: 0 ... 50°C
- 14 - Relative humidity: ≤85RH

OVERALL DIMENSION & OPENING DIMENSION

Panel size	LED size	Overall dimension	Opening dimension (mm)
48*48	0.36,, (red)	48*48*110 (square)	45*45
48*96	0.39,, (red)	48*96*110 (vertical)	45*92
96*48	0.52,, (red)	96*48*110 (horizontal)	92*45
72*72	0.52,, (red)	72*72*110 (square)	68*68
96*96	0.80,, (red)	96*96*110 (square)	92*92
80*160	0.52,, (red)	80*160*93 (vertical)	76*152
160*80	0.80,, (red)	160*80*93 (horizontal)	152*76

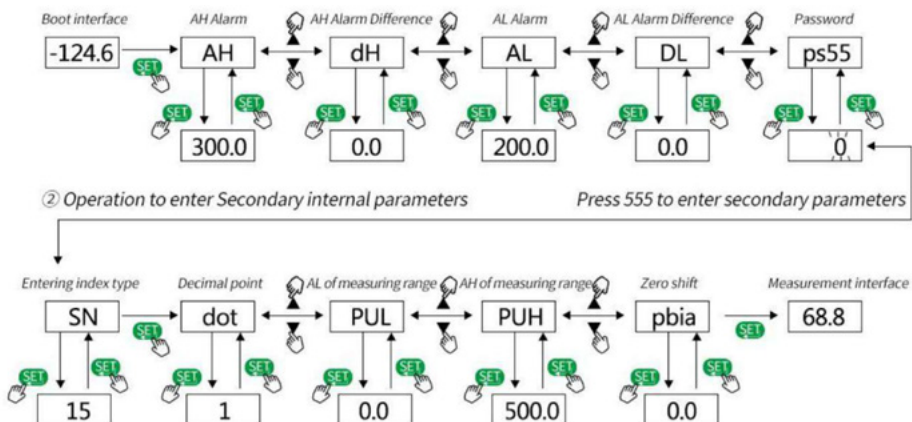
PANEL OPERATING INSTRUCTIONS

1 - Alarm indicator	AH(Alarm of High),AL(Alarm of Low), AHH(Alarm of High High),ALL(Alarm of Low Low),
Alarm indicator will light up if the 4-way relay alarm has output.	
2 - Beam	0%~100% matches with the percentage of measuring range
3 - Set key	In the parameters setting state, save the parameters. Press three seconds to enter the setting state.
4 - Increase key	In the parameters setting state, press to increase. View parameters internally clockwise
5 - Decrease key	In the parameters setting state, press to decrease. View parameters internally counterclockwise.
6 - Shift key	In the parameter setting state, press to shift the flashing cursor.
When customize buzzer alarm, it can be used as mute button	
7 - Display screen	Display real-time measurement value, internal state display, parameter symbol.



- 1 - ALARM INDICATOR
- 2 - BEAM
- 3 - SET KEY
- 4 - INCREASE KEY
- 5 - DECREASE KEY
- 6 - SHIFT KEY
- 7 - DISPLAY SCREEN

OPERATION FLOW CHART



Setting key points

- » Press **SET** to enter setting; press **SET** to conserve; use **INCREASE KEY**; **DECREASE KEY**; **DISPLAY SCREEN** enter password and parameters setting values.
- » Press **SHIFT KEY** to move the cursor; press **DECREASE KEY** to move to next page clockwise, or decrease the setting value; press **INCREASE KEY** to move to next page counterclockwise, or increase the setting value.

PRIMARY CONTROL PARAMETERS

- » (How to enter primary control parameters, please refer to the Operation flow chart)

Symbol	Function	Range	Explanation	Explanation Default
AH	AH Alarm Value	-1999 ... 9999	Show the Alarm Value of AH Alarm	300.0 or 50.0
dH	AH Alarm Difference	0 ... 9999	Show the Difference Value of AH Alarm	0.0 or 2.0
AL	AL Alarm Value	-1999 ... 9999	Show the Alarm Value of AL Alarm	200.0 or 100.0
dL	AL Alarm Difference	0 ... 9999	Show the Alarm Difference of AL Alarm	0.0 or 2.0
AHH	AHH Alarm Value	-1999 ... 9999	Show the Alarm Value of AHH Alarm	400.0 or 50.0
dHH	AHH Alarm Difference	0 ... 9999	Show the Alarm Difference of AHH Alarm	0.0 or 2.0
ALL	ALL Alarm Value	-1999 ... 9999	Show the Alarm Value of ALL Alarm	100.0 or 50.0
dLL	ALL Alarm Difference	0 ... 9999	Show the Alarm Difference of ALL Alarm	0.0 or 2.0
pass	Secondary menu password	Pass=555	Enter the secondary menu setting	0

SECONDARY INTERNAL PARAMETERS

» (How to enter secondary internal parameters, please refer to the Operation flow chart. DO NOT modify it if you're not engineer, to avoid instrument control error)

Symbol	Function	Range	Explanation
Sn	Entering index type	0 ... 22	Entering index type (As the following table shows)
dot	Decimal point	dot=0 dot=1 dot=2 dot=3	no Decimal point is in ten digit (XXX.X) Decimal point is in hundred digit (XX.XX) Decimal point is in thousand digit (X.XXX)
pul	AL of measuring range	-1999 ... 9999	Set the AL measuring range of input signal
puh	AH of measuring range	-1999 ... 9999	Set the AH measuring range of input signal

pbia	Zero shift	Full range	Set the migration of input zero
filt	Filter coefficient	0.100 ... 0.900	Setting can't exceed 0.900
Kl	Display input scale	0 ... 1.999 times	Set display input scale magnificatio
ou-a	Transmit output	ou-a=1(0 ... 10mA) ou-a=2(4 ... 20mA) ou-a=3(0 ... 20mA)	Linear output of corresponding measured value
ou-l	Transmit/Al of beam range	Full range	
ou-h	Transmit/AH of beam range	Full range	
ph	AH alarm type	Hundred digit: 0 monitor PV Ten digit: 0 alarm, relay close, lalarm, relay open One digit: 0 stop alarming, 1 High alarm, 2 Low alarm	Factory default is 0001

pbia	Zero shift	Full range	Set the migration of input zero
pl	AL alarm type	Definition as same as ph	Factory default is 0002
phh	AL alarm type	Definition as same as ph	Factory default is 0001
pll	ALL alarm type	Definition as same as ph	Factory default is 0002
inph	Max value of non-standard signal	10~100mv, 10~400 Ω 2~300Hz,	Factory default is 100.0
inpl	Min value of non-standard signal	0~90mv, 0~390 Ω 0~298Hz,	Factory default is 0.0
baud	Communication baud rate	0=1200bps, 1=2400bps, 2=4800bps, 3=9600bps,	Usually the communication speed will be chose 3=9600bps.
id	Communication address	1~64	NO. Of equipment address

ENTERING INDEX TYPE TABLE

Code	Input type	Measuring range	Code	Input type	Measuring range
00	S	0 ... 1600 °C	12	-----	Optional
01	R	0 ... 1600 °C	13	0 ... 10mA	-999 ... 9999
02	B	200 ... 1800 °C	14	0 ... 20mA	-999 ... 9999
03	K	0 ... 1300°C	15	4 ... 20mA	-999 ... 9999
04	N	0 ... 1300 °C	16	mV non-standard signal	0 ... 100mV
05	E	0 ... 800°C	17	R non-standard signal	0 ... 400 Ω
06	J	0 ... 650°C	18	F non-standard signal	0 ... 300Hz
07	T	-200 ... 400 °C	19	0 ... 5V root	-999 ... 9999
08	PT100	-200 ... 850 °C	20	1 ... 5V root	-999 ... 9999
09	Cu50	-50 ... 150 °C	21	0 ... 10mA root	-999 ... 9999
10	0 ... 5V	-999 ... 9999	22	4 ... 20mA root	-999 ... 9999
11	1 ... 5V	-999 ... 9999	23	Full switch input	

DISPOSAL

For the disposal of batteries in the EU, the (EU) 2023/1542 directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose. In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law. For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations. If you have any questions, please contact PCE Instruments.

PCE INSTRUMENTS CONTACT INFORMATION

Germany

PCE Deutschland GmbH
Im Langel 26
D-59872 Meschede
Deutschland
Tel.: +49 (0) 2903 976 99 0
Fax: +49 (0) 2903 976 99 29
info@pce-instruments.com
www.pce-instruments.com/deutsch

France

PCE Instruments France EURL
2, rue Georges Kuhnmmunch
67250 Soultz-sous-Forêts
France
Tel.: +33 (0) 972 35 37 17
Fax: +33 (0) 972 35 37 18
info@pce-france.fr
www.pce-instruments.com/french

Spain

PCE Ibérica S.L.
Calle Mula, 8
02500 Tobarra (Albacete)
España
Tel.: +34 967 543 548
info@pce-iberica.es
www.pce-instruments.com/espanol

United Kingdom

PCE Instruments UK Ltd
Trafford House
Chester Rd, Old Trafford
Manchester M32 0RS
United Kingdom
Tel: +44 (0) 161 464902 0
Fax: +44 (0) 161 464902 9
info@pce-instruments.co.uk
www.pce-instruments.com/english

Italy

PCE Italia s.r.l.
Via Pesciatina 878 / B-Interno 6
55010 Loc. Gragnano
Capannori (Lucca)
Italia
Telefono: +39 0583 975 114
Fax: +39 0583 974 824
info@pce-italia.it
www.pce-instruments.com/italiano

Turkey

PCE Teknik Cihazları Ltd.Şti.
Halkalı Merkez Mah.
Pehlivan Sok. No.6/C
34303 Küçükçekmece - İstanbul
Türkiye
Tel: 0212 471 11 47
Faks: 0212 705 53 93
info@pce-cihazlari.com.tr
www.pce-instruments.com/turkish

The Netherlands

PCE Brookhuis B.V.
Twentepoort West 17
7609 RD Almelo
Nederland
Telefoon: +31 (0)53 737 01 92
info@pcebenelux.nl
www.pce-instruments.com/dutch

United States of America

PCE Americas Inc.
1201 Jupiter Park Drive, Suite 8
Jupiter / Palm Beach
33458 FL
USA
Tel: +1 (561) 320-9162
Fax: +1 (561) 320-9176
info@pce-americas.com
www.pce-instruments.com/us

Denmark

PCE Instruments Denmark ApS
Birk Centerpark 40
7400 Herning
Denmark
Tel.: +45 70 30 53 08
kontakt@pce-instruments.com
www.pce-instruments.com/dansk



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