

USER MANUAL

POWER QUALITY METER

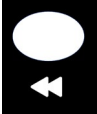
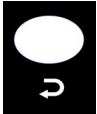
PCE-PA 5500

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

PANEL DESCRIPTION

	Name	Function
	Confirmation key (menu key)	Press and hold this key for three seconds to enter the menu; confirm the modified menu value
	Reduce key	Used in menu operations to enter data modification/menu switching; value reduction/menu switching to the left
	Add key	Used in menu operations to access data modification/menu switching; value increase/menu switching to the right
	Return button	Used in menu operations to return to the previous level

Note: ALM is the alarm light, COM is the communication light

TECHNICAL DATA

Measurement Type	Three phase voltage, current, active and reactive apparent power, power factor, residual current, electrical energy, current demand, maximum demand, temperature (optional)
Rated power supply	100V ... 260V
Measured voltage	L-N 30V ... 264V / L-L 52V ... 460V Measurement accuracy 0.2
Measuring current	AC 0.025A ... 5A Measurement accuracy 0.2
Measuring temperature	-40 °C ... 150°C (optional)
Residual current	0.01A ... 5A Measuring accuracy 0.5
Measurement accuracy	Active power accuracy class 0.5S, reactive power accuracy class 0.5; 0.01Hz frequency
Communication protocols	Standard 2 RS-485 ports Support 4G /WiFi/Iora communication (optional) Communication protocol: MODBUS RTU /MQTT
Installation method	Embedded

PANEL INTERFACE DISPLAY DESCRIPTION

Three phase voltage ----> Three phase current ----> Zero sequence current ---->
Three phase active power ----> Three phase reactive power ----> Three phase apparent power ---->
Three phase power factor ----> System frequency ---->Total voltage harmonics ---->
Total current ha rmonics ----> Voltage unbalance ----> Current unbalance ----> Current demand ---->
Maximum demand ----> Two way temperature (optional)

SETUP MENU DESCRIPTION

- » Long press the confirmation key for more than 3 seconds, if the user has set a password, the password input box will pop up, enter the correct password to enter the user menu to modify the corresponding parameters.
- » If the current display is the first level, long press the confirmation key to enter the next level display, tap the key to change the menu sub items.
- » If the current is the 2nd or 3rd level of display, tap return key to return to the previous level of display
- » If the current display is level 3, long press the reduce / add key to change the digital flashing position, press the reduce / add key to shift, tap the key reduce / add to adjust the value; press the confirmation key to save the setting value; if you press the return key, it will not save the setting value and return to level 2.
- » Finish the modification, press the confirmation key.

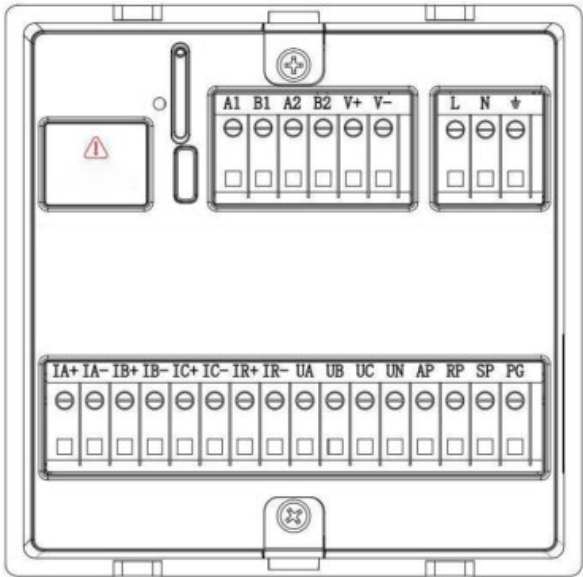
EXPLANATION OF MENU SYMBOLS

Level 1	Next level	Description
SET (System Settings)	CLrE (Removal of electrical energy)	Enter „1111“ to clear the power; enter „2222“ to clear the maximum demand; enter “1234” to restore the factory settings
	USEr (Change password)	Change user password
	BLt (Backlight time)	Modify backlight time
	PGCH (Page turn time)	Measures page turn time in „seconds“. The value of „0“ does not turn the page
	VEr (Version number)	Software version number, for manufacturer's internal management, read-only
InP (Signal input)	L In (Web)	This setting is the wiring mode setting, which can modify three-phase four-wire or three-phase three-wire wiring.
	Pt 1 (Voltage ratio)	Primary side voltage, unit: V
	Pt 2 (Voltage ratio)	Secondary side voltage, unit: V
	Ct 1 (Current variation ratio)	Primary side current, unit: A
	Ct 2 (Current variation ratio)	Secondary side current, unit: A

Level 1	Next level	Description
Con (Communication settings)	Add 1 (Device address)	Device address, range 1 ... 9999
	bAd 1 (Baud rate)	Baud rate 4k8 means 4800, 9k means 9600, 11k2 means 115200
AL (Switching setting)	AdL (Alarm method)	The value of DO corresponds to the remote control mode, otherwise it is the alarm mode.
	AL 1 (Alarm action value)	1st channel alarm value setting (unit is standard display unit)
	AY 1 (Alarm return value)	1st alarm return difference value setting (unit is standard display unit)
	oUt (Alarm relay selection)	1st alarm relay output selection (can be set when none of the alarm methods are DO)
	dLA 1 (Action delay)	Action delay time, unit: second
	dLb 1 (Alarm end time)	Action reset time, unit: seconds
br (Analog output)	brA (Variable transmission mode selection)	Refer to Exhibit 1
	brH (Variable transmission limit)	20mA output to strain feed
	bAL (Variable transmission lower limit)	20mA output to strain feed
tImE (Time setting)	YEAr (Year)	Year
	non (Month)	Month
	dAY (Day)	Day
	HoUr (When)	Time
	nIn (Points)	Points
	SEC (seconds)	Seconds

Level 1	Next level	Description
FFL (Paid rate setting)	FLL 1 (Rate for time slot 1)	Rates for time period 1, representing four rates for spikes and valleys (Note: FFL rates / 1 ... 4 rate numbers / 0000 time)
	FLL 2 (Rate for time slot 2)	Rates for time period 2, representing four rates for spikes and valleys (Note: FFL rates / 1 ... 4 rate numbers / 0300 time)
	...	...
	FLL 8 (Rate for time slot 8)	Rates for time period 8, representing four rates for spikes and valleys (Note: FFL rates / 1 ... 4 rate numbers / 2100 time)
	...	...
	FLL 12 (Rate for time slot 12)	Rates for time period 12, representing four rates for spikes and valleys (Note: FFL rates / 1 ... 4 rate numbers / 2100 time)
	Rate number 1 ... 4 for spikes and valleys, time 0000 represents hour and minute	

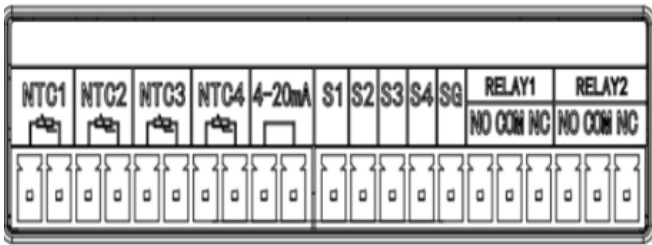
BASIC VERSION OF THE WIRING METHOD AND DEFINITION DESCRIPTION



A1/B1	RS485-1
A2/B2	RS485-2 Southbound [Customization available]
V+/V-	DC24V interface output
L/N	AC 220V interface
IA+/IA-	A-phase current input and output
IB+/IB-	B-phase current output
IC+/IC-	C-phase current input
IR+ IR-	Residual current transformer
UA/UB/UC/UN	Three-phase voltage
AP	Active energy pulse
RP	Reactive power pulse
SP	Visual energy pulse
PG	Common ground of AP/RP/SP (electrical energy ground)

CONTROL BOARD DESCRIPTION (OPTIONAL)

4-channel NTC temperature measurement + 4-channel switching (passive) input + 2-channel relay output + 1-channel analog 4 ... 20mA output.

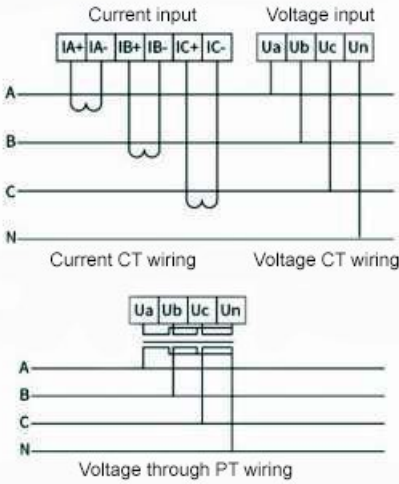


Channel Interface	Channel Function
NTC1	Temperature measurement NTC input port 1
NTC2	Temperature measurement NTC input port 2
NTC3	Temperature measurement NTC input 3
NTC4	Temperature measurement NTC input 3
4 ... 20mA	Analog output
S1	Switching input port 1
S2	Switching input port 2
S3	Switching input port 3
S4	Switching input port 4
SG	4-channel switching common ground
RELAY1	Relay output 1
RELAY2	Relay output 2

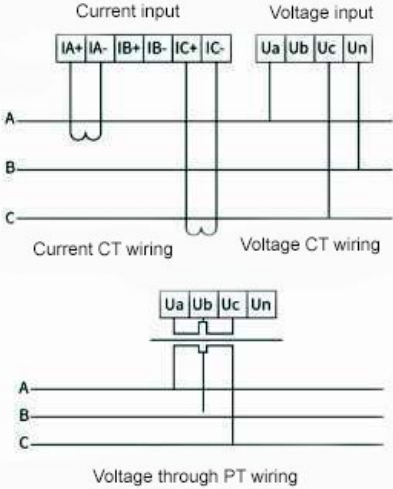
Note: NO of relay output is normally open, NC is normally closed, COM is common terminal
Relay Description: The alarm function of the meter can be used together with the relay.

WIRING DIAGRAM

Method 1:(3 pcs CT) 3 phase 4 wire wiring method



Method 2:(2 pcs CT) 3 phase 3 wire wiring method



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.

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