

QC-PM485 – Shorter User Manual

Technical Parameters

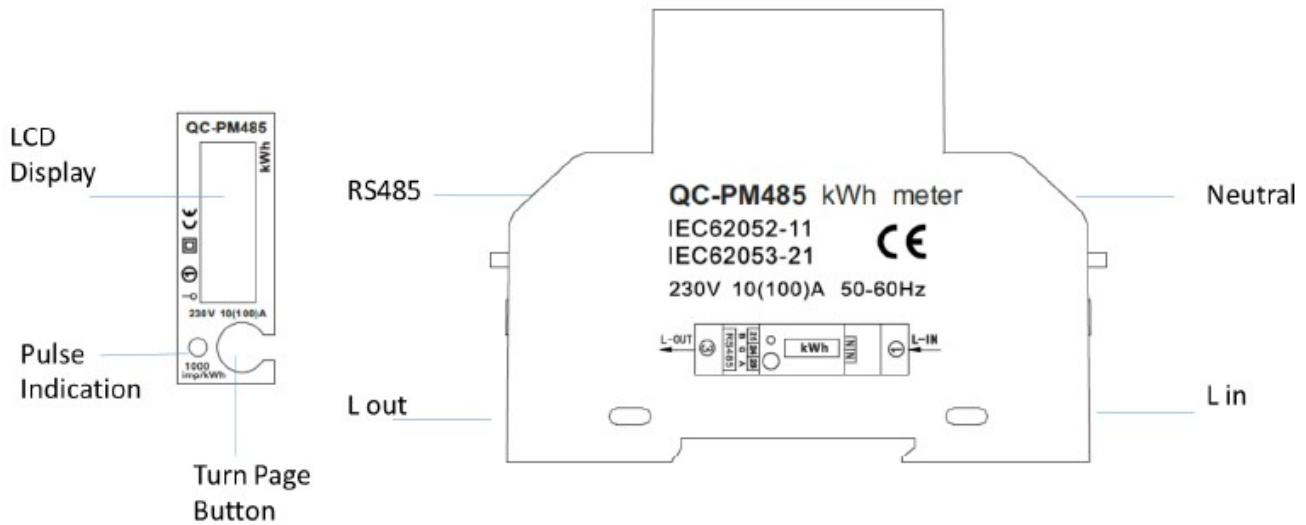
Voltage:	230V
Current:	10(100) A
Accuracy class:	1.0
Standard:	IEC62052-11, IEC62053-21
Frequency:	50-60Hz
Impulse constant:	1000imp/kWh
Display:	LCD 5+1 = 99999.9kW
Power consumption:	≤8VA ≤0.4Wh
Starting current:	0.004Ib
Temperature range:	-20~65°C
Flashing red:	Impulse indication, width=90ms
Average humidity value of year:	75%
Maximal value:	95%



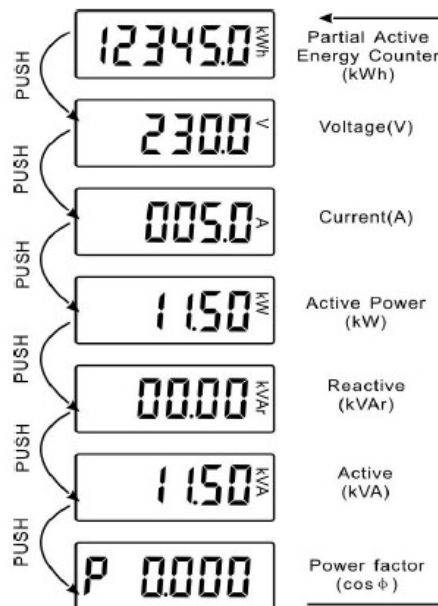
Lcd scrolling pages
Modbus ID
Baud rate
Parity
Energy Calculation
Scroll time
S0 output
Backlight

kWh, V, A, kW, kVA, Cos Phi
01
9600
8 bits NONE
active and reactive energy measurement
5s
1000imp/kWh
blue

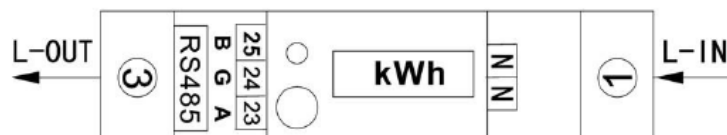
Description



Parameters show on the LCD screen



Connection Diagram



Note: 23,24,25 are corresponding to A,G,B. If RS485 transverter does not have G port, it's OK to disconnect it. The Neutral wire can be connected to one of N ports or both.

To configure the device please use the free software for QC-PM485. Download it from www.qeed.it

Register map

Register Name	Description	Register Type	R/W	Default	Modbus Address
Voltage	divide by 10 to read V (91F = 2335 = 233,5V)	unsigned short	R	-	40000
Current	divide by 10 to read A	unsigned short	R	-	40001
Frequency		unsigned short	R	-	40002
Active power	result is W – device by 1000 to get kW	unsigned short	R	-	40003
Reactive power	result is VAR – device by 1000 to get KVAR	unsigned short	R	-	40004
Apparent power	result is VA – device by 1000 to get KVA	unsigned short	R	-	40005
Power factor		unsigned short	R	-	40006
Active energy	divide by 100 to get kW / 5 blocks of 4 byte / Total ; T1 ; T2 ; T3 ; T4	unsigned long	R/W	-	40007
Reactive energy	divide by 100 to get kW / 5 blocks of 4 byte / Total ; T1 ; T2 ; T3 ; T4	unsigned long	R/W	-	40011
Baud rate	01 = 1200 ; 02 = 2400 ; 03 = 4800 ; 04 = 9600	unsigned short	R/W	04	4002a
Meter ID	000 = broadcast ; meter ID between 1 – 247	unsigned short	R/W	001	4002b
Password	Reset password and write within 10 seconds the command for change meter ID or reset active energy or change the baud rate	unsigned short	W	00000000	4002c

Example reading/writing

read voltage

write 01 03 00 00 00 01 [CRC16]

received from meter 01 03 02 08 c0 [bf d4]

01 = meter address

03 = read command

02 = data blocks

08 c0 = 2240 = 224,0 V

read active energy

write 00 03 00 07 00 0A [CRC16]

received from meter 01 03 14 00 00 04 D2 00 00 04 D2 00 00 00 00 00 00 00 00 00 00 00 00 [23 D8]

01 = meter address

03 = read command

14 = data blocks

00 00 04 D2 = 1234 (= 12,34kWh) for total active energy

00 00 04 D2 = 1234 (= 12,34kWh) for active energy T1

00 00 00 00 = 0000 (= 0,00kWh) for active energy T2

00 00 00 00 = 0000 (= 0,00kWh) for active energy T3

00 00 00 00 = 0000 (= 0,00kWh) for active energy T4

reset active energy

write 01 28 FE 01 00 02 04 00 00 00 00 [CRC16]

received from meter 01 28 FE 01 00 01 [C0 24]

enter this energy reset line within 10 seconds after password reset

write 01 10 00 07 00 0A 14 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 [CRC16]

received from meter 01 10 03 4C 00 0A [81 9D]

Change **meter ID**

write 01 28 FE 01 00 02 04 00 00 00 00 [CRC16]

received from meter 01 28 FE 01 00 01 [C0 24]

enter this energy reset line within 10 seconds after password reset

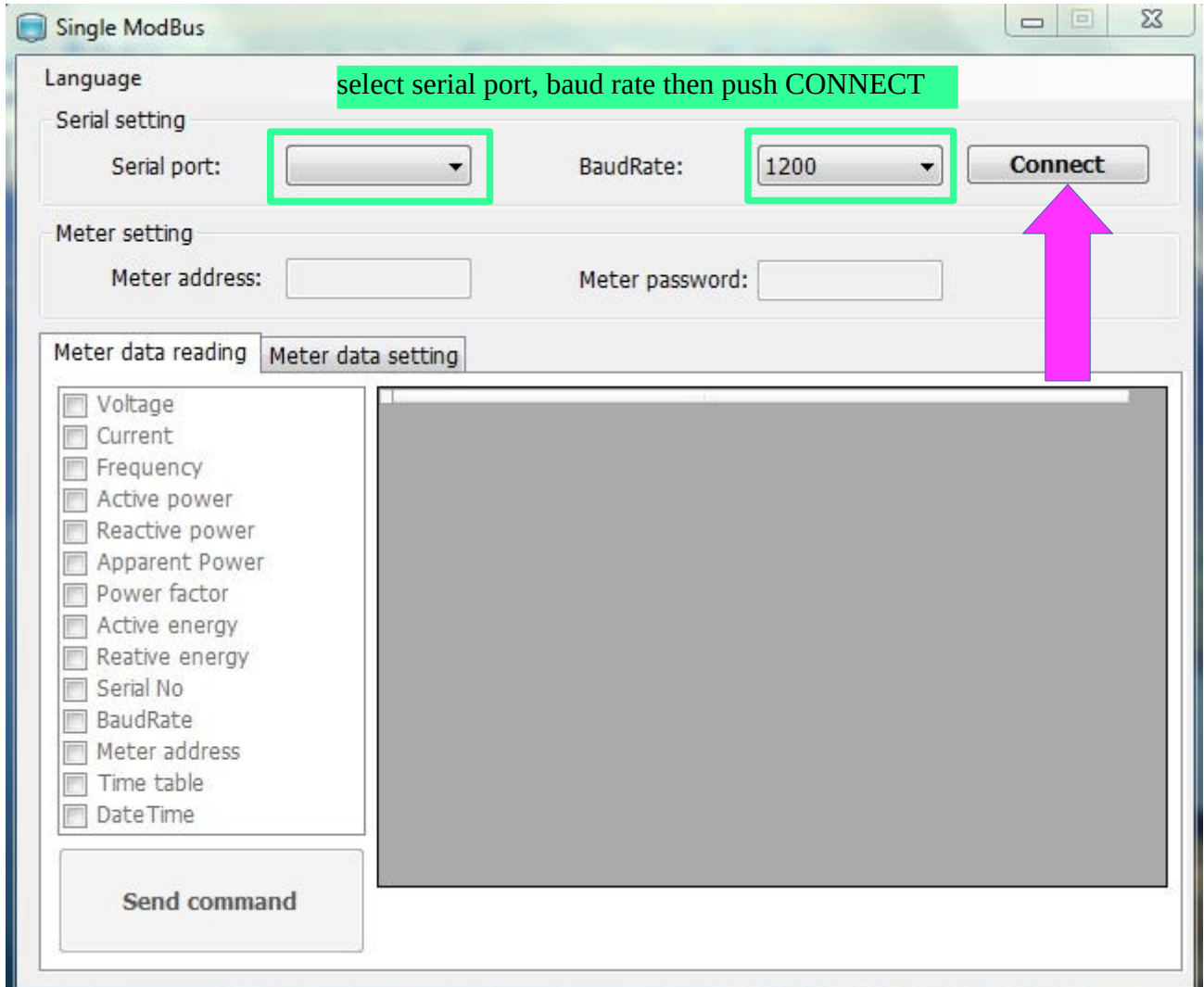
write 01 10 00 2b 00 01 02 00 01 [CRC16] (HEX format)

received from meter 01 10 00 2b 00 01 [71 c1]

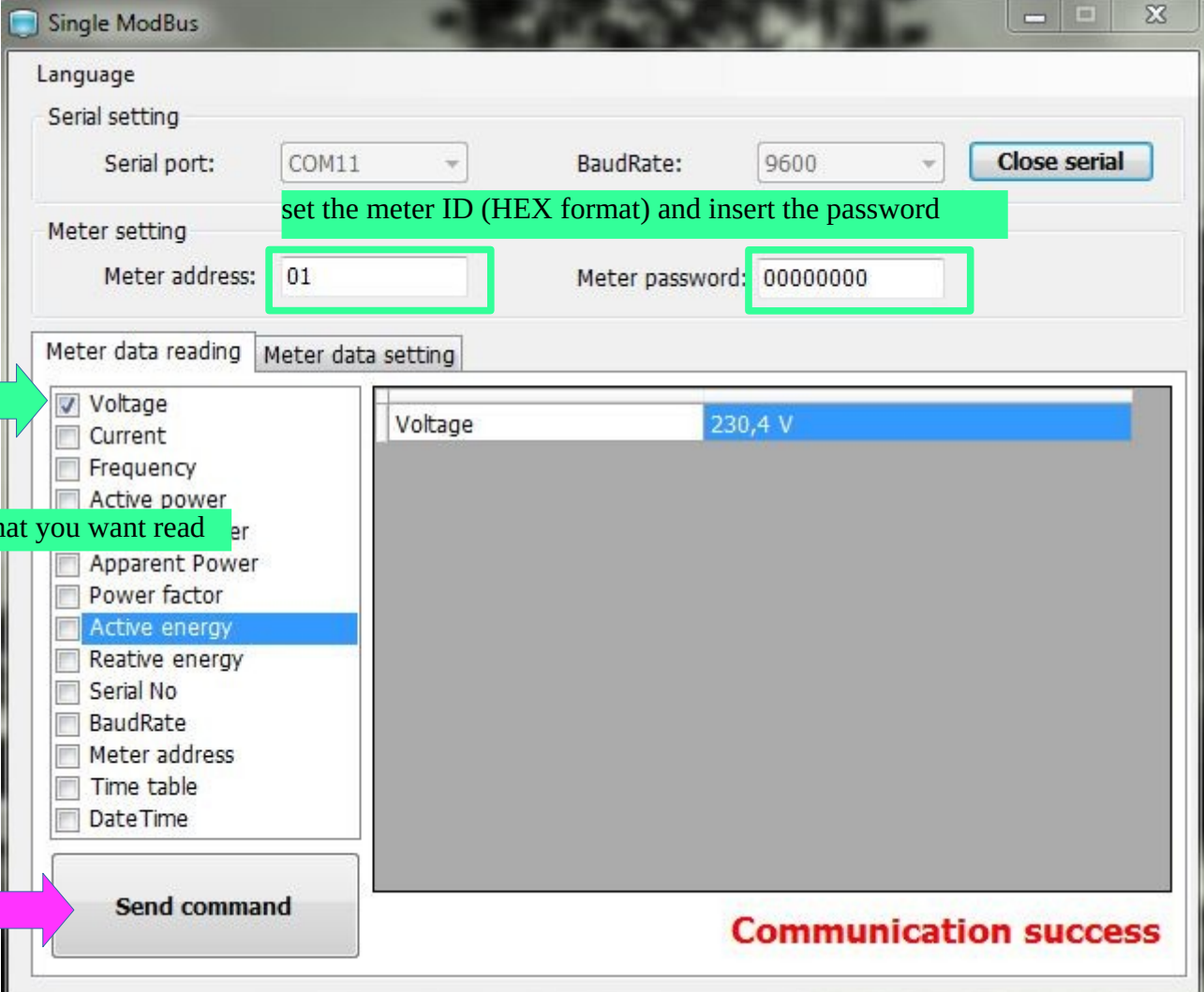


Modbus-Single _ configuration software

Connection



Reading mode



Single ModBus

Language

Serial setting

Serial port: COM11 BaudRate: 9600 **Close serial**

Meter setting

Meter address: 01 Meter password: 00000000

set the meter ID (HEX format) and insert the password

Meter data reading Meter data setting

tap what you want read

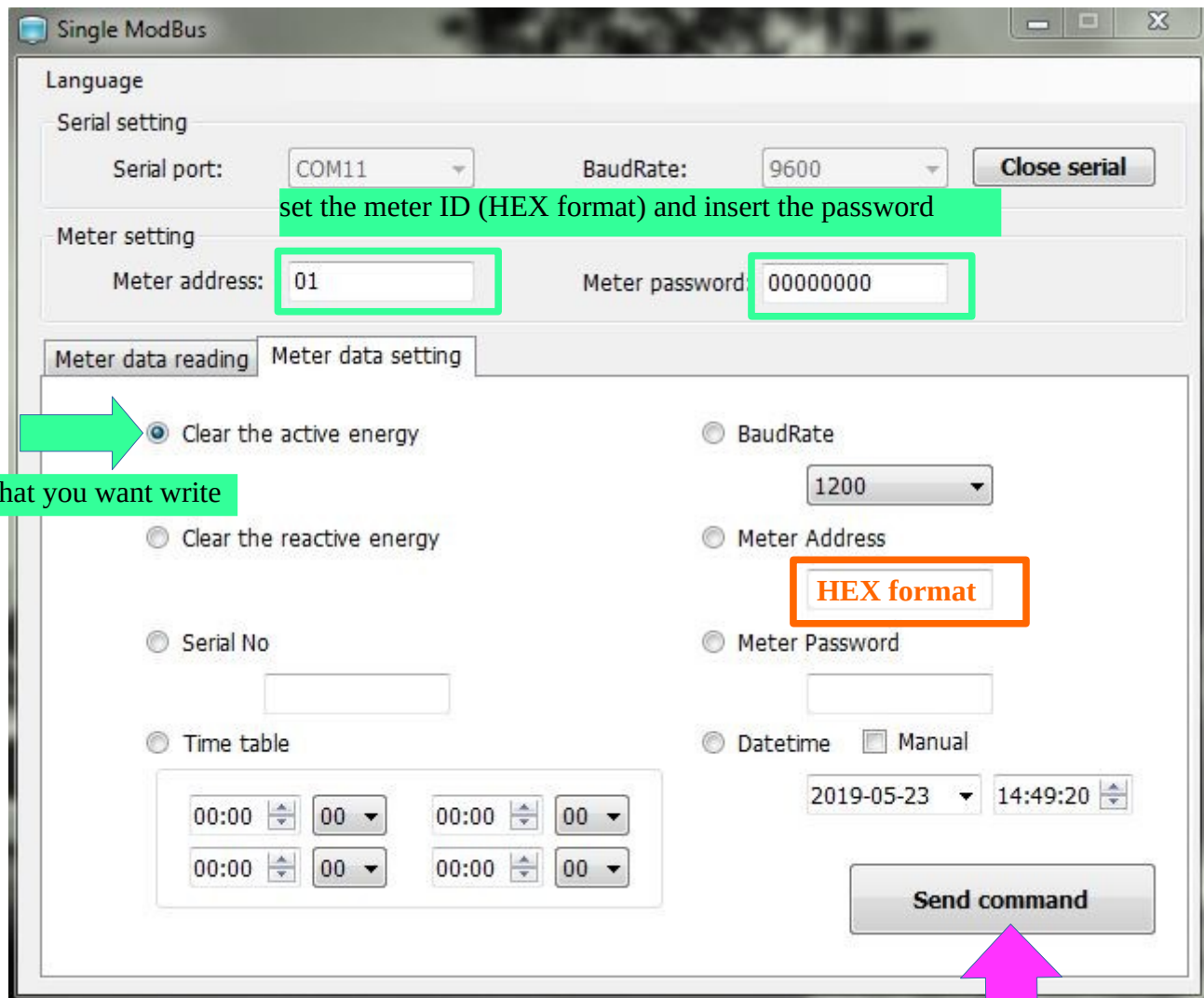
- ☒ Voltage
- ☐ Current
- ☐ Frequency
- ☐ Active power
- ☐ Apparent Power
- ☐ Power factor
- ☐ Active energy
- ☐ Reative energy
- ☐ Serial No
- ☐ BaudRate
- ☐ Meter address
- ☐ Time table
- ☐ DateTime

Send command

Voltage 230,4 V

Communication success

Setting mode



Single ModBus

Language

Serial setting

Serial port: COM11 BaudRate: 9600 Close serial

Meter setting

Meter address: 01 Meter password: 00000000

Meter data reading Meter data setting

Clear the active energy

Clear the reactive energy

Serial No

Time table

BaudRate

Meter Address

Meter Password

Datetime Manual

2019-05-23 14:49:20

Send command

Before disconnect the device, close serial port pushing the button

Close serial