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Innovative Power Solutions

COUNTIS E13X

Single Phase Meter 100A Direct Connection

User Manual

1. Introduction

Socomec COUNTIS E13X is a single phase DIN Rail meter, 100A, which is a multi-functional meter for energy monitoring.

It is only 18mm width, but can support RS485 communication and comply with DIN EN 50022 standard, which is fit for the power distribution system for household and commercial.

2. Features and Technical Parameters

2.1 Features

● It can read grid parameters, analyze the energy quality and load condition in the certain time period.

● DIN RAIL (Comply to German Industry Standard) mounted.

● Only 18 mm wdith, but can achieve 100A.

● Support RS485 communication, Protocol: Modbus-RTU mode.

● Multi-tariff function. The user can set the different time periods via RS485.

● The meter has Li-battery for RTC. The RTC accuracy is 0.5s every day.

● Blue backlight, which is for easy reading in dark place.

● Do scrolling display for current(A) and voltage(V).

● Measure the active and reactive energy accurately.

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● 2 Modes for data display:

a. Auto scrolling mode: the time interval is 5s.

b. Button mode by external button for data checking.

● The material of the meter case: ABS resistance.

● Protection Class: IP51 (For indoor usage)

2.2 Technical Parameters

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Content	Parameters
Standard:	IEC62052-11，IEC62053-21
Rated Voltage:	230V
Rated Current:	5(100) A
Impulse Constant:	1000imp/kWh
Frequency:	50-60Hz
Accuracy Class:	1.0
LCD Display:	LCD 5+1 = 99999.9kW
Working Temperature:	-20～65℃
Power Consumption:	≤8VA, ≤0.4W
Average Humidity:	≤75%
Maximum Humidity:	≤95%
Start Current:	0.004Ib
LED flash:	Impluse indication, pulse width = 90 ms
Materials:	Case: ABS, PC, alloy material DIN Rail Clip: ABS resistance

3. Description

A

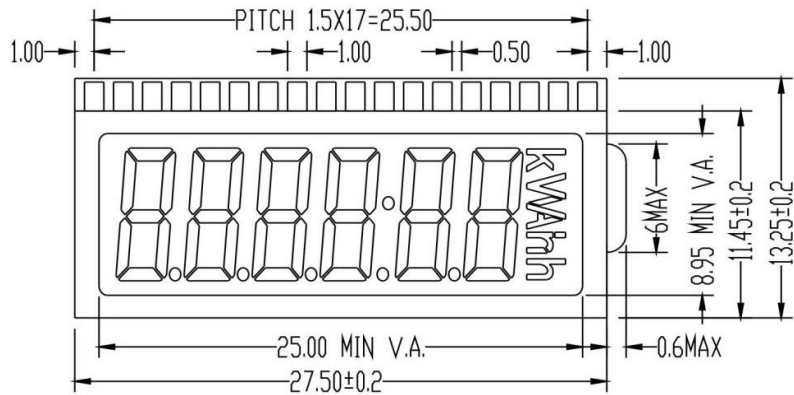Socomec Innovative P

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B

G

C

F

E

D

A   Impulse indicator

B   Button for data checking

C   RS485 Port

D   L-Out

E   L-In

F   Neutral wire

G   LCD screen

4. LCD Display

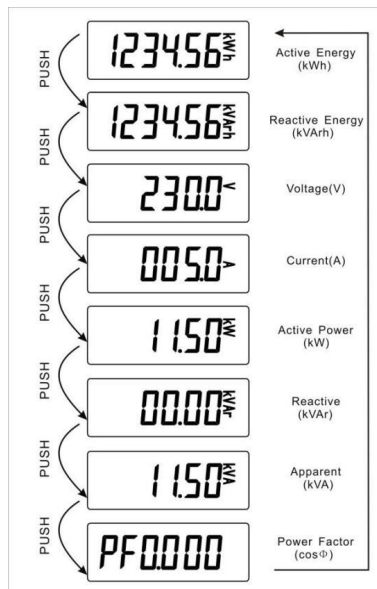### 4.1 LCD Screen Dimensions

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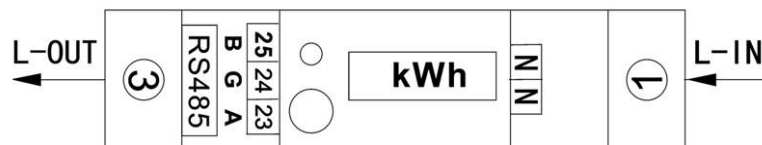11 Ubi Road 1, #02-01 Meiban Industrial Building

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4.2 LCD Parameters/Parameters Switch

5. Wiring Connection

Note: 23.24.25 is for A+, G, B-.

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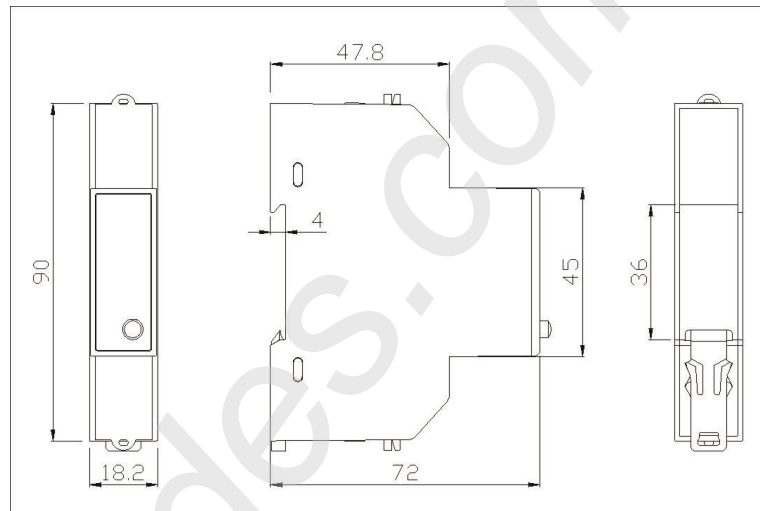
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If the RS485 communication converter doesn't have G port, no need to connect.

For Neutral wire, you can connect one N port and connect both.

6. Dimensions

Height   95.3 mm

Width   18.2 mm

Depth   72 mm

Weight   0.1 kg（N.W.）

7. Installation Instruction

7.1 Select 35 mm Standard DIN Rail and fix it.

7.2 Push the DIN Rail Clip, see details in Fig.1 and Fig. 2

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Fig.1	**Fig.2**

7.3 Install the meter onto the DIN Rail, then push the DIN Rail Clip of the meter to fix the meter

See details in below Fig. 3 and Fig.4

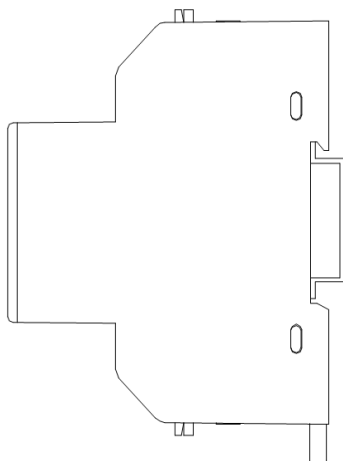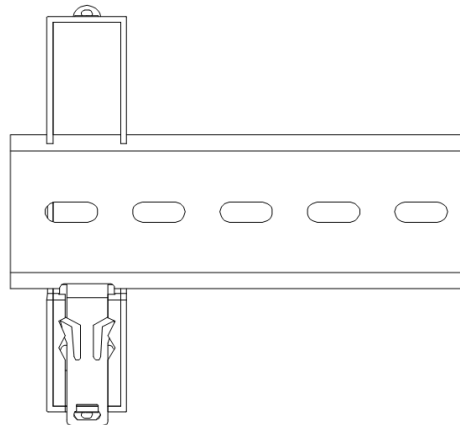|	
Fig.3	**Fig.4**

7.4 Do the connection according to the wiring diagram.

7.5 After connection, seal the terminal covers by the seal wires.

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8. Communication

8.1 This meter supports RS485, Protocol is Modbus-RTU mode;

<u>The default parameters:</u> meter ID:1, baudrate: 9600bps, data bit: 8, Parity: Even, Stop bit: 1.

8.2 For detailed communication list, pls contact SOCOMEC directly.

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