

# EL801 Electric Parameter Measuring Meter User's Manual



## Features

- ⊙ Accuracy: 0.5% F.S
- ⊙ AC/DC universal. For AC signal, it measures true effective value
- ⊙ Different input channel has different range; Wide measuring range
- ⊙ Two High/Low setting alarm output
- ⊙ With Analog output 4-20mA
- ⊙ RS485 communication interface, Modbus RTU protocol

For your safety, please read following content carefully before you are using the meter!

### ■ Safe Caution

※ Please read the manual carefully before you use the meter!

Please comply with the below important points:

- ⚠ Warning An accident may happen if the operation does not comply with the instruction.
- ⚠ Notice An operation that does not comply with the instruction may lead to product damage.

※ The instruction of the symbol in the manual is as below:

- ⚠ An accident danger may happen in a special condition.

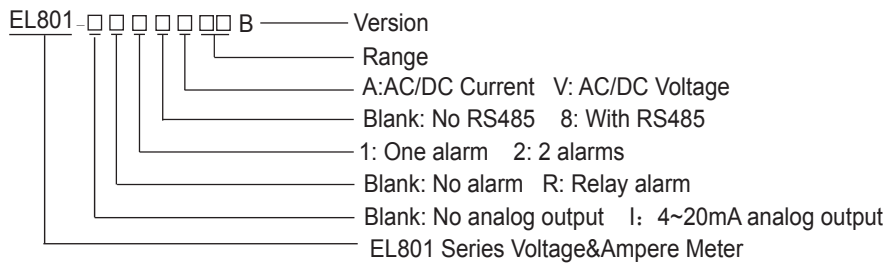
### ⚠ Warning

1. A safety protection equipment must be installed or please contact with us for the relative information if the product is used under the circumstance such as nuclear control, medical treatment equipment, automobile, train, airplane, aviation, entertainment or safety equipment, etc. Otherwise, it may cause serious loss, fire or person injury.
2. A panel must be installed, otherwise it may cause creepage (leakage).
3. Do not touch wire connectors when the power is on, otherwise you may get an electric shock.
4. Do not dismantle or modify the product. If you have to do so, please contact with us first. Otherwise it may cause electric shock and fire.
5. Please check the connection number while you connect the power supply wire or input signal, otherwise it may cause fire.

### ⚠ Caution

1. This product cannot be used outdoors. Otherwise the working life of the product will become shorter, or an electric shock accident may happen.
2. When you connect wire to the power input connectors or signal input connectors, the moment of the No.20 AWG (0.50 mm<sup>2</sup>) screw tweaked to the connector is 0.74n.m - 0.9n.m. Otherwise the connectors may be damaged or get fire.
3. Please comply with the rated specification. Otherwise it may cause fire after the working life of the product becomes shorter.
4. Do not use water or oil base cleaner to clean the product. Otherwise it may cause electric shock or fire, and damage the product.
5. This product should be avoid working under the circumstance that is flammable, explosive, moist, under sunshine, heat radiation and vibration. Otherwise it may cause explosion.
6. In this unit it must not have dust or deposit, otherwise it may cause fire or mechanical malfunction.
7. Do not use gasoline, chemical solvent to clean the cover of the product because such solvent can damage it. Please use some soft cloth with water or alcohol to clean the plastic cover .

## 1. Code Illustration



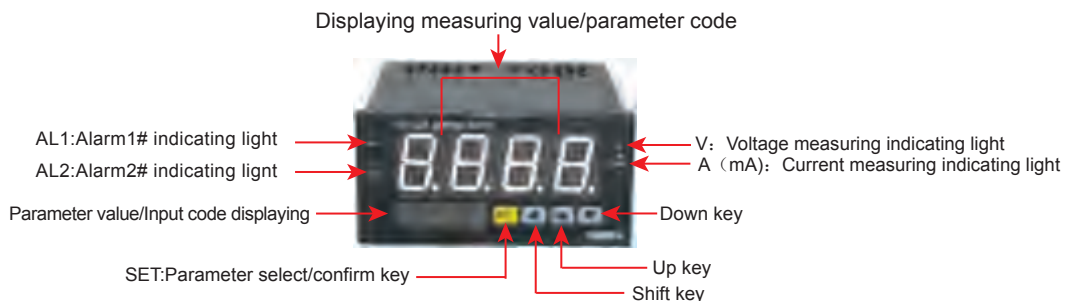
Code	Input channel and Range	Alarm	Analog output	Communication	Default channel and range
EL801-R2V600	IN1: 0~10V; IN2: 0~100V; IN3: 0~600V	2 alarm	NO	NO	IN3:600V
EL801-IR2V600	IN1: 0~10V; IN2: 0~100V; IN3: 0~600V	2 alarm	4-20mA	NO	
EL801-IR28V600	IN1: 0~10V; IN2: 0~100V; IN3: 0~600V	2 alarm	4-20mA	RS485	
EL801-R2A1000	IN1: AC 0~5A IN2:DC 0~75mV(meter displays 0~5A)	2 alarm	NO	NO	IN1:5A
EL801-IR2A1000	IN1: AC 0~5A IN2:DC 0~75mV(meter displays 0~5A)	2 alarm	4-20mA	NO	
EL801-IR28A1000	IN1: AC 0~5A IN2:DC 0~75mV(meter displays 0~5A)	2 alarm	4-20mA	RS485	
EL801-R2A1	IN1: 0~10mA, 0~100mA; IN2: 0~1000mA	2 alarm	NO	NO	IN2:1000mA
EL801-IR2A1	IN1: 0~10mA, 0~100mA; IN2: 0~1000mA	2 alarm	4-20mA	NO	
EL801-IR28A1	IN1: 0~10mA, 0~100mA; IN2: 0~1000mA	2 alarm	4-20mA	RS485	

- ⚠️ ① When you use the meter, please pay attention that input channel should correspond to range, otherwise, the meter will be malfunction.  
 ② Input signal < 1.2 times of range. ③ When measuring AC, available for 0~200Hz. When the frequency beyond 100Hz, the accuracy is ±0.5%FS

## 2. Technical Specification

Power Supply	AC/DC 100~240V 50Hz/60Hz DC 24V(Need to be ordered )
Display range	0.001-9999 float decimal point display
Accuracy	±0.5%F.S ±2digit((For AC the frequency should be under 100Hz)
Analog output	4~20mA load capacity≤600Ω, accuracy:±0.5%F.S
Communication	Standard RS485 interface, Modbus RTU
Relay capacity	AC 250V/3A or DC 30V/5A
Dielectric Strength	AC 1800V/1 min,0.5mA DC 600V/1 min,0.5mA
Insulation Impedance	≥100MΩ/500V DC
Ambient Temperature and humidity	Temperature:0-50℃ humidity: ≤ 85%RH
Sampling rate	2 times/S
Dimension(mm)	96W*48H*100L

## 3. Panel Indication



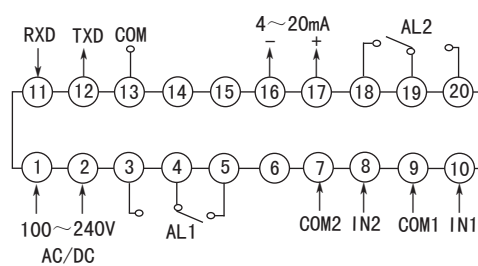
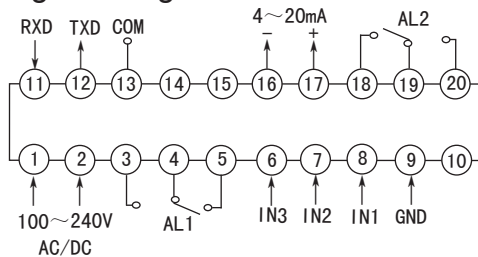
## 4. Operations

- ① The second row LED is defaulted to display range and input channel alternately after power on, press “<” only display range, press this key again the LED returns to default display status.
- ② Press “SET” key > 3S in the measuring status, the meter shows the parameter menu.
- ③ When modifying setting value, press “△ / ▽” to change value; press < to shift decimal point, after modifying completed, press “SET” to confirm and it shows the next menu. After setting completed, press “SET” > 3S to exit menu. If you don't operate it for a long time, it will exit menu automatically.



Number	Parameter code	Setting range	Factory setting value	Illustration
1	INP	IN1~IN3	When the range is A1000, default is IN1, for other range, default is IN3.	AL, HY, Ct, PS, rH, rL have the same unit as their range
2	Ad1	H or L	H	
3	AL1	-1999~9999	90% of measuring range	
4	Hy1	-1999~9999	1.000	
5	Ad2	H or L	L	
6	AL2	-1999~9999	10% of measuring range	
7	Hy2	-1999~9999	1.000	
8	Ct	0~9999	1.000	
9	PS	-1999~9999	0.000	
10	rH	-1999~9999	maximum of the range	
11	rL	-1999~9999	minimum of the range	
12	Add	0~255	001	
13	bAd	4.8 or 9.6	9.6	
14	LCK	0~255	000	

## 5. Connecting Drawing



Note: please subject to the diagram on the product if any changes.

## 6. Dimension (unit:mm)

