

## JL6-P-DIGI(MOD)

### Digital multi-channel AC current transducer

#### 1. Brief introduction

**JL6-P-DIGI(MOD)** series digital AC current transducer is a measurement module that utilizes electromagnetic induction to convert the measured AC current into a digital signal, adhering to the RS485 interface Modbus-RTU communication protocol. It boasts high insulation between the primary and secondary sides. This measurement module is characterized by its high precision, linearity, integration, compact size, simple structure, long-term stability, and adaptability to diverse working environments. It can be used in Power Utility, Telecom, Oil & Gas, welding machine and New energy fields.



- ★ Measurement of AC current      ★ High insulation of primary and secondary sides      ★ 6-way input
- ★ Digital output, RS485 interface Modbus RTU protocol      ★ Aperture Φ12mm

#### 2. Order information (see right chart)

Nominal Current :

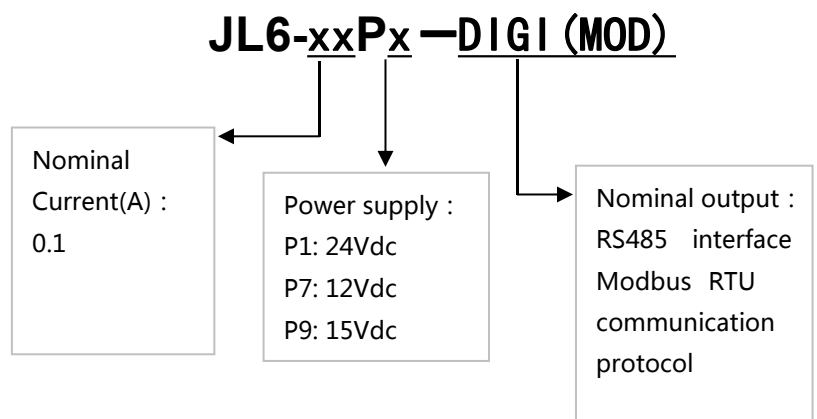
0.1 Aac

Nominal output :

RS485 interface ,  
Modbus-RTU communication protocol

Power supply :

P1: 24Vdc P7:12Vdc P9:15Vdc



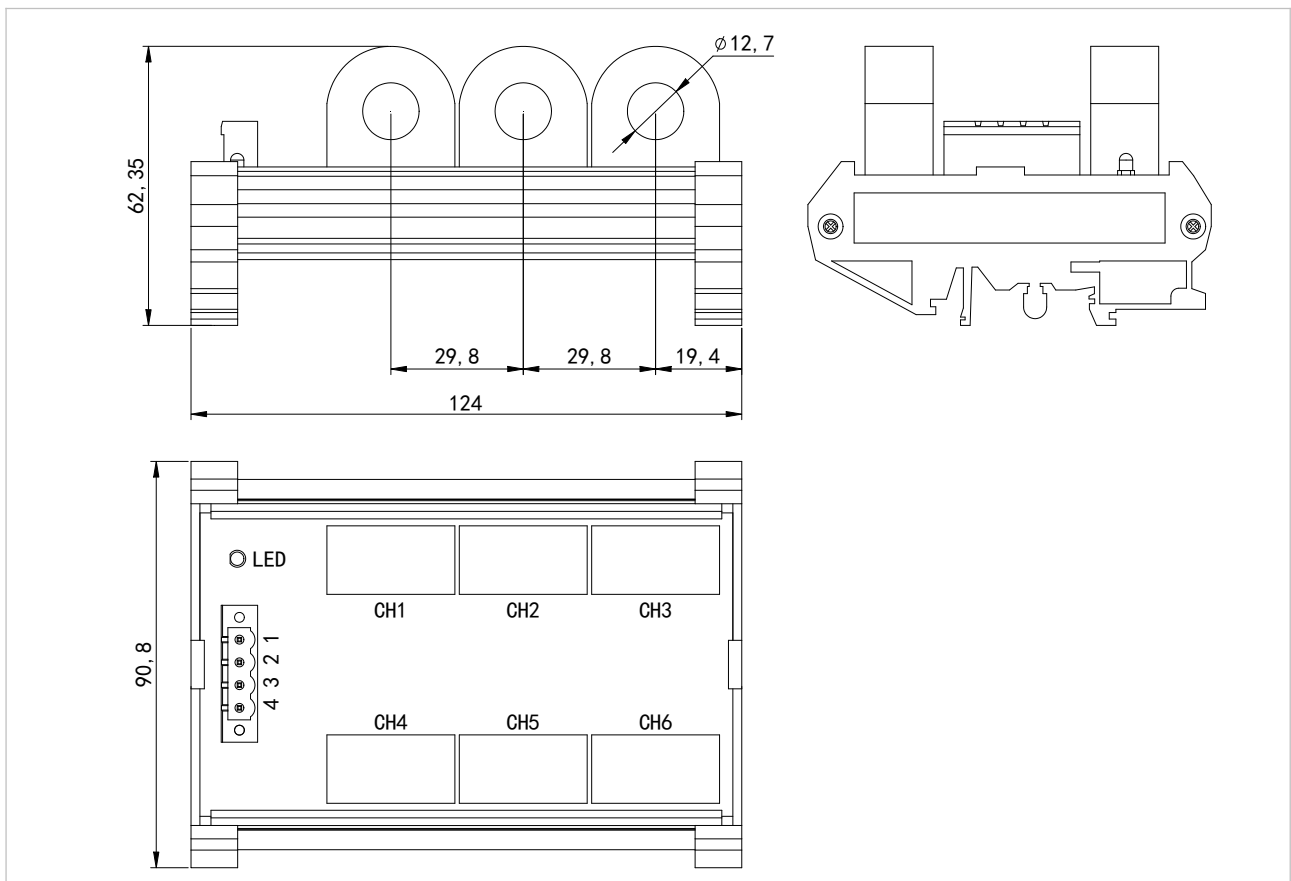
#### 3. Electrical data

I <sub>pn</sub>	Primary nominal current (Aac)	0.1 Aac		
I <sub>P</sub>	Primary Current, measuring range(Aac)	120%* I <sub>pn</sub>		
Output Signal		RS485		
Protocol		Modbus-RTU		
X <sub>G</sub>	Accuracy ( Ta =+25°C )	±3mAac		
V <sub>c</sub>	Power supply voltage (±5%)	P1: 24Vdc	P7:12Vdc	P9:15Vdc
T <sub>r</sub>	Response time	≤ 200mS		
f	Frequency bandwidth	power frequency 50Hz		
I <sub>c</sub>	Current consumption	≤50mA		
V <sub>d</sub>	Isolation test (50HZ,1min)	2.5KV		

#### 4.General data:

Ta	Ambient operating temperature	-25 - +70 °C
Ts	Ambient storage temperature	-25 - +70 °C
W	Mass	about 275g
Hw	Ambient operating humidity	20-90% RH
	Terminal carrier board	Complies with 35mm DIN rail standard

#### 5. Dimensions:



General tolerance	$\pm 1\text{mm}$
Aperture of mutual inductance coil	12.7mm
DIN rail installation	35mm standard guide rail
Output terminal	4-position plug-in locking terminal , YE060-508-4P+YC101-508-4P,Pin spacing 5.08mm

#### 6. Connection:

Pin	Definition
1	Power supply positive
2	Power Ground
3	output signal RS485 A
4	output signal RS485 B

## 7. Communication protocol:

Refer to the communication protocol attachment

## 8. Safety items



1. When wiring, pay attention to the exposed conductive parts of the wiring terminals to prevent ESD impact as much as possible. Only engineers with professional construction experience can perform wiring operations on this product. The connecting wires of the power supply, input, and output must be connected correctly and cannot be misplaced or reversed, otherwise it may cause product damage.
2. The installation and use environment of the product should be free of conductive dust and corrosive
3. Severe vibration or high temperature may also cause product damage, please pay attention to the usage situation.



1. Please be aware of the risk of electric shock. After installation, operators should not touch any exposed conductive parts, especially the bus bar and power supply. If necessary, sensors can be protected by adding protective covers.

Note: 1.Passion technology company reserves the right to modify the datasheets at any time without previous notifications.  
2.Any question about the datasheet, please contact our TCS.