

1-phase offside alarm AC current transducer

Instructions

CE-IJ03-J0ES3-2.0

1 Overview

This device is a 1-phase ac current switch output transducer. Its input and output are isolated, without power supply, the input signal for the AC current, the output signal for the switch signal. The product can be widely used in communications, electricity, railways, industrial control and other fields.

Features:

- Ø CMOS output;
- Ø Low drift, high reliability;
- Ø strong load capacity;

2 Case Style



Figure 1

CE	I	J	0	3	J	0	E	S3	1.0
Brand									Accuracy
IJ: AC current									case style
1-phase double isolation									Aperture: E: Φ20mm
J: COMS output									Power supply: +
									0: passive

3 Part Number

4 Specifications

Test conditions: room temperature: 25℃;

Input Range: 0~300A AC;

Input current threshold: 230mAAC;

Accuracy: 2.0% (With reference error);

Response time: ≤ 150 mS;

Contact capacity: DC30V, 1A;

Conduction characteristics: <0.6Ω;

Rated power consumption: none;

Output ripple: none;

Frequency range: 45~65Hz (up to 5K, please specify when ordering) ;

Surge impact immunity:

Power port level ± 0.5KV (L-N/2Ω/integrated wave)

Analog I/O port level ±0.5KV (L-N/40Ω/integrated wave);

Impulse immunity: input / power port ± 2KV

Analog I/O port ±1KV;

Operating temperature range: -10 ℃ ~ 50 ℃ 20% -90% RH;

Overload: 20 times of full span and £ 500A anyway;

Apply a second (repeat 5 times, interval 300S);

Operating temperature: -10 ~ 60℃; humidity: ≤95 % (no dew);

Storage temperature: -55 ~+65℃; humidity: ≤95 % (no dew).

5 Connections Diagram

(For reference only, the actual application to the product wiring diagram shall prevail)

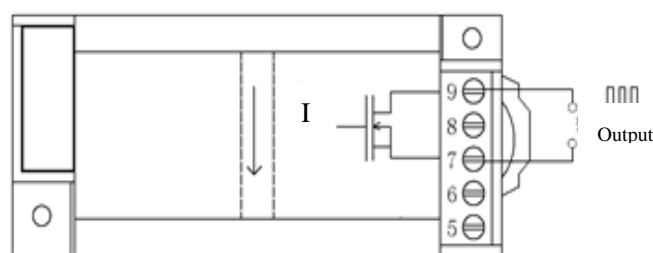


Figure 2, wiring diagram of CE-IJ03-J0ES3

6 Mounting Diagram

DIN35 rail mounting or screw mounting, the installation size shown in Figure 3 (in mm)

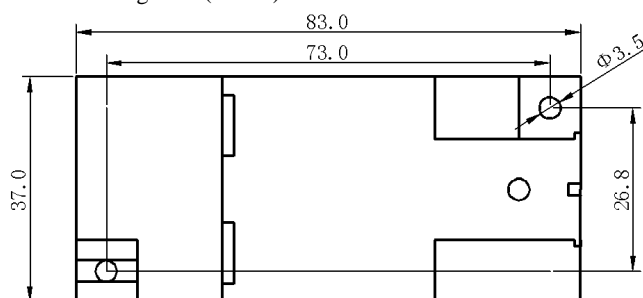


Figure 3, S3 Dimension drawing of outline installation

7 Product's Service

1 Installation

1.1 DIN rail installation method:

- ①The transducer fixed on the side of the card slot and hook on the mounting rail;

- ②Pull the spring pin down;
- ③Clip the transducer mount on the mounting rail;
- ④Release the spring pin and clip the transmitter on the mounting rail.

1.2 Screw mounting method:

- ①4mm diameter hole in the fixed plate according to the screw hole position shown in Fig. 3;
- ② Insert the screw smaller than $\Phi 3.5$ into hole to secure it.

1 Product has been accurately set according to the "product standard". Apply power after determine the correct wiring.

2 The maximum wire diameter of the terminal block is 1.3mm (16-26AWG). Remove the 4mm ~ 5mm insulation layer from the end of the mounting wire and insert it into the terminal block. Tighten the screw.

8 Example of product accuracy level verification

1 According to the transducer terminal definition to connect the circuit as shown.

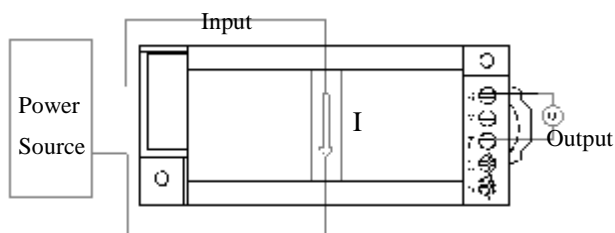


Figure 4, the product test wiring diagram

Note: The output table with a multi meter resistance file

2 The test shall be carried out under the following environmental conditions:

- Ø Ambient temperature: $25\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$;
- Ø Relative humidity: RH (45 ~ 80)%;

3 Power preheat 2min;

4 Current I input and monitoring methods:

- ①A high-precision high-current meter calibrator can directly input current I, and record the meter calibration instrument display data;
- ②No high-current high-precision instrument calibrator, but there is a ordinary high-precision instrument calibrator. Use ampere-turn method to output small current (5A, 10A or higher), and input it to the transducer input coil. The precision ammeter is tandem connection to the calibrator output end to detect input current, and convert the input current I value according to the ampere-turn method.

- ③Current meter calibrator can be directly input rated current I, the reading of multimeter omh band is from ∞ to 0Ω . When the input current is less than 5% of the rated current, the reading of the multimeter omh band changes from 0Ω to ∞ .

9 Notes

1 Please pay attention to the wiring on product label and the output contact capacity.

2 Transducer for the integrated structure, not removable, and should avoid collision and fall.

3The transducers are used in environments with strong electromagnetic interference. Standard precaution such as shielding the input and /or output lines should be observed. All lines should be as short as possible. If a group of transducers are mounted together, keep a space more than 10mm between adjacent units.

4 The input value given on the transducer label refers to the RMS value of the ac signal.

5 Only use the effective terminal of the transducer. The other terminals may be connected with the internal circuit of the transducer, and can't be used for other purposes.

6Transducer has a certain anti-lightning ability, but when the transducer input and output feeders exposed to extreme bad environments, must be taken lightning protection measures.

7Don't damage or modify the product label and logo. Don't disassemble or modify the transducer, otherwise the company will no longer provide the product "three guarantees" (replacement, returns, repair) services.

8 The transducers use flame-retardant ABS plastic shell package. which limit temperature is $+75\text{ }^{\circ}\text{C}$. The shell will be deformed with high-temperature baking, and will affect product performance. Do not use or save the product near the heat source. Do not bake the product in a high-temperature oven.

9 When measuring the voltage or current with the multi meter pen, please screw the terminal screw in the end, otherwise it may not measure the voltage or current output value.