Two phase AC current tracking transducer

CE-IJ21T-14BS3-0.5

1 Overview

This device is a two phase AC current tracking transducer, can real-time track and measure the AC current signal of power grid or circuit, the output signal is AC current tracking signal 0～5V. For power equipment, power grid monitoring systems, railway signaling systems.

2 Case style

S3 case (Length ×width ×height =83 cm×36 cm×76)

3 part number

CE—I J 21 T—— 1 4 B S3—0.5

- Brand
- AC current
- Two phase double isolation
- Railway dedicated
- Tracking voltage output
- Power supply: 4: 24V
- Aperture: B:Φ6.5mm.
- case style: S3
- Accuracy

4 Specifications

Test conditions: power supply: +24V, room temperature: 25℃;

Accuracy: 0.5class

Power supply: +24V DC

Input range: 0～1A AC

Input frequency: 1700Hz～2600Hz

Output: 0～5V AC

Load capacity: load ≥2KΩ

Power frequency difference: 35’

Temperature drift: ≤200ppm/℃

Isolation voltage: ≥2500 V DC

Response time: ≤100 mS

Rated power consumption: ≤0.5W

Output ripple: none

Frequency range: 45~65Hz (Up to 5K, order instructions)

Surge impact immunity:

Power port four–level: 4000V, output port three-level: 2000V.

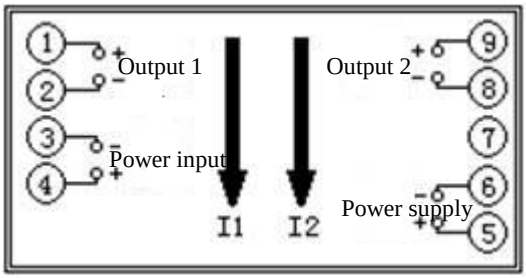
Input overload capacity: 20 times of the measured current nominal value (Maximum 500A, applied 1 second repeat five times, interval 300S)

Operating condition: -10℃～+60℃

Storage condition: Temperature: -55~65℃; Humidity: ≤95% (no dew);

5 Connections Diagram

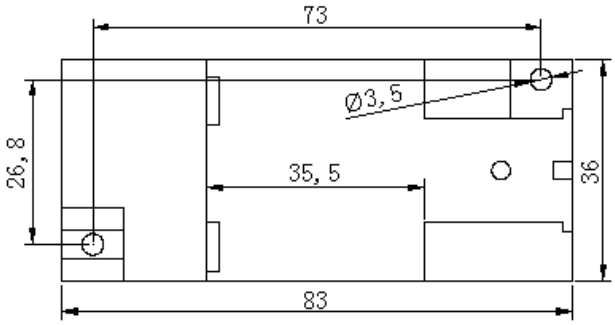
(For reference only, the actual application please refer to the wiring diagram on the product)



Product wiring diagram

6. Mounting Diagram

DIN35 rail mounting or screw mounting, the installation dimensions as shown below, unit: mm.



Installation dimension

7. Product’s Service

1 Installation

1.1 1.1 DIN rail installation method:

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

② Pull the spring pin down（as show in the bottom of figure1 the red spring pin）;

③ Clip the transducer mount on the mounting rail;

④ Release the spring pin and clip the transmitter on the

mounting rail.

1.2 Screw mounting method:

① Inset a screw hole less than Φ4mm in the fixed plate according to the screw hole position shown in installation dimensions;

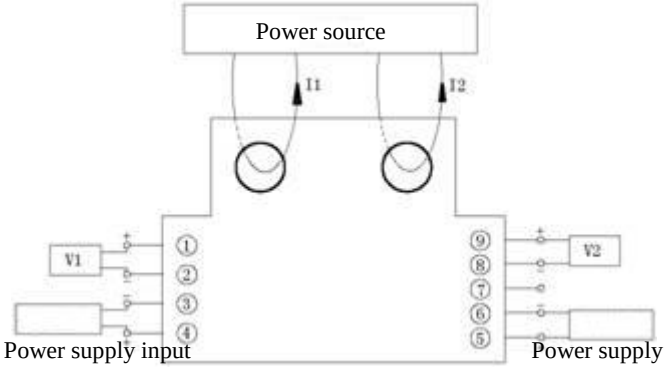
② Use the M3 screw to insert into hole and fix it.

2 When the product is shipped from the factory, it has been accurately set according to "Product Standards", and it can be energized after the connection is confirmed.

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

4 Auxiliary Power Requirements: Accuracy is not less than 5%, ripple ⩽ 10mV.

8 Example of product accuracy level verification



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

- ◆Power supply: nominal ± 5%, ripple ≤ 10mV;
- ◆Ambient temperature: 25 ℃ ± 5 ℃;
- ◆Relative humidity: RH (45 ~ 80)%;
- ◆The accuracy of the signal source and measuring instrument is 0.05 class above.

3 Power preheat 2min;

4Two way input signal I_{in} of transducer is 0～1AAC, frequency is 1700Hz ～ 2600Hz, monitoring table V1and V2 measures AC voltage output value Vg 0 ~ 5VAC, given an input value I arbitrarily within the transducer's range, the theoretical output value Vo of the transmitter is calculated as follows:

$$V_o = I \div 1 \times 5$$

5 he AC voltage output value Vg measured by the monitoring table V1 and V2, $|V_g - V_o| \leq 25mV$ is normal, otherwise the accuracy is exceeded.

6 **Note:** please consult with our company for the verification method of other technical indicators.

9 Notes

1 Please pay attention to the power supply information on the product label, and the power supply grade used by the transducer, otherwise it will cause damage to the product.

2 Integrated structure of the transducer, non-removable, and should avoid collision and fall.

3 The transducers are used in environments with strong electromagnetic interference. Please pay attention to the shielding of the input and /or output lines. If a group of transducers are mounted together, keep a space more than 10mm between adjacent units.

4 The input value given on the transmitter label is the RMS value of the ac signal.

5 Can only use the effective terminal of the transducer.

6 Transducer 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.

7 Don't damage or modify the product label and logo. Don't disassemble or modify the transmitter, 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 tolerance is +75 ℃. The shell will be deformed with high-temperature baking, and will affect product performance. Do not use or store the product near the heat source. Do not bake the product in a high-temperature oven.

9 When using a multi meter pen to measure voltage or current, screw the terminal screw to the end, otherwise the voltage or current output may not be measured.