SHENZHEN SENSOR ELECTRONIC TECHNOLOGY CO.,LTD.

Temperature transducer user manual

CE-R03-74MS-0.5

1 Overview

This product is a precision platinum resistance temperature transducer. The transmitter converts the resistance signal of the input platinum resistance to the standard 4～20mA DC current output through constant current source excitation, voltage magnification, linear processing. The input temperature range can be confirmed by the user when ordering. The standard three-wire connection is adopted between platinum resistance and transducer, can compensate for the adverse effect of long leads on temperature measurement accuracy. The output is two-wire connection, signal circuit under its own power, low power consumption; High output impedance、large-signal、Non- radio-frequency interference effects, the signal has a strong far eastone ability. With the power supply polarity reverse protection circuit. This product is small、nice linearity、low temperature drift、high accuracy in temperature measurement 、 stable and reliable performance, it can be used in various temperature measuring environment.

2. Case Style

Outline dimension:

Length ×Width ×Height=83mm×36mm×29.5mm

Figure1, S1 style

3 Part Number

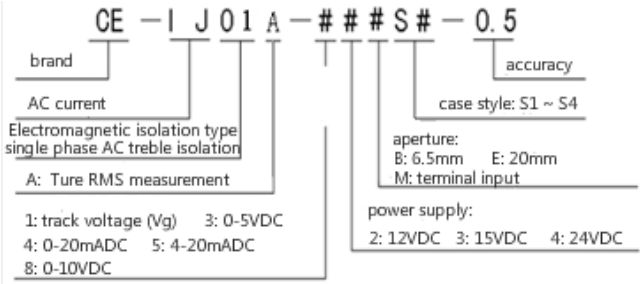

Figure 2, product model selection table

4 Specifications

* Test conditions: auxiliary power supply: +24V room temperature: 25℃.
* Input range: -50~200℃
* Output: Standard 4～20mA AC current
* Accuracy: class 0.5
* Operating condition: Temperature: 0~50℃
* Temperature drift: 200 ppm/℃
* Load capacity: ≤300Ω
* Response time: ≤100 mS
* Auxiliary power supply: 24V±10%
* Rated power consumption: ≤100mW
* Isolation voltage: none
* Output ripple: none
* Frequency range: none
* Input overload capacity: none
* Surge impact immunity: none
* Impulse immunity: none
* Storage condition:-40~+70℃

5 Connections diagram

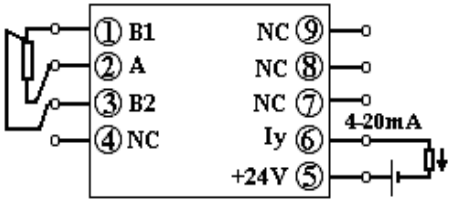

Figure3, product connections diagram

Pin 1: B1, resistance input terminal 1;

Pin 2: A, resistance input terminal 2;

Pin 3: B2, resistance input terminal 3;

Pin 5: +24V, auxiliary power supply positive terminal;

Pin 6: Iy, AC current output terminal;

Note: NC pin, can not be used for other purposes.

6 Mounting Diagram

DIN35rail mounting size: card slot width 35.5mm;

Screw mounting size: 73 mm×26.8mm;

http://www.ce-transducer.com
sales@ce-transducer.com
Unit 501,BLDG C, BAOFU Jewelry Garden, 33 BULAN Road, Longgang district
Shenzhen City, China Post code: 518114

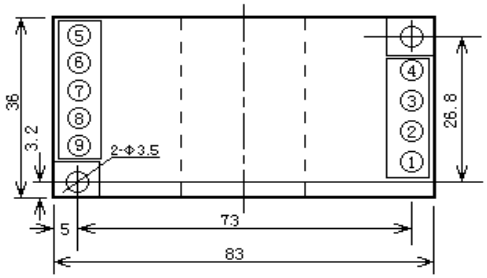

Figure4 DIN rail or screw installation plan

7 Notes

7.1The three-wire connection of platinum resistance is helpful to reduce the additional temperature measurement error due to the long lead. Please wiring follow the connection diagram. If the electromagnetic interference is large in the scene, can consider to use shielded leading wire.

7.2 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.

7.3 Must connect the signal input, output and auxiliary power supply correctly according to corresponding connections diagram of the product model. Confirm there is no mistake then apply power to the transducer.

7.4 The transducer should only be used in environment without dew, conductive dust and damaged insulation, metal corrosive gases.

7.5 If a group of transducers are mounted together, keep a space more than 10mm between adjacent units.

7.6 The transducer's zero point and accuracy have been calibrated before delivery, please do not calibrate casually. If indeed to calibrate, please contact with our company.

7.7 Integrated structure of the transducer, non-removable, and should avoid collision and fall, don't modify or tear off any labels of the product.

7.8 There is no lightning protection circuit inside the transducers. Please adopts lightning protection when the input and output feeders of the transducers are exposed to adverse weather conditions.