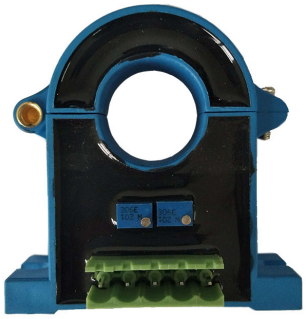
THST21WA-RS485

Digital output current transmitter

Sub-plate mount, Crimping terminal output.Detect AC and pulse current, High insulation between primary side and the vice side circuit.

Front view



Back view

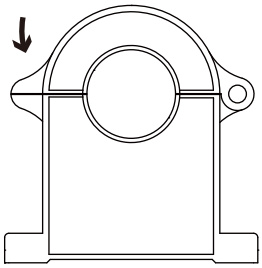
Fixed hole view

Opening view

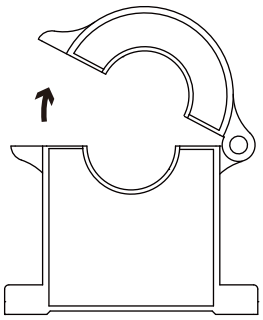
Product features

- Light weight
- Low power consumption
- Good linearity
- No insertion loss
- Fast response time
- Good anti-interference ability

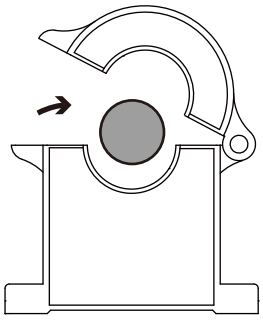
Installation diagram



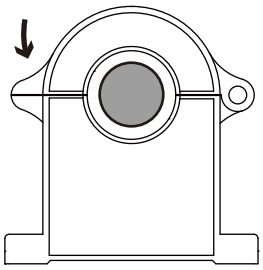
1. Loosen the screw



2. Open up



3. In the lead



4. Tighten the screws

Product application

- Railway
- Metallurgical
- Welding machine
- Robot
- Motor
- Inverter power supply
- Variable frequency governor
- Uninterrupted power supply and communication power supply

Electrical parameters: (The following parameters are typical values and actual values will be subject to product testing)

							Remarks
Rated input	50A	100A	200A	300A	400A	500A	Standard input
Input measurement range	60A	120A	240A	360A	480A	600A	Default is 1.2 times the input rating
Rated output	Hexadecimal measurements						
Accuracy	1%						
Linearity	0.5%						
Supply voltage (±5%)	±15V						*Can't make to order other power supply
Current consumption	≤50mA						Reference will be subject to the measured
Transmission distance	≤1000m						
Zero offset TA=25℃	≤±15mV						
Response time	≤20ms						500 m transmission line, baud rate is 56000bps, even check test results
Communication protocol	RS485 Modbus RTU						
Baud rate	9600bps(Acquiescence)						14400bps/19200bps/38400bps/56000bps ((optional)
Device address range	0X01(Acquiescence)						0X01~0XF7(Can be modified)
Check digit	Parity check(Acquiescence)						Odd check/no check (optional)
Weight	97g						
Operation temperature	-10～+70℃						
Storage temperature	-25～+85℃						
Band width	50~60Hz						Factory test
Delectric strength	2.5KV 50Hz 1min						

Instruction for use:

1. Correct wiring as indicated

2.Full scale measurement, response time and following the speed for the best

3. Faulty wiring can lead to product damage and output uncertainty

Safe operation:

*Please read this specification carefully before use.

*When you need to move the product, please be sure to disconnect the power and all the connected cables.

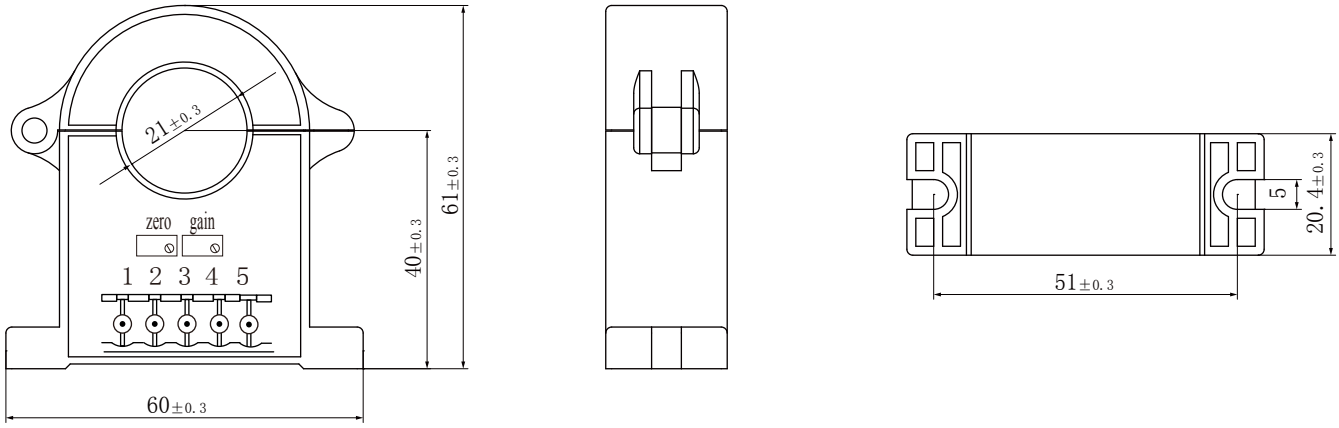
*If found shell, devices attached to the fixed parts, wire, or have any damaged, please immediately deal with hidden dangers.

*If there is any doubt about the safe operation of the equipment, the equipment and the corresponding accessories should be closed immediately, and the fastest time for troubleshooting.

Proclamations:

As our products are constantly being improved and updated, we reserve the right to modify the content of this specification at any time without prior notice.

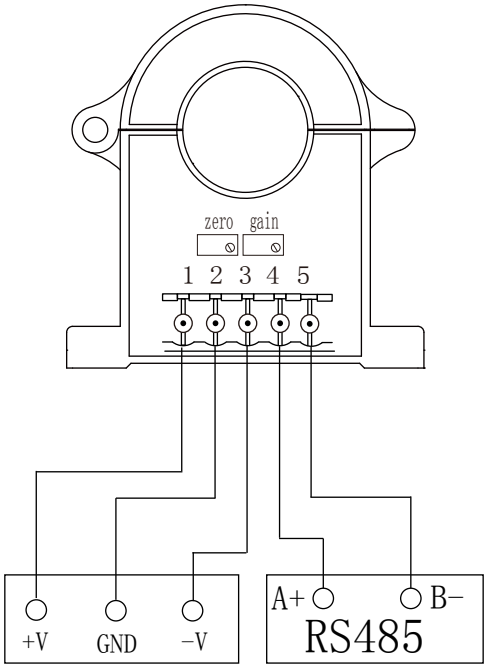
Dimensions(in mm±0.5）：



Connector Illustration:

Crimping terminal plug, spacing 5.08 mm

Wiring diagram:



Terminal definition：

1：+V
2：GND
3：-V
4：A+
5：B-

Potentiometer definition：

Left： zero
right： gain

※①Choose ripple small (≤20mV)
Stabilized auxiliary power supply
②Switch on auxiliary power
③Auxiliary power supply connection transmitter
④The transmitter detects primary current

Communication protocol and instructions

Model：THST21WA-RS485 Power supply：±15V Rated input： Check bit：Parity check(Acquiescence)

Baud rate：9600bps（Acquiescence）

Output signal: The serial communication RS485 interface is adopted, the transmission mode is semi-duplex asynchronous, the starting bit is 1 bit, the data bit is 8 bits, the stop bit is 1 bit, the data transmission rate is 9600bps. Use RTU mode in MODBUS communication protocol.

COMMAND(To command）：

0×01 0×03 0×00 0×01 0×00 0×01 0×D5 0×CA

RETURN(Return information）：

0×01	0×03	0×02	0×0X	0×XX	0×XX	0×XX
Address of slave device	Function code	Register number	Data height	Low data	CRC-L	CRC-H

Start bit	Device address	Function code	Data	CRC	Check end
T1-T2-T3-T4	8Bit	8Bit	n 8Bit	16Bit	T1-T2-T3-T4

Input/Output Table (theoretical value) :

Current input（A）	RS485 output	corresponding decimal number
20%	0X0_ _ _ _	_ _ _ _
40%	0X0_ _ _ _	_ _ _ _
60%	0X0_ _ _ _	_ _ _ _
80%	0X0_ _ _ _	_ _ _ _
100%	0X0_ _ _ _	_ _ _ _
120%	0X0_ _ _ _	_ _ _ _

Note： (1) The input/output correspondence shall be negotiated between the manufacturer and the customer, and the signed version shall prevail

(2)1V corresponds to the decimal number 1000 and the RS485 output is 0X03E8

2V corresponds to the decimal digit 2000, RS485 outputs 0X07D0

Note: Please ensure that the upper and lower parts of the sensor are tightly connected so that the measured data are accurate; The sensor is accurately calibrated before leaving the factory, and the user generally does not need to re-calibrate.