



Mianyang Weibo Electronic Co.,Ltd

*Designing, Manufacturing and Supplying WB Series Electric Isolated Sensor and Digital
Electrical Transducer since 1989*

USER MANUAL

WBI224LY05-25 Open Loop Hall Effect Current Sensor

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Quality Complain: +86 816 2278273

Fax Line: +86 816 2281934

ISO9001 ISO14000 ISO18000

Certified

Quality Warranty

Any quality problem found in WB series products, we offer

Three years free charge of repair the products, and six months guaranteed free charge of change and return the products.

Mianyang Weibo Electronics Co. Ltd

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WBI224LY05-25 Open Loop Hall Effect Current Sensor

Safety Claim

The information in the safety claim of the equipment documentation is intended to ensure that equipment is properly installed in order to maintain it in a condition.

It is assumed that everyone who would be associated with the equipment should be familiar with the contents of that safety section, or this safety guide.

When electrical equipment is in operation, dangerous voltages will be present in certain parts of the equipment (e.g. the input terminal). Failure to observe warning notices, incorrect use, or improper use may endanger personnel and equipment and cause personal injury or physical damage.

Before working in the terminal strip area, the equipment must be isolated.

Proper and safe operation of the equipment depends on appropriate shipping and handling, proper storage, installation and commissioning, and on careful operation, maintenance and servicing.

The operating manual for the equipment gives instructions for its installation, commissioning, and operation. However, the manual cannot cover all conceivable circumstances or include detailed information on all topics. In the event of questions or specific problem, do not take any action without proper authorization. Contact the appropriate WB technical sales office and request the necessary information.

Standard Application

1. Accuracy

Accurate degree is conformed to IEC688:1992

2. Safety

2.1 Overload capability

Overload capability is conformed to IEC688:1992

2.2 Isolation voltage

Can be endured testing voltage is conformed to Q/72085584-0.1-2004

2.3 Insulation impedance

The insulation impedance is no less than 20M Ohm, is conformed to Q/72085584-0.1-2004

3. Electromagnetic Capability

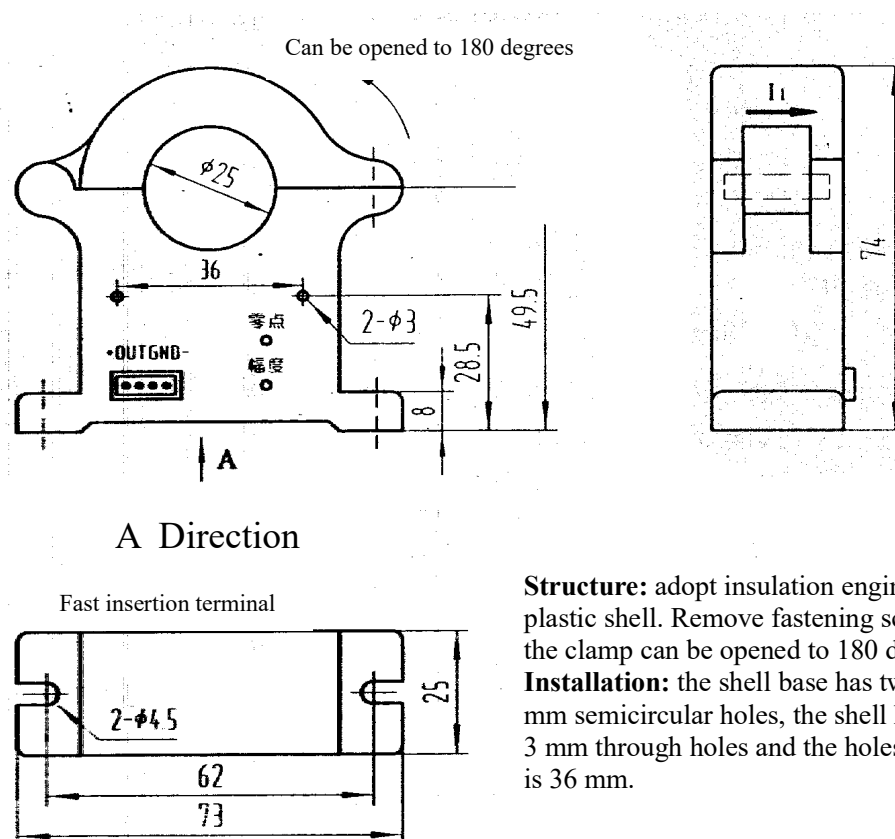
3.1 Electromagnetic field immunity test according to IEC 61000-4-3:1995

3.2 Power frequency magnetic field immunity test according to IEC 61000-4-8:1993

Product Description and Application

This product adopts the Hall effect to measure the AC and DC current of the power grid in real time. Using precision constant current technology and linear temperature compensation technology, it is converted to standard current output, and the characteristics of AC/DC current general-purpose, strong overload capacity and high isolation.

Product Dimensional Drawing (unit: mm)



Structure: adopt insulation engineering plastic shell. Remove fastening screws, and the clamp can be opened to 180 degrees.

Installation: the shell base has two $\Phi 4.5$ mm semicircular holes, the shell has two $\Phi 3$ mm through holes and the holes spacing is 36 mm.

Key Technical Data:

1. Input: AC/DC 50A~400A (customizable);
2. Working Range: AC/DC 100A~600A;
3. Output: DC 4~20mA;
4. Accuracy : 1%;
5. Linear Range: 0%~120% nominal input;
6. Frequency Range: DC~1kHz;
7. Responding Time: $\leq 150\text{ms}$;
8. Overload Capacity: 20 times of nominal input current, hold for 5 seconds;

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- 9. Auxiliary Power: DC $\pm 12V \sim \pm 15V$, $+12V \sim +15V$, $+24V$;
- 10. Offset Voltage: $\leq \pm 25mV$ (When input current is 0, and ambient temperature is $+25^{\circ}C$);
- 11. Isolation Voltage: $> AC 6kV$, 1 minute;
- 12. Relative Humidity: $\leq 95\%$;
- 13. Ambient Temperature: $-25^{\circ}C \sim +70^{\circ}C$;
- 14. MTBF: $> 50000h$;
- 15. Weight: 300g;
- 16. Temperature Drift: $\leq 400ppm/^{\circ}C$.

Instruction of Installation and Use (If it is the wire output, and the color is different. The final color is subject to the actual product)

1. Pin definition: + ~auxiliary power positive pole (red), — ~auxiliary power negative pole (white, the single power supply is empty), GND ~auxiliary power grounding (black), OUT ~output (brown);
2. The forward voltage output is obtained when the input flows in the direction of arrow;
3. When the measured current is less than 1/2 rated value, the best accuracy can be obtained by using multiple winding (Measured Current Value \times Turn Number = Rated Input Ampere-turn).

Caution:

1. Pay attention to the auxiliary power information, especially the auxiliary power grade, and polarity, otherwise will damage the product.
2. Pay attention to the wire connection; wrong terminal connection will cause malfunction of the product and even damage the product;
3. Don't dismantle the product, and carry with care to avoiding bump and fall of the product;
4. If the product has been using under the environment with strong magnetic field interference, please pay attention to the shield of input wire, and the output signal wire should be as short as possible. For product intensive installation, the space between each product should not be smaller than 10mm.
5. Only use identified terminals.
6. There is no lightning strike prevention circuit design in this product. For out door and hazardous environment using, please add protective alternatives.
7. This product uses fire prevent ABS crust, its temperature withstand is only limited as $+85^{\circ}C$, higher than this limitation will cause the product deformation. Please use and store carefully.