



Mianyang Weibo Electronic Co.,Ltd

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

USER MANUAL

WBL551AT03-20 (Small) DC Leakage Current Sensor

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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.

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WBL551AT03-20 (Small) DC leakage 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

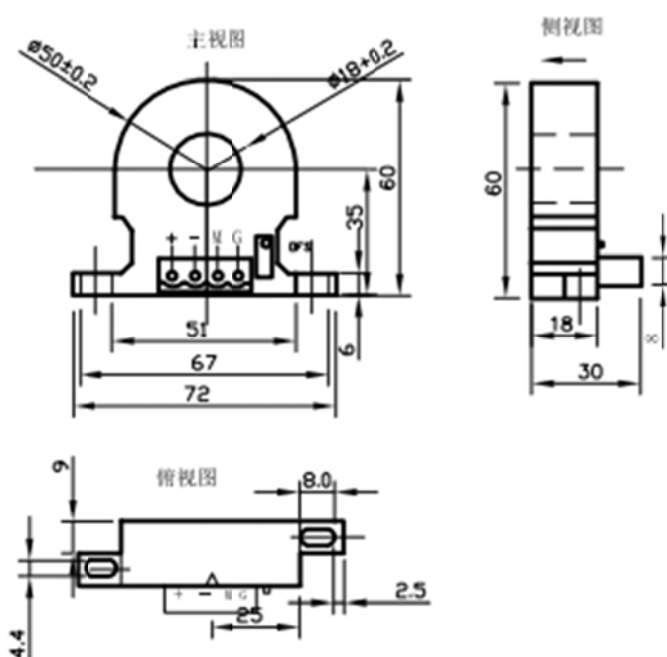
- UL94-V0.
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

Product Description and Application



This product adopts the principle of phase difference magnetic modulation to measure DC current and differential current (leakage current). 100% thermal aging treatment and high temperature drift test to ensure good long-term stability, and it has the characteristics of full seal, micro power consumption, galvanic isolation between primary circuit and secondary circuit, strong overload capacity, easy installation and high cost performance. Sensors with different input current and output voltage can be customized according to user needs.

Product Dimensional Drawing (unit: mm)



Key Technical Data:

- | | |
|---------------------------|---|
| 1. Input: | DC $\pm 10\text{mA}$, $\pm 20\text{mA}$, $\pm 50\text{mA}$, $\pm 100\text{mA}$; |
| 2. Output: | $\pm 4\text{V}$, $\pm 5\text{V}$; |
| 3. Accuracy : | 1%; |
| 4. Load Resistance: | $\geq 10\text{k}\Omega$; |
| 5. Working Voltage: | $\pm 12\text{V} \sim \pm 15\text{V}$; |
| 6. Linearity: | 0.5%; |
| 7. Temperature Drift: | $\leq 200\text{ppm}/^\circ\text{C}$; |
| 8. Isolation Voltage: | 3000V/50Hz/1min; |
| 9. Operating Temperature: | $-10 \sim 75^\circ\text{C}$; |
| 10. Storage Temperature: | $-20 \sim 85^\circ\text{C}$; |
| 11. Weight: | $< 90\text{g}$; |
| 12. Shell Material: | Flame retardant ABS; |
| 13. Aperture: | $\Phi 20\text{ mm}$; |

14. MTBF: > 50000h.

Instruction of Installation and Use

1. The product adopts screw installation.
2. The sensor has been calibrated according to the **Product Standard** ,before out of the factory. After correct wiring, it can be powered and used immediately. When it is measured accurately, please sampled after the preheating 3 minutes.
3. When the measured current is passed through the sensor, the voltage can be measured at the output end. (Note: the wrong wiring may cause the sensor damage). Customers can adjust output amplitude of the sensor by needs.

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 lightening 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℃, higher than this limitation will cause the product deformation. Please use and store carefully.