Gauss Meter

Instruction manual

1. Introduction

Gauss meter is a portable high sensitivity and wide range magnetic field detector. The device is mainly used to detect the magnetic field strength of the magnet surface, which has the characteristics of accurate measurement, high precision and good stability. Using high-definition TFT screen, simple and friendly UI design, easy to operate, support Chinese and English bilingual menu.

2. Application scenarios

It is applied to magnetic field strength detection on magnet surface, consistency detection of magnet products, magnetic field strength detection on permanent magnet motor surface, and magnet quality determination. Environmental magnetic field detection, magnetic field speed detection, etc.

3. Features

- Automatic zeroing on power-on and manual zeroing by pressing the key.
- Low power consumption design, 16 hours of battery life.
- Built-in rechargeable lithium battery.
- It can store 50 groups of measurement data.
- Full color TFT LCD display, humanized UI interface, easy to operate.
- Equipped with high sensitivity and high precision Hall sensors.
- It is certified by Shanghai Metrology Institution of China.

4. Technical specifications

- **Sensor:** High-precision Hall sensor
- **Magnetic field resolution:** 0.01Gs / 0.01mT
- **Measurement range:** 0-25k Gs / 0-2500 mT
- **Measurement Accuracy:** ±1%, ±2%, and ±5%
- **Battery life:** ≈16 hours (continuous working mode)
- **Operating temperature:** -20~60°C (The maximum temperature of the external probe is 125°C)
- **Charging Port:** TYPE-C Port
- **Host size:** 140*63*27mm
- **Data Storage:** Built-in storage of 50 groups of data.
- **Weight:** about 130g

5. Key press function

Key name	Logo (Silkscreen)	Key press operation	Function
ZERO	ZERO	Long press	Sensor zeroing
Hold	HOLD	Short press	Hold value
Left		Short press	Move cursor/Decrease value -
		Long press	Value fast decrease -
Right		Short press	Move cursor/Increase value +
		Long press	Value fast increase +
Power/OK		Short press	Confirm/Switch option
		Long press	Power On/Off

6. Operating instructions

1. Power On/Off

1. When the device is in Power On state, long press the power button “ ⏻ ” for about 3s. The screen will display "Welcome..." .
After powering on the device, it will enter the testing interface: magnetic field detection interface.
After power on (the screen lights up), long press the power button for about 3s. "Goodbye..." will appear on the screen.

2. Zero Calibration

After the device is turned on, the device will enter the main interface of magnetic field detection, keep the top of sensor away from the magnetic field, press and hold down the **“ZERO”** key, the upper right corner of the screen will show **“Zeroing finish”**, and the zeroing calibration will be successful.
Note:
① Due to the Earth's local magnetic field, there is still a fluctuation of approximately ±0.5Gs after zeroing, which is a normal phenomenon.
② The device will automatically zero calibrate itself during startup. Please stay away from magnetic fields during the startup process.

3. Magnetic Field Detection

Remove the cap of the probe and place the sensing element surface with a “Test” marked ,towards the magnetic field to be tested for detection. Click the **“HOLD”** button to hold the current data .

Move the cursor to **“Save”** option, click the power button , and confirm (hereinafter referred to as **“OK”** for simplicity) to save the current value to the specified history record (data cannot be saved if there is no current value to be saved).

Move the cursor to the **“Clear”** option and press power button to reset the current maximum value **/MAX** and **“HOLD”** value to zero.

Note: The unit of magnetic field can be switched in the **“Unit”** settings (“Gs” ~“mT”).

4. Quality Inspection Testing

In the magnetic field detection interface, select **“Return”** and confirm to enter the nine-grid menu. Move the cursor to **“QC Test”** option and confirm to enter the quality inspection test mode. Align the probe with the sample to be tested, select **“Test”** option and confirm to test each sample one by one (click once for each product tested). Select **“Clear”** to reset the current count to zero.

Note: The upper/lower limits of the magnetic field and the polarity parameter need to be set in the "Alarm".

5.Speed Measurement By Counting

Under the main menu, select “Speed” option and confirm to enter the count speed mode. Select the **“Wheel Diameter”** option and confirm, click the left or right keys **“ ◀ / ▶”** to set the corresponding value of **“Wheel Diameter”**. In the appropriate position of the product to be tested, fix a magnet of suitable volume, and you can test its rotation speed or count. Select “🔓” and confirm to lock the button.

Note:

1. Speed and mileage units can be switched in the unit settings (“km/h”~ “mph”).
2. When measuring speed, pay attention to securing the magnet tightly and maintaining an appropriate distance between the sensor and it to prevent unnecessary damage.
3. On the counting speed interface, the screen will not automatically turn off.

6.History Records
Under the main menu, select **“Records”** and confirm to enter.You can view the saved hold data and polarity data (up to 50 groups).
Select the target data group, click the **“ZERO”** key to delete this record data, long press the **“ZERO”** key to delete all historical record data!

7.Alarm limit value
Under the main menu, select "Alarm" option and confirm to enter. Select the setting sub-item and press power button key to confirm . The blue icon flashes into editing mode. Click the left or right keys “◀/▶” to change the settings of each limit value (long press for fast increase/decrease). After making the changes, click the power button again to exit the editing mode.

8.Power saving settings
Under the main menu, select **“Sleep”** option and confirm to enter the energy-saving settings. You can set the screen-off time, automatic shutdown time, and alarm sound. If the icon “ ” points to the lock icon “ ”, the corresponding function is disabled.
Note: The alarm sound is in the on state, and it will only sound an alarm when the test value exceeds the limit on the magnetic field test main interface. When leaving the magnetic field test interface, the alarm sound will disappear.

9.Language settings
Under the main menu, select **“Language”** option and confirm. Move the cursor to **“Language”** and click the power button to switch between “Chinese/**CHN**” and “English/**ENG**”.

10.Calibration (This operation requires professional personnel)
Under the main menu, select **“Calibrate”** and click power button to enter the calibration mode, select the corresponding calibration factor and click power button, enter the password, click on the left and right keys “◀/▶” to adjust the password value to “0018” for modification.
Note: The column of factory calibration is calibrated by the factory, and users don't need to modify it!

11.Charging
When the device is connected to the USB, the device's green indicator light will turn on, indicating that the device is charging. During the charging process, the power indicator icon displayed on the screen will turn into a green blinking state. When the battery is full, the power indicator icon will stop blinking, and the indicator light will go out.

Attention

1. The sensor probe is a sensitive and fragile component, and the protective shell needs to be covered after using.

2. When the boot up the device , keep the sensor probe away from the magnetic field, otherwise it will affect the zeroing calibration of start-up.

3. The protection degree of this product is IP3X. Please keep the device away from water. When not using this product, please store in a dry and ventilated place.

4. Please charge the battery fully when it is not used for a long time. To avoid battery loss and affect battery life.