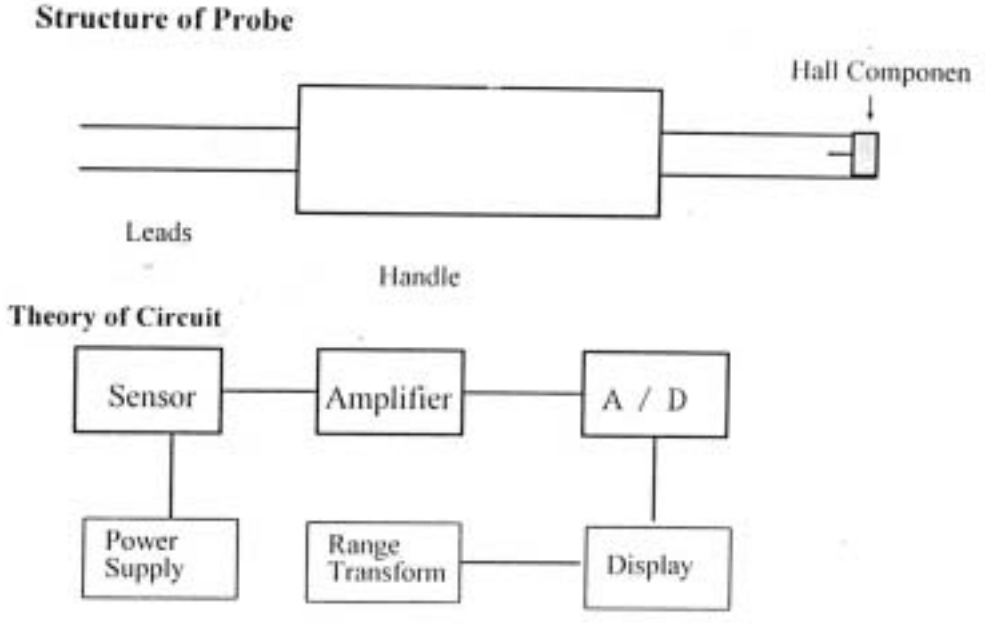
production. The instrumentation can change measuring range, amend Non-linearity error automatically by hardware circuit. The circuit's design is reasonable and the performances are credible. The instrument has been employed widely in aviation, metallurgy, engineering physics, and Academy of China Science and Computation departments.

The instrument can be used to measure surface magnetic field, aperture magnetic field, act as the criterion of magnetic field and so on. The instrument can transform magnet into electricity by Hall component and can show the measured value by LED. It can match appropriative probe and as thin as a wafer probe.

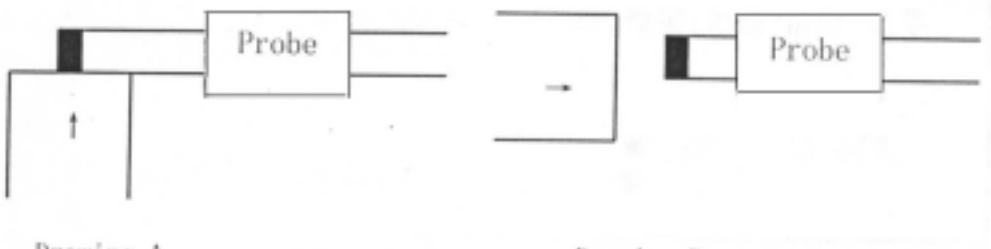
- **Structure and Theory**

  SHT-Ⅱ digital Gaussmeter employed GaAs Hall component with high precision and stability as sensor to measure magnetic field.



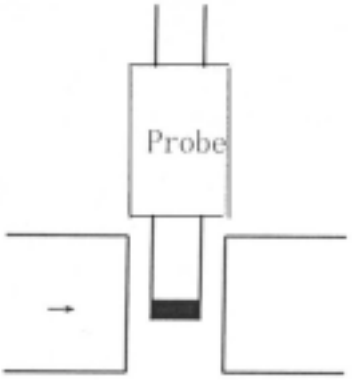
- **Usages**

  1. The instrument can employ radial sensor to measure surface magnetic field. The probe should be vertical to the measured magnetic field and be close to the field. (See Drawing A)
  2. The instrument can employ landscape orientation sensor to measure surface magnetic field. The top of probe should be vertical to the measured magnetic field. (See Drawing B)
  3. Measure aperture magnetic field with as thin as wafer probe or special probe. (See Drawing C)



Drawing A

Drawing B

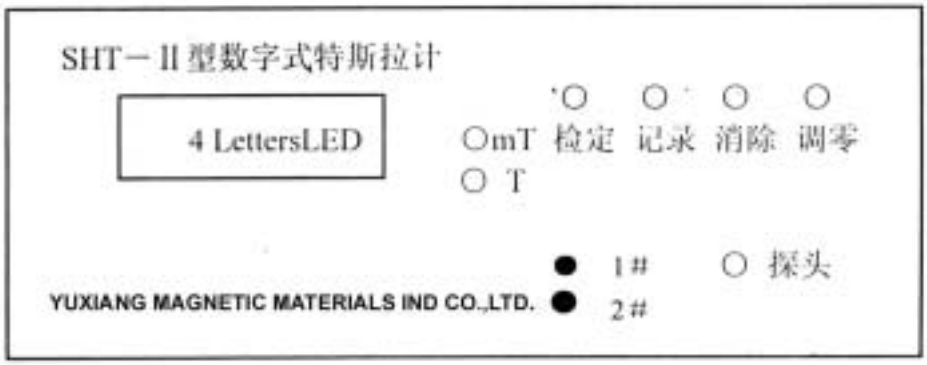


Drawing C

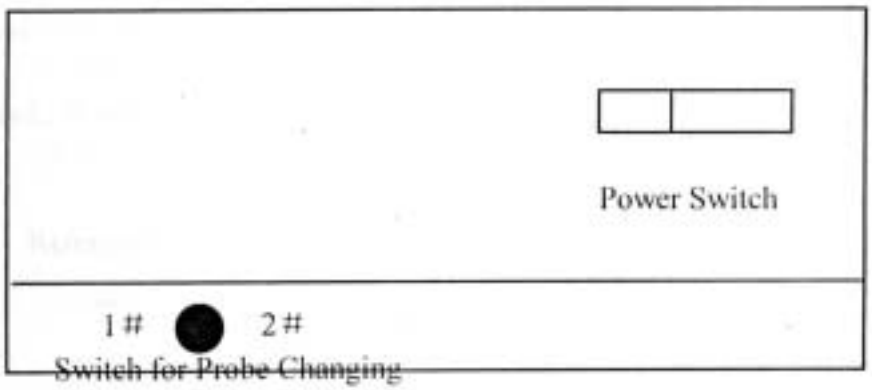
- **Parameters**

1. Measuring Range: 0~2T
2. Precision: ±0.2% FS (20℃±2℃)
3. Transferable Measuring Range:
   First Range: 0~200mT
   Second Range: 0.2~2T
4. Resolution: 0.01mT(range:0~200mT)
   0. 1mT(range:0. 2~2T)
5. Sampling Speed: 3~5 time/second
6. Display Style: 41/2 letters LED
7. Measuring Range transform: automatically
8. Dimension of Probe: 1.1X3.1X20 + φ16X42mm
9. Operating temperature:5~40℃
10. Auxiliary Power Supply: 220V/50Hz±10% AC
11. Volume: 230X80X220mm

- Panel Illustration



Front Panel



Back Panel

- How to operate

1.Power on. “8.8.8.8.8.” flash three times on the panel.

2.Warm-up for 10 minutes.

3.Put the switch to 1# position in back panel. Put the probe far away from magnetic field. If the display is not zero, put the “zeroing” button. Then you enter the measuring mode.

- **Keypads Illustration**

1. Zeroing： Put the button, display□ □0□ □first, then 00.00

2. Cancel：Put the button. The display is the monolog voltage of probe. If the display is bigger than 5mT, open the instrument and as just 1# potentiometer.

3. Record：Put the button. The instrument display measured value and hold the value. Put the “cancel” button back to measure mode.

4. Inspect：The button is only used for checking the instrument.

- **Precaution**

1. Put away the hat when measuring and put on the hat after measuring.
2. The probe must not be crashed, bended.
3. Guarantee to keep the instrument in good repair for one year. (Exclude the probe).
4. When employ “1#” probe, put the switch to 1# position in back panel. When employ “2#” probe, put the switch to 2# position.

1# Probe Number:04084 2#Probe Number:04088

- **Reference:**

1T=1000mT

1mT=10Gs