Model CT-5A Tesla meter

Technical specifications:

(1) Measuring range (mT):0~10~50~100~250~1000~2500mT

(2) Polarity of Magnetic field: N and S

(3) Accuracy: 50, 100, 250, 1000 +/-2.5% 0~10 +/-5%

Operating temperature:+5℃ ~ +40℃

Overall dimension of Hall sensor:3.2x1.1x35mm

Using position: Horizontal position

Power supply: 220V+/-10%

Overall dimension of tesla meter: 210x160x100mm

Operating instructions:

1.Caution:

(1) Hall sensor in the probe is fragile. Care should be taken to protect the Hall element from excessive stress due to shock, pressure, bending and bump.

(2) Tesla meter should be kept and used by assigned person, so as to minimize the possibility of damage.

(3) User manual should be read carefully before operation.

(4) Before operation, please check if there's calibration constant marked on the probe.

(5) Before operation, please check if the copper sleeve on the hall sensor is tight enough, if not, please fasten it.

(6) Hall sensor should not be used in environment with strong sunlight, temperature higher than 60℃ and corrosive gas.

(7) Tesla meter should not be stored near strong magnetic field, and should be keep at least 1M afar from the

same.

2. Operating instructions

(1) Zeroing—Turn the measuring knob to “OFF”(关) first, adjust the mechanical zero setter(0) in the instrument's center, to make the pointer locate on zero line(0).

Caution: --This process should be adjusted carefully before connecting power supply, so as to ensure the accuracy rate.

(2) Connecting power supply.

a. Connecting power supply outlet and Hall Sensor with Tesla meter

b. Press down the power supply indicator “.” On the left side.

c. Connecting power supply (220V+/-10%, 50Hz)

(3) Calibration line adjust—When the measuring knob indicates “Calibration”(校准), the pointer should locate near the “”calibration constant"(which could be found on the probe). Warm-up for 30 minutes, then adjust the “calibration” hole(校准), make the pointer locate exactly on “calibration constant”.

Caution:

a. this equipment adopts constant current circuit, and usually the current changes seldom. Adjust is only needed when ambient temperature changes considerably. If the current fluctuates too greatly, please check if the constant current apparatus is out of order.

(4) Zeroing of amplifier—adjust the measuring knob to indicate “0”, adjust mechanical zero setter(0) in the instrument’s center, and make the pointer to locate exactly on zero line(0).

(5) “Zeroing” knob(调零)

a. When use 50~2500mT measuring range, adjust the measuring knob to indicate “50”, then adjust the “zeroing” knob(调零), to make the pointer to locate exactly on zero line (0), then adjust the measuring knob to the range which will be measured, after repeating the zeroing process, measuring work could start.

b. When use 10mT, adjust the measuring knob to indicate “10”, then adjust the “zeroing” knob(调零) to make the pointer to locate exactly on zero line (0).

Caution:

a. when in use(especially measuring 10~100mT), if the probe is pressed, distorted or temperature on the magnets to be measured changes, the zeroing process should be performed to eliminate errors.

b. Due to the high sensitivity of 10mT measuring range, tester should check frequently if the zero line"0" changes? If so, zeroing process should be performed before measuring.

c. When zeroing, the hall sensor should not be place near magnetic field.

(6) Measuring:

a. Adjust the measuring knob to the measuring range desired.

b. Remove the metal and plastic protecting cap on the hall sensor.

c. Put the top of hall sensor into the magnetic field to be measured,

d. Slowly moving the hall sensor, locate the max. Value (the angle between magnetic field measured and hall sensor should be 90degree) measured on the magnets, which is the reading of magnetic field measured.

e. When measuring is finished, adjust the measuring knob to "OFF"(关), the turn off the power supply, disconnect the hall sensor.

Caution:

a. Before measuring, please check and ensure the above 1~5 processes are correct.

b. When measuring, hall sensor's plane should be perpendicular to the magnetic field to be measured.

c. When measuring, the hall sensor should be moved slowly and slightly, to prevent it from being damaged.

(7) Polarity identification of magnetic field:

When measuring, when the pointer locate from "0" to max. Value measured, check the copper tube on the hall sensor, the side with "N" on the probe is N pole, and conversely it is S pole.

(8) Package content:

1. CT5A tesla meter: 1set
2. Hall sensor: 1pcs
3. Wire connecting power supply: 1pcs
4. Carton: 1pcs
5. User manual: 1 copy
6. product's qualification certificate: 1 copy
7. fuse: 2pcs