

# TM6160B AC/DC Tesla Meter



## 1 Summary

The **TM6160B** is a versatile AC and DC Teslameter with a maximum magnetic field of 3 T. It can directly measure the DC magnetic field generated by the magnetic field generator, and the space AC magnetic field. It is also suitable for the magnetic field measurement in the impact test of the **OIML R46**.

## 2. Features


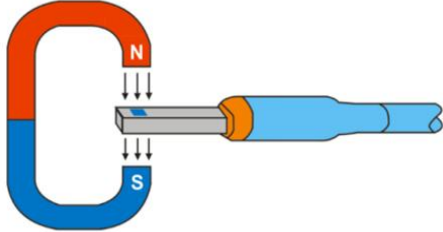


- DC and AC measurement modes.
- Measure medium and high DC magnetic fields with a Hall probe.
- Measure low AC magnetic fields with a coil probe.
- Data statistics, stability analysis functions.
- Unit switch: G, mT, Oe, A/m.
- +/- polarity display.
- Alarm of exceeding the upper / lower limit.
- Set magnetic field integration period.
- Digital and analog signal output.
- LCD touch screen.

### 3. Application



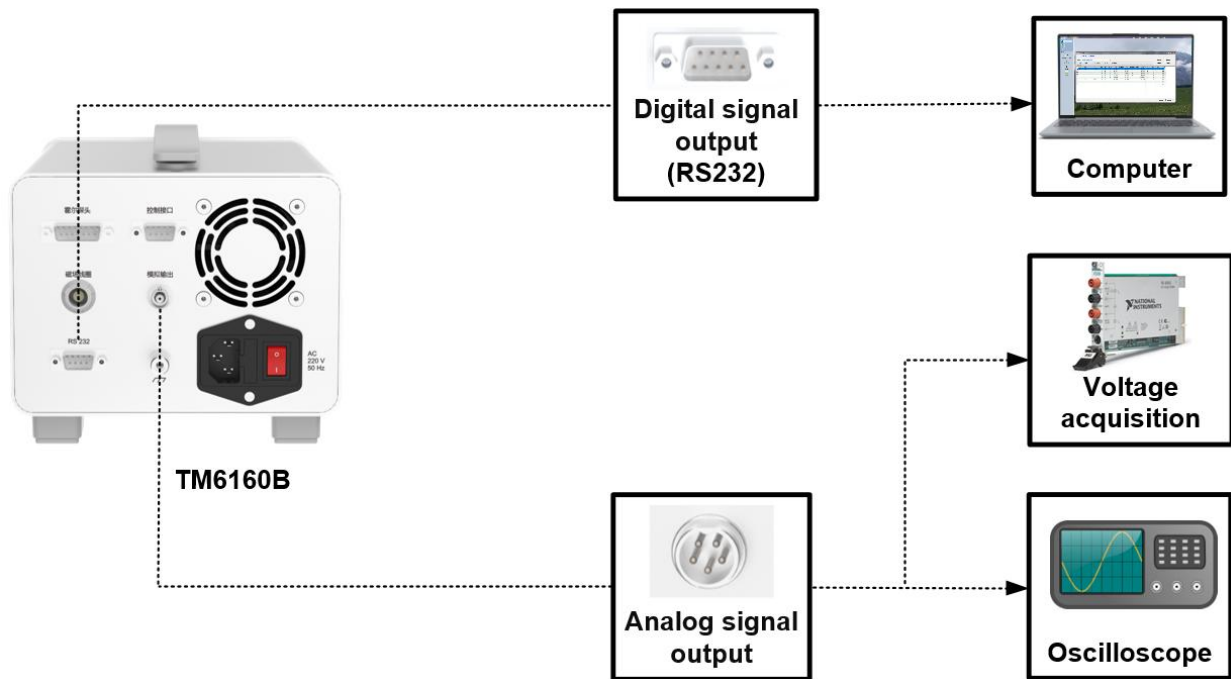
### 4. Features

☆ Optional Radial or Axial Hall Probe

<p>Radial Hall Probe</p>		
<p>Axial Hall Probe</p>		

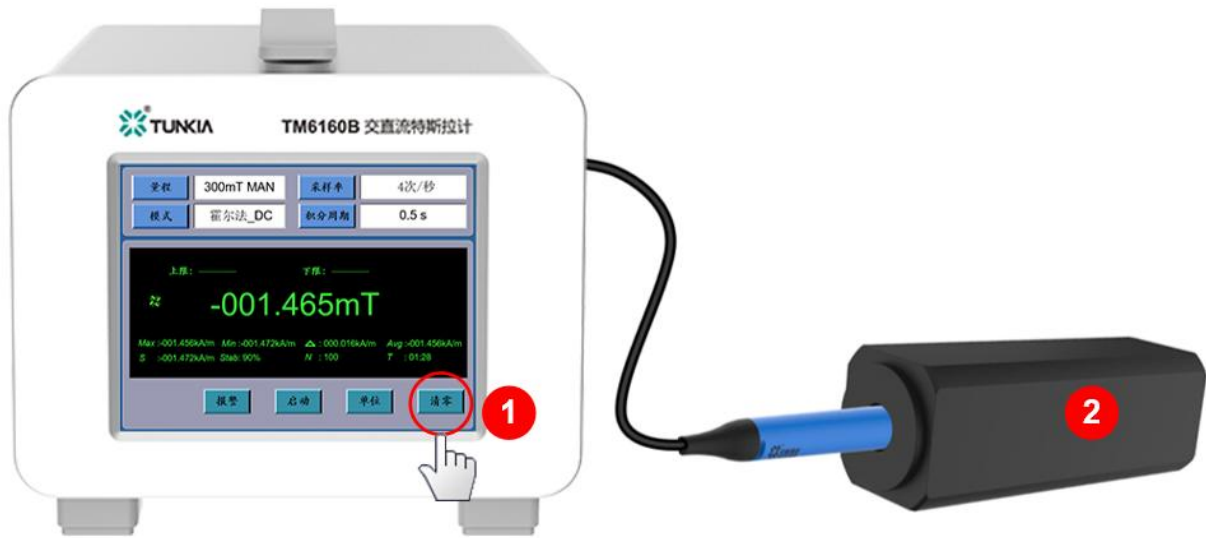
● Standard configuration is **Radial Hall probe**, also can choose **Axial Hall probe**.

### ☆ Digital and Analog Signal Output



- Two output modes of digital signal and analog signal.
- Directly output the secondary analog signal, and can adjust the maximum output voltage.

### ☆ One-key Clear Function/ Zero Drift Calibration



### Zero Drift Calibration Operation

NO.	Function Description
<b>1</b>	<b>One-key clear function:</b> eliminate the influence of zero drift on the measurement before measuring.
<b>2</b>	<b>Magnetic shielding cavity (optional):</b> <ul style="list-style-type: none"> <li>● Realize the calibration of the zero drift.</li> <li>● Can completely remove the influence of the earth's magnetic field with the shielding material of high magnetic permeability.</li> <li>● Internal magnetic field <math>&lt;10^{-6}</math> T.</li> <li>● Small size, light weight (about 1 kg).</li> </ul>

## 5. Specifications

### 5.1 Coil Probe

Range	10 $\mu$ T	100 $\mu$ T	1 mT
Resolution	1 nT	10 nT	100 nT
Accuracy	$\pm 0.2 \mu$ T	$\pm 2 \mu$ T	$\pm 20 \mu$ T
Measuring Range	1 $\mu$ T ~ 1 mT		
Frequency Range	45 Hz to 65 Hz		
Display Digits	5		



### 5.2 Hall Probe

Range	3 mT	30 mT	300 mT	3000 mT <sup>②</sup>	
Resolution	0.1 $\mu$ T	1 $\mu$ T	10 $\mu$ T	100 $\mu$ T	
Accuracy $\pm$ (ppm of reading + ppm of range) <sup>①</sup>	DC	1.0% + 0.05	1.0% + 0.1	0.5% + 1	0.2% + 2
	AC	2% + 0.15	2% + 0.2	1% + 1	1% + 2
Measuring Range	0.3mT ~ 3T				
Frequency Range	DC to 1kHz				
Display Digits	5				
Remark	① (ppm = parts per million) (e.g., 10ppm = 0.001%) ② Actual calibration only covers up to 2.5 T				

## 6. General Specifications

<b>Power Supply</b>	AC ( 220 ± 22 ) V, ( 50 ± 2 ) Hz
<b>Temperature Performance</b>	Operating temperature: 0°C~50°C Storage temperature: -20°C ~ 70°C
<b>Humidity Performance</b>	Operating humidity: 40% ~ 80 % R·H, non-condensing Storage humidity: < 80% RH, non-condensing
<b>Altitude</b>	< 3000 m
<b>Weight</b>	About 5 kg
<b>Interface</b>	RS232, Hall probe input, coil input interface
<b>Dimensions</b>	185 mm (W) × 280 mm (D) × 170 mm (H)

## 7. Probe Selection

Serial number	Picture	Name	Specification	Quantity	Remark
1		TM1100 Hall Probe	Radial	1	Standard Accessory
2		TM1110 Hall Probe	Axial	1	Optional

**Note: The users should indicate the probe in the order contract.**