

# Model 6010 Hall Effect Gaussmeter



## Description

The Model 6010 Hall-effect gaussmeter represents the latest innovations and state-of-the-art designs from the world leader in magnetic measuring equipment. F.W. Bell's exclusive *Dynamic Probe Correction* feature, along with temperature compensation, allows measurements from 0 to 300 kG with a basic accuracy of 0.25%.

Key features include Peak Hold, Max/Min Hold, Auto Zero, Auto Range, Relative Mode and Temperature measurement. The Model 6010 allows the user to select Gauss, Tesla or Ampere/Meter readings. The Model 6010 also features a corrected analog output ( $\pm 3$  V Full Scale for each range), an RS-232 communications port, a rechargeable battery and probe temperature compensation. The Temperature measurement feature, used with the new 6000 Series 5th Generation Hall-effect gaussmeter probes, allow the user to take temperature readings (-40 °C to +85 °C) while monitoring the magnetic field. The easy-to-read large format alpha-numeric LCD, with dual 3 3/4 digit read outs, gives the user magnetic field flux density readings while also displaying temperature (or Peak Hold, or Max/Min Hold)

The Model 6010 Gaussmeters' built-in software provides closed case calibration thus eliminating the need for complex calibration procedures. User prompts on the custom formatted LCD allow fast, simple push button operation. All models come equipped with a zero gauss chamber, accessory hard case, built-in rechargeable battery, quick reference card and instruction manual. A wide range of axial and transverse probes are available as options.

Applications for the Model 6010 range from the most sensitive laboratory environments to rugged industrial settings. All instruments are fully CE compliant.

## Features

- Large Format LCD
- Dual 3 3/4 digit readouts
- Temperature measurement
- Displays in Gauss, Tesla or Ampere/Meters
- Peak Hold
- Max/Min Hold
- Corrected Analog Output
- Auto Range
- Temperature compensated probes
- Auto zero / Auto-calibration
- RS-232 interface
- Rechargeable Battery
- Compatible with Model 9200 probes
- CE compliant

Hall Effect Gaussmeters



# Model 6010 Specifications

Hall Effect Gaussmeters

Specification		
<b>Measuring Range*</b>	1 mG (0.1 $\mu$ T) to 300 kG (30T)	
<b>Ranges</b>	300 mG (300 $\mu$ T) 30 G (3 mT) 300 G (30 mT)	3 kG (300 mT) 30 kG (3 T) 300 kG (30 T)
<b>Resolution</b>	0.1 mG (0.1 $\mu$ T)	
<b>Accuracy (displayed reading)</b>		
dc:	<u><math>\pm\%</math> of Reading</u> 0.25	<u><math>\pm</math>Number of Counts</u> 3
ac: 20 Hz – 1000 Hz	1.0	3
1 kHz – 20 kHz	5.0	3
<b>Frequency Response</b>	dc – 20 kHz	
<b>Display</b>	Large alpha-numeric LCD with Dual 3 $\frac{3}{4}$ digit read out	
<b>Measuring Units</b>	Gauss, Tesla, Ampere/Meters	
<b>Analog Output (Corrected)</b>	$\pm 3.0$ V FS (for each range)	
Output Voltage		
Accuracy		
dc	1% of reading	
ac (20 Hz – 1000 Hz)	2% of reading	
Noise	4 mV RMS	
<b>Frequency Response</b>	dc – 20 kHz	
<b>Temperature Measurement</b>	-40 $^{\circ}$ C to +85 $^{\circ}$ C	

Note: \* =available ranges depend on probe type.

## General Information

Specification	
<b>Temperature Range</b>	
Operating	0 $^{\circ}$ C to +50 $^{\circ}$ C
Storage	-20 $^{\circ}$ C to +70 $^{\circ}$ C
<b>Front Panel Display</b>	Dual 3 $\frac{3}{4}$ - digit, alphanumeric LCD
Viewing area	4.1" (10.4 cm) x 2.5" (6.35 cm)
<b>Communication Ports</b>	
RS-232	RS-232, Full Duplex
<b>Power</b>	
Input Voltage	90 Vac to 240 Vac
Frequency	50/60 Hz
<b>Internal Battery</b>	Rechargeable, Sealed Lead Acid
Life (time between charges)	8 Hours (typical)
<b>Connectors</b>	
Probe	Circular (Front Panel)
Analog Output	BNC (Rear Panel)
RS-232	DB-9 (Rear Panel)
<b>Probes</b>	
Types	Standard and temperature compensated
Compatibility	Adapters to be available for Model 9200 gaussmeter probes
<b>Size</b>	10" (25.4 cm) W, 4.5" (11.43 cm) H (w feet), 12.5" (31.75 cm) D
<b>Weight (maximum)</b>	
Net	8.8 lb. (4.0 kg)
Shipping	13.7 lb. (6.2 kg)
<b>Software</b>	LabView Driver

Due to continuous process improvement, specifications subject to change without notice.

