



# Hall Effect Gaussmeters



## Description

The 5100 Series Hall effect portable gaussmeters represent the most recent design from the world leader in magnetic measuring equipment. This new design incorporates the use of digital signal processing technology making it the world's first hand-held gaussmeter to have a digital signal processor (DSP) on board. F.W. Bell's exclusive Dynamic Probe Correction allows measurements from 0 to 30 kG with a basic accuracy of 1%.

Key features include Auto Zero, Min./Max./Peak Hold, Auto Range and Relative Mode. Both models allow the user to select Gauss, Tesla or Ampere/Meter readings. The 5180 features a corrected analog output ( $\pm 3V$  FS) and a USB communication port.

The 5100 Series Hand-Held Gaussmeter's built-in software eliminates 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 detachable transverse probe, zero gauss chamber, instruction manual, hard carrying case, and four AA batteries. Axial, ultra thin transverse and low-field probes are available as options.

Applications for the 5100 Series range from the most sensitive laboratory environment to the most rugged industrial setting. All instruments are CE compliant.

## Features

	Model 5170	Model 5180
Probe Included	X	X
Auto Zero	X	X
Min/Max Hold	X	X
True RMS	X	X
Auto Range	X	X
True Peak Hold		X
Relative Mode		X
Outputs (analog)		X
USB Communication Port		X



Model	5170	5180
<b>Basic DC Accuracy</b>	2%	1.1%
<b>Frequency Bandwidth</b>	DC-20 kHz	DC-25 kHz
<b>Update Rates</b>		
Display	4 readings/sec	4 readings/sec
Analog Output	None	100K samples/sec
<b>Ranges</b>		
Ultra Low Range (low-field probe only)	1 G	1 G
Low Range	200 G	300 G
Mid Range	2 kG	3 kG
High Range	20 kG	30 kG
<b>Resolution</b>		
Ultra Low Range (low-field probe only)	1 mG	1 mG
Low Range	0.1 G	0.1 G
Mid Range	1.0 G	1.0 G
High Range	10 G	10 G
<b>Display</b>	LCD	LCD
<b>Digits</b>	3 1/2	3 2/3
<b>Readings</b>	Gauss, Tesla, Amps/Meter	Gauss, Tesla, Amps/Meter
<b>Analog Output</b>	None	±3V FS
<b>Communication Port</b>	None	USB (1 samples/sec)

General Information	All Models
<b>Temperature</b>	
Operating	0°C to 50°C
Storage	-25°C to 70°C
<b>Power</b>	4 AA batteries
<b>Size</b>	6.9 in x 3.9 in x 1.44 in.

## Probes and Accessories

Model Number	Description
<b>Model 5180 Probes</b>	
HTD18-0604	4" Transverse Probe
STD18-0404	4" Transverse Probe (incl. w/5180)
STD18-0402	2" Transverse Probe
SAD18-1904	4" Axial Probe
SAD18-1902	2" Axial Probe
<b>Model 5170 Probes</b>	
HTH17-0604	4" Transverse Probe
STH17-0404	4" Transverse Probe (incl. w/5170)
STH17-0402	2" Transverse Probe
SAH17-1904	4" Axial Probe
SAH17-1902	2" Axial Probe

**Shipping Weight**  
 Domestic 3.5 lbs 1.59 kgs  
 International 4 lbs 1.82 kgs

Models 5170/5180 Gaussmeter Probes	
STB1X-0201	Ultra Thin Transverse Probe (0.020" thick)
MOS51-3204	Low Field Probe

Models 5170/5180 Gaussmeter Accessories	
YA-111	Zero Gauss Chamber (for axial, transverse and low-field probes)
PSRD-5	AC Adapter, +5VDC Regulated Output, 110VAC Input, Domestic
PSRI-5	AC Adapter, +5VDC Regulated Output, 220VAC Input, Switching, International



**Note:** Due to continuous process improvement, specifications are subject to change without notice.  
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