



产品描述

FW5100 系列霍尔效应便携式高斯计是最新的，代表了世界上领先设计的磁场测试设备。最新的设计采用了数字信号处理技术使其成为世界上第一款采用 DSP 设计的手持式高斯计。Bell 特有的探头动态补偿技术确保了在 0~30,000 高斯（3T）量程内的 1% 的基本精度。

主要功能包括：自动校零、最大/最小/极值保持、自动量程和相对模式。用户可以选择的读数单位有：高斯、特斯拉和安培每米。其中 5180 高斯计具有一个校准后的模拟输出 ($\pm 3V$ FS) 和一个 USB 通讯口与计算机通信。

FW5100 系列手持式高斯计的内置软件消除了复杂的校准过程。大液晶显示器使用户可以简单的快捷的通过按键来完成各种操作。FW5100 系列高斯计配备了可拆卸的径向探头、校零盒、操作手册、便携箱、4 节 AA 电池，配备的可选项有轴向探头、超薄探头、低场探头等。

FW5100 系列高斯计适用范围从最敏感的实验室环境到最恶劣的工业环境。FW5100 系列高斯计均按 ISO9001 标准生产，并通过 CE 认证。

功能

	Model FW5170	Model FW5180
包含探头	√	√
自动校零	√	√
最大/小值保持	√	√
真有效值	√	√
自动量程	√	√
峰值保持	×	√
相对模式	×	√
模拟输出	×	√
USB 通信口	×	√

技术参数

Model	FW5170	FW5180
基本精度	2%	1.1%
频率带宽	DC~20KHz	DC~25KHz
显示更新速率		
屏幕显示	4 次/秒	4 次/秒
模拟输出	无	100,000 次/秒
量程		
低场探头(专用)	1G	1G
低量程	200G	300G
中量程	2KG	3KG
高量程	20KG	30KG
分辨率		
低场探头(专用)	1mG	1mG
低量程	0.1G	0.1G
中量程	1.0G	1.0G
高量程	10G	10G
显示	LCD	LCD
显示位数	3 1/2	3 2/3
显示单位	高斯, 特斯拉, 安培/米	
模拟输出	无	±3V FS
通讯口	无	USB 通信
工作温度	0°C~50°C	
存储温度	-25°C~70°C	
电源	4 节 AA 碱性电池/电源适配器	
尺寸	6.9in×3.9in×1.44in/17.52cm×9.9cm×3.66cm	

探头和附件

型号	描述
FW5180 高斯计探头	
HTD18-0604	4 英寸(10.16cm)径向探头
STD18-0404	4 英寸(10.16cm)径向探头 (标配探头)
STD18-0402	2 英寸(5.08cm)径向探头
SAD18-1904	4 英寸(10.16cm)轴向探头
SAD18-1902	2 英寸(5.08cm)轴向探头
FW5170 高斯计探头	
HTH17-0604	4 英寸(10.16cm)径向探头
STH17-0404	4 英寸(10.16cm)径向探头 (标配探头)
STH17-0402	2 英寸(5.08cm)径向探头
SAH17-1904	4 英寸(10.16cm)轴向探头
SAH17-1902	2 英寸(5.08cm)轴向探头
FW5170/FW5180 高斯计探头	
STB1X-0201	超薄径向探头(厚度: 0.02 英寸/0.508mm)
MOS51-3204	低场探头
FW5170/FW5180 高斯计配件	
YA-111	校零盒 (适用于轴向、径向、低场探头)
PSRD-5	电源适配器, +5VDC 输出、110VAC 输入
PSRI-5	电源适配器, +5VDC 输出、220VAC 输入

注: 产品规格如有更改, 恕不另行通知。



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
Basic DC Accuracy	2%	1.1%
Frequency Bandwidth	DC-20 kHz	DC-25 kHz
Update Rates		
Display	4 readings/sec	4 readings/sec
Analog Output	None	100K samples/sec
Ranges		
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
Resolution		
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
Display	LCD	LCD
Digits	3 1/2	3 2/3
Readings	Gauss, Tesla, Amps/Meter	Gauss, Tesla, Amps/Meter
Analog Output	None	±3V FS
Communication Port	None	USB (1 samples/sec)

General Information

All Models

Temperature	
Operating	0°C to 50°C
Storage	-25°C to 70°C
Power	4 AA batteries
Size	6.9 in x 3.9 in x 1.44 in.

Probes and Accessories

Model Number	Description
Model 5180 Probes	
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

Model 5170 Probes	
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

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

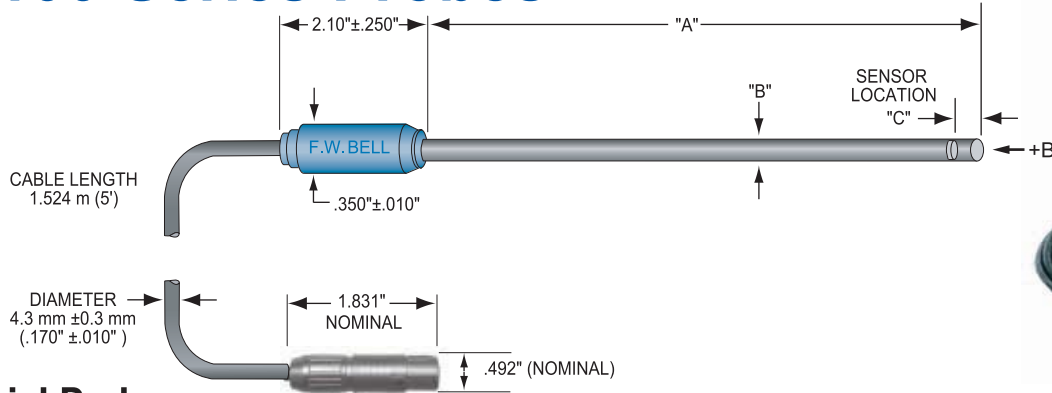
Shipping Weight

Domestic 3.5 lbs 1.59 kgs
International 4 lbs 1.82 kgs



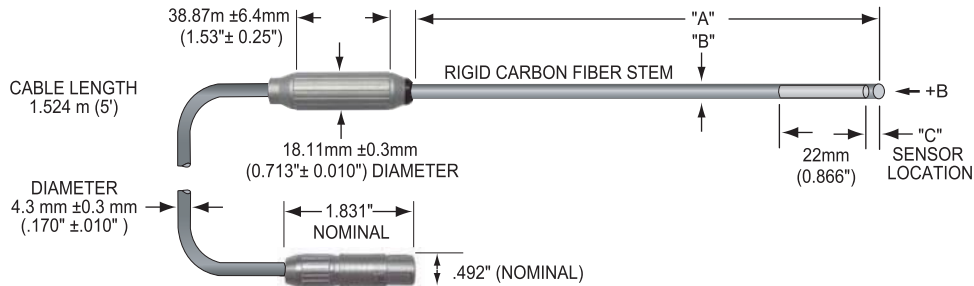
Note: Due to continuous process improvement, specifications are subject to change without notice.
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5100 Series Probes



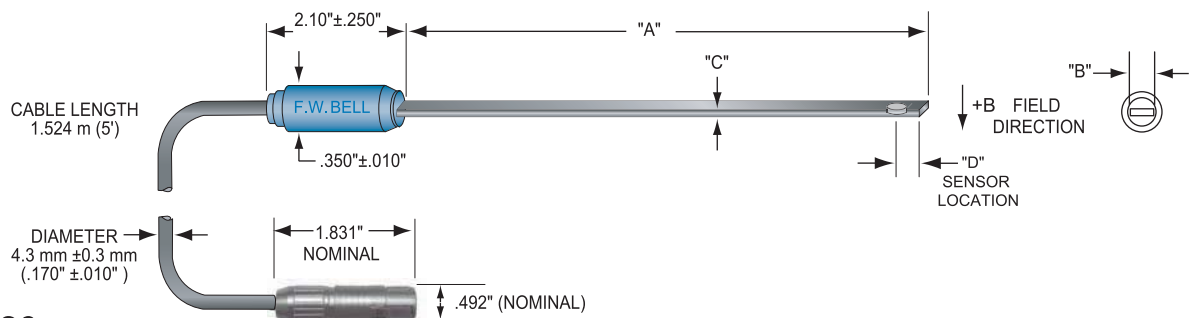
Axial Probes

Model	A ±.063"	B	C	Stem Material	Corrected Linearity	Sensitivity	Active area	Operating temp. range	Temp. stability (typical)		Frequency Response
									Zero	Calibrate	
SAD18-1902	2"	0.187" ±.006"	0.010" (NOMINAL)	RIGID PHENOLIC	0.5%/30kG	1X	0.015" DIA. (NOM)	0°C to +75°C	±0.300 Gauss / °C	-0.05% % / °C	DC to 20kHz
SAD18-1904	4"										
SAH17-1902	2"				DC to 10kHz						
SAH17-1904	4"										



Low Field Axial Probes

Model	A ±.063"	B	C	Stem Material	Corrected Linearity	Sensitivity	Active area	Operating temp. range	Temp. stability (typical)		Frequency Response
									Zero	Calibrate	
MOS51-3204	4"	0.285" ±0.006"	0.050" (NOMINAL)	RIGID PHENOLIC	0.75%/1G	1X	0.866" (NOM)	0°C to +75°C	±0.02 mG/°C	-0.001 % / °C	DC to 700Hz (-3dB)



Transverse Probes

Model	A ±.063"	B	C	D	Material	Corrected Linearity	Sensitivity	Active area	Operating temp. range	Temp. stability (typical)		Frequency Response
										Zero	Calibrate	
STD18-0402	2"	0.158" ±.004"	0.040" +.000" -.004"	0.0335" (NOMINAL)	Polypropylene	0.5%/30kG	1X	0.015" DIA. (NOM)	0°C to +75°C	±0.300 Gauss / °C (typical)	-0.05% % / °C (typical)	DC to 20kHz
STD18-0404	4"											
STH17-0402	2"	0.180" ±.004"	0.060" +.000" -.004"	0.030" (NOMINAL)	**see note	1.0%/20kG	1X	0.015" DIA. (NOM)	0°C to +75°C	±0.300 Gauss / °C (typical)	-0.05% % / °C (typical)	DC to 10kHz
STH17-0404	4"				DC to 10kHz							
HTH17-0604	4"	0.180" ±.004"	0.060" +.000" -.004"	0.030" (NOMINAL)	ALUMINUM 3003 3/4 FH	1.0%/20kG	1X	0.015" DIA. (NOM)	0°C to +75°C	±0.300 Gauss / °C (typical)	-0.05% % / °C (typical)	DC to 10kHz
HTD18-0604	4"				DC to 20kHz							
STB1X-0201	1"	.050" ±.005"	.020" MAX	0.030" (NOMINAL)	KAPTON	1.0%/10kG	1X	0.025" DIA (NOM.)	0°C to +75°C	±0.200 Gauss / °C	-0.1 % / °C	DC only

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

** Prior to late 2006 Transverse Probe Stems were rigid glass epoxy, .150 x .040".