Model 7030 GAUSS/TESLA METER

Hall Effect GAUSSMETERS

Description

The Model 7030 three-channel GAUSS/TESLA METER from **F.W. Bell** leads the way for Advanced Hall Effect Magnetic measuring technology. The easy-to-use front panel programming feature incorporates the latest in user control operations. The 7030 is capable of simultaneously measuring and displaying *seven different parameters per channel* -- flux density, frequency, temperature, min, max, peak and valley. With the 7030's vector summation feature, that makes a total of **27** different parameters.

This high accuracy instrument is fully equipped to meet most magnetic measuring applications. Bell's exclusive dynamic probe correcting software increases the 7030 measurement capabilities to make it *the most versatile magnetic measuring tool in the world.*

Key features include high-resolution, high-accuracy and high-speed with a large graphic electroluminescent display. The 7030 features 50 kHz frequency response, temperature and frequency measurements, Auto Zero, Auto Range, Hold functions for Peak, Valley, Min and Max, corrected and uncorrected outputs for each channel and Vector Summation and angle. The Model 7030 provides the user with gauss, tesla, Oe, A/m, IEEE-488 and RS-232 communications ports and Classifier output.

The 7030 operates with Bell's fifth generation Hall Effect probes. These probes provide temperature compensation and measurement readings (0°C to +75°C) while monitoring the magnetic field. The easy-to-read 1/4 VGA display is easily viewable in most light conditions and can be customized to meet a user's specific needs. Applications range from basic magnetic measuring to sensitive complicated three-axis vector summing requirements. All instruments are fully CE compliant.

Features

- Bright 1/4-VGA Readout
- Large electroluminescent graphic display
- Over 100 standard probes available
- Automatic probe coefficient correction
- Displays in Gauss, Tesla, Amp/meter or Oe
- Peak/Valley Capture
- Relative Mode
- Fully menu-driven for easy operation
- Auto Zero and Auto Calibration
- IEEE-488 and RS-232 interface
- CE Compliant
- Manufactured to ISO 9000 standards
- Comprehensive Technical Support

Model 7030 Specifications

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SPECIFICATION	
Ranges	300mG (30µT)* 3kG/(300mT) 3G (300µT)* 30kG (3T) 30G (3mT) 300kG/(30T)† 300G (30mT) * Low field probe † High field probe
Resolution	1 µG (0.1nT) to 100G (10mT)
Accuracy (Displayed Reading)	
dc basic	0.05% of reading
ac basic	1% of reading
Frequency Range	
dc mode	dc to 250Hz
ac mode	10Hz to 50kHz
Accuracy (Corrected Analog Output)	
dc basic	±0.1% of range
ac basic	±1% of range
Frequency Range	dc to 250Hz
Frequency Range (Uncorrected Analog Output)	
dc mode	dc to 400Hz
ac mode	10Hz to 50kHz
Analog Output	
Output Voltage	±3V F.S. or ±10V F.S. or adjustable from 0.1 - 9.9V
Source Impedance	<100 ohms
Connector	Standard BNC
Additional Influences	
Temperature Coefficient	±(0.02% of reading ±1 count)/ ºC
Temperature Range	
Operating	0ºC to +50ºC
Storage	-20ºC to +60ºC
Front Panel Display	1/4 VGA, 320 x 240 pixels Electroluminescent graphic display with 4 shades of amber 4.7" (119 mm) W x 3.5" (89mm) H
Communication Ports	
RS-232	Standard 9-pin "D" connector
Baud Rate	110,150,300,600,1200,2400,4800,9600,19200,38400 bits/sec
IEEE-488	Standard 24-pin GPIB connector
Protocol	IEEE-1987.2 and SCPI-1999
Power	Volts: 100/120 or 200/240 Frequency: 50-60 Hz or 50-60 Hz Current: 1.0 A (max) or 0.5 A (max)
Size	
Width	16.3" (414 mm)
Height	5.2" (132mm)
Depth	13.5" (343mm)
Weight	
Net	19.6 lbs. (8.9 kg)
Shipping	25.8 lbs. (11.6 kg)