

High-Precision Gauss Meter/Tesla Meter CYGM999A

The CYGM999A Gauss Meter/Tesla Meter is a high-precision, high-resolution, and highly reliable intelligent benchtop magnetic field measuring instrument. This instrument fully utilizes microprocessor technology to provide a high refresh rate, simple panel interface, and fully menu-driven operation required for both research and production environments. With 6-digit display and a high resolution of 1/60,000, this instrument allows you to observe minute changes as small as 0.1 Gs during high-magnetic-field measurements. It features a maximum range of 3 T, large-capacity data storage, and the ability to retrieve data by storage time. It offers a comprehensive set of functions suitable for all-around AC and DC magnetic field measurements, with real-time digital output. An industrial control interface can be added, and high-speed data acquisition (50–300 times per second) is supported, along with professional graphing software for magnetic field testing.

This Gauss meter is calibrated in accordance with the JJF1832-2020 (1 mT - 2.5 T) Calibration Specification for Magnetometers to ensure its measuring accuracy.

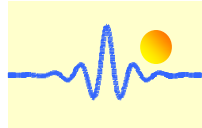
Product Features



Max/Min/Peak/Valley	Auto zero, Auto/Manual range	Probe calibration, Memory operation mode
Optional high and low temperature or custom probes	RS-232C interface/data communication	Threshold setting (upper, lower limits) and alarm
Data storage (automatic/manual) / reading	Zeroing setting / relative measurement mode	Units selectable: Gauss, mT, A/m

Technical Data:

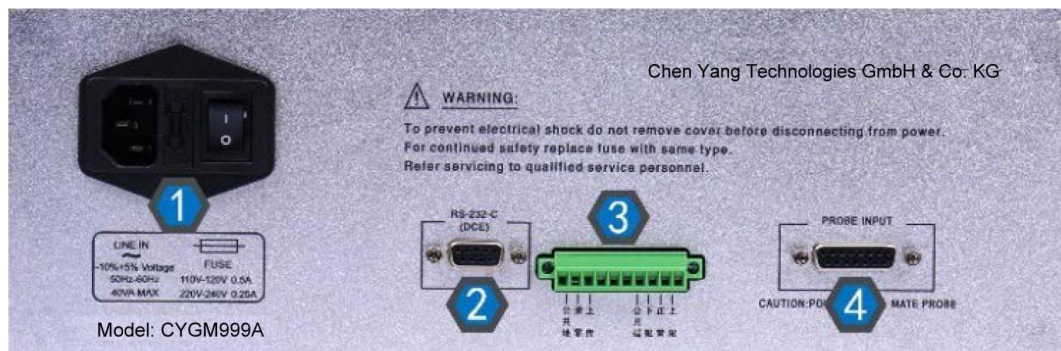
Measuring range:	0~300mT and 0-3000mT
Basic Accuracy:	$\pm 0.3\%$ of DC reading $\pm 0.05\%$ of range (0–2 T) $\pm 2\%$ of AC reading, $\pm 0.5\%$ of range (0–2 T)
Resolution:	DC/AC x1: 0.0 ~ 300.00mT, 0.01mT DC/AC x10: 0.0 ~ 3000.0mT, 0.1mT
Measuring magnetic field:	DC/AC (static and dynamic magnetic field)
Frequency range:	DC, 10Hz ~ 30 kHz
Probe Temperature Coefficient:	$\pm (0.03\% \pm 1 \text{ count}) / ^\circ\text{C}$
Unit Conversions:	1T=1000mT, 1Gs=10e, 1mT=10Gs, 1Gs=79.8A/m
Industrial Control Interface:	Upper and Lower Limit Output and Zeroing
Communication Interfaces:	RS-232, USB, Industrial Control Terminals
Compatible Power Supply:	220V 50-60Hz
Ambient Temperature:	+5°C ~ +50°C



Storage Temperature:	-20°C ~ +70°C
Relative Humidity:	20% ~ 80%
Product Dimensions:	32 x 28.5 x 11.5(cm)
Unit Weight:	3Kg



Rear Panel



- 1: Power connector and switch; 2: RS-232 communication port;
3: KS industrial control interface; 4: Probe connector

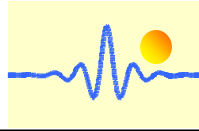
Screen Display



DC Mode
Measurement of static magnetic fields
and display the current reading

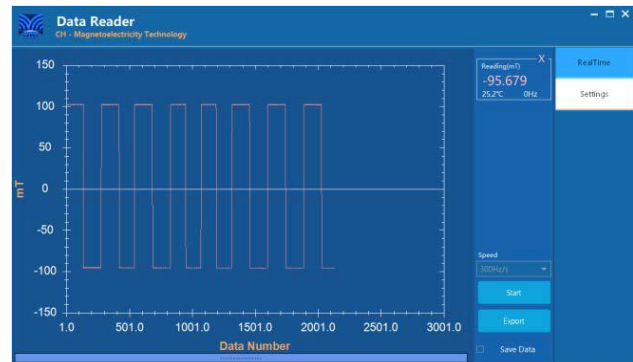


AC Mode
measurement of alternating magnetic fields
and display the RMS value of the measured
magnetic field waveform

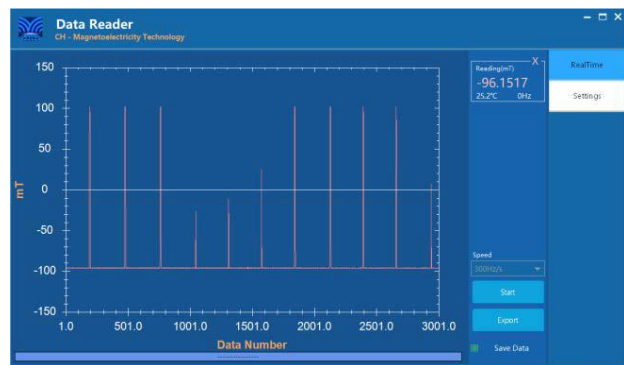


Interface Display

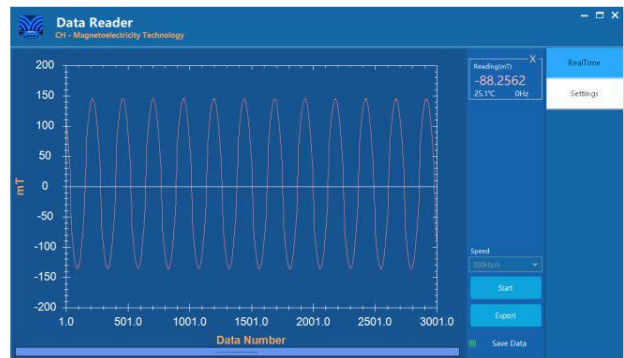
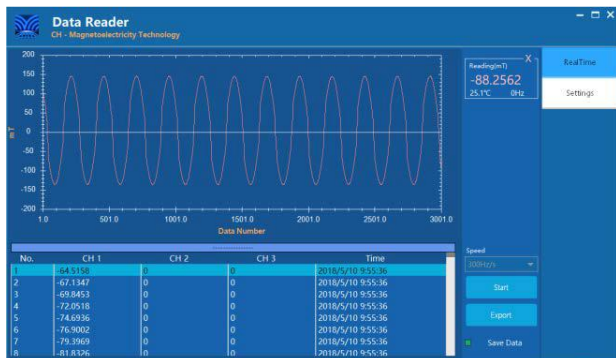
Square Wave Interface



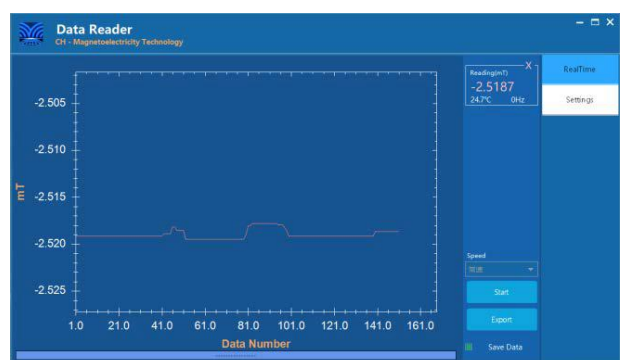
Pulse Interface

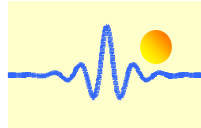


Sine Interface

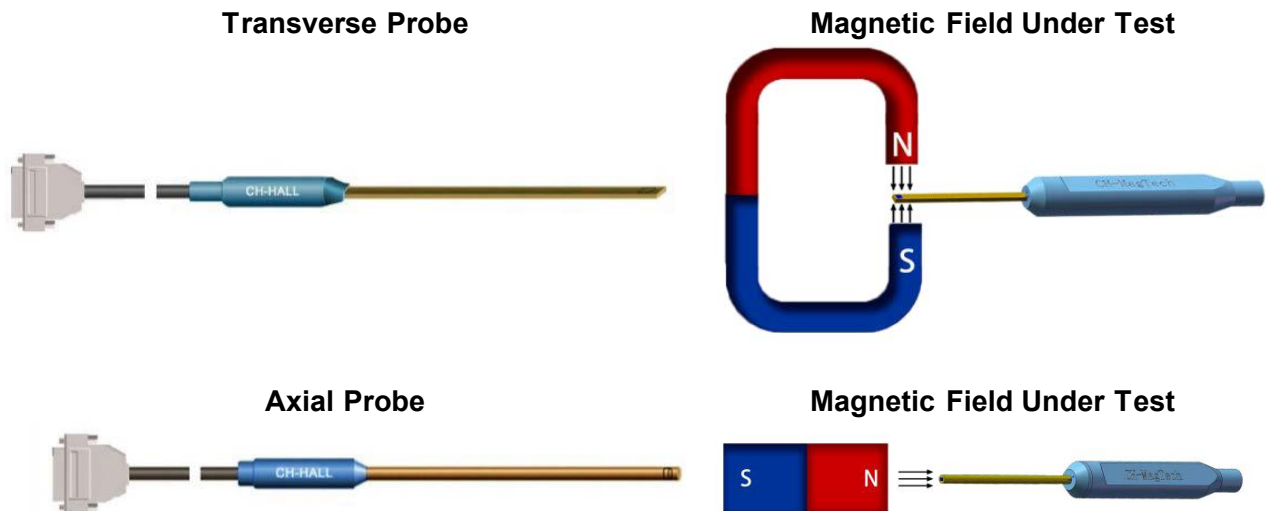


DC Interface



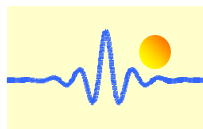


Schematic Diagram of a Magnetic Field



Parts List

Item	Name	Parts Picture	Type	Description	Remark
1	High-Precision Hall Probe		See probe tables	magnetic field measurements; customizable lengths (Transverse, axial)	Includes 1 standard probe
2	Data Reading Software		CH-1	Software installed on a computer to communicate with the Gauss meter; it can be used for functions such as saving and exporting test data.	Standard Part
3	Communication cable			RS232 Communication cable	Standard part
4	Zero-Gauss Probe		YA-111	Provide a small zero-magnetic environment for the zero-reset after power on	Must be purchased separately



Probe Options

Fine-Pitch Series 1D
Probe



Carbon Fiber Series 1D
Probe



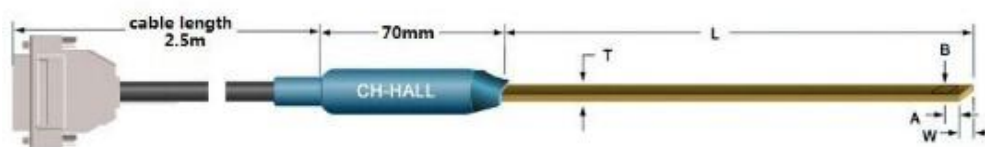
Standard 1D Transverse
Probe



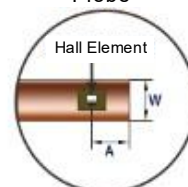
Standard 1D Axial
Probe



Standard 1D Transverse Probe



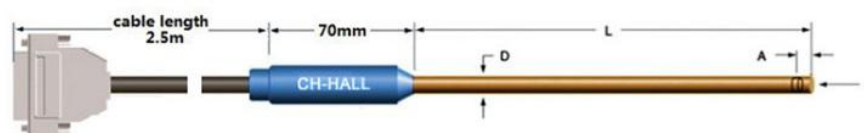
Top View of the
Probe



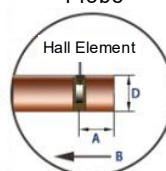
Probe Type	L(cm)	T(mm), max	W(mm)	A(mm)	Active Zone Diameter (mm)	Frequency range	Packaging Materials
MCHD800F	6/8/10	1.00	2.6	1±0.1	0.15	DC-1kHz	Brass
MCHD801F	6/8/10	0.80	2.2	1±0.1	0.15	DC-1kHz	Brass
MMHD802F	6/8/10	0.50	1.2	1±0.1	0.15	DC-1kHz	Brass
MMHD803F	6/8/10	0.35	1.2/0.8	1±0.1	0.15	DC-1kHz	Synthetic grease

Probe Type	Measuring range	Accuracy (Linear range)	Temperature range	Zero-field temperature coefficient	temperature coefficient	Remark
MCHD800F	30T	±0.2% (0-3T)	-10°C ~ +75°C	±0.008mT/°C	±0.015%/°C	Standard
MCHD801F	30T	±0.2% (0-3T)	-10°C ~ +75°C	±0.008mT/°C	±0.015%/°C	Optional
MMHD802F	30T	±0.2% (0-3T)	-10°C ~ +75°C	±0.008mT/°C	±0.015%/°C	Optional
MMHD803F	30T	±0.2% (0-3T)	-10°C ~ +75°C	±0.008mT/°C	±0.015%/°C	Optional

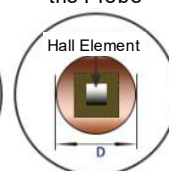
Standard Axial Probe



Top View of the
Probe



Side View of the
Probe



Probe Type	L(cm)	D(mm), max	A(mm)	Active Zone Diameter	Frequency range	Packaging Material
1AHD800F	10/25/50	5.00	1±0.1	0.15 mm	DC-1kHz	Brass
1AHD801F	10/25/50	3.00	1±0.1	0.15 mm	DC-1kHz	Brass
1AHD802F	10/25/50	2.00	1±0.1	0.15 mm	DC-1kHz	Brass
1AHD804F	10/25/50	1.20	0.5±0.1	0.15 mm	DC-1kHz	Brass

Probe Type	Measuring range	Accuracy (Linear range)	Temperature range	Zero-field temperature coefficient	temperature coefficient	Remark
1AHD800F	30T	±0.2% (0-3T)	-10°C ~ +100°C	±0.008mT/°C	±0.015%/°C	Optional
1AHD801F	30T	±0.2% (0-3T)	-10°C ~ +100°C	±0.008mT/°C	±0.015%/°C	Optional
1AHD802F	30T	±0.2% (0-3T)	-10°C ~ +100°C	±0.008mT/°C	±0.015%/°C	Optional
1AHD804F	30T	±0.2% (0-3T)	-10°C ~ +100°C	±0.008mT/°C	±0.015%/°C	Optional