

Gaussmeter 455



- Precision laboratory Gaussmeter for determining the magnetic field strength of permanent magnets and systems
- Measurement of magnetizing pulses up to 20 kHz
- User-friendly measuring instrument
- Mains supply
- Application in laboratories and in production lines
- Field and temperature measurement via probe input
- Automatic temperature compensation

Operating principle

Single-channel Gaussmeter with a resolution of 5 3/4 digits and a measuring accuracy of $\pm 0,075\%$ of the measured value. A measuring rate of 30 measurements per second. Measurement of Hall voltage created in Hall sensor which is proportional to the adjacent magnetic field.

All the functions are displayed and controlled via the front panel of the instrument. Input via keyboard, readings on a 2-line fluorescent display with alphanumerical text. Analogue outputs, a RS-232 and an IEEE interface provides high accuracy and the possibility to analyse the development of the field.

The corrected analogue output shows the exact value displayed, the non-corrected analogue output shows the field strength in real time. The Gaussmeter 455 is used in sensor technology, in automation, for controlling production processes and in the manufacture of DC motors.

The comprehensive Hall probe programme includes over 500 measuring probes. As well as conventional transverse and axial probes BROCKHAUS also supplies probes for low temperature applications and for measuring minimal magnetic fields.

Technical data:

Measuring mode:	Gaussmeter 455 DSP measurement of Hall voltage
Measuring range:	35 mG, 350 mG, 3.5 G, 35 G, 350 G, 3.5 kG, 35 kG, 35 kG
Measuring frequency:	DC, 10 Hz - 20 kHz
Measuring accuracy:	$\pm 0,075$ % of DC value, ± 1 % of AC value $\pm 0,005$ % of DC measuring range, ± 1 % of AC measuring range
Repeatability:	$\pm 0,0007$ %
Measuring rate:	5 measurements/sec / display 30 measurements/sec / interface
Selection of measuring range:	automatic or manual
Resolution:	5 3/4 digits (1 of ± 300.000)
Display:	2-line, vacuum-fluorescence
Display units:	Gauss, Tesla, Oersted, A/m
Probe type:	all single-axis laboratory probes
Temperature range:	0°C - 75 °C
Analogue outputs:	real-time analogue voltage, DAC field value, DAC compensated DC field value
Interfaces:	Auxiliary, RS-232, IEEE-488
Power supply:	100 - 130 V AC / 210 - 250 V DC, 50 / 60 Hz
Functions:	Min-Max Hold (also for pulse fields) / AC Peak / Filter / Alarm / Zero Probe / Relative Reading / Auto Range / Memory Hold / AC/DC / temperature measuring / Keylock
Accessories:	Zero chamber, power cable, operating manual
Special accessories:	probe cable in lengths 3 / 7,6 / 15,24 / 30,49 m 305 mm zero chamber / interface cable 19" drawer