

Complete functionality for industrial application. Data storage on PC or control via standard interfaces. Digital interface.



## Application

The industrial gaussmeter IGM11 is used to measure magnetic DC and AC fields. The measurements are flux density in Tesla or Gauss and the field strength in Amps per meter.

It has a high measuring accuracy with several built-in features.

## Function Description

The IGM11 is standardly equipped with a compact axial probe. Special probes available. All probes are equipped with EEPROMs for identification, parameterization and linearization.

The measuring range is up to 4.5 (optional 10) Tesla for the flux density and 3800 (optional 8000) kA/m for the field strength respectively. The resolution is down to 1  $\mu$ T or 1 A/m.

Further features are peak hold (positive and negative), linearity adjustment, null balance and automatic limit value monitoring. The measuring values can easily be visualized and stored on the PC or a control. Service and control functions are also available with the software.

The device can be parameterized via the control keys.

## Technical Data

|  |  |   |                                 |
|--|--|---|---------------------------------|
| Display  | Graphics LCD (illuminated)   |   |                                 |
| Units  | Tesla (T)  | Gauss (G) / Oersted (Oe)                            | Amps/Meter (A/m)                |
| Measuring Ranges<br>(Resolution DC/AC)                   | 4,5 T<br>(1 mT / 10 mT)  | 45 kG (10 G / 100 G)<br>45 kOe (10 Oe / 100 Oe)     | 3800 kA/m<br>(1 kA/m / 10 kA/m) |
|  | 1 T<br>(100 $\mu$ T / 1 mT)  | 10 kG (1 G / 10 G)<br>10 kOe (1 Oe / 10 Oe)         | 1000 kA/m<br>(100 A/m / 1kA/m)  |
|  | 100 mT   | 1 kG (100 mG / 1 G)                                 | 100 kA/m                        |
|  | 10 mT<br>(1 $\mu$ T / 10 $\mu$ T)  | 100 G (10 mG / 100mG)<br>100 Oe (10mOe / 100 mOe)   | 10 kA/m<br>(1 A/m / 10 A/m)     |
| Accuracy   | DC $\pm$ 0.5 % up to 1.5 T and $\pm$ 1 % from 1.5 T; Peak $\pm$ 2 %; AC $\pm$ 2 %  |   |                                 |
| Frequency Range  | DC / AC 0 Hz...5 kHz (r.m.s. value)  |   |                                 |
| Peak Hold  | $t_{\text{signal}} > 250 \mu\text{s}$  |   |                                 |
| Power Supply   | 11.5...26.5 V DC, 2.4W (200 mA/100 mA)   |   |                                 |
| Temperature Range  | 0 °C...+55 °C (non bedewing)   |   |                                 |
| Dimensions   | approximately 72 x 90 x 63 mm (W x H x D), assembly on cap rail  |   |                                 |
| Weight   | approximately 150 g  |   |                                 |
| Measuring Probes<br>(special probes available on demand) | IGM Transversal  | Dimension probe tip approx. 1.3 x 3.8 x 50 mm       |                                 |
|  | IGM Axial angular  | Dimension housing approx. 16 x 16 x 40 mm           |                                 |
|  | IGM Axial round  | Dimension housing approx. $\varnothing$ M10 x 38 mm |                                 |
|  | All probes:<br>Active area $\varnothing$ 0.3 mm<br>Cable length: 3 m (special lengths available)<br>Integrated EEPROM                              |   |                                 |
| Interfaces   | EIA-232<br><br>Ethernet 10 MBit / 100 MBit<br><br>Data protocol RFC 854<br><br>3 digital inputs 24V, 4 digital outputs 24 V, fully parameterizable |   |                                 |

The specifications are subject to change without notice.

**MAGSYS magnet systeme GmbH**  
Rohwedderstr. 7  
44369 Dortmund  
Germany

Tel: +49 231 177 88-0  
Fax: +49 231 177 88-22  
E-mail: sales@magsys.de  
Web: www.magsys.de

**MAGSYS LLC**  
12788 Mason Manor Rd.  
St. Louis, MO 63141  
U.S.A.

Tel: +1 314-266-9565  
Tel: +1 636-344-0558  
E-mail: usa@magsys.org  
Web: www.magsys.org