Product Brochure

Multichannel magnetic field monitoring systems

An 8 channel gaussmeter to measure magnetic fields using a distributed network of Hirst Gaussmeter single axis Hall sensor probes connected to a 19" rack control unit which can be interfaced to PC using industry-standard protocols.

Rack mount MGM-08, 8 channel gaussmeter with touch screen display

Key benefits

- 8 channel rack mount gaussmeter using standard Hirst gaussmeter probes a mix of Axial and Transverse probes can be used (extra cable lengths up to 5m upon request when purchasing probes, probes not included)
    - AP002 Standard axial probe (1.5m cable length)
    - AP002HS High Sensitivity Axial probe (1.5m cable length)
    - TP002 Standard Transverse Hall probe (1.5m cable length)
    - TP002SP0.6 Extra slim Transverse Hall probe (1.5m cable length)
    - TP002HS High Sensitivity Transverse Hall probe (1.5m cable length)
    - TP002R Rugged Transverse Hall probe (1.5m cable length)
- Range of industry standard interface options – USB2.0, RS485, Analogue.

Applications

- Laboratory based monitoring of large magnet systems – system and safety compliance applications
    - Magnet systems
    - Magnet research
    - Lab equipment in universities

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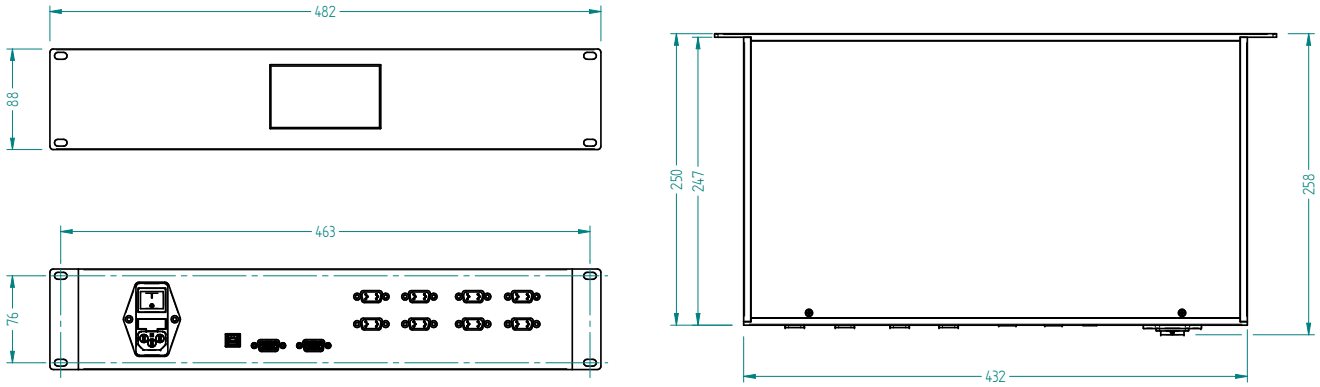
Technical Specifications

Maximum field sensed	+/-3T (dependant on probes attached)
Number of sensors	Up to 8 Hirst single axis Hall sensor probes
Standard cable length	1.5m
Maximum cable length (with calibration, option)	5m (upon request)
Repeatability	±0.1% Margin for change over repeated measurements
Traceability	±0.8% Calibrated to standards traceable to the NPL National Physical Laboratory (UK)
Resolution	0.1mT / 1 Gauss
Frequency range	DC monitoring system
Display Rate	5 readings per second
Display	4.3" high resolution full colour LCD touch screen
Temperature Coefficient	Better than ±0.1% of reading/°C including probe
Optimum Operating Temperature	0°C – 50°C (30°F - 125 °F)
Optimum Storage Temperature	20°C – 70°C (70°F – 150°F)
Temperature Compensated Probes	No
Colours and materials	Aluminium frame with anodised aluminium front and rear panels
Dimensions / Weight	2U 19" rack, approx. 3kg
Mounting	In 19" rack
Power	230V A 50-60Hz, 30VA – earth required
Connectivity	USB 2.0, RS485, Analogue output on 9 pin connector (0-5 Volts full scale – linearised, Zero is 2.5V readings +/- T range selected in software)
Digital outputs	Serial I/O on RS485 and USB2.0

Dimensions



Front

MGM-08 - Start up screen

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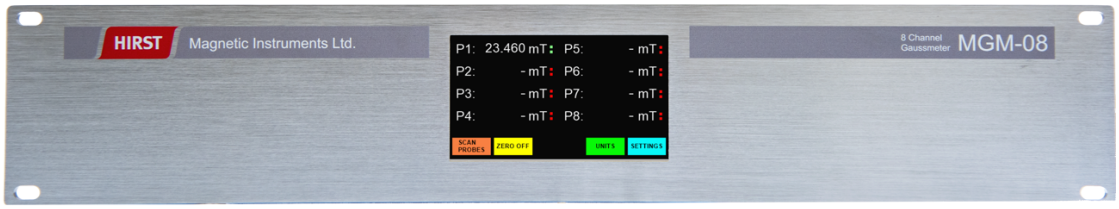


MGM-08 measurement screen

Back

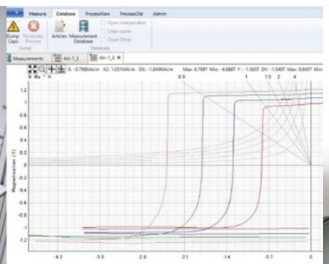
Warranty and Calibration

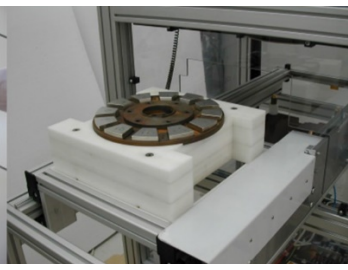
Supplied calibrated with 1 year warranty. A calibration required is every year to maintain the highest levels of performance – Hirst have a dedicated team of installation and service engineers, available to travel worldwide to install and support equipment, service contracts are available see website for details.

Accessories and options

The MGM-8 multi-channel rack mount gaussmeter uses standard Hirst gaussmeter probes and a mix of Axial and Transverse probes can be used (extra cable lengths up to 5m can be accommodated upon request when purchasing probes, Note probes not included with MGM-08 Instrument).

- AP002 Standard axial probe (1.5m cable length)
- AP002HS High Sensitivity Axial probe (1.5m cable length) -optional
- TP002 Standard Transverse Hall probe (1.5m cable length)
- TP002SP0.6 Extra slim Transverse Hall probe (1.5m cable length)
- TP002HS High Sensitivity Transverse Hall probe (1.5m cable length) - optional
- TP002R Rugged Transverse Hall probe (1.5m cable length)

Hirst Magnetic Instruments has been active in providing solutions for 60 years in magnetics and magnetic measurement. Hirst manufacture precision hand-held gaussmeters, large industrial machines, as well as production line equipment for characterising magnetic materials.

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Draft brochure product brochure v2.2b 31.10.22

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