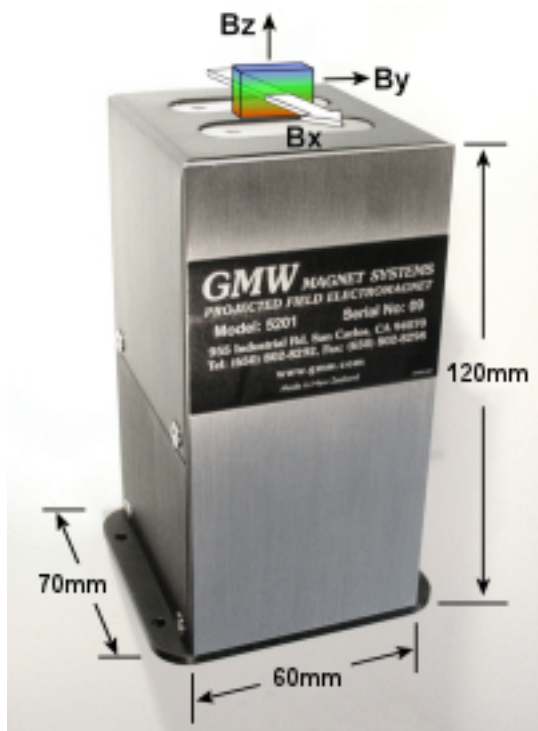


5201 Electromagnet



OVERVIEW

By "projecting" magnetic field outside the **Model 5201** Electromagnet, a volume of approximately uniform magnetic flux density is made available for magnetic measurements on small samples. Open access to the sample surface is available for diagnostic probes and radiation from laser and synchrotron radiation sources.

Pole extensions are available for alternate geometries.

Features

- 0.4T In-Plane Field
- Small and Lightweight
- Any Mounting Orientation

Applications

- Spintronic Devices
- Hall Effect Studies
- Magneto-Optical Studies

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Model 5201 General Specifications

Mechanical

Dimensions	70 x 60 x 120mm (x, y, z)
Weight	2.1kg
Field Uniform Volume ($\pm 1\%$) for Bx	x = 0 \pm 1mm, y = 0 \pm 5mm, dz = \pm 0.1mm for z >1mm
Field Operating Range - Bx	\pm 0.4T (4000G) at 0,0,2mm. \pm 0.1T (1000G) at 0,0,12mm
Field Operating Range - Bz	Approx. 0T (0G) at 0,0,2mm, \pm 0.3T (3000G) at \pm 5,0,2mm.

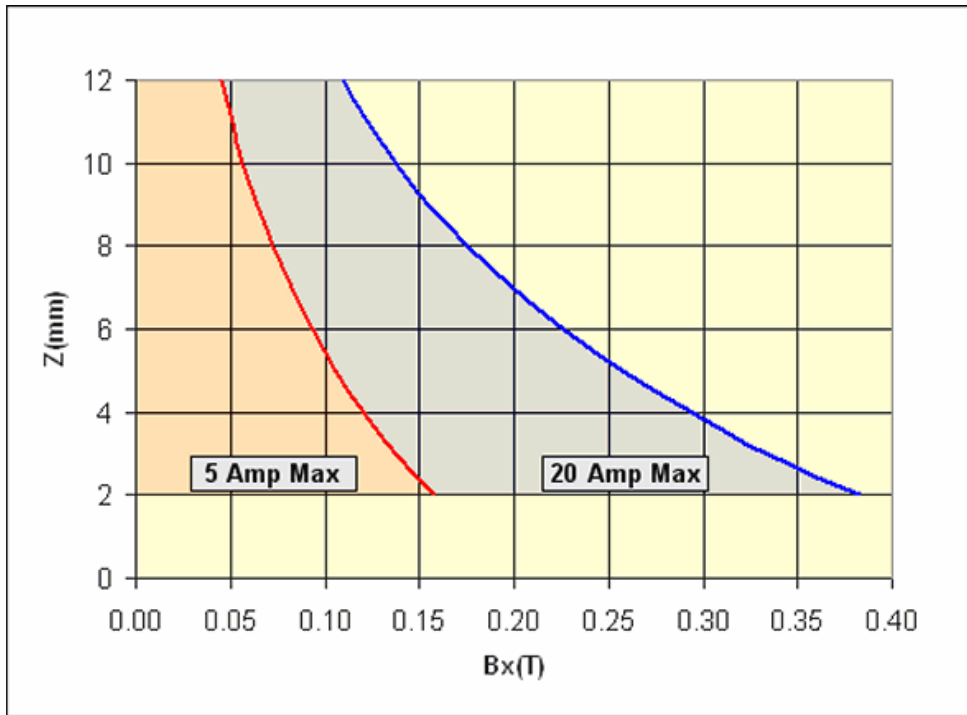
Coils

Resistance (20°C)	0.85 Ω
Max Resistance (75°C)	\sim 1 Ω
High Current Inductance	0.013H
Max Continuous Power (Air)	\pm 5A, \pm 5V (25W)
Max Continuous Power (Water)	\pm 20A, \pm 20V (400W)
Water Cooling (20°C)	1.0liters/min, 2.0bar (0.26USG/min, 28psid)
Max Pressure	6.7 bar (100 psid)

Safety

Overtemperature Interlock	Selco 802L-075 thermostat. Open circuit above 75°C coil temp
Water Flow	GEM FS927/70820 flow switch. 0.51 liters/min

Bx vs. Z (X=Y=0mm) for I=5A & 20A



GMW 5201 Projected Field Magnet SN:004
-Bx, By, Bz vs. X (Y=0mm, Z=2mm, I=15A)

