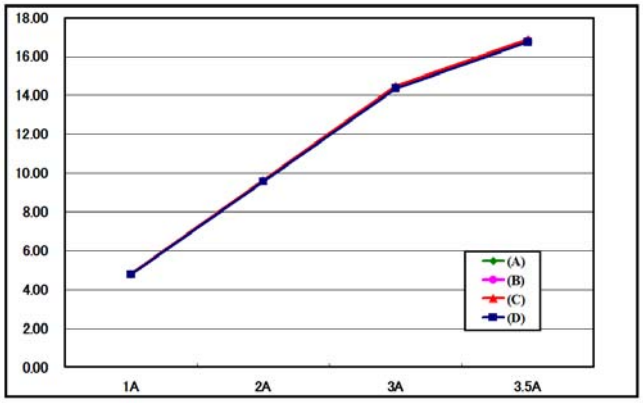
Magnet Force

Magnetic Field Generator (Helmholtz-Coil type)

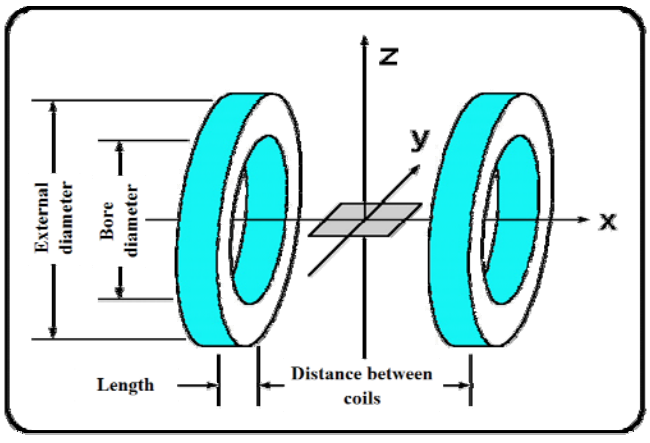
Generation magnetic field characteristic
Measurement data (reference)

Current value \ Magnetic Field		Center (A)	(A) + 3 mm X direction (B)	(A) - (B)	(A) + 5 mm X direction (C)	(A) - (C)	(A) + 5mm X and Y direction (D)	(A) - (D)
A	1.00	4.79	4.79	0.00	4.82	0.03	4.78	0.01
A	2.00	9.60	9.61	0.01	9.65	0.05	9.57	0.03
A	3.00	14.41	14.42	0.01	14.50	0.09	14.37	0.04
A	3.50	16.82	16.83	0.01	16.91	0.09	16.76	0.06



- **This is basic magnetic field generator with a twin coil. Generation of large homogeneous magnetic field is possible. (X direction)**
- **Can use it with small DC / AC stabilized power supply. Furthermore, continuous use of long time is possible, too.**
- **Example of most suitable use : Calibration of gauss meter, Characteristic evaluation of hall sensor (IC) and MR sensor , Homogeneous magnetic field generation of comparatively low magnetic field.**
- **Three-dimensional composition magnetic field generation is possibility by adding a twin coil of Y direction and Z direction. (option).**

We can do design and manufacture magnetic field generator base on your requirement specification.
At the time of requirement, please inform our sales person of bellow necessary information.

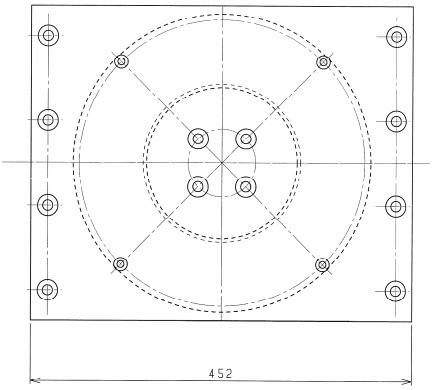


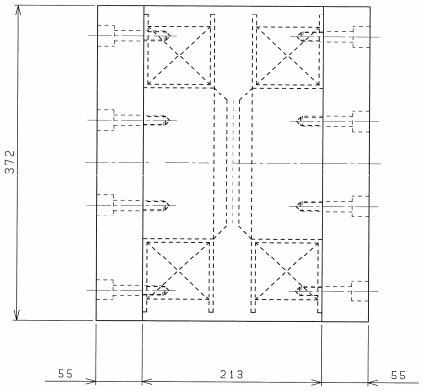
External diameter	Free
Bore diameter	mm
Length	Free
Distance between coils	mm
Homogeneous magnetic field range (X)	mm
Homogeneous magnetic field range (Y)	mm
Homogeneous magnetic field range (Z)	mm
Necessary generation magnetic field	mT

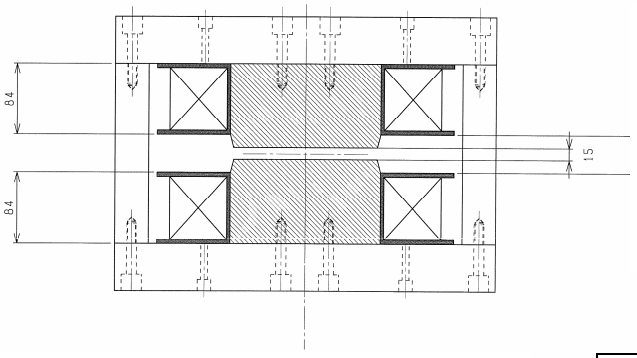
MFC Magnet Force Co., Ltd.

Magnet Force

Magnetic Field Generator (Electromagnet type)







Specification

Generation magnetic field	**over 1T**
Homogeneous range	**10mm × 10mm (direction to gap)**
Homogeneous accuracy	**within 0.5%**
Power supply specification	**DC 100V 10A**

- **This is basic magnetic field generator with a twin coil and yoke. Generation of large homogeneous magnetic field is possible.**
- **Compared Helmholtz coil type, generation of a high magnetic field is possible.**
- **This coil can bear high temperature environment to maximum 140 deg C to be able to use it in high-temp-furnace.**
- **Be most suitable for calibration of gauss meter, characteristic evaluation of hall sensor (IC) and MR sensor.**

Specification	Medium	Small
Generation magnetic field Bg (mT)	1000	1000
Magnetic pole gap Lg (mm)	15	15
Homogeneous range (mm)	φ15×10	φ7×5
Homogeneity of Bg (%)	0.5	0.5
Tip diameter of magnetic pole part DP (mm)	φ170	φ90
Diameter of magnetic pole part DY (mm)	φ178	φ106
: Resistance [20deg C] (Ω)	4.66	3.25
: Voltage [20deg C] (V)	45.0	31.3
Energization rate (%)	100	100
Performance guarantee maximum temperature (deg C)	110	110
: Resistance [110deg C] (Ω)	6.71	4.68
: Voltage [110deg C] (V)	65.0	45.1
: Current [110deg C] (A)	9.64	9.64
Rough weight (kg)	220	190

We can do design and manufacture magnetic field generator base on your requirement specification.
At the time of requirement, please refer to upper list.

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