

BHC-2

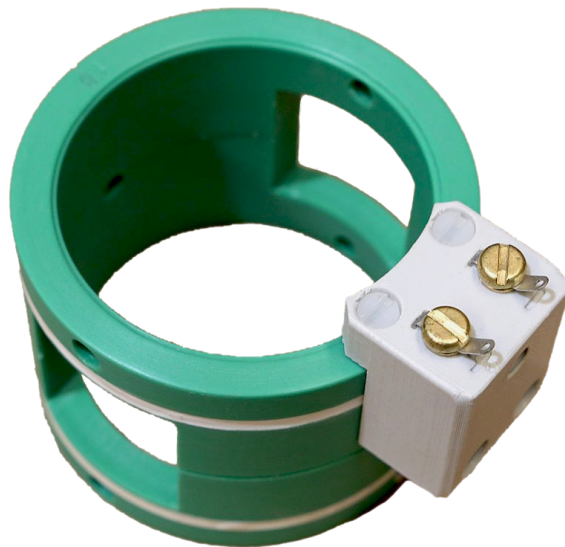
78mm Single Axis Helmholtz Coils



BHC-2 78mm Single Axis Helmholtz Coils

These small, single axis Helmholtz Coils are designed to generate a magnetic field to calibrate sensors and meters in the field.

BHC-2 is ideal for DC and low frequency operation, and BHC-2RF for AC operation.



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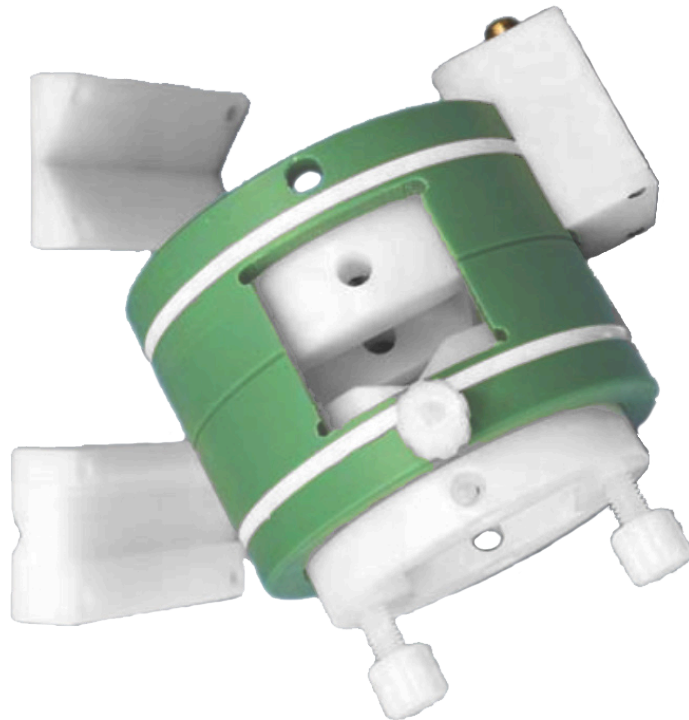
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Features

- Up to 420 μ T max field strength
- 78mm mean electrical diameter

Typical Applications

- Calibration of magnetic field sensors
- Creation of a known magnetic environment



Product Identification

Product name	Range in μT
BHC-2	200
BHC-2RF	420

Specifications

Performance	BHC-2	BHC-2RF
Number of axes	1	
Field/current ratio (main windings)	$1\mu\text{T}/1\text{mA} \pm 1\%$	$140\mu\text{T}/1\text{A} \pm 1\%$
Maximum field (DC single axis) - continuous	$200\mu\text{T}$	$420\mu\text{T}$
Coil homogeneous area ($<0.1\%$ error)	14.5mm diameter & length cylinder	
Coil homogeneous area ($<1\%$ error)	22.5mm diameter & length cylinder	
Coil homogeneous area ($<5\%$ error)	33.5mm diameter & length cylinder	

Environmental	
Operating temperature range	-20 to $+60^{\circ}\text{C}$
Storage temperature range	-20 to $+60^{\circ}\text{C}$
Humidity	Up to 90% RH non-condensing
Compliance	RoHS

Mechanical	
Coil effective diameter	78mm
Dimensions	96mm H x 80mm W x 73.5mm D
Coil maximum aperture	64mm diameter
Weight	111g

Electrical	BHC-2	BHC-2RF
DC resistance per axis	12.5 Ω $\pm$ 20%	0.131 Ω $\pm$ 3%
Number of turns (per coil)	43	6
Inductance per axis	755 μ H $\pm$ 2.5%	16.25 μ H $\pm$ 3%
Coil maximum current - continuous	200mA	3A
Coil connector	2 x M4 brass terminals	
Overcurrent protection	Series resettable fuse Littelfuse RXEF020 200mA hold current 400mA trip current Automatic reset	N/A

The specifications of the products described in this brochure are subject to change without prior notice.

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