

Miniature Helmholtz coil

Designed to check probes and meters at the field and the lab, it is also useful to many other purposes

Ferronato® - BHC-2

- To 200 μT , steady way. To 400 μT intermittently.
- Of 78 mm in mean (electrical) diameter.
- There is a version for high frequencies: the BHC-2RF.
- Constructed in strong plastics: Polypropylene for the body and POM ("Delrin") for the terminal box and the Probe Kit.
- It can be supplied in two configurations:
 - a) **BHC-2 & Probe Kit**: As in Fig. 1. With an optional set of internal pieces to hold and keep centred a wide range of magnetic probes of one and three axes, with any of their axes aligned along the magnetic field.
 - b) **BHC-2**: As the photo in Fig. 2. The body with the coils and the terminal box.

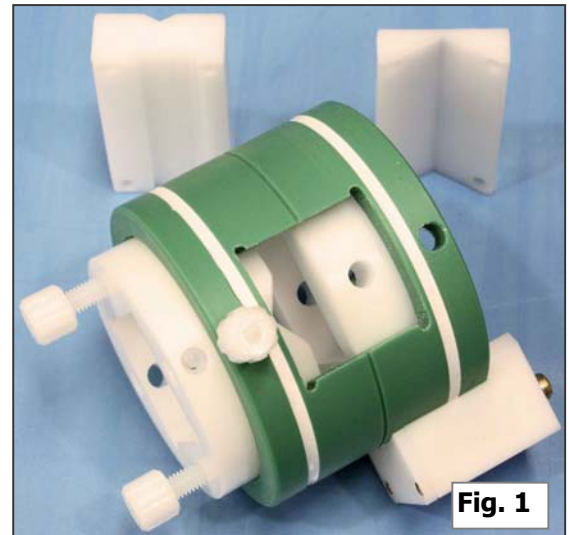


Fig. 1



Fig. 2

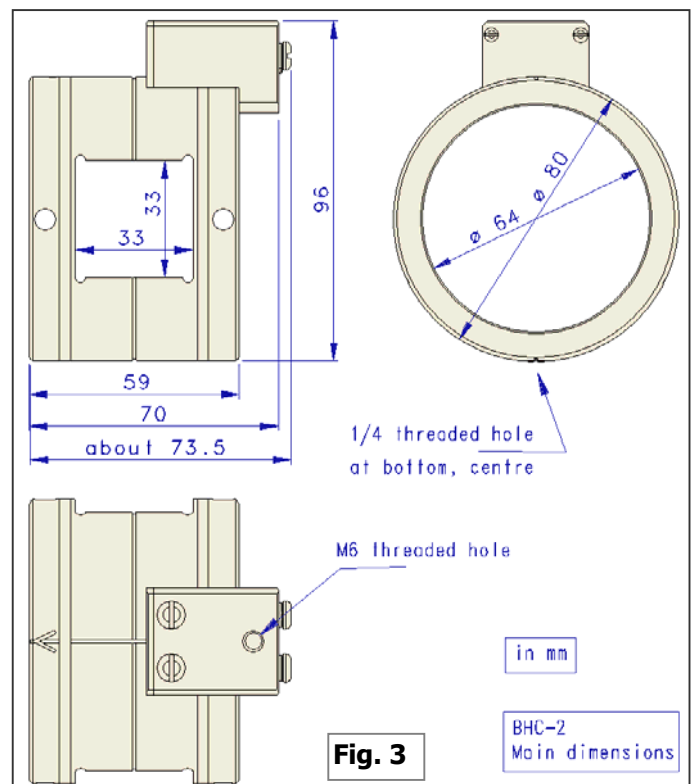


Fig. 3

Specifications

Field/Current ratio	1 $\mu\text{T}/1 \text{ mA} \pm 1 \%$.
Maximum current	200 mA steady way / 400 mA in periods of some few seconds.
Maximum field	200 μT steady way / 400 μT in periods of some few seconds.
Resistance, at 20 °C	10.5 $\Omega \pm 10 \%$. Including the fuse.
Inductance, at 120 Hz	755 $\mu\text{H} \pm 2 \%$.
Overcurrent protection	There is an in-series self re-settable fuse to avoid winding overheating.
Field homogeneity	$\pm 0.1 \%$ in a cylindrical volume of 14.5 mm in diameter x 14.5 mm in length.
<i>Percentages are respect to the centre.</i>	$\pm 1 \%$ in a cylindrical volume of 22.5 mm in diameter x 22.5 mm in length.
	$\pm 5 \%$ in a cylindrical volume of 33.5 mm in diameter x 33.5 mm in length.
Connector	Two M4 brass screws.
Fixing holes	A 1/4" threaded hole (as for tripod) at the bottom. A M6 threaded hole on top.
Body dimensions	Ext. diameter: 80 mm; Int. diameter: 64 mm; Length: 59 mm. See Fig. 3.
Weight	111 grams, just the coils as in Fig. 2, without the probe holding kit.

- These specifications are subject to minor specifications in future -

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