D.I.S

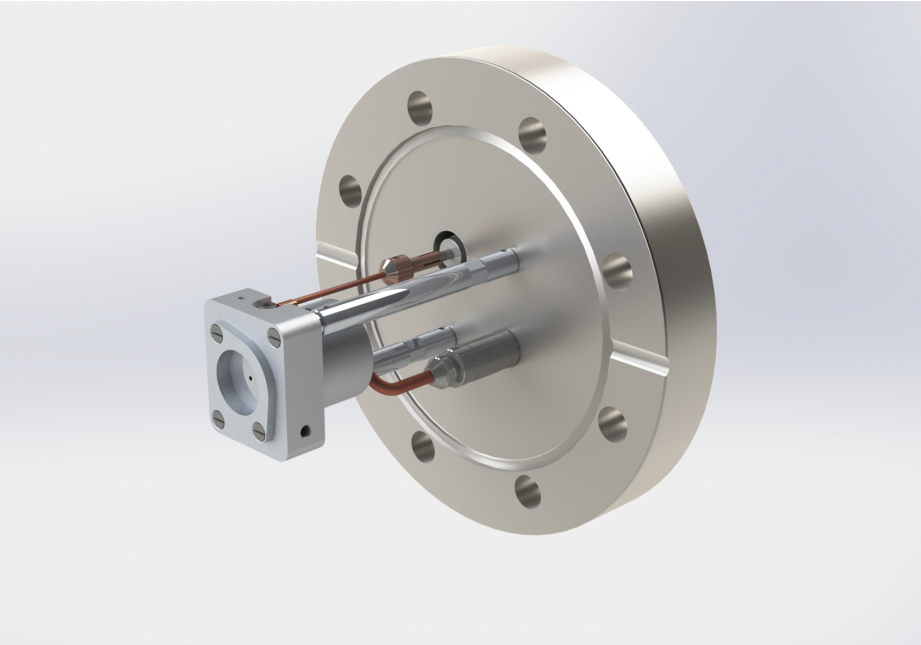
D.I.S Germany GmbH

FARADAY CUP 931-S7-09-00006-A-01

Faraday cups are used for measuring electrical currents of charged particle beams in real time in broad pressure ranges, down to ultra-high vacuum conditions.

The Faraday cup is equipped with an exchangeable aperture, a suppressor electrode for compensation of secondary electron emission, and a measurement electrode.

It can be used for currents of fA up to mA at beam power loads of several watt depending on the cooling solution.



Faraday cup with fixed inline mounting.

further reading:

- *https://www.dis-eng.de/products/charged-particle-beam-diagnostics/faraday-cup/*

Special Features:

- fixed inline installation
- CF63 base flange
- exchangeable apertures with diameters ranging from 0.5 mm up to 5 mm
- triaxial wiring and feedthrough for the Faraday cup detector for low noise measurements
- passive cooling for power loads up to 3 W

Optional Supplementing Devices:

- power supply for the suppressor voltage
- current measurement device for beam currents of fA up to mA
- additional apertures

Please do not hesitate to contact us for additional support.

document no. 931-S7-08-00002- D-01

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D.I.S Germany GmbH

Address
Lohmener Str. 13d
01796 Pirna
Germany

Contact
Phone +49 3501 5823-00
info.germany@dis-eng.de
www.dis-eng.de

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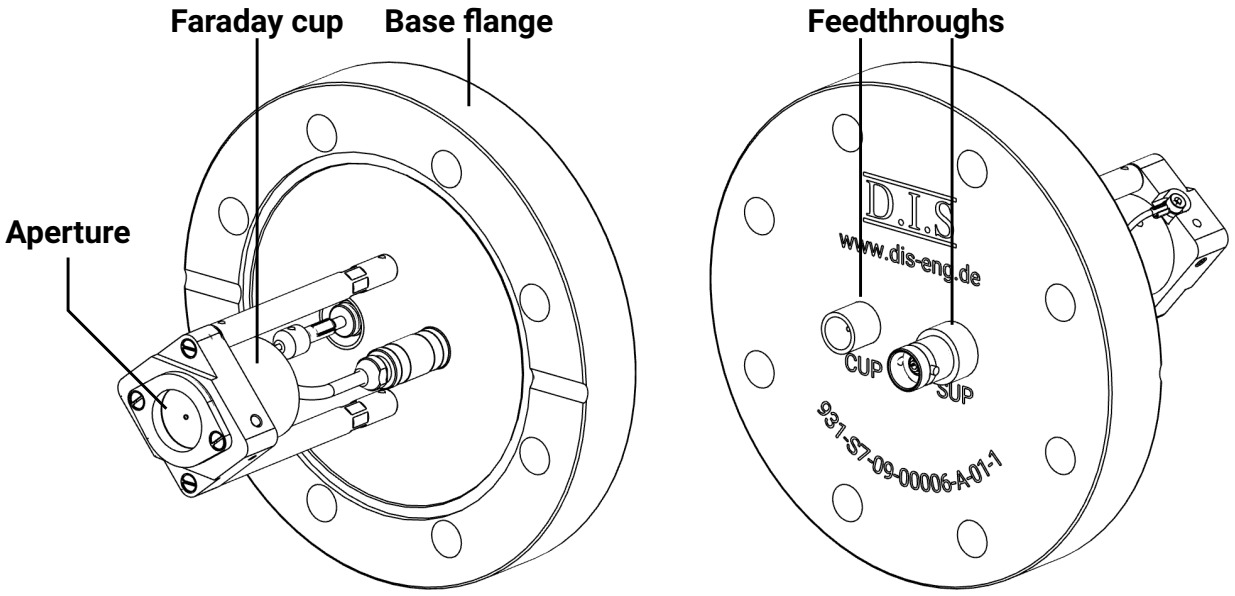

Sketch of the Faraday cup with labeled components.

TECHNICAL DATA

maximum beam power	3 W
current measurement range	nA up to 10 µA @ 200 keV
pressure operating range	down to 1×10^{-10} mbar
mounting flange	DN63CF
mounting style	inline
connectors	Suppressor (SUP): BNC connector Detector (CUP): triaxial connector
aperture dimensions	0.5 mm, 1 mm, 2 mm, 3 mm, 4 mm, and 5 mm
maximum bakeout temperature	150 °C
approx. box size (length x width x height)	113.5 mm x 113.5 mm x 105 mm

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