

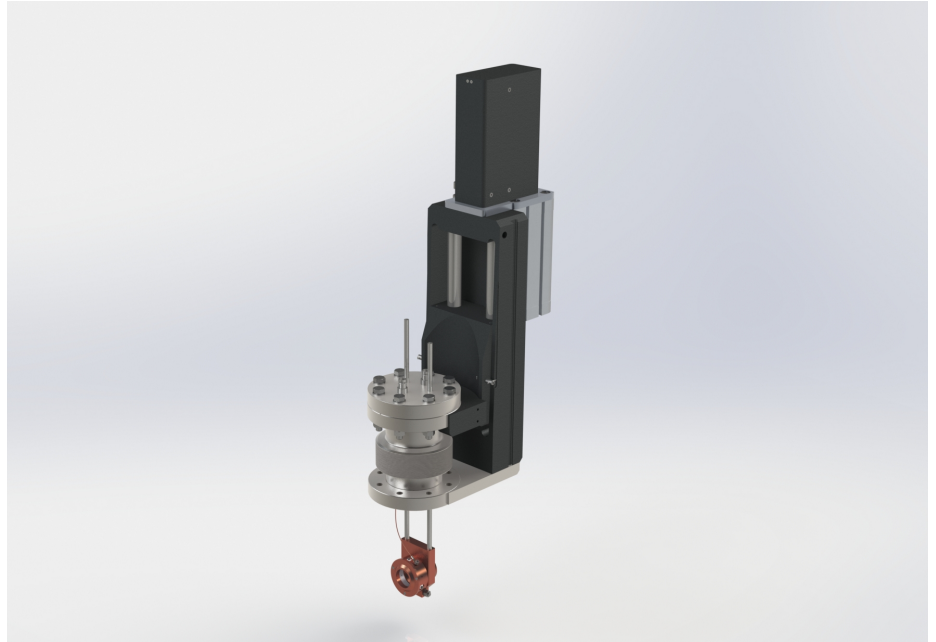
## Faraday Cup, CF63, water cooled

931-S7-09-00011-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 perpendicular mounting and water cooling.*

*further reading:*

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

### Special Features:

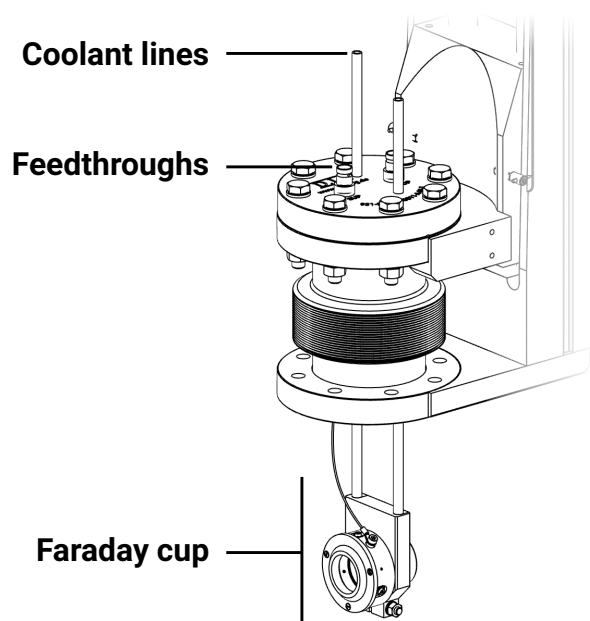
- linear feedthrough
- CF63 base flange
- aperture with a diameter of 25 mm
- designed for an electron beam energy of up to 8 MeV
- water cooling for thermal power loads up to 60 W

### 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.

## FARADAY CUP 931-S7-09-00011-A-01



Sketch of the Faraday cup with labelled components.

### TECHNICAL DATA

mounting flange	DN63CF
mounting style	perpendicular
maximum beam power	up to 60 W
current measurement range	fA up to mA @ up to 8 MeV
aperture dimensions	25 mm
connectors	BNC connectors
vacuum pressure operating range	down to $1 \times 10^{-10}$ mbar
coolant pressure drop between inlet and outlet	5 bar
coolant temperature	<28 °C
maximum bakeout temperature	150 °C
approx. box size (length x width x height)	120 mm x 270 mm x 650 mm
Use case	power load in Faraday cup: 60 W coolant inlet pressure: 7 bar coolant outlet pressure: 2 bar coolant temperature: 28 °C resulting Faraday cup temperature: <60 °C

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