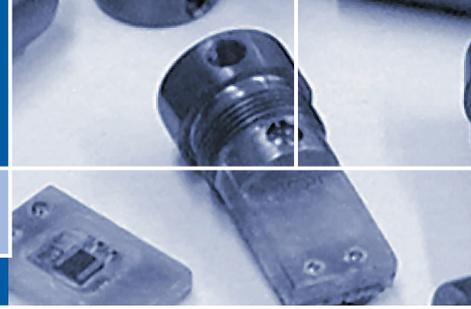
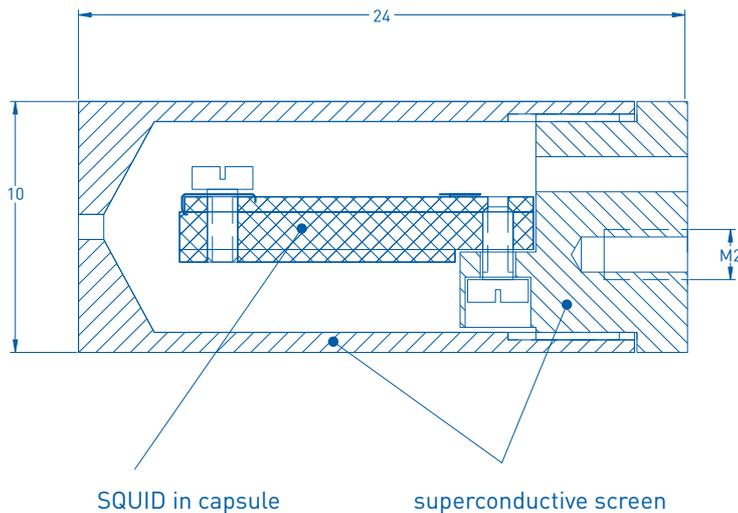


SQUID Current Sensor

Model CC_{blue}



Superconductive screen



The **Model CCblue** is designed for a simple customer-specific setup of niobium wire wound magnetometers and gradiometers as well as for preamplifiers of current or voltage signals with small amplitudes (e.g. signals of transition edge sensors TES).

The superconducting connection to the input coil with low inductance (320nH) provides a very low current noise referred to the input of the low-Tc dc SQUID.

For mechanical protection and easy handling, the SQUID is placed inside a fiberglass package and magnetically shielded by a superconductive screen. The advanced SQUID package may be used directly immersed in liquid helium or in vacuum. The installation of the SQUID **Model CC blue** is very simple because of the lack of any cooled matching circuitry in combination with our standard SQUID electronics. Alternatively, the SQUID can be used with any compatible feedback electronics.

Features

- Size of superconductive screen only 24mm × ø10mm
- Low input inductance of 300 nH
- Effective coupling of integrated on chip input coil to the SQUID with mutual inductance of 2,5 nH
- Feedback coil integrated on chip coupled to SQUID with mutual inductance of 140 pH
- Low current noise better $4 \text{ pA/Hz}^{1/2}$
- Integrated on chip heater to expel frozen flux
- Fabricated using the robust all-refractory Nb/Al - AlO_x/Nb technology

