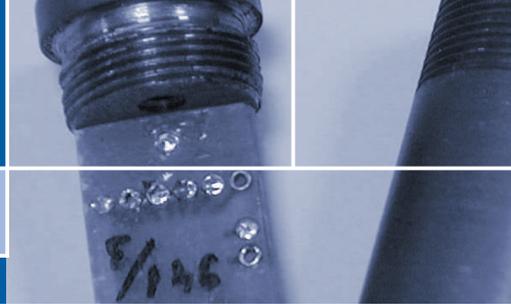
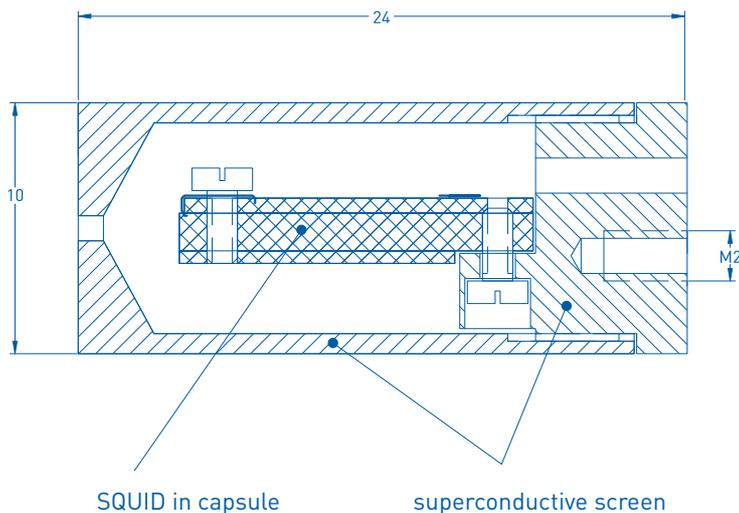


SQUID Current Sensor

Model CS *blue*



Superconductive screen



The **Model CSblue** 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 (320 nH) 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 SQUID package may be used directly immersed in liquid helium or in vacuum. The installation of the SQUID **Model CSblue** 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 x \varnothing 10mm
- Low input inductance of 320 nH
- Effective coupling of integrated on chip input coil to the SQUID with mutual inductance of 10 nH
- Feedback coil integrated on chip coupled to SQUID with mutual inductance of 230 pH
- Very low current noise better than $1.5 \text{ pA/Hz}^{1/2}$
- Integrated on chip heater to expel frozen flux
- Fabricated using the robust all-refractory Nb/Al - AlO_x /Nb technology

