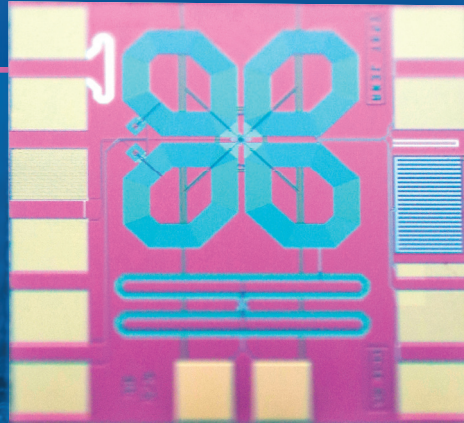


CNxblue

sub-micron Josephson junction technology

CNxblue series: excellent current noise and energy resolution

The new range of SQUID current sensors based on sub-micron cross-type Josephson tunnel junctions combines highest sensitivity and field-stability.



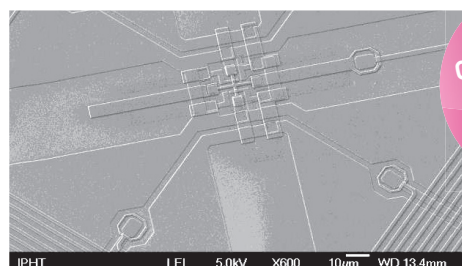
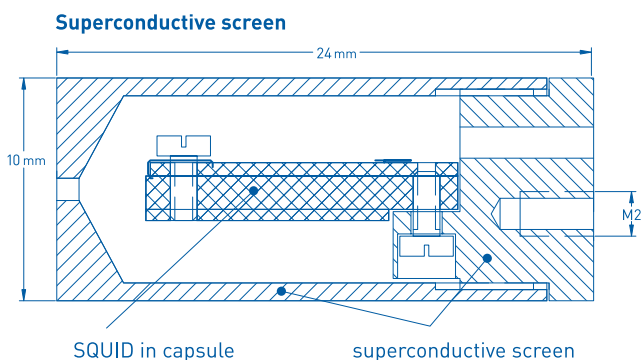
Supracon new blue range sensors can sense any quantity that can be converted into electrical current.

Technology advancements have allowed cross-type Josephson tunnel junctions to be fabricated on the sub-micron scale. On that basis the ground-breaking **CNxblue** sensors uniquely combine highest sensitivity, energy resolution and field stability.

CNxblue promises to be the new sensor of choice for superconducting magnetic field and gradient sensors, in ultralow-field magnetic resonance imaging and as readout of cryogenic detectors.

All sensors can optionally be equipped with a superconducting switch model SW1 and standard or customised screen.

MODEL	CN2	CN4	CN8	CN17	CN34
Winding number of input coil N	2	4	8	17	34
Chip size (mm ²)	2.5 x 2.5				
Input coil inductance (nH)	10.7	44	174	723	2860
Input coil coupling ($\mu A / \Phi_0$)	1.57	0.79	0.40	0.20	0.10
Flux feedback coil coupling ($\mu A / \Phi_0$)	19				
Current feedback transformer (nH)	1.5	2.2	4.4	9.8	20
Intrinsic input current noise ($pA / Hz^{1/2}$) (typical)	1.0	0.6	0.3	0.15	0.08
Input current noise, ($pA / Hz^{1/2}$) (guaranty with electronics from Supracon)	2.0	1.2	0.6	0.3	0.15



Commercially
available for
the first time

Scanning electron microscope
image: central part of SQUID
current sensor CNxblue