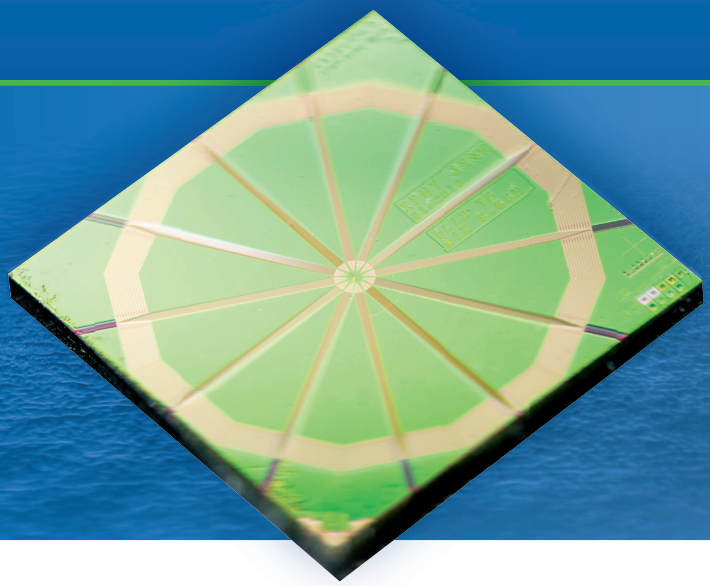
supracon®

LEADING EDGE SQUID TECHNOLOGY

Mxgreen

sub-micron Josephson junction technology

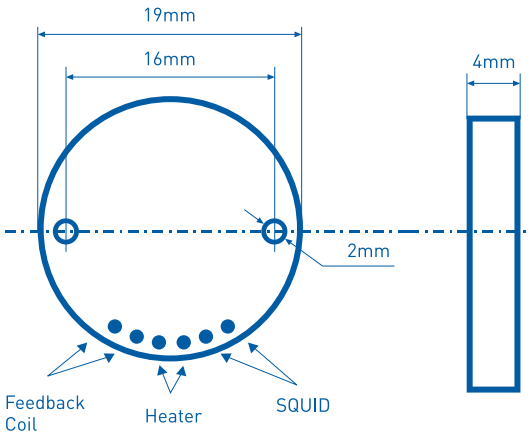


Mxgreen series: exceptionally low magnetic field noise

The new magnetometer range based on sub-micron cross-type Josephson tunnel junctions is setting new standards with respect to magnetic field sensitivity and voltage modulation swing.

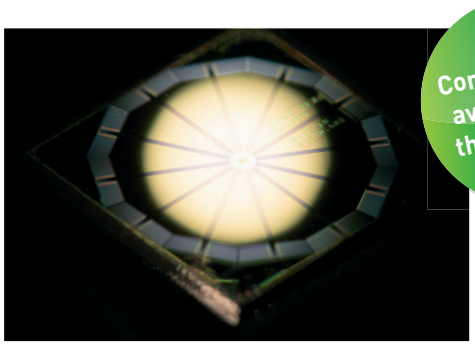
Supracon new green range SQUIDs can sense any quantity that can be converted into magnetic flux for example magnetic fields.

The cross-type Josephson tunnel junctions technology allows Mxgreen sensors to reach exceptional levels of white noise, voltage modulation swing (more than 100µV), and magnetic field stability. The Mxgreen series varies in dimensions and number of loops resulting in different effective areas and inductances to meet the requirements of different applications. Mxgreen promises to be the new sensor of choice for many applications such as in geophysics or low-field magnetic resonance imaging (MRI).



example of encapsulation for M2

MODEL	M2	M5	M7
Chip size (mm)	2.5 x 2.5	5.0 x 5.0	7.5 x 7.5
Effective area (mm^2)	0.37	1.88	3.83
Filed sensitivity (nT/Φ_0)	5.6	1.1	0.54
Feedback coil coupling ($\mu A/\Phi_0$)	3.3	6.0	5.0
White noise ($fT/Hz^{1/2}$) (typical)	8.0	2.0	1.5
White noise ($fT/Hz^{1/2}$) (guaranty with electronics from Supracon)	10	3	2



Commercially available for the first time

Supracon AG | An der Lehmgrube 11 | D-07751 Jena | Germany
Phone +49 [0] 3641 23 28 100 | Fax +49 [0] 3641 23 28 109 | info@supracon.com

supracon®
SQUID and Microfabrication Technologies