



SMALL THINGS MAKE A WORLD OF DIFFERENCE

Scalable OEM sensing solutions
empowering your future innovation.



HIGH-PERFORMANCE OEM SOLUTIONS FROM A RELIABLE PARTNER.

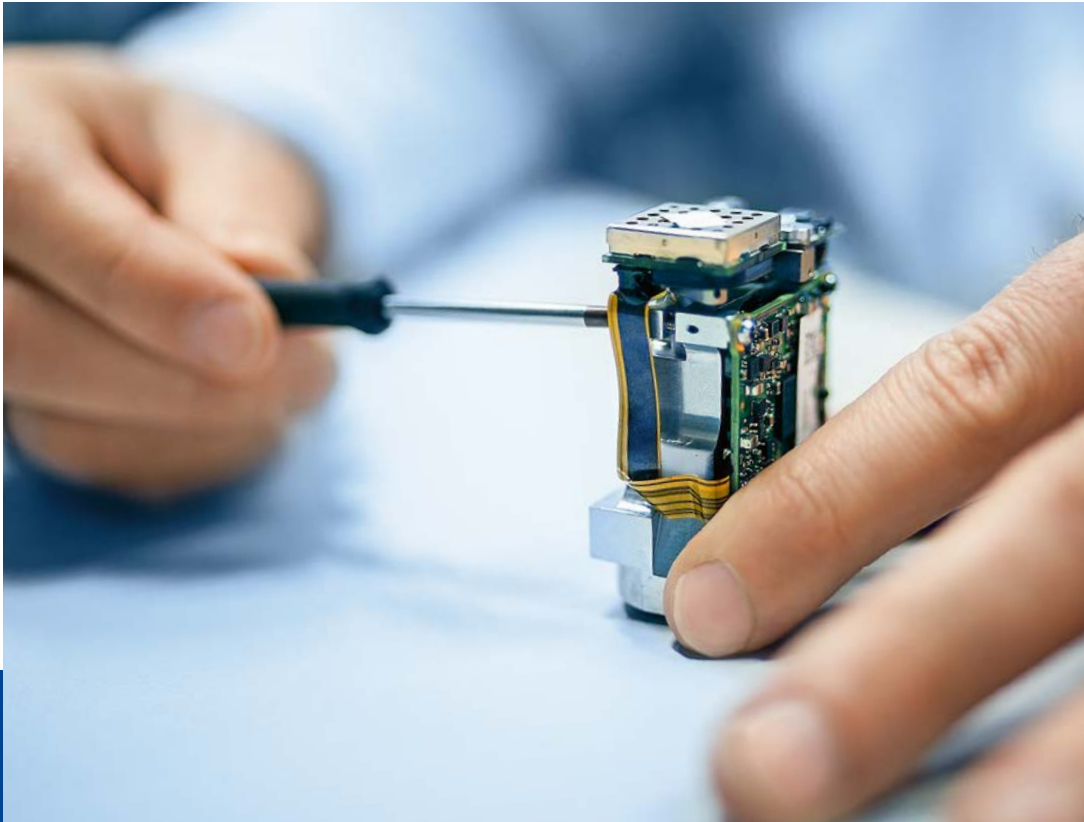
ULTI
SENSE.



Combining Swiss quality, global expertise and cutting-edge proprietary technology, Ultisense has built a reputation for small components with a big impact.

EMPOWERING YOUR FUTURE INNOVATION.

As the market leader in the fields of observation and location, we offer innovative sensing modules and integration support for both military and civilian applications. For 100 years, we've been designing future-proof innovations to meet the challenges of tomorrow. Our ultra-reliable products are trusted the world over, road-tested in the very toughest conditions.



01

A STRONG AND RELIABLE PARTNER



Years of R&D and constant improvement has gone into our products. And with thousands of use cases under our belt, we've seen it all when it comes to integration: Our tech experts are on hand throughout to make integration easier than ever, and available to help wherever you are in the world.

02

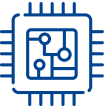
HIGH-END PERFORMANCE



Over the years, Ultisense has consistently set new standards to offer the highest performance when it matters most. Combining small size and world-beating functionality, our patented technology is tested in-house under the toughest conditions to deliver optimal effectiveness. We guarantee innovative solutions, components and services.

03

SWISS PRECISION



True to our roots in Switzerland, our uncompromising attention to detail sets us apart. We stand for time-honored quality and expertise, from intricate product design to quality control and customer service with short response times, redefining the meaning of "Swiss Made".



LASER RANGE FINDING



MAGNETIC NORTH FINDING

LASER RANGE FINDING



Our LRF modules are minimal in weight and size while maintaining top performance. This is why Ultisense sensors are used in military and civilian applications where high performance and utmost reliability in the most challenging environments make the difference. A solid solution empowering your product to exceed its limits.

Advanced fiber laser technology

- + highly reliable patented fiber lasers
- + class 1 eye-safe laser
- + 1550 nm wavelength invisible to NIR cameras

Long-term experience in integration

- + easy to integrate in new or existing systems
- + free dedicated integration support

Industry-leading reliability

- + designed to highest Swiss precision standards
- + highest performance under toughest conditions
- + tested internally to MIL-STD810

No maintenance needed

- + high MTBF thanks to multipulse measuring
- + designed for continuous measurement without breaks

Powerful and flexible software interface

- + customer specific interfaces
- + e.g. different measuring frequencies

Comprehensive portfolio

- + distances from 5.1 to 30 km
- + utilizes both diode and fiber lasers

Unique coaxial pointer technology

- + simplifies boresighting & tactical pointing
- + no additional pointer needed
- + patented by Safran

Ultra reliable readings

- + consistent reliable measurements
- + field-proven measurement algorithms
- + maximum next-generation accuracy



MAGNETIC NORTH FINDING

Our DMC modules are extremely accurate and reliable magnetic compasses, already proven in more than 130 000 electro-optical devices. Their compatibility makes them an ideal module for a wide range of systems. Custom calibration, extensive testing and advanced algorithms ensure industry-leading accuracy. A component dedicated to your success.

Industry-leading azimuth accuracy (0.25 mrad)

- + exact representation of earth's magnetic field

Low weight, small size

- + the pico is the world's smallest DMC (9g)
- + meets any SWaP requirement

Withstands shocks up to 2000 g

- + adapted to MIL Std. 810
- + suitable for weapon mounted applications

Highest quality

- + individually calibrated in Switzerland
- + tested for reliable performance under various conditions

System State Compensation

- + enables adaptation to magnetic influences in the host system
- + no additional hardware required

Magnetic Disturbance Detection

- + automatic alert if a measurement is disturbed
- + built-in feature

Short measurement and start-up times

- + allows for rapid start-up
- + measuring up to 50Hz

Easy integration

- + robust, flexible software interface
- + free integration support



WE SET STANDARDS WHEN IT COMES TO INNOVATIVE SENSING SOLUTIONS.

SMALL COMPONENTS. BIG IMPACT.
GET IN TOUCH TO FIND YOUR PERFECT SOLUTION.



RANGE FINDING	LRF 3013	LRF 5020	LRF 3042	LRF 5042	LRF 6019	LRF 6042	LRF 7047
Range capability	5.1 km	4.5 km	6.0 km	8.0 km	15.0 km	25.0 km	30.0 km
Typical accuracy	± 0.75 m	± 3 m	± 3 m	± 3 m	± 1 m	± 1 m	± 1 m
Dimensions (l × w × h)	52 × 37 × 22 mm	100 × 50 × 35 mm	114 × 100 × 50 mm	114 × 100 × 50 mm	60 × 40 × 45 mm	99 × 56 × 52 mm	93 × 68 × 87 mm
Weight	45 g	120 g	325 g	325 g	100 g	320 g	460 g



NORTHFINDING	DMC pico	DMC SX 4000	DMC SX 5000
Azimuth (heading) (1σ)	± 0.25°	± 0.5°	± 0.25°
Elevation and bank (1σ)	± 0.1°	± 0.2°	± 0.1°
Dimensions (l × w × h)	31 × 23 × 8.5 mm	33 × 31 × 13.5 mm	33 × 31 × 13.5 mm
Weight	9 g	< 25 g	< 25 g

100 YEARS OF SWISS MANUFACTURING TRADITION.



Vectronix's roots stretch back to 1921. Dedicated employees continuously drive the development of this innovative company, headquartered in Swiss town of Heerbrugg, to produce first-class products and systems for orientation and distance measurement.

In 1986, Wild Heerbrugg and Ernst Leitz teamed up and formed the Wild Leitz Group. This company was later acquired by the Leica Group, out of which Vectronix was formed. The company quickly developed into a leading manufacturer of optical surveying instruments and became one of the major suppliers to the Swiss Army.

As part of Safran Electronics & Defense, Vectronix is now a member of the renowned Safran Group.

Quality that develops from partnership.

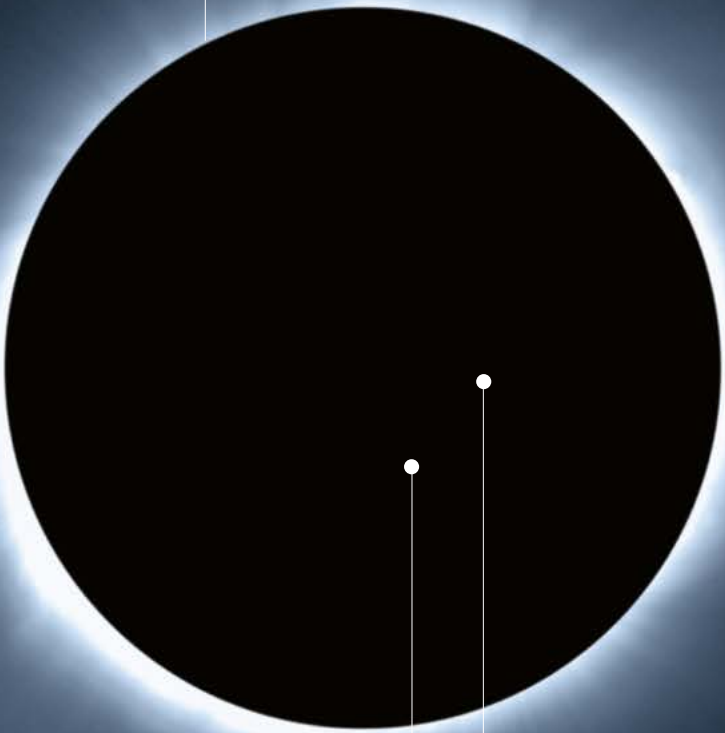
Through ongoing communication with our partners, customers, and specialists, we guarantee innovative solutions, components and services. Our goal is to build long-term, constructive partnerships with satisfied customers. That is why our experienced service experts are on the road worldwide to serve our customers. Decades of experience and competence are standard at Vectronix.

SWISS ROOTS. GLOBAL FOCUS.

Safran Vectronix is part of Safran. With more than 80 000 employees and around 25 billion euros in sales, Safran is a leading player in many areas, including aerospace and defense systems. One reason for this is the investment of 7% of the revenue in research & development. With 850 patents registered annually, no wonder that Safran is one of the world's 100 most innovative companies.



BEDFORD . NEW HAMPSHIRE . USA
Safran Optics 1



SAFRAN GROUP

Ranked among Top 100 global innovators by Thomson Reuters

European leader in optronic systems

World's leading manufacturer of single-aisle commercial jet engines

7% of 2019 sales reinvested in R&D

more than 80 000 employees in more than 270 locations in 30 countries

Global portfolio comprising 26 000 patents

HEERBRUGG . SWITZERLAND
Safran Vectronix AG

PARIS . FRANCE
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POWERED BY TRUST

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Values of technical parameters in this document are typical values (measured at room temperature) unless otherwise specified.

Illustrations, descriptions and technical data are not binding and may be changed without notice. EN - 2022-04-27

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