



SAFRAN VECTRONIX

Mission Solutions



The need for security is deeply rooted in mankind. Forces ensuring security and order are essential in a changing world. Services and solutions from Safran Vectronix help to support these forces in their mission, in line with our motto: Your choice in a world of change.

This brochure offers new perspectives and insights into Safran Vectronix. Our specificity? We deliver performance even in the most extreme conditions. Our goal of precise operation even in the most demanding conditions has made us the global leader in advanced optronic devices, systems, and sensors for military and civilian applications. Learn why Safran Vectronix is as good as its reputation.

**WHEN
IT MATTERS
THE MOST.**

OUR MISSION.
YOUR SUCCESS

It all started with three courageous inventors in Switzerland and their vision of top-class surveying instruments. Heinrich Wild, Jacob Schmidheiny, and Robert Helbling founded Wild Heerbrugg AG in the Heerbrugg district in 1921. The company quickly developed into a leading manufacturer of optical surveying instruments and became one of the major suppliers to the Swiss Army.

In 1986, Wild Heerbrugg merged with Ernst Leitz to form the Wild Leitz Group, which was later acquired by the Leica Group and renamed Leica Vectronix AG. In early 2003, the French conglomerate Sagem integrated the established Swiss company Vectronix into its corporate structure.

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

OUR HISTORY. ALMOST 100 YEARS OF EXPERTISE

1921 1986 1990

2003 2017

1921



Heinrich Wild, Jacob Schmidheiny, and Robert Helbling establish Wild Heerbrugg AG in the Heerbrugg district. Its main focus is building optomechanical surveying instruments, and the theodolites based on various patents by Heinrich Wild quickly become renowned worldwide.



The T2 Universal Theodolite, developed in 1927, was the world's first truly portable optomechanical theodolite.

1986



Wild and Leitz merge in 1987 to form the Wild Leitz Group. The Aargau-based company Kern & Co AG takes over management on May 13, 1988, and Wild Leitz AG is founded on January 1, 1989. Additional companies join the group on August 16, 1989, including Cambridge Instruments, Reichert & Jung, and parts of Bausch & Lomb.

1990



With the acquisition by the well-known camera manufacturer, the Leica Holding B.V. Group is founded in 1990 and enters new markets, including the GPS market, in collaboration with electronics companies. Leica Camera AG is spun off in 1996, followed by a split into Leica Geosystems and Leica Microsystems in 1997.

2003



The Defense & Special Products Division of Leica Geosystems is spun off in 2002 as the independent company Leica Vectronix AG, which is acquired by the Sagem Group in 2003. In May 2005, the French engine manufacturer Snecma and Sagem Group joined forces to form Safran, with headquarters in Paris.



Since the first production of the VECTOR distance measuring binoculars in 2003, more than 32,000 units have been sold.

2017



As a part of Safran Electronics & Defense, Vectronix now operates as Safran Vectronix under the unified brand. Despite the changes in names, the company has never moved away from its location in Heerbrugg, Switzerland, where it all began in 1921.



SWISS QUALITY DEPLOYED WORLDWIDE.

**MADE IN SWITZERLAND.
FOR THE WORLD.**

Our headquarters are located in Switzerland. And for a good reason. Because we not only know where our roots are, we also appreciate the location for its highly qualified employees and their values for which Switzerland is known around the world.

Customers in over 90 countries count on Safran Vectronix for Swiss quality, precision, and reliability. Through our extensive distribution network, we export over 95% of our products worldwide.

IRVINE, CALIFORNIA, USA
VECTRONIX COMMERCIAL BUSINESS UNIT

BEDFORD, NEW HAMPSHIRE, USA
SAFRAN OPTICS 1

HEERBRUGG, SWITZERLAND
SAFRAN VECTRONIX AG

PARIS, FRANCE
SAFRAN ELECTRONICS & DEFENSE
SAFRAN GROUP HEADQUARTERS



OUR EXPERIENCE IS YOUR ADVANTAGE.

LEARNING COMES FROM EXPERIENCE. YOU HAVE TO ACTUALLY DO IT.

You can buy technology anywhere today. But you can't always buy the experience behind it. At Safran Vectronix, we are constantly working on improving and optimizing all of our components and products. As a result, you will automatically get our experience, which you cannot expect anywhere else. Decades of expertise in the fields of optronics, measuring and positioning technology as well as continuous implementation of customer feedback have made us a leading manufacturer and developer of precision systems for observation, geolocation and target acquisition. No matter what your mission is, our integrated, handheld, adaptable and modular solutions are highly reliable in any situation and under the most extreme conditions.

This is where our core competencies in electro-optics, laser rangefinding, north finding, and night vision technology really pay off. That also includes development of customized software or complete integration of existing systems. We not only meet the specific and constantly increasing demands of defense and emergency response services, but are also a sought-after partner for commercial and industrial applications.

RANGEFINDING	+ SINGLE-STAGE AND DOUBLE-STAGE FIBER LASER	+ DIODE LASER
	+ RANGES FROM 10 TO 27,000 m	+ EYE-SAFE, CLASS 1 ACCORDING TO IEC
OPTICAL DESIGN	+ DAY VISION OPTICS	+ THERMAL IMAGE, COOLED AND UNCOOLED
	+ NIGHT VISION	+ MULTISPECTRAL OPTICS
MEASUREMENT	+ TARGET COORDINATES CALCULATION	+ POSITIONING AND ORIENTATION
	+ MAGNETIC AND NONMAGNETIC NORTH FINDING	+ SYSTEM DESIGN
INTEGRATION	+ ELECTRONICS	+ MECHANICS
	+ OPTICS	+ SYSTEM COORDINATION

**Your need is
our task.**

+ SMALLER – LIGHTER – MORE ECONOMICAL

We maintain close contact with our customers and continuously optimize our products so that we can offer lighter, higher-performance, and more robust systems. Our virtually maintenance-free devices are designed for maximum service life.

+ INCREASED SITUATIONAL AWARENESS

Intelligent combination of different technologies gives users the best possible situational assessment. Fast, easy, and absolutely reliable.

+ EXTREMELY HIGH PERFORMANCE UNDER RAPIDLY CHANGING MISSION CONDITIONS

Even with sudden changes in mission requirements or ambient conditions, our devices continue to perform and comply with the toughest standards.

+ REDUCTION OF RISKS TO USERS

Safety comes first. The extremely high reliability of our devices ensures extremely high availability during use.

+ INTUITIVE DESIGN FOR THE UTMOST OPERATIONAL EFFICIENCY

With their characteristic design focused on simple and intuitive use, our devices also ensure reliable functionality in extreme stress situations.

+ FIELD DEPLOYABLE, PROVEN IN USE, AND RELIABLE

Our devices have been used many thousands of times around the world and have proven themselves in the toughest situations, fulfilling our promise of outstanding performance, maximum reliability, and minimal operational effort.

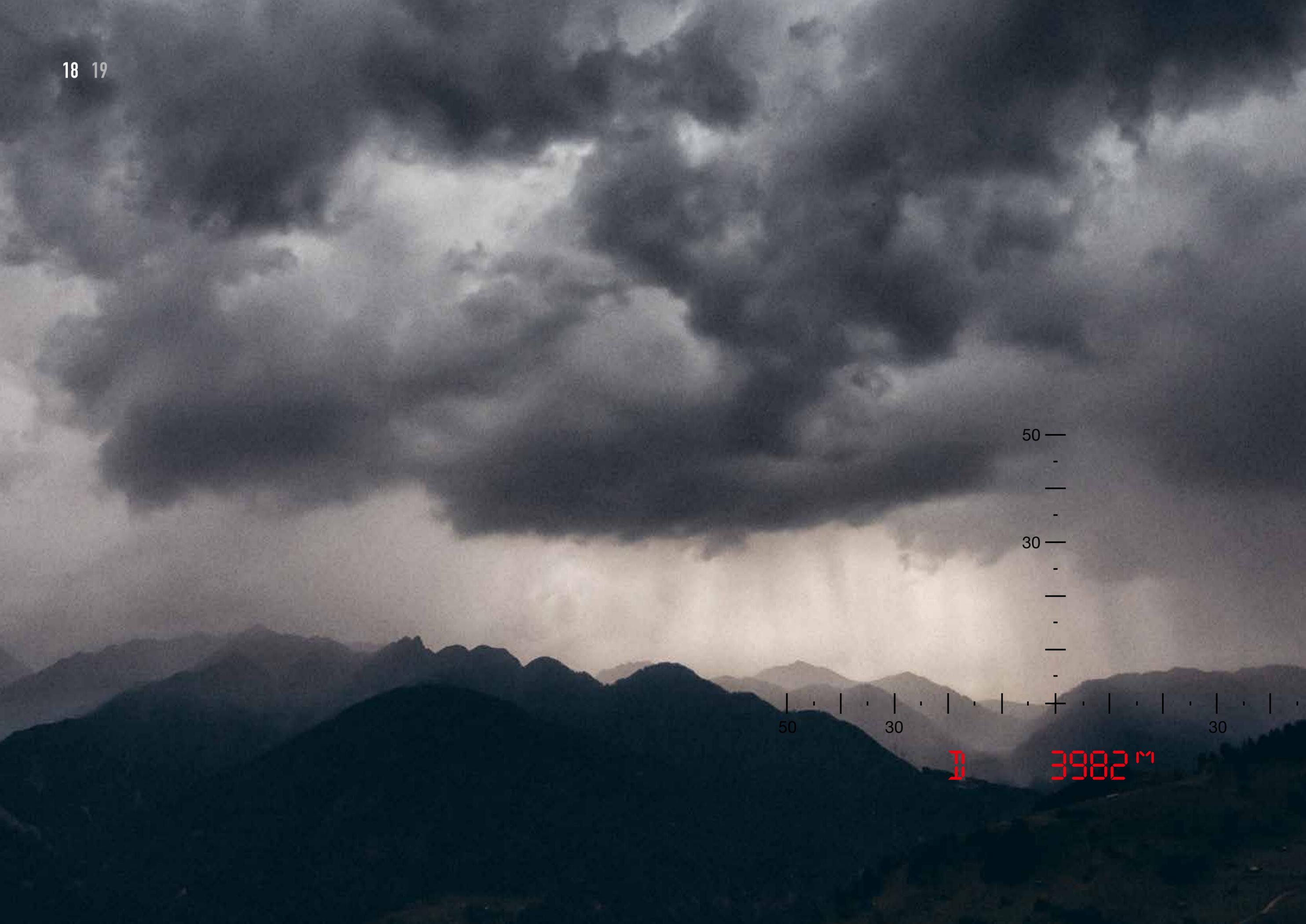
+ EASILY INTEGRATED INTO STRUCTURED SYSTEMS AND SOLUTIONS

All hardware and software concepts are highly compatible and user-friendly. Our products are the perfect key to integration into higher-level battlefield management systems.

**MINUS 13 DEGREES.
BITING WIND.
EVERYTHING UNDER
CONTROL.**



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MOSKITO TI

**SMART VERSATILITY.
MAXIMUM
CONVENIENCE.
HIGHEST
PERFORMANCE.**





VECTOR SERIES

**PERFECT OPTICS.
EXTREMELY ROBUST.
UNEQUALLED RANGE.**





PLRF 25C

**ULTRA-COMPACT.
IMPRESSIVELY INTUITIVE.
CONNECT AT THE PUSH
OF A BUTTON.**





STERNA

**GPS-INDEPENDENT.
UNIQUE PRECISION.
AMAZINGLY LIGHT.**





TO MAKE YOUR MISSION SUCCESSFUL.

PRODUCTS

HANDHELD AND MOUNTED EQUIPMENT

38

JOINT FIRES SUPPORT SYSTEMS

40

HANDHELD AND MOUNTED EQUIPMENT



With increasingly demanding mobile missions, the demands on equipment will only grow. Our customers benefit from the world known precision, reliability and high quality of our products with the lowest failure rates.

JIM COMPACT



Multipurpose target locator for medium to long ranges

- Color video daylight channel, cooled thermal image, low light level sensor
- Range capability: 10 m to 12,000 m (5,000 m on NATO target)
- USB, Ethernet, Bluetooth®, advanced image processing
- Biocular
- Weight: < 2.0 kg

MOSKITO TI



Multipurpose target locator for medium to long ranges

- Direct view optics (6× magnification), uncooled thermal image, low light level sensor
- Range capability: 10 m to 10,000 m (5,000 m on NATO target)
- USB, Ethernet, Bluetooth®, advanced image processing
- Monocular
- Weight: < 1.3 kg

MOSKITO



Multipurpose target locator for medium to long ranges

- Direct view optics (5× magnification), night sight (3× magnification)
- Image intensifier tubes (XR5™, ONYX™, INTENS™ etc.)
- Range capability: 5 m to 10,000 m (4,000 m on NATO target)
- Monocular
- Weight: < 1.2 kg

JIM LR



Multipurpose target locator for medium to long ranges

- Color video daylight channel, cooled thermal image
- Range capability: 10 m to 10,000 m (4,500 m on NATO target)
- Remote control/streaming with "MAX 360"
- Biocular
- Weight: < 2.8 kg

PLRF 25C



Smallest and most powerful MILSPEC laser rangefinder

- Direct view optics (6× magnification)
- Range capability: 5 m to 6,000 m (3,000 m on NATO target)
- Bluetooth®, KESTREL interface
- Monocular
- Weight: < 430 g

COLD IPC



Clip-on laser rangefinder

- For caliber 5.56, 7.62, .338, .50
- Pointer (visible and infrared), Illuminator (infrared, adjustable)
- Range capability: 5 m to 3,300 m (1,500 m on 1 m × 1 m)
- Bluetooth®, KESTREL interface
- Weight: < 390 g

VECTOR IV



Binoculars with laser rangefinder for short to medium ranges

- Extraordinary direct view optics with 7× magnification
- Range capability: 5 m to 6,000 m
- Compass and elevation angle sensor
- Weight: < 1.7 kg

VECTOR IV NITE



Binoculars with laser rangefinder for short to medium ranges with additional image intensifier tube

- Extraordinary direct view optics with 7× magnification (day), 4.5× magnification (night)
- Range capability: 5 m to 6,000 m
- Compass and elevation angle sensor
- Weight: < 2.0 kg

VECTOR 21



Binoculars with laser rangefinder for medium to long ranges

- Extraordinary direct view optics with 7× magnification
- Range capability: 5 m to 12,000 m
- Compass and elevation angle sensor
- Weight: < 1.7 kg

VECTOR 21 NITE



Binoculars with laser rangefinder for medium to long ranges with additional image intensifier tube

- Extraordinary direct view optics with 7× magnification (day), 4.5× magnification (night)
- Range capability: 5 m to 12,000 m
- Compass and elevation angle sensor
- Weight: < 2.0 kg

VECTOR 21 AERO



Binoculars with laser rangefinder for medium to long ranges and elevation angle measurements up to 90°

- Extraordinary direct view optics with 7× magnification
- Range capability: 5 m to 12,000 m
- Compass and elevation angle sensor
- Weight: < 1.7 kg

VECTOR 23

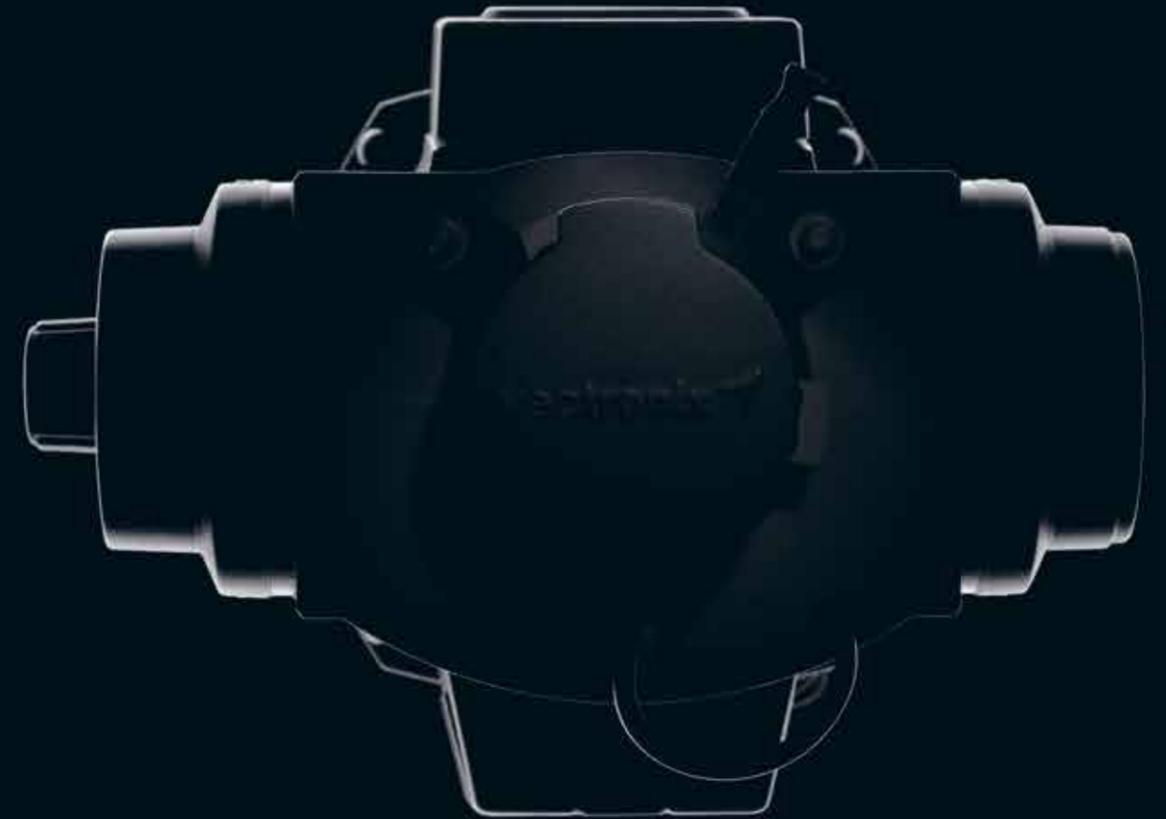


Binoculars with laser rangefinder for maximum ranges

- Innovative fibre laser for an atmospherically challenging environment
- Extraordinary direct view optics with 7× magnification
- Range capability: 5 m to 25,000 m
- Compass and elevation angle sensor
- Weight: < 1.8 kg

JOINT FIRES SUPPORT SYSTEMS

Precise observation systems are among the most important equipment technologies for a successful mission. Our ultra-light but extremely accurate tripod-mounted modular day and night vision systems for north finding and for angle and distance measurement are configured, aligned and integrated into existing C4I infrastructures exactly according to the customer's specifications.



STERNA TNF



Northfinding goniometer with integrated gyroscope, works independently from GPS and magnetic compass, for 24/7 use

- Northfinding: non-magnetically with gyroscope
- Best in class determination of geographic north: 0.7 mil ($\leq 45^\circ$ Lat N/S)
- Ability to position itself utilizing reference points
- 50 bearings and 500 measurements per set of batteries
- Can be combined with various multipurpose target locators to determine target coordinates

STERNA + JIM COMPACT



Forward reconnaissance system to determine target coordinates at medium to long ranges

- TLE CAT I (CE90) capability
- Color video daylight channel, cooled thermal image, low light level sensor
- System weight (incl. batteries and tripod): < 4.8 kg

STERNA + MOSKITO TI



Forward reconnaissance system to determine target coordinates at short to medium ranges

- TLE CAT I (CE90) at 4,400 m ($\leq 45^\circ$ Lat N/S)
- Optical daylight sight (6x magnification), uncooled thermal image, low light level sensor
- System weight (incl. batteries and tripod): < 3.8 kg

STERNA + MOSKITO



Forward reconnaissance system to determine target coordinates at short to medium ranges

- TLE CAT II (CE90) at 10,000 m ($\leq 45^\circ$ Lat N/S)
- Optical daylight sight (5x magnification), night sight (3x magnification)
- System weight (incl. batteries and tripod): < 4.0 kg

STERNA + JIM LR



Forward reconnaissance system to determine target coordinates at medium to long ranges

- TLE CAT II (CE90) at 10,000 m ($\leq 45^\circ$ Lat N/S)
- Color video daylight channel, cooled thermal image
- System weight (incl. batteries and tripod): < 6.1 kg

STERNA + VECTOR-FAMILY



Gun Laying and Positioning System (GLPS) and forward reconnaissance system to align guns and determine target coordinates

- TLE CAT II (CE90) at 11,400 m ($\leq 45^\circ$ Lat N/S)
- Gun alignment utilizing selectable color LED aiming mark and software option
- Extraordinary direct view optics with 7x magnification (day), optional 4.5x magnification (night)
- System weight (incl. batteries and tripod): < 4.5/4.8 kg

STERNA + PLRF25C



Gun Laying and Positioning System (GLPS) and forward reconnaissance system to align guns and determine target coordinates

- TLE CAT I (CE90) at 1,500 m ($\leq 45^\circ$ Lat N/S)
- Gun alignment utilizing selectable color LED aiming mark and software option
- Direct view optics (6x magnification)
- System weight (incl. batteries and tripod): < 3.0 kg

GONIOLIGHT



Goniometer with integrated computer for flexible use as reconnaissance system or as gunlaying and positioning system

- Northfinding: astronomically or magnetically
- Ability to position itself utilizing reference points
- Continuous operation with one battery pack: > 24 h
- Can be combined with various multipurpose target locators to determine target coordinates

GONIOLIGHT V



Forward reconnaissance system to determine target coordinates at medium to long ranges

- TLE CAT II (CE90) at 11'400 m ($\leq 80^\circ/84^\circ$ Lat N/S)
- Extraordinary direct view optics with 7x magnification
- System weight (incl. batteries and tripod): < 8.8 kg

GONIOLIGHT TI



Forward reconnaissance system to determine target coordinates at medium to long ranges

- TLE CAT II (CE90) at 10'000 m ($\leq 80^\circ/84^\circ$ Lat N/S)
- Color video daylight channel, cooled thermal image, low light level sensor
- System weight (incl. batteries and tripod): < 9.8 kg

GONIOLIGHT V-TI



Forward reconnaissance system to determine target coordinates at medium to long ranges, combines binocular direct view optics and laser rangefinding for maximum ranges with cooled thermal image

- TLE CAT II (CE90) at 10'000 m/11'400 m ($\leq 80^\circ/84^\circ$ Lat N/S)
- Extraordinary direct view optics with 7x magnification
- Color video daylight channel, cooled thermal image, optional low light level sensor
- System weight (incl. batteries and tripod): < 12.5 kg

SERVICE AND SUPPORT

A GOOD REPUTATION HAS TO BE EARNED EVERY DAY.

We are always aware that our products must function accurately in every deployment. No ifs, ands, or buts. No matter what the conditions. This does not come cheap, but it also brings peace of mind. You can be absolutely certain that where other technologies fail, you can still count on Safran Vectronix. This unconditional functionality is backed up by perfect service tailored to the needs and requirements of our customers, available over the entire service life of all of our products. We guarantee the functionality of your device over many years. We also offer a wide spectrum of service and support solutions for the full range of ILS requirements - from fast, efficient factory repairs to our specialists in their fully equipped maintenance facilities.



Safran Vectronix is part of Safran. With more than 91,000 employees and around 21 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 8% 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.

**YOUR CHOICE
IN A WORLD OF
CHANGE.**

SAFRAN VECTRONIX



**POWERED
BY TRUST**

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