**OBSERVATION** 



# Ultra-Lightweight Multifunction Monocular

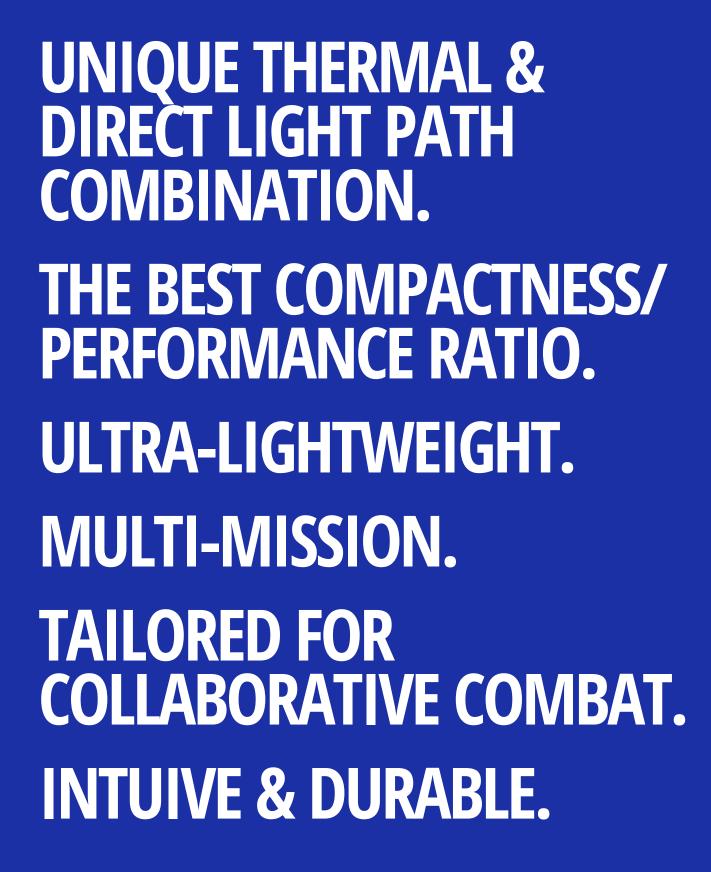




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VIRTUOSE

While taking information, collecting and sharing data are growingly important on the battlefield, operators only have access to thermal imaging and designation systems that are often cumbersome and sometimes unsuited to the needs of their missions.

These materials, which represent a significant physical load, are moreover only accessible to a limited number of operators.

Virtuose is positioned as the answer to these issues for land, naval and air forces, for optimized OODA loops.

Virtuose is a multifunction monocular combining a thermal and direct optical path, laser rangefinder, geolocation and many other advanced features, in an extremely reduced size.



The ergonomics of Virtuose can be appreciated very quickly, due to its shape but also thanks to its judiciously positioned grips.



Its dimensions (length: 146mm; width: 156mm; height: 53mm) make it easily transportable; it can for example be stored in a pocket, a bag...

Its structure is studied to dissipate the heat of the electronic components, guaranteeing optimal performance even during long-term use. It also reduces the thermal signature of the product to make it as stealthy as possible.





Power supply suitable for on-board or off-board use and optimized for multi-mission. • standard batteries

· rechargeable batteries

· super fast replacement

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Robust equipment suitable for deployment in theaters of the battlefield under demanding conditions.

Multifunction solution with ergonomics adapted to the user (reduced weight and very small size).

Unique thermal/direct optical path combination offering unequaled observation performance.

High performance laser rangefinder usable in any situation.

Connectivity to share the information to the chain of command.



Reduced weight allowing observation without fatigue.

Great ergonomics and an ultra-intuitive HMI.

- Main modes quickly accessible via a simple press of a button.
- Change of IR/Visible mode by simple action of a lever, allowing a quick execution
- · Designed for ambidextrous use
- · Quick and instinctive access to menus

# A UNIQUE COMBINATION. PERFECT DAY AND NIGHT VISION.

## HIGH DEFINITION THERMAL IMAGING

The 640x480 thermal imaging sensor at NETD <30mK enables perfect detail recognition, even in challenging weather conditions or with low thermal contrast.

The smallest temperature variations will thus be visible.



The thermal image produced is precise, rich in detail and high in contrast allowing better identification of even the finest details.

The quality of the lens combined with the high-performance thermal imaging sensor provides very high detection capabilities, allowing it, for example, to identify a standardsized object (1m80) at distances greater than one kilometer.

State-of-the-art electronics and improved image processing algorithms offer a new approach to image optimization for all forms of observation and under all conditions.

 $\cdot \geq$  30Hz frame rate for smooth viewing, especially with motion

· High contrast OLED display for stable, high quality imaging



### **HIGHLY MODULAR**

Hardware designed in a modular way to evolve over time and easily integrate new features.

### EQUIPMENT DESIGNED FOR EXTREME ENVIRONMENTS

Qualified for military use, its structure gives Virtuose a very high level of resistance despite its reduced weight. The equipment is protected from shocks, vibrations, temperature variations, humidity, salty and dusty environments.

Objective: withstand an intensive use in constrained environments.

## UNIQUE OPTICAL DIRECT LIGHT PATH DESIGN

A fixed 7x optical magnification with high light transmission allowing daytime observation of your environment, even in low light.

The use of a direct optical path allows a high light transmission rate (>85) - above average and allows the equipment to be operational even without batteries.



### STATE-OF-THE-ART FEATURES

#### • LRF (laser range finder)

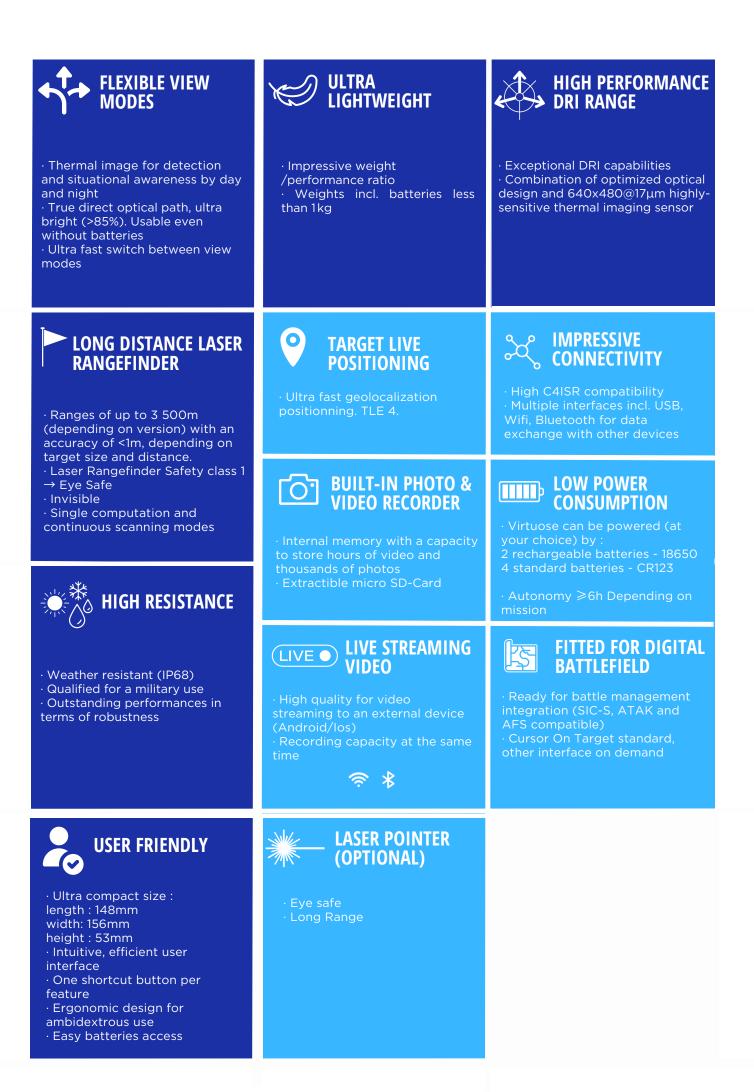
An integrated LRF with a range of up to 3.5 km with a single measurement or continuous scan mode with an accuracy of <1m.

· GPS positioning

Ultra-fast GPS positioning of the monocular and designated targets via the LRF allowing the extraction of coordinates of objects of interest with a level of precision of the type TLE 4.

- · Built-in camera and video capture
- · Live streaming vidéo
- · Laser pointer (optional)
- Allowing to precisely designate the object or the target and characterize its position.















Situational awareness in all lighting and weather conditions.



# ACCESSORIES

#### NCLUDED

- Pelicase
- · Tether strap
- · Cleaning kit
- $\cdot$  4 rechargeable batteries
- · USB-C cables
- · User Manual

# **TECHNICAL SPECIFICATIONS**

DIRECT LIGHT PATH CHANNEL			
Magnification	x7		
Diopter Range	-3δ / +2δ		
Light Transmission	>85%		
Horizontal field of view	5°		

### THERMAL CHANNEL

IR Sensor	Uncooled microbolometer	
Sensor Resolution	640x480, 17μm	
Internal Display	OLED 1280 x 1024, 30 fps	
Magnification	x1.7, x4, x7, x10, x14	
Horizontal field of view	15°	
Colors available	5 color palette	

#### OTHER FEATURES

Laser Rangefinder (depending on version)	905nm wavelength Up to 2000m	
	1500nm wavelength Up to 3500m	
Geolocation accuracy	<90m at 1 000m (TLE4)	
Laser Pointer	(Optional)	
Picture/Video recording		
Tripod adaptator		

#### OWER

x2 Rechargeable 18650 batteries or x4 Batteries type CR123		
Autonomy ≥6h Depending on mission		
x4 Batteries type CR123		
External power supply: USB-C		
Internal charger - The device has the ability to charge the batteries		
INTERFACES		

USB C: charging and data managing Bluetooth/WiFi

ATAK, AFS connectivity

#### ENVIRONMENTA

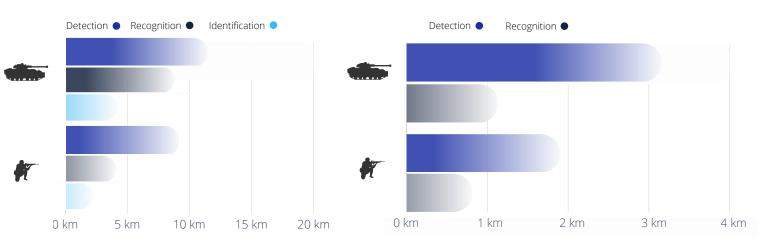
MIL-STD	810G	&	MIL-STD-461F
IP68			

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# **DIRECT LIGHT PATH/THERMAL RANGES**

### DIRECT LIGHT PATH PERFORMANCE RANGE:

### **THERMAL PERFORMANCE RANGE:**





# JOINING OUR STRENGTHS TO MAKE YOUR MISSION A SUCCESS

# ELYNXO

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