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2018

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STREAM YOUR DISCOVERIES

New digital technologies invade, enhance and raise standards in every aspect and sphere of our lives. Today, with literally billions of people in every corner of the globe engaged in constant virtual contact with each other, developing cross-platform devices is more important than ever. Like a smartphone, once simply a means of verbal and text communications but now a multi-purpose, multi-

tasking instrument for business and social relations, Pulsar's innovative line of night vision and thermal optics deliver valuable work and entertainment information. Pulsar continues to develop feature-rich devices focused on high-resolution image quality, ergonomics and world-class reliability, we understand that now, more than ever, ease of interface and multi-vector use are equally

important. Stream Vision solves this task by providing a symbiosis of software and hardware platforms designed to connect personal Android and iOS devices, i.e. smartphones, tablets, etc. to Pulsar thermal imaging and digital night vision devices via Wi-Fi.



Unique, cutting-edge mobile application that binds together opto-electronics and Android or iOS mobile devices to offer a symbiosis of advanced optic capabilities and the latest digital features. Using standard WiFi, a smartphone or tablet easily connects to Stream Vision compatible Pulsar thermal and digital night vision optics to stream images directly to your personal device, change device settings, view recorded files, update firmware and control the optic remotely.



STREAM VISION



Install the App

By installing the Stream Vision App (available in AppStore for iOS and Google Play for Android), thermal imaging and digital night vision operators using Helion, Trail, Accolade, Digsight Ultra or Forward F models benefit from:

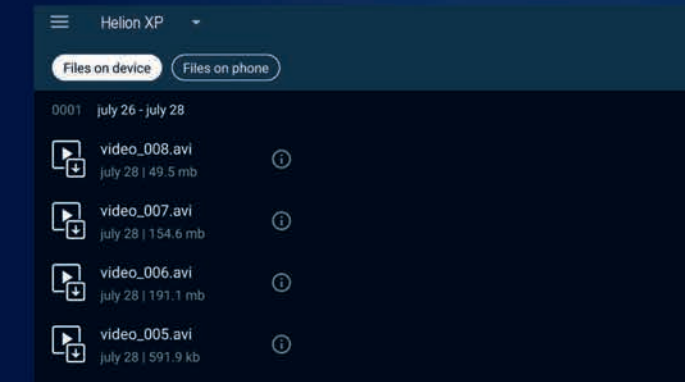


⚡ Use your smart phone or tablet as an additional remote control

Stream Vision's proprietary software was developed by Yukon Advanced Optics Worldwide specifically for Stream Vision-compatible Pulsar optoelectronic devices to ensure additional program functionality is easily accessible.



⚡ Comfortable, fatigue-free, streaming field-of-view displayed on wireless devices in real time



⚡ Full content management – view, delete and download photo and video files stored in the device's onboard memory



Transmit images and videos directly to storage or video platforms like YouTube.

NEW Stream Vision Features



⚡ Motion Detection

Motion detection automatically alerts the user to a moving object in the device's field of view. Setting detection accuracy is simple, based on object size and type of notification, sound or vibration. Enhanced accuracy can be obtained by making the device immobile during motion detection.

⚡ Ballistic Calculator

The ballistic calculator allows a user to determine precise ballistics for more accurate shooting. Setting up preferred ammunition parameters, weather conditions and other pertinent variables is easy. Once set up, the ballistic calculator determines windage and elevation adjustments required for accuracy, even at long distances. While the ballistic calculator works perfectly with Pulsar riflescopes, calculations also are compatible with other scopes, too.



Clearest Image
Available

THERMAL
TECHNOLOGY

Thermal Imaging Riflescopes

TRAIL



XQ28 / XQ38 / XQ50 / XP38 / XP50



Mobile-Friendly
with Remote Control and Live
Internet Streaming

The highlight of the Trail is the ability to link via Wi-Fi the device with Android and iOS based mobile units using the free mobile application Stream Vision. The Stream Vision software connects the device with Android/iOS mobile unit (smartphone or tablet) which enables you to receive footage in the real time mode, to distantly operate the device with your smartphone, as well to stream online the image captured by the device to Youtube. For more information please refer to Stream Vision section of our catalogue.



Variable Magnification

Trail models include variable magnification, up to 8x depending on model, and feature both 2x step-up and smooth, graduated magnification for a truly optimum, customized field of view.

High Image Frequency

50Hz

At a high refresh rate of 50Hz, the Trail provides comfortable viewing throughout dynamic, rapid motion.



IPX7

Fully Waterproof

IPX7 waterproof-rated protection ensures the Trail performs perfectly in wet weather, even during intense rain, snowfall and submersion in 1 meter of water for up to 30 minutes (IEC 60529).

Detects up to 1800 Meters Away

Depending on model, Trail thermal imaging riflescopes detect big-game-size heat signatures up to 1800m away.



Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, the Trail thermal imaging riflescopes are designed to deliver flawless performance at an extreme temperature range of -25°C – +50°C.



High Recoil Resistance Rating: 12 gauge, 9.3x64, .375 H&H Shock Resistance

The Trail features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.



Selectable Reticles

A full complement of digitally displayed reticle solutions ensures quick target acquisition and a richly contrasting sight picture. Choose from an array of reticle patterns, colors and brightness settings.



Effective Temperature Sensor Stabilization

A heat sink, located on the device's body, effectively prevents heat build-up from the sensor and other components while also significantly reducing temperature and noise sensitivity, especially between calibrations.



B-Pack Power Supply

Trail includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 8 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.



Wireless Remote Control

The ergonomic, wireless remote control, with encoder wheel, puts the full range of the Trail's capabilities at your fingertips for comfortable, convenient, hands-off operation.



⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Trail's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC / laptop via wired connection or Wi-Fi.

⚡ 3 Zeroing Profiles / 15 Distances

Save three individual firearm/ammunition zeroing profiles, including different reticles, at up to five distances, in the Trail's memory. Zoom zeroing support ensures precise zeroing accuracy.



⚡ Stadiametric Rangefinder

Based on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.

⚡ Built-In Accelerometer / Gyroscope

A built-in accelerometer/gyroscope improves accuracy by precisely identifying cant and angles greater than 5° with an arrow indicating the direction and degree of lateral tilting. Increased angles are denoted with additional arrows. Moreover, the riflescope can be set to auto shutdown when resting in a non-shooting position. Unit operation may be disabled when the vertical angle is greater than 70° or horizontal angle is greater than 30°. The accelerometer feature may be temporarily disabled for continued use at excessive angles.



⚡ Display Off

During short periods of inactivity and better concealment, Display Off powers down the display without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.



⚡ Picture-in-Picture Mode

Picture-in-Picture improves accuracy by providing a magnified image of the reticle area at the top of the display. With only 1/10 of the display area reserved for PiP, the field of view remains virtually unobstructed for simultaneous PiP and FOV viewing.

⚡ Updatable Software

For initial setup and additional updates, the iOS and Android compatible Stream Vision App ensures the most recent Trail software versions are available.



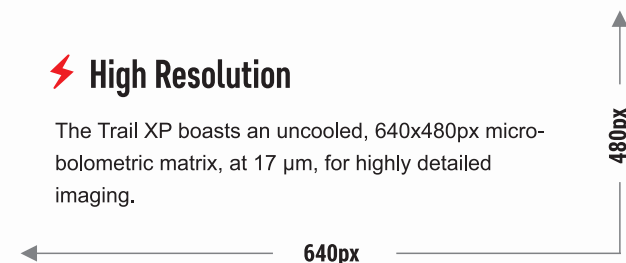
⚡ User-Friendly Interface

The Trail is designed with ease-of-operation in mind. User feedback has resulted in the most friendly interface to date, complete with an easy-to-read, icon-driven, alpha-numeric status bar at the bottom of the display. Internal menu items and options are also displayed on a contrasting gradient substrate so you can keep an eye on settings without losing sight of your objective.



⚡ High Resolution

The Trail XP boasts an uncooled, 640x480px microbolometric matrix, at 17 μm, for highly detailed imaging.



SKU	76512	76501	76503	76507	76509
Model	XQ28	XQ38	XQ50	XP38	XP50
Objective lens	F28/1.2	F38/1.2	F50/1.2	F38/1.2	F50/1.2
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17	384x288@17	384x288@17	640x480@17	640x480@17
Frame rate, Hz	50	50	50	50	50
Magnification, x	1.5 – 6	2.1 – 8.4	2.7 – 10.8	1.2 – 9.6	1.6 – 12.8
Field of view, horizontal & vertical without zoom, deg	13.3x10	9.8x7.4	7.5x5.6	16.3x12.3	12.4x9.3
Range of detection, m	800	1350	1800	1350	1800
Dimensions, mm	287x72x76	285x72x76	292x72x76	285x72x76	292x72x76
Weight (without mount), kg	0.48	0.52	0.56	0.6	0.62

	Magnification	Distance	Weight
LRF XQ38	2.1x 8.4x	1300m	0.75kg
LRF XQ50	2.8x 11.2x	1600m	0.85kg



**THERMAL
TECHNOLOGY**

Thermal Imaging Rangefinding Riflescopes
APEX LRF
XQ38 / XQ50

⚡ Zeroing with “Freeze” Function

While one-shot zeroing is a standard on all Pulsar digital riflescopes, the Apex LRF adds an additional “Freeze” feature. After the initial zeroing shot, a freeze-frame of the display can be used to align the reticle with the point of impact without requiring the firearm to remain still.

⚡ High Target Detection Distance

Depending on model, Apex LRF Thermal Riflescopes with Increased Recognition and Detection Software (IRIS) are capable of detecting big-game-size heat signatures over 1300m away.



**Apex LRF Integrated
Laser Rangefinder**

Precision shooting begins with knowing the distance to your target. The Apex LRF features an integrated laser rangefinder capable of capturing and displaying target distances accurately, within ±1m, up to 1000m.

⚡ Selectable Reticles

A full complement of digitally displayed reticle solutions ensures quick target acquisition and a richly contrasting sight picture. Choose from an array of reticle patterns, colors and brightness settings.



⚡ Picture-in-Picture Function

Picture-in-Picture improves accuracy by providing a 2x magnified image of the reticle area at the top of the display. With only 1/10 of the display area reserved for PiP, the field of view remains virtually unobstructed for simultaneous PiP and FOV viewing.



⚡ 3 Types of Zeroing Parameters Memorization

The software allows the user to save in rifle scope's memory three points of impact for three various distances (types of weapon or cartridges), and each option allows the use of a dedicated reticle.



⚡ Wireless Remote Control

An ergonomic, wireless remote control puts basic Apex LRF controls at your fingertips for comfortable, convenient, hands-off operation.

⚡ EyeSafe Eye Relief

One of the best in its class, Apex Thermal Riflescopes feature generous 67 mm eye relief. When it comes to confidence, comfort and heavy recoil, Eyesafe delivers the peace-of-mind you need on the hunt to make every shot count.

⚡ Display Off

During short periods of inactivity and better concealment, Display Off powers down the display without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.

⚡ Operating Modes

The Apex LRF features three operating modes: City (enhanced contrast), Forest (low contrast) and Identification (improved rendering of heat signature details). Each mode optimizes imaging based on viewing conditions.

⚡ External Power Supply

Operation time can be significantly prolonged by using high-capacity external power supply units, i.e. Pulsar EPS3I / EPS5). When used at low temperatures, the power supply can be kept in a warm place, i.e. under clothing, to prevent rapid discharge.

⚡ Video Out

The Apex LRF is equipped with a video output to enable connectivity with an external display or recording device.

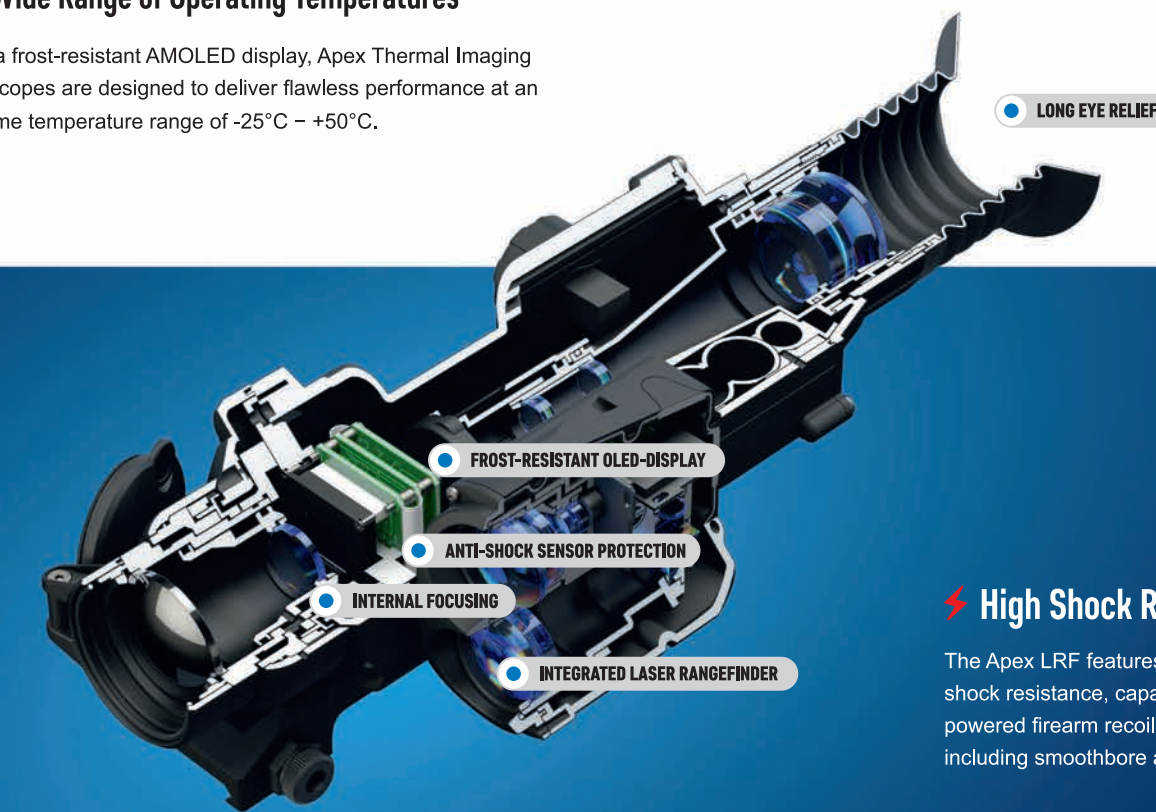


THERMAL
TECHNOLOGY

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⚡ Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, Apex Thermal Imaging Riflescopes are designed to deliver flawless performance at an extreme temperature range of -25°C – +50°C.



⚡ High Shock Resistance

The Apex LRF features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.

⚡ Rifle Mount

Based on the endless differences between people and the anthropometric data related to their body mechanics, measurements, etc., Pulsar developed a mounting system with generous adjustability to suit virtually any shooter lining up behind a Pulsar optic.

SKU	76419	76429
Model	LRF XQ38	LRF XQ50
Objective lens	F38/1.2	F50/1.2
Microbolometer resolution, pixels @ pixel pitch, μm	384x288 @ 17	384x288 @ 17
Frame rate, Hz	50	50
Magnification, x	2.1 – 8.4	2.8 – 11.2
Integrated laser rangefinder	yes	yes
Range of detection, m	1300	1600
Dimensions, mm	335x110x75	343x110x75
Weight (without batteries & mount), kg	0.75	0.85



Thermal
Comfort



Thermal Imaging Binoculars ACCOLADE



Comfortable for Long Observation

The dual eyepiece configuration reduces eye fatigue during longer viewing and enhances the natural look of objects. The human brain is pre-conditioned to receive visual information from two channels simultaneously. The brain then combines the information into a single image. When one eye is used to observe, the brain only receives information a single input. The increased effort from the brain to override the standard algorithm of visual perception can quickly lead to the observer feeling fatigued and uncomfortable.

XQ38 / XP50 / LRF XQ38 / LRF XP50

50Hz

⚡ High Image Frequency

High Image frequency is important when shooting at moving targets. A high refresh rates ensures motion is fluid and in real-time, allowing more accurate speed assessment and shot placement.

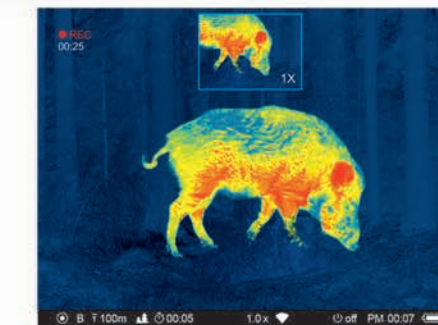
⚡ Smooth and Incremental Digital Zoom

Incremental zoom is a perfect solution to quick, on-the-fly zooming. When time is not a limiting factor but slight details are, the device's smooth zoom is the better option.

640 x480

⚡ High Resolution Sensor

The high 640x480 pixel resolution (XP models) ensures all objects within the field of view have the highest level of detail. High sensor resolution makes the smallest objects, i.e. branches, leaves, body extremities of an animal, appear exceptionally crisp and clear against the background.



⚡ "Picture-in-Picture" Mode

Picture-in-Picture provides a second, magnified reticle-area image to help the observer see magnified target details without loss of the field of view.

⚡ Observation Modes

Image optimization should be performed depending on the environmental location and conditions. Mountains, cities and forests have different ambient temperatures. In order to achieve the highest possible image quality, certain settings have been optimized and gathered into profiles. As a result, optimized imaging in various conditions is easier. Identification preset is another optimal-imaging option that makes identifying easier, even at longer distances.



Rocks Mode



Forest Mode



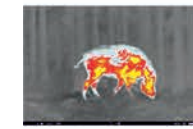
Identification Mode



White Hot



Hot Black



Hot Red



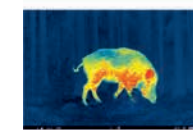
Red monochrome



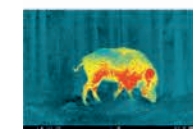
Sepia



Violet



Ultramarine



Rainbow



⚡ 8 Custom Color Modes

The 8-color palette enhances viewing in varying conditions. While the classic "White Hot" mode is exceptionally versatile, "Hot Black" is often favored for detecting wildlife at night. Red monochrome helps to reduce or prevent bright backlight from exiting the eyepiece. Sepia often improves long-range observation while "Red Hot", "Rainbow" and "Ultramarine" enhance temperature differences of various object attributes. Violet helps to identify objects faster.

⚡ Long Detection Range 1800 m

Detecting objects at long distances is an important feature for optics' users in outdoor environments. Optic quality and the best thermal imaging sensor available make a unique combination designed to deliver the longest detection range possible.

⚡ Built-in Video Recorder

The built-in video recorder is a great asset when it comes to filming or taking photos of once-in-a-lifetime experiences. One press of the REC button captures footage that can be shared easily with colleagues, friends and family.



⚡ Frost Resistant AMOLED Display

The device is designed for flawless operation in extreme weather and temperature conditions. Whether the environment is freezing cold or blistering hot, the image retains its contrast and vivid colors without loss of frame rate. The high-contrast, color AMOLED display uses top technology to ensure stable, high-quality imaging in virtually any weather conditions.

-25°C

⚡ Fully Waterproof

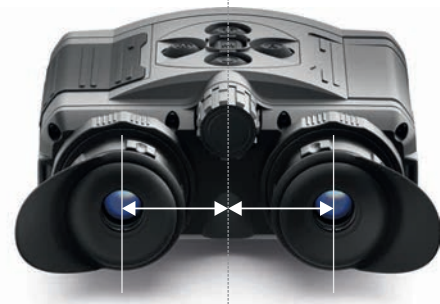
Rain, snow, fog, high waves or waterways, the IPX7 waterproof rating ensures the device won't fail in even the toughest wet weather conditions. The IPX7 rating means the device has been manufactured and rigorously tested to withstand extreme natural weather conditions, even submersion to a depth of 1 meter for up to 30 minutes.

IPX7



⚡ Built-in Wi-Fi Module

Observation devices are no longer just optics. Today's devices are increasingly designed to meet multi-tasking requirements dictated by a wider array of scenarios. Turning the unit into a hot spot, complete with ability to connect directly to a smartphone or tablet, increases and enhances features, including the ability to control the device remotely.



⚡ Variable Interpupillary Distance

The ability to adjust the distance between eyepieces allows the user to best position the optic for individual needs. Interpupillary distance differs from person to person. Adjusting for individual fit dramatically improves viewing comfort and quality, and eliminates the potential for double-imaging.

⚡ Integrated Laser Rangefinder

Some models include laser rangefinding (LRF) technology. Integrated, precision LRF provides precise distancing in two modes: Single Time Measurement and Scanning. Scanning mode allows the shooter to adjust quickly to changing distances for better shot placement.

⚡ Manual Contrast and Brightness Adjustment

Contrast and brightness can be adjusted manually to fit individual preferences. The settings are stored in the memory of the unit and can be easily changed when required.



⚡ Stadiametric Rangefinder

The stadiametric rangefinder helps to estimate range to an object based on its size. The device's advanced, proprietary, rangefinding interface provides important ranging information within seconds.

⚡ Wi-Fi Video Transmission

Broadcasting a video signal directly to a smartphone or tablet makes remote observation significantly easier. When two people are in the field, both can see the image – one on the device's display, the other on their smartphone or tablet screen. When a situation requires covert operation, the observer does not have to hold the unit by hand. Depending on the situation, viewing from a tablet or smartphone may be safer or more convenient.

⚡ Live Internet Video Sharing

Connecting the device with a smartphone or tablet allows a user to access the internet and live-stream video directly to YouTube.



⚡ Calibration Modes (Non-uniformity Correction)

A thermal imaging sensor requires calibration or non-uniformity correction (NUC) from time to time. Calibrating reduces or eliminates remaining redundant signals and improves overall image quality. Accolade offers 3 modes of calibration: Automatic, Semi-automatic and Manual. In Automatic mode, the shutter closes and calibration is performed automatically within defined time intervals and without user participation. In Semi-automatic mode the shutter closes and calibration is done only when the user presses the calibration button. In Manual mode, also called "Silent", the shutter remains open but the user has to close the objective cap and press the calibration button.

⚡ Quick-change Long-life Rechargeable Battery Packs

The device's innovative battery-release mechanism ensures fast, flawless battery changes. Rechargeable IPS5 battery packs provide up to 8 hours of continuous operation in Wi-Fi mode.



SKU	77411	77415	77414	77418
Model	XQ38	LRF XQ38	XP50	LRF XP50
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17		640x480@17	
Objective lens	F38/1.2		F50/1.2	
Frame rate, Hz	50		50	
Magnification, x	3.1 – 12.4		2.5 – 20	
Integrated laser rangefinder	no	yes	no	yes
Field of view, horizontal & vertical without zoom, deg	9.8x7.4		12.4x9.3	
Range of detection, m	1350		1800	
Weight, kg	0.45	0	0.5	0

Clearer Image Available



Thermal Imaging Scopes

HELION

XQ28F / XQ38F / XQ50F / XP28 / XP38 / XP50



Mobile-Friendly with Remote Control and Live Internet Streaming

The free Stream Vision App, compatible with both Android and iOS systems, allows users to connect personal smartphones and tablets to Pulsar devices featuring onboard Wi-Fi. When connected, Stream Vision allows users to stream video and images in real time to YouTube, transfer files, update important firmware and control the optic remotely. For more information, refer to the Stream Vision section of our catalog.

THERMAL TECHNOLOGY



Available on the App Store ANDROID APP ON Google play

⚡ Long Detection Range

Depending on model, the Helion is capable of detecting an average human-size target, dressed in outerwear, against a forest backdrop, at a range up to 1800 m.

⚡ Stadiametric Rangefinder

Based on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.

1700 m **1800 m** 2000 m

⚡ Variable Magnification

Helion models include variable magnification, up to 8x depending on model, and feature both 2x step-up and smooth, graduated magnification for a truly optimum, customized field of view.

⚡ Wireless Remote Control

The ergonomic, wireless remote control (optional), with encoder wheel, puts the full range of Helion capabilities at your fingertips for comfortable, convenient, hands-off operation.



IPX7

⚡ Fully Waterproof

IPX7 waterproof-rated protection ensures Helion Thermal Imaging Scopes perform perfectly in wet weather, even during intense rain, snowfall and submersion in 3 ft of water for up to 30 minutes (IEC 60529).



⚡ Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, the Helion Thermal Imaging Scope is designed to deliver flawless performance at an extreme temperature range of -25°C – +50°C.

-25°C

⚡ 8 Custom Color Modes



In addition to user-favorite "white hot" and "black hot" imaging, Helion scopes offer a robust array of color palettes for true colorized temperature mapping. Transitioning from color to default "white hot" during operation is also fast and easy.



⚡ Effective Temperature Sensor Stabilization

A heat sink, located on the device's body, effectively prevents heat build-up from the sensor and other components while also significantly reducing temperature and noise sensitivity, especially between calibrations.

50Hz

⚡ High Image Frequency

At a high refresh rate of 50Hz, the Helion provides comfortable viewing throughout dynamic, rapid motion.



⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Helion's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC/laptop via wired connection or wirelessly to your smartphone or tablet with the iOS and Android compatible Stream Vision App.



⚡ B-Pack Power Supply

Helion includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 8 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.

⚡ Display Off

During short periods of inactivity and better concealment, Display Off powers down the display without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.



⚡ Updatable Software

For initial setup and additional updates, the iOS and Android compatible Stream Vision App ensures the most recent Helion software versions are available.

⚡ User-Friendly Interface

The Helion is designed with ease-of-operation in mind. User feedback has resulted in the most friendly interface to date, complete with an easy-to-read, icon-driven, alpha-numeric status bar at the bottom of the display. Internal menu items and options are also displayed on a contrasting gradient substrate so you can keep an eye on settings without losing sight of your objective.



640x480

⚡ High Resolution

The Helion XP boasts an uncooled, 640x480px micro-bolometric matrix, at 17 μm, for highly detailed imaging.



SKU	77392	77394	77395	77403	77404	77405
Model	XQ28F	XQ38F	XQ50F	XP28	XP38	XP50
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288@17	384x288@17	384x288@17	640x480@17	640x480@17	640x480@17
Objective lens	F28/1.2	F38/1.2	F50/1.2	F28/1.2	F38/1.2	F50/1.2
Frame rate, Hz	50	50	50	50	50	50
Magnification, x	2.3 – 9.2	3.1 – 12.4	4.1 – 16.4	1.4 – 11.2	1.9 – 15.2	2.5 – 20
Field of view, horizontal & vertical without zoom, deg	13.3x10.0	9.8x7.4	7.5x5.6	22x16.6	16.3x12.3	12.4x9.3
Range of detection, m	800	1350	1800	1000	1350	1800
Dimensions, mm	219x57x58	226x55x58	235x55x58	219x57x58	226x55x58	234x55x58
Weight, kg	0.4	0.45	0.5	0.4	0.45	0.5

	Magnification	Distance	Field of View
XQ23V	1.8x — 7.2x	800m	16.5°
XQ30V	2.5x — 10x	900m	12.4°



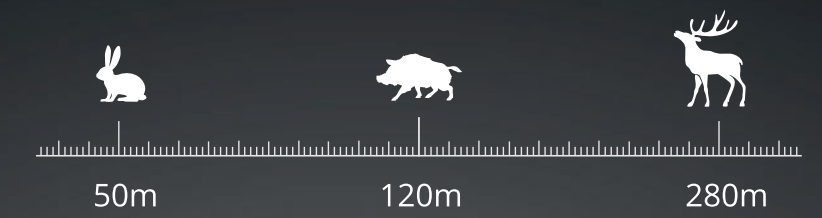
**THERMAL
TECHNOLOGY**

Thermal Imaging Scopes
QUANTUM LITE
XQ23V / XQ30V

50Hz 9Hz

High Image Frequency

At a high refresh rate of 50 Hz, the Quantum Lite provides comfortable viewing throughout dynamic, rapid motion.



Stadiametric rangefinder

Bases on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.

900 m

Long Viewing Range

Depending on model, the Quantum Lite is capable of detecting an average human-size target, dressed in outerwear, against a forest backdrop, at a range up to 800 - 900m.



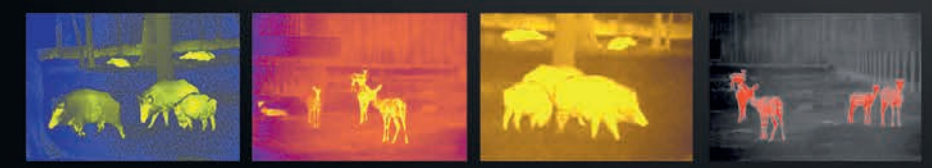
Self-Contained Power Supply

The Quantum Lite is powered by four AA batteries housed in a convenient case and inserted into an easy-to-access battery compartment.



Display Off

During short periods of inactivity and better concealment, Display Off powers down the Quantum Lite's screen without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.



Color Palettes

The Quantum Lite offers 7 color palettes for true colorized temperature mapping, including user favorites "white hot" and "black hot" modes.

**-25°C
+50°C**

Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, the Quantum Lite Thermal Imaging Scope is designed to deliver flawless performance at an extreme temperature range of -25°C – +50°C.



⚡ Power Saving Modes

When a Quantum Lite is inclined vertically in either direction at more than 70° for 1, 3 or 5 minutes (depending on user preferences) the scope will automatically turn off. When video recording is not used, video output may also be disabled to extend battery life. Both options are available in the Quantum Lite's menu.

⚡ User Interface

Information about the status of the Quantum Lite, depicted in the form of blue icons and numbers, is located on the data panel in the lower portion of the screen and does not interfere with field-of-view. When toggling between various functions, i.e. digital zoom, color inversion, brightness/contrast settings, etc., the respective, more pronounced icon appears in the upper right corner of the display.



⚡ Video Output

The Quantum Lite is equipped with an analog video output to enable connectivity with an external display or recording device.

⚡ Calibration

The Quantum Lite offers three calibration modes: Silent Manual ("M"), Automatic ("A") and Semi-Automatic ("H"). "A" mode implies calibration without user participation (process initiation, actuation of the shutter takes place automatically). In "H" mode, the user determines if calibration is required based on image quality. If calibration is needed, the operator uses the "Cal" button. In "M" mode, manual calibration is accomplished by pressing the "Cal" button when the lens cap is closed. "M" mode is recommended for hunting due to silent operation.



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⚡ Operating Modes

The Quantum Lite features three operating modes: City (enhanced contrast), Forest (low contrast) and Identification (improved rendering of heat signature details). Each mode optimizes imaging based on viewing conditions.



External Power Supply

Operation time can be significantly prolonged by using high-capacity external power supply units, i.e. Pulsar EPS3I/EP55. When used at low temperatures, the power supply can be kept in a warm place, i.e. under clothing, to prevent rapid discharge.

SKU	77337	77338
Model	XQ23V	XQ30V
Objective lens	F23/1,4	F30/1,6
Microbolometer, resolution, pixels @ pixel pitch, μm	384x288 @ 17	384x288 @ 17
Frame rate, Hz	50	50
Magnification, x	1.8 – 7.2	2.5 – 10
Field of view, horizontal & vertical without zoom, deg	16.5x12.4	12.4x9.3
Range of detection, m	800	900
Dimensions, mm	200x86x59	204x86x59
Weight (without batteries), kg	0.35	0.35



THERMAL
TECHNOLOGY

Thermal Imaging Scopes & Front Attachments
CORE
FXQ38 / FXQ50 / FXQ35 / FXQ55

⚡ Nighttime Shooting Advantages

Using the Core Front Attachment includes several benefits over night hunting with traditional optics or even thermal or night vision devices. Attaching the Core to a traditional scope delivers the same creature comforts of shooting with day optics you are accustomed to, including your existing reticle and eye relief. The Core Front Attachment even allows you to continue utilizing your riflescope's variable magnification.

⚡ Point-of-Impact Stability

The Core's precision build quality, cutting-edge design and advanced software deliver reliable, repeatable point-of-impact stability without requiring any windage or elevation adjustments from the day optic.



⚡ Quick Transformation

Core FXQ38 and FXQ50 devices include a detachable eyepiece for lightning-quick transitions from thermal riflescope attachment to monocular. Mount and dismount the Core without losing zero!



⚡ Core: An Alternative to Thermal Riflescopes

With minimal effect to the overall balance of your rifle, the compact, lightweight Core attaches to the front of your riflescope to add thermal imaging capability. The advantage of a Core Front Attachment is the ability to quickly, repeatedly mount and dismount the Core without losing zero or adjusting your shooting position.

⚡ Green AMOLED Display

The Core's green AMOLED screen enhances image quality, improves viewing comfort and reduces eye fatigue.

External Power Supply

The Core FXQ includes a universal power adapter. Operation time can be significantly prolonged by using high-capacity external power supply units, which can be attached via a weather-resistant micro-USB port and DC 2.1 x 5.5 mm.



Core FXQ35/55 as Observation Device

The Pulsar 5x30 Monocular (#71011) included in the package can be attached to the Core FXQ35/55 thermal module and used as a 5x power thermal imaging scope. Along with this, the Pulsar 5x30 is a fully-functional daylight observation device.

Calibration

The Core offers three calibration modes: Silent Manual ("M"), Automatic ("A") and Semi-Automatic ("H"). "A" mode implies calibration without user participation (process initiation, actuation of the shutter takes place automatically). In "H" mode, the user determines if calibration is required based on image quality. If calibration is needed, the operator uses the "Cal" button. In "M" mode, manual calibration is accomplished by pressing the "Cal" button when the lens cap is closed. "M" mode is recommended for hunting due to silent operation.

Operating Modes

The Core features three operating modes: City (enhanced contrast), Forest (low contrast) and Identification (improved rendering of heat signature details). Each mode optimizes imaging based on viewing conditions.

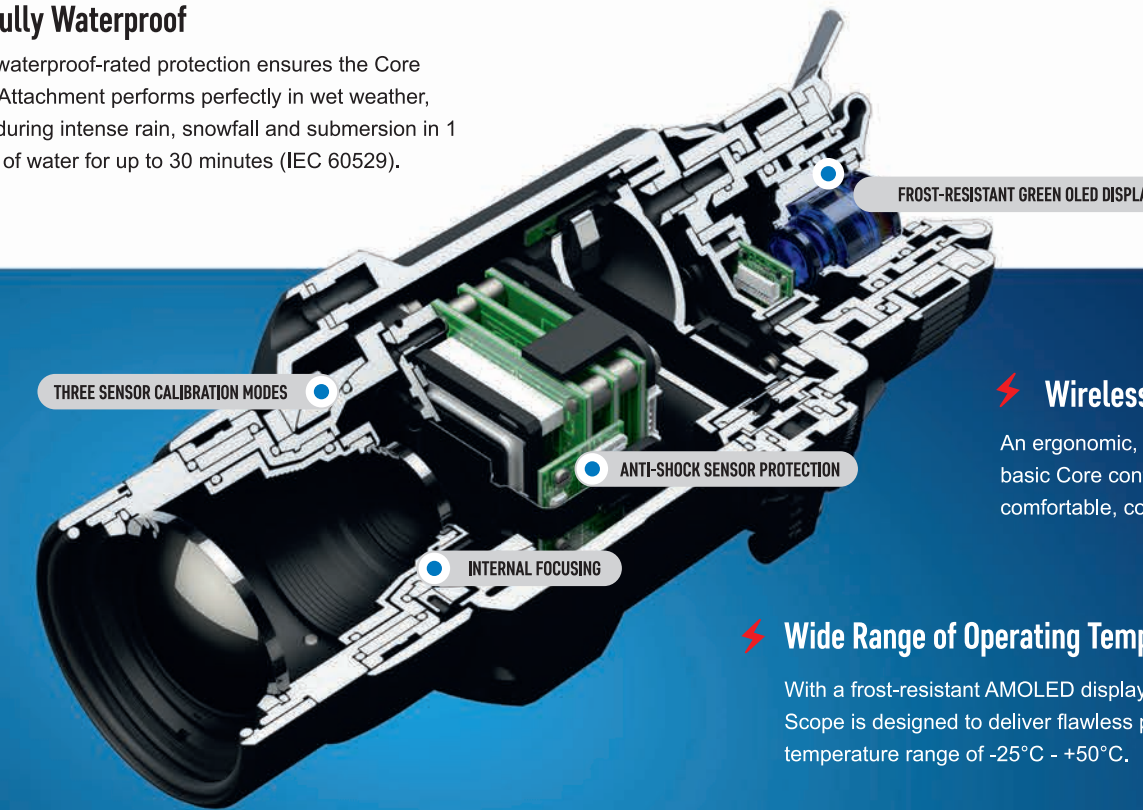


**THERMAL
TECHNOLOGY**

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Fully Waterproof

IPX7 waterproof-rated protection ensures the Core Front Attachment performs perfectly in wet weather, even during intense rain, snowfall and submersion in 1 meter of water for up to 30 minutes (IEC 60529).



Wireless Remote Control

An ergonomic, wireless remote control puts basic Core controls at your fingertips for comfortable, convenient, hands-off operation.

Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, the Core Thermal Imaging Scope is designed to deliver flawless performance at an extreme temperature range of -25°C - +50°C.

Compatible with Various Day Optics

The Core is designed to turn most traditional rifle scopes, with objective lens diameters of 40 mm – 56 mm, into thermal imaging devices without effecting point-of-impact. Attach and detach the Core in seconds, without losing zero, using the Core's quick-release bayonet mount.

SKU	76453	76459	76371	76372
Model	FXQ38	FXQ50	FXQ35	FXQ55
Objective lens	F38/1.2	F50/1.2	F38/1.2	F50/1.2
Microbolometer resolution, pixels @ pixel pitch, μ	384x288 @ 17	384x288 @ 17	384x288 @ 17	384x288 @ 17
Frame rate, Hz	50	50	50	50
Magnification in monocular mode / attachment mode, x	3.1 – 6.2 / -	4.1 – 8.2 / -	5 / -	5 / -
Range of detection, yds	1000	1300	1000	1300
Recommended magnification of the day scope / sight, x	1 ... 3	2 ... 5	-	-
Power supply, V / Battery type	6 / 2xCR123A	6 / 2xCR123A	6 / 2xCR123A	6 / 2xCR123A
Dimensions, mm	185x65x60	190x65x60	310x70x65	315x70x65
Weight, without batteries, kg	0.32	0.4	0.5	0.58



**DIGITAL
NIGHT VISION**

Digital Night Vision Riflescope

DIGISIGHT ULTRA

N355



⚡ Enhanced Nighttime Sensitivity

The Digisight Ultra utilizes proprietary software, cutting-edge electronic components and signal-processing algorithms to deliver one of the industry's highest values of sensitivity in infrared spectrum (nighttime sensitivity). The result is a device offering flawless passive-mode performance in deep twilight, even night, without switching on IR Illumination.

⚡ Color Imaging

Digisight Ultra N355 features preset color modes for rendering of image captured by sensor. They include monochrome (shades of grey or green) or multicolor modes.



⚡ Variable Magnification

Digisight Ultra N355 includes variable magnification, up to 4x, and features both 2x step-up and smooth, graduated magnification for a truly optimum, customized field of view.

⚡ Selectable Reticles

A full complement of digitally displayed reticle solutions ensures quick target acquisition and a richly contrasting sight picture. Choose from an array of reticle patterns, colors and brightness settings.

⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Digisight Ultra's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC/laptop via wired connection or wirelessly to your smartphone or tablet with the iOS and Android compatible Stream Vision App.

⚡ High Shock Resistance

The Digisight Ultra features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.



Remote Control and Live Internet Streaming



Using the free, high-tech, iOS and Android compatible Stream Vision app, the Digisight Ultra connects via Wi-Fi to allow transfer of images and video to smartphones and other wireless devices in real time, stream footage to YouTube and other online video platforms (depending on model), and even use your personal device as a wireless remote control!

* For more information please refer to Stream Vision section of our catalogue.

Fully Waterproof

IPX7 waterproof-rated protection ensures the Digisight Ultra performs perfectly in wet weather, even during intense rain, snowfall and submersion in 1 meter of water for up to 30 minutes (IEC 60529).

Stadiametric Rangefinder

Based on estimated heights of observed objects, the stadiametric rangefinding reticle makes determining precise distances fast, easy, reliable and repeatable.



Long-Range Invisible Infrared Illuminator

Digisight Ultra N355 comes equipped with a high-intensity, detachable, undetectable 940 nm IR illuminator operating in the "invisible" range. Three-stage adjustability ensures you have the perfect amount of IR illumination in virtually any environment.

Picture-in-Picture Mode

Picture-in-Picture improves accuracy by providing a magnified image of the reticle area at the top of the display. With only 1/10 of the display area reserved for PiP, the field of view remains virtually unobstructed for simultaneous PiP and FOV viewing.

3 Types of Zeroing Parameters Memorization

Save three individual firearm/ammunition zeroing profiles, including different reticles, in the Digisight Ultra's memory. For each profile, Digisight Ultra models also store five different zeroing distances for each profile.

Built-In Accelerometer / Gyroscope

A built-in accelerometer/gyroscope improves accuracy by precisely identifying cant and angles greater than 5° with an arrow indicating the direction and degree of lateral tilting. Increased angles are denoted with additional arrows. Moreover, the riflescope can be set to auto shutdown when resting in a non-shooting position. Unit operation may be disabled when the vertical angle is greater than 70° or horizontal angle is greater than 30°. The accelerometer feature may be temporarily disabled for continued use at excessive angles.

B-Pack Power Supply

Digisight Ultra includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 6 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as AA battery cases, also are available and provide a perfect off-the-grid power solution.

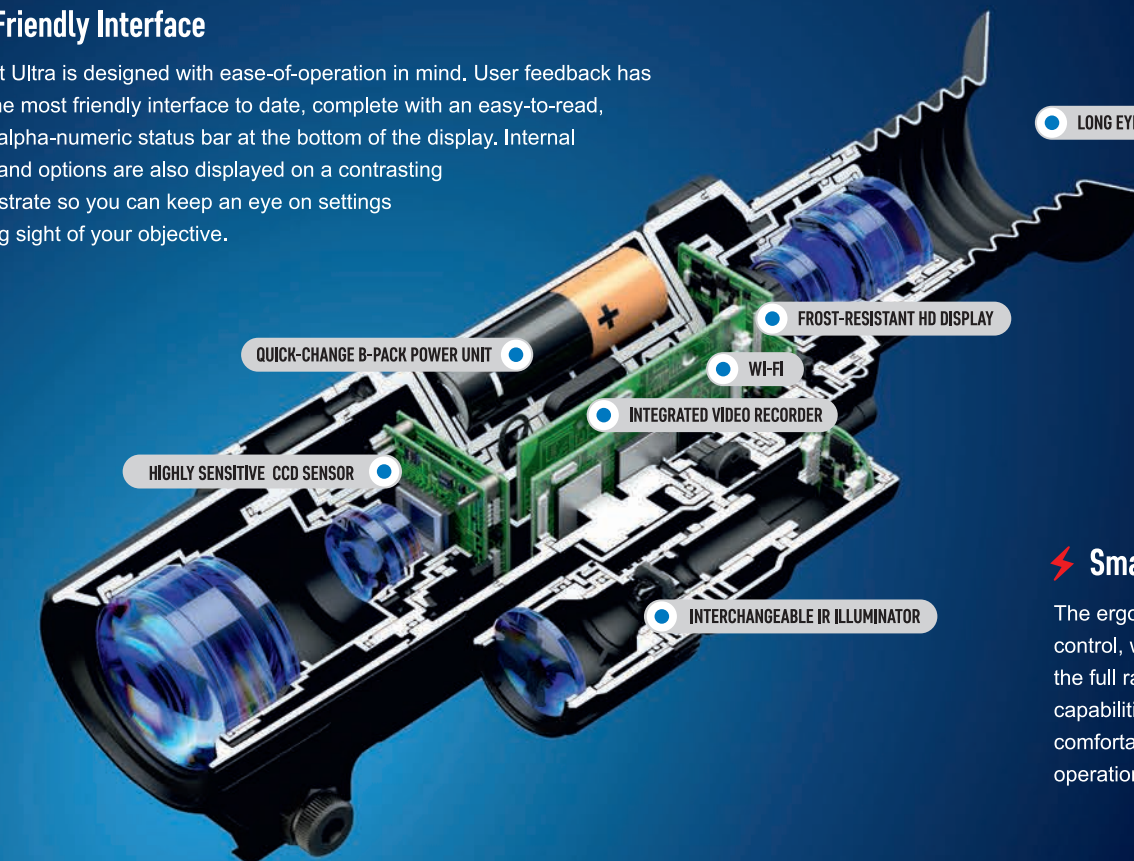


DIGITAL NIGHT VISION

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User-Friendly Interface

The Digisight Ultra is designed with ease-of-operation in mind. User feedback has resulted in the most friendly interface to date, complete with an easy-to-read, icon-driven, alpha-numeric status bar at the bottom of the display. Internal menu items and options are also displayed on a contrasting gradient substrate so you can keep an eye on settings without losing sight of your objective.



Smart Remote Control

The ergonomic, wireless remote control, with encoder wheel, puts the full range of Digisight Ultra capabilities at your fingertips for comfortable, convenient, hands-off operation.

Display Off

During short periods of inactivity and better concealment, Display Off powers down the Digisight Ultra's screen without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.

Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, Digisight Ultra Rifle Scope is designed to deliver flawless performance at an extreme temperature range of -25°C – +50°C.

SKU	76370
Model	Digisight Ultra N355
Sensor type / resolution, px.	CCD 752x582
Display type / resolution, px.	AMOLED 640x480
Spectral sensitivity at a wavelength of 780 / 915 nm, mW	1.5·10 ⁻⁵ / 3·10 ⁻⁵
Magnification, x	3.5 ... 14
IR Illuminator, type / wavelength, nm	LED / 940 (invisible)
Viewing range, m	500
Dimensions (without mount), mm	314x76x74
Weight, kg	0.87



ANALOG
NIGHT VISION

Night Vision Rangefinding Riflescope
ARGUS LRF
G2+ 4X60



⚡ Integrated Laser Rangefinder

Extra precise shooting requires an exact knowing of distance. Integrated laser rangefinder with range up to 600m allows to measure distance in single measuring mode and in scanning mode with precision up to ±1 meter.

⚡ High Shock Resistance

The Argus LRF NV Riflescope features high shock resistance and can be used with rifled hunting weapon for such cartridges as 9.3x64, .30-06, .300, .375 H&H, etc. and with smooth-bore and airsoft weapon.



⚡ Selectable Reticles

Memory of Argus LRF contains 4 electronic (digitally introduced in the field of view) reticles with adjustable brightness that differ in purpose and configuration.





⚡ Built-in IR Illuminator

The Argus LRF rifle scope is supplied with a removable laser IR Illuminator (780nm) complying with Class 1 laser safety featuring three-step power adjustment.

⚡ Wireless Remote Control

The wireless remote control allows basic operations to be fulfilled without resorting to standard controls.

⚡ Protective Lens Cap

Protective lens cap is permanently attached to the body to prevent it being lost and can be slid back down the body when observing or shooting.

⚡ Nitrogen-purged Optical Path

Nitrogen-filled optical channel protects inner optical parts and body of the sight against fogging, often caused by rapid temperature change.

⚡ IPX6 Water Resistant

Ingress protection class IPX6 (IEC60529 standard) allows exploiting riflescopes in the conditions of precipitation of any intensity.

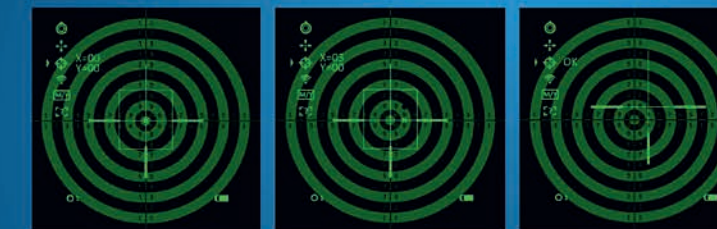
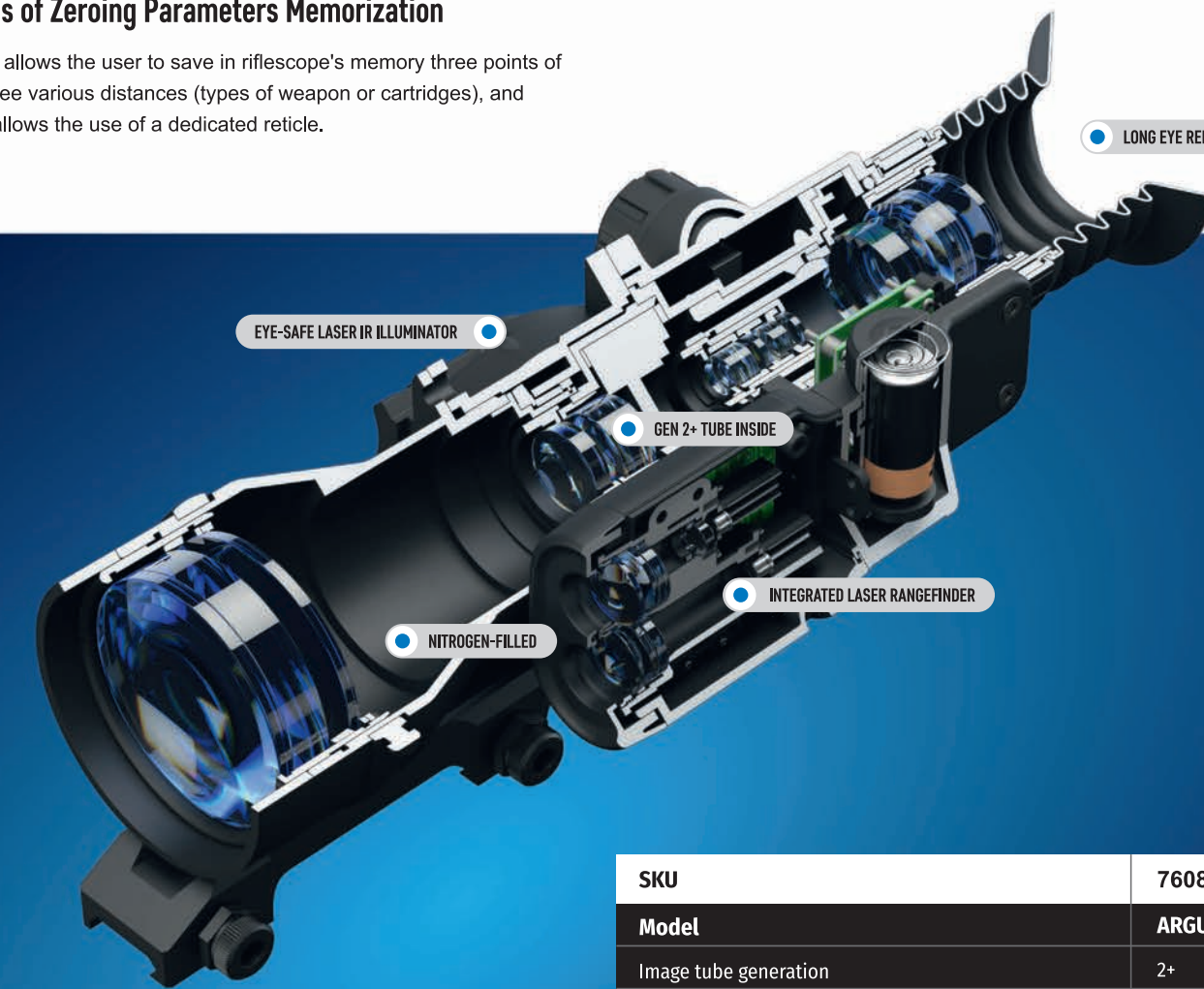


ANALOG
NIGHT VISION

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⚡ 3 Types of Zeroing Parameters Memorization

The software allows the user to save in riflescope's memory three points of impact for three various distances (types of weapon or cartridges), and each option allows the use of a dedicated reticle.



SKU	76081
Model	ARGUS LRF G2+ 4X60
Image tube generation	2+
Magnification, x	4
Field of view,°	9
Built-in IR illuminator, type / wavelength, nm	Laser / 780
Range of detection, m, with built-in IR (object 1.7x0.5 m)	600
Built-in rangefinder measurement range, m	600
Power supply, V / battery type	2.5 – 3.6 / CR123A
Dimensions, mm	322x111x87



ANALOG
NIGHT VISION

Night Vision Riflescopes
PHANTOM
3x50 / 4X60

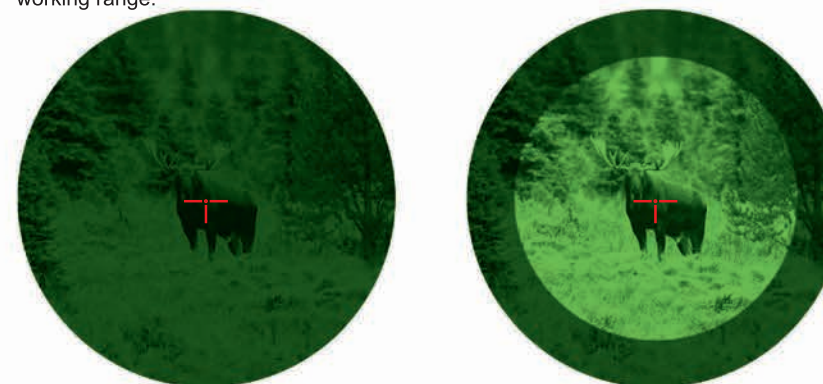
⚡ Nitrogen Purged Optical Path

The Phantom's housing is rugged and reliable due to its construction of high grade, glass-filled, plastic composite. The unit can be operated in any weather condition. Unique for night vision; nitrogen-purged optical channel prevents fogging caused by the temperature drops or high humidity.



⚡ Internal Focusing

The optical system employs an internal focusing mechanism (from 5m to infinity) with 'definite' click-stop focus positions. The focusing provides clear images at extremely short distances as well as optimising quality at all distances within the rifle's working range.

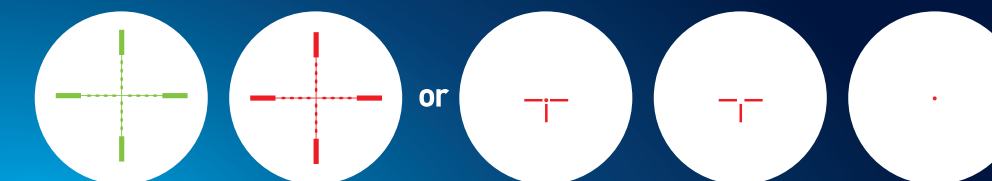


⚡ Attachable IR Illuminator

The Phantom has an option of a powerful removable IR illuminator offering a variable beam from spot to flood.

⚡ Fast Start-up Option

The rifle scope operates only when the fast start-up button is kept pressed. It's very convenient when you do not conduct permanent observation and need only a quick assessment of the situation.



⚡ Selectable Reticle

The standard Phantom features a red-on-green reticle with brightness control. The hunter can choose one of three reticle options, whichever best suits the specific situation. They are easily switched by the simple push of a button. The Phantom MD features a selectable, two-color, red-on-green or green-on-green reticle Mil-Dot reticle. Blinking reticle indicates that the battery should be replaced within the 15-30 minutes.



⚡ Protective Lens Cap

Protective lens cap is permanently attached to the body to prevent it being lost and can be slid back down the body when observing or shooting.

⚡ Weaver Accessory Rail

A Weaver 7/8" rail on the left side of the body designed for mounting additional accessories (IR flashlight, DSAS, red dot laser).

⚡ Power Supply

The riflescope can be powered both with a single AA (1.5V) or CR123A (3V) battery. The stabilized voltage of the power supply prevents reticle shift and drop in reticle brightness and guarantees proper operation of the tube and IR-illuminator, even when the batteries are nearly empty. The batteries are positioned vertically, which enhances reliability of energy supply when recoiling.

⚡ Remote Control

The 3-button remote control (two duplicate the "On/Off" function) is helpful for tactical applications and can be mounted on any easy to reach part of the weapon. The third button is intended for an instant ON start-up of the riflescope.

⚡ Phantom BW Series

The Phantom BW models feature black and white glow of the tube's display which contributes to enhanced image contrast.



ANALOG
NIGHT VISION

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Los/Dovetail

Allows installation of riflescopes on carbines «Los 7-1», «Los 4», «Bars 4-1» and other weapons manufactured in Russia and Europe, that have upper mount «dovetail».

AK Side mount

Allows to install the riflescope on the weapons manufactured in Russia equipped with side rail dovetail including carbines «Saiga», «Tigr», «Vepr», SKS and others.

⚡ Rifle Mount

The following mounts are available:

Weaver

Designed for installation of riflescope on hunting weapons, that are equipped with Weaver or Picatinny rails.

Prism 14/200 "Europrism"

Universal base for placing mounts of different manufacturers including EAW (Apel), Blaser, MAK and others.

MAK adapter

Allows to equip the riflescopes with a monoblock mounts MAK (MAK Milmont, MAK Flex and others) for further installation on the weapon.

SKU	76057T	76157T	76058T	76158T	76057BWT	76157BWT	76058BWT	76158BWT
Model	3x50 FX	3x50 MD FX	4x60 FX	4x60 MD FX	3x50 BW	3x50 BW MD	4x60 BW	4x60 BW MD
Image tube generation	2+	2+	2+	2+	2+	2+	2+	2+
Magnification, x	3	3	4	4	3	3	4	4
Objective lens diameter, mm	50	50	60	60	50	50	60	60
Field of view, angular degrees	11	11	9	9	11	11	9	9
Detection range, m	600	600	700	700	600	600	700	700
Screen glow (luminophor)	green	green	green	green	white	white	white	white
Reticle	3-pos	Mil-Dot	3-pos	Mil-Dot	3-pos	Mil-Dot	3-pos	Mil-Dot
Dimensions, mm	278x95x103	278x95x103	320x95x103	320x95x103	278x95x103	278x95x103	320x95x103	320x95x103



**DIGITAL
NIGHT VISION**

Digital NV Scopes & Front Attachments

FORWARD

F135 / F155 / FN135 / FN155



Nighttime Shooting Advantages

Using the Forward F Attachment includes several benefits over night hunting with traditional optics or even night vision devices. Attaching the Forward F to a traditional scope delivers the same creature comforts of shooting with day optics you are accustomed to, including your existing reticle and eye relief. The Forward F even allows you to continue utilizing your riflescope's variable magnification.



⚡ Simple Mounting

To install the Forward F onto the front optical bell of a day telescopic sight or spotting scope, specially designed mounting assemblies (bought separately) are used. The assemblies are the adapters with various diameters with a set of reducing rings (the rings can be used as necessary depending on the diameter of the optical bell). The adapter is permanently attached to the optical bell of a telescopic sight. This allows the Forward F attachment to be quickly installed in front of the lens for nighttime shooting. When the attachment is not used, the adapter accommodates a protective cap that covers the lens of an optical sight in the daytime.



⚡ Invisible IR Illuminator

The Forward F comes equipped with a high-intensity, detachable, 940nm IR illuminator, complete with 3 power modes and robust adjustability for precise spot-to-flood throw positioning.

⚡ Point-of-Impact Stability

Forward F allows shooters to focus on quick target acquisition and shot placement in low-light environments without stressful, complex adjustments by utilizing a sequential layout of optical and electronic components designed to provide precise sight-alignment and ultra-easy adjustability.



**STREAM
VISION**

Available on the App Store Google play

Remote Control and Live Internet Streaming

Using the free, high-tech, iOS and Android compatible Stream Vision app, the Forward F connects via Wi-Fi to allow transfer of images and video to smartphones and other wireless devices in real time, stream footage to YouTube and other online video platforms (depending on model), and even use your personal device as a wireless remote control!

* For more information please refer to Stream Vision section of our catalogue.



⚡ Forward FN as Observation Device

The Pulsar 5x30 monocular (#71011) included in the package can be attached to the forward FN digital module and used as a 5x power NV device. Along with this, the Pulsar 5x30 is a fully-functional observation device.

⚡ High Shock Resistance

The Forward F features exceptionally high shock resistance, capable of handling high-powered firearm recoil, up to .375-cal., including smoothbore and airsoft.

⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Forward F's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC/laptop via wired connection or Wi-Fi.

⚡ B-Pack Power Supply

Forward F includes a progressive autonomous B-Pack power supply consisting of a quick-detach, rechargeable IPS5, 5.2A-h battery pack designed to deliver over 6 hrs. of operation on maximum mode. Higher-powered IPS10 battery packs, as well as CR123A and AA battery cases, also are available and provide a perfect off-the-grid power solution.

⚡ External Power Supply

Forward F makes charging from external sources, such as power banks, fast and easy with a micro USB jack. The convenience of power-bank charging even enhances the ability to power up the Forward F during extremely cold weather while also protecting the source from rapid discharge.



**DIGITAL
NIGHT VISION**

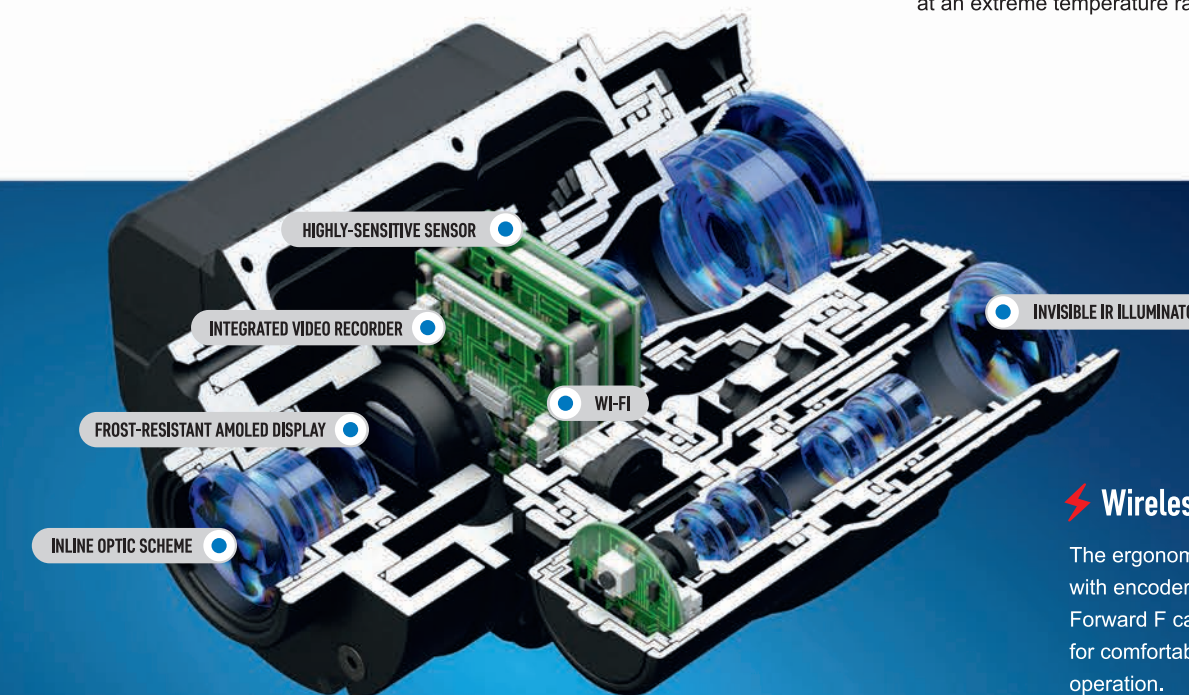
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⚡ Display Off

During short periods of inactivity and better concealment, Display Off powers down the Forward F's screen without interrupting other operating functions. Using Display Off means a much faster restart time when you need it most.

⚡ Wide Range of Operating Temperatures

With a frost-resistant AMOLED display, Forward F/FN devices are designed to deliver flawless performance at an extreme temperature range of -25°C – +50°C.



⚡ Wireless Remote Control

The ergonomic, wireless remote control, with encoder wheel, puts the full range of Forward F capabilities at your fingertips for comfortable, convenient, hands-off operation.

IPX7

⚡ Fully Waterproof

IPX7 waterproof-rated protection ensures the Forward F performs perfectly in wet weather, even during intense rain, snowfall and submersion in 1 meter of water for up to 30 minutes (IEC 60529).

SKU	78132	78102	78138	78108
Model	F135	F155	FN135	FN155
Sensor type / resolution, px	CMOS 640x480	CMOS 640x480	CMOS 640x480	CMOS 640x480
Objective lens	F36/1.2	F50/1.0	F36/1.2	F50/1.0
Magnification, x	–	–	5	5
Spectral sensitivity at a wavelength of 780 / 915 nm, mW	2·10 ⁻⁵ / 10·10 ⁻⁵	2·10 ⁻⁵ / 10·10 ⁻⁵	2·10 ⁻⁵ / 10·10 ⁻⁵	2·10 ⁻⁵ / 10·10 ⁻⁵
Field of View, deg	6.7	4.8	6.7	4.8
Recommended magnification of the day sight / scope, x	2 – 6	4 – 8	–	–
IR Illuminator, type / wavelength, nm	LED / 940	LED / 940	LED / 940	LED / 940
Weight (with IPS5 battery pack), kg	0.42	0.46	0.67	0.71



DIGITAL
NIGHT VISION



Digital Night Vision Scopes
DIGIFORCE
860RT / X970

⚡ Generation Digital

Employment of digital technologies is one of the top priorities for the development of night vision devices by Yukon Advanced Optics Worldwide. Digital devices possess certain unbeatable advantages and extended functionality perfect for inclusion in the hunting market as well as wildlife observation, law enforcement and security markets:

Protection against bright light sources

Digital night vision devices can be operated in daylight without fear of immediate or long-term damage. They are also not damaged by artificial illumination, i.e. car headlights, street lights, etc.

Signal reception and transmission

Digital night vision devices are well-suited for image recording with conveniently integrated or external recording equipment.

Effective use with "invisible" IR illuminators

As opposed to image intensifier tube based devices, digital night vision devices feature advanced efficiency when coupled with IR illuminators operating higher up the near-infrared spectrum, generally considered invisible to the naked eye (> 900nm).

Long-life performance. The average lifespan of a CCD/CMOS array is 25000 hours, up to twice that of even the best image intensifier tubes.



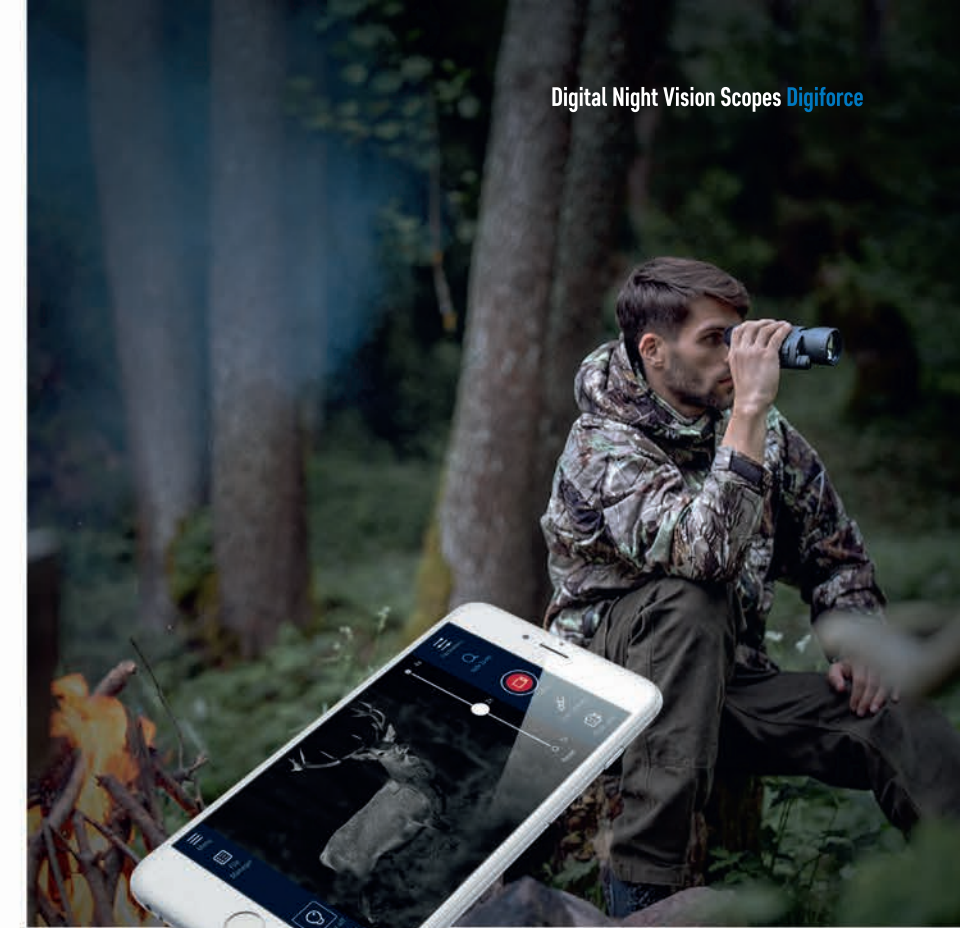
⚡ Updatable Software

For initial setup and additional updates, the iOS and Android compatible Stream Vision App ensures the most recent Digiforce 860RT software versions are available.



⚡ Built-In Video Recorder

Capturing still images and video is seamless with the Digiforce 860RT's built-in video recorder. Image and video content is stored internally and can easily be transferred to PC/laptop via wired connection or wirelessly to your smartphone or tablet with the iOS and Android compatible Stream Vision App.



Remote Control and Live Internet Streaming

STREAM VISION

Available on the App Store  

Using the free, high-tech, iOS and Android compatible Stream Vision app, the **Digiforce 860RT** connects via Wi-Fi to allow transfer of images and video to smartphones and other wireless devices in real time, stream footage to **YouTube** and other online video platforms, and even use your personal device as a wireless remote control!

* For more information please refer to Stream Vision section of our catalogue.



⚡ Integrated IR Illuminator

Digital night vision devices Digiforce are equipped with two types of IR illuminators: LED illuminator with 805 nm wavelength and eye-safe laser with 915 nm wavelength. Both illuminators have 3-stage power adjustment. Digiforce X970 model operates in the invisible infrared spectral range and allows virtually concealed observation.

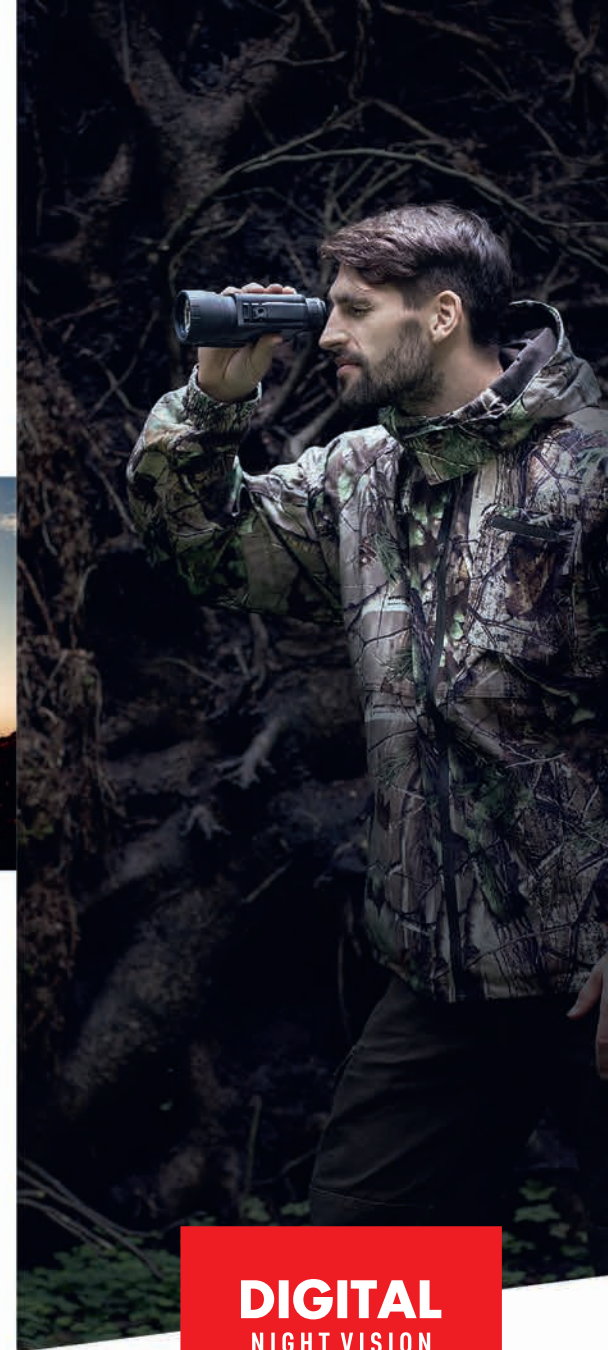


⚡ Daytime Compatibility

Digital night vision devices can be operated in daylight without fear of immediate or long-term damage. They are also not damaged by artificial illumination, i.e. car headlights, street lights, etc. To reduce light transfer into the unit's objective lens during daytime operation, the lens cover includes a light filter. The result is decreased brightness, increased contrast and more comfortable viewing.

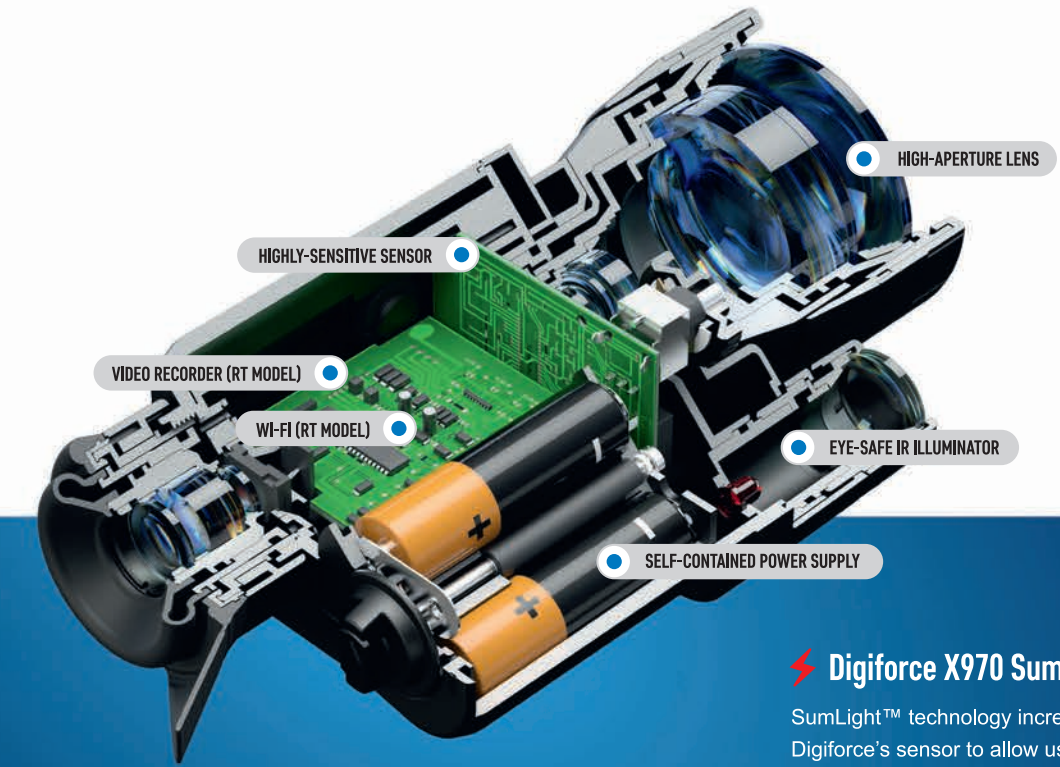
⚡ External Power Supply

Operation time can be significantly prolonged by using high-capacity external power supply units. During extended use in freezing weather, the external power supply units can be stored under the operators' clothes via an included extension lead.



DIGITAL NIGHT VISION

www.pulsar-nv.com



⚡ Digiforce X970 SumLight™ Function

SumLight™ technology increases the sensitivity of Digiforce's sensor to allow use in exceptionally low light without using the onboard IR illuminator.

⚡ Mounts

Digiforce devices include an innovative mount featuring a standard 1/4" socket, compatible with most tripods, and a Weaver short designed to accommodate additional IRs and other accessories.

SKU	78093	78099
Model	860RT	X970
Sensor type / resolution, px	CMOS / 640x480	CCD / 752x582
Display type / resolution, px	LCD / 640x480	AMOLED / 640x480
Magnification, x	6.5 / 13	4 / 8
Sensitivity of device, mW (wavelength 780 / 915 nm)	3.8·10 ⁻⁵ / 1.1·10 ⁻⁴	1.7·10 ⁻⁵ / 5.5·10 ⁻⁵
Built-in Flashlight, type / wavelength, nm	LED / 810	Laser / 915
Detection range, m	275	450
Self-contained power supply, V / Battery type	4 – 6.3 / 4xAA	4 – 6.3 / 4xAA
External power supply, V	5 (MicroUSB)	8 – 15
Operating temperature, °C	-15 – +50	-25 – +50



**ANALOG
NIGHT VISION**

Night Vision Devices

EDGE & CHALLENGER

G2+ 1x21 / G2+ 3.5x56 / GS 1x20 / GS 3.5x50 / GS 4.5x60



CF-Super Technology

At the core of Pulsar GS line is a unique R-Contact optics and CF-Super image intensifier tube combination specially designed to provide the highest edge-to-edge resolution performance ever seen in cost-conscious consumer night vision products. CF-Super Technology includes a number of advantages:

Lack of distortion

Stable, distortion-free imaging at center as well as the peripheral area.

Effective field of view

High resolution and geometric image precision provided by devices utilizing CF-Super technology provide effective observation at any position within the field of view. By comparison, decent image quality with Gen. 1 devices is generally only found at the center of the field of view.



⚡ Built-In IR Illuminator

Challenger & Edge night vision devices are equipped with various built-in IR illuminators:

— Devices without visual magnification (1x) are equipped with an energy-conserving, wide-angled IR illuminator. The device can be head-mounted. The IR's versatility is also useful for map reading and close-quarter illumination in extreme lowlight conditions.

— All other Challenger and Edge units feature a powerful IR illuminator perfect for use in low light at greater distances.

High resolution

The CF-Super tube features, on average, 20% higher resolution than available with Gen.1 devices.

Constant image quality across the entire field of view

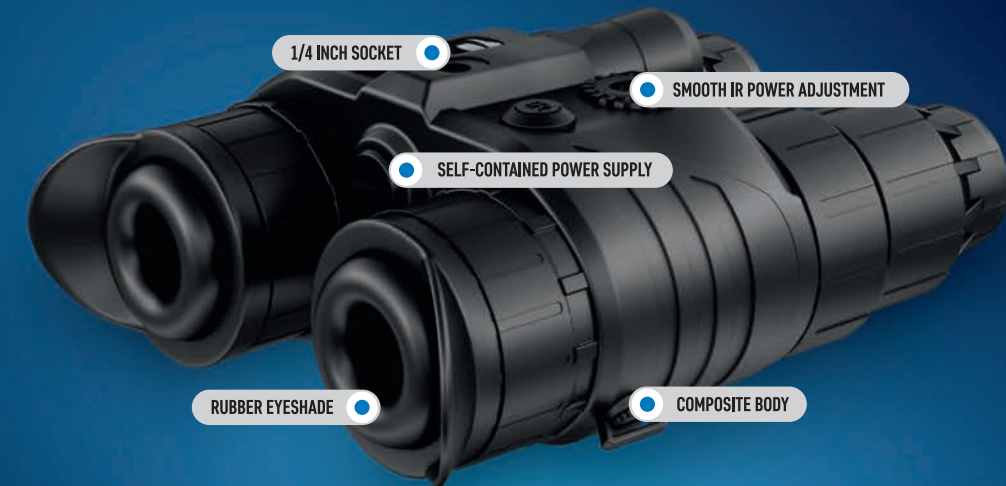
CF-Super's resolution is notable for its consistency (resolution difference between the center/periphery does not exceed 20%, in comparison to center/periphery resolution five times greater with Gen. 1 devices.



IR off

IR on

- Edge binoculars & Goggles feature IR illuminators with smooth power adjustment.



⚡ Edge GS Tube Protection

The Edge GS features an image intensifier tube protection system. Once a luminance threshold is exceeded, current feed to the tube is automatically reduced for ceased, resulting in optimum tube performance.

⚡ Body

The rugged metal and carbon-filled composite body protects fragile internal components against moisture, dust and impacts, even in extreme environments.



⚡ Eyepiece

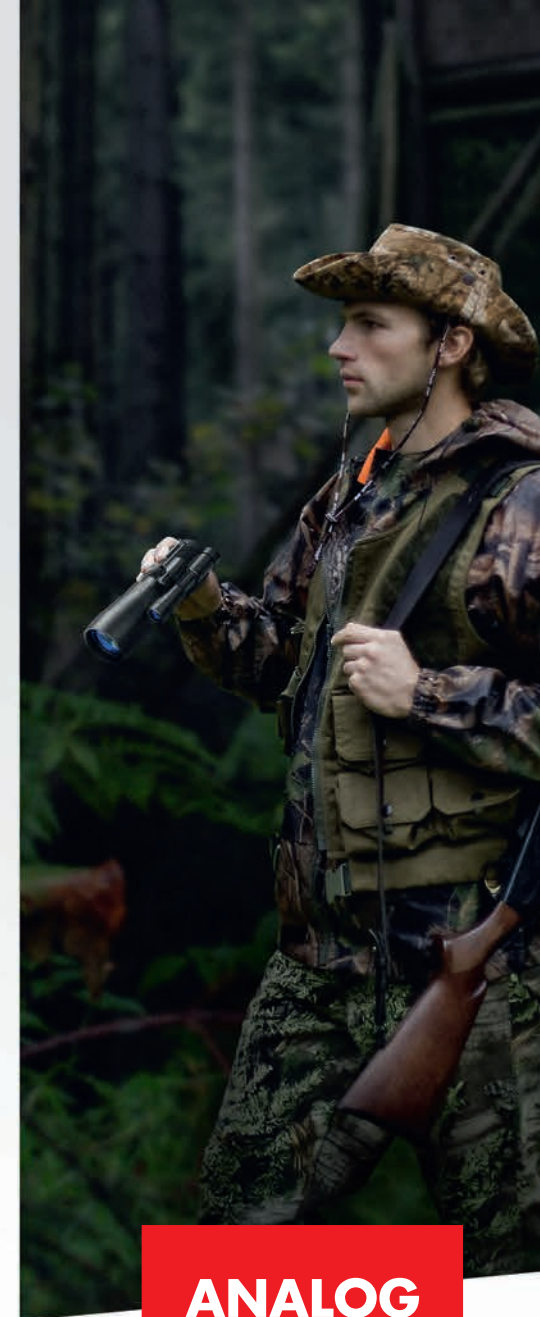
Challenger and Edge devices include 5-lens eyepieces designed to increase image sharpness and contrast, and minimize distortion throughout the field of view.

⚡ Challenger GS Controls

Challenger GS controls were designed with simplicity in mind. A single switch sequentially turns on the unit and IR illuminator.

⚡ Edge GS Controls

The Edge night vision binoculars are easy in operation. The device and IR illuminator are switched by pressing buttons (ON and IR respectively) located on the top of the body. Additionally, the Edge binoculars & goggles are equipped with a gradual IR illuminator power adjustment function. The wheel-shaped power controller is located next to the IR illuminator activation button.

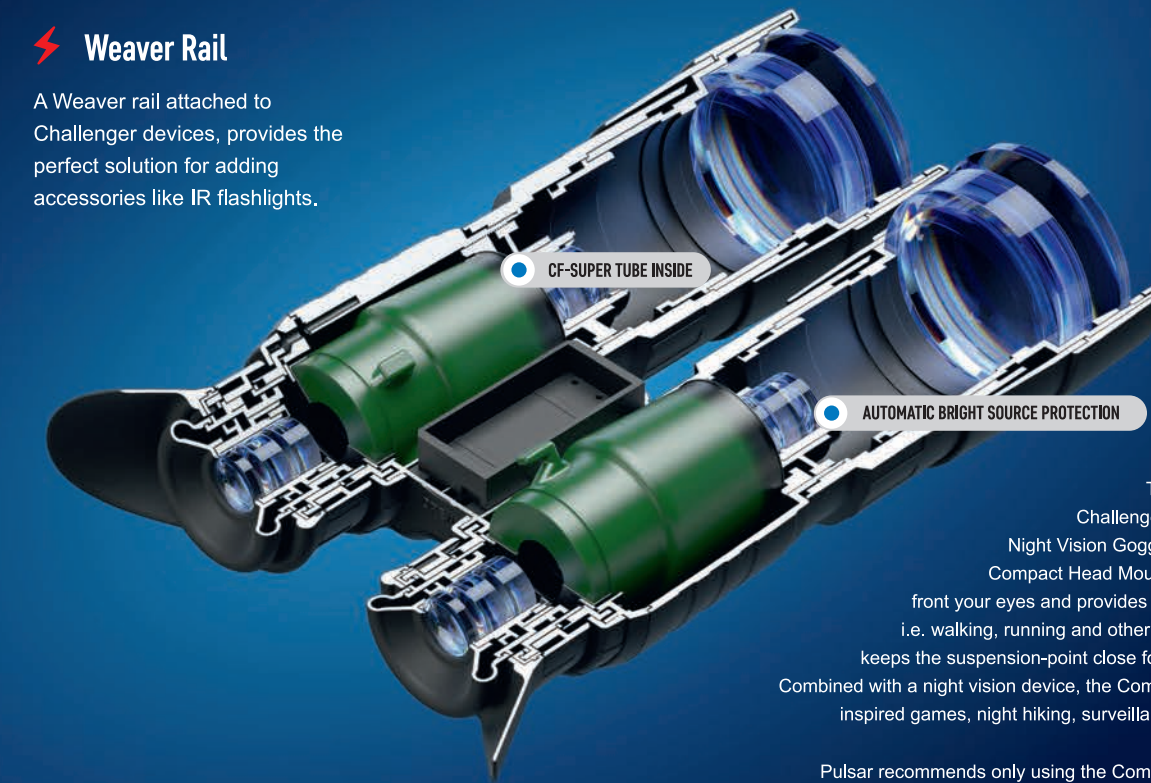


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⚡ Weaver Rail

A Weaver rail attached to Challenger devices, provides the perfect solution for adding accessories like IR flashlights.



⚡ Eyecup

The soft rubber eyecup increases viewer comfort while trapping light emission from the device for improved concealment.

⚡ Head Mount

The Pulsar Compact Head Mount, included with Challenger GS 1x20 Head Mount Kit and Edge GS 1x20 Night Vision Goggles, offers hands-free night vision viewing. The Compact Head Mount positions the Edge or Challenger perfectly in front your eyes and provides amazing stability, even during rapid movement, i.e. walking, running and other abrupt movements, while an ergonomic design keeps the suspension-point close for reduced load on the neck and overall fatigue. Combined with a night vision device, the Compact Head Mount is ideal for high-tech military-inspired games, night hiking, surveillance, trekking to and from hunting positions, etc.

Pulsar recommends only using the Compact Head Mount on low magnification devices.

SKU	74094	74093B	74099/79095	74098	75095	75099
Model	Challenger G2+ 1x21	G2+ 3.5x56B	GS 1x20	GS 4.5x60	Edge GS 1x20	GS 3.5x50L
Image tube type / generation	EPM207G-2/ II+	EPM223G/ II+	CF-Super / I+	CF-Super / I+	CF-Super / I+	CF-Super / I+
Magnification, x	1	3.5	1	4.5	1	3.5
Objective lens, mm	21	56	20	60	20	50
Field of view, degrees	40	12	36	9	36	11
IR Illuminator, type / wavelength, nm	LED / 805	LED / 805	LED / 805	LED / 805	LED / 805	Laser / 780
Detection range, m	200	700	100	200	100	220
Dimensions, mm	163x76x58	240x100x68	163x79x57	255x108x75	163x113x60	233x122x71
Weight, kg	0.36	0.7	0.3 / 0.5 (incl. head mount)	0.7	0.85 (incl. head mount)	0.85



DAYLIGHT
OPTICS

Binoculars
EXPERT
VMR 8x40

⚡ Reflection Reduction Mode

Observation in Reflection Reduction Mode neutralizes or minimizes the dazzling effect of light bouncing back from non-metallic, highly reflective surfaces (water, snow, ice or glass) as well as may assist in observing through some of them (car windows).



Original image



Reflection reduction mode

⚡ Contrast mode

Contrast Mode featuring the yellow light tint helps in twilight, haze or fog for enhancing the image with brighter and contrasting spectrum.



⚡ Viewing modes

The Expert VMR boasts switchable internal filters to enhance viewing experience. Really helpful in foggy conditions, or bright light, they work by polarizing the incoming light or cutting out some of the spectrum. Changing the viewing modes is as simple as moving a switch on the bottom of the binocular.

⚡ Front safety glass

In front of the lenses there are stationary glasses which protect the lenses against scratches and chips that can be caused by a stroke, dust, moisture or dirt. Even if the binocular falls against a sharp object like a stone, for example, it will not be disabled and will retain its operability. The protective glass will take the hit; it may get broken but the lenses will not be damaged in any way.



⚡ Fully Waterproof

Nitrogen filling prevents lenses from fogging. Designed as a waterproof, extra durable system the binocular Expert complies with IPX7 standard of water resistance (IEC 60529)

⚡ Eclipse-M Lens Caps

The lenses are covered with solid caps. There is no need to remove them (so, they cannot be lost), you just flip them up or sideways (depending on the position of caps) thus protecting the lenses against rain drops or lateral flare light. If necessary, the caps can be left with lenses down.



⚡ Eyepieces

The only moving part of the body - eyepieces are setting interpupillary distance, while oblique eyecups maximize comfort and cut out peripheral light. The eyepieces are equipped with rubber eyeshades specially shaped to shield the eyes from lateral flare light.



DAYLIGHT
OPTICS

www.pulsar-nv.com

⚡ Comfortable in use,

and to carry, the Expert is surprisingly light and compact for the performance level it provides.



⚡ Conception and Constructive Peculiarities of the Series

Conceptually the binoculars Expert were designed not only as a first-grade professional observation device based on an innovative Porro II prism system. An important feature of the binoculars Expert is a one-piece fiberglass reinforced plastic body notable for advanced performance durability and reliably protects inner parts of the binoculars.

SKU	72085
Model	VMR 8x40
Magnification, x	8
Objective lens diameter, mm	40
Eye relief, mm	15
Field of view, degree	8
Level of protection, acc. to IEC 60529 Standard	IPX7
Operating temperature, °C	-30 – +40
Rubber armoring	Yes
Dimensions, mm	200x136x80



ACCESSORIES

Thermal imaging lenses

Interchangeable objective lenses for Helion XP series.



79053 F28 Thermal imaging lens
F28/1.2.
Provides magnification 1.4 - 11.2x and detection distance up to 1000 m. Quick bayonet mounting. Waterproof



79054 F38 Thermal imaging lens
F38/1.2.
Provides magnification 1.9 - 15.2x and detection distance up to 1350 m. Quick bayonet mounting. Waterproof



79055 F50 Thermal imaging lens
F50/1.2.
Provides magnification 2.5 - 20x and detection distance up to 1800 m. Quick bayonet mounting. Waterproof

External infrared illuminators

Allows raising efficiency of night vision devices in low light conditions. Smooth power adjustment. Beam focusing. Adjustable IR Spot Position. Weaver mounted.



79071 Pulsar-805
LED 805 nm, 30 - 200 mW.
Effective use with NV devices of all types.



79074 Pulsar - X850
LED 850 nm, 50 - 350 mW (high-power). Effective use with NV devices of all types.



79076 Pulsar - 940
LED 940 nm (invisible), 30 ... 200 mW. For the use with digital NV devices.



79132 Pulsar AL-915T
Laser 915 nm (invisible), 0 - 175 mW. For the use with digital NV devices. Vertical mounting recommended (top Weaver rail)

79133 Pulsar AL-915
Laser 915 nm (invisible), 0 - 175 mW. For the use with digital NV devices. Side mounting recommended (side Weaver rail)

Attachable infrared illuminators

Interchangeable infrared illuminators for Forward F NV attachments and Digisight Ultra riflescopes. 3-Step power adjustment. Beam focusing. Adjustable IR spot position. Powered by the NV device.



79137 Pulsar Ultra-850
LED 850 nm
Distance up to 600 m



79138 Pulsar Ultra AL-915
Laser 915 nm (invisible range)
Angle 7.2 (fixed) / 2.3 - 3.6
Distance up to 600 m

Accessories



79139 Pulsar Ultra-940
LED 940 nm (invisible range)
Distance up to 400 m

Pulsar Riflescopes Rifle Mounts

The mounting holes in the base of Pulsar riflescopes enable the mount to be installed in one of multiple positions. This choice helps the user to ensure the most suitable position on a riflescope.



79045 Weaver Rifle Mount
Designated for installation of riflescope on Weaver or Picatinny rails. Total length 173 mm. Length of mounting part 112 mm. Distance between the centers of locking screws 87 mm.



79046 MAK Adapter
Allows to equip the riflescopes with a monoblock mounts MAK (MAK Milmont, MAR Flex and others) for further installation on the weapon.



79047 Prism 14/200 Rifle Mount
Universal base for placing mounts of different manufacturers including EAW (Apel), Blaser, MAK and others.



79048 Los/Dovetail Rifle Mount
Allows installation of riflescopes on carbines «Los 7-1», «Los 4», «Bars 4-1» and other weapons manufactured in Russia and Europe, that have upper mount «dovetail».



79127 Weaver QD112 Rifle Mount
Quick-release mount for installation of riflescope on Weaver or Picatinny rails. Total length 204 mm. Length of mounting part 145 mm. Distance between the centers of locking screws 120 mm.



79129 CZ550 Rifle Mount
Quick-release mount. Allows installation of riflescopes on carbine CZ-550.

B-Pack power system

Is a set of interchangeable standard power supplies for Trail / Helion / Accolade / Digsight Ultra / Forward F.



79114 Battery Pack IPS 5
Capacity 5.2 A·h
Operating time 8 ... 10 h
Smart charging



79115 Battery Pack IPS 10
Capacity 10.4 A·h
Operating time 16 ... 20 h
Smart charging



79119 BPS 3xAA Battery Holder
Capacity 1.5 ... 2 A·h
Operating time 2 ... 3 h



79164 IPS Battery Charger
Intended for charging the IPS5 / IPS10 battery packs.

Pulsar DNV power supplies`

dimensions allow to place them in the battery compartments of Quantum thermal imaging scopes.



79167 Pulsar DNV Battery Double Pack
Rechargeable (supplied with a charger). 2 time increase of operating time.



79116 Pulsar DNV Battery holder
Spare battery container for Quantum.

External power supplies

are feature greater capacity as compared to regular batteries which increases operation time of digital NV units and thermal imaging scopes several times.



79110 Pulsar PB8I power bank
Capacity 8 A·h, Weaver mount, waterproof (IPX7), output voltage 5V, battery level indicator. Compatible with Trail / Helion / Digsight Ultra / Forward F / Digiforce 860RT / Accolade.



79112 Battery Pack EPS5
The EPS5 (5Ah) is outfitted with a one meter cable which allows it to be placed underwear in freezing conditions and to prolong operating time (EPS3I unit is supplied with a extension cable).



79113 Battery Pack EPS3I
The EPS3I (2.4Ah) has a rigid plastic case and can be installed on any devices outfitted with a Weaver rail or ¼ inch tripod mount. Features an integrated LED battery level indicator.

Forward F / Core FXQ Accessories

Cover ring adapters

Cover ring adapters are special mounting units, that enable installation of Forward F / Core FXQ attachments in front of the objectives of day optic devices (riflescopes, spotting scopes and binoculars). Adapters are supplied with a set of insert rings (the choice of the insert ring is defined by the outer diameter of the objectives housing of optic device). After installation the adapter stays constantly on the objective of optic device which allows installing the thermal of digital attachment in front of the objective swiftly. During the day when the attachment is not used, adapter serves as the mount for the protective cover (included in the package), which protects the optics of day riflescope.



79124 DN 42 mm Cover Ring Adapter
2-point quick bayonet mounting. Compatible with Core FXQ models.



79125 DN 50 mm Cover Ring Adapter
int quick bayonet mounting. Compatible with Core FXQ models.



79126 DN 56 mm Cover Ring Adapter
2-point quick bayonet mounting. Compatible with Core FXQ models.



79127 FN 42 mm Cover Ring Adapter
4-point quick bayonet mounting. Compatible with Forward F models.



79128 FN 50 mm Cover Ring Adapter
4-point quick bayonet mounting. Compatible with Forward F models.



79129 FN 56 mm Cover Ring Adapter
4-point quick bayonet mounting. Compatible with Forward F models.

Other accessories



71012 Pulsar 5x30 Monocular
The Pulsar 5x30 monocular can be attached to the Forward F digital NV / Core FXQ thermal imaging device and used as a 5 power night vision / thermal imaging scope. Along with this, the Pulsar 5x30 is a full-fledged observation device.



79092 Challenger GS 1x20 2x Lens Converter
Afocal lens converter increasing the magnification of the Challenger CS 1x20 2 times



79041 NV Challenger GS 1x20 DOS adapter
79042 NV Challenger G2+ 1x21 DOS adapter

Combined with the Challenger GS 1x20 / Challenger G2+ 1x21 NV monocular adapters allow use of soft air guns with a day optical riflescope for night shooting. The reticle of the riflescope is perfect for aiming. The adapters come equipped with reducing rings to affix the night vision device onto day riflescope and provide the benefit of various eyepiece diameters. To increase brightness of the image and range of shooting, additional Pulsar IR Flashlight can also be affixed on the adapter.



79141 Pulsar RCC wirelessremote control
Ergonomic controls
Effective coverage up to 4 meters. Compatible with Trail / Helion / Digsight Ultra / Accolade / Forward F.



79032 NV Compact Head Mount
The NV Compact Head Mount allows hands-free operation of the night vision device and ensures its stable positioning even while in fast motion (pacing, running, abrupt movements). All adjustments of the head mount, such as 90 degrees raise of the unit, set the NV device's position in the "forward-backward" directions relative to the eyes are made by one hand.



79081 Pulsar Neck Strap
The Pulsar neck strap is designed to be fixed to the devices which are equipped with ¼ inch tripod socket. It can be used with thermal imagers Quantum, night vision devices Challenger etc. The length of the neck strap can be adjusted what makes it comfortable to carry both on the shoulder and the neck. The Pulsar neck strap ensures secure grip of the unit and prevents the device from slipping out from hands.



79151 Helion Flip-up Phone Mount
Allows to use smartphone as an outer display while operating the thermal scopes Helion. Image transmission between thermal imager and smartphone is realised via Wi-Fi channel and Stream Vision App.



79154 Pulsar C-Clamp Mount
Tripod for mounting of optical devices on various constructive elements (handrails, crossbars, beams). Tripod has a swivel head with ¼ inch screw with a quick-release plate.



79155 Pulsar Tree mount
Tripod for mounting of optical devices weighing under 1 kg on vertical elements (trunks of trees, poles, columns) under 50 cm in diameter. Tripod has a swivel head with ¼ inch screw with a quick-release plate.



79156 Pulsar window frame mount
Tripod for mounting of optical devices on outside elements of standard PVC windows or any other suitable windows. Tripod has a swivel head with ¼ inch screw with a quick-release plate.



79153 Yukon Nonslip Phone stand
The Pulsar Nonslip Phone Stand is designed to put a smartphone in a vertical position. Non-slip material allows you to securely install it on a horizontal surface (such as a table), or surface with a slight slope (such as car dashboard).