



ARGUS PANOPTES

Advanced Modular Night Vision Binoculars



Two variants available:

ARGUS PANOPTES LW
(Lightweight)

ARGUS PANOPTES FS
(100% Fail Safe shut-off mechanism)

Modular design for binocular, monocular
& weapon mounted configuration

Consists of two ARGUS LW or FS
monoculars connected with a bridge

3-4" mount or niche allow monocular
& binocular use with a single mount,
low profile above position

Binocular vision for greater depth
perception

Lightweight, robust and compact

Compatible with all three IUS
Helmet Head Mounts



Four 2° degree of adjustment, enabled without
operation for head and helmet mounts

Independent inter-pupillary adjustment

Independent Flip away
& Flip up function (FS version)

Mounts available for wide range
of helmets including VAS thread

Optional Long Range Level Illuminator

Optional weapon mount
with flip away mechanism

Complete range of accessories including
8X magnifiers, searchlight, anti-glaring,
lens protection filters, camera adapters etc.

Built-in interface for Thermal Clip-on
attachment (FS version)

ARGUS PANOPTES is a family of innovative full MIL-SPEC, image intensified, twin tube binoculars that can be operated helmet-mounted, head-mounted or hand-held. Lightweight, yet of robust construction, with superior optical characteristics and performance. Through its modularity the user can freely decide on the exact system configuration (monocular, binocular, weapon mounted) depending on the mission profile and user preferences.

ARGUS PANOPTES as a dual channel, dual tube system offers better depth perception than single tube systems making it easier to judge distance and relative motion, thus allowing the user to perform tasks such as vehicle driving or other demanding applications. Both versions (LW and FS) can be offered with or without Manual Gain Control (MGC).



ARGUS PANOPTES

Advanced Modular Night Vision Binoculars



Technical Specifications

PHYSICAL	
Weight (including battery and objective cover)	~240 g
Environmental	Comp. level with MIL-STD-883 G

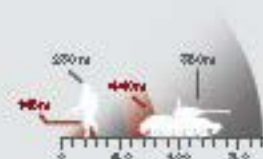
OPTICAL	
Magnification	1X
Field of View	40°
System cover	25 cm to infinity
System resolution	>1.2 lp/mm
Collimation	<0.4°
Distance adjustment range	>20 - 6.5 ft

ELECTRICAL	
Battery	2x AA (LR6) between 1.2 V to 3.6 V
Battery life @ 20°C (without IR on)	~75 with AA Lithium ~40 with AA Alkaline
Integrated IR Illuminator	
Automatic High Level cut-off system to protect image intensifier TB+	
Internal LED indicator for IR ON and Low Battery	

IMAGE INTENSIFIER	
Type IR only, lowering	Gen 3, XD4 (P5), INTENS, with or without Autogating, green or black and white image

DUAL BRIDGE / HELMET / HEAD MOUNT ADJUSTMENTS	
Inter-ocular adjustment	Yes
Vertical	Yes
Tilt	Yes
Fore-Aft	Yes
Flip-Up function	Monoculars are automatically switched off when in flip-up position or when removed from the head/helmet mount
Independent Flip-Down function	Yes (P5 version)

- RECOGNITION
- DETECTION





MIKRON-D

Dedicated Night Vision Binocular

NIGHT
VISION

Two variants available:
MIKRON-D AE (Adjustable Eyepiece)
MIKRON-D FE (Fixed Eyepiece)

The lightest NV binocular

Same performance as 18 mm
device with reduced weight

Rugged and user-friendly design
based on real user feedback

Binocular stereo occlusion for
greater depth perception

Optional Manual Cash Control

Compatible with all the
US Helmet/Head Mounts



Independent Flip away
& Flip up function – reduced silhouette

Enhanced rebound eye
and ease of use dovetail design

25 mm eye relief for improved comfort

Smart electronics

Mountable available for a wide range
of helmets including VHS-should

Compatible with all the
Clip-On attachments

MIKRON-D is a cutting edge, full ML-SPEC, image intensified, dual tube binocular that is able to be operated helmet-mounted, head-mounted or hand-held. It offers better depth perception than single tube systems making it easier to judge distance and relative motion so the ability to perform tasks such as driving is greatly improved. MIKRON-D is the ideal choice for special operations forces.

For momentary configuration changes, the user can flip away each monocular separately. With both monoculars flipped away and flipped up the system stores along the contour of the helmet thus reducing its silhouette and neck strain, minimising the danger of system damage. MIKRON-D features self-contained single AA battery power and can be also operated via a remote battery pack at the rear of the helmet for increased operational life.

MIKRON-D

Dedicated Night Vision Binocular



Technical Specifications

PHYSICAL

Weight (including battery & all covers)	< 485 g (FE) < 430 g (AD)
Environmental	Complies with MIL-STD-883C

OPTICAL

Magnification	1X
Field of View	40°
System focus	25 cm to infinity
Resolution	> 1.2 lp/mm
Collimation	< 0.4°
Dioptric adjustment range	-2 to +4 dpts

ELECTRICAL

Battery	1 x size AA 3.7V between 1.2 V to 3.6 V
Battery life at 23°C	> 25 hours with AA Lithium > 15 hours with AA Alkaline
Integrated IR Illuminator	
Automatic High Level cut-off system to protect the Image Intensifier Tube	
Internal LED indicators for IR ON and Low Battery	

IMAGE INTENSIFIER

Type	19 mm, Inverting
	XD4 XPS INTENS, Auto-gating, green or black and white image

MECHANICAL ADJUSTMENTS

Interocular adjustment	Yes
Vertical	Yes
TIR	Yes
Pans - All	Yes
Flip-Up function	Binocular is automatically switched off when in the flip-up position or when removed from the head / helmet mount
Independent Flip Away function	Yes

- RECOGNITION
- DETECTION





THERMIS



Family of Thermal Weapon Sights

Four variants to meet mission requirements:
Short (SR), Medium (MR), Long (LR)
and Extra Long (ELR) Range

Proven uncooled IR sensor technology
for superior image quality

Intuitive user control

Built-in Digital Compass & Inclinometer

State-of-the-art image enhancement algorithms



Video capture

Image capture and storage

Energy efficient (> 10 hours)

Quick start-up (< 3 seconds)

Power supply:

4 AA batteries in rapid change,
cartridge-style tactical power packs

Ruggedized military design

THEION SENSORS' THERMIS family of uncooled Thermal Weapon Sights (TWS) are developed to provide soldiers with an unmatched daylight advantage in detecting, observing and engaging hostile targets, independent of darkness and common obscurants used for visual concealment.

The THERMIS family sights incorporate the latest IR sensor, electronics and optical technologies to deliver world leading performance and reliability. All variants generate superior IR imagery, ensuring target recognition at the maximum possible range.

Tailored ergonomic design is coupled with intuitive user interface to deliver maximum range performance. Optimized control of the image processing and region-of-interest editing ensures enhanced user experience. Local controls enhancement delivers superior image quality. The built-in digital compass and inclinometer provide range estimation and target orientation.

The THERMIS SR is suitable for short-range weapons (i.e. M16, M4, AK47 etc.), the MR for either short-range or medium machine guns (i.e. M16, M4, AK47 or FN Minimi, M249 etc.) and the LR/ELR models for the equal feed rifle weapon, Sniper Rifle and Heavy Machine gun (i.e. M2 HB, MK13 etc.).

THERMIS

Family of Thermal Weapon Sights



Technical Specifications

	SHORT RANGE	MEDIUM RANGE	LONG RANGE	EXTRA LONG RANGE
USE				
Recommended rifle	M4, M4C, M16	M40, M40A1	M24, M107, M14, HE, M107	M4, M4C, M16, HE, M16C
IR SENSOR				
Spectral response		8-14µm		
Sensor size		640 x 480 px		
Pixel		17µm		
NETD		≤50 mK (≤40mK optional)		
OPTICS				
Objective cell length	75 mm	50 mm	75 mm	100 mm
f number	f10	f11	f11	f12
Resolution	10 cycles/mrad	14 cycles/mrad	22 cycles/mrad	22 cycles/mrad
Field of View (HFOV) wide	10°	12°	7.2°	6.2°
Field of View (HFOV) narrow		6.2° (with digital zoom)		
Magnification	x12	x19	x29	x33
Coatings	Hard Carbon on exposed surfaces and High Efficiency on internal surfaces			
EYEPiece ASSEMBLY				
Eye relief		15 (15.1mm)		
Pupil diameter		17mm		
Eye correction		-6 / +2 diopter adjustment		
POWER				
Source		4 AA Batteries		
Operating time		≈ 10 hours		
Start-up		≈ 3s		
VIDEO				
Frame rate		60 Hz		
Video out		Analog RS-170		
Polarity		White Hot / Black Hot		
Distortion correction		3 axis by no de		
PHYSICAL CHARACTERISTICS				
Weight	≈ 0.25 kg	≈ 1 kg	≈ 1.05 kg	≈ 1.4 kg
ENVIRONMENTAL CHARACTERISTICS				
Operating temperature		-40 °C to +55 °C		
Storage temperature		-45 °C to +71 °C		
Qualification testing		MIL-STD-883C MIL-STD-883E & IPEP		
WEAPON INTERFACE				
Standard mount		MIL-STD-1915 / STANAG 4050 Picatinny rail or Weaver rail		
Reticle		Six reticles, adjustable to bore sight		

● RECOGNITION ● DETECTION





AN/PVS-7D

Night Vision Goggles

NIGHT
VISION

Helmet mounted or head mounted
for hands free operation

Lightweight-800g with tube

Momentary IR Switch

Uses AA batteries

Flexible "soft-sided" carrying case
with shoulder strap and belt-mounted clip

Optional accessories include:

- Clip-on compass
- IR Spot/Flood lens
- 2X, 3X or 6X Zoom Lenses
- Helmet mount assembly



Quick release lever to permit one-handed
attachment / detachment to helmet
or head harness

Automatic highlight of
topical thermal images

IR-ON indicator

Low-voltage indicator

Long distance observation
(with optional 10X lens)

The AN/PVS-7D Night Vision Goggle enables military ground forces to conduct critical missions during the darkest nights of the year. Extremely light-weight, the AN/PVS-7D has been man engineered for long-wear comfort. It can be hand held, helmet mounted or head-harness mounted for hands-free operation.

AN/PVS-7D

Night Vision Goggles



Technical Specifications

Scene Illumination	10-50 fc
Speed of Response	Visible to 30µm (IR)
Field of View	40°
Magnification	Unity (1X)
Resolution	1.75 cycles, minimum
System Gain	2000 S/L, minimum
Collimation	1"11" convergence + 0.5" divergence
Dioptr. Adjustment	1 Dio-B diopters
Interpupillary Adjustment	55 to 71 mm
Eye Relief	15mm
Objective Lens	2FL 38mm, F11.2, 1:1.3
Eyepiece Lens	2FL 28mm
Focus Range	25cm to Infinity
Voltage Required	2.7 Vdc - 3.0 Vdc, battery (50 mA, maximum)
Battery Type	Two AA or 1.5V
Weight	800g maximum (with tube)
Operating Temperature Range	-51 °C to 150°C
Humidity	1 meter for 2 Hours

Indicative KIT Contents

1. Goggle
2. LensCap/Handle Cord
3. LensCap
4. Eyecups (2X)
5. Carrying Case, Soft
6. Dermal Shields (2X)
7. Tactical Window
8. Shoulder Strap
9. Head-mount
10. Batteries AA's, 3x
11. Batteries AA's, 4x
12. Lens Tube
13. Batteries (3)
14. Operator's Manual