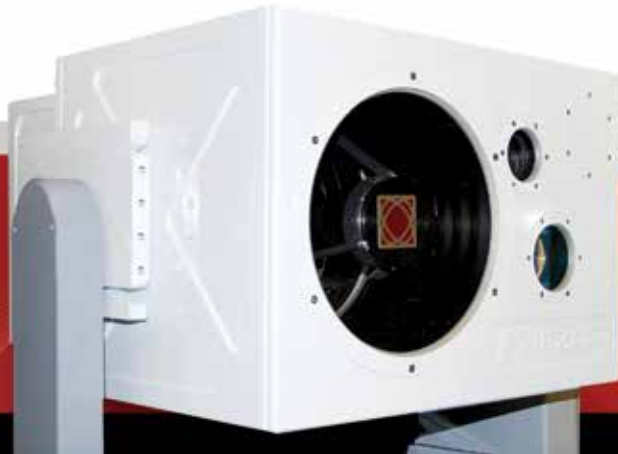




OBZERV



ULTRA LONG-RANGE

Active Range-Gated Camera

ARGC-2400

The ARGC-2400 NIGHT VISION CAMERA is Obzerv's flagship product. It has been engineered to meet the stringent requirements of coastal & border surveillance as well as Critical Infrastructures protection. With a range-gated intensified camera for night surveillance and two color sensors (Narrow Field Of View (NFOV) and Wide Field Of View (WFOV)) for day operation, the ARGC-2400 is uniquely positioned to provide unequalled identification performance.

The ARGC-2400 takes advantage of a series of cutting-edge technologies developed by Obzerv. Its key features include: a patent pending laser illuminator operating in the near-infrared that matches perfectly the field of view, a unique range-gated Intensified Charge Couple Device (ICCD) camera incorporating a highly sensitive custom Gen III intensifier tube and an achromatic high magnification continuous zoom telescope. Such technology package would not be complete without Obzerv's friendly and intuitive user interface to control the ARGC-2400 suite of sensors. The ARGC-2400 supplies critical data in real time and its video stream can be recorded for further evidence or analysis.

APPLICATIONS

COASTAL SURVEILLANCE . BORDER SECURITY . CRITICAL INFRASTRUCTURE PROTECTION . ANTITERRORISM OPERATIONS

FEATURES

HIGHLY SENSITIVE NIGHT SENSOR COUPLED WITH A NEAR IR LASER

ACTIVE RANGE-GATED TECHNOLOGY

HIGH MAGNIFICATION CONTINUOUS-ZOOM TELESCOPE

ALL ENCLOSED MULTI-SENSORS

BORESIGHT OF CAMERA SENSORS

COMMUNICATION INTERFACES TCP/IP, RS-232 AND RS-422

IMAGE ACQUISITION AT VIDEO RATE (25-30 FRAMES/SEC)

BENEFITS

- Ultra-long range capability
- Cost effective deployment: less cameras to cover large areas, less infrastructure (towers, telecom network...), less human resources, less maintenance

- Read markings
- Identify individuals
- No sensitivity to external light source or intense light in the field of view
- See through glass: windshields, wheelhouses, etc.
- Perform in harsh weather conditions
- Detect pointed optics
- Display natural contrasted images

- High magnification up to 240 X for 24/7 night-time surveillance and up to 312 X in daytime

- Day and night operation capability (NFOV) through the same high magnification telescope
- ICCD in passive or active mode depending on the mission
- Facilitate location of targets with the WFOV color camera

- Ability to switch from WFOV color camera to NFOV color camera, and to active mode while keeping track of target

- Offers flexibility and easy integration with radars, thermal cameras, Vessel Traffic Management System (VTMS), slew to queue capabilities
- Remote control
- Video broadcast

- Real time video image, no delay, no loss of evidences

ARGC-2400 SPECIFICATIONS

MOTORIZED ZOOM TELESCOPE

Aperture 240 mm

RANGE-GATED ICCD CAMERA (NIGHT-TIME)

Sensor type Custom variant of Gen III Intensifier Tube
 Optical magnification ⁽¹⁾ 60 to 240 X
 Field of View (H x V) Min: 0.15° x 0.11° Max: 0.61° x 0.46°
 Effective picture element PAL (CCIR): 782 x 582 px
 NTSC (EIA): 659 x 494 px

LASER ILLUMINATOR (PATENT PENDING)

Wavelength 860 nm
 Beam divergence Slaved to the zoom telescope FOV
 Average power > 4 W
 Average power control User selectable
 Cooling system Thermo-electrically air cooled

COLOR CAMERAS (DAYTIME)

NFOV Optical magnification ⁽¹⁾ 78 to 312 X
 NFOV (HxV) Min: 0.12° x 0.09° Max: 0.46° x 0.34°
 WFOV (HxV) Min: 1.6° x 1.2° Max: 42° x 31.5°
 NFOV Minimum illumination 1.5 lux (typical) at F1.4
 WFOV Minimum illumination 2 lux (typical) at F1.6
 Horizontal resolution PAL: 460 TV lines NTSC: 470 TV lines
 Effective picture element PAL: 752 x 582 px NTSC: 768 x 494 px

VIDEO

Format PAL or NTSC

ENVIRONMENTAL

IP rating IP-66
 Operating temperature -31°C to 55°C
 Storage temperature -21°C to 63°C

PHYSICAL AND ELECTRICAL

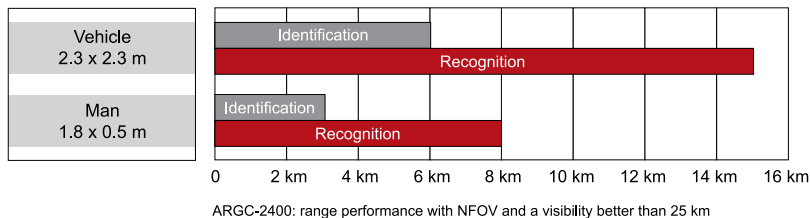
Weight < 55 kg
 Dimensions (L x W x H) 56 x 52 x 37 cm
 Power supply 100 - 240 VAC, 47 to 63 Hz
 Power consumption (without the Pan & Tilt) < 350 W
 Power consumption (with the Pan & Tilt) < 900 W

OPTIONS

Console/Display terminal Touchscreen 19", 1280 x 1024 px
 Thermal imager (external) Thermovision 3000 (FLIR)
 FOX/P 720-ZE (CONTROP)
 Pan & Tilt with joystick Azimuth range continuous 360°
 Electronic image stabilizer 0.5 to 25 Hz
 Laser Range Finder 80 m to 20.5 km

⁽¹⁾ Compared to a SLR 35 mm camera with a 50 mm focal length lens.

NIGHT-TIME PERFORMANCES

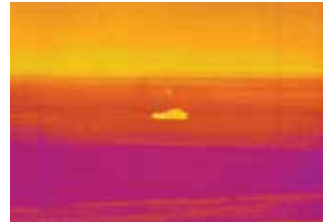


STRIKING VIDEO IMAGES

ACTIVE RANGE-GATED CAMERA



UNCOOLED THERMAL IMAGER



1.9 km

ACTIVE RANGE-GATED CAMERA



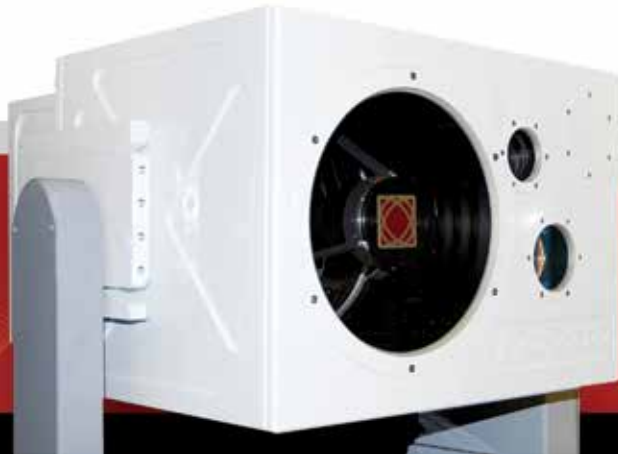
UNCOOLED THERMAL IMAGER



6.4 km



OBZERV



ENVIRONMENTAL SPECIFICATIONS

Active Range-Gated Camera

ARGC-2400

ARGC-2400 ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE

-31°C to 55°C
(-31°C according to MIL-STD-810G, Method 502.5, Procedure II)
(55°C according to MIL-STD-810G, Method 501.5, Procedure II)

STORAGE TEMPERATURE

-21°C to 63°C
(-21°C according to MIL-STD-810F, Method 502.4, Procedure I)
(63°C according to MIL-STD-810G, Method 501.5, Procedure I)

TEMPERATURE SHOCK

-33°C to 63°C
MIL-STD-810G, Method 503.5, Procedure I-D

IP PROTECTION

IP-66
International Standard IEC 60529 (IP 6X, X5, X6)

RAIN

IP-66 Test Method
International Standard IEC 60529 (IP 6X, X5, X6)

HUMIDITY

MIL-STD-810G, Method 507.5, Procedure II

SALT SPRAY

MIL-STD-810G, Method 509.5

DUST

IP-66 Test Method
International Standard IEC 60529 (IP 6X, X5, X6)

SHOCK OPERATIONAL

Installed in wheeled vehicle
MIL-STD-810G Method 516.6 Procedure I

VIBRATION

Ground vehicle / Installed in wheeled vehicle
MIL-STD-810G Method 514.6, Procedure I C4

Ships / Installed material

MIL-STD-810G Method 514.6, Procedure I C21
Figure: 514.6D-9

MIL-STD-810G Method 514.6, Procedure I Method 528 (referring to MIL-STD-167-1A Type 1)

EMC

CS 101
MIL-STD-461E, Section 5.7.2
CS 114
MIL-STD-461E, section 5.12.2
CS 115
MIL-STD-461E, Section 5.13.2
CS 116
MIL-STD-461E, Section 5.14.2
RE 101
MIL-STD-461E, Section 5.15.2
Figure: RE101-1 & RE101-2 (Army & Navy)
RE 102
MIL-STD-461E, Section 5.16.2
Figure: RE102-1 (Surface Ship)
RS 101
MIL-STD-461E, Section 5.18.2
RS101-1 & RS101-2 (Army & Navy)
RS 103
MIL-STD-461E, Section 5.19.2, (Ground Navy & Ships below deck)

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