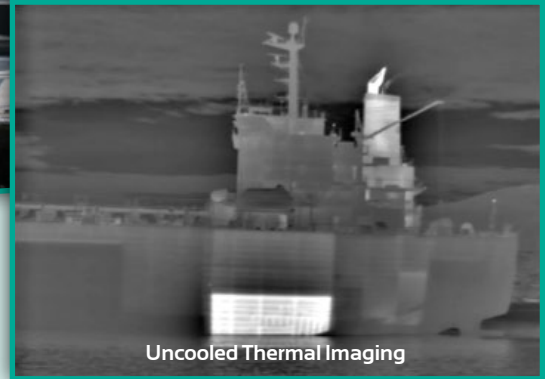


night navigator¹



Night & Day Thermal Imaging



Uncooled Thermal Imaging

High-Performance & Compact

The Night Navigator™ 1 is a compact camera system and is equipped with a High-Resolution Uncooled Thermal Imager or High-Definition Day Camera.

Measuring only 22 cm in diameter, the unit provides sharp imagery in conditions ranging from full daylight to complete darkness. The unit can be mounted upright or inverted.

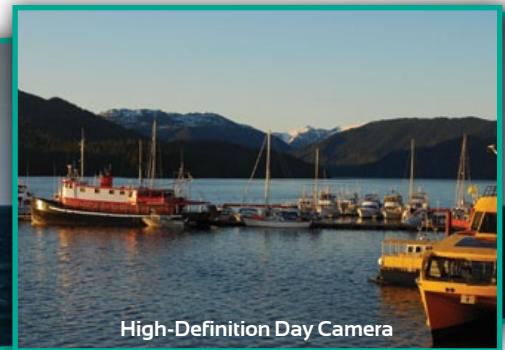
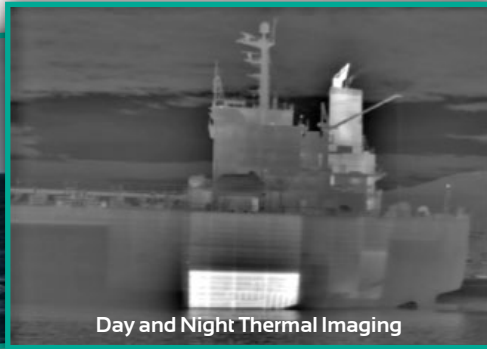
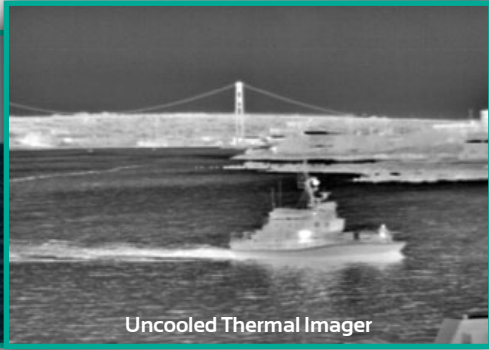
Applications:

- Night and day navigation
- Obstacle detection: small craft, debris, ice/bergy bits, etc
- SAR support
- Early detection of potential security threats
- Whale and whale spout detection

Main Features

- **High-Resolution Uncooled Thermal Imager**
 - 384x288 pixel resolution
 - 21.7° field of view
 - 2x and 4x digital zoom
- **Compact, rugged design**
- **Hardware & IP-Based Controls**
 - Panel mount controller
 - IP control option
- **Optional High-Definition Day Camera**
 - 1080i or 720p selectable
 - 10x optical/12x digital continuous zoom
- **Optional 3-Axis Gyro Stabilization**
 - Resolved through 2-axis positioning

night navigator¹



High-Resolution Uncooled Thermal Imager

| | |
|--------------------------|-----------------------------|
| Field of View: | 21.7° |
| Detector Type: | VOx Microbolometer |
| Pixel Resolution: | 384 x 288 |
| Detector Pitch: | 25 µm |
| NETD: | ≤ 50 mK |
| Digital Zoom: | 2x & 4x |
| Focus: | Fixed |
| Spectral Range: | 8 - 14 µm |
| Frame Rate: | 50-60 Hz |
| Anti-Blooming Mechanism: | Included |
| Window coating: | N-C Hard Diamond-like (DLC) |

Optional: High-Definition Color Day Camera

| | |
|-----------------------|-----------------------|
| Sensor Type: | CMOS |
| HD Format: | 720p/1080i selectable |
| Field of View: | 50° to 5.4° |
| Optical/Digital Zoom: | 10x/12x continuous |
| Focus Control: | Auto & Manual |
| Window Coating: | Hydrophobic |

Video Display and Signal

| | |
|------------------------------------|------------------------------------|
| NTSC (RS170) or PAL (CCIR) format: | Must be specified at time of order |
|------------------------------------|------------------------------------|

Payload Platform Specifications

| | |
|---|----------------------|
| Configuration: | Dome up or dome down |
| Diameter: | 22 cm (8.7 in) |
| Height (above mounting surface): | 24.5 cm (9.6 in) |
| Weight: | 10.2 kg (22.4 lbs) |
| Tilt Range: | -40° to +90° |
| Pan Range: | 360° Continuous |
| Operating Temperature Range: | -40°C to +50°C |
| Lens Defrost System: | Built-in |
| Voltage: | 24VDC |
| Ingress Rating: | IP66 |
| Weatherized Pan & Tilt Unit Sealed for the Marine Environment | |

Panel-Mount Controller

| | |
|---|--------------------------------------|
| Radar Cursor & ARPA Target Slaving: | Protocol: NMEA0183 (RS422/RS232) |
| Integrated graphical information display: | Position, Heading & Camera Functions |
| Dimensions (W x H): | 16.7 x 23.6 cm (6.6 x 9.3 in) |
| TCP/IP control with Night Navigator or Customer Supplied Graphical User Interface (GUI) | |

Options

| | |
|----------------------------|-------------------------------------|
| 3-Axis Gyro stabilization: | Resolved through 2-axis positioning |
| IP Network Controllable: | Network control of Night Navigator |

