PROFESSIONAL Night Vision Devices

Image Intensifier Technology

12”/15”/17” TFT High Def. Monitor

Joystick Panel:
- Pan/Tilt 360°/+ 45°
- Self Cleaning Lens

Optional Steel Monitor Arm

Control Box:
- Top Notch Materials: AISI 316 Steel + Special Zinc-Mg Sacrificial Anode
- Space-Saving and User Friendly
- Light and Small
- Very Easy to Install

STARLIGHT

www.starlightitalia.com
THERMAL IMAGING DEVICES & IMAGE INTENSIFIER

Thermal Imaging Devices work the very deep IR spectrum. In opposition to classical Night Vision Devices (NVDs) these imagers use the distribution of all radiant heat available to generate an image of the surrounding environment. In practice a detectable object must have a different temperature as the background, in order to be visible with a thermal scan. Therefore this technology is in the best way suitable for detection of radiating objects (e.g. hot objects, recognition of fire nests, overheating mechanical parts or specific thermal spikes). As generating an image only from temperature differences thermal imaging devices represent a very abstract night vision. Up to now their benefits are rather for detection than for orientation because in case of same temperatured surfaces of a different kind the imager can not display details or only at low-contrast.

KEYWORD: IMAGE INTENSIFIER

The actual history of opto-electronic Night Vision Devices (NVDs) began with the development of the first image intensifier tube in the 30's of the last century. Since then every step in technology is associated with the notion of light amplification improvement. In World War 2 some few special forces already used first Night Vision Devices which utilized image intensifier tubes (Zero Generation). The human eye can't detect objects in environments with very low light level. Similar to the term 'photomultiplier' the operational basics of an image intensifier tube makes attentive to the physical working principle, the 'multiplication' or 'amplification' of the existing 'low light'. The night vision device functions like 'correction eyeglasses', by catching the low light radiation even present in the natural environment, amplifying / converting it electronically and delivering it as strong light within the visible spectral range to generate a clear and optimal image of the surrounding dark environment.
WORK BOATS & DEEPSEA MODELS

**TECHNICAL DETAILS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SUPREME</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLTAGE</td>
<td>24VDC</td>
</tr>
<tr>
<td>POWER</td>
<td>12WATT</td>
</tr>
<tr>
<td>INTENSIFIER SENSOR</td>
<td>SUPERGENERATION</td>
</tr>
<tr>
<td>FIELD OF VIEW</td>
<td>40° UP TO 3.5°</td>
</tr>
<tr>
<td>CAMERA MOTION</td>
<td>35° PAN +/- 45° TILT</td>
</tr>
<tr>
<td>SPEED MOTION</td>
<td>30°/SEC. MINIMUM</td>
</tr>
<tr>
<td>DIGITAL NOISE REDUCTION</td>
<td>SSNR II UPGR. 3D</td>
</tr>
<tr>
<td>OSD (ON SCREEN DISPLAY)</td>
<td>YES</td>
</tr>
<tr>
<td>SENSOR PIXELS</td>
<td>MIN. 500X500</td>
</tr>
<tr>
<td>RESOLUTION</td>
<td>HI-RES 580TV LINES</td>
</tr>
<tr>
<td>STANDARD OUTPUT</td>
<td>PAL-SVGA (OPTIONAL)</td>
</tr>
<tr>
<td>HD DAY/NIGHT ULTRACOLOR</td>
<td>NO</td>
</tr>
<tr>
<td>ZOOM</td>
<td>OPTICAL 25X CONT.</td>
</tr>
<tr>
<td>OPERATION TEMPERATURE</td>
<td>-35° +70°</td>
</tr>
<tr>
<td>IP GRADE</td>
<td>IP 67 - AISI 316 INOX</td>
</tr>
<tr>
<td>DIMENSION (mm)</td>
<td>350X350X460</td>
</tr>
<tr>
<td>WEIGHT (Kg)</td>
<td>10</td>
</tr>
<tr>
<td>AUTO CLEANING LENS</td>
<td>OPTIONAL</td>
</tr>
<tr>
<td>OPTIONAL PAINT</td>
<td>YES</td>
</tr>
<tr>
<td>TCP/IP NETWORK</td>
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**SCREENSHOT (camera button)**

- **GRID CONTROL**
  - right/left scrolling

- **DIMMER**

**CONTROL and FEATURES**

- **FUNCTION BUTTON**
- **JOYSTICK**

**Night Vision System**

- **POWER BUTTON**
- **RESET AHEAD BUTTON**
- **CHECK BUTTON FAILURE ALARM**
- **SUN BEAM LOCK LIGHT**

**ZOOM 25X**

- **SUPREME**
  - 24VDC
  - 12WATT
  - SUPERGENERATION
  - 40° UP TO 3.5°
  - 35° PAN +/- 45° TILT
  - 30°/SEC. MINIMUM
  - SSNR II UPGR. 3D
  - YES
  - MIN. 500X500
  - HI-RES 580TV LINES
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WORK BOATS & DEEPSEA MODELS

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<tr>
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**MODEL**

**COMPACT**

- **VOLTAGE**: 24VDC
- **POWER**: 10WATT
- **INTENSIFIER SENSOR**: SUPERGENERATION
- **FIELD OF VIEW**: 40° X 40°
- **CAMERA MOTION**: 350° PAN +/- 45° TILT
- **SPEED MOTION**: 30° /SEC. MINIMUM
- **DIGITAL NOISE REDUCTION**: SSNR
- **OSD (ON SCREEN DISPLAY)**: YES
- **SENSOR PIXELS**: MIN. 500X500
- **RESOLUTION**: HI-RES 560TV LINES
- **STANDARD OUTPUT**: PAL-SVGA (OPTIONAL)
- **HD DAY/NIGHT ULTRACOLOR**: YES
- **ZOOM**: NONE - RATIO 1:1
- **OPERATION TEMPERATURE**: -35° - 70°
- **IP GRADE**: IP 67 - AISI 316 INOX
- **DIMENSION (mm)**: 330X330X360
- **WEIGHT (Kg)**: 9
- **AUTO CLEANING LENS**: OPTIONAL
- **OPTIONAL PAINT**: YES
- **TCP/IP NETWORK**: OPTIONAL

**SPECIAL OPERATIONS FEATURES**

With adoption of **X1R9** special digital recording unit is possible to obtain a high quality professional continuous or screenshot recording features.

**COMPACT** switch automatically in two different modes depending on light environment level:

- **UltraColor mode**: It is the feature allows to obtain crisp and clear color images in daylight as up to very low light levels such as after the sunset or at night near the coast or the harbour.
- **Light intensifier mode**: When the light level is very low, for example in complete darkness conditions, away from the coast and from light sources, **COMPACT** automatically switch on light intensifier mode allows a clear and well defined green/black high level military vision.

**CONTROL and FEATURES**

- **POWER BUTTON**
- **DIMMER**
- **SCREENSHOT (camera button)**
- **GRID CONTROL**
- **JOYSTICK FUNCTION**
- **RESET AHEAD BUTTON**
- **SUN BEAM LOCK LIGHT CHECK BUTTON**
- **FAILURE ALARM**

**X1R9 Four channel DVR Anti-shock module.**

**HTF GPS module**

**Military Vision with light intensifier mode in the complete darkness**

**Light intensifier mode**: When the light level is very low, for example in complete darkness conditions, away from the coast and from light sources, COMPACT automatically switch on light intensifier mode allows a clear and well defined green/black high level military vision.
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Night Safety

**MAIN FEATURES**

- Self Cleaning Lens
- Pan/Tilt 360°/± 45°
- Image Intensifier Technology
- Optional Steel Monitor Arm
- 12"/15"/17" TFT High Def. Monitor

**Control Box:**
Light and Small
Very Easy to Install

**Joystick Panel:**
Space-Saving and
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