FLIR Thermal imaging for ships

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Thermal imaging company FLIR Systems has released two small night vision systems designed for use on sea-going vessels: MD-625 and MD-324.

The MD-Series outputs standard analogue video that can be displayed on a monitor at the helm or other monitors on the vessel as long as they accept composite video. As it is fixed-mount, once the equipment is installed it always looks in the same direction.

Both versions are equipped with an uncooled Vanadium Oxide (VOx) detector and come with FLIR Digital Detail Enhancement (DDE) to provide thermal images in total darkness and in light fog and smoke.

Equipped with a 25 mm lens that offers a 25° × 20° field of view, the FLIR MD-625 provides thermal images of 640 x 480 pixels. It features a 4x e-zoom, and FLIR says that it can detect a small vessel at a distance of approximately 2,800 metres.

The FLIR MD-324 provides thermal images of 320 x 240 pixels. It is equipped with a 13 mm lens that offers a 24° × 18° field of view and it features a 2x e-zoom. FLIR says that it can detect a small vessel at a distance of approximately 1,340 metres.

Both versions have been designed for harsh maritime environments. Their core is protected against humidity and water, while a built-in heater is included to defrost the camera’s protective window.

In related news, FLIR has also launched a range of new multi-sensor vision systems, which combine thermal imaging with other types of cameras. It says that the top range product in those new series can detect a small vessel from 15km.

All products in the MU- and MV-Series feature active gyro-stabilisation to provide steady imagery, even in rough seas. They come with ‘Power over Ethernet (PoE)’ capabilities and feature a video tracker, whereby a camera will follow an object as long as it can be seen. A Picture-in Picture mode is also available, in which the images from two sensors can be displayed on a single screen.
A Joystick Control Unit (JCU) can move the cameras (360° pan and +/- 90° tilt), zoom in and out, and switch between images.

The top model in the MU-Series, the MU-602CLW, combines four payloads into one system: a thermal imaging camera with 14x optical zoom with a cooled Indium Antimonide (InSb) detector; a wide field of view thermal imaging camera equipped with an uncooled VOx detector; a visible colour camera equipped with a 28x optical zoom, and a black & white low light camera equipped with a 18x optical zoom. The user can switch between the different cameras at the touch of a button.

The cheaper MV-Series feature a thermal imaging camera equipped with an uncooled VOx detector. One model combines this with a visible colour camera, while another one also adds a black & white low light camera.

Handheld thermal imaging units are also available, under the MLS-618 and MLS-317 brands.

Both versions have an InstAlert feature that colours the hottest parts of the scene red to make it easier to spot people in the thermal image, and can operate between -20°C and +50°C.

They weigh 340 grams, batteries included, and work on four rechargeable long-life Li-ion batteries that come with the camera, or on standard non-rechargeable Alkaline AA batteries.