

Ranger® MS-UC DefendIR

PORTABLE, MID RANGE THERMAL
IMAGING SURVEILLANCE SYSTEM WITH
MULTI-SENSOR OPTION



APPLICATIONS

FORCE PROTECTION

BORDER SURVEILLANCE

TACTICAL RECONNAISSANCE

TRAINING RANGE APPLICATIONS

FIXED AND MOBILE SECURITY

FEATURES

Simultaneous IP and analog video outputs – thermal and visible-light – along with IP and serial control interfaces for easy integration into IP or analog networks

Available in both 320 x 240 and 640 x 480 detector arrays

Continuous thermal zoom available

P/T with continuous 360° pan

VisionSense™ technology combines infrared and CCD imagery in real time

Multiple lens and detector combinations for tailor-made range performance

NEMA 4, IP66, CE, ISO 9001:2008

BENEFITS

The Ranger® MS-UC DefendIR is an industry leading mid-range thermal imager for seeing in complete darkness and through a multitude of environmental conditions including smoke, rain, snow, dust and dense fog. The Ranger MS-UC DefendIR is the first of its kind, uncooled imager to offer continuous optical zoom. The system is based on forward looking infrared (FLIR) technology developed for the US military, but vaults ahead of the competition through the innovative use of VisionSense™. This technology offers user-controlled, customized real time mixing and merging of the two visual sources - a visible light (CCD) camera and an infrared camera. VisionSense generates the ability to penetrate glare, and see through windows, glass or water.

The Ranger MS-UC DefendIR is ideally suited for day and night perimeter security, maritime surveillance and DHS/DoD applications. Offering multiple lens and detector combinations, each camera can be customized to meet detailed performance requirements. Featuring a sleek integrated pan and tilt design, the camera is capable of continuous 360° panning and a +/- 80° tilt (varies with some lens configurations) withstanding ambient temperatures ranging from -40° to +60° C. The ruggedized housing is environmentally sealed to meet NEMA 4 and IP66 specifications and has been tested and certified by an independent lab.

Out of the box, the Ranger MS-UC DefendIR is ready to integrate into your system. It supports most protocols used in commercial and military applications and can be easily integrated into existing fiber, wireless or IP networks. It can also interface with VMD, radar, UGS or other trigger sensors for a "slew to cue" solution.





Ranger® MS-UC DefendIR

SPECIFICATIONS

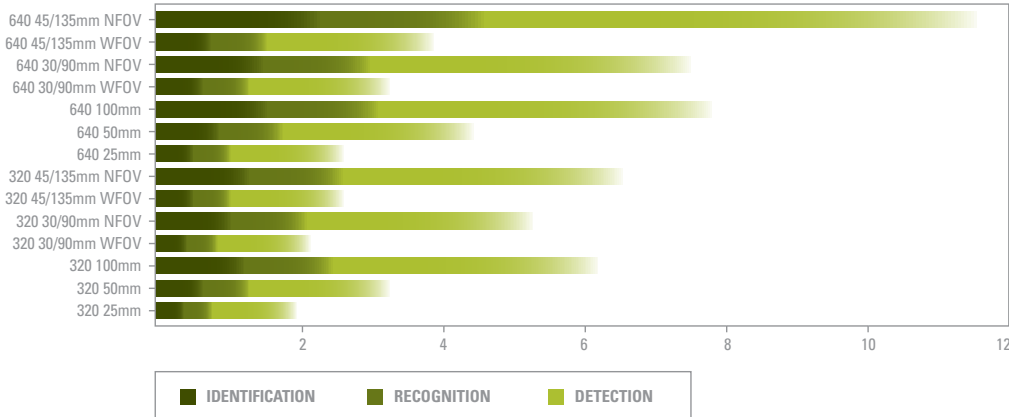
Video Output	RS-170 (NTSC) or CCIR (PAL)
Serial Interface	RS-422 and 10/100 Ethernet
Power Input	15-24 VDC ± 20% or 220/110 VAC 50/60 Hz
Power Consumption	<22 Watts (nominal) / 45 Watts (peak)
Weight	<15 lbs. (Varies by configuration)
Operating Temperature	-40° to +60° C
Environmentally Sealed	NEMA 4 & IP66 Certified
Azimuth Control	Continuous 360°
Elevation Control	Up to -80° to +80° (varies by configuration)
Pan & Tilt Slew Rate	0.25-60°/sec Controlled (varies by configuration) Up to 110°/sec Uncontrolled. (varies by configuration)
Pointing Accuracy & Repeatability	Pan ± 0.25° (varies by configuration) Tilt ± 0.1° (varies by configuration)

THERMAL CAMERA

Detector	Uncooled, Vanadium Oxide Microbolometer
Frame Rate	30 hz
Resolution	320 x 240 / 640 x 480
Spectral Response	LWIR
IR Lens Options	25mm, 50mm, 100mm, 30/90mm DFOV or Continuous zoom, 45/135mm DFOV or Continuous zoom
IR Zoom	Continuous Digital Zoom 1x to 4x
Focus	Remote focus
Gain / Level Controls	Automatic or Manual

CCD CAMERA

CCD Camera	Narrow FOV 1.6° Wide FOV 42°
Image Stabilization	Optional
Zoom	Optical: 26x Digital: 12x Total: 312x
Minimum Illumination	2.0 lux/1/60 sec (NTSC) 0.14 lux/1/4 sec (NTSC)
Starlight Mode	0.7 lux/1/60 sec (NTSC) 0.05lux/1/4 sec (NTSC)



Equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited. ©2013 FLIR Systems, Inc. Specifications are subject to change. Check website: www.flir.com/gs 01242013

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